# **ROBO-STOX**

**Global Robotics & Automation Index** 

## Holdings Review As of September 30th, 2014





Subgroup Definitions	4
3D Printing Technology	6
3D Systems Corp.	7.
Arcam AB	8
Dassault Systemes SA	9
The ExOne Company	10
Stratasys Ltd.	
Actuation Technology	12
Hiwin Technologies Corp	
AirTAC International Group	
Agriculture, Logistics, & Material Handling Automation	15
Cargotec Corporation	
Deere & Company	
IHI Corporation	
John Bean Technologies Corporation	
Kardex AG	
Swisslog Holdings AG	
Components, Software, Subsystem Manufacturing	22
Omron Corporation	
Delta Electronics	
Harmonic Drive Systems Inc.	
HollySys Automation Technologies, Ltd.	26
IPG Photonics	

### Table of Contents

Johnson Electric Holdings Ltd.	28
LEONI AG	29
Nabtesco Corporation	30
National Instruments Corporation	31
Nordson Corporation	32
ShinMaywa Industries, Ltd.	33
SMC Corp	
Yokogawa Electric Corporation	35
Consumer Robotics	36
iRobot Corporation	
Energy and Subsea ROV	38
Oceaneering International. Inc.	39
Forum Energy Technologies, Inc.	40
Fugro NV	41
Helix Energy Solutions Group. Inc.	42
Healthcare Robotics & Automation Products	43
Accuray Incorporation	
CYBERDYNE Inc.	45
Intuitive Surgical, Inc.	46
Elekta AB	
Mazor Robotics Ltd.	48
Qiagen NV	49
Rewalk Robotics	50
Tecan Group AG	51
Varian Medical Systems	52



Industrial Automation Software & Equipment	53
ABB Ltd.	54
Fanuc Corporation	55
Krones AG	56
Kuka AG	57
Lincoln Electric Holdings Inc.	58
Rockwell Automation Inc.	59
Yaskawa Electric Corp.	60
Yushin Precision Equipment	61
Aida Engineering, Ltd.	62
ATS Automation Tooling Systems Inc	63
DAIHEN Corporation	64
Denso Corp.	65
Mitsubishi Electric Corporation	66
Nachi-Fujikoshi Corp.	67
Renishaw plc	68
Schneider Electric S.A.	69
Siemens AG	70
Teco Electric & Machine	
THK Co ltd	72
Toshiba Machine Co	73
Machine Navigation Technology	74
Trimble Navigation Limited	75
Machine Vision & Image Recognition	76
Cognex Corporation	77.

### Table of Contents

e2v Technologies plc	<u>78</u>
FLIR Systems, Inc.	<u>79</u>
Hitachi Kokusai Electric Inc.	80
Isra Vision AG.	81
Keyence Corp.	82
Microcontrollers	83
Atmel Corporation	
Microchip Technology Inc.	
Military UAS, Defense, & Space	86
AeroVironment, Inc.	
Cubic Corporation	88
Elbit Systems Ltd.	89
Kongsberg Gruppen ASA	90
Macdonald Dettwiler & Associates Ltd.	91
Northrop Grumman Corporation	92
Qinetiq Group	93
Teledyne Technologies Inc	94
Sensors, Motion Processing, & Voice Recognition	95
FARO Technologies Inc.	96
Immersion Corporation	97
Jenoptik AG	98
Nuance Communications, Inc.	99
Topcon Corp	100
Technology Manufacturing Automation	101
Brooks Automation, Inc.	102
Foxconn Technology Co., Ltd.	103
SFA Engineering Corporation	104



### Subgroup Definitions

3D Printing Technology	Three dimensional printing technology firms offer manufacturing efficiency from a cost and time perspec- tive along with added design complexity and flexibility across the entire development chain. Many of these products are capable of printing real parts from digital input in mass quantities. 3D printing technology often leverages Additive Manufacturing, Digital Part Materialization, and Electron Beam Melting techniques whereby parts are constructed by melting and combing very precise layers of powder. The increased design freedom enables production of any and all kinds of 3 dimensional and other complex products without the added time and cost of constructing a mold or the purchase of additional machinery. Presently many 3D printing devices are leveraged by automotive, surgical, medical device, aerospace, decorative art, and consumer electronics firms.
Actuation Technology	Actuation techniques include electric, hydraulic (compressed fluid), mechanical, and pneumatic (compressed air). Actuation technology facilitates robot mobility and focuses primarily on manufacturing accuracy and consistency along with product design controls. Advanced actuation technology allows for greater range of motion and load capacity, and enables complex robots to more closely replicate human dexterity. Actuation technology is leveraged by a wide range of hi-tech firms in the automotive, environmental protection, vending machinery, food and packaging, ceramic, medical device, and electronics space.
Agriculture, Logistics, & Material Handling Automation	From conventional conveyer belts to automated guided vehicles, firms utilize material handling automation tools to gain process, distribution, and storage efficiencies. The end result is more effective inventory management; such as improved cargo and container handling, proper food portioning, real-time transportation monitoring of goods, and optimization of warehouse space. Robotic and automation capabilities in agriculture are geared toward meeting future demand, addressing labor inefficiencies, and boosting harvest levels through the use of crop and field monitoring via mobile devices, irrigation and pesticides controls, and self-guided tractors.
Components/Software/ Subsystem Manufacturing	Firms that produce and manufacture inputs for robotics and other automation devices that enable enhanced motion control, strength, safety, and added stability such as microscope cables, microcontrollers, precision reduction gears, factory automation controllers/sensors/switches, reconfigurable hardware platforms, and other inputs capable of adapting to rapidly changing requirements.
Consumer Robotics	Firms that produce robots for use by the retail consumer in the areas of toys and games, interactive robots, household cleaning, and other tasks done at home that can be automated. These robots navigate either by interacting with their environment or using a virtual map to plan out a path of travel. Household cleaning robots include vacuums, floor cleaners, gutter cleaners, and pool cleaners. Interactive robots provide for an enhanced robot/human interaction experience. A subset of those are interactive therapeutic robots that resemble various animals with voice and motion capabilities.
Energy and Subsea ROV	Firms that produce and manufacture underwater remotely operated vehicles, mainly for use in offshore oil and gas drilling and exploration, mapping of the ocean floor using sonar imaging, underwater routine maintenance work, and in conjunction with search and rescue operations of sunken ships or aircraft. Furthermore these ROVs can explore inaccessible regions of the ocean such as beneath the ice of the Arctic and Antarctic circles. Many of these robots are designed for long duration dives that are not currently possible by humans and mimicking the behavior of various sea creatures.
Healthcare Robotics & Automation Products	Healthcare robotics firms specialize in a wide range of medical care services ranging from diagnostics to surgery to neurological treatment. Surgical robots are capable of highly precise incisions, allowing a team of surgeons to perform surgery from multiple locations, and to reduce surgeon error by alerting them to excess (hand) movements. Neurological robots are designed to explore the human brain and carry out necessary treatments such as robot assisted therapy for those with motion incapacities. Advances in prosthetics are moving toward the development of exoskeletons that will allow those confined to wheelchairs to walk. Other companies specialize in partial or full automation of lab workflows and procedures including the use of Robot pharmacists to fill prescriptions.





### Subgroup Definitions

Industrial Automation Software & Equipment	Factory automation technology used to increase industrial productivity across a wide range of products that includes welders, presses, information technology, and automotive parts, with a focus on reducing environmental impact, enhancing product quality, and improving worker safety. Firms in this space also include suppliers and producers of robots used by other industrial and software firms. Industrial automation software includes Distributed Control System Software, Programmable Logic Controller Software, Human Machine Interface Software, Supervisory Control and Data Acquisition Software, and Batch Management System Software among others.
Machine Navigation Technology	The guidance of robots and other unmanned machinery by integrating GPS technology with software and other wireless services that enables increased productivity, just in time delivery, safety improvements, and waste reduction. Firms that specialize in machine navigation technology provide engineering and mobile device solutions across various sectors ranging from farming to public safety to information technology.
Military UAS, Defense, & Space	Development of unmanned aircraft and ground vehicles for the military and first responders. These machines detect hazardous materials, dispose bombs, and perform critical national defense functions (surveillance). UAS are equipped with precision guidance, acoustic microphones, hostile fire detection, and night vision and are capable of flying missions for long durations and at high altitude. Automation and robotics have outer-space uses including remote piloting of spacecraft such as the Mars Rover, providing cars the ability to communicate with one another via GPS-like services, and (Robonauts) performing repairs on satellites and other man-made objects orbiting the earth.
Machine Vision & Image Recognition	Development of vision sensors and guidance controls in robots used to automate tasks that require the ability to see and analyze information. Vision sensors work in conjunction with complex algorithms, lighting technology and communication software, enable robots to perform a number of factory automation functions such as quality control inspection, installation procedures, bar code reading, and the assurance of proper and optimal packaging of products. Vision sensors are capable of processing images in either 2 dimensional or 3 dimensional space.
Microcontrollers	The "brains" of the robot which are designed to read inputs, process and analyze data, and control outputs with no additional circuitry. Microcontrollers use advanced logic and algorithms for "touch" applications and components for use in smart phones, tablets, semi-conductors, and other wireless devices with low power consumption and an environmentally friendly focus. Capabilities now include multi-touch functionality along with the ability to ignore unwanted or unintended touching. Microcontrollers are different than microprocessors in that microprocessors only have an input component (and no output), do not contain additional RAM or ROM (meaning they cannot function as stand-alone devices), and are typically more expensive than microcontrollers.
Sensors, Motion Processing, & Voice Recognition	Enhancement of the human/machine interaction experience and improving user safety. The use of haptic technology allows the user to feel what would actually happen when carrying out a task without actually doing it for a wide range of applications which include simulating the firing of a gun, the feel of pushing a real button when pushing a virtual one, vibration in video game console controllers, or performing surgery. Other uses include high precision computer aided inspection/processing and mobile surveillance. Voice recognition enables the automation of phone calls for a better human/machine interaction experience and techniques include template matching and feature analysis. Template matching is considerably simpler and more accurate but it also much more limited.
Technology Manufacturing Automation	The use of robotics and automated instrumentation and hardware solutions to enable the production of man- ufactured goods. Manufacturing automation technologies include computer aided design, automated guided vehicles, programmable logic control & optimization software, and systems integration software for aid in carrying out of applications such as display manufacturing, vacuum creation, wafer level packaging, and asset tracking via infrared scanning.





# 3D Printing Technology





Ticker	DDD	Currency USD	Date	9/30/14
<b>3D Systems Corpora</b>	tion			
Headquarters	Rock Hill, SC	Share Price	46.37	Stock Price vs S&P 500
Website	3dsystems.com	52 Week Range	43.35-97.28	75%
Robo-Stox Classification	Bellwether	Market Cap (\$B)	5.096	1370
Exchange	NYSE	Enterprise Value (\$B)	4.546	25%
Share Type	Common Stock	YTD Change	(50.10%)	23%
Functional FX	USD	PE	134.22	The type the the
Ticker	DDD	P/S	8.17	
SEDOL	2889768	Dividend Yield	0.00%	(2) (2) (2) (2) (2) (2) (2) (2) (2) (2)
Industry (GICS)	Technology Hardware, St	orage and Peripherals		\$\$\$\$\$ \$\$\$ \$\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Robo-Stox Subgroup	3D Printing Technology			S&P Price DDD Price

3D Systems Corporation, through its subsidiaries, operates as a provider of 3D printing centric design-to-manufacturing solutions in the United States, Germany, the Asia-Pacific, and other European countries. Its 3D printers convert data input from computer aided design generated software format or 3D scanning and sculpting devices to printed parts. The company offers stereolithography, selective laser sintering, direct metal sintering, multi-jet modeling, color jet printing, and film transfer imaging printers, as well as plastic jet printing products. It also blends, markets, sells, and distributes proprietary, consumable, engineered plastic, nylon, and metal materials and composites for the use in printers under Accura, DuraForm, CastForm, LaserForm, and VisiJet brand names. In addition, the company provides Geomagic software packages and design tools for reverse engineering, inspection, and haptic design packages; Cubify Invent and Cubify Design CAD software solutions; and and installation, warranty, and maintenance services, as well as proprietary software printer drivers. The company primarily serves manufacturers of automotive, aerospace, computer, electronic, defense, education, consumer, energy, and healthcare products, as well as original equipment manufacturers, government agencies, universities, independent service bureaus, and individual consumers. The company sells its products and services through its direct sales organization, sales agents, resellers, and distributors. 3D Systems Corporation was founded in 1986 and is headquartered in Rock Hill, South Carolina.

#### **Robotics & Automation Description:**

3D Systems streamlines the design process of complex products using additive layer printing and manufacturing methodologies. It is likely to be instrumental in the future development of new production techniques and will lead to increased automation. 3D Systems' various custom printing solutions enable customers to rapidly create highly complex and customizable parts in large quantities with minimal manual intervention. Its production processes include QuickCut™ CNC machining, Quick Sheet MetaI™, QuickMold™ Tooling, injection mold tooling, and metal die casting. In the late 1980s and early 1990's, 3D systems invented and commercialized 3D printing with its Stereolithography (SLA) printer, Selective Laser Sintering (SLS), the Color-Jet-Printing (CJP) class of 3D printers, and Multi-Jet-Printing (MJP) printers. Rapidform® integrates scan data processing, mesh optimization, auto surfacing, and computer aided design to a single tool.

Fujitsu Frontech Limited NCR Corp.	18.57 12.74	1.06	0.33	3.63 9.33	1.19	Hold 11
Diebold, Incorporated	NM	3.51	0.74	4.03	3.26	Hold
Stratasys Ltd. EIZO Corporation	NM 11.35	2.37 0.79	9.39 0.74	60.47 4.63	0.00 2.37	Buy 9
Top 5 Comps	PE	PB			Div Yield %	Analyst Recommendations
Net % Margin	1%	12%	15%	11%	9%	
EBITDA Margin %	7%	17%	19%	24%	21%	Europe 19%
YoY % Change	0%	2005%	68%	2%	(7%)	Other 55%
Earnings Per Share	\$0.02	\$0.28	\$0.47	\$0.48	\$0.45	States
YoY % Change	0%	1735%	81%	10%	13%	United
Net Income	\$1	49 % \$20	\$35	\$39	40 % \$44	10%
EBITDA YoY % Change	\$8 (11%)	\$28 49%	\$45 47%	\$85 66%	\$110 48%	Asia Pacific
YoY % Change	(19%)	42%	44%	53%	45%	
Sales	\$113	\$160	\$230	\$354	\$513	Germany 10%
Fundamentals	2009	2010	2011	2012	2013	DDD 2013 Revenue by Geography





Ticker	ARCM	Currency USD	Date	9/30/14
Arcam AB				
Headquarters	Gothenburg, Sweden	Share Price	23.49	Stock Price vs S&P 500
Website	arcam.se	52 Week Range	18.01507-43.16688	79%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.438	53%
Exchange	OM	Enterprise Value (\$B)	0.390	26%
Share Type	Common Stock	YTD Change	(29.23%)	0%
Functional FX	SEK	PE	255.25	(26%)
Ticker	ARCM	P/S	13.50	$(20\%) \qquad \qquad$
SEDOL	7667710	Dividend Yield	0.00%	9/30/ 0/14/ 1/11/ 1/11/ 2/2/3/ 1/25/ 2/23/ 1/20/ 2/31/ 3/31/ 3/31/ 3/31/ 3/31/ 2/31/ 2/31/ 2/31/ 2/31/ 2/31/ 2/31/ 2/31/ 2/31/ 2/31/ 2/31/ 2/31/ 2/31/ 2/31/ 2/31/ 2/32/ 3/32/ 2/32/ 3/31/ 2/22/ 2/22/ 3/31/ 2/22/ 2/22/ 2/22/ 2/31/ 2/22/ 2/31/ 2/22/ 2/32/ 2/22/2
Industry (GICS)	Industrial Machinery			नननन न
Robo-Stox Subgroup	3D Printing Technology			S&P Price ARCM Price

Arcam AB (publ) provides additive manufacturing solutions for the production of metal components. The company offers Arcam Q10, an electron beam melting (EBM) machine for the industrial production of orthopedic implants; Arcam Q20 to manufacture wide range of aerospace-related components, such as turbine blades and structural airframe components; and Arcam A2X to process titanium alloys and materials that require elevated process temperatures, such as titanium aluminide. It also provides software; metal powders; powder handling auxiliary equipment, including explosion-protected vacuum cleaners, powder handling trolleys, and powder recovery systems; and service and application support, and training services. The company serves orthopedic implant and aerospace industries primarily in the United States and Europe. Arcam AB (publ) was founded in 1997 and is headquartered in Gothenburg, Sweden.

#### **Robotics & Automation Description:**

Arcam leverages additive manufacturing and electron beam melting (EBM) to enable more cost effective and advanced manufacturing capabilities. Arcam's products primarily serve aerospace and orthopedic implant firms, which represent roughly half of its total revenue. EBM enables Arcam to produce light-weight products with a buy-to-fly ratio close to 1.0 for aerospace firms. (The buy-to-fly ratio compares the raw material weight to the final weight of the product itself) This enables weight reduction, cooling, and heating optimization of various components. In the orthopedic implant space, Arcam focuses mainly on joint reconstruction. In 2013, Arcam entered into a strategic alliance with DiSanto, an orthopedic implant manufacturer, to enhance its knowledge and a greater industry-wide acceptance of additive manufacturing. Arcam also utilizes these techniques to focus on producing items with high input costs (such as titanium and cobalt chrome), whereas most of its competition is in the plastics space. Utilizing the Arcam LayerQamTM, one can view the production process retroactively to verify production quality and any variation amongst the individuals layers. The Arcam EBM® Multi Beam technology allows for the control of multiple beams at the same time.

Fundamentals	2009	2010	2011	2012	2013		ARCM 2013 Rever	ue by Geogra	aphy			
Sales	\$11	\$14	\$17	\$22	\$31		Other					
YoY % Change	27%	19%	20%	26%	37%		L/%					
EBITDA	(\$1)	\$0	\$1	\$2	\$2							
YoY % Change	35%	15%	21%	37%	21%							
Net Income	(\$1)	\$0	\$1	\$2	\$2							
YoY % Change	0%	0%	202%	171%	3%		7		Europe			
Earnings Per Share	(\$0.09)	\$0.02	\$0.05	\$0.16	\$0.15		USA			9		
YoY % Change	0%	0%	275%	169%	(6%)	26%			57%			
EBITDA Margin %	(7%)	3%	4%	10%	8%							
Net % Margin	(8%)	2%	5%	10%	8%							
						**	Estimated revenue break	down for 2013	**			
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %	Analyst Recommendations						
SLM Solutions GmbH	NM	3.38	13.13	152.47	0.00	1	1		1	1		
The ExOne Company	NM	2.19	7.27	NM	0.00	Buy			2			
Hedson Technologies International AB (publ)	0.00	0.00	0.00	0.00	0.00	Hold	1					
Voxeljet AG	NM	2.52	11.77	NM	0.00	noiu						
Gongin Precision Industrial Co., Ltd.	13.33	1.72	0.57	8.30	0.00	Sell 0						
Arcam AB	255.25	5.50	13.50	NM	0.00	0	0.5 1	1.5	2	2.5		
Al Calli AD	200.20 0.00		13.50 NIV	IN IVI	0.00		No. of analyst n	ecommenda	ations			





Ticker	DSY	Currency USD	Date	9/30/14
Dassault Systemes S/	٩			
Headquarters	Vélizy-Villacoublay, France	Share Price	64.19	Stock Price vs S&P 500
Website	3ds.com	52 Week Range	49.51095-66.6246	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	16.17	
Exchange	ENXTPA	Enterprise Value (\$B)	14.98	(5%)
Share Type	Common Shares	YTD Change	12.73%	long the second
Functional FX	EUR	PE	41.01	
Ticker	DSY	P/S	6.01	(25%)
SEDOL	5330047	Dividend Yield	0.82%	
Industry (GICS)	Application Software			िनेनेनेने ने गाउँ गाउँ गाउँ गाउँ गाउँ
Robo-Stox Subgroup	3D Printing Technology			S&P Price DSY Price

Dassault Systemes SA provides various three dimensions (3D) software applications and services worldwide. The company offers SOLIDWORKS, a software solution for design, simulation, technical documentation, and data management; CATIA, an engineering and design software; GEOVIA, which models and simulates the planet; SIMULIA, which provides content and simulation applications for finite element analysis, multiphysics solutions, design optimization, and simulato in fiercycle management; DELMIA, a digital manufacturing and production application; ENOVIA, which delivers 3D digital collaboration solutions; 3DSwYm, which creates an online environment without boundaries; EXALEAD for search and search-based applications; and NETVIBES to create personalized dashboards. It also offers 3DVIA solutions, including 3DVIA Home that provides an application to design the ideal kitchen, bathroom, or storage area; 3DVIA Store, which enables retailers test and optimize store design concepts; HomeByMe solution that enables consumers to design and plan home projects in a social way; 3DVIA Content Warehouse for managing and sharing digital assets on Internet-enabled devices; 3DVIA Studio Pro, a social development platform that uses interactive gaming technology; 3DVIA Studio Pro, an interactive 3D application authoring platform; and 3DVIA Composer to repurpose existing 3D design data. In addition, the company provides consulting services in the areas of design, deployment, support, training, and engineering. It serves aerospace and defense; transportation and mobility; marine and offshore; industrial equipment; high-tech; architecture, engineering, and construction; consumer goods and retail; consumer packaged goods and retail; life sciences; energy, process, and utilities; natural resources; and financial and business services sectors through direct sales, value-added resellers, and distributors. The company was founded in 1981 and is headquartered in Vélizy-Villacoublay, France.

#### **Robotics & Automation Description:**

Dassault produces technology that enables advanced virtual design, which facilitates manufacturing via 3D printing technology and other methods. Dassault's 3DEXPERIENCE Platform produces advanced virtual technology that allows businesses to digitally define and simulate products, as well as the processes and resources required to manufacture them. It's SOLIDWORKS technology enables designers and engineers to make an easy transition from 2D drafting to a 3D environment. CAITA is a 3D product design solution that goes beyond the standard capabilities of 3D computer aided design by allowing various departments to collaborate on the design of 3D products from start to finish. It's GEOVIA product can model and simulate the earth's response to climate change to improve natural resource sustainability.

Fundamentals	2009	2010	2011	2012	2013		013 Revenue by	Geograph	iy		
Sales	\$1,793	\$2,097	\$2,316	\$2,674	\$2,845	Other Europe					
YoY % Change	(6%)	25%	14%	14%	2%	10%					
EBITDA	\$452	\$594	\$714	\$838	\$897				11		
YoY % Change	(6%) \$243	27%	14%	15%	2%	Japan			Unit State		
Net Income		\$296	\$376	\$441		20%			Ame		
YoY % Change	(15%)	30%	31%	16%	5%				43	%	
Earnings Per Share	\$1.03	\$1.24	\$1.55	\$1.79	\$1.94						
YoY % Change	(15%)	27%	28%	14%	4%		France				
							27%				
EBITDA Margin %	25%	28%	31%	31%	32%						
Net % Margin	14%	14%	16%	17%	17%						
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %	Ana	yst Recomme	endation	s		
Sage Group plc	17.57	4.70	3.15	10.98	3.10		1	1	1		
Cap Gemini S.A.	19.18	2.03	0.89	8.96	1.94	Buy				9	
SAP SE	21.55	4.22	4.01	11.81	1.75	Hold					
Autodesk, Inc.	73.59	5.48	5.25	31.32	0.00			6			
Gemalto NV	29.17	2.90	2.62	16.60	0.52	Sell			7		
						0 2	4	6	8		
Dassault Systemes SA	41.01	4.86	6.01	19.61	0.82	No.	of analyst reco	mmenda			





Ticker	XONE	Currency USD	Date	9/30/14
The ExOne Company				
Headquarters	North Huntingdon, PA	Share Price	20.89	Stock Price vs S&P 500
Website	exone.com	52 Week Range	20.35-70.25	50%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.301	25%
Exchange	NasdaqGS	Enterprise Value (\$B)	0.248	0%
Share Type	Common Stock	YTD Change	(65.45%)	(25%)
Functional FX	USD	PE	NM	(50%)
Ticker	XONE	P/S	7.27	
SEDOL	B8BWT69	Dividend Yield	0.00%	9,930,13 (0,14/13) (1,128) (1,128) (1,28) (1
Industry (GICS)	Industrial Machinery			
Robo-Stox Subgroup	3D Printing Technology			S&P Price XONE Price

The ExOne Company manufactures and sells three dimensional printing machines and printing products in the Americas, Europe, and Asia. The company provides Max, Print, Flex, and Lab machines that enable designers and engineers to design and produce industrial prototypes and production parts; and ExMicro Orion machine, a laser micromachining product for conventional and exotic materials. It also offers associated materials comprising consumables and replacement parts; and other services, such as pre-print services, training, and technical support. The company markets its products to industrial customers in the aerospace, automotive, heavy equipment, energy/oil/gas, and other industries under the ExOne brand name. The ExOne Company was founded in 2005 and is headquartered in North Huntingdon, Pennsylvania.

#### **Robotics & Automation Description:**

ExOne's 3D printing provides affordable production of complex products and mechanisms through Digital Part Materialization (DPM). DPM is an additive manufacturing process that transforms engineering design files directly into fully functional objects layer by layer. Shapes and objects not previously possible to manufacture can now be designed such as undercuts, angled passages, and patternless sand casting to enable cooling, heating, filtration, porting, venting, nested cores, spiral vents, volute shapes and integration of multiple components. Additionally, multiple variations of the same product can be made at the same time, with no additional costs. ExOne currently offers two of the largest printers on the world market for 3D printing of sand and metal materials, offering build sizes as large as 1800 x 1000 x 700 mm (70 x 39 x 27 in.) for sand and 780 x 400 x 400 mm (30.7 x 15.75 x 15.75 in.) for metal. ExOne also offers short-pulse laser machining systems equipped with sophisticated beam manipulation devices for the fabrication of complex holes in virtually any material.

Fundamentals		2010	2011	2012	2013		XONE 2013 Revenue by Geography
Sales		\$13	\$15	\$29	\$39		
YoY % Change		0%	14%	87%	38%		Asia 26%
EBITDA		(\$3)	(\$4)	(\$6)	(\$3)		_Europe
YoY % Change		0%	19%	233%	28%		37%
Net Income		(\$6)	(\$8)	(\$10)	(\$6)		
YoY % Change		0%	0%	0%	0%		
Earnings Per Share		(\$0.55)	(\$0.80)	(\$1.16)	(\$0.51)		
YoY % Change		0%	0%	0%	0%		Americas
							37%
EBITDA Margin %		(22%)	(26%)	(22%)	(8%)		
Net % Margin		(41%)	(53%)	(35%)	(16%)		
Top 5 Comps	PE	PB	P/S EV	/EBITDA	Div Yield %		Analyst Recommendations
Stratasys Ltd.	NM	2.37	9.39	60.47	0.00		
3D Systems Corporation	134.22	3.97	8.17	45.25	0.00	Buy	2
Voxeljet AG	NM	2.52	11.77	NM	0.00	Hold	7
Koyosha Inc.	12.50	1.60	0.37	3.88	0.00	поіц	/
Sotech Machinery Co., Ltd.	NM	5.58	15.09	NM	0.00	Sell	1
The Factor Company	NIM	0.10	7 07	NIKA	0.00	0	2 4 6
The ExOne Company	NM	2.19	7.27	NM	0.00		No. of analyst recommendations





Ticker	SSYS	Currency USD	Date	9/30/14
Stratasys Ltd.				Stock Price vs S&P 500
Headquarters	Eden Prairie, MN	Share Price	120.78	100%
Website	stratasys.com	52 Week Range	85.3-138.1	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	5.970	
Exchange	NasdaqGS	Enterprise Value (\$B)	5.392	
Share Type	Ordinary Shares	YTD Change	(10.33%)	
Functional FX	USD	PE	NM	0%
Ticker	SSYS	P/S	9.39	(25%)
SEDOL	2858638	Dividend Yield	0.00%	9,30/ 11,11,12,11,12,11,12,12,12,12,12,12,12,1
Industry (GICS)	Technology Hardware, St	orage and Peripherals		
Robo-Stox Subgroup	3D Printing Technology	•		S&P Price SSYS Price

Stratasys Ltd. provides additive manufacturing (AM) solutions for the creation of parts used in the processes of designing and manufacturing products and for the direct manufacture of end parts. Its AM systems utilize its patented fused deposition modeling and inkjet-based PolyJet technologies to enable the production of prototypes, tools used for production and manufactured goods directly from three-dimensional (3D) CAD files or other 3D content. The company offers desktop 3D printers for idea and design development, a range of systems for rapid prototyping, and production systems for direct digital manufacturing under the MakerBot, Mojo, uPrint, Dimension, Objet, Fortus, and SolidScape brands. It also develops, manufactures, and sells materials for use with its systems; and provides various services to its customers. In addition, the company leases or rents 3D printers and 3D production systems for customers from a customer-provided CAD file, as well as offers support services and warranty. Its solutions are used in architecture, automotive, aerospace and defense, electronics, medical, footwear, toys, educational institutions, government and manufacturing industries. The company sells its products through a network of resellers and independent sales agents to individuals, smaller businesses, and large enterprises worldwide. Stratasys Ltd. was founded in 1989 and is headquartered in Eden Prairie, Minnesota.

#### **Robotics & Automation Description:**

Stratasys, along with 3D Systems, is one of the world leaders in 3D printing technology. The main applications of its 3D printing technology include concept modeling, prototyping, finishing (i.e. sealing/polishing), and the production of various end-use parts. Its 3D printers are divided into four categories: Idea, Design, Production, and the recently launched, Dental. Stratasys leverages advanced 3D printing technologies such as polyiet technology, fused deposition modeling (FDM), and wax deposition modeling (WDM). PolyJet 3D printing is similar to inkjet printing, but instead of jetting drops of ink onto paper, the PolyJet 3D Printers jet layers of curable liquid photopolymer onto a build tray where thin layers accumulate and eventually develop into a precise 3D object. FDM is a clean, simple to use, additive manufacturing technique whereby parts are built layer-by-layer by heating thermoplastic material to a semi-liquid state and extruding it according to computer-controlled paths. WDM technology works similar to that of Polyjet except it utilizes wax like materials.

Stratasys Ltd.	NM	2.37	9.39	60.47	0.00	0	5	10 alyst recomme	15	20
Roland DG Corporation	15.87	2.58	1.83	8.15	1.33	Sell <b>1</b>				
Mimaki Engineering Co., Ltd.	15.72	2.99	0.60	7.29	0.80					
Riso Kagaku Corporation	16.17	1.15	0.90	5.45	1.69	Hold	5			
Electronics for Imaging, Inc.	19.72	2.72	2.73	20.51	0.00	Buy				19
3D Systems Corporation	134.22	3.97	8.17	45.25	0.00					
Top 5 Comps	PE	PB	P/S EV	EBITDA I	Div Yield %		Analyst I	Recommenda	tions	
Net % Margin	4%	8%	13%	4%	(6%)					
EBITDA Margin %	13%	21%	26%	24%	17%					
iui /o ulaliye	(09%)	120%	11070	(62%)	U%					
Earnings Per Share /oY % Change	\$0.20 (69%)	\$0.46 120%	\$0.98 116%	\$0.37	(\$0.64) 0%		26%		549	70
YoY % Change	(70%)	128%	120%	(59%)	0%		EMEA		Ameri	
Net Income	\$4	\$9	\$21	\$8	(\$27)					
YoY % Change	(30%)	32%	35%	33%	106%					
EBITDA	\$13	\$26	\$40	\$52	\$80					
YoY % Change	(20%)	24%	27%	38%	125%	19%				
Sales	\$99	\$123	\$156	\$215	\$484	Asia Paci	fic	/ 1%		
Fundamentals	2009	2010	2011	2012	2013			Revenue by Geo		





## Actuation Technology









Ticker	2049	Currency USD	Date	9/30/14
Hiwin Technologies (	Corp.			
Headquarters	Taichung, Taiwan	Share Price	8.94	Stock Price vs S&P 500
Website	hiwin.com.tw	52 Week Range	6.3052-12.06768	75%
Robo-Stox Classification	Bellwether	Market Cap (\$B)	2.338	50%
Exchange	TSEC	Enterprise Value (\$B)	2.707	25%
Share Type	Common Stock	YTD Change	11.40%	25%
Functional FX	TWD	PE	31.72	
Ticker	2049	P/S	5.15	(25%) (25%) (25%)
SEDOL	B1YMYT5	Dividend Yield	0.96%	0,014 11,1128 11,1128 11,1128 11,1128 11,128 12,09 1,209 1,120 1,209
Industry (GICS)	Industrial Machinery			
Robo-Stox Subgroup	Actuation Technology			S&P Price 2049 Price

Hiwin Technologies Corp. manufactures and sells a range of motion control products worldwide. It offers ball screws, linear guideways, bearings, robots, linear motor systems, linear actuators, and positioning measurement systems. The company was founded in 1989 and is headquartered in Taichung, Taiwan.

#### **Robotics & Automation Description:**

Hiwin manufactures components used in single-axis industrial robots such as ball screws, linear motors, and linear guideways. Hiwin is one of the few ball-screw manufacturers that can consistently produce at the highest accuracy levels recognized by ISO and DIN standards. The Hiwin KK robot leverages Hiwin's state-of-the-art ball-screw and guideway technology to gain better design accuracy and optimization. The KS series robots are built with a dust proof strip making them ideal for use in clean rooms, semi-conductor design, and various medical applications. The KA series is a lighter weight version of the KK series that is mostly used for industrial automation.

Fundamentals	2009	2010	2011	2012	2013	2049 2013 Revenue by Geography United
Sales	\$137	\$325	\$522	\$426	\$416	States 5%
YoY % Change	(32%)	117%	67%	(22%)	1%	
EBITDA	\$25	\$92	\$173	\$128	\$115	Japan 5%
YoY % Change	(46%)	164%	79%	(27%)	(3%)	
Net Income	\$9	\$58	\$126	\$69	\$68	Germany _/
YoY % Change	(65%)	505%	126%	(47%)	1%	17%
Earnings Per Share	\$0.03	\$0.22	\$0.48	\$0.26	\$0.26	
YoY % Change	(67%)	477%	125%	(47%)	1%	
EBITDA Margin %	19%	28%	33%	30%	28%	Taiwan 73%
Net % Margin	6%	18%	24%	16%	16%	15%
Top 5 Comps	PE	PB	P/S EV	EBITDA Di	v Yield %	Analyst Recommendations
AirTAC International Group	21.61	4.82	5.13	15.63	2.57	
Faeyang Metal Industrial Co., Ltd.	14.19	0.45	0.09	5.85	0.00	Buy <b>11</b>
Chun Yu Works & Co., Ltd.	35.72	1.01	0.40	14.28	3.73	Hold 7
Korea Parts & Fasteners Co., Ltd.	NM	0.50	0.19	9.65	0.00	
Fycoons Group Enterprise Co., Ltd.	NM	0.68	0.37	45.86	0.00	Sell 1
Hiwin Technologies Corp.	31.72	6.23	5.15	21.02	0.96	0 5 10 1
nwin recimologies corp.	31.72	0.20	3.15	21.02	0.50	No. of analyst recommendations





Ticker	1590	Currency USD	Date	9/30/14
AirTAC International	Group			
Headquarters	Fenghua, China	Share Price	8.07	Stock Price vs S&P 500
Website	airtac.net	52 Week Range	6.74098-11.83782	60%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	1.376	40%
Exchange	TSEC	Enterprise Value (\$B)	1.517	how here here here here here here here her
Share Type	Common Stock	YTD Change	1.45%	20%
Functional FX	TWD	PE	21.61	
Ticker	1590	P/S	5.13	
SEDOL	B52J816	Dividend Yield	2.57%	9,15,74,12,12,12,12,12,12,12,12,12,12,12,12,12,
Industry (GICS)	Industrial Machinery			
Robo-Stox Subgroup	Actuation Technology			S&P Price 1590 Price

AirTAC International Group manufactures and supplies pneumatic equipment worldwide. It offers control components, such as solenoid, flow control, pneumatic control, manually/mechanically actuated valves, and manifolds; actuators, including standard, mini, and compact cylinders, and other series and cylinder accessories; and accessories comprising oil buffers and PU hose products, as well as air preparation products and accessories. The company also provides technical support services. Its products are used in automotive, machinery manufacturing, metallurgy, electronics, environmental protection, lighting and textile, ceramics, medical equipments, food, and packaging industries. The company was founded in 1988 and is based in Fenghua, China.

#### **Robotics & Automation Description:**

AirTac manufactures control components and pneumatic equipment used in the production of robotics. Over 90% of these parts are manufactured in house. AirTac holds an approximate 10%-15% market share in China for pneumatic components. Its pneumatic actuators represent the largest portion of its revenue, which has been roughly 40% the last few years.

Fundamentals	2009	2010	2011	2012	2013	1590 2013 Revenue by Geography
i and anoncaro	2000	2010	2011	2012	2010	Other
Sales	\$89	\$147	\$186	\$196	\$244	12%
YoY % Change	5%	50%	31%	1%	28%	
EBITDA	\$29	\$53	\$67	\$62	\$88	
YoY % Change	15%	54%	28%	2%	35%	
Net Income	\$14	\$36	\$45	\$37	\$57	
YoY % Change	29%	126%	30%	(21%)	60%	
Earnings Per Share	\$0.10	\$0.25	\$0.28	\$0.23	\$0.35	
YoY % Change	29%	124%	16%	(21%)	58%	
EBITDA Margin %	33%	36%	36%	32%	36%	
Net % Margin	16%	24%	24%	19%	23%	∖–Asia 88%
Top 5 Comps	PE	PB	P/S EV	EBITDA	Div Yield %	Analyst Recommendations
Hiwin Technologies Corp.	31.72	6.23	5.15	21.02	0.96	
<b>5</b>						Buy 7
						Hold 7
						Sell 2
AirTAC International Group	21.61	4.82	5.13	15.63	2.57	0 2 4 6 8
An two international broup	21.01	4.02	0.13	10.03	2.57	No. of analyst recommendations



## Agriculture, Logistics, & Material Handling Automation





Ticker	CGCBV	Currency USD	Date	9/30/14
Cargotec Corporation	n			
Headquarters	Helsinki, Finland	Share Price	33.41	Stock Price vs S&P 500
Website	cargotec.com	52 Week Range	31.38764-43.75592	40%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	2.152	
Exchange	HLSE	Enterprise Value (\$B)	3.243	20%
Share Type	Class B Shares	YTD Change	(2.29%)	0% mm 0 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Functional FX	EUR	PE	56.47	
Ticker	CGCBV	P/S	0.53	(20%)
SEDOL	B09M9L0	Dividend Yield	1.59%	9,30/1 0/14/1/ 1,25/1 1,25/1 1,25/1 1,26/1 1,20/1 1,20/1 1,20/1 1,20/1 1,20/1 5/26/1 5/26/1 5/26/1 5/26/1 5/22/1 5/26/1 5/22/1 5/26/1 5/26/1 5/22/1 5/26/1 5/22/1 5/26/26/1 5/26/1 5/26/1 5/26/1 5/26/1 5/26/1 5/26/1 5/26/
Industry (GICS)	Industrial Machinery			नननन न
Robo-Stox Subgroup	Agriculture, Logistics, & N	Aaterial Handling Automat	tion	S&P Price CGCBV Price

Cargotec Corporation provides cargo and load handling solutions worldwide. It operates in three segments: MacGregor, Kalmar, and Hiab. The company offers hatch covers, lashing systems, cranes, RoRo cargo and passenger access equipment, self-unloading systems, winches, steering gears, compressors, and deck handling equipment for ships; linkspans, shore ramps, and passenger gangways for ports and terminals; and solutions for subsea load handling, anchor handling, and towing and mooring operations. It also provides container and cargo handling equipment, such as ship-to-shore and yard cranes, straddle and shuttle carriers, reachstackers, empty container handlers, terminal tractors, forklift trucks; and Bromma spreaders, Siwertell dry bulk handling systems, and Navis terminal operating systems, as well as terminal automation and integration solutions. In addition, the company offers on-road load handling products comprising loader cranes, forestry and recycling, and by the defence forces. Further, it provides maintenance and service solutions for equipment and cranes; and spare parts, as well as sells preowned equipment. The company serves ship owners, ship and terminal operators, design offices, and shipbuilders in the offshore and merchant sectors, as well as ports and navies; distribution centres, sawmills, pulp and paper mills, and heavy industry; and transportation companies, municipalities and governments, fleet operators, single truck owners, rental companies, and truck manufacturers. Cargotec Corporation is headquartered in Helsinki, Finland.

#### **Robotics & Automation Description:**

Cargotec specializes in port automation with its application of unmanned container-handling technology. The SmartPort and Terminal Operating System provide for real time inventory management, optimize the flow of cranes and container handlers, and can automatically register container arrivals/departures to reduce turnaround time. Cargotec offers an Automatic Crane Stacking System for container handling and Automatic Straddle Carriers for connecting and stacking. It also offers Launch and Recovery Systems (LARS) for robots and other automated equipment for the safe handling of Remote Underwater Vehicles. MacGregor recently built a new offshore crane that enables three-dimensional motion compensation and Kalmar introduced a new generation of reachstackers for improved safety, productivity, and ergonomics.

Fundamentals	2009	2010	2011	2012	2013		CGCBV 2013 Rever	nue by Geogra	aphy	
Sales	\$3,699	\$3,453	\$4,078	\$4,387	\$4,381		ina			
YoY % Change	(24%)	(0%)	22%	6%	(4%)	1:	1%			
EBITDA	\$169	\$261	\$352	\$277	\$268	Other Asia			044	
YoY % Change	(34%)	24%	26%	(4%)	(8%)	Pacific			Othe EME	
Net Income	\$4	\$99	\$193	\$117	\$75	18%			_(Europ	
YoY % Change	(97%)	2294%	100%	(40%)	(38%)				Midd	
Earnings Per Share	\$0.07	\$1.62	\$3.15	\$1.92	\$1.23				East Africa	
YoY % Change	(97%)	2319%	100%	(40%)	(39%)		Americas 21%		50%	
							21%			
EBITDA Margin %	5%	8%	9%	6%	6%					
Net % Margin	0%	3%	5%	3%	2%					
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %		Analyst Recom	mendation	s	
Konecranes Plc	26.00	3.12	0.62	10.41	4.93	1	1 1	1	1	
Kone Oyj	22.56	10.79	2.32	14.73	3.14	Buy				9
Metso Corporation	18.80	3.76	1.13	9.16	3.55	Hold	3			
Wärtsilä Oyj Abp	18.10	3.88	1.46	12.55	2.96	TIOIG	3			
Palfinger AG	20.28	2.14	0.85	12.40	1.64	Sell 0				
Cargotec Corporation	56.47	1.46	0.53	14.01	1.59	0	2 4	6	8	
	30.47	1.40	0.00	14.01	1.05		No. of analyst re	ecommenda	tions	





Ticker	DE	Currency USD	Date	9/30/14
Deere & Company				
Headquarters	Moline, IL	Share Price	81.99	Stock Price vs S&P 500
Website	deere.com	52 Week Range	80.76-94.89	40%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	29.38	30%
Exchange	NYSE	Enterprise Value (\$B)	63.05	20%
Share Type	Common Shares	YTD Change	(10.23%)	10%
Functional FX	USD	PE	9.21	0%
Ticker	DE	P/S	0.83	(10%)
SEDOL	2261203	Dividend Yield	2.93%	0,0,14,12,0,0,14,12,0,0,0,14,12,0,0,0,14,12,0,0,0,14,12,0,0,0,14,12,0,12,0
Industry (GICS)	Agricultural and Farm	Machinery		
Robo-Stox Subgroup	Agriculture, Logistics,	& Material Handling Automation		S&P Price DE Price

Deere & Company, together with its subsidiaries, manufactures and distributes agriculture and turf, and construction and forestry equipment worldwide. The company's Agriculture and Turf segment provides agriculture and turf equipment, and related service parts, including large, medium, and utility tractors; loaders; combines, corn pickers, cotton and sugarcane harvesters, and related front-end equipment and sugarcane loaders; and tillage, seeding, and application equipment, such as sprayers, nutrient management, and soil preparation machinery. It also provides hay and forage equipment comprising self-propelled forage harvesters and attachments, balers, and mowers; and riding lawn equipment and walk-behind mowers, golf course equipment, utility vehicles, and commercial mowing equipment. In addition, this segment offers integrated agricultural management systems technology and solutions; precision agricultural irrigation equipment and supplies; landscape and nursery products; and other outdoor power products. Its Construction and Forestry segment provides backhoe loaders that are used in construction, earthmoving, material handling, and timber harvesting applications; crawler dozers and loaders; four-wheel-drive loaders; log harvesters, and related attachments. The company's Financial Services segment finances sales and leases new and used agriculture and turf equipment, and construction and forestry equipment. It also provides wholesale financing to dealers of the foregoing equipment; finances retail revolving charge accounts and operating loans; and crop risk-mitigation products and extended equipment warranties. The company markets its products primarily through independent retail dealer networks and retail outlets. Deere & Company was founded in 1837 and is headquartered in Moline, Illinois.

#### **Robotics & Automation Description:**

John Deere has a small product offering of autonomous machinery such as mowers and various farm equipment. The Flex-wing series of automatic mowers are ideal for mowing uneven lawn surfaces and are equipped with pneumatic tires to reduce downward pressure on the ground and telescoping wings to adjust cutting height. Its line of automated farm equipment includes self-propelled sprayers that can reach speeds of up to 20 mph on farm fields and 30 mph on roads. John Deere also offers an automation software solution called John Deere FarmSightTM, an integrated wireless technology platform that enables machine and logistics optimization through the use of automation, machine sensors, and machine to machine communication.

Fundamentals	2009	2010	2011	2012	2013	DE 2013 Revenue by Geography
Sales	\$23,112	\$26,005	\$32,013	\$36,157	\$37,795	
YoY % Change	(19%)	13%	23%	13%	5%	Outside
EBITDA	\$2,677	\$4,037	\$5,173	\$5,714	\$6,564	the U.S.
YoY % Change	(20%)	26%	19%	11%	10%	and
Net Income	\$874	\$1,865	\$2,800	\$3,065	\$3,537	Canada 36%
YoY % Change	(57%)	114%	50%	9%	15%	30%
Earnings Per Share	\$2.07	\$4.40	\$6.71	\$7.72	\$9.18	United
YoY % Change	(56%)	111%	52%	15%	19%	States
						(U.S.) and Canada
EBITDA Margin %	12%	16%	16%	16%	17%	64%
Net % Margin	4%	7%	9%	8%	9%	
Top 5 Comps	PE	PB	P/S E	EV/EBITDA	Div Yield %	Analyst Recommendations
CNH Industrial N.V.	10.49	1.49	0.32	8.34	3.17	
AGCO Corporation	8.33	1.06	0.42	4.55	0.97	Buy 4
Caterpillar Inc.	16.52	2.98	1.13	10.34	2.83	Hold 13
PACCAR Inc.	16.35	2.82	1.13	11.74	1.55	100
Terex Corp.	12.85	1.50	0.48	7.68	0.63	Sell 8
-						0 5 10
Deere & Company	9.21	2.71	0.83	9.98	2.93	No. of analyst recommendations





Ticker	7013	Currency USD	Date	9/30/1	14
IHI Corporation					
Headquarters	Tokyo, Japan	Share Price	5.18	75%	Stock Price vs S&P 500
Website	ihi.co.jp	52 Week Range	3.36372-5.29626	-	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	7.991	50%	
Exchange	TSE	Enterprise Value (\$B)	10.75	25%	
Share Type	Common Stock	YTD Change	25.11%	0%	and the second s
Functional FX	JPY	PE	28.95	×	
Ticker	7013	P/S	0.64	(25%) ූ පූ	
SEDOL	6466985	Dividend Yield	1.06%	/30/	10/14/ 10/28(%) 11/12/50/ 12/9/ 12/9/ 12/20/ 2/33/ 3/31/ 2/33/ 3/31/ 2/33/ 3/31/ 2/31/ 2/32/ 2/32/ 2/21/ 2/32/ 2/21/ 7/7/ 7/21/ 7/21/ 2/22/ 2/22/ 9/21/ 9/25/ 9/25/ 2/22/2
Industry (GICS)	Industrial Machinery			ര്	ਜਿਜਜ ਜ
Robo-Stox Subgroup	Agriculture, Logistics, & N	Material Handling Automatio	n		S&P Price 7013 Price

IHI Corporation manufactures and sells machinery and equipment primarily in Japan, the United States, Asia, Central and South America, Europe, and internationally. It operates through four segments: Resources, Energy and Environment; Social Infrastructure and Offshore Facilities; Industrial Systems and General-Purpose Machinery; and Aero Engine, Space and Defense. The Resources, Energy and Environment segment offers boilers, power systems, motors for land and marine use, large marine motors, gas storage facilities and gas process plants, components for nuclear power plants, environmental systems, and pharmaceutical plants. The Social Infrastructure and Offshore Facilities provides bridges; water gates; shield tunneling machines; transportation systems; real estate sales and rental; floating liquefied natural gas storage facilities; and offshore structures. The Industrial Systems and General-Purpose Machinery segment offers marine machinery, logistics systems, materials handling equipment, parking systems, steel manufacturing equipment, industrial machinery, heat/surface treatment machinery, papermaking machinery, vehicular turbochargers, compressors, separation equipment, marine turbochargers, construction machinery, agricultural machinery, and small motors. The Aero Engine, Space and Defense segment provides aero engines, rocket systems/space utilization systems, and defense systems. IHI Corporation is also involved in the inspection and measurement business. The company was formerly known as Ishikawajima-Harima Heavy Industries Co., Ltd. and changed its name to IHI Corporation in 2007. IHI Corporation was founded in 1853 and is headquartered in Tokyo, Japan.

#### **Robotics & Automation Description:**

IHI manufactures industrial and materials handling robots for use in factory automation such as automated guided vehicles (AGV), automated storage and retrieval systems (ASRS), and mobile racks. Its AGV include laser-guided AGV forklifts, magnet-guided AGV forklifts, and overhead travel AGV that are capable of spin and traverse movements. IHI utilizes ASRS for typical warehouses to optimize storage space, for inventory control, and to improve workplace safety. It also tailors ASRS towards clean rooms and hazardous material warehouses. IHI's mobile racks are used to convert aisle space to storage space (and vice versa) during periods of storage and retrieval downtime. Mobile racks can increase storage space by as much as 200% and can be operated via remote, touch, or voice control. IHI has also developed a 3D object recognition technology that can recognize complex shaped parts, which enables automated identification and selection of those items.

Fundamentals	2010	2011	2012	2013	2014		7013 2014 R Europe	evenue by Geogra	aphy	
Sales	\$13,296	\$14,328	\$14,827	\$13,335	\$12,667		12%_			
YoY % Change	(10%)	(4%)	3%	3%	4%					
EBITDA	\$1,057	\$1,352	\$1,142	\$999	\$1,033	North				
YoY % Change	16%	9%	(7%)	0%	13%	America				
Net Income	\$186	\$359	\$289	\$354	\$322	17%				
YoY % Change	0%	71%	(20%)	40%	(1%)				Japan	
Earnings Per Share	\$0.13	\$0.24	\$0.20	\$0.24	\$0.22				54%	
YoY % Change	0%	71%	(24%)	40%	(1%)		Asia 17%			
EBITDA Margin %	8%	9%	8%	7%	8%					
Net % Margin	1%	3%	2%	3%	3%					
Top 5 Comps	PE	PB	P/S E\	//EBITDA	Div Yield %		Analyst Re	commendatio	ns	
Kawasaki Heavy Industries Ltd.	18.53	2.05	0.52	10.16	1.60	1	I.	1		
Mitsubishi Heavy Industries Ltd.	14.01	1.49	0.68	8.61	1.13	Buy		5		
Sumitomo Heavy Industries, Ltd.	17.70	1.16	0.60	6.68	1.46	Hold				7
Komatsu Ltd.	15.14	1.76	1.23	8.60	2.29	TIOIU				'
Daikin Industries Ltd.	19.66	2.40	1.09	9.87	1.03	Sell 0				





Ticker	JBT	Currency USD	Date	9/30/14
John Bean Technolo	ogies Corporation			
Headquarters	Chicago, IL	Share Price	28.13	Stock Price vs S&P 500
Website	jbtcorporation.com	52 Week Range	24.66-32.83	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.819	50%
Exchange	NYSE	Enterprise Value (\$B)	0.897	25%
Share Type	Common Stock	YTD Change	(4.09%)	0%
Functional FX	USD	PE	29.95	
Ticker	JBT	P/S	0.85	
SEDOL	B3BRJZ8	Dividend Yield	1.28%	9,9,9,14/1 10,14/1 11,25/1 11,29/1 12,23/1 12,23/1 12,23/1 1,20/1 1,20/1 1,20/1 1,20/1 3,31/1 1,20/1 3,31/1 3,31/1 3,31/1 1,20/1 3,31/1 3,31/1 1,20/1 3,31/1 3,31/1 1,20/1 3,31/1 1,20/1 3,31/1 1,20/1 3,31/1 1,20/1 2,31/1 1,20/1 2,31/1 1,20/1 2,31/1 1,20/1 2,31/1 1,20/1 2,31/1 1,20/1 2,31/1 1,20/1 2,31/1 1,20/1 2,31/1 1,20/1 2,31/1 1,20/1 2,31/1 1,20/1
Industry (GICS)	Industrial Machinery			
Robo-Stox Subgroup	Agriculture, Logistics, &	Material Handling Automation		S&P Price JBT Price

John Bean Technologies Corporation provides technology solutions for the food processing and air transportation industries. The company operates in two segments, JBT FoodTech and JBT AeroTech. The JBT FoodTech segment provides industrial solutions and services used in the food processing industry. This segment offers freezer solutions for the freezing and chilling of meat, seafood, poultry, ready-to-eat meals, fruits, vegetables, and dairy and bakery products; protein processing solutions that portion, coat, and cook poultry, meat, seafood, vegetables, and bakery products; in-container processing solutions, which extract, concentrate, and aseptically process citrus, tomato, and other fruits and juices; and automatic guided vehicles for material handling in the food and beverage, manufacturing, warehouse, automotive, hospital, and printing industries. This segment markets its solutions and services to multi-national and regional industrial food processing companies. The JBT AeroTech segment provides ground support equipment for cargo loading, aircraft deicing, and towing; gate equipment for passenger boarding, on the ground aircraft power, and cooling; aircroft services for maintenance of airport equipment, systems, and facilities; and military equipment for cargo loading, aircraft towing, aircraft power, and on the ground aircraft power, and on the ground aircraft coving. This segment markets its solutions and services to airport authorities, passenger airlines, airfreight and ground handling companies, and military forces. The company sells and markets its products and services the fore, independent distributors, and sales representatives in the United States and internationally. John Bean Technologies Corporation is headquartered in Chicago, Illinois.

#### **Robotics & Automation Description:**

JBT manufactures Automatic Guided Vehicles (AGV) that facilitate efficient material handling, most commonly automatic movement of pallets. JBT's AGV experience includes over 450 systems and 4,000 AGVs that are are designed for long term, trouble free operation in the most demanding environments such as warehouses with extremely narrow aisles and very high storage racks and those that handle dangerous chemicals. Additionally, they are equipped with safety sensors to detect objects in their path. The modular AGV design provides a standard vehicle platform, which can be customized to meet any automated material handling challenge, transport a variety of load types, and interface with existing plant and material handling equipment such as conveyors, racking, stands, and many other types of equipment. JBT manufactures all of its AGV's in house and is the only AGV supplier that owns and maintains laser guidance technology.

Fundamentals	2009	2010	2011	2012	2013		JBT 2013	Revenue	by Geograph	Ŋ	
Sales	\$842	\$880	\$956	\$917	\$934						
YoY % Change	(18%)	5%	9%	(4%)	2%						
EBITDA	\$84	\$93	\$88	\$84	\$81						
YoY % Change	(11%)	5%	0%	(2%)	1%						
Net Income	\$33	\$37	\$31	\$36	\$33		Unite State			_All Ot	ther
YoY % Change	(26%)	14%	(18%)	19%	(9%)		49%			Count	
Earnings Per Share	\$1.19	\$1.32	\$1.06	\$1.24	\$1.13					519	%
YoY % Change	(28%)	13%	(19%)	20%	(9%)						
EBITDA Margin %	10%	11%	9%	9%	9%						
Net % Margin	4%	4%	3%	4%	4%						
Top 5 Comps	PE	PB	P/S EV	EBITDA D	iv Yield %		Analys	t Recom	mendatior	IS	
Marel hf	59.55	1.21	0.78	15.87	0.00	1	1		1	1	1
Chart Industries Inc.	24.63	2.20	1.57	11.23	0.00	Buy				2	
Columbus McKinnon Corporation	14.57	1.46	0.74	7.10	0.73	Hold				2	
Key Technology, Inc.	NM	1.21	0.65	74.36	0.00	HUIU				2	
Flow International Corporation	0.00	0.00	0.00	0.00	0.00	Sell 0					
						0	0.5	1	1.5	2	2.





Ticke	KARN	Currency USD	Date	9/30/	14
Kardex AG					Stock Price vs S&P 500
Headquarters	Zurich, Switzerland	Share Price	43.50	80%	Stock Filce VS SQF 500
Website	kardex.com	52 Week Range	38.32519-48.72999	60%	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.336	40%	
Exchange	SWX	Enterprise Value (\$B)	0.247	20%	
Share Type	Ordinary Shares	YTD Change	6.12%		
Functional FX	EUR	PE	8.80	0%	
Ticker	KARN	P/S	0.83	(20%) L ຖ	
SEDOL	B00ZC75	Dividend Yield	3.00%	30/	0/14/1 0/28/1/1/2/5/1/1/2/5/1/1/2/5/1/1/2/5/1/1/2/5/1/1/2/5/1/1/2/2/2/2
Industry (GICS)	Industrial Machinery			6	
Robo-Stox Subgroup	Agriculture, Logistics, &	Material Handling Automat	ion		S&P Price KARN Price

Kardex AG manufactures and sells automated storage solutions and materials handling systems worldwide. The company's Kardex Remstar segment develops, produces, and maintains shuttles, and dynamic storage and retrieval systems. Its Kardex Mlog segment offers integrated materials handling systems and automated high-bay warehouses. The company also offers software solutions. Kardex AG offers its products and services in Europe, the Middle East, Africa, the Asia/Pacific, and the Americas. The company is headquartered in Zurich, Switzerland.

### **Robotics & Automation Description:**

Kardex manufactures automated storage solutions and materials handling systems such as storage and retrieval machines, conveyor systems, turnkey systems, and material flow systems. Turnkey system solutions are suitable for moderate storage volumes, as well as hazardous materials, and can be integrated into existing buildings and warehouses. The turnkey MCompact modular pallet storage system requires approximately 40% less floor space than a conventional fork-lift-truck operation. Its conveyor offerings include continuous conveyors, monorails, and transfer units. MSpacer technology can significantly reduce the amount of unused storage space in high-bay warehouses. Power Pick Global software navigates orders through the fulfillment process, which provides for efficient product picking as well as simultaneous filling of multiple orders.

Fundamentals	2009	2010	2011	2012	2013		KARN 2013 Revenue by Geography
Sales	\$491	\$477	\$597	\$639	\$550		Asia Asia Asia 6%
YoY % Change	(25%)	4%	29%	5%	(18%)	-	
EBITDA	\$28	\$12	\$28	\$49	\$50		
YoY % Change	(31%)	(7%)	27%	20%	(5%)		
Net Income	\$1	(\$12)	\$4	\$28	\$43		
YoY % Change	(98%)	0%	0%	613%	47%		Europe,
Earnings Per Share	\$0.21	(\$2.18)	\$0.62	\$3.65	\$5.62		Middle
YoY % Change	(97%)	0%	0%	483%	47%		East and
							Africa 83%
EBITDA Margin %	6%	2%	5%	8%	9%		
Net % Margin	0%	(3%)	1%	4%	8%		
Fop 5 Comps	PE	PB	P/S EV	EBITDA D	iv Yield %		Analyst Recommendations
uxfer Holdings PLC	16.06	2.33	0.96	8.07	2.32		
nterroll Holding AG	27.20	2.50	1.43	11.68	1.61	Buy	1
lenold pic	NM	8.01	0.68	12.79	0.00	Hold 0	
ood Friend International Holdings Inc.	11.49	1.09	0.57	7.78	6.30		
Kepler Weber S.A.	14.22	3.06	1.65	8.60	1.93	Sell 0	
ardex AG	8.80	2.66	0.83	5.84	3.00	0	0.5 1 1
Valuex AG	0.00	2.00	0.03	5.04	3.00		No. of analyst recommendations





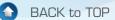
Ticker	SLOG	Currency USD	Date	9/30	D/14
Swisslog Holding AG					
Headquarters	Buchs, Switzerland	Share Price	1.40	50%	Stock Price vs S&P 500
Website	swisslog.com	52 Week Range	1.03525-1.41171	50%	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.350	25%	
Exchange	SWX	Enterprise Value (\$B)	0.332		and the second the sec
Share Type	Registered Shares	YTD Change	17.54%	0%	
Functional FX	CHF	PE	28.76	(050())	
Ticker	SLOG	P/S	0.54	(25%)	
SEDOL	7121670	Dividend Yield	0.00%		9/30/: 10/14/: 12/33/: 12/33/: 12/33/: 12/33/: 12/33/: 2/32/: 2/3
Industry (GICS)	Industrial Machinery				नननन न
Robo-Stox Subgroup	Agriculture, Logistics, & N	Material Handling Automatio	n		S&P Price SLOG Price

Swisslog Holding AG designs, develops, and delivers automation solutions for forward-thinking customers worldwide. The company operates in two segments, Healthcare Solutions, and Warehouse & Distribution Solutions. The Healthcare Solutions segment provides logistics automation solutions for the storage, movement, and processing of materials and medications within and throughout healthcare facilities. It offers pharmacy automation, nursing automation, material handling automation, process improvement, and document and cash management automation solutions. This segment also provides various services, such as consulting, design, manufacturing, installation, and training, as well as customer support services. The Warehouse & Distribution Solutions set exists and metrical handling solutions, as well as picking technologies for automated warehouses and distribution centers. It also provides consulting services, software solutions, logistic equipment, general contracting, implementation, and lifetime support services. This segment primarily serves banking, beverage, e-commerce and multichannel, food, pharma, and retail industries. The company was founded in 1900 and is headquartered in Buchs, Switzerland.

#### **Robotics & Automation Description:**

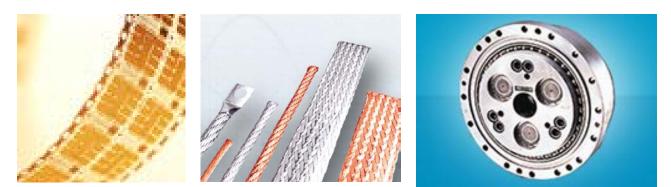
Swisslog provides a line of materials handling automated guided vehicles (AGV) and conveyor systems for factories and a mobile line of robotic transport tugs for hospital applications to complement its automated drug dispensing systems. The RoboCourier® Autonomous Mobile Robot transports lab specimens, medications, and hospital supplies enabling staff to remain focused on patient-related tasks. TransCar® AGV reliably transports supplies, medication, linens, meals, and waste streams throughout the hospital using software that optimizes vehicle usage and ensures consistent delivery. Swisslog's CarryPro AGV system for pallet transportation that combines a traditional electrical forklift truck with Swisslog's HybridBox control system, which creates a cost-efficient alternative to standard AGVs.

Fundamentals	2009	2010	2011	2012	2013		SLOG 2	013 Revenue	by Geogra	phy	
Sales	\$628	\$658	\$615	\$712	\$710	Germar	IV				
YoY % Change	(17%)	(5%)	(7%)	13%	(3%)	16%				Other	
EBITDA	\$35	\$27	\$26	\$33	\$29					Europe 33%	
YoY % Change	(19%)	1%	(8%)	15%	7%					33%	
Net Income	\$17	\$15	\$13	\$8	\$13	Asia /					
YoY % Change	58%	(23%)	(14%)	(39%)	68%	Pacific	-				
Earnings Per Share	\$0.07	\$0.06	\$0.05	\$0.03	\$0.05	18%		United			
YoY % Change	(1%)	(29%)	(6%)	(39%)	67%			States o	f	·	
								America	1		
EBITDA Margin %	6%	4%	4%	5%	4%			33%			
Net % Margin	3%	2%	2%	1%	2%						
Top 5 Comps	PE	PB	P/S EV	EBITDA D	Div Yield %		Analy	st Recomn	nendatio	ns	
Omnicell, Inc.	35.15	2.60	2.38	14.26	0.00			1	1		
Burckhardt Compression Holding AG	27.82	4.19	3.37	16.13	2.27	Buy O					
Starrag Group Holding AG	15.84	1.18	0.59	6.18	2.69	Hold				2	
Bobst Group SA	16.18	1.34	0.50	6.13	1.81	HUIU				2	
Gesco AG	13.12	1.36	0.50	6.44	3.21	Sell 0					
Swisslog Holding AG	28.76	2.21	0.54	12.76	0.00	0	0.5	1 f analyst rec	1.5	2	:





## Components, Software, Subsystem Manufacturing





Ticker	6645	Currency USD	Date	9/30/14
<b>OMRON Corporation</b>				
Headquarters	Kyoto, Japan	Share Price	45.40	Stock Price vs S&P 500
Website	omron.com	52 Week Range	30.62899-46.21695	40%
Robo-Stox Classification	Bellwether	Market Cap (\$B)	9.991	
Exchange	TSE	Enterprise Value (\$B)	9.083	20%
Share Type	Common Stock	YTD Change	7.21%	0%
Functional FX	JPY	PE	20.91	(000())
Ticker	6645	P/S	1.38	
SEDOL	6659428	Dividend Yield	1.27%	9/30/ 11/25/ 11/25/ 11/25/ 1/20/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/
Industry (GICS)	Electronic Components			
Robo-Stox Subgroup	Components/Software/Su	bsystem Manufacturing		S&P Price 6645 Price

OMRON Corporation manufactures and sells automation components, equipment, and systems worldwide. Its Industrial Automation Business segment offers programmable and motion controllers, sensing and safety devices, inspection systems, precision laser processing equipment, and control devices for factory automation and industrial equipment. The company's Electronic and Mechanical Components Business segment provides relays, switches, connectors, amusement components and units, and sensors for consumers; components for mobile equipment; face recognition software; built-in components for commercial and customer devices, automotive devices, environmental and energy devices, and industrial equipment; and built-in components for mobile devices. Its Automotive Electronic Components Business segment offers electric power steering controllers, passive entry and push engine start systems, keyless entry systems and other wireless devices, multi-function controllers, power window switches, and automotive switches for automobiles and automotive electronic components manufacturers. The company's Social Systems Solution and Service Business segment provides railway station service systems, traffic and road management systems, card payment services, security and safety solutions, environment solutions, and related maintenance services. Its Healthcare Business segment offers blood pressure monitors, digital thermometers, body composition and visceral fat monitors, pedometers, electric toothbrushes, blood glucose and biometric monitors, nebulizers, ECGs, and vascular screening devices. The company's Other segment provides solar power conditioner equipment, known as OMRON Tateisi Electronics Co. and changed its name to OMRON Corporation in January 1990. OMRON Corporation was founded in 1933 and is headquartered in Kyoto, Japan.

#### **Robotics & Automation Description:**

Omron's industrial automation segment manufactures sensors, switches, relays, and control components for use in factory automation and robot work cells. It's sensing products include proximity, displacement, measurement, photoelectric, and fiber that detect changes in production sites and help predict and/or prevent future events. Its switches are designed to kick into action once an object reaches a specific location or portion of assembly. Its control components operate via cam positioners, timers, temperature controllers, and other various input/output devices. Additionally, Omron now combines its control and sensing technologies with its expertise in labor safety to create enhanced safety with improved productivity and efficiency. From 2008-12 the automation segment represented approximately 40% of Omron's total revenue and the vast majority of its operating income.

Fundamentals	2010	2011	2012	2013	2014		6645 2013 Reven	ue by Geography	
Sales	\$5,614	\$7,456	\$7,517	\$6,905	\$7,508	Americ			
YoY % Change	(16%)	18%	0%	5%	19%	13%	5		
EBITDA	\$429	\$824	\$734	\$714	\$905				
YoY % Change	(16%)	26%	(2%)	6%	23%	Europe_			
Net Income	\$38	\$323	\$199	\$321	\$449	14%			
YoY % Change	0%	661%	(39%)	84%	53%		0.1	Japan	
Earnings Per Share	\$0.17	\$1.47	\$0.90	\$1.46	\$2.04		Sphere of Middle	55%	
YoY % Change	0%	661%	(39%)	84%	53%		Flores		
							18%		
EBITDA Margin %	8%	11%	10%	10%	12%				
Net % Margin	1%	4%	3%	5%	6%				
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	)iv Yield %		Analyst Recom	mendations	
Yaskawa Electric Corp.	21.80	2.72	1.01	11.39	0.94	1	1	I.	
Shimadzu Corporation	34.29	1.54	0.92	8.54	1.05	Buy		10	
Kyocera Corp.	21.91	0.97	1.29	7.44	1.57	Hold	3		
TDK Corp.	32.38	1.25	0.78	6.57	1.31	noiu	3		
SMC Corp.	23.64	2.58	4.98	14.10	0.60	Sell 0			
OMBON Correction	20.01	2 50	1.00	0.54	1 07	0	5	10	
OMRON Corporation	20.91	2.50	1.38	9.54	1.27		No. of analyst r	ecommendations	





Ticker	2308	Currency USD	Date	9/30/1	4
Delta Electronics Inc					
Headquarters	Taipei, Taiwan	Share Price	6.31	80%	Stock Price vs S&P 500
Website	delta.com.tw	52 Week Range	4.62004-7.39864	60%	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	15.38	40%	Anna
Exchange	TSEC	Enterprise Value (\$B)	14.24	20%	how when he have h
Share Type	Common Stock	YTD Change	12.94%	0%	1 martin and marting
Functional FX	TWD	PE	24.71	-	
Ticker	2308	P/S	2.52	(20%) 🖵	
SEDOL	6260734	Dividend Yield	3.02%	/30/	100/14/ 10/28/ 11/2/51/ 12/9/ 1/20/ 2/3/ 3/31/ 2/3/ 2/3/ 3/31/ 2/3/ 2/17/ 2/3/ 2/17/ 2/3/ 2/17/ 2/3/ 2/17/ 2/3/ 2/17/ 2/3/ 2/17/ 2/3/ 2/17/ 2/3/ 2/17/ 2/3/ 2/17/ 2/3/ 2/3/ 2/17/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/
Industry (GICS)	Electronic Components			ത്ര	
Robo-Stox Subgroup	Components/Software/Su	bsystem Manufacturing			S&P Price 2308 Price

Delta Electronics, Inc. is engaged in the research and development, design, manufacture, and sale of electronic control systems, industrial automation, digital display, communication, and consumer electronic products. Its Power Electronics segment offers server, Netcom, workstation, desktop, notebook, LED, display, gaming, industrial, electrical equipment controllers, LCD, and medical power supplies; electronic lighting ballasts; EMI filters; precision motors; fans and fans modules; blowers; mini wind energy shell parts; heat exchangers; optical transceiver, cooling, Bluetooth, and touch panel modules; and RF/wireless, magnetic, networking components, etc. The company's Energy Management geometry moltage drives, electric vehicle charging stations, programmable logic controllers, AC motor drives, AC servo motors and drives, brushless DC motors and drives, human machine interfaces, temperature controllers, encoders, machine vision system, computed numerically controllers, etc. Its Smart Green Life segment offers professional digital signage displays; digital display walls; video system integrated solutions; rent service for projection; professional LED lamps; LED indoor lighting application; green energy integration design and architecture; development automatic speech outbound; interactive voice response; voice keyword spotting solution; and speech analysis automation, as well as voice biometrics with language technology, etc. The company was founded in 1971 and is headquartered in Taipei, Taiwan.

#### **Robotics & Automation Description:**

Delta Electronics develops and manufactures industrial robot components and control systems used in automated assembly lines. Delta's industrial automation solutions are machine, process, and factory automation based. Its factory automated solutions include powerful AC motor drives, AC servo drives, programmable logic controllers, human machine interfaces, machine vision systems, and temperature controllers. Its machine automated solutions improve precision and quality in the areas of packaging, machine tools, textiles, elevators, as well as electronics. Its process automation solutions focus on distribution control and system stability and are most frequently used in water treatment facilities. Delta also has building automation solutions with a focus on energy management.

Fundamentals	2009	2010	2011	2012	2013			Revenue by Ge	•••	
Sales	\$3,879	\$5,875	\$5,364	\$5,908	\$5,926		United States	_Taiw 1%		
YoY % Change	(13%)	38%	(5%)	6%	3%		15%			
EBITDA	\$536	\$777	\$650	\$849	\$932					
YoY % Change	4%	37%	(5%)	22%	7%					
Net Income	\$364	\$540	\$363	\$508	\$595					
YoY % Change	14%	35%	(30%)	35%	20%		Other			
Earnings Per Share	\$0.16	\$0.23	\$0.15	\$0.21	\$0.25		28%		China	
YoY % Change	27%	15%	(17%)	32%	0%				56%	
ior /o onungo	2.7,0	10,0	(1170)	02,0	0,0					
EBITDA Margin %	14%	13%	12%	14%	16%					
Net % Margin	9%	9%	7%	9%	10%					
-										
Top 5 Comps	PE	PB	P/S EV	/EBITDA C	Div Yield %		Analyst R	ecommenda	tions	
Lite-On Technology Corp.	12.15	1.45	0.45	5.51	6.15	1	1	1	1	
Simplo Technology Co., Ltd.	13.53	2.51	0.79	6.84	4.61	Buy				17
OMRON Corporation	20.91	2.50	1.38	9.54	1.27	Hold				
Innolux Corporation	47.34	0.61	0.30	3.18	1.14	нош	4			
AU Optronics Corp.	17.10	0.74	0.30	3.29	0.08	Sell 0				
to optionito oup.	17.10	5.74	0.00	0.25	0.00					
Delta Electronics Inc.	24.71	5.30	2.52	14.21	3.02	0	5	10	15	20
	24.71	3.30	2.52	14.21	3.02		No. of an	alyst recomme	endations	





IICKEI C	6324	Currency USD	Date	9/30	)/14
Harmonic Drive System	ms Inc.				
Headquarters T	Tokyo, Japan	Share Price	14.79	150%	Stock Price vs S&P 500
Website <u>h</u>	nds.co.jp	52 Week Range	5.86448-15.49681		
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	1.354	100%	A. Mun
Exchange J	JASDAQ	Enterprise Value (\$B)	1.285	50%	man
Share Type C	Common Stock	YTD Change	102.75%	0%	- marking the second se
Functional FX J	JPY	PE	44.38	(5000)	
Ticker 6	5324	P/S	6.67	(50%)	
SEDOL 6	5108179	Dividend Yield	0.60%	000	9/930/7 10/24/7 11/1/12/21/2 2/2/12/9/2 2/2/12/2 3/3/12 2/3/17 3/3/12 2/2/17/12 2/2/12 2/2/17/12 2/2/2/2/2 2/2/2/2/2 2/2/2/2/2 2/2/2/2/2 2/2/2/2/2 2/2/2/2/2 2/2/2/2/2/2/2 2/
Industry (GICS)	ndustrial Machinery			c	
Robo-Stox Subgroup C	Components/Software/Sub	osystem Manufacturing			S&P Price 6324 Price

Harmonic Drive Systems Inc. manufactures and sells mechatronics products and speed reducers. It provides HarmonicDrive that is used for precise motion control; AccuDrive and HarmonicPlanetary planetary gear speed reducers; DirectDrive motors, which are used in semiconductor manufacturing systems, flat panel display manufacturing systems, and optical machines, as well as measurement analytical and test systems; rotary actuators, including AC and DC servo actuators; and linear actuators that are used in inspection/measuring instrument, optical equipment, semiconductor and LCD manufacturing systems. The company also offers AC Servo Driver for open field network; Harmonicsyn micro encoders; and BEAM SERVO optical galvano scanner, which provides scanning, random access, and other optimal scanning operations. In addition, it produces cross roller bearings; provides logistic services; develops, produces, and sells cast-iron products; and sells and technical services mechatronics products and reduction gears. Harmonic Drive Systems Inc. was founded in 1970 and is headquartered in Tokyo, Japan.

#### **Robotics & Automation Description:**

Harmonic manufactures speed reducers used in industrial robots, service robots, semiconductor manufacturing equipment, and other precision instruments. HarmonicDrive® is a speed reducer developed to take advantage of elasticity in metal and is composed of just 3 components: a wave generator, a flexspline, and a circular spline. It has reduction ratios between 1/30 and 1/320 and can provide the same amount of torque as comparable speed reducers, despite being half as big. Harmonic is also a component and sensor maker. Many of its sensors, rotary actuators, drives are used in humanoid, service, and industrial robots with articulated or rotary joints, where Harmonic's various bearings fit onto servo drives used in those robots. Sales of robotics based application products have historically represented roughly 1/3 of the firms' total revenue.

Fundamentals	2010	2011	2012	2013	2014		6324 2013 Revenue by Geography	
Sales	\$129	\$266	\$245	\$192	\$205	Oth	Europe	
YoY % Change	(25%)	82%	(8%)	(10%)	16%	10		
EBITDA	\$19	\$77	\$63	\$48	\$57	10	~	
YoY % Change	(30%)	119%	(16%)	(11%)	24%	N		
Net Income	\$5	\$36	\$26	\$21	\$29	North America		
YoY % Change	(67%)	492%	(28%)	(8%)	53%	15%		
Earnings Per Share	\$0.06	\$0.39	\$0.28	\$0.23	\$0.32			
YoY % Change	(67%)	492%	(28%)	(8%)	53%		Japan	
							67%	
EBITDA Margin %	15%	29%	26%	25%	28%			
Net % Margin	4%	13%	11%	11%	14%			
Top 5 Comps	PE	PB	P/S EV	EBITDA E	Div Yield %		Analyst Recommendations	
Tsugami Corporation	74.70	1.37	1.17	12.20	1.96	1		
Yaskawa Electric Corp.	21.80	2.72	1.01	11.39	0.94	Buy	2	
Nabtesco Corporation	20.28	2.51	1.59	9.11	1.52	Hold	3	
Nittoku Engineering Co., Ltd.	41.60	1.30	1.64	15.52	2.19	noiu	3	
Komatsu Ltd.	15.14	1.76	1.23	8.60	2.29	Sell 0		
Harmonic Drive Systems Inc.	44.38	4.99	6.67	21.70	0.60	0	1 2 3	4
narmonic Drive Systems inc.	44.30	4.33	0.07	21.70	0.00		No. of analyst recommendations	





Ticker	HOLI	Currency USD	Date	9/30/14
HollySys Automation	Technologies, Ltd.			
Headquarters	Beijing, China	Share Price	22.49	Stock Price vs S&P 500
Website	hollysys.com	52 Week Range	14.56-25.066	75%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	1.294	
Exchange	NasdaqGS	Enterprise Value (\$B)	1.135	25%
Share Type	Common Stock	YTD Change	18.81%	0%
Functional FX	USD	PE	18.90	
Ticker	HOLI	P/S	2.50	(25%) L (25%) C (25\%)
SEDOL	B0JCH50	Dividend Yield	1.78%	9,30/, 10,28/,28/,28/,28/,28/,28/,28/,28/,28/,28/
Industry (GICS)	Electronic Equipment and	Instruments		
Robo-Stox Subgroup	Components/Software/Su	bsystem Manufacturing		S&P Price HOLI Price

Hollysys Automation Technologies Ltd. provides automation and control technologies and products to customers in industrial, railway, subway, nuclear power, building retrofit, and mechanical and electronic industries primarily in the People's Republic China, Hong Kong, Southeast Asia, and the Middle East. The company offers industrial automation solutions, including third-party hardware-centric products; proprietary software-centric distributed control systems/programmable logic controllers; and valued-added software packages, such as real-time management information system, HolliAS asset management system, operator training system, HolliAS BATCH application package, HolliAS advanced process control package, and safety instrumentation system. It also provides train control center (TCC) that monitors route condition, track status, train schedules, distance between trains, and the working status of other function devices; and automation train protection, which acts as the train over-speed protection mechanism that collects real-time information. In addition, the company offers HOLLIAS-NMS proprietary control systems for non-safety operation control in nuclear power industry; surveillance control and data acquisition system, an open software platform that enables the integrated and unified monitoring of sub-systems of the subway; and subway supervisory and control platforms. Further, it is involved in the manufacture and sale of medical automation equipment; research and development activities; and provision of integrated automation products, integrated construction and installation services, mechanical and electrical solutions, and installation services. The company was formerly known as HLS Systems International Ltd. and changed its name to Hollysys Automation Technologies Ltd. in July 2009. Hollysys Automation Technologies Ltd. was founded in 1993 and is headquartered in Beijing, the People's Republic China.

#### **Robotics & Automation Description:**

HollySys Automation Technologies' industrial automation segment is broken down into the process automation business and the factory automation business. The process automation business primarily services the clean energy sector, in particular power plants, turbine systems, and more recently, alternative energy solutions. Its product offering includes Distributed Control Systems (DCS) such as the HOLLIAS DCS platform and Programmable Logic Controllers (PLC). Its factory automation business primarily produces PLC for both small and large scale operations and are best suited for sequencing, process, transmission, and motion control. Its transport automation business focuses mainly on railway automation for both high speed trains and subways. The high-speed rail signaling system has 2 main products, an on-board Automatic Train Protection (ATP) and a ground-based Train Control Center (TCC), which work in conjunction to provide real-time data to the train so it knows exactly what is expected in terms of speed, slope, or turn before it enters the next radio block. The process and factory automation businesses account for roughly 60% of HollySys revenues and the transportation automation business accounts for roughly 30%.

2010	2011	2012	2013	2014		HOLI 2014	Revenue by Geo	grapny	
\$174	\$263	\$322	\$349	\$521					
11%	51%	22%	9%	49%	Hong				
\$36	\$49	\$73	\$67	\$111	Kong)				
10%	51%	39%	(2%)	42%	25%				
\$26	\$41	\$56	\$52	\$70					
0%	61%	36%	(8%)	34%					
\$0.50	\$0.76	\$1.01	\$0.93	\$1.20					People's
0%	50%	35%	(9%)	29%					Republic of
21%	19%	23%	19%	21%					China (PRC)
15%	16%	17%	15%	13%					75%
PE	PB	P/S EV	/EBITDA	Div Yield %		Analyst	Recommenda	itions	
29.47	5.59	1.33	35.11	1.04	1	1	1	1	
14.37	2.99	2.42	10.50	1.48	Buy				7
13.86	0.84	0.34	8.44	1.44					
20.36	0.91	1.15	15.13	3.07	U				
7.90	0.80	0.31	8.44	2.15	Sell 0				
18.90	2.65	2.50	10.50	1.78	0	2	4	6	8
	\$174 11% \$36 10% \$26 0% \$0.50 0% 21% 15% PE 29.47 14.37 13.86 20.36 7.90	\$174         \$263           11%         51%           \$36         \$49           10%         51%           \$26         \$41           0%         61%           \$0.50         \$0.76           0%         50%           21%         19%           15%         16%           PE         PB           29.47         5.59           14.37         2.99           13.86         0.84           20.36         0.91           7.90         0.80	\$174         \$263         \$322           11%         51%         22%           \$36         \$49         \$73           10%         51%         39%           \$26         \$41         \$56           0%         61%         36%           \$0.50         \$0.76         \$1.01           0%         50%         35%           21%         19%         23%           15%         16%         17%           PE         PB           P/S EV         29.47         5.59           13.86         0.84         0.34           20.36         0.91         1.15           7.90         0.80         0.31	\$174         \$263         \$322         \$349           11%         51%         22%         9%           \$36         \$49         \$73         \$67           10%         51%         39%         (2%)           \$26         \$41         \$56         \$52           0%         61%         36%         (8%)           \$0.50         \$0.76         \$1.01         \$0.93           0%         50%         35%         (9%)           21%         19%         23%         19%           15%         16%         17%         15%           PE         PB         P/S EV/EBITDA           29.47         5.59         1.33         35.11           14.37         2.99         2.42         10.50           13.86         0.84         0.34         8.44           20.36         0.91         1.15         15.13           7.90         0.80         0.31         8.44	\$174         \$263         \$322         \$349         \$521           11%         51%         22%         9%         49%           \$36         \$49         \$73         \$67         \$111           10%         51%         39%         (2%)         42%           \$26         \$41         \$56         \$52         \$70           0%         61%         36%         (8%)         34%           \$0.50         \$0.76         \$1.01         \$0.93         \$1.20           0%         50%         35%         (9%)         29%           21%         19%         23%         19%         21%           15%         16%         17%         15%         13%           PE         PB         P/S EV/EBITDA Div Yield %           29.47         5.59         1.33         35.11         1.04           14.37         2.99         2.42         10.50         1.48           13.86         0.84         0.34         8.44         1.44           20.36         0.91         1.15         15.13         3.07           7.90         0.80         0.31         8.44         2.15	\$174       \$263       \$322       \$349       \$521       Non-PRC         11%       51%       22%       9%       49%         \$36       \$49       \$73       \$67       \$111         10%       51%       39%       (2%)       42%         \$26       \$41       \$56       \$52       \$70         0%       61%       36%       (8%)       34%         \$0.50       \$0.76       \$1.01       \$0.93       \$1.20         0%       50%       35%       (9%)       29%         21%       19%       23%       19%       21%         15%       16%       17%       15%       13%         PE       PB       P/S EV/EBITDA Div Yield %         29.47       5.59       1.33       35.11       1.04         14.37       2.99       2.42       10.50       1.48         13.86       0.84       0.34       8.44       1.44         20.36       0.91       1.15       15.13       3.07         7.90       0.80       0.31       8.44       2.15       Sett	2010         2011         2012         2013         2014           \$174         \$263         \$322         \$349         \$521           11%         51%         22%         9%         49%           \$36         \$49         \$73         \$67         \$111           10%         51%         39%         (2%)         42%           \$26         \$441         \$56         \$52         \$70           0%         61%         36%         (8%)         34%           \$0.50         \$0.76         \$1.01         \$0.93         \$1.20           0%         50%         35%         (9%)         29%         21%           15%         16%         17%         15%         13%         Analyst           29.47         5.59         1.33         35.11         1.04         Buy           13.86         0.84         0.34         8.44         1.44         Hold         0         0           20.36         0.91         1.15         15.13         3.07         7.90         0.80         0.31         8.44         2.15         Sell         0         0	2010         2011         2012         2013         2014           \$174         \$263         \$322         \$349         \$521           11%         51%         22%         9%         49%           \$36         \$449         \$73         \$67         \$111           10%         51%         39%         (2%)         42%           \$26         \$441         \$56         \$52         \$70           0%         61%         36%         (8%)         34%           \$0.50         \$0.76         \$1.01         \$0.93         \$1.20           0%         50%         35%         (9%)         29%           21%         19%         23%         19%         21%           15%         16%         17%         15%         13%           PE         PB         P/S EV/EBITDA Div Yield %         Analyst Recommenda           29.47         5.59         1.33         35.11         1.04           14.37         2.99         2.42         10.50         1.48           13.86         0.84         0.34         8.44         1.44           20.36         0.91         1.15         15.13         3.07	2010         2011         2012         2013         2014           \$174         \$263         \$322         \$349         \$521           11%         51%         22%         9%         49%           \$36         \$49         \$73         \$67         \$111           10%         51%         39%         (2%)         42%           \$26         \$41         \$56         \$52         \$70           0%         61%         36%         (8%)         34%           \$0.50         \$0.76         \$1.01         \$0.93         \$1.20           0%         50%         35%         (9%)         29%           21%         19%         23%         19%         21%           15%         16%         17%         15%         13%           PE         PB         P/S EV/EBITDA Div Yield %         Analyst Recommendations           29.47         5.59         1.33         35.11         1.04           14.37         2.99         2.42         10.50         1.48         Buy           13.86         0.84         0.34         8.44         1.44         4odd           20.36         0.91         1.15





Ticker	IPGP	Currency USD	Date	9/30/14
IPG Photonics Corpo	oration			
Headquarters	Oxford, MA	Share Price	68.78	Stock Price vs S&P 500
Website	IPGphotonics.com	52 Week Range	56.44-79	40%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	3.585	30%
Exchange	NasdaqGS	Enterprise Value (\$B)	3.116	20%
Share Type	Common Stock	YTD Change	(11.38%)	10%
Functional FX	USD	PE	21.62	0%
Ticker	IPGP	P/S	5.09	
SEDOL	2698782	Dividend Yield	0.00%	9/30/13 9/30/13 10/28/13 11/25/13 11/25/13 12/25/13 12/25/13 12/27/14 2/17/14 2/17/14 2/17/14 2/17/14 2/17/14 2/17/14 6/27/14 6/27/14 6/27/14 6/27/14 6/27/14 6/27/14 6/27/14 6/27/14 9/17/14 9/17/14 9/17/14
Industry (GICS)	Electronic Manufactur	ing Services		
Robo-Stox Subgroup	Components/Software,	/Subsystem Manufacturing		S&P Price IPGP Price

IPG Photonics Corporation develops and manufactures fiber lasers, fiber amplifiers, and diode lasers that are used in various applications, primarily in materials processing. Its laser products include low, medium, and high output power lasers; fiber pigtailed packaged diodes and fiber coupled direct diode laser systems; high-energy pulsed lasers, multi-wavelength and tunable lasers, and single-polarization and single-frequency lasers; laser diode chips and packaged laser diodes; and high power optical fiber delivery cables, fiber couplers, beam switches, chillers, scanners, and other accessories. The company also offers erbium-doped fiber and Raman amplifiers, and integrated communications systems, which are deployed in broadband networks, such as fiber to the to the, passive optical networks, and dense wavelength division multiplexing networks; ytterbium and thulium specialty fiber amplifiers and broadband light sources; and single-frequency, linearly polarized, and polarization-maintaining versions of its amplifier products. In addition, it provides integrated laser systems for material processing applications; and welding seam stepper and picker, a fiber laser welding tool for use in automotive assembly, appliances, rail cars, and other sheet metal fabrication. Its lasers and amplifiers are also used in manufacturing commercial systems; and the research of advanced technologies and products by commercial firms, and academic and government institutions. The company markets its products to original equipment manufacturers, system integrators, and end users through direct sales force, as well as through agreements with independent sales representatives and distributors worldwide. IPG Photonics Corporation was founded in 1990 and is headquartered in Oxford, Massachusetts.

#### **Robotics & Automation Description:**

IPG Photonics specializes in the production of lasers used in a variety of applications spanning the materials processing market. These applications include, cutting, welding, marking, engraving, micro-processing, fine processing, surface treatment, drilling, soldering, annealing, hardening, additive manufacturing and laser assisted machining. The lasers are integrated into multi-axis cutting systems, robots, and scanners that can be programmed to process many types of materials including but not limited to steel, aluminum, brass, copper, glass, ceramic, and plastics. The lasers' low cost, flexibility of use, and high speed are increasing its adoption in processes such as 3-dimensional welding in which the beam is positioned by a robot-quided scanner.

IPG Photonics Corporation	21.62	3.50	5.09	11.47	0.00	0	-	alyst recomme	-	
Han's Laser Technology Co., Ltd.	33.92	5.60	4.50	36.72	1.02	Sell 0	2	4	6	
II-VI Incorporated	19.62	1.07	1.07	7.35	0.00					
Rofin-Sinar Technologies Inc.	28.45	1.17	1.22	10.28		Hold	2			
Newport Corp.	26.42	2.02	1.18	8.76	0.00	Buy				7
Coherent Inc.	25.30	1.87	1.88	10.71	0.00					_
Top 5 Comps	PE	PB	P/S EV/	EBITDA Di	v Yield %		Analyst R	ecommendat	ions	
Net % Margin	3%	18%	25%	26%	24%					
BITDA Margin %	16%	34%	41%	42%	39%					
'oY % Change	(85%)	849%	113%	17%	6%			Europe 27%		
arnings Per Share	\$0.12	\$1.16	\$2.49	\$2.87	\$3.02	20/0		_		
oY % Change	(85%)	896%	118%	23%	7%	America 23%				
let Income	\$5	\$54	\$118	\$145	\$156	North	_			
/oY % Change	(40%)	128%	76%	18%	12%				37%	
BITDA	\$29	\$101	\$197	\$236	\$252				_China	
/oY % Change	(19%)	61%	59%	19%	15%	13	1%			
Sales	\$186	\$299	\$474	\$563	\$648	Jap				
Fundamentals	2009	2010	2011	2012	2013		IPGP 2013 F	Revenue by Geog	rapny	





Ticker	179	Currency USD	Date	9/30/14	4
Johnson Electric Ho	ldings Ltd.				
Headquarters	Shatin, Hong Kong	Share Price	3.81	80%	Stock Price vs S&P 500
Website	johnsonelectric.com	52 Week Range	2.79191-4.1106	60%	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	3.353	40%	
Exchange	SEHK	Enterprise Value (\$B)	2.864	20%	month and and a
Share Type	Ordinary Shares	YTD Change	(1.33%)	0%	Amountain
Functional FX	USD	PE	16.42	-	
Ticker	179	P/S	1.62	(20%) └─ ឮ ឮ	
SEDOL	6281939	Dividend Yield	1.54%	/30/	10/228/ 11/12/228/ 12/26/ 12/26/ 12/27/ 12/20/ 2/33/ 3/31/ 2/33/ 3/31/ 2/33/ 3/31/ 2/33/ 3/32/ 2/33/ 2/35/ 5/12/ 5/12/ 7/7/ 7/7/ 7/7/ 7/7/ 7/2/ 7/2/ 2/26/ 8/4/ 8/4/ 8/4/ 8/4/ 8/4/ 8/4/ 8/4/ 8/
Industry (GICS)	Electrical Components	and Equipment		0, 0 10, 0	
Robo-Stox Subgroup	Components/Software/	Subsystem Manufacturing			S&P Price 179 Price

Johnson Electric Holdings Limited, an investment holding company, provides motion products, control systems, and flexible interconnects in Europe, the People's Republic of China, North America, Asia, South America, and internationally. It provides motion products, including DC, brushless, AC, stepper, automotive, gear, and piezo motors; automotive actuators, drives, and pumps; haptic motion products; cooling fans; piezo subsystems; piezo stages; solenoids; starters; gear boxes; blowers; pumps; and valves. The company also offers switches and relays comprising automotive switches and subsystems, micro switches, manually operated switches, panel mounted switches, and smart meter relays, as well as energy saving automatic shut off switches. In addition, it provides flex circuits, such as security circuits, electromagnetic interference shielded flexible circuits, flexible printed circuits, flexible circuits – printed electronics, flat flexible cables, and automotive subsystems; and micro electronics. In addition, the company is involved in the property holding activities. It serves a range of industries, including automotive, building automation and security, business machines, defense and aerospace, food and beverage, home technologies, HVAC; industrial equipment, medical devices, personal care, power equipment, and power tools. The company was founded in 1959 and is headquartered in Shatin, Hong Kong.

#### **Robotics & Automation Description:**

Johnson Electric Holdings manufactures a wide range of robotics components for robots used in healthcare, home care, and manufacturing. For example, a sealed power switch is used in robotic lawnmowers that can perform in all weather conditions (even while submerged in water). Custom Traction Gearmotors are used to reduce noise output from robotic lawnmowers. Using ceramic motors and non-magnetic actuators from Johnson Medtech's Nanomotion, the neuroArm allows surgeons to conduct microsurgical operations in the brain while the patient is in an MRI. Johnson also provides custom motion and flexible interconnect solutions for semiconductor automation where high speed robotic processing is required for wafer handling.

Fundamentals	2010	2011	2012	2013	2014	179 2014 Revenue by Geography	
Sales	\$1,741	\$2,104	\$2,141	\$2,060	\$2,098	Germany	
YoY % Change	(5%)	21%	2%	(4%)	2%	14% (Excluding	
EBITDA	\$235	\$301	\$302	\$274	\$316	Germany	
YoY % Change	13%	20%	1%	(1%)	7%	33%	
Net Income	\$77	\$182	\$187	\$191	\$208	North_	
YoY % Change	2871%	136%	3%	2%	9%	America	
Earnings Per Share	\$0.08	\$0.20	\$0.21	\$0.21	\$0.23	23% Hong Kong	
YoY % Change	128%	136%	4%	3%	9%	/ People's Republic of	
						China	
EBITDA Margin %	13%	14%	14%	13%	15%	30%	
Net % Margin	4%	9%	9%	9%	10%		
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %	Analyst Recommendations	
TECO Electric & Machinery Co. Ltd.	14.38	1.36	1.08	9.10	3.52		
Crompton Greaves Limited	51.09	3.46	0.92	22.42	0.60	Buy 1	
Techtronic Industries Company Limited	19.80	2.92	1.18	15.37	1.06	Hold 2	
Welling Holding Limited	6.85	1.32	0.56	3.38	4.67	10iu 2	
Regal Beloit Corporation	24.49	1.35	0.92	7.48	1.37	Sell 2	
	2		0.02				
Johnson Electric Holdings Ltd.	16.42	1.96	1.62	9.06	1.54	0 0.5 1 1.5 2	2
composite transfer that				5100		No. of analyst recommendations	





Ticke	DB:LEO	Currency USD	Date	9/30	/14
LEONI AG					
Headquarters	Nuremberg, Germany	Share Price	54.55	100%	Stock Price vs S&P 500
Website	leoni.com	52 Week Range	52.24964-77.11239	80%	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	1.781	60%	
Exchange	DB	Enterprise Value (\$B)	2.249	40%	
Share Type	Registered Shares	YTD Change	(20.51%)	20%	and the second s
Functional FX	EUR	PE	11.68	0%	
Ticker	LEO	P/S	0.35	(20%)	$ \begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\$
SEDOL	5773255	Dividend Yield	2.31%	Č	9/39/ 9/39/ 0.024 1/11/ 1/25/ 1/20/ 2/31/ 2/32/ 2/31/ 2/33/ 2/32/ 5/12/ 6/23/ 6/23/ 6/23/ 6/23/ 9/12/ 9/12/ 9/29/ 9/20/ 9/20/ 9/20/ 1/20/ 2/20/20/ 2/20/20/ 2/2/20/ 2/2/
Industry (GICS)	Auto Parts and Equipmer	it		c	
Robo-Stox Subgroup	Components/Software/S	ubsystem Manufacturing			S&P Price LEO Price

LEONI AG provides wires, optical fibers, cables, and cable systems; and related development services for applications in the automotive business and other industries worldwide. It operates in two segments, Wire & Cable Solutions, and Wiring Systems. The Wire & Cable Solutions segment develops, manufactures, and sells wires, strands, and tapes; optical fibers for cable production; electrical and electromechanical components; Lyonese wares for textiles; and cables, conductors, and cable systems for the automotive and electrical appliance industries, data and communications technology, professional multimedia segment, health care sector, automation and process technology, machinery and plant engineering, industrial plants, solar industry, and infrastructure projects. This segment also produces fiber optic cables based on glass and polymer fiber; and offers services in the field of irradiation cross linking. The Wiring Systems segment develops, produces, and sells wiring systems and ready-to-install cable harnesses for passenger cars and commercial vehicles; and manufactures pre-formed cable harnesses, plastic moulded components, and electronic wiring system components, as well as ready-to-connect single cables with matching connectors and fixings. The company was formerly known as Leonische Drahtwerke AG and changed its name to LEONI AG in 1999. LEONI AG was founded in 1917 and is based in Nuremberg, Germany.

#### **Robotics & Automation Description:**

Leoni produces integrated wiring and vision systems used in robotics, mainly fiber optic cables. For industrial robotics, it provides dresspacks with pneumatic, hydraulic, and electrical components, as well as sensor technology and vision solutions, such as tool calibration and seam tracking. Leoni also produces calibration tools for welding robots to detect and correct for the slightest variations of a production process. Leoni Vision Solutions is regularly used for robot guidance and difficult machine vision inspection, assembly, and verification applications. Additionally, it is leveraging its robotics programming to branch into medical technology with the launch of "Orion" in 2014 for high precision patient positioning and treatment.

Sales YoY % Change EBITDA YoY % Change Net Income YoY % Change Earnings Per Share YoY % Change EBITDA Margin % Net % Margin Top 5 Comps ElringKlinger AG	\$3,096 (26%) \$25 (36%) (\$198) 0% (\$7.22) 0% 1% (6%)	\$3,963 37% \$329 82% \$90 0% \$3.03 0% 8% 2%	\$4,809 25% \$467 31% \$202 132% \$6.49 121% 10% 4%	\$5,022 3% \$428 (1%) \$207 1% \$6.32 (4%) 9%	\$5,395 3% \$417 0% \$145 (33%) \$4.45 (33%) 8%	America 14% BRIC (Incl. South Korea) 18%	Germany 29%	Europe Excl. Germany 39%
EBITDA YoY % Change Net Income YoY % Change Earnings Per Share YoY % Change EBITDA Margin % Net % Margin Top 5 Comps ElringKlinger AG	\$25 (36%) (\$198) 0% (\$7.22) 0%	\$329 82% \$90 0% \$3.03 0% 8%	\$467 31% \$202 132% \$6.49 121% 10%	\$428 (1%) \$207 1% \$6.32 (4%) 9%	\$417 0% \$145 (33%) \$4.45 (33%) 8%	BRIC (Incl. South Korea)		Excl. Germany
EBITDA YoY % Change Net Income YoY % Change Earnings Per Share YoY % Change EBITDA Margin % Net % Margin Top 5 Comps ElringKlinger AG	(36%) (\$198) 0% (\$7.22) 0% 1%	82% \$90 0% \$3.03 0% 8%	31% \$202 132% \$6.49 121% 10%	(1%) \$207 1% \$6.32 (4%) 9%	0% \$145 (33%) \$4.45 (33%) 8%	South Korea)		Excl. Germany
Net Income YoY % Change Earnings Per Share YoY % Change EBITDA Margin % Net % Margin Top 5 Comps ElringKlinger AG	(\$198) 0% (\$7.22) 0% 1%	\$90 0% \$3.03 0% 8%	\$202 132% \$6.49 121% 10%	\$207 1% \$6.32 (4%) 9%	\$145 (33%) \$4.45 (33%) 8%	South Korea)		Germany
YoY % Change Earnings Per Share YoY % Change EBITDA Margin % Net % Margin Top 5 Comps ElringKlinger AG	0% (\$7.22) 0%	0% \$3.03 0% 8%	132% \$6.49 121% 10%	1% \$6.32 (4%) 9%	(33%) \$4.45 (33%) 8%	Korea)		39%
Earnings Per Share YoY % Change EBITDA Margin % Net % Margin Top 5 Comps ElringKlinger AG	(\$7.22) 0%	\$3.03 0% 8%	\$6.49 121% 10%	\$6.32 (4%) 9%	\$4.45 (33%) 8%			
YoY % Change EBITDA Margin % Net % Margin Top 5 Comps ElringKlinger AG	0% 1%	0%	121% 10%	(4%) 9%	(33%) 8%	10,0		
EBITDA Margin % Net % Margin Top 5 Comps ElringKlinger AG	1%	8%	10%	9%	8%			
Net % Margin Top 5 Comps ElringKlinger AG							29%	
Net % Margin Fop 5 Comps ElringKlinger AG								
Top 5 Comps ElringKlinger AG	(6%)	2%	/ 0/_					
ElringKlinger AG		_/*	4 /0	4%	3%			
ElringKlinger AG	PE	PB	P/S EV	//EBITDA Di	v Yield %	Ar	nalyst Recomme	ndations
	13.22	2.10	1.18	8.27	2.14	1	I	1
Continental AG	14.41	3.08	0.89	6.78	1.66	Buy		12
Grammer AG	10.98	1.52	0.27	5.41	2.11	Hold		
Saf-Holland SA	15.40	1.94	0.49	8.30	2.75		5	
			0110	5.00	200	Sell	3	
LEONI AG	11.68	1.66	0.35	5.62	2.31	0	5	10





Ticker	6268	Currency USD	Date	9/30	D/14
Nabtesco Corporatio	n				
Headquarters	Tokyo, Japan	Share Price	23.97	40%	Stock Price vs S&P 500
Website	nabtesco.com	52 Week Range	18.04011-24.84959		
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	3.032	20%	
Exchange	TSE	Enterprise Value (\$B)	2.879	0%	hand had a showed
Share Type	Common Stock	YTD Change	8.41%	(20%)	
Functional FX	JPY	PE	20.28	1 C	
Ticker	6268	P/S	1.59	(40%)	
SEDOL	6687571	Dividend Yield	1.52%		9,30124111 10,0124111 11,112111111111111111111111111111
Industry (GICS)	Industrial Machinery			0	
Robo-Stox Subgroup	Components/Software/Su	bsystem Manufacturing			S&P Price 6268 Price

Nabtesco Corporation manufactures and sells equipment in the areas of transportation, industry, livelihood-related fields, and the environment in Japan and internationally. It operates through four segments: The Precision Equipment Business, The Transport Equipment Business, The Aircraft and Hydraulic Equipment Business, and The Industrial Equipment Business. The company offers precision reduction gear equipment for industrial robots, machine tools, excavators, semiconductor manufacturing equipment, and automobile production lines. It also provides railroad vehicle equipment, including unit brakes, brake operating units, and door operators; and commercial vehicle equipment, such as brake chambers, air dryers, and hydraulic clutches for commercial vehicles and passenger cars. In addition, the company offers marine vessels equipment consisting of main engine remote control systems and electric digital governor systems; aircraft equipment comprising flight control actuation systems, high voltage electric power distribution units, and land gear systems equipment. Further, it provides hydraulic equipment, including traveling hydraulic motor for crawlers and wheels of excavators, crawler drills, cranes, and aerial work platforms, as well as sectional type multi-control valves for mini excavators and agricultural machinery. Additionally, the company offers automatic doors and welfare equipment, such as automatic doors for regular buildings, industrial doors, and train/railway platform doors under the NABCO brand; and platform screen doors, automatic platform gates, electric wheelchairs, and rollators. The company also manufactures automatic measuring equipment, various packaging machines, packaging-related system equipment, and packaging plants; and developing drive unit for wind turbine and Heliostat drive unit for the energy sector using its proprietary Rotor Vector reduction gear technology. Nabtesco Corporation was founded in 2003 and is headquartered in Tokyo, Japan.

#### **Robotics & Automation Description:**

Nabtesco specializes in manufacturing reduction gears for precise movement and torque control in industrial robots. The RV series focuses on acceleration capabilities, have a large number of teeth that mesh simultaneously, are highly rigid despite being compact and light, and are highly resistant to overloads. The RD series focuses on ease of use and the GH series focuses on load transfers. All three series have an emphasis on motion control. In the field of joints of industrial robots, Nabtesco has the world's largest market share at approximately 60%. Reduction gears and other precision equipment represent roughly one third of Nabtesco's total revenue. Additionally, Nabtesco supplies automatic doors for regular buildings, industrial doors, and train/railway platform doors. It holds a 50% world market share in this space.

30.91

20.28

0.99

2.51

Fundamentals	2010	2011	2012	2013	2014	6268 2014 Revenue by Geography North
Sales	\$1,351	\$2,043	\$2,409	\$1,906	\$1,965	America 8%
YoY % Change	(20%)	34%	17%	(10%)	13%	Europe
BITDA	\$144	\$308	\$366	\$254	\$284	15%
oY % Change	(17%)	46%	21%	(11%)	21%	
let Income	\$43	\$162	\$179	\$141	\$145	
'oY % Change	(9%)	233%	10%	(10%)	13%	
arnings Per Share	\$0.34	\$1.28	\$1.42	\$1.11	\$1.15	Japan 57%
'oY % Change	(9%)	234%	10%	(10%)	13%	Asia _/
						20%
BITDA Margin %	11%	15%	15%	13%	14%	
let % Margin	3%	8%	7%	7%	7%	
op 5 Comps	PE	PB	P/S EV	/EBITDA [	Div Yield %	Analyst Recommendations
HK Co., Ltd.	20.92	1.58	1.78	8.23	1.32	
MG Mori Seiki Co., Ltd.	18.20	1.23	1.00	13.28	1.71	Buy 5
MC Corp.	23.64	2.58	4.98	14.10	0.60	Hold
urita Water Industries Ltd.	30.11	1.35	1.62	6.52	1.88	3
Kurita water industries Ltd.	30.11	1.35	1.62	6.52	1.88	

1.52

1.59

12.39

9.11

2.49 Sell 0

1.52

0



8

10

4

No. of analyst recommendati

2

6

Amada Co. Ltd.

Nabtesco Corporation



Ticker	NATI	Currency USD	Date	9/30/14
National Instruments	Corporation			
Headquarters	Austin, TX	Share Price	30.93	Stock Price vs S&P 500
Website	<u>ni.com</u>	52 Week Range	26.25-33.59	40%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	3.936	30% 20%
Exchange	NasdaqGS	Enterprise Value (\$B)	3.534	10%
Share Type	Common Stock	YTD Change	(3.40%)	0% (10%)
Functional FX	USD	PE	43.01	(20%)
Ticker	NATI	P/S	3.28	(30%) L
SEDOL	2645078	Dividend Yield	1.94%	9,300,144,00,0,144,141,141,141,141,141,141,
Industry (GICS)	Electronic Equipment an	d Instruments		
Robo-Stox Subgroup	Components/Software/S	ubsystem Manufacturing		S&P Price MATI Price

National Instruments Corporation designs, manufactures, and sells tools to engineers and scientists worldwide. It provides LabVIEW, a system design software product for measurement and control; LabVIEW Real-Time and LabVIEW FPGA, a software add-on to LabVIEW; LabWindows/CVI for creating test and control applications; and Measurement Studio for measurement and automation add-on libraries, as well as additional tools for programmers as alternative programming environments. The company also offers a suite of software products, such as NI TestStand for test and measurement applications in a manufacturing environment; NI VeriStand software for configuring real-time testing applications, including hardware-in-the-loop test systems; NI DIAdem, which provides users configuration-based technical data management, analysis, and report generation tools to interactively mine and analyze data; and NI Multisim. In addition, it provides hardware products and related driver software, such as data acquisition, PXI chassis and controllers, image acquisition, motion control, distributed I/O, modular instruments and embedded control hardware/software, industrial communications interfaces, general purpose interface bus interfaces, and VME extension for instrumentation controllers. Further, the company offers NI education platform comprising software, hardware, and courseware for students; software and hardware products. It serves various industries and applications, including advanced research, automated test equipment, consumer electronics, commercial aerospace, computers and applications, including advanced research, government/defense, medical research/pharmaceutical, power/energy, semiconductors, telecommunications, and others. The company was founded in 1976 and is headquartered in Austin, Texas.

#### **Robotics & Automation Description:**

National Instruments develops robotics software systems such as LabVIEW and machine vision technologies. The NI LabVIEW graphical programming language makes it easy to program complex robotics applications by utilizing a sense-think-act process for sensor communication, obstacle avoidance, path planning, kinematics, steering, etc. The NI LabVIEW graphical system design platform is enabling new applications for industrial robots by integrating measurements, vision, robot control, and human machine interfaces into one, easy-to-use environment. By combining the capabilities of LabVIEW with add-ons provided by partners such as ImagingLab, one can quickly interface to the robot controller of leading industrial arm manufacturers such as Denso, Kuka, and Mitsubishi.

Fundamentals	2009	2010	2011	2012	2013	-	NATI 2013 Revenue by G	eography	
Sales	\$677	\$873	\$1,024	\$1,144	\$1,173		erging rkets		
		29%	17%	12%	31,173	1	0%		
YoY % Change	(18%)								
EBITDA	\$76	\$155	\$149	\$170	\$153				
YoY % Change	(17%)	33%	16%	10%	0%	East Asia _	_	Americ 41%	
Net Income	\$17	\$109	\$94	\$90	\$81	22%		41/	0
YoY % Change	(80%)	539%	(14%)	(4%)	(11%)				
Earnings Per Share YoY % Change EBITDA Margin %	\$0.15	\$0.93	\$0.79	\$0.74	\$0.65				
	(79%)	526%	(15%)	(6%)	) (12%)		Europe		
							27%		
	11%	18%	15%	15%	13%				
Net % Margin	3%	12%	9%	8%	7%				
Top 5 Comps	PE	PB	P/S EV	/EBITDA I	Div Yield %		Analyst Recommen	dations	
Itron, Inc.	NM	1.78	0.78	9.61	0.00	1		1 1	
Anritsu Corp.	14.12	1.62	1.18	5.87	2.87	Buy	1		
Badger Meter Inc.	25.22	3.52	2.04	12.75	1.51	Hold		2	
Agilent Technologies Inc.	27.75	3.37	2.75	14.12	0.93	поіц		2	
Cognex Corporation	41.97	5.12	9.07	29.86	0.00	Sell 0			
and a service and a service and a service a se	11.07	5.12	0.07	20.00	0.00				
National Instruments	43.01	3.72	3.28	20.48	1.94	0	0.5 1 2	1.5 2	2
Hauviai menumente	43.01	0.72	3.20	20.40	1.34		No. of analyst recom	mendations	





Ticker	NDSN	Currency USD	Date	9/30/14
Nordson Corporation				
Headquarters	Westlake, OH	Share Price	76.07	Stock Price vs S&P 500
Website	nordson.com	52 Week Range	67.062-84.95	30%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	4.799	20%
Exchange	NasdaqGS	Enterprise Value (\$B)	5.384	10%
Share Type	Common Shares	YTD Change	2.38%	0%
Functional FX	USD	PE	20.96	
Ticker	NDSN	P/S	2.95	
SEDOL	2641838	Dividend Yield	1.16%	9/30/ 11/1/12 11/12 12/99 12/20 12/20 12/20 12/20 12/20 12/20 12/20 12/20 12/20 12/2
Industry (GICS)	Industrial Machinery			िसंसन्स् सं
Robo-Stox Subgroup	Components/Software/S	ubsystem Manufacturing		S&P Price NDSN Price

Nordson Corporation engineers, manufactures, and markets products and systems for dispensing and processing adhesives, coatings, polymers, sealants, biomaterials, fluid management, testing and inspection, surface treatment, and curing. Its Adhesive Dispensing Systems segment provides equipment to apply adhesives, lotions, liquids, and fibers to disposable products; automated adhesive dispensing systems for packaged goods industries; adhesive and sealant dispensing systems to bond and seal plastics, metal, and wood products in the paper and paperboard converting industries; laminating and coating systems to manufacture continuous-roll goods in nonwovens, textile, and paper industries; and components and systems used in plastic extrusion and injection molding processes. The company's Advanced Technology Systems segment offers automated dispensing systems for attachment, protection, and coating of fluids and related gas plasma treatment systems for cleaning and conditioning surfaces prior to dispense; precision manual and semi-automated dispensers, plastic molded syringes, cartridges tips, and fluid connection components for applying and controlling the flow of adhesives, sealants, lubricants, and biomaterials; and bond testing and automated optical and X-ray inspection systems. This segment serves electronics, medical, and related industries. Its Industrial Coating Systems segment provides automated and manual dispensing systems to apply component adhesives and sealant materials; liquid paints and coatings to consumer and industrial products; ultraviolet equipment to cure and dry operations for specialty coatings, semiconductor materials, and paints; and powder paints and coatings to various metal, plastic, and wood products. The company markets its products in the United States and internationally through direct sales force, distributors, and sales representatives. Nordson Corporation was founded in 1935 and is headquartered in Westlake, Ohio.

#### **Robotics & Automation Description:**

Nordson manufactures robotic hot melt dispenser systems and distributes automated systems operations for a number of applications including sealants, plastics, coating, etc. Nordson ASYMTEK designs and manufactures a full line of automated precision fluid dispensers and selective conformal coating systems that are ideal for a range of applications for the manufacturing and assembly of photovoltaic cells and fuel cells. ASYMTEK also supplies automated dispensing systems for one-drop fill (ODF), UV and gasket seals writing, and filling clear protective materials and other processes for OLED, LCD, and touch panel assembly.

YoY % Change EBITDA Margin % Net % Margin Top 5 Comps IDEX Corporation Graco Inc. Watts Water Technologies, Inc.	\$819 (27%) \$163 (26%) (\$160) 0% (\$2.38) 0%	\$1,042 27% \$266 33% \$168 0% \$2.49 0%	\$1,233 18% \$348 20% \$222 32% \$3.29 32%	\$1,410 14% \$379 10% \$225 1% \$3,49	(1%)	Asia Pacific _ 29%	Japan 9%			United States 33%
EBITDA YoY % Change Net Income YoY % Change Earnings Per Share YoY % Change EBITDA Margin % Net % Margin Top 5 Comps IDEX Corporation Graco Inc. Watts Water Technologies, Inc.	\$163 (26%) (\$160) 0% (\$2.38)	\$266 33% \$168 0% \$2.49	\$348 20% \$222 32% \$3.29	\$379 10% \$225 1%	\$379 5% \$222 (1%)		9%			_States
EBITDA YoY % Change Net Income YoY % Change Earnings Per Share YoY % Change EBITDA Margin % Net % Margin Top 5 Comps IDEX Corporation Graco Inc. Watts Water Technologies, Inc.	(26%) (\$160) 0% (\$2.38)	33% \$168 0% \$2.49	20% \$222 32% \$3.29	10% \$225 1%	5% \$222 (1%)		-		K	
Net Income YoY % Change Earnings Per Share YoY % Change EBITDA Margin % Net % Margin Top 5 Comps IDEX Corporation Graco Inc. Watts Water Technologies, Inc.	(\$160) 0% (\$2.38)	\$168 0% \$2.49	\$222 32% \$3.29	\$225 1%	\$222 (1%)		_			33%
YoY % Change Earnings Per Share YoY % Change EBITDA Margin % Net % Margin Top 5 Comps IDEX Corporation Graco Inc. Watts Water Technologies, Inc.	0% (\$2.38)	0% \$2.49	32% \$3.29	1%	(1%)		-			
Earnings Per Share YoY % Change EBITDA Margin % Net % Margin Top 5 Comps IDEX Corporation Graco Inc. Watts Water Technologies, Inc.	(\$2.38)	\$2.49	\$3.29			29%				
YoY % Change EBITDA Margin % Net % Margin Top 5 Comps IDEX Corporation Graco Inc. Watts Water Technologies, Inc.		• •	•••	\$3.49	<b>60 4</b> 5					
EBITDA Margin % Net % Margin Top 5 Comps IDEX Corporation Graco Inc. Watts Water Technologies, Inc.	0%	0%	220/	-2110	\$3.45					
Net % Margin Top 5 Comps IDEX Corporation Graco Inc. Watts Water Technologies, Inc.			32%	6%	(1%)			Europ		
Net % Margin Top 5 Comps IDEX Corporation Graco Inc. Watts Water Technologies, Inc.	000/	000/	000/	070/	050/			29%		
Top 5 Comps IDEX Corporation Graco Inc. Watts Water Technologies, Inc.	20% (20%)	26% 16%	28% 18%	27% 16%	25% 14%					
IDEX Corporation Graco Inc. Watts Water Technologies, Inc.	(20/0)	1070	1070	1070	1470					
Graco Inc. Watts Water Technologies, Inc.	PE	PB	P/S EV	/EBITDA D	iv Yield %		Analyst Recommendations			ns
Watts Water Technologies, Inc.	21.35	3.58	2.78	11.98	1.55	1	1	1		
	20.98	6.71	3.83	13.40	1.51	Buy				6
	33.88	2.03	1.37	11.17	1.03	Hold				6
Mueller Water Products, Inc.	29.62	3.85	1.14	10.27	0.85					U
Lincoln Electric Holdings Inc.		3.62	1.98	10.17	1.33	Sell 0				
Nordson Corporation	19.62		2.95	13.19	1.16	0	2	4	commend	6





Ticker	7224	Currency USD	Date	9/30	0/14
ShinMaywa Industri	es, Ltd.				
Headquarters	Takarazuka, Japan	Share Price	9.10	40%	Stock Price vs S&P 500
Website	shinmaywa.co.jp	52 Week Range	6.42662-9.50775	4070	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.906	20%	and and and the
Exchange	TSE	Enterprise Value (\$B)	0.825		- And a
Share Type	Common Stock	YTD Change	9.31%	0%	Ville I
Functional FX	JPY	PE	13.21	(000)	
Ticker	7224	P/S	0.55	(20%)	
SEDOL	6804488	Dividend Yield	1.20%		0,1401,1401,1401,1401,1401,1401,1411,1411,1411,1411,1411,1411,1411,1411,1411,142,1411,142,1411,122,1341,122,122,1341,122,122,1341,122,122,1341,122,122,1341,122,122,122,122,122,122,122,122,122,1
Industry (GICS)	Construction Machiner	y and Heavy Trucks		0	
Robo-Stox Subgroup	Components/Software/	Subsystem Manufacturing			S&P Price 7224 Price

ShinMaywa Industries, Ltd., together with its subsidiaries, is engaged in transportation equipment business in Japan, Asia, North America, and internationally. It operates in four segments: Aircraft Business, Special Purpose Truck Business, Industrial Machinery and Environmental Systems Business, and Parking Systems Business segments. The Aircraft Business segment manufactures and sells amphibian aircraft and aircraft parts to overseas aircraft manufacturers. The Special Purpose Truck Business is involved in the manufacture and sale of special purpose trucks, including dump trucks, tail gate lifters, and refuse compactors, as well as forestry machinery. The Industrial Machinery and Environmental Systems Business segment is involved in the manufacture and sale of purpose trucks including dump trucks, tail gate Systems Business segment manufactures, and water treatment equipment, automatic wire processors, and refuse processing facilities and equipment. The Parking Systems Business segment manufactures, sells, maintains, and restores mechanical parking facilities and aircraft passenger boarding bridges. The company is also involved in the construction, real estate, and software development businesses. In addition, it offers various electrical cables that are used in wiring automobiles, home electric appliances, and mobile phones and laptop computers; and fabrication for various thin-films that supports high-technologies, including optical thin-films used in the fields of optics, as well as semiconductors, liquid crystals, reflectors, and protection film coating for automobile lamps. Further, ShinMaywa Industries, Ltd. provides 'built-in DD' direct drive motors for direct-drive robots; and environmental systems, including refuse transfer station systems, screw type refuse storage and discharge systems, and refuse treatment and recycling facilities. The company, formerly known as Shin Meiwa Industry Company Limited, was founded in 1949 and is headquartered in Takarazuka, Japan.

#### **Robotics & Automation Description:**

ShinMaywa develops robotic vacuum systems used for transportation and servo motors for robots and factory automation. The multi-chambers system proposed by ShinMaywa utilizes many robots for handling heavy and fragile substrates and for automatic transportation. It can create a vacuum as powerful as 10-4 pa, withstand temperatures up to 300 degrees Celsius (~600 degrees Fahrenheit), and handle load capacities up to 300kg (~650 lbs). It uses controllers and servo motors in its line of wire terminating machines which are used to cut and crimp wires of all sizes at high speeds with immaculate precision.

Fundamentals	2010	2011	2012	2013	2014		7224 2013 Revenue by Geography AsiaOthers
Sales	\$1,181	\$1,294	\$1,322	\$1,602	\$1,690	North	4%3%
YoY % Change	(14%)	(3%)	2%	38%	15%	America	a_
EBITDA	\$73	\$59	\$66	\$100	\$144	13%	
YoY % Change	(4%)	(3%)	7%	50%	24%		
Net Income	\$33	(\$21)	(\$3)	\$121	\$72		
YoY % Change	11796%	0%	0%	0%	(35%)		
Earnings Per Share	\$0.33	(\$0.21)	(\$0.03)	\$1.21	\$0.73		
YoY % Change	11801%	0%	0%	0%	(35%)		Japan
EBITDA Margin %	6%	5%	5%	6%	9%		80%
Net % Margin	3%	(2%)	(0%)	8%	4%		
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	Div Yield %		Analyst Recommendations
DAIHEN Corporation	18.91	1.03	0.49	7.09	1.88	1	
Mitsubishi Nichiyu Forklift Co., Ltd.	23.65	1.87	0.37	6.08	1.19	Buy	1
Manitou BF SA	32.38	1.15	0.36	8.08	0.00	Hold 0	
Hualing Xingma Automobile (Group) Co., Ltd.	40.52	1.70	1.17	14.03	2.43		
KAMA Co.,Ltd.	NM	2.18	0.41	13.29	0.00	Sell 0	
						0	0.5 1 1





Ticker	6273	Currency USD	Date	9/30/1	14
SMC Corp.					
Headquarters	Tokyo, Japan	Share Price	275.75	50%	Stock Price vs S&P 500
Website	smcworld.com	52 Week Range	192.34275-284.73108	40%	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	18.52	30%	
Exchange	TSE	Enterprise Value (\$B)	15.97	20%	and the second s
Share Type	Common Stock	YTD Change	14.15%	10%	man have been and
Functional FX	JPY	PE	23.64	0%	Market Market
Ticker	6273	P/S	4.98	(10%) L	
SEDOL	6763965	Dividend Yield	0.60%	/30/	2)/14/ 2)/25/ 2/25/ 2/22/ 2/22/ 2/32/ 2/32/ 2/32/ 2/32/ 2/32/ 2/32/ 2/32/ 2/32/ 2/32/ 2/32/ 2/32/ 2/22/2
Industry (GICS)	Industrial Machinery			ດີເ	00111111 1 0 004400 0 1 0 00
Robo-Stox Subgroup	Components/Software/Su	bsystem Manufacturing			S&P Price 6273 Price

SMC Corporation manufactures and sells automatic control equipment, sintered metal filters, and filtration elements in Japan, North America, Europe, Asia, and internationally. The company offers directional control valves, including pilot and direct operated port solenoid valves, serial transmission systems, air operated valves, mechanical/hand valves, and power and port solenoid valves; standard and compact air, water resistant, mechanically jointed and coupled rodless, table, guide, lock, specialty, clamp, stopper, stroke reading, valve mounted, and other cylinders, as well as floating joints, air-hydro units, shock absorbers, and auto switches; and rotary actuators and air grippers. It also provides vacuum ejectors/vacuum puns systems, air suction filters, vacuum pads and regulators, vacuum saving valves, and vacuum flow and other equipment; aftercoolers/air tanks, air dryers, air preparation filters, and related equipment, modular F.R.L. units, regulators, and electro-pneumatic regulators/proportional valves/boosters; lubrication equipment; fittings and tubings; flow control equipment; and silencers/exhaust cleaners, blow guns, and pressure gauges. In addition, the company offers switches and sensors; static electricity elimination equipment; process valves that comprise port valves for fluid control; chemical liquid valves, and fittings and needle valves/tubings; diaphragm pumps; process gas equipment; industrial filters and sintered metal elements; and chillers, thermoelectric baths, and air temperature controllers, as well as temperature control systems for chemical liquids. Further, it provides electric actuators/cylinders; high vacuum and slit valves; hydraulic cylinders and equipment; pneumatic instrumentation equipment; and copper and fluorine-free equipment. The company was formerly known as Shoketsu Kinzoku Kogyo Co., Ltd. and changed its name to SMC Corporation in 1986. SMC Corporation was founded in 1959 and is headquartered in Tokyo, Japan.

#### **Robotics & Automation Description:**

SMC's line of rotary actuators can be used as part of a robot arm and can be combined with servos controlling robot movement. Depending on the configuration, SMC's pneumatic rotary actuator units can achieve arc lengths up to 270 degrees. SMC's air grippers are used with materials handling robots whereby a robot's hand tools can be changed automatically. SMC is now beginning to evolve into an automatic control equipment manufacturer.

Fundamentals	2010	2011	2012	2013	2014	6273 2013 Revenue by Geography
Sales	\$2,364	\$3,923	\$4,148	\$3,430	\$3,840	China_
YoY % Change	(22%)	47%	5%	(5%)	22%	18%
EBITDA	\$398	\$1,120	\$1,217	\$945	\$1,144	
YoY % Change	(30%)	68%	5%	(9%)	31%	
Net Income	\$210	\$576	\$719	\$682	\$838	Japan 44%
YoY % Change	(25%)	144%	24%	8%	34%	Asia
Earnings Per Share	\$3.06	\$8.40	\$10.49	\$9.95	\$12.38	18%
YoY % Change	(25%)	144%	24%	8%	36%	Europe
-						20%
EBITDA Margin %	17%	29%	29%	28%	30%	
Net % Margin	9%	15%	17%	20%	22%	
Top 5 Comps	PE	PB	P/S EV	//EBITDA D	iv Yield %	Analyst Recommendations
Fanuc Corporation	29.06	3.18	7.63	13.87	0.86	
Makita Corporation	19.88	1.93	2.13	10.12	1.47	Buy 6
THK Co., Ltd.	20.92	1.58	1.78	8.23	1.32	Hold
Hitachi Construction Machinery Co. Ltd.	13.18	1.21	0.58	7.19	2.72	
Ebara Corp.	17.55	1.50	0.67	6.43	1.14	Sell 3
SMC Corp.	23.64	2.58	4.98	14.10	0.60	0 5 10
C Corp.	23.04	2.00	4.30	14.10	0.00	No. of analyst recommendations





Ticke	a Electric Corp. s Tokyo, Japan Share Price yokogawa.com 52 Week Range assification Non-Bellwether Market Cap (\$B) TSE Enterprise Value ( Common Stock YTD Change	Currency USD	Date	9/30	D/14
Yokogawa Electric (	Corp.				
Headquarters	Tokyo, Japan	Share Price	13.14	75%	Stock Price vs S&P 500
Website	yokogawa.com	52 Week Range	10.48314-15.88879		
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	3.385	50%	
Exchange	TSE	Enterprise Value (\$B)	3.535	25%	
Share Type	Common Stock	YTD Change	(10.71%)	0%	a martine and the second secon
Functional FX	JPY	PE	31.09		a mar and a mar and a mar a
Ticker	6841	P/S	0.95	(25%)	
SEDOL	6986427	Dividend Yield	0.83%		9/30/, 10/14/ 11/11/125/ 12/23/ 12/23/ 12/22/ 2/31/ 2/31/ 2/33/ 2/31/ 2/33/ 2/31/ 2/33/ 2/31/ 2/33/ 2/31/ 2/33/ 2/31/ 2/32/ 2/32/ 2/33/ 2/32/32/ 2/3/ 2/3/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/2/ 2/3/ 2/3/2/ 2/3/
Industry (GICS)	Electronic Equipment	and Instruments		,	
Robo-Stox Subgroup	Components/Softwar	e/Subsystem Manufacturing			S&P Price 6841 Price

Yokogawa Electric Corporation provides various products based on its measurement, control, and information technologies in Japan, Asia, Europe, North America, the Middle East, and internationally. It operates in three segments: Industrial Automation and Control Business, Test and Measurement Business, and Other Businesses. The Industrial Automation and Control Business segment develops distributed control Systems for monitoring and controlling processes in various production facilities. Its products include production control and management, safety instrumented, quality, asset, and energy management systems; and differential pressure/pressure transmitters, flow meters, analyzers, recorders, and programmable controllers. This segment offers its products to oil, chemical, natural gas, electric power, iron and steel, pulp and paper, pharmaceutical, food, and other industries. The Test and Measurement Business segment offers various measuring instruments for the development and production of electrical equipment, electronics, automobiles, and other products. Its products comprise waveform and optical communication measuring instruments; signal generators; LCD drivers; cytological discovery systems; and confocal scanner for observation of live cells, as well as measuring instruments for electric power, temperature, and pressure. The Other Businesses segment provides aviation, marine, and hydrological and meteorological equipment, as well as supplies flat-panel displays, engine meters, and other instruments for aviation use; and marine navigation equipment, such as gyrocompasses and autopilot systems. The company was formerly known as Yokogawa Electric Works Ltd. and changed its name to Yokogawa Electric Corporation in 1986. Yokogawa Electric Corporation was founded in 1915 and is headquartered in Tokyo, Japan.

#### **Robotics & Automation Description:**

Yokogawa manufactures measurement control systems, sensors, programmable logic controllers, and other components used in automation. Yokogawa multi variable control provides predictive control using process cross-correlation, which is proven to increase throughput, save energy, and reduce quality giveaway. The VigilantPlant ServicesTM solutions suite enhances productivity, ensures safety, and optimizes a variety of processes. Plant Resource Manager (PRM®) is a software package that is capable of centrally managing large amounts of data from plant monitoring and control devices and manufacturing equipment. The industrial automation and control business generates the majority of the total firm revenue (roughly 80%).

Fundamentals	2010	2011	2012	2013	2014		6841 2014 R	evenue by Geog	raphy	
Sales	\$3,387	\$3,930	\$4,061	\$3,693	\$3,773		ope			
YoY % Change	(16%)	3%	3%	4%	12%	12	2%			
EBITDA	\$200	\$301	\$356	\$339	\$383					
YoY % Change	(17%)	8%	26%	1%	13%	Others_			Japan 40%	
Net Income	(\$158)	(\$81)	\$72	\$156	\$120	18%			40%	
YoY % Change	Change 0% 0% 0% 147% (16%)									
Earnings Per Share	(\$0.61)	(\$0.31)	\$0.28	\$0.61	\$0.47					
YoY % Change	0%	0%	0%	147%	(16%)		As	sia		
-								0%		
EBITDA Margin %	6%	8%	9%	9%	10%					
Net % Margin	(5%)	(2%)	2%	4%	3%					
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %		Analyst Re	commendati	ons	
Shimadzu Corporation	34.29	1.54	0.92	8.54	1.05	1	I.	1		
HORIBA, Ltd.	18.70	1.49	1.15	7.34	1.60	Buy			6	
Yaskawa Electric Corp.	21.80	2.72	1.01	11.39	0.94	Hold		4		
SMC Corp.	23.64	2.58	4.98	14.10	0.60	HUIU		4		
Keyence Corp.	31.43	3.49	10.35	16.61	0.13	Sell 0				
						0	2	4	6	
Yokogawa Electric Corp.	31.09	1.99	0.95	9.97	0.83		No. of ana	lyst recommer	dations	





## **Consumer Robotics**





Ticker	IRBT	Currency USD	Date	9/30/14
iRobot Corporation Headquarters	Bedford. MA	Share Price	30.45	Stock Price vs S&P 500
Website	irobot.com	52 Week Range	28.485-48.36	60%
Robo-Stox Classification	Bellwether	Market Cap (\$B)	0.899	40%
Exchange	NasdaqGS	Enterprise Value (\$B)	0.717	0%
Share Type	Common Shares	YTD Change	(12.42%)	werner had a friend a
Functional FX	USD	PE	36.55	(20%)
Ticker	IRBT	P/S	1.75	(40%)
SEDOL	B0J2NS5	Dividend Yield	0.00%	9,9,9,0,12 0,0,14,12 0,0,28,114 1,129,115 1,129,115 1,129,115 1,129,114 1,129,114 1,129,114 1,129,114 1,129,114 1,129,114 1,129,114 1,129,114 1,129,114 1,129,114 1,129,114 1,129,114 1,129,114 1,129,114 1,129,114 1,129,114 1,129,114 1,129,114 1,129,115
Industry (GICS)	Household Appliances			
Robo-Stox Subgroup	Consumer Robotics			S&P Price IRBT Price

iRobot Corporation designs, develops, and markets robots for consumer, defense and security, telemedicine, and video collaboration markets worldwide. The company operates in two segments, Home Robots and Defense and Security Robots. It offers consumer products, including floor vacuuming and washing robots, floor sweeping robots, and pool and gutter cleaning robots. The company also provides defense and security products, such as ground robots comprising 510 PackBot line of small unmanned ground robots; the small unmanned ground vehicle multi-purpose ground robots; the 110 FirstLook small, light, and throwable robot; and the 710 Warrior multi-purpose robot for carrying heavy payloads. It markets its robots to consumers through chain stores and other national retailers, as well as through its on-line store; and to the U.S. military, and other government agencies. The company was incorporated in 1990 and is headquartered in Bedford, Massachusetts.

# **Robotics & Automation Description:**

iRobot manufactures household cleaning robots, remote presence robots for video conferencing, and bomb disposal robots for the government. The vast majority (over 80%) of its business is focused on household cleaning robots. Presently iRobot has approximately an 80% share of the North American robotic vacuum cleaner market and 65% internationally. Its visual simultaneous localization and mapping enables autonomous navigation using efficiency algorithms and specialized cameras to create a map of the space in which the vacuum operates. iRobot also produces jamming robots that create movement using multi-function materials and shape-changing designs that allow the robot to conform to almost any surface and then become firm and rigid as it grasps an object. Jamming robots are ideal for fitting into tight or inaccessible areas. iRobot's line of military robots includes the iRobot FirstLook®, a small, light, throwable robot for special operations, the iRobot PackBot® for reconnaissance and bomb disposal, and the iRobot Warrior®, a large robots for carrying heavy payloads.

Sales         \$299         \$401         \$466         \$436         \$487           YoY % Change         (3%)         34%         16%         (6%)         12%           EBITDA         \$13         \$40         \$64         \$40         \$46           YoY % Change         (2%)         59%         43%         (5%)         12%           Net Income         \$3         \$26         \$40         \$17         \$28           YoY % Change         340%         666%         58%         (57%)         60%           Earnings Per Share         \$0.13         \$1.00         \$1.50         \$0.63         \$0.97           YoY % Change         333%         638%         50%         (58%)         54%           EBITDA Margin %         4%         10%         14%         9%         9%           Yot % Change         2.01         2.61         19.35         0.00           Cubic Corporation         NM         1.62         0.93         13.18         0.51           FLIR Systems, Inc.         0.00         0.00         0.00         0.00         0.00         0.00         0.00           Reato Robotics, Inc.         0.00         0.00         0.00         0.00 </th <th>Fundamentals</th> <th>2009</th> <th>2010</th> <th>2011</th> <th>2012</th> <th>2013</th> <th>IRBT 2013 Revenue by Geography</th>	Fundamentals	2009	2010	2011	2012	2013	IRBT 2013 Revenue by Geography
YoY % Change       (3%)       34%       16%       (6%)       12%         EBITDA       \$13       \$40       \$64       \$40       \$46         YoY % Change       (2%)       59%       43%       (5%)       12%         Net Income       \$3       \$26       \$40       \$17       \$28         YoY % Change       340%       666%       58%       (57%)       60%         Enrings Per Share       \$0.13       \$1.00       \$1.50       \$0.63       \$0.97         YoY % Change       333%       638%       50%       (58%)       54%         YoY % Change       333%       638%       50%       (58%)       54%         YoY % Change       333%       638%       50%       (58%)       54%         EBITDA Margin %       4%       10%       14%       9%       9%         Net % Margin       1%       6%       9%       4%       6%         Top 5 Comps       PE       PB       P/S EV/EBITDA Div Yield %       Analyst Recommendations         LIR Systems, Inc.       30.15       2.69       3.00       13.79       1.28       0         Neato Robotics, Inc.       0.00       0.00       0.00	Sales	\$299	\$401	\$466	\$436	\$487	United
EBITDA       \$13       \$40       \$64       \$40       \$46         YoY % Change       (2%)       59%       43%       (5%)       12%         Net income       \$3       \$26       \$40       \$17       \$28         YoY % Change       340%       666%       58%       (57%)       60%         Earnings Per Share       \$0.13       \$1.00       \$1.50       \$0.63       \$0.97         YOY % Change       333%       638%       50%       (58%)       54%         EBITDA Margin %       4%       10%       14%       9%       9%         Net % Margin       1%       6%       9%       4%       6%         Top 5 Comps       PE       PB       P/S EV/EBITDA Div Yield %       Analyst Recommendations         Cubic Corporation       NM       1.62       0.93       13.18       0.51         FLIR Systems, Inc.       30.15       2.69       3.00       13.79       1.28         Neato Robotics, Inc.       0.00       0.00       0.00       0.00       0.00       0.00		• • • •					
Net Income         \$3         \$26         \$40         \$17         \$28           YoY % Change         340%         666%         58%         (57%)         60%           Earnings Per Share         \$0.13         \$1.00         \$1.50         \$0.63         \$0.97           YoY % Change         333%         638%         50%         (58%)         54%         59%           EBITDA Margin %         4%         10%         14%         9%         9%         6%           Top 5 Comps         PE         PB         P/S EV/EBITDA Div Yield %         Analyst Recommendations           AeroVironment, Inc.         40.20         2.01         2.61         19.35         0.00           Cubic Corporation         NM         1.62         0.93         13.18         0.51           FLIR Systems, Inc.         30.15         2.69         3.00         13.79         1.28           Neato Robotics, Inc.         0.00         0.00         0.00         0.00         0.00         0.00         0.00							41%
Net Income         \$3         \$26         \$40         \$17         \$28           YoY % Change         340%         666%         58%         (57%)         60%           Earnings Per Share         \$0.13         \$1.00         \$1.50         \$0.63         \$0.97           YoY % Change         333%         638%         50%         (58%)         54%         59%           EBITDA Margin %         4%         10%         14%         9%         9%         8%           Net % Margin         1%         6%         9%         4%         6%         5%           Top 5 Comps         PE         PB         P/S EV/EBITDA Div Yield %         Analyst Recommendations           AeroVironment, Inc.         40.20         2.01         2.61         19.35         0.00           Cubic Corporation         NM         1.62         0.93         13.18         0.51           FLIR Systems, Inc.         30.15         2.69         3.00         13.79         1.28           Neato Robotics, Inc.         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00	YoY % Change	(2%)	59%	43%	(5%)	12%	
Earnings Per Share         \$0.13         \$1.00         \$1.50         \$0.63         \$0.97           YoY % Change         333%         638%         50%         (58%)         54%           EBITDA Margin %         4%         10%         14%         9%         9%           Net % Margin         1%         6%         9%         4%         6%           Top 5 Comps         PE         PB         P/S EV/EBITDA Div Yield %         Analyst Recommendations           AeroVironment, Inc.         40.20         2.01         2.61         19.35         0.00           Cubic Corporation         NM         1.62         0.93         13.18         0.51           FLIR Systems, Inc.         30.15         2.69         3.00         13.79         1.28           Neato Robotics, Inc.         0.00         0.00         0.00         0.00         0.00         0.00						\$28	
Earnings Per Share         \$0.13         \$1.00         \$1.50         \$0.63         \$0.97           YoY % Change         333%         638%         50%         (58%)         54%           EBITDA Margin %         4%         10%         14%         9%         9%           Net % Margin         1%         6%         9%         4%         6%           Top 5 Comps         PE         PB         P/S EV/EBITDA Div Yield %         Analyst Recommendations           AeroVironment, Inc.         40.20         2.01         2.61         19.35         0.00           Cubic Corporation         NM         1.62         0.93         13.18         0.51           FLIR Systems, Inc.         30.15         2.69         3.00         13.79         1.28           Neato Robotics, Inc.         0.00         0.00         0.00         0.00         0.00         0.00	YoY % Change	340%	666%	58%	(57%)	60%	Intl
Yoy % Change         333%         638%         50%         (58%)         54%           EBITDA Margin % Net % Margin         4%         10%         14%         9%         9%           Top 5 Comps         PE         PB         P/S EV/EBITDA Div Yield %         Analyst Recommendations           AeroVironment, Inc.         40.20         2.01         2.61         19.35         0.00           Cubic Corporation         NM         1.62         0.93         13.18         0.51           FLIR Systems, Inc.         30.15         2.69         3.00         13.79         1.28           Neato Robotics, Inc.         0.00         0.00         0.00         0.00         0.00         0.00		\$0.13	\$1.00	\$1.50	\$0.63	\$0.97	
Net % Margin         1%         6%         9%         4%         6%           Top 5 Comps         PE         PB         P/S EV/EBITDA Div Yield %         Analyst Recommendations           AeroVironment, Inc.         40.20         2.01         2.61         19.35         0.00           Cubic Corporation         NM         1.62         0.93         13.18         0.51           FLIR Systems, Inc.         30.15         2.69         3.00         13.79         1.28           Neato Robotics, Inc.         0.00         0.00         0.00         0.00         0.00         0.00	YoY % Change	333%	638%	50%	(58%)	54%	
Net % Margin         1%         6%         9%         4%         6%           Top 5 Comps         PE         PB         P/S EV/EBITDA Div Yield %         Analyst Recommendations           AeroVironment, Inc.         40.20         2.01         2.61         19.35         0.00           Cubic Corporation         NM         1.62         0.93         13.18         0.51           FLIR Systems, Inc.         30.15         2.69         3.00         13.79         1.28           Neato Robotics, Inc.         0.00         0.00         0.00         0.00         0.00         0.00							
Top 5 Comps         PE         PB         P/S EV/EBITDA Div Yield %         Analyst Recommendations           AeroVironment, Inc.         40.20         2.01         2.61         19.35         0.00           Cubic Corporation         NM         1.62         0.93         13.18         0.51           FLIR Systems, Inc.         30.15         2.69         3.00         13.79         1.28           Neato Robotics, Inc.         0.00         0.00         0.00         0.00         0.00							
Aero Vironment, Inc.         40.20         2.01         2.61         19.35         0.00           Cubic Corporation         NM         1.62         0.93         13.18         0.51           FLIR Systems, Inc.         30.15         2.69         3.00         13.79         1.28           Neato Robotics, Inc.         0.00         0.00         0.00         0.00         0.00         0.00	Net % Margin	1%	6%	9%	4%	6%	
Cubic Corporation         NM         1.62         0.93         13.18         0.51         Buy Hold           FLIR Systems, Inc.         30.15         2.69         3.00         13.79         1.28         Hold         3           Neato Robotics, Inc.         0.00	Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %	Analyst Recommendations
Static of portation         Intri         1.52         0.53         15.16         0.51         1           FLIR Systems, Inc.         30.15         2.69         3.00         13.79         1.28         Hold           Neato Robotics, Inc.         0.00         0.00         0.00         0.00         0.00         0.00	AeroVironment, Inc.	40.20	2.01	2.61	19.35	0.00	
Neato Robotics, Inc.         0.00         0.00         0.00         0.00         0         0         3         0         3         0         2         4         6         0         2         4         6         0         2         4         6         0         2         4         6         1 <th1< th=""> <th1< th=""> <th1< th=""> <th1< td=""><td>Cubic Corporation</td><td>NM</td><td>1.62</td><td>0.93</td><td>13.18</td><td>0.51</td><td>Buy 6</td></th1<></th1<></th1<></th1<>	Cubic Corporation	NM	1.62	0.93	13.18	0.51	Buy 6
Neato Robotics, Inc.         0.00         0.00         0.00         0.00         0.00         0         0         2         4         6	FLIR Systems, Inc.	30.15	2.69	3.00	13.79	1.28	Hold 3
	Neato Robotics, Inc.	0.00	0.00	0.00	0.00		3
							Sell 0
iRobot Corporation 36.55 2.50 1.75 16.06 0.00	iRobot Corporation	36.55	2.50	1.75	16.06	0.00	0 2 4 6 No. of analyst recommendations





# Energy and Subsea ROV





Ticker	· 011	Currency USD	Date	9/30	D/14
Oceaneering Interna	ational, Inc.				
Headquarters	Houston, TX	Share Price	65.17	50%	Stock Price vs S&P 500
Website	oceaneering.com	52 Week Range	62.8601-87.64		
Robo-Stox Classification	Bellwether	Market Cap (\$B)	7.039	30%	
Exchange	NYSE	Enterprise Value (\$B)	7.015	10%	Man
Share Type	Common Stock	YTD Change	(17.38%)	(10%)	and the second s
Functional FX	USD	PE	17.71		a server a server
Ticker	011	P/S	2.00	(30%)	
SEDOL	2655583	Dividend Yield	1.66%		9,30/,00,14,70,28/,00,14,70,28/,00,14,70,28/,00,14,70,28/,00,22,20,22/,22/,22/,22/,22/,22/,22/,2
Industry (GICS)	Oil and Gas Equipment a	nd Services			
Robo-Stox Subgroup	Energy and Subsea ROV				S&P Price Oll Price

Oceaneering International, Inc., together with its subsidiaries, provides engineered services and products primarily to the offshore oil and gas industry worldwide. The company's Remotely Operated Vehicles (ROVs) segment offers submersible vehicles that are operated from the surface to support drilling; and vessel-based services, including subsea hardware installation, construction, pipeline inspection, survey and facilities inspection, maintenance, and repair services. As of December 31, 2013, it owned a fleet of 304 ROVs. Its Subsea Products segment constructs various subsea hardware products, which include various types of subsea umbilicals utilizing thermoplastic hoses and steel tubes; tooling, and ROV tooling and work packages; production control equipments; blowout preventer control systems; installation and workover control systems; clamp connectors; pipeline connectors and repair systems; subsea and topside control valves; and subsea chemical injection valves. The company's Subsea Projects segment performs subsea oilfield hardware installation and inspection, maintenance, and repair services; including subsea well tie-backs, pipeline/flow line tie-ins and repairs, pipeline crossings, umbilical and other subsea equipment installations, and subsea intervention, as well as inspection, maintenance, and repair services. Its Asset Integrity segment provides asset integrity management and assessment services, and nondestructive testing and inspection services. The company's Advanced Technologies segment designs, develops, and operates robotic systems and ROVs for non-oilfield markets; performs commercial theme park animation and civil works projects; and designs, develops, and fabricates spacecraft hardware and high-temperature insulation products. Oceaneering International, Inc. was founded in 1965 and is based in Houston, Texas.

# **Robotics & Automation Description:**

Oceaneering manufactures remotely operated underwater vehicles (ROV) that are mainly used in offshore drilling operations. Oceaneering has over 300 Work Class ROV and is the world's largest ROV systems manufacturer. The ROV aid in tasks such as drilling support, subsea hardware installation and construction, pipeline inspections and surveys, and subsea production & facility maintenance. The ROV are piloted by a microprocessor-based control system through fiber optic cables and typically a crew of three technicians. Oceaneering operated about 35% of ROV worldwide and held a market share of roughly 60% at the end of 2013, which is nearly triple that of the next closest competitor. Over the last few years, ROV composed about 30% of Oceaneering's revenue and 45% of operating income.

Fundamentals	2009	2010	2011	2012	2013		Oll 2013 Revenue by Geograp	hy
Sales	\$1,822	\$1,917	\$2,193	\$2,783	\$3,287	Unite Kingdo		
YoY % Change	(8%)	5%	14%	27%		15%		
EBITDA	\$415	\$463	\$486	\$605	\$747			
YoY % Change	(7%)	8%	8%	23%	22%			United
Net Income	\$188	\$201	\$236	\$289	\$372	Norway		States 42%
YoY % Change	(6%)	6%	18%	23%	29%	17%		4270
Earnings Per Share	\$1.71	\$1.83	\$2.18	\$2.68	\$3.43			
YoY % Change	(5%)	7%	18%	23%	29%		Africa	
	(0,0)	.,.		2070	2070		26%	
EBITDA Margin %	23%	24%	22%	22%	23%		20/	
Net % Margin	10%	10%	11%	10%	11%			
ŭ								
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %		Analyst Recommendation	ons
MC Technologies, Inc.	19.75	4.85	1.70	11.74	0.00			
Superior Energy Services, Inc.	NM	1.24	1.13	6.26	0.97	Buy		12
Oil States International Inc.	12.71	2.59	1.22	4.32	0.00	Hold		
Dresser-Rand Group Inc.	49.56	4.64	2.25	18.46	0.00	нош	7	
Cameron International Corporation	20.14	2.68	1.39	10.47	0.00	Sell 0		
oundron mornational outporation	20.14	2.00	1.00	10.47	0.00			
Oceaneering International	17.71	3.24	2.00	8.81	1.66	0	5 1	0 1
oceaneering international	17.71	J.24	2.00	3.01	1.00		No. of analyst recommen	dations





Ticker	FET	Currency USD	Date	9/30/14
Forum Energy Techr	iologies, Inc.			
Headquarters	Houston, TX	Share Price	30.61	Stock Price vs S&P 500
Website	f-e-t.com	52 Week Range	24.32-37.03	40%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	2.872	30%
Exchange	NYSE	Enterprise Value (\$B)	3.278	20%
Share Type	Common Stock	YTD Change	8.32%	0%
Functional FX	USD	PE	20.14	
Ticker	FET	P/S	1.74	(20%) L (20%) L (20%) C (20\%)
SEDOL	B4K4F48	Dividend Yield	0.00%	9,30/ 11/11/11/ 11/25/ 11/25/ 11/25/ 11/25/ 11/25/ 11/25/ 11/25/ 11/25/ 11/25/ 11/25/ 11/25/ 11/27/ 11/11/ 11/21/ 11/11/ 11/21/ 11/11/ 11/21/ 11/11/ 11/21/ 11/11/ 11/21/21/ 11/21/21/ 11/21/21/ 11/21/ 11/21/ 11/21/ 11/21/ 11/21/ 11/21/ 11/21
Industry (GICS)	Oil and Gas Equipment	and Services		\$\$\$`\$\$`\$``\$``\$\$\$\$\$\$\$\$\$ \$\$\$ \$\$\$
Robo-Stox Subgroup	Energy and Subsea RO	V		S&P Price FET Price

Forum Energy Technologies, Inc. designs, manufactures, and distributes products to the oil and natural gas industry in the United States and internationally. The company operates in two segments, Drilling & Subsea, and Production & Infrastructure. The Drilling & Subsea segment designs and manufactures products, and provides related services to the subsea, drilling, well construction, completion, and intervention markets. This segment also offers subsea technologies, including robotic vehicles and other capital equipment, specialty components and tooling, complementary subsea technical services and rental items, and applied products for subsea pipelines; drilling technologies consisting of capital equipment and a line of products consumed in the drilling and well intervention process; and down hole technologies can manufactures products, and provides related down hole technologies and manufactures products, and provides related down hole technologies consisting of capital equipment and a line of products, and down hole protection solutions. The Production & Infrastructure markets. This segment designs and manufactures products, and provides related equipment and services to the well stimulation, completion, production, and infrastructure markets. This segment supplies flow equipment, such as well stimulation consumable products, and refurbishment services; production equipment, including well site production equipment and process equipment; and valve solutions consisting of a range of industrial and process valves. The company is headquartered in Houston, Texas.

# **Robotics & Automation Description:**

Forum Manufactures subsea ROV (remotely operated vehicles) and ROV attachments. Its line of ROV include trenchers, explorers, and hydraulic work-class. Its attachments include tethers, launch and recovery systems, and robotic tools. Forum Subsea Vehicles encompasses two of the best known brands in the design and building of remote intervention vehicles, such as Perry Systems and Sub-Atlantic. Perry Systems has experience in the design, manufacture, testing / commissioning, and operation of submersible vehicles. Sub-Atlantic supplies ROV systems to the military market and designs ELSS pods (Emergency Life Support Stores). ELSS are pressure tight pods used by the Navy as part of a distressed submarine rescue system. They are posted into the sunken submarine's hatches to deliver life preserving services to the crew until a full rescue operation is launched.

Fundamentals	2009	2010	2011	2012	2013		FET 2013 Revenue Canada	by Geography	
Sales	\$677	\$747	\$1,128	\$1,415	\$1,525	Asia-Pacifi	7%		
YoY % Change	(30%)	10%	51%	25%	8%	11%	ч <u> </u>		
BITDA	\$96	\$106	\$216	\$290	\$267				
/oY % Change	(34%)	15%	69%	28%	3%	Europe &			
Net Income	\$19	\$24	\$93	\$151	\$130	Africa_			
YoY % Change	(44%)	24%	290%	62%	(14%)	16%			
Earnings Per Share	\$0.40	\$0.44	\$1.48	\$1.89	\$1.43				
YoY % Change	(43%)	3%	214%	26%	(21%)			Unit	
BITDA Margin %	14%	14%	19%	20%	17%			Stat 66	
Net % Margin	3%	3%	8%	11%	8%				
op 5 Comps	PE	PB	P/S EV	/EBITDA D	viv Yield %		Analyst Recom	mendations	
ey Energy Services Inc.	NM	0.63	0.51	6.82	0.00	1	1	1	
PC Inc.	24.67	4.70	2.29	8.99	1.91	Buy			13
asic Energy Services, Inc.	NM	2.54	0.66	6.48	0.00	Hold	3		
MC Technologies, Inc.	19.75	4.85	1.70	11.74	0.00	nulu	3		
ril-Quip, Inc.	20.14	2.82	4.07	11.85	0.00	Sell 0			
Toolaolooioo	20.14	1 07	1.74	10.64	0.00	0	5	10	1
orum Energy Technologies	20.14	1.97	1./4	10.04	0.00		No. of analyst r	ecommendations	





Ticker	ENXTAM:FUR	Currency USD	Date	9/30	0/14
Fugro NV					
Headquarters	Leidschendam, NL	Share Price	30.25	50%	Stock Price vs S&P 500
Website	fugro.com	52 Week Range	28.22616-61.53846	30%	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	2.494	10%	
Exchange	ENXTAM	Enterprise Value (\$B)	3.598	(10%)	summer my
Share Type	CERT OF SHS	YTD Change	(44.67%)	(30%)	
Functional FX	EUR	PE	NM	(50%)	
Ticker	FUR	P/S	0.79	(70%)	,
SEDOL	B096LW7	Dividend Yield	6.26%	i c	9,50() 00/14() 00/28() 1/11/25() 1/25() 1/25() 1/22() 2/23()) 2/23() 2/23()) 2/23() 2/23()) 2/23() 2
Industry (GICS)	Oil and Gas Equipment an	nd Services		c	ਜਜਜ ਜ
Robo-Stox Subgroup	Energy and Subsea ROV				S&P Price FUR Price

Fugro N.V. acquires and interprets Earth and engineering data to support the design, construction, installation, repair, and maintenance of offshore and onshore infrastructure. The company operates in four segments: Geotechnical, Survey, Subsea Services, and Geoscience. The Geotechnical segment investigates the engineering properties and geological characteristics of near-surface soils and rocks; advises on foundation design; and provides construction materials testing, pavement assessment, and installation support services. This segment provides its services for the support of infrastructure development and maintenance, large construction projects, flood protection, and support of the design and installation of oil and gas facilities and wind farms in onshore, near shore, and offshore environments. The Survey segment provides on- and offshore services to map and inspect the earth's surface, seabed, and manmade structures; and a range of positioning, oceanographic, and environmental services. Its geospatial services encompass a range of survey and mapping capabilities using satellite, aerial, and terrestrial based sensors. The Subsea segment provides subsea services, such as the use of remotely operated vehicles (ROV) to support exploration drilling; field development, installation and construction support, long term inspection repair, and maintenance services for subsea assets; and tooling and engineering services to enable the design and build of purpose-built tools and interfaces for ROV-based activities. The Geoscience segment provides seabed geophysical solutions to the oil and gas industry; and owns and sells data from a seismic multi-client data library. The company serves oil and gas, building and infrastructure, mining, renewables, public, and other sectors worldwide. Fugro N.V. was founded in 1962 and is headquartered in Leidschendam, the Netherlands.

# **Robotics & Automation Description:**

Fugro manufactures subsea remote operated vehicles (ROV). Its ROV include eyeball ROV on shallow water jack-ups and gas monitoring, debris removal, and heavy work class ROVs with extensive tooling packages on deepwater drilling vessels. Its ROV are capable of diving to depths up to 3,000 meters (~10,000 feet). Fugro also produces software that provides complete mission simulation and visualization and can be integrated with ROV consoles for pilot training. Its Subsea division accounts for roughly 20% of Fugro's total revenue. Fugro recently entered the market for seabed-based robotic drilling systems and services in 2012 by forming a joint venture with Seafloor Geotec. This initiative is designed to provide a clearer, more accurate picture of hydrocarbon prospects, reservoir characteristics, and potential geohazards.

Fugro NV	NM	1.14	0.79	7.42	6.26	No. of analyst recommendations
-						0 2 4 6 8
Petrofac Limited	11.21	3.02	1.00	7.46	3.91	Sell 7
SBM Offshore N.V.	13.93	1.52	0.60	9.79	0.00	
Tecnicas Reunidas, S.A.	17.66	4.86	0.77	10.18	3.32	Hold 6
Petroleum Geo Services ASA	10.37	0.71	1.05	3.74	5.65	Buy <b>2</b>
CGG	NM	0.51	0.52	3.95	0.00	
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %	Analyst Recommendations
Net % Margin	13%	12%	15%	13%	18%	
EBITDA Margin %	27%	25%	26%	29%	23%	
YoY % Change	(8%)	0%	7%	(22%)	(3%)	Americas 22%
Earnings Per Share	\$4.95	\$4.66	\$4.72	\$4.76	\$7.29	
YoY % Change	(7%)	3%	6%	1%	48%	48%
Net Income	\$378	\$365	\$374	\$382	\$590	Europe
YoY % Change	(4%)	2%	(27%)	8%	(3%)	22%
EBITDA	\$786	\$750	\$622	\$837	\$754	Asia Pacific_
YoY % Change	(5%)	11%	(19%)	17%	12%	870
Sales	\$2,942	\$3,058	\$2,414	\$2,855	\$3,338	East/India
Fundamentals	2009	2010	2011	2012	2013	ENXTAM:FUR 2013 Revenue by Geography Middle





Ticker	HLX	Currency USD	Date	9/30/14
Helix Energy Solutio	ns Group, Inc.			
Headquarters	Houston, TX	Share Price	22.06	Stock Price vs S&P 500
Website	helixesg.com	52 Week Range	19.44-28	50%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	2.328	25%
Exchange	NYSE	Enterprise Value (\$B)	2.386	0%
Share Type	Common Stock	YTD Change	(4.83%)	the second manufacture and the second
Functional FX	USD	PE	12.14	
Ticker	HLX	P/S	2.30	(50%)
SEDOL	2037062	Dividend Yield	0.00%	9/30/:14/:10/14/:28/:11/11/11/11/11/11/11/11/11/11/11/12/:28/:11/12/:12/:11/12/:12/:11/:12/:12/:12/:
Industry (GICS)	Oil and Gas Equipment an	d Services		
Robo-Stox Subgroup	Energy and Subsea ROV			S&P Price HLX Price

Helix Energy Solutions Group, Inc., an offshore energy company, together with its subsidiaries, provides specialty services to the offshore energy industry, primarily in the Gulf of Mexico, North Sea, the Asia Pacific, and West Africa regions. The company operates through Well Intervention, Robotics, and Production Facilities segments. It engineers, manages, and conducts well construction, intervention, and asset retirement operations in water depths ranging from 200 to 10,000 feet; operates remotely operated vehicles (ROVs), trenchers, and ROVDrills for offshore construction, maintenance, and well intervention services primarily in the Gulf of Mexico, North Sea, the Asia Pacific, and West Africa regions. The company offers production services, such as inspection, repair, and maintenance of production structures, trees, jumpers, risers, pipelines, and subsea equipment; well intervention services; pipeline abandonment services; and site inspection services. It also provides reclamation and remediation services; plugging and abandonment services; on addition, the company offers oil and natural gas processing services to oil and natural gas companies. Its customers primarily include independent oil and gas producers and suppliers, pipeline transmission companies, and construction firms. The company was formerly known as Cal Dive International, Inc. and changed its name to Helix Energy Solutions Group, Inc. in March 2006. Helix Energy Solutions Group, Inc. was incorporated in 1979 and is headquartered in Houston, Texas.

# **Robotics & Automation Description:**

Helix has been actively involved in Robotics for over 25 years. Helix Energy Solutions' marine contracting business unit is Canyon Offshore. As of April 2013, Canyon operated 51 ROV and trenching systems including heavy work class systems, trenching and geotechnical systems, and five chartered ROV support vessels. Its ROV are used for tasks such as umbilical flowline trenching, geotechnical coring, tooling and intervention services, and other subsea project management services. Although its ROV primarily serve the oil and gas sector, Helix also supports renewable energy, subsea mining, and other specialty services. Helix charters its ROV support vessels, ensuring a modern fleet that can expand and contract based on regional requirements. Revenues attributed to robotics has historically accounted for approximately 40% of Helix's total revenue.

Helix Energy Solutions Group	12.14	1.44	2.30	7.39	0.00	0	2	4	6	
Fidewater Inc.	12.63	0.71	1.30	7.42	2.56	Sell 0				
Basic Energy Services, Inc.	NM	2.54	0.66	6.48	0.00					
Key Energy Services Inc.	NM	0.63	0.51	6.82	0.00	Hold 0				
)ril-Quip, Inc.	20.14	2.82	4.07	11.85	0.00	Buy			6	
ETRA Technologies, Inc.	NM	1.57	0.91	13.29	0.00	I.	I	1	1	
Fop 5 Comps	PE	PB	P/S EV	EBITDA C	Div Yield %	Analyst Recommendations				
Net % Margin	11%	(16%)	19%	(5%)	13%					
						39	9%			
BITDA Margin %	39%	20%	22%	25%	28%		ited _/ ates			
oY % Change	0%	0%	0%	0%	0%					
arnings Per Share	\$1.01	(\$1.22)	\$1.23	(\$0.44)	\$1.04					
oY % Change	0%	0%	0%	0%	0%				46%	
let Income	\$156	(\$127)	\$130	(\$46)	\$110				Kingdo	m
/oY % Change	(45%)	(54%)	(7%)	45%	15%				United	d
BITDA	\$563	\$153	\$152	\$212	\$246					
/oY % Change	(31%)	(47%)	(9%)	21%	4%					
Sales	\$1,462	\$774	\$702	\$846	\$877		Other 15%			
Fundamentals	2009	2010	<b>2011</b>	2012	2013			evenue by Geog	raphy	





# Healthcare Robotics & Automation Products





Ticker	ARAY	Currency USD	Date	9/30/14
Accuray Incorporate	ed			
Headquarters	Sunnyvale, CA	Share Price	7.26	Stock Price vs S&P 500
Website	accuray.com	52 Week Range	6.46-10.85	40%
Robo-Stox Classification	Bellwether	Market Cap (\$B)	0.561	
Exchange	NasdaqGS	Enterprise Value (\$B)	0.584	20%
Share Type	Common Stock	YTD Change	(16.55%)	0%
Functional FX	USD	PE	NM	
Ticker	ARAY	P/S	1.49	
SEDOL	B1R2HW6	Dividend Yield	0.00%	9/30/ 0/24/ 1/11/14/ 1/25/ 1/25/ 1/20/ 2/33/ 2/33/ 2/33/ 2/33/ 2/33/ 2/33/ 2/33/ 2/33/ 2/33/ 2/33/ 2/33/ 2/33/ 2/32/ 2/33/ 2/32/32/ 2/3/ 2/3/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/2/ 2/3/ 2
Industry (GICS)	Healthcare Equipment			
Robo-Stox Subgroup	Healthcare Robotics 8	Automation Products		S&P Price ARAY Price

Accuray Incorporated designs, develops, and sells radiosurgery and radiation therapy systems for the treatment of tumors in the body. The company offers the CyberKnife System, a robotic stereotactic radiosurgery and stereotactic body radiation therapy system used for the treatment of various types of cancer and tumors in the body. Its CyberKnife System automatically tracks, detects, and corrects for tumor and patient movement in real-time during the procedure, as well as enables delivery of precise, high dose radiation while patients breathe normally. The company also offers the TomoTherapy System, which consists of an integrated and versatile radiation therapy system used for the treatment of a range of cancer types. Accuray Incorporated markets its products in the United States directly, as well as through a sales agent and group purchasing organizations; and directly and through distributors in Europe, Japan and rest of Asia, South America, and internationally to hospitals and stand-alone treatment facilities. The company was incorporated in 1990 and is headquartered in Sunnyvale, California.

# **Robotics & Automation Description:**

Accuracy makes use of image-guided robotic systems to deliver radiation to specific treatment areas. CyberKnife® was first launched in 2001 and has since performed over 100,000 procedures. The most recent model (M6) has shown a 20% speed improvement over its predecessor and is the only robotic platform capable of both radiosurgery and full body radiation therapy. The TomoTherapy® System can parse a beam of radiation into smaller pieces and deliver it from any direction to optimize the amount of radiation the tumor receives while minimizing the impact to the surrounding healthy tissue.

Fundamentals	2010	2011	2012	2013	2014	ARAY 201 Asia	4 Revenue by Geo	graphy	
Sales	\$222	\$222	\$409	\$316	\$369	(Excluding			
YoY % Change	(5%)	0%	84%	(23%)	17%	Japan and India)			
EBITDA	\$10	(\$20)	(\$24)	(\$46)	\$2	12%			
YoY % Change	(10%)	3%	28%	(29%)	46%	Japan		America	as
Net Income	\$3	(\$27)	(\$72)	(\$103)	(\$35)	15%		42%	
YoY % Change	367%	0%	0%	0%	0%	F	urope,		
Earnings Per Share	\$0.05	(\$0.44)	(\$1.02)	(\$1.41)	(\$0.47)		Aiddle		
YoY % Change EBITDA Margin %	394%	0%	0%	0%	0%		st, India		
							d Africa 31%		
	4% 1%	(9%)	(6%)	(15%)	1%				
Net % Margin		(12%)	(18%)	(33%)	(10%)				
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %	Analys	t Recommendat	tions	
Cynosure, Inc.	42.13	1.36	1.72	5.75	0.00	1	1	1	
Cyberonics Inc.	23.32	5.16	4.83	13.05	0.00	Buy		6	
Thoratec Corp.	22.86	2.22	3.06	10.04	0.00	Hold 1			
Wright Medical Group Inc.	NM	3.40	5.45	NM	0.00				
AngioDynamics Inc.	156.11	0.90	1.37	13.33	0.00	Sell 0			





Ticker	7779	Currency USD	Date	9/30	/14												
CYBERDYNE Inc.																	
Headquarters	Tsukuba, Japan	Share Price	31.72	150%				Stoc	k Pric	e vs S	S&P 5	00					
Website	cyberdyne.jp	52 Week Range	9.02461-38.87876														
Robo-Stox Classification	Bellwether	Market Cap (\$B)	1.769	100%				_				~					
Exchange	TSE	Enterprise Value (\$B)	1.719	50%				~		$\sim$	$\sim$			$\sim$	_		
Share Type	NPV	YTD Change	81.25%	0%	~	~											_
Functional FX	JPY	PE	NM	(50%)													
Ticker	7779	P/S	NM	(50%)	7 1	17 1 17 1	14	14	14	14	14	14	14	14	14	14	14
SEDOL	BK0S442	Dividend Yield	0.00%		100	/14/1	/21/1	/28/1	8/4/1	8/11/1	8/18/1	8/25/1	9/1/1	9/8/1	/15/1	/22/1	/29/
Industry (GICS)	Healthcare Equipment			0	D)	7	2	7							ത്	ര്	ത്
Robo-Stox Subgroup	Healthcare Robotics & Au	tomation Products						—S8	2P Prio	e	_	7779	Price				

CYBERDYNE Inc. is engaged in the research, development, production, sale, lease, and maintenance of robotic remedial devices for medical and non-medical use in Japan. The company provides HAL products for lower limb, single joint, and task support; HAL peripherals that are assistive devices used with HAL for lower limb; TableInterface, a multi-touch display device; and Cleaning Robot that takes an elevator by itself, and cleans floors of an office building and others. It also provides HAL Therapy, a medical service to provide medical treatments for functional improvement of patients with cerebral, nervous, and muscle disorders, such as spinal cord injury and cerebral embolism; and training courses under the HAL FIT and ROBO CARE names. The company offers its equipments and systems in various areas, such as medical/welfare; rehabilitation/care personnel support; assistance for human body functions of elderly/disabled people; rescue supports in disaster sites; and heavy labor supports in factories and plants. CYBERDYNE Inc. was founded in 2004 and is headquartered in Tsukuba, Japan.

# **Robotics & Automation Description:**

Cyberdyne produces robots that are intended to aid, enable, and enhance human mobility. Cyberdyne's HAL® is a robotic device that enables automatic motion assistance for those with little or minimal use of their lower extremities. It is the only robotic remedial device that can teach the brain how to move one's legs. Cyberdyne also offers single joint robotics that are intended to provide support to knee and elbow joints for use in intensive exercise and weighs only a few pounds. HAL® for Whole Body enables an individual to lift extremely heavy payloads that would typically require the use of a forklift or other comparable device. HAL® for Disaster Recovery comes equipped with a radiation shielding jacket, a vital sensing system, is made of titanium, and can be put on and removed in a matter of minutes. Cyberdyne also produces a line of cleaning robots that can automatically navigate multiple floors of an office building at all hours of day. This enables cleaning to be carried out without the need for man power, lighting, and heating/air conditioning.

Fundamentals					2014		7779 20	14 Revenue by Geo	graphy	
Sales					\$4					
YoY % Change					0%					
EBITDA					(\$9)					
YoY % Change					0%					
Net Income					(\$7)					
YoY % Change					0%			Japan		
Earnings Per Share					(\$0.08)			100%		
YoY % Change					0%					
EBITDA Margin % Net % Margin					(214%) (151%)					
Top 5 Comps	PE	PB	P/S EV/I	EBITDA D	iv Yield %		Analys	t Recommendat	ions	
Rex Bionics Plc	NM	NM	2.94	NM	0.00	1		I	1	í.
Ekso Bionics Holdings, Inc.	NM	NM	16.99	NM	0.00	Buy 📃			3	
ReWalk Robotics Ltd.	NM	NM	63.83	NM	0.00	Hold 0				
Paramount Bed Holdings Co., Ltd.	13.79	1.16	1.30	4.89	1.59		<b>'</b>			
Carmat Société Anonyme	NM	23.40	120.11	NM	0.00	Sell 0	)			
						0	1	2	3	4
CYBERDYNE Inc.	NM	54.05	NM	NM	0.00		No. of	analyst recomme	ndations	





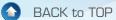
Ticker	ISRG	Currency USD	Date	9/30	0/14
Intuitive Surgical, In	с.				
Headquarters	Sunnyvale, CA	Share Price	461.82	50%	Stock Price vs S&P 500
Website	intuitivesurgical.com	52 Week Range	346.46-541.23	50%	
Robo-Stox Classification	Bellwether	Market Cap (\$B)	16.60	25%	- A mon
Exchange	NasdaqGS	Enterprise Value (\$B)	15.62		American
Share Type	Common Stock	YTD Change	20.24%	0%	Atom when the second se
Functional FX	USD	PE	37.95	(050()	
Ticker	ISRG	P/S	8.54	(25%)	
SEDOL	2871301	Dividend Yield	0.00%	, ,	9/30/ 10/14/ 11/11/25/ 12/33/ 12/32/ 12/32/ 12/32/ 2/31/ 2/31/ 2/31/ 2/31/ 2/31/ 2/31/ 2/31/ 2/32/ 2/31/ 2/32/ 2/32/ 7/17/ 2/32/ 7/17/ 2/32/ 9/12/ 2/32/ 9/12/ 2/32/32/ 2/3/32/ 2/3/ 2/32/ 2/3/ 2/3/ 2/3/ 2/3/2/ 2/3/3
Industry (GICS)	Healthcare Equipment			0	
Robo-Stox Subgroup	Healthcare Robotics & A	utomation Products			S&P Price ISRG Price

Intuitive Surgical, Inc. designs, manufactures, and markets da Vinci surgical systems, and related instruments and accessories. Its da Vinci surgical system translates a surgeon's natural hand movements, which are performed on instrument controls at a console, into corresponding micro-movements of instruments positioned inside the patient through small incisions or ports. The da Vinci surgical system comprise a surgeon's console, a patient-side cart, a 3-D vision system, da Vinci skills simulator, and Firefly fluorescence imaging product that enable surgeons to perform various surgical procedures, including gynecologic, urologic, general surgery, cardiothoracic, and head and neck surgical procedures. The company also manufactures EndoWrist instruments consisting of forceps, scissors, electrocautery, scalpels, and other surgical tools, which incorporate wrist joints for natural dexterity for various surgical procedures. In addition, it offers da Vinci single-site instruments and accessories that allow da Vinci Si surgical systems to work through a single incision; and EndoWrist One vessel sealer, a wristed single-use instrument intended for bipolar coagulation and mechanical transection of vessels up to 7 mm in anastomoses in general, gynecologic, and urologic surgery; and sells various accessory productsdiameter and tissue bundles that fit in the jaws of the instrument. Further, the company provides EndoWrist Stapler 45 instrument, a wristed stapling instrument intended for resection, transaction, and/or creation of, such as sterile drapes, 3-D stereo endoscopes, camera heads, light guides, and other items that are used in conjunction with the da Vinci surgical system. Intuitive Surgical, Inc. markets its products directly and through distributors in the United States and internationally. The company was founded in 1995 and is headquartered in Sunnyvale, California.

# **Robotics & Automation Description:**

Intuitive manufactures the da Vinci® line of surgical robots that are capable of performing various procedures through a single incision point as small as half a millimeter. These surgical robots have 3DHD vision, which is capable producing images at 10x normal magnification. In 2013, The da Vinci® surgical system generated revenues of \$835MM (37.5% of total revenue) and performed over 500,000 procedures world-wide. Da Vinci and other minimally invasive surgical procedures now represent nearly 90% of all prostatectomy procedures (up from 4% in 2003) and 19% of hysterectomy procedures (up from <1% in 2005) in the US. Today there are nearly 3,000 da Vinci systems in use world-wide with approximately 2/3 of them located in the US. Intuitive Surgical's EndoWrist® Instruments provide dexterity greater than that of the human hand (7 degrees of freedom and 90 degrees of articulation), precision, and control.

Fundamentals	2009	2010	2011	2012	2013	ISRG 2013 Revenue by Geography	
Sales	\$1,052	\$1,413	\$1,757	\$2,179	\$2,265	Inti.	
YoY % Change	20%	34%	24%	24%	4%	28%_	
EBITDA	\$412	\$596	\$741	\$936	\$920		
YoY % Change	21%	37%	24%	23%	2%		
Net Income	\$233	\$382	\$495	\$657	\$671		
YoY % Change	14%	64%	30%	33%	2%		
Earnings Per Share	\$6.07	\$9.74	\$12.63	\$16.50	\$17.12		
YoY % Change	16%	60%	30%	30%	5%		
_						United	
EBITDA Margin %	39%	42%	42%	43%	41%	States	
Net % Margin	22%	27%	28%	30%	30%	72%	
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %	Analyst Recommendations	
Edwards Lifesciences Corp.	14.74	5.65	5.19	19.93	0.00		
Teleflex Incorporated	28.95	2.19	2.46	13.46	1.29	Buy 1	.2
Hologic Inc.	NM	3.32	2.69	12.10	0.00	Hold	
CR Bard Inc.	14.54	6.35	3.49	13.56	0.62	Hold 9	
Varian Medical Systems, Inc.	20.57	4.82	2.80	11.78	0.00	Sell 2	
Intuitive Surgical, Inc.	37.95	5.89	8.54	21.35	0.00	0 5 10	





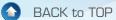
Ticker	EKTA B	Currency USD	Date	9/30/14
Elekta AB				Stock Price vs S&P 500
Headquarters	Stockholm, Sweden	Share Price	9.86	
Website	elekta.com	52 Week Range	9.65885-14.53678	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	3.759	
Exchange	OM	Enterprise Value (\$B)	4.176	
Share Type	Series B Registered Sha	res YTD Change	(27.66%)	
Functional FX	SEK	PE	26.67	(20%)
Ticker	ΕΚΤΑ Β	P/S	2.55	(40%)
SEDOL	B0M42T2	Dividend Yield	2.81%	
Industry (GICS)	Healthcare Equipment			
Robo-Stox Subgroup	Healthcare Robotics & A	utomation Products		S&P Price EKTA B Price

Elekta AB (publ), develops and sells clinical solutions for the treatment of cancer and brain disorders worldwide. The company offers Leksell Gamma Knife, a system for cranial stereotactic radiosurgery; the Extend sytem for utilization of Leksell Gamma Knife Perfexion; and Leksell Stereotactic System for neurosurgery and biopsies. Its neuroscience solutions comprise Gamma Knife radiosurgery for the treatment of brain disorders; stereotactic neurosurgery; and surgiation accessories, as well as Elekta Neuromag TRIUX, a magnetoencephalography platform. The company also provides oncology treatment solutions, such as Precise Treatment System, a digital treatment system; Elekta Acesse, a stereotactic radiation therapy system; Elekta Compact, a gateway to RT for oncology centers; Elekta Synergy system that visualize tumor targets and normal tissue, and their movement between and during fractions; treatment planning systems; oncology information systems solutions; Versa HD, a linear accelerator; and Elekta Infinity system for volumetric arc modulated therapy, as well as various treatment techniques. In addition, it offers brachytherapy solutions that include afterloading platforms; real-time prostate solutions; Oncentra Brachy, a radiotherapy treatment planning system; Esteya for treating skin cancer; and applicators. Further, the company provides software products, including MOSAIQ oncology information system; Oncology Informatics/Data Alliances that streamlines the flow of information in the cancer care team; medical oncology software; Clarity Soft Tissue Visualization, a software for radiation therapy; and METRIQ, a cancer registry data solution. It also offers installation and implementation, service and support, remote, upgrades and accessories, and financial solutions, as well as training, education, and consultative services. It primarily serves hospitals and academic institutions. The company was founded in 1972 and is headquartered in Stockholm, Sweden.

# **Robotics & Automation Description:**

Elekta produces robots for high-precision radiation treatment and patient positioning. Elekta's Automatic Positioning System (APS) is a refined robotic system that makes minimal adjustments of the patients head to optimize the radiation dose. The 3D-Arm<sup>™</sup> provides a stable and precise positioning platform for minimally invasive surgical procedures. The HexaPOD System is a unique fully robotic patient positioning system with six degrees of freedom to correct for any misalignments detected by X-ray. Elekta also has a variety of software packages such as MOSAIQ®, ANALYTIQ<sup>™</sup>, and METRIQ® that create an efficient clinical environment in which all activities related to patient care from diagnosis and treatment to follow-up are as streamlined as possible. Additionally, Elekta specializes in image technology that can conduct , control, and monitor ultrasound scans from outside the treatment room. In 2013, Elekta introduced Versa®, one of the most highly advanced linear accelerators in the medical industry to handle a wide range of cancer treatments.

Fundamentals	2010	2011	2012	2013	2014		ENIA D 2	014 Revenue b	y Geogra	apny	
ales	\$1,020	\$1,312	\$1,346	\$1,594	\$1,643						
'oY % Change	11%	7%	14%	14%	3%						
BITDA	\$186	\$260	\$294	\$352	\$315	China				Other	
'oY % Change	12%	8%	15%	13%	(3%)	15%	~		-	Countrie	
let Income	\$116	\$171	\$182	\$207	\$176	10/0				39%	
'oY % Change	52%	23%	19%	9%	(14%)						
arnings Per Share	\$0.31	\$0.46	\$0.48	\$0.54	\$0.46						
oY % Change	50%	21%	18%	9%	(15%)						
								USA 35%			
BITDA Margin %	18%	20%	22%	22%	19%			3378			
let % Margin	11%	13%	14%	13%	11%						
Top 5 Comps	PE	PB	P/S EV	/EBITDA	Div Yield %		Analys	t Recommen	dations	s	
Villiam Demant Holding A/S	19.60	4.74	2.73	13.96	0.00		1	1	1	1	
IN Store Nord A/S	27.32	4.09	3.08	14.75	0.65	Buy 📃				8	
Sonova Holding AG	30.10	5.87	5.25	20.99	1.25	Hold			6		
Setinge AB	25.26	2.72	1.70	10.84	2.28	HUIU			0		
lobel Biocare Holding AG	34.46	4.97	3.06	15.86	1.18	Sell		5			
lekta AB	26.67	4.27	2.55	16.62	2.81	0	2	4 analyst recom	6	8	





Ticker	MZOR	Currency USD	Date	9/30	)/14
Mazor Robotics Ltd.					Stock Price vs S&P 500
Headquarters	Caesarea, Israel	Share Price	5.76	100%	
Website	mazorst.com	52 Week Range	5.57109-12.5241	75%	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.242	50%	
Exchange	TASE	Enterprise Value (\$B)	0.187	25%	June
Share Type	Ordinary Shares	YTD Change	(38.56%)	25%	Manufacture
Functional FX	USD	PE	NM		the second second
Ticker	MZOR	P/S	14.40	(25%)	
SEDOL	B2473R8	Dividend Yield	0.00%		9/30() 0.0/14/ 1.1/12/ 1.2/5/ 1.2/2/ 2/2/ 2/2/ 2/2/ 2/2/ 2/2/ 2/2/ 2
Industry (GICS)	Healthcare Equipment			0	नननन न
Robo-Stox Subgroup	Healthcare Robotics & Au	tomation Products			S&P Price MZOR Price

Mazor Robotics Ltd., together with its subsidiary, Mazor Robotics Inc., is engaged in the development, production, marketing, and servicing of medical devices for supporting surgical procedures in the fields of orthopedics and neurosurgery in the United States, Western Europe, Eastern Europe, and Asia. The company operates in the field of image guided surgery and computer assisted surgery that enables the use of surgical instruments with precision and invasiveness. It offers Renaissance surgical guidance system that transforms spine surgery from freehand procedures to guided procedures. The company was formerly known as Mazor Surgical Technologies Ltd. and changed its name to Mazor Robotics Ltd. in 2010. Mazor Robotics Ltd. was founded in 2000 and is based in Caesarea, Israel.

# **Robotics & Automation Description:**

Mazor manufactures the Robotic Renaissance<sup>™</sup> and SpineAssist surgical guidance systems. Mazor Robotics Renaissance<sup>™</sup> Guidance System has been used in thousands of spine procedures worldwide ranging from minimally-invasive surgery to scoliosis and other complex spinal deformity cases with accuracy down to the millimeter. Before surgery begins, a CT scan of the patient's spine is uploaded to Renaissance software to create a detailed 3D model of the patient's spine. This enables accurate visualization of the patient's spinal anatomy/ condition and enables the creation of a customized surgical plan in a virtual 3D environment. When compared to traditional spine surgery procedures, patients who used Mazor technology experienced 99% accuracy, saw their average hospital stay decrease by 27%, and complication rates reduced by 48%. The Renaissance Brain Module AANS is used for brain procedures including biopsies and Deep Brain Stimulation (DBS) with 360 degrees of freedom.

Fundamentals	2009	2010	2011	2012	2013		MZOR 2	013 Revenu	ue by Geogra	phy	
Sales	\$1	\$4	\$6	\$12	\$20		Intl.				
YoY % Change	152%	164%	49%	106%	62%		25%				
EBITDA	(\$4)	(\$5)	(\$7)	(\$4)	(\$7)						
YoY % Change	538%	208%	34%	131%	69%						
Net Income	(\$4)	(\$6)	(\$8)	(\$7)	(\$21)						
YoY % Change	0%	0%	0%	0%	0%						
Earnings Per Share	(\$0.29)	(\$0.29)	(\$0.36)	(\$0.29)	(\$0.57)						
YoY % Change	0%	0%	0%	0%	0%						
										United	
BITDA Margin %	(294%)	(129%)	(122%)	(33%)	(33%)					States of America	
Net % Margin		(145%)	(132%)	(58%)	(104%)				·	75%	
Top 5 Comps	PE	PB	P/S EV	EBITDA D	iv Yield %		Analy	st Recom	mendatior	S	
tryker Corporation	45.12	3.40	3.29	21.01	1.51	1	1				
Aedtronic, Inc.	20.95	3.15	3.62	10.60	1.97	Buy				2	
lekta AB	26.67	4.27	2.55	16.62	2.81	Hold <b>0</b>					
INC. A STATE OF A	NM	NM	17.09	NM	0.00						
VIKI INTERVENTIONS, INC.				45.04	1.66	Sell 0		1		1	
MRI Interventions, Inc. Covidien plc	26.23	3.92	3.76	15.31	1.00	•					





Ticker	QGEN	Currency USD	Date	9/30/14
Qiagen NV				
Headquarters	Venlo, Netherlands	Share Price	22.77	Stock Price vs S&P 500
Website	giagen.com	52 Week Range	19.46-25.32	40%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	5.295	30%
Exchange	NasdaqGS	Enterprise Value (\$B)	5.825	20%
Share Type	Common Shares	YTD Change	(4.37%)	10%
Functional FX	USD	PE	41.16	0%
Ticker	QGEN	P/S	3.99	
SEDOL	5732825	Dividend Yield	0.00%	9/30/ 9/30/ 9/23/ 1/1111 1/25/ 1/20/ 1/20/ 2/31/
Industry (GICS)	Life Sciences Tools and	d Services		तिननन न
Robo-Stox Subgroup	Healthcare Robotics &	Automation Products		S&P Price QGEN Price

QIAGEN N.V., through its subsidiaries, provides sample and assay technologies worldwide. It offers approximately 500 core consumable products, such as sample and assay kits, and automated instrumentation systems that empower customers to transform raw biological samples into molecular information. The company's consumable products are used for plasmid deoxyribonucleic acid (DNA) purification, and ribonucleic acid purification and stabilization; genomic and viral nucleic acid purification; nucleic acid transfection; polymerase chain reaction (PCR) amplification; reverse transcription; DNA cleanup after PCR and sequencing; and DNA cloning and protein purification. The company sells the digene HC2 HPV Test, a test for high-risk strains of the human papillomavirus. It also offers co-development services for companion diagnostics, technology licensing and patent sales services, and custom services, including whole genome amplification, DNA sequencing, and non-cGMP DNA production on a contract basis. In addition, the company provides instrumentation systems that automate the use of sample and assay technologies into solutions for a range of laboratory needs enabling customers to perform nucleic acid sample preparation, assay setup, and target detection, as well as workflow solutions. Its automated systems include QIAsymphony, a modular system; Rotor-Gene Q, a rotary real-time PCR cycler system; PyroMark, a high-resolution detection platform; QIAcube, a sample processing instrument; QIAxcel for nucleic acid segnaration; and ESE-Quant Tube Scanners, an optical measurement device. The company serves molecular diagnostics laboratories; applied testing customers; pharmaceutical research and development groups, and academic researchers. It has a collaboration agreement with AstraZeneca PLC for the co-development and commercialization of a liquid biopsy-based companion diagnostic. QIAGEN N.V. was founded in 1986 and is headquartered in Venlo, the Netherlands.

# **Robotics & Automation Description:**

Qiagen manufactures lab robots used in the DNA purification, pre-sequencing, next-generation gene sequencing, and Assay technologies. Assay refers to various analytic laboratory procedures such as those in medicine, biology, and genetics. QIAGEN offers instruments such as the QIAsymphony RGQ® for automating the full range of laboratory procedures, from the initial sample preparation to the final test results. Its automation products focus on optimizing sample preparation, automating assay set-up, and real-time DNA quantification. Its automation and instrumentation systems account for 10-15% of its total net sales and presently has over 1,000 QIAsymphony RGQ® systems installed world-wide.

Fundamentals	2009	2010	2011	2012	2013	QGEN 2013 Revenue by Geography Other
Sales	\$1,010	\$1,087	\$1,170	\$1,254	\$1,302	Asia Pacific Americas & Rest of 4%
YoY % Change	13%	8%	8%	7%	4%	World
EBITDA	\$338	\$338	\$355	\$412	\$365	18% United
YoY % Change	13%	6%	7%	6%	4%	States
Net Income	\$138	\$144	\$96	\$126	\$46	42%
YoY % Change	55%	5%	(33%)	31%	(64%)	
Earnings Per Share	\$0.67	\$0.62	\$0.41	\$0.54	\$0.20	Europe (Excluding
YoY % Change	45%	(6%)	(33%)	33%	(64%)	the NL)
	240/	010/	200//	220/	200/	36%
EBITDA Margin % Net % Margin	34% 14%	31% 13%	30% 8%	33% 10%	28% 4%	
	17/0	1070	070	10/0	470	
Fop 5 Comps	PE	PB	P/S EV	/EBITDA C	Div Yield %	Analyst Recommendations
llumina Inc.	109.52	21.15	12.98	50.42	0.00	
Gerresheimer AG	22.87	3.17	1.27	8.74	1.35	Buy <b>7</b>
PerkinElmer Inc.	25.49	2.39	2.22	13.55	0.64	Hold
Naters Corporation	20.94	4.51	4.35	13.09	0.00	
Bruker Corporation	40.30	3.53	1.65	12.12	0.00	Sell 1
		1.00	0.00	15.40	0.00	0 5 10 2
liagen NV	41.16	1.93	3.99	15.46	0.00	No. of analyst recommendations





Ticker	RWLK	Currency USD	Date	9/30/14																	
<b>ReWalk Robotics Ltd</b>	l.																				
Headquarters	Yokneam Ilit, Israel	Share Price	34.15	53%					SI	lock	Pric	e vs	S&F	° 50	0						
Website	rewalk.com	52 Week Range	11.5-43.7059	55%			1														
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.388	26%		/				_			_	~							-
Exchange	NasdaqGM	Enterprise Value (\$B)	0.392							~		-									
Share Type	Ordinary Shares	YTD Change	159.42%	0%																	_
Functional FX	USD	PE	NM	(000)																	
Ticker	RWLK	P/S	63.83	(26%)	44	4	4 4	4	1 4	14	44	14	14	14	4	4 5	4 4	4	14	14	14
SEDOL	-	Dividend Yield	0.00%		/12/	/13/	15/1/	16/1	17/	/18/14	/19/	/20/	/21/	(22/	/23/	24/	/26/	/27/	/28/	/29/	/30/
Industry (GICS)	Healthcare Equipment				ດັ	ര്	ത്ത്	δσ	റ്റ്	ര്	6	ດັ	ດັ	ര് 	ര്	ര് ഗ	ດັດ	ିତି	6	6	ଚ
Robo-Stox Subgroup	Healthcare Robotics & A	utomation Products							_	S&P	Pric	e	_	-R\	NLK	Pric	е				

ReWalk Robotics Ltd. designs, develops, and commercializes exoskeletons for wheelchair-bound individuals. The company offers ReWalk Personal for everyday use to individuals at home and in their communities; and ReWalk Rehabilitation for exercise and therapy to individuals with lower limb disabilities in the clinical rehabilitation environment. It is also developing ReWalk–Q for individuals with quadriplegia. ReWalk Robotics Ltd. markets and sells its products directly to institutions and individuals in Germany and the United States, as well as through third-party distributors in other markets. The company was formerly known as Argo Medical Technologies Ltd. ReWalk Robotics Ltd. was founded in 2001 and is headquartered in Yokneam Ilit, Israel.

# **Robotics & Automation Description:**

ReWalk is the first exoskeleton cleared by the FDA for personal use. It is battery powered and consists of a light, wearable exoskeleton with integrated motors at the joints, an array of sensors and computer-based control system to power knee and hip movement. Rewalk is the only commercialized exoskeleton using a tilt sensor to restore self-initiated walking. Through subtle changes in the user's center of gravity the exoskeleton can control the users movement. Published clinical studies demonstrate ReWalk's ability to deliver a natural gait and functional walking speed, which has not been shown in studies for any competing exoskeleton. ReWalk also allows users to sit, stand and, in some cases, climb and descend stairs. It is expected to fundamentally change the life and health expectations of its previously immobile users.

Fundamentals				2012	2013		RW	LK 2013 Reven Israel	ue by Geogra	iphy	
Sales				\$1	\$2		Japan. 6%				
YoY % Change				0%	63%		070				
EBITDA				(\$6)	(\$9)						
YoY % Change				0%	(52%)						
Net Income				(\$7)	(\$12)						
YoY % Change				0%	(83%)	Euro	ope _/				
Earnings Per Share				(\$41.26)	(\$74.53)	30				United	
YoY % Change				0%	(81%)					States 59%	
EBITDA Margin % Net % Margin				(586%) (685%)	(545%) (767%)						
Top 5 Comps	PE	PB	P/S EV/	EBITDA	Div Yield %		Ar	alyst Recom	mendatior	IS	
Rex Bionics Plc	NM	NM	2.94	NM	0.00			1	I.	1	1
CYBERDYNE Inc.	NM	54.05	NM	NM	0.00	Buy	0				
Ekso Bionics Holdings, Inc.	NM	NM	16.99	NM	0.00	Hold	0				
Sonova Holding AG	30.10	5.87	5.25	20.99	1.25	noiu	•				
Pihsiang Machinery MFG. Co., LTD.	NM	4.10	10.50	NM	0.00	Sell	0				
						0	0.2	0.4	0.6	0.8	1
ReWalk Robotics Ltd.	NM	NM	63.83	NM	0.00	Ū		o. of analyst r			-





Ticker	TECN	Currency USD	Date	9/30	/14
Tecan Group Ltd.					
Headquarters	Männedorf, Switzerland	Share Price	105.09	50%	Stock Price vs S&P 500
Website	tecan.com	52 Week Range	96.72798-116.17815	40%	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	1.170	30%	
Exchange	SWX	Enterprise Value (\$B)	1.034	20%	
Share Type	Registered Shares	YTD Change	(4.74%)	10%	hand have have him have
Functional FX	CHF	PE	23.59	0%	
Ticker	TECN	P/S	2.93	(10%)	
SEDOL	7110902	Dividend Yield	1.49%	20/	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,
Industry (GICS)	Life Sciences Tools and S	ervices		σ	
Robo-Stox Subgroup	Healthcare Robotics & Au	tomation Products			S&P Price TECN Price

Tecan Group Ltd. provides laboratory instruments and solutions for pharmaceutical and biotechnology companies, university research departments, forensic, and diagnostic laboratories. It operates in two segments, Life Sciences Business and Partnering Business. The company specializes in the development, production, and distribution of automated workflow solutions for laboratories in the life sciences sector, as well as developing and manufacturing original equipment manufacturer instruments and components. Its automation solutions include instruments, software packages, numerous configurable modules, and special application expertise, as well as regulatory and quality consulting, service, and consumables. The company offers liquid handling platforms, which are used to pipette fluids with optimum precision and automate laborious and repetitive manual procedures; a range of bioanalytical instruments, such as microplate readers and washers that allow reactions to be monitored or analyses to be measured; and detection instruments. It also provides laboratory automation components, such as precision pumps, valves, and robotic arms, as well as develops software for laboratory instrument manufacturers under the Cavro brand. In addition, the company offers consumables, such as pipette tips, a laboratory automation solution. Tecan Group distributes its products through its own market organization and distributors in approximately 52 countries worldwide. The company was founded in 1980 and is headquartered in Männedorf, Switzerland.

# **Robotics & Automation Description:**

Tecan is the market leader in laboratory automation and offers liquid handling and robotics applications within the life science and diagnostic markets. Tecan's Carvo® brand is the market leader in lab automation components such as robotic arms and precision pumps. Tecan offers Freedom EVO®-based end-to-end process automation, in particular, for mass spectrometry sample preparation. Freedom EVO® workstations can automate a diverse range of applications including primary and secondary screening, cell growth and maintenance, nucleic acid sample preparation, hit picking, library management, and sample weighing. The Freedom EVOlyzer® offers a validated solution for automation of microplate-based chromogenic ELISAs, which has gained much interest among lab managers seeking to automate ELISA processes. The automated barcode scanning and the advanced sample tracking capabilities of Freedom EVOware® provide exceptional process security.

Fundamentals Sales	<b>2009</b> \$344	<b>2010</b> \$397	<b>2011</b> \$403	<b>2012</b> \$427	<b>2013</b> \$436		TECN 2013 Revenue by G Asia	
YoY % Change	(10%)	\$397 4%	\$403 2%	\$427 4%	۵430 (1%)		14%	
EBITDA	\$64	\$68	\$61	4 % \$64	\$69			
YoY % Change	(10%)	1%	3%	3%	(4%)			North
Net Income	\$48	\$17	\$51	\$46	\$51			America
YoY % Change	93%	(67%)	194%	(11%)	8%			44%
Earnings Per Share	\$4.60	\$1.66	\$4.73	\$4.28	\$4.67		Other	
YoY % Change	96%	(3%)	(7%)	(6%)	6%		Europe 42%	
EBITDA Margin %	19%	17%	15%	15%	16%			
Net % Margin	14%	4%	13%	11%	12%			
Top 5 Comps	PE	PB	P/S EV	EBITDA D	Div Yield %		Analyst Recommend	dations
Nobel Biocare Holding AG	34.46	4.97	3.06	15.86	1.18		I	I.
•	29.36	5.11	4.91	20.49	1.73	Buy		5
Straumann Holding AG				00.00	1.25			
	30.10	5.87	5.25	20.99	1.20		2	
Sonova Holding AG	30.10 22.87	5.87 3.17	5.25 1.27	20.99 8.74	1.25	Hold	2	
Straumann Holding AG Sonova Holding AG Gerresheimer AG Qiagen NV						Sell 0	2	





Ticker	VAR	Currency USD	Date	9/30/14
Varian Medical Syst	ems, Inc.			
Headquarters	Palo Alto, CA	Share Price	80.12	Stock Price vs S&P 500
Website	varian.com	52 Week Range	71.98-87.85	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	8.268	30%
Exchange	NYSE	Enterprise Value (\$B)	7.761	20%
Share Type	Common Stock	YTD Change	3.13%	
Functional FX	USD	PE	20.57	0%
Ticker	VAR	P/S	2.80	(10%) (10%)
SEDOL	2927516	Dividend Yield	0.00%	9/30/14/1 11/26/11/14/11/12/28/11/14/12/28/11/28/28/11/28/28/11/28/28/11/28/28/11/28/28/11/28/28/11/28/28/11/28/28/11/28/28/11/28/28/11/28/28/11/28/28/11/28/28/11/28/28/11/28/28/11/28/28/11/27/11/27/11/2/28/11/28/28/11/27/11/27/11/27/28/28/11/27/11/2/28/11/27/11/2/28/11/27/11/2/28/11/27/11/27/11/27/28/28/11/27/11/27/11/27/11/27/28/28/11/27/11/27/11/27/11/27/28/28/11/27/11/27/11/27/28/28/11/27/11/27/28/28/18/28/28/11/27/11/27/11/27/27/11/27/11/27/27/11/28/28/28/28/11/27/11/27/11/27/11/27/11/27/11/27/11/27/11/27/11/27/11/27/11/27/11/28/28/28/28/28/28/28/28/28/28/28/28/28/
Industry (GICS)	Healthcare Equipment			
Robo-Stox Subgroup	Healthcare Robotics & A	utomation Products		S&P Price VAR Price

Varian Medical Systems, Inc. designs, manufactures, sells, and services medical devices and software for treating cancer and other medical conditions with radiotherapy, radiosurgery, proton therapy, and brachytherapy worldwide. The company's Oncology Systems segment offers linear accelerators, brachytherapy afterloaders, treatment simulation and verification equipment, and accessories; and information management, treatment planning, and image processing software. This segment serves university research and community hospitals, private and governmental institutions, healthcare agencies, physicians' offices, and cancer care clinics. Its X-Ray Products segment provides X-ray imaging components to large imaging system original equipment manufacturers (OEMs) for use in radiographic or fluoroscopic imaging, mammography, special procedures, computed tomography, and industrial applications; and X-ray tubes and flat panel digital image detectors to small OEMs, independent service companies, and encues for filmless X-ray imaging. The company also designs, manufactures, sells, and services Linatron X-ray accelerators, imaging processing software, and image detection products for security and inspection purposes, such as cargo screening at ports and borders, and nondestructive examination in various applications. In addition, it offers products and systems for delivering proton therapy; and technologies in the areas of digital X-ray imaging, volumetric and functional imaging, and improved X-ray sources, as well as technology for security and cargo screening applications. The company was formerly known as Varian Associates, Inc. and changed its name to Varian Medical Systems, Inc. in April 1999. Varian Medical Systems, Inc. was founded in 1948 and is headquartered in Palo Alto, California.

# **Robotics & Automation Description:**

Varian develops technology used to automate aspects of radiation treatment and image detection technology. Its RapidArc® technology improves dose conformity by delivering treatments 2-8 times faster than its existing dynamic treatments today and increases precision by delivering a sculpted 3D dose distribution with a single 360-degree rotation. Its Dynamic Targeting® IGRT technology accounts for motion to ensure that the patient is in the same position at every treatment session by providing high-resolution 3D images to pinpoint tumor sites, adjust patient positioning, and complete a treatment all within the allotted treatment window. Varian's PaxScan® line of ultra-fast flat-panel digital X-ray image detectors are used to capture X-ray images (up to 60 per second) and instantly display them on computer screens, which eliminates the need for film and film processing.

Fundamentals	2009	2010	2011	2012	2013	VAR 2013 Revenue by Geography Rest of
Sales	\$2,214	\$2,357	\$2,597	\$2,807	\$2,943	World 4%
YoY % Change	7%	6%	10%	8%	5%	Asia
EBITDA	\$519	\$585	\$641	\$658	\$678	23%
YoY % Change	9%	7%	11%	5%	4%	North
Net Income	\$319	\$360	\$399	\$427	\$438	America 43%
YoY % Change	14%	13%	11%	7%	3%	45%
Earnings Per Share	\$2.57	\$2.96	\$3.42	\$3.83	\$4.04	
YoY % Change	15%	12%	16%	9%	6%	Europe
EBITDA Margin % Net % Margin	23% 14%	25% 15%	25% 15%	23% 15%	23% 15%	30%
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %	Analyst Recommendations
Hologic Inc.	NM	3.32	2.69	. 12.10	0.00	
CR Bard Inc.	14.54	6.35	3.49	13.56	0.62	Buy 8
Intuitive Surgical, Inc.	37.95	5.89	8.54	21.35	0.00	Hold 3
Edwards Lifesciences Corp.	14.74	5.65	5.19	19.93	0.00	<b>3</b>
Sirona Dental Systems Inc.	25.39	3.27	3.65	14.66		Sell 1
Varian Medical Systems, Inc.	20.57	4.82	2.80	11.78	0.00	0 2 4 6 8 1





# Industrial Automation Software & Equipment





Ticker	ABBN	Currency USD	Date	9/30	/14
ABB Ltd.					
Headquarters	Zurich, Switzerland	Share Price	22.46	50%	Stock Price vs S&P 500
Website	abb.com	52 Week Range	20.92462-25.93356	40%	
Robo-Stox Classification	Bellwether	Market Cap (\$B)	51.45	30%	
Exchange	SWX	Enterprise Value (\$B)	54.57	20%	
Share Type	Common Stock	YTD Change	(8.52%)	10%	Dame and the second
Functional FX	USD	PE	21.68	0%	the second second
Ticker	ABBN	P/S	1.34	(10%)	$ \begin{array}{c}                                     $
SEDOL	7108899	Dividend Yield	3.26%	/06/	) H N H N S N S N S H S H M H N H N S N S N S H S H N
Industry (GICS)	Heavy Electrical Equipm	ient		ð	
Robo-Stox Subgroup	Industrial Automation S	oftware & Equipment			S&P Price ABBN Price

ABB Ltd provides power and automation technologies for utility and industrial customers worldwide. The company's Power Products segment offers switchgears, circuit breakers, capacitors, surge arresters, cable accessories, high voltage components, reclosers, fuses, contactors, relays, sensors, motor control centers, ring main units, and modular systems; and power, traction, distribution, and other special transformers. Its Power Systems segment provides integrated power and automation solutions; alternating current (AC) and direct current transmission systems; flexible AC systems technologies; land and submarine cables, as well as accessories and services for medium-to high-voltage AC and DC systems; air-and gas-insulated substations; and network management solutions. This segment also offers support agreements and retrofits, spare parts, service, and training; and consulting services. The company's Discrete Automation and Motion segment provides motors, generators, variable speed drives, programmable logic controllers, robots and robotics, solar inverters, wind converters, rectifiers, excitation systems, and related services for discrete automation, process industries, transportation, and utilities. Its Low Voltage Products segment provides protection, control, and measurement for electrical installations; enclosures, switchboards, electronics, and electromechanical devices for industrial machines and plants; products for wiring and cable management, cable protection systems, power connection, and safety; and building control systems for home and building automation. The company's Process Automation segment develops and sells control and plant optimization systems, automation products and solutions, and industry-specific application services for the oil, gas, petrochemicals, metals and minerals, marine and turbocharging, pulp and paper, chemical and pharmaceuticals, and power industries. ABB Ltd was founded in 1883 and is headquartered in Zurich, Switzerland.

# **Robotics & Automation Description:**

ABB's Discrete Automation and Motion (DAM) division sells products, applications, solutions and related services that help customers increase industrial productivity and energy efficiency. The stand-alone Robotics unit which is a part of the DAM division contributes roughly 5% of total revenues and has installed over 250,000 robots across the globe. These robots are capable of handling payloads up to as much as 500kg (~1,100 lbs). ABB recently introduced Integrated Force Control sensing technology that allows robots operate much like a human hand would. The DAM division has grown at a 16% CAGR over 2009-2013 and currently contributes 28% of divisional EBITDA. The Process Automation division supplies systems and products to control and automate production processes as well as reduce energy usage. The PA division has grown at a 2% CAGR over 2009-2013 and currently contributes 19% of divisional EBITDA.

Fundamentals	2009	2010	2011	2012	2013	ABBN 2013 Revenue by Geography Middle	
Sales	\$31,795	\$31,589	\$37,990	\$39,336	\$41,848	East and	
YoY % Change	(9%)	(1%)	20%	4%	6%	10%	
EBITDA	\$4,719	\$4,573	\$5,538	\$5,259	\$5,636	Europe 34%	1
YoY % Change	(13%)	0%	19%	(0%)	5%	34%	
Net Income	\$2,901	\$2,561	\$3,168	\$2,704	\$2,787	Asia	
YoY % Change	(7%)	(12%)	24%	(15%)	3%	27%	
Earnings Per Share	\$1.27	\$1.12	\$1.38	\$1.18	\$1.21		
YoY % Change	(8%)	(12%)	24%	(15%)	4%	The Americas	
						29%	
EBITDA Margin %	15%	14%	15%	13%	13%		
Net % Margin	9%	8%	8%	7%	7% 7%		
Top 5 Comps	PE	PB	P/S E	//EBITDA	Div Yield %	Analyst Recommendations	
Alstom SA	15.21	1.66	0.41	6.49	0.00		
Schneider Electric SE	18.77	1.91	1.43	11.07	3.08	Buy 12	
Siemens Aktiengesellschaft	16.35	2.81	1.07	10.43	3.19	Hold 15	
Mitsubishi Electric Corporation	18.33	2.03	0.76	7.76	1.51	13	
Atlas Copco AB	21.09	6.28	2.90	13.61	2.66	Sell 4	
ABB Ltd.	21.68	3.13	1.34	11.29	3.26	0 5 10 15	
ADD LLU.	21.00	3.13	1.04	11.23	3.20	No. of analyst recommendations	



No. of analyst recommendations



Ticker	6954	Currency USD	Date	9/3	0/14
Fanuc Corporation					
Headquarters	Yamanashi, Japan	Share Price	180.58	50%	Stock Price vs S&P 500
Website	fanuc.co.jp	52 Week Range	136.73655-187.6937	40%	
Robo-Stox Classification	Bellwether	Market Cap (\$B)	35.33	30%	
Exchange	TSE	Enterprise Value (\$B)	27.93	20%	
Share Type	Common Stock	YTD Change	2.91%	10%	man have an min more han a
Functional FX	JPY	PE	29.06	0%	A Mar and a mar
Ticker	6954	P/S	7.63	(10%)	
SEDOL	6356934	Dividend Yield	0.86%		9/30/ 0/14/12/ 1/12/12/ 1/20/ 2/23/ 1/20/ 2/23/ 1/20/ 2/23/ 2/23/ 3/31/ 2/22/ 3/31/ 2/23/ 2/22/2
Industry (GICS)	Industrial Machinery				
Robo-Stox Subgroup	Industrial Automation Soft	tware & Equipment			S&P Price 6954 Price

Fanuc Corporation engages in the manufacture and sale of machinery in the Americas, Europe, Africa, Oceania, and Asia. Its products include CNC series, servo motors, lasers, robots, robodrills, electric injection molding machines, wire-cut electric discharge machines, and super nano machines. The company was founded in 1956 and is headquartered in Yamanashi Prefecture, Japan.

# **Robotics & Automation Description:**

Fanuc's robotics divisions include the ROBOT division and ROBOMACHINE division. The ROBOT division produces hardware, software, and intelligence robot components designed for high performance, productivity, and reliability. ROBOMACHINE's products include robot drills, robot arc welders, Roboshot (an electric injection molder), Robocut (wire-cutting electric discharge machines), and Robonano (ultra precision machines). Through 2013, Fanuc's cumulative robot production surpassed 330,000 units, up from just under 200,000 in 2007, and 100,000 in 2001.

Fundamentals	2010	2011	2012	2013	2014	6954 2014 Revenue by Geography
Sales	\$2,711	\$5,385	\$6,534	\$5,291	\$4,381	Europe
YoY % Change	(35%)	76%	21%	(7%)	(10%)	16%
EBITDA	\$737	\$2,451	\$2,880	\$2,152	\$1,773	_Asia
YoY % Change	(46%)	136%	16%	(13%)	(7%)	37%
Net Income	\$401	\$1,450	\$1,684	\$1,279	\$1,078	
YoY % Change	(61%)	220%	16%	(13%)	(8%)	United
Earnings Per Share	\$2.01	\$7.41	\$8.61	\$6.54	\$5.51	States
YoY % Change	(60%)	227%	16%	(13%)	(8%)	23% Japan
-						24%
EBITDA Margin %	27%	46%	44%	41%	40%	
Net % Margin	15%	27%	26%	24%	25%	
Top 5 Comps	PE	PB	P/S EV	//EBITDA D	iv Yield %	Analyst Recommendations
SMC Corp.	23.64	2.58	4.98	14.10	0.60	
Makita Corporation	19.88	1.93	2.13	10.12	1.47	Buy 7
Hitachi Construction Machinery Co. Ltd.	13.18	1.21	0.58	7.19	2.72	Hold
THK Co., Ltd.	20.92	1.58	1.78	8.23	1.32	
NSK Ltd.	23.56	2.29	0.94	8.81	1.28	Sell <b>2</b>
Fanuc Corporation	29.06	3.18	7.63	13.87	0.86	0 5 10
	20.00	5.10	7.00	.5.07	0.00	No. of analyst recommendations





Ticker	KRN	Currency USD	Date	9/30/14
Krones AG				
Headquarters	Neutraubling, Germany	Share Price	86.91	Stock Price vs S&P 500
Website	krones.com	52 Week Range	71.21853-95.6648	
Robo-Stox Classification	Bellwether	Market Cap (\$B)	2.745	40%
Exchange	XTRA	Enterprise Value (\$B)	2.547	20%
Share Type	Ordinary Shares	YTD Change	10.30%	0%
Functional FX	EUR	PE	17.21	
Ticker	KRN	P/S	0.75	
SEDOL	5523881	Dividend Yield	1.45%	9/30/ 0.0/14/ 1./11/ 1./29/ 1.29/ 1.29/ 1.29/ 2.33/ 2.
Industry (GICS)	Industrial Machinery			
Robo-Stox Subgroup	Industrial Automation Sof	ftware & Equipment		S&P Price KRN Price

Krones AG plans, develops, and manufactures machinery and complete lines for the fields of process, filling, and packaging technology, as well as intralogistics in Germany and internationally. The company provides plant engineering solutions, such as planning new plants, plant expansion, plant structural planning, and energy and media optimization; and process technology systems for use in beer, soft drink, water, milk, spirit, and juice and milk with fruit chunks. It also offers filling technology products for bottle design, plastics, cleaning, filling, inspection, labeling, conveyor, product treatment, monobloc, and automatic fast product change-over technology applications; and packaging, palletizing, monobloc, and robot technology products. In addition, the company provides logistics services for the food and beverage industries; IT solutions for filling and packaging, business intelligence, manufacturing intelligence, maintenance, planning, infrastructure, quality, processing, and manufacturing execution applications; and lifecycle services in the areas of scheduled maintenance, unscheduled maintenance and repairs, plant optimization, and training and continuing education. It serves breweries, the soft-drinks sector, and producers of still or sparkling wines and spirits, as well as food and luxury-goods, chemical, cosmetics, and pharmaceutical industries. The company was founded in 1951 and is headquartered in Neutraubling, Germany.

# **Robotics & Automation Description:**

Krones manufactures industrial robots, grippers, and materials handling equipment for factory automation and warehousing. Krones Line Documentation System, Line Performance Analyser, and Line Management System are used to automatically record & analyze production data. The Krones Line Visualization System displays the operating status machines and allows the user to view all of them from a single location. The Krones Laboratory Information Management System allows for quality control and other defect detection in real-time. Krones Botec F1 application automates complex production processes while enabling the freedom of added flexibility to make changes on the fly. Lastly Krones has a variety of Modufill products that guarantee precise fill quantities for water, juice, soda, and alcoholic beverage containers.

Fundamentals	2009	2010	2011	2012	2013		KRN 2013 Revenue	by Geography
Sales	\$2,714	\$2,959	\$3,266	\$3,568	\$3,934			
YoY % Change	(22%)	17%	14%	8%	6%	Asia-Pacific		Western
EBITDA	\$26	\$170	\$151	\$211	\$303	29%		Europe
YoY % Change	(25%)	25%	12%	10%	7%			36%
Net Income	(\$50)	\$68	\$57	\$90	\$164			
YoY % Change	0%	0%	(14%)	56%	75%			
Earnings Per Share	(\$1.62)	\$2.26	\$1.88	\$2.98	\$5.28			
YoY % Change	0%	0%	(14%)	56%	70%		Middle	
-							East/Africa 35%	
EBITDA Margin %	1%	6%	5%	6%	8%		3370	
Net % Margin	(2%)	2%	2%	3%	4%			
Top 5 Comps	PE	PB	P/S EV	/EBITDA [	Div Yield %		Analyst Recomm	nendations
GEA Group Aktiengesellschaft	22.98	2.88	1.51	15.25	1.74		I.	1
Heidelberger Druckmaschinen Aktiengesellschaft	64.51	1.76	0.22	5.99	0.00	Buy		12
Dürr Aktiengesellschaft	13.91	3.97	0.86	7.71	2.49			
KUKA Aktiengesellschaft	30.57	4.20	0.87	9.25	0.63	Hold	5	
DMG Mori Seiki Aktiengesellschaft	17.07	1.60	0.78	8.01	2.24	Sell 0		
	17.07	1.00	0.70	0.01	2.2.1			
Krones AG	17.21	2.30	0.75	8.93	1.45	0	5	10
	17.21	2.00	3.75	0.00	1.45		No. of analyst rec	ommendations





Ticker	KU2	Currency USD	Date	9/30/	/14
KUKA Aktiengesellso	chaft				
Headquarters	Augsburg, Germany	Share Price	60.58	60% –	Stock Price vs S&P 500
Website	kuka-ag.de	52 Week Range	39.46236-62.05591		
Robo-Stox Classification	Bellwether	Market Cap (\$B)	2.054	40%	n m m m
Exchange	DB	Enterprise Value (\$B)	1.892	20%	and and and the second
Share Type	Bearer Shares	YTD Change	40.75%	0%	And a state of the
Functional FX	EUR	PE	30.57	(000()	
Ticker	KU2	P/S	0.87	(20%) ل ۳	$\begin{array}{c} \mathbf{u} \mathbf{u} \mathbf{u} \mathbf{u} \mathbf{u} \mathbf{u} \mathbf{u} u$
SEDOL	5529191	Dividend Yield	0.63%	/30/	10/14/1 11/12/17/1 11/12/17/1 12/23/1 12/23/1 12/23/1 2/3/17/1 2/3/10/10/10/10/10/10/10/10/10/10/10/10/10/
Industry (GICS)	Industrial Machinery			ດັ	
Robo-Stox Subgroup	Industrial Automation Sof	tware & Equipment			S&P Price KU2 Price

KUKA Aktiengesellschaft develops solutions for the automation of industrial production processes, primarily to the automotive industry worldwide. The company operates in two segments, KUKA Robotics and KUKA Systems. The KUKA Robotics segment develops, produces, sells, and services industrial robots for various applications and industry sectors, mobile platforms, control systems, and software solutions; and develops and markets products for the service robotics and health care sectors. The KUKA Systems segment plans, designs, and builds automated manufacturing systems, including stand-alone system components, tools, jigs, and automated manufacturing cells. This segment serves aerospace, rail vehicle manufacturing, construction machinery, energy, and consumer goods manufacturing sectors. The company was formerly known as Industrie-Werke Karlsruhe Augsburg Aktiengesellschaft and changed its name to KUKA Aktiengesellschaft in 2007. KUKA Aktiengesellschaft was founded in 1898 and is headquartered in Augsburg, Germany.

# **Robotics & Automation Description:**

Kuka manufactures robots of all sizes for factory automation. Kuka's robotics division offers industrial robots, controllers, positioners, and robot systems. It's industrial robots are mainly palletizers, clean room, and arc welding robots (among others), and can handle payloads of all sizes up to approximately 1,300 KG (-3,000 lbs). Kuka's controllers include the smartPAD, which integrates PC software with modular hardware that allows for the customization and flexibility of system automation. Kuka Robot systems are designed to carry out specific or unique tasks. Kuka has also created cells, in which robots of different sizes and in different constellations can cooperate and work together as a team. Other technological development projects are underway to determine how to make robots lighter and more flexible. From 2010-13, the robotics division accounted for approximately 40% of Kuka's total revenues and approximately 70% of EBIT.

Fundamentals	2009	2010	2011	2012	2013	Asia /	KU2 2013 Revenu	e by Geogra	phy	
Sales	\$1,293	\$1,446	\$1,865	\$2,293	\$2,444	Other Regions				
YoY % Change	(29%)	20%	33%	21%	2%	16%				
EBITDA	(\$52)	\$41	\$109	\$170	\$215				_Germa 339	
YoY % Change	(39%)	28%	38%	37%	14%					°
Net Income	(\$109)	(\$12)	\$39	\$73	\$80					
YoY % Change	0%	0%	0%	87%	5%	Europe				
Earnings Per Share	(\$4.23)	(\$0.38)	\$1.16	\$2.16	\$2.37	(Excluding			7	
YoY % Change	0%	0%	0%	84%	5%	Germany) 23%		rth erica		
								3%		
EBITDA Margin %	(4%)	3%	6%	7%	9%					
Net % Margin	(8%)	(1%)	2%	3%	3%					
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %		Analyst Recon	nmendatio	ons	
Dürr Aktiengesellschaft	13.91	3.97	0.86	7.71	2.49	1	1	1	1	
DMG Mori Seiki Aktiengesellschaft	17.07	1.60	0.78	8.01	2.24	Buy	4			
Heidelberger Druckmaschinen Akti	64.51	1.76	0.22	5.99	0.00	Hold				9
Krones AG	17.21	2.30	0.75	8.93	1.45					9
GEA Group Aktiengesellschaft	22.98	2.88	1.51	15.25	1.74	Sell		6		
						0	2 4	6	8	





Ticker	Ticker LECO		Date	9/30/14
Lincoln Electric Hole	dings Inc.			
Headquarters	Cleveland, OH	Share Price	69.14	Stock Price vs S&P 500
Website	lincolnelectric.com	52 Week Range	63.23-76.26	40%
Robo-Stox Classification	Bellwether	Market Cap (\$B)	5.493	30%
Exchange	NasdaqGS	Enterprise Value (\$B)	5.301	20%
Share Type	Common Shares	YTD Change	(3.09%)	10%
Functional FX	USD	PE	19.62	
Ticker	LECO	P/S	1.98	
SEDOL	2516851	Dividend Yield	1.33%	9/30/ 0.0/14/ 0.028/ 1.1/15/ 1.1/25/ 1.1/25/ 2.2/33/ 2.2/23/23/ 2.2/23/ 2.2/23/23/ 2.2/23/23/23/ 2.2/23/23/23/23/23/23/23/23/23/23/23/23/23
Industry (GICS)	Industrial Machinery			नननन न
Robo-Stox Subgroup	Industrial Automation So	oftware & Equipment		S&P Price LECO Price

Lincoln Electric Holdings, Inc., through its subsidiaries, engages in the design, manufacture, and sale of welding, cutting, and brazing products worldwide. The company's welding products include arc welding power sources, wire feeding systems, robotic welding packages, fume extraction equipment, consumable electrodes, and fluxes. It also offers computer numeric controlled plasma and oxy-fuel cutting systems, and regulators and torches used in oxy-fuel welding, cutting, and brazing. The company serves various markets, such as general metal fabrication, power generation and process industry, structural steel construction, heavy equipment fabrication, shipbuilding, automotive, pipe mills and pipelines, and offshore oil and gas exploration and extraction. The company sells its products directly to users of welding products, as well as through industrial distributors, retailers, and agents. Lincoln Electric Holdings, Inc. was founded in 1895 and is headquartered in Cleveland, Ohio.

# **Robotics & Automation Description:**

Lincoln manufactures robotic laser cutting and robotic arc welding systems for a wide array of welding procedures from MIG to spot welding. Lincoln offers both pre-engineered and custom robotic systems that are comprised of turntable systems and specific welding applications respectively. It's mechanized automation systems do not leverage robotics; however, they offer a wide array of options to automate various welding processes. Lincoln also offers orbital welding systems that provide for precise welding control and monitoring capabilities. Lincoln's robotic cutting systems include plasma cutters (Torchmate) and a universal steel fabrication system (PythonX) that can drill, cut, saw, and torch.

Fundamentals	2009	2010	2011	2012	2013		LECO 2013 Revenue	by Geography
Sales	\$1,729	\$2,070	\$2,695	\$2,853	\$2,853		China 8%	
YoY % Change	(30%)	20%	30%	6%	6 (0%) \$503			
EBITDA	\$178	\$247	\$364	\$442				
YoY % Change	(37%)	25%	29%	18%				
Net Income	\$49	\$130	\$217	\$257	\$294		Other	United States
YoY % Change	(77%)	168%	67%	19%	14%		Foreign	47%
Earnings Per Share	\$0.57	\$1.54	\$2.60	\$3.10	\$3.58		Countries	
YoY % Change EBITDA Margin % Net % Margin	(77%) 10% 3%	168%	67%	20%	16%		45%	
		12%	14%	16%	18%			
		6%	8%	9%	10%			
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %		Analyst Recomm	endations
Kennametal Inc.	20.76	1.68	1.15	9.77	1.74	1	I	1
Illinois Tool Works Inc.	20.91	3.97	2.50	11.16	2.30	Buy		4
Nordson Corporation	20.96	5.01	2.95	13.19	1.16	Hold		5
Crane Co.	17.41	2.83	1.32	10.05	2.09	HUIU		5
Pall Corporation	25.75	4.85	3.32	14.17	1.31	Sell 0		
Lincoln Electric Holdinas Inc	19.62	3.62	1.98	10.17	1.33	0	2 No. of analyst rec	4





Ticker	ROK	Currency USD	Date	9/30	/14
<b>Rockwell Automation</b>	Inc.				
Headquarters	Milwaukee, WI	Share Price	109.88	50%	Stock Price vs S&P 500
Website	rockwellautomation.com	52 Week Range	102.98-128.57	50%	
Robo-Stox Classification	Bellwether	Market Cap (\$B)	15.14	30%	
Exchange	NYSE	Enterprise Value (\$B)	14.58		and a second
Share Type	Common Stock	YTD Change	(7.01%)	10%	and the second second
Functional FX	USD	PE	19.44	(10)()	
Ticker	ROK	P/S	2.32	(10%)	
SEDOL	2754060	Dividend Yield	2.11%	106/	9/15/0/ 11/11/12/ 11/12/20/ 12/9/ 12/9/ 12/0/ 12
Industry (GICS)	Electrical Components an	d Equipment		σ	
Robo-Stox Subgroup	Industrial Automation Soft	tware & Equipment			S&P Price ROK Price

Rockwell Automation, Inc. provides industrial automation power, control, and information solutions. It operates in two segments, Architecture & Software and Control Products & Solutions. The Architecture & Software segment offers control platforms that perform multiple control disciplines and monitoring of applications, including discrete, batch and continuous process, drives control, motion control, and machine safety control; and products comprising controllers, electronic operator interface devices, electronic input/output devices, communication and networking products, and industrial computers. This segment also offers software products, such as configuration and visualization software used to operate and supervise control platforms, advanced process control software, and manufacturing execution software to enhance manufacturing productivity and meet regulatory requirements; and rotary and linear motion control products, and sensors and machine safety components. The Control Products & Solutions segment provides low and medium voltage electro-mechanical and electronic motor starters, motor and circuit protection devices, AC/DC variable frequency drives, push buttons, signaling devices, termination and protection devices, relays and timers, and condition sensors; and packaged solutions, such as configured drives and motor control centers to automation and information solutions, as well as life-cycle support services. The company sells its products, solutions, and services primarily to customers in the food and beverage, transportation, oil and gas, metals, mining, aggregates, cement, metals, energy, home and personal care, pulp and paper, water/wastewater, and life sciences industries through independent distributors and direct sales force in the United States, Canada, Europe, the Middle East, Africa, the Asia Pacific, and Latin America. Rockwell Automation, Inc. was founded in 1903 and is headquartered in Milwaukee, Wisconsin.

# **Robotics & Automation Description:**

Rockwell is one of the largest suppliers of industrial automation software and programmable logic controllers (PLC). Its PLC are designed primarily to integrate various discrete and continuous processes. ControlLogix® is a universal system that is used to program and integrate robotic motion, control, and sequencing functions. Additionally it can be used for part defect detection, the ability to identify and remove the part from the assembly line, as well as other pick-and-place functions. PlantPax® has similar capabilities for process controls; however, it offers more flexibility for increased customization. Its GuardPLC™ Controller family is ideal for sensing speed, direction, zero-speed, temperature, pressure, and flow applications. Rockwell also specializes in producing microcontrollers and nano-controllers.

Fundamentals	2009	2010	2011	2012	2013	ROK 2013 Revenue by Geography			
						Latin America			
Sales	\$4,333	\$4,857	\$6,000	\$6,259	\$6,352	9%			
YoY % Change	(24%)	12%	24%			Asia Pacific_			
EBITDA	\$520	\$735	\$1,029			15%			
YoY % Change	(32%)	22%	23%	6%	2%				
Net Income	\$221	\$464	\$698	\$737	\$756				
YoY % Change	(62%)	110%	50%	6%		Europe, United			
Earnings Per Share	\$1.56	\$3.26	\$4.88	\$5.20		Middle States 54%			
YoY % Change	(61%)	99%	57%	7%	4%	East and 54%			
						22%			
EBITDA Margin %	12%	15%	17%	19%	18%				
Net % Margin	5%	10%	12%	12%	12%				
-									
Top 5 Comps	PE	PB	P/S EV	/EBITDA	Div Yield %	Analyst Recommendations			
Emerson Electric Co.	17.59	4.04	1.80	9.77	2.75				
Hubbell Inc.	21.56	3.57	2.18	12.06	1.66	Buy 9			
Danaher Corp.	20.51	2.24	2.72	12.35	0.53	Hold 11			
Franklin Electric Co., Inc.	20.67	2.59	1.66	10.94	1.04				
Ametek Inc.	22.31	3.61	3.23	13.72	0.72	Sell 2			
Allotok mor	22.01	0.01	0.20	10.72	0.72				
Rockwell Automation Inc.	19.44	5.57	2.32	11.79	2.11	0 5 10			
	15.44	5.57	2.32	11./3	2.11	No. of analyst recommendations			





Ticker	6506	Currency USD	Date	9/30	30/14
Yaskawa Electric Co	orp.				
Headquarters	Kitakyushu, Japan	Share Price	13.54	40%	Stock Price vs S&P 500
Website	<u>yaskawa.co.jp</u>	52 Week Range	9.83592-15.46035	30%	
Robo-Stox Classification	Bellwether	Market Cap (\$B)	3.406	20%	
Exchange	TSE	Enterprise Value (\$B)	3.763	10% 0%	
Share Type	Common Stock	YTD Change	(10.70%)	(10%)	Vin Vin mint
Functional FX	JPY	PE	21.80	(20%) (30%)	
Ticker	6506	P/S	1.01		
SEDOL	6986041	Dividend Yield	0.94%		9/30( 11/12/12/ 11/12/ 11/12/ 12/3/ 12/3/ 12/3/ 12/3/ 2/3/2/ 2/3/3/ 2/3/2/2/ 2/3/3/ 2/3/2/2/2/ 2/3/2/2/2/2
Industry (GICS)	Electronic Components				नननन न
Robo-Stox Subgroup	Industrial Automation So	ftware & Equipment			S&P Price 6506 Price

Yaskawa Electric Corporation manufactures and sells mechatronic products in Japan and internationally. It operates in three segments: Motion Control, Robotics, and System Engineering. The company offers motion control products, including AC servo amplifiers and motors, AC drives, photovoltaic power conditioners, motor drive systems for electric vehicles, matrix and regenerative converters, machine controllers, vision systems, AC spindle motors and controllers for machine tools, and linear motors and controllers. It also provides arc welding, spot welding, painting, handling, picking/packing, palletizing, sealing/cutting, deburring/polishing, and clean/vacuum transfer robots, as well as peripheral equipment for robots, robot-application FA systems, and service robots primarily for use in the in the automobile, electrical machinery, and semiconductor related markets. This segment also develops mechanical components and robot controllers, as well as robots for used in non-manufacturing fields, such as the biomedical and service industries. In addition, the company offers electrical systems for steel plants and various industries, electrical instrumentation for water supply plants and sewage treatment facilities systems, small-scale wind power and solar generation systems, energy-related systems, and electric power distribution equipment. Further, it is involved in the information processing, software development, and sale of system equipment; provision of information-related products and services, such as optomechatronics, information security, and information multimedia, as well as information management software and services, and machines for office applications. Additionally, the company provides distribution services, etc. Yaskawa Electric Corporation was founded in 1915 and is headquartered in Kitakyushu, Japan.

# **Robotics & Automation Description:**

Yaskawa's robotics segment primarily offers arc welding robots, spot welding robots, painting robots, handling robots, and individual robot components. Yaskawa was one of the first robotics firms to develop semiconductor manufacturing technology and the first robot company to develop coordinated motion of multiple robots from one controller. Coordinated motion enables multiple robots to work within the same space without getting in one another's way. It built "The MOTOMAN" robot in the 1970s which was the first electrically driven industrial robot in Japan. Initially it didn't take but production is now exceeding 1,000 units per month. Yaskawa has a line of robotic palletizing solutions with 2D and 3D vision guidance that enable product handling, inspection, and process monitoring. Its paint robots can be programmed to apply coating materials to different areas of an object at various thicknesses. Yaskawa also produces robot transporters for both light and heavy loads and robotic positioners. The robotics segment represents about 30% of the overall firm revenue.

76.45

21.80

0.69

2.72

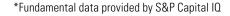
Fundamentals	2010	2011	2012	2013	\$3,550 17% \$341 32% \$166	6506 2013 Revenue by Geography				
Sales YoY % Change EBITDA YoY % Change Net Income YoY % Change Earnings Per Share YoY % Change EBITDA Margin % Net % Margin	\$2,485 \$3 (36%) \$10 (44%) (\$63) 0% (\$0.25) 0%	\$3,660 32% \$246 51% \$81	\$3,674 0% \$269 0% \$101	\$3,249 1% \$222 3% \$71		United States of America 15%				
		0% \$0.32 0%	0% \$0.40 0%	(19%) \$0.28 (23%)	149% \$0.66 149%		China 18%	_Japan 55%		
	0% (3%)	7% 2%	7% 3%	7% 2%	10% 5%					
Top 5 Comps	PE	PB	P/S EV	//EBITDA [	Div Yield %		Analyst Recommend	dations		
Fanuc Corporation	29.06	3.18	7.63	13.87	0.86					
THK Co., Ltd.	20.92	1.58	1.78	8.23	1.32	Buy		7		
OMRON Corporation	20.91	2.50	1.38	9.54	1.27	Hold		9		
TDK Corp.	32.38	1.25	0.78	6.57	1.31					

0.45

1.01

4.68

11.39



0 88 Sell

0.94



8

10

4

No. of analyst recommendati

2

6

Mitsumi Electric Co., Ltd.

Yaskawa Electric Corp.



Yushin Precision Equipment Co., Ltd.HeadquartersKyoto, JapanWebsiteyushin.com52 Week Range15.63355-28.16773Robo-Stox ClassificationBellwetherBellwetherMarket Cap (\$B)Common StockYTD ChangeYTD Change4.55%Functional FXJPYPE23.10Ticker6482P/S2.36CompositionPick LVK LMK LMK LMK LMK LMK LMK LMK LMK LMK LM	Ticker	6482	Currency USD	Date	9/30	D/14
HeadquartersKyoto, JapanShare Price21.80Websiteyushin.com52 Week Range15.63355-28.16773Robo-Stox ClassificationBellwetherMarket Cap (\$B)0.381ExchangeTSEEnterprise Value (\$B)0.312Share TypeCommon StockYTD Change4.55%Functional FXJPYPE23.10Ticker6482P/S2.36	Yushin Precision Equ	ipment Co., Ltd.				
Websiteyushin.com52 Week Range15.63355-28.16773Robo-Stox ClassificationBellwetherMarket Cap (\$B)0.381ExchangeTSEEnterprise Value (\$B)0.312Share TypeCommon StockYTD Change4.55%Functional FXJPYPE23.10Ticker6482P/S2.36	Headquarters	Kyoto, Japan	Share Price	21.80	100%	Stock Price vs S&P 500
Robo-Stox ClassificationBellwetherMarket Cap (\$B)0.381ExchangeTSEEnterprise Value (\$B)0.312Share TypeCommon StockYTD Change4.55%Functional FXJPYPE23.10Ticker6482P/S2.36	Website	yushin.com	52 Week Range	15.63355-28.16773		
Exchange     TSE     Enterprise Value (\$B)     0.312       Share Type     Common Stock     YTD Change     4.55%       Functional FX     JPY     PE     23.10       Ticker     6482     P/S     2.36	Robo-Stox Classification	Bellwether	Market Cap (\$B)	0.381		A 101 00
Share Type     Common Stock     YTD Change     4.55%       Functional FX     JPY     PE     23.10       Ticker     6482     P/S     236	Exchange	TSE	Enterprise Value (\$B)	0.312		A. and W. W. human
Functional FX     JPY     PE     23.10       Ticker     6482     P/S     2.36	Share Type	Common Stock	YTD Change	4.55%		want
Ticker 6482 P/S 236 00000000000000000000000000000000000	Functional FX	JPY	PE	23.10		
	Ticker	6482	P/S	2.36	· · · · ·	
SEDUL 5983893 Dividend Yield 1.25% @ 전 한 전 한 전 한 전 한 전 한 전 한 전 한 전 한 전 한 전	SEDOL	6983893	Dividend Yield	1.25%	, c	9,30/1 10/02/4/1 11/1/25/1 11/1/25/1 11/25/1 1/20/1 1/20/1 1/20/1 2/3/1 2/3/1 2/3/1 2/3/1 5/5/1 5/5/1 5/5/1 5/5/1 5/5/1 5/2/1 8/4/1 8/4/1 8/4/1 8/2/1
	Industry (GICS)	Industrial Machinery			c	
Robo-Stox Subgroup Industrial Automation Software & Equipment	Robo-Stox Subgroup	Industrial Automation Sof	ftware & Equipment			S&P Price 6482 Price

Yushin Precision Equipment Co., Ltd., together with its subsidiaries, engages in the production, sale, and after-sales maintenance of robots and automated stock machines for automated part extraction and storage from molding machines in Japan, North America, Asia, and Europe. It primarily manufactures take-out robots for injection molded plastic products; automated stock systems; and labor-saving automation equipment. The company's products include servo traverse robots; air traverse robots; swing robots, such as product and sprue pickers; side entry robots; take-out robots for vertical molding machines; optical disc take-out robots and stock systems; stock systems comprising stockers, conveyors, pallets, and containers; and downstream equipment, including gate-cut systems, assemblers, and custom-made stockers. It is also involved in the total system design of flexible manufacturing systems for plastic injection molding plants. Yushin Precision Equipment Co., Ltd. was founded in 1971 and is headquartered in Kyoto, Japan.

# **Robotics & Automation Description:**

Yushin manufactures a line of air traverse, servo traverse, swing, and take-out robots whose uses span across a multitude of industries including factory automation applications. Take-out robots are used mainly in injection molding processes by taking the plastic pieces out of the mold once they've cooled, transporting them to the next step in the production process, and in some cases, stocking them in containers for shipping. Take-out robots differ from traditional industrial robots in that they are faster, more precise, require less labor, and are more user friendly. Take-out robots are now gradually being adapted to handle an increasingly broad range of functions. Sales of takeout robots represent roughly 70% of Yushin's total revenue. Side entry robots are ideal for high speed packaging of light or thin payloads and are most ideal for clean room production lines. Servo traverse robots are multi-axis robots that can handle payloads of all sizes. Swing robots are two-axis robots that are most ideal for moving small payloads at fast speeds.

Fundamentals	2010	2011	2012	2013	2014		6482 2014 Revenue by Geography
Sales	\$132	\$152	\$173	\$156	\$174	China an Taiwan	d
YoY % Change	(36%)	2%	13%		3% 22%	17%	
EBITDA	\$11	\$16	\$18	\$18			_ Japan
YoY % Change	(40%)	11%	12%	6%	32%		36%
Net Income	\$5	\$9	\$9	\$12	\$18		
YoY % Change	(67%)	50%	7%	43%	70%	North America	-
Earnings Per Share	\$0.30	\$0.50	\$0.54	\$0.68	\$1.05	18%	
YoY % Change	(66%)	50%	7%	43%	70%		Other Asia
EBITDA Margin % Net % Margin							29%
	9%	11%	10%	12%	17%		
	4%	6%	5%	8%	11%		
Top 5 Comps	PE	РВ	P/S EV	/EBITDA D	iv Yield %		Analyst Recommendations
Nissei Asb Machine Co., Ltd.	11.87	2.04	1.50	7.14	1.38		-
Harmonic Drive Systems Inc.	44.38	4.99	6.67	21.70	0.60	Buy O	
Tsugami Corporation	74.70	1.37	1.17	12.20	1.96		
Obara Group Incorporated	13.60	2.23	1.64	6.83	1.00	Hold	1
Aida Engineering, Ltd.	13.83	1.15	0.95	5.10	2.24	Sell 0	
, nea might of mig/ and	10.00		5.00	5.10	2.21		
Yushin Precision Equipment Co., Lt	23.10	1.92	2.36	11.15	1.25	0	0.5 1 1
raomini roomon Equipiliont 00., Et	20.10	1.02	2.00		1.20		No. of analyst recommendations





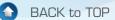
Ticker	6118	Currency USD	Date	9/30/14
Aida Engineering, Lt	d.			
Headquarters	Sagamihara, Japan	Share Price	10.16	Stock Price vs S&P 500
Website	aida.co.jp	52 Week Range	7.69371-11.54057	40%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.624	
Exchange	TSE	Enterprise Value (\$B)	0.381	20%
Share Type	Common Stock	YTD Change	(2.11%)	0%
Functional FX	JPY	PE	13.83	(00)()
Ticker	6118	P/S	0.95	
SEDOL	6010326	Dividend Yield	2.24%	9/30/ 11/11/11/11/11/11/11/11/11/11/11/11/11
Industry (GICS)	Industrial Machinery			
Robo-Stox Subgroup	Industrial Automation So	ftware & Equipment		S&P Price 6118 Price

Aida Engineering, Ltd. manufactures and sells press machines, auto-processing lines, industrial robots, auto-conveyers, and dies in Japan, Asia, the Americas, and Europe. The company provides multi-purpose servo presses, precision forming presses, multi-purpose presses, mid-size and large presses, high speed automatic presses, cold forging presses, conveyance equipment, coil feeders, and tooling dies. It also provides press automation equipment, such as feeder equipment, transfer robots, product removal systems, etc. In addition, the company offers various services, such as troubleshooting/spare parts, retrofit/modernization, routine inspection, and overhaul/machine relocation. It primarily serves automotive and consumer electronics industries. The company was formerly known as Aida Ironworks and changed its name to Aida Engineering, Ltd. in 1970. Aida Engineering, Ltd. was founded in 1917 and is headquartered in Sagamihara, Japan.

# **Robotics & Automation Description:**

Aida develops automation equipment and control software to complement its offering of presses. Aida designed and developed the "Autohand" robot in 1968 to replicate the dexterity of the human hand. Aida's press automation solutions include material handling robots, coil feeders, and servo transfer units. Its material handling robots allow for the simultaneous production of two different parts or products, optimization of factory floor space, and the ability to carry out multiple processes on a single press machine. The coil feeders can handle materials of a number of different widths with auto-thread, auto-rewind, and programmable speed control capabilities. Its servo presses enable metalforming processes that weren't previously possible with conventional mechanical stamping presses. Most recently, Aida has begun producing servo presses that enable electronic collaboration of metalforming data to standardize production and a zigzag feeder model designed to significantly boost material yield (and thus lower cost and scrap).

Fundamentals	2010	2011	2012	2013	2014		6118 2013 Revenue by Geography
Sales	\$373	\$495	\$634	\$614	\$676	Europe	e
YoY % Change	(42%)	17%	27%	11%	20%	17%	
EBITDA	(\$30)	\$35	\$43	\$54	\$76		Asia 33%
YoY % Change	(75%)	196%	26%	18%	31%		23370
Net Income	(\$129)	\$15	\$34	\$40	\$50		
YoY % Change	0%	0%	131%	34%	35%		
Earnings Per Share	(\$2.03)	\$0.23	\$0.57	\$0.67	\$0.81	America 22%	
YoY % Change EBITDA Margin %	0%	0%	141%	33%	33%	2270	Japan
							28%
	(8%)	7%	7%	9%	11%		
Net % Margin	(35%)	3%	5%	7%	7%		
Top 5 Comps	PE	РВ	P/S EV/	EBITDA	Div Yield %		Analyst Recommendations
Komori Corp.	6.02	0.66	0.88	2.54	1.50		
litachi Zosen Fukui Corporation	7.53	1.40	0.56	1.93	2.05	Buy	1
Schuler AG	0.00	0.00	0.00	6.97	0.43		
Nabtesco Corporation	20.28	2.51	1.59	9.11	1.52	Hold 0	
Torishima Pump Mfg. Co., Ltd.	NM	0.75	0.57	42.07	1.98	Sell 0	
ronsinna runp wig. 60., Llu.	INIVI	0.75	0.37	42.07	1.30	•	
Aido Engineering 14d	13.83	1 15	0.95	5.10	2.24	0	0.5 1 1.5
Aida Engineering, Ltd.	13.03	1.15	0.95	5.10	2.24		No. of analyst recommendations





Ticker	ATA	Currency USD	Date	9/30/14
ATS Automation Too	ling Systems Inc.			
Headquarters	Cambridge, Canada	Share Price	11.60	Stock Price vs S&P 500
Website	atsautomation.com	52 Week Range	11.3245-14.81309	40%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	1.055	20%
Exchange	TSX	Enterprise Value (\$B)	0.988	20%
Share Type	Common Shares	YTD Change	(4.63%)	0% how a how have here here here here here here here he
Functional FX	CAD	PE	23.63	
Ticker	ATA	P/S	1.61	(20%) « « « « « « « « « 4 4 4 4 4 4 4 4 4 4 4
SEDOL	2002587	Dividend Yield	0.00%	9/30/ 11/25/ 11/25/ 11/25/ 12/29/ 12/29/ 12/29/ 12/29/ 3/37/ 7/7/ 7/7/ 7/7/ 7/7/ 7/7/ 7/7/ 7
Industry (GICS)	Industrial Machinery			ा को दो दो सी सी सी लो लो लो की
Robo-Stox Subgroup	Industrial Automation So	ftware & Equipment		S&P Price ATA Price

ATS Automation Tooling Systems Inc. provides factory automation solutions worldwide. It is engaged in planning, designing, building, commissioning, and servicing automated manufacturing and assembly systems, including automation products and test solutions. The company's products include ATS Supertrak conveyor system; ATS850 clean room conveyor for applications requiring reliability, cleanliness, and non-contact queuing; ATS OmniTrak; LogiTrack automated electrified monorail for transporting heavy workloads through assembly operations; and sortimat Birkman, a feeder technology for sorting, transporting, and separating parts. It also offers Sortimat Clearliner clean room handling technology; Sortimat Workliner tray handling technology; ATS Cortex system, a vision device that reduces integration time with standardized hardware and software; ATS SmartVision software, a PC-based vision system; and ATS Flexsys laser system, a laser solution for reproducible laser processing in automated assembly lines. In addition, the company provides various services, such as engineering design, prototyping, process verification, specification, writing, software development, automation simulation, equipment design and build, third-party equipment qualification, procurement and integration, automation system installation, product line start up, documentation, customer training and after-installation support, and maintenance and service. Further, it offers tube filling and cartoning machinery for the pharmaceutical and personal care industries. The company serves life sciences, consumer products and electronics, transportation, and energy industries. ATS Automation Tooling Systems Inc. was founded in 1978 and is headquartered in Cambridge, Canada.

# **Robotics & Automation Description:**

ATS specializes in clean room and industrial automation. ATS SmartVision<sup>™</sup> technology uses programmable software to control virtually any camera and lighting system and perform high-precision part and defect identification, measurement, sorting, and robotic guidance. ATS automation platforms include pneumatic driven machines for highly controlled motions, robotic cells for vision-guided pick and place applications, vision systems for robot guidance, object inspection, and feedback of other information, dial indexers, and programmable conveyors. Programmable conveyors have the ability to make decisions based on particular conditions and ATS has integrated them with many of its automated guided vehicles. Its automated aseptic production systems are typically used in clean rooms and to manage contamination risk. ATS uses dial indexers to transport products between various test and assembly stations. ATS also offers a web-based automation performance monitoring tool (ATS OEE Toolkit<sup>™</sup>) to determine any faults in the production process and the overall effectiveness of the automation equipment.

Fundamentals	2010	2011	2012	2013	2014		ATA 2014 Revenue by	Geography		
Color	ф <b>г</b> .со	<b>ФГОО</b>	<b>¢</b> F07	<b>¢</b> F01	<b>#</b> C10	Oth				
Sales	\$568	\$500	\$597	\$581	\$619	Euro 13				
YoY % Change	(32%)	(16%)	23%	(1%)	16%	10	<i>7</i> 0			
EBITDA	\$20	\$47	\$68	\$66	\$74				United	
YoY % Change	(52%)	59%	38%	(4%)	21%	Germany			_States and	h
Net Income	\$12	(\$88)	(\$60)	\$15	\$56	17%		-	Mexico	<b>^</b>
YoY % Change	(75%)	0%	0%	0%	314%				45%	
Earnings Per Share	\$0.14	(\$1.01)	(\$0.68)	\$0.17	\$0.63					
YoY % Change	(81%)	130%	57%	(9%)	20%		Asia-Pacific and Other			
-							25%			
EBITDA Margin %	3%	9%	11%	11%	12%		20%			
Net % Margin	2%	(18%)	(10%)	3%	9%					
Top 5 Comps	PE	PB	P/S EV	/EBITDA	Div Yield %		Analyst Recomme	endations		
Martinrea International Inc.	115.19	2.65	0.32	6.40	0.92	1			1	1
Linamar Corp.	13.05	2.49	0.95	6.57	0.69	Buy			4	
Magna International Inc.	13.32	2.21	0.61	5.90	1.60					
	10.02		0.01	0.00		Hold		3		
						Sell 0				
						0	1 2	3	4	 5
ATS Automation Tooling	23.63	2.27	1.61	12.89	0.00	0	⊥ ∠ No. of analyst reco	-	•	0





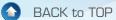
Ticker	6622	Currency USD	Date	9/30/14
<b>DAIHEN Corporation</b>				
Headquarters	Osaka, Japan	Share Price	3.88	Stock Price vs S&P 500
Website	daihen.co.jp	52 Week Range	3.33637-5.00456	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.495	40%
Exchange	TSE	Enterprise Value (\$B)	0.670	20%
Share Type	Common Stock	YTD Change	(12.70%)	0%
Functional FX	JPY	PE	18.91	
Ticker	6622	P/S	0.49	
SEDOL	6661843	Dividend Yield	1.88%	9/30/ 11/1/12/8/ 11/1/12/8/ 11/12/12/8/ 12/3/ 12/3/ 12/3/ 12/3/ 12/3/ 12/3/ 12/3/ 12/3/ 12/3/ 1/20/
Industry (GICS)	Heavy Electrical Equipm	nent		
Robo-Stox Subgroup	Industrial Automation S	oftware & Equipment		S&P Price 6622 Price

DAIHEN Corporation manufactures and sells power products, welding machines and robots, and advanced components for semiconductor manufacturing equipment in Japan. Its Power Products business offers pole-mounted and pad-mounted transformers, automatic voltage regulators, integrated vacuum section switches, section switch substations, power equipment remote monitoring systems, supervoltage transformers, shunt reactors, and top-runner oil-immersed and top-runner molded transformers for power companies and general businesses. The company's Welding and Mechatronics business provides welding and cuting machines, and welding robots. Its Advanced Component division offers clean transfer robots, such as wafer handling and LCD substrates handling robots for atmospheric and vacuum environments; and RF components, including RF generators, RF automatic matching units, CW microwave generators, and microwave auto tuners. The company also provides luminaire stabilizers, calorifiers, housing equipment for semiconductor and flat panel manufacturing systems and software. In addition, it installs, maintains, and inspects welding machines, cutting machines, and industrial robots; installs, inspects, repairs, and remodels transformers and switchgear systems; manufactures, processes, and coats transformer parts; provides contract services for the design, manufacturing, and sale of electrical equipment and related administrative work; manages sports facilities; and is engaged in plate working and metal processing activities. Further, the company offers freight transportation, warehousing, and cargo handling contract services. It was formerly known as Osaka Transformer Co., Ltd. and changed its name to DAIHEN Corporation in December 1985. DAIHEN Corporation was founded in 1919 and is headquartered in Osaka, Japan.

# **Robotics & Automation Description:**

Daihen manufactures arc welding robots and torches as well as corresponding peripherals used in factory automation such as sensors, controllers, and positioners. The majority of its robotics sales are in its welding and mechtronics segment, which represents roughly one-third of Daihen's revenue. Its welding robots offering includes standard cable type and through-arm cable type. Robotic sensors are used for positional deviation detection, arc tracking, and groove detection. Robotic positioners include the Tilt-Turn which can be synchronized with arc welding robots to ensure optimal weld positioning. The FD11 is Daihen's most advanced robot controller in terms of electrical efficiency, weight/size efficiency, and required maintenance. Daihen's also offers a line of clean robots in its advanced components segment, which are used for wafer and LCD handing.

DAIHEN Corporation	18.91	1.03	0.49	7.09	1.88	0	1	2	3	4	5
MKS Instruments, Inc.	23.84	1.70	2.34	9.45	1.98	Sell 0					
Aichi Electric Co., Ltd.	6.52	0.44	0.24	1.84	2.73		-				
Fakaoka Toko Co., Ltd.	NM	0.55	0.28	9.49	3.24	Hold	1				
Yosan Electric Manufacturing Co., Ltd.	27.57	0.62	0.34	9.25	2.85	Buy				4	
Nissin Electric Co. Ltd.	13.15	1.05	0.64	5.31	1.99	1	I		1	1	1
Fop 5 Comps	PE	PB	P/S EV/	EBITDA Di	v Yield %		Analyst	Recomm	nendations	;	
Net % Margin	2%	2%	2%	3%	3%				1	/ 70	
BITDA Margin %	9%	9%	9%	8%	10%					oan 7%	
oY % Change	(47%)	54%	(8%)	12%	41%						
arnings Per Share	\$0.12	\$0.21	\$0.20	\$0.19	\$0.25						
oY % Change	(47%)	54%	(8%)	11%	40%						
let Income	\$16	\$28	\$25	\$25	\$32						
'oY % Change	(17%)	11%	(1%)	1%	20%						
BITDA	\$74	\$106	\$96	\$76	\$102	19%					
oY % Change	(19%)	15%	1%	(2%)	20%	Asia_	2%			/0	
ales	\$861	\$1,112	\$1,128	\$970	\$1,061		America.		Oth	iers %	
undamentals	2010	2011	2012	2013	2014		6622 201 North	4 Revenue	by Geograp	hy	



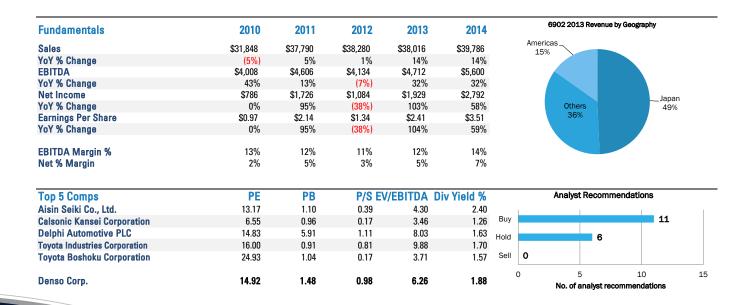


Ticker	6902	Currency USD	Date	9/30	0/14
Denso Corp.					
Headquarters	Kariya, Japan	Share Price	46.08	50%	Stock Price vs S&P 500
Website	denso.co.jp	52 Week Range	38.4959-52.86235		
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	36.74	30%	
Exchange	TSE	Enterprise Value (\$B)	32.47	10%	
Share Type	Common Stock	YTD Change	(8.92%)	(10%)	and the second second
Functional FX	JPY	PE	14.92	(30%)	
Ticker	6902	P/S	0.98	(30%)	
SEDOL	6640381	Dividend Yield	1.88%		9/30/ 0.0/14/ 2.0/28/ 2.0/28/ 1/20/ 1/20/ 1/20/ 2.2/3/ 3/31/ 1/20/ 1/20/ 2.2/3/ 3/31/ 1/20/ 2.2/3/ 3/31/ 1/20/ 5/21/ 7/7/ 7/21/ 7/77/ 7/77/ 2/21/ 8/28/ 8/15/ 8/28/ 9/15/ 2/29/ 9/15/ 2/29/ 2/29/ 2/29/ 2/29/ 2/29/ 2/29/ 2/29/ 2/29/ 2/20/20/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/ 2/20/20/ 2/20/20/ 2/2/
Industry (GICS)	Auto Parts and Equipme	nt		•	000111111 1 0 004400 0 × 0 00
Robo-Stox Subgroup	Industrial Automation Sc	oftware & Equipment			S&P Price 6902 Price

DENSO Corporation provides automotive technology, systems, and components for automakers worldwide. It develops and manufactures powertrain control systems, including engine control components, system control components, diesel injection products, gasoline injection products, engine electrical systems, and EHV components; and information and safety systems, such as instrument clusters, head-up displays, integrated climate control panels, smart keys, remote keyless entry controllers, rear and corner sonars, car security systems, body ECUs, tire pressure monitoring systems, remote touch controllers, car navigation systems, electronic toll collection on-board equipment, telematics control unites, advanced vehicle operation systems, driving assist and safety products, and electric control components. The company also offers air-conditioning systems for cars and buses, radiators, cooling fans, inter and oil coolers, engine cooling modules, reserve tanks, air-conditioning systems for construction equipment, truck refrigeration units, and air purifiers; electronics products, electronics devices, and relays; and windshield wiper systems, windshield washer systems, power window and seat motors, power sliding door motors, power steering motors, and other automotive motors, as well as motors for engine control systems. In addition, it provides industrial systems, such as automatic ID data capture devices that include bar code handy scanners and handy terminals, QR code scanners and handy terminals, IC card readers/writers, and radio frequency-identification systems; factory automation products, which comprise industrial robots and programmable controllers; and spoules cO2 refrigerant heat-pump water heaters, automatic faucets, central air conditioners, and home energy management systems. DENSO Corporation was founded in 1949 and is headquartered in Kariya, Japan.

# **Robotics & Automation Description:**

Denso is the market leader in the small assembly robot segment for automobiles with more than 37,000 DENSO robots installed worldwide. DENSO develops and manufactures engine control systems, including turbo-charging controls as well as fuel injection products for increased fuel efficiency. Tandem Solenoid (TS) starters, lithium-ion battery packs, and cold storage evaporators help reduce fuel consumption in idle-stop systems. The i-ART common rail system measures injection pressure in real time. Additionally DENSO is expanding its human-machine interface products to improve their pre-existing safety based technologies.







Ticker	6503	Currency USD	Date	9/30/14
Mitsubishi Electric C	orporation			
Headquarters	Tokyo, Japan	Share Price	13.31	Stock Price vs S&P 500
Website	mitsubishielectric.com	52 Week Range	9.24339-13.72835	40%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	28.58	20%
Exchange	TSE	Enterprise Value (\$B)	28.26	20%
Share Type	Common Stock	YTD Change	10.64%	0%
Functional FX	JPY	PE	18.33	(000())
Ticker	6503	P/S	0.76	
SEDOL	6597045	Dividend Yield	1.51%	9,9,9,1,4,1,1,1,1,2,1,1,1,1,1,1,1,1,1,1,1,1,1
Industry (GICS)	Heavy Electrical Equipme	ent		
Robo-Stox Subgroup	Industrial Automation So	ftware & Equipment		S&P Price 6503 Price

Mitsubishi Electric Corporation manufactures and sells electrical and electronic products and systems worldwide. The company's Energy and Electric Systems segment offers turbine generators, nuclear power plant and power electronics equipment, motors, transformers, circuit breakers, gas insulated switches, switch control and display devices, surveillance-system control and security systems, locomotive and rolling stock electrical equipment, elevators, escalators, building security and management systems, and particle beam treatment systems. Its Industrial Automation Systems segment provides programmable logic and computerized numerical controllers, inverters, servomotors, human-machine interface, hoists, magnetic switches, time and power meters, uninterruptible power supply, industrial fans, electrical-discharge and laser processing machines, industrial robots, clutches, automotive electrical equipment, car electronics and mechatronics, and car multimedia. The company's Information and Communication Systems segment offers wireless and wired communications systems, surveillance cameras, satellite communication and radar equipment, antennas, missile and fire control systems, broadcasting and information systems equipment, data transmission devices, network security systems, and systems integration products. Its Electronic Devices segment provides power modules, high-frequency devices, and optical and LCD devices. The company's Home Appliances segment offers LCD televisions, air conditioners, air-to-water heat pump boilers, refrigerators, electric fans, ventilators, photovoltaic power generation and hot water supply systems, LED and fluorescent lamps, indoor lighting, compressors, chillers, dehumidifiers, air purifiers, showcases, cleaners, rice cookers, microwave ovens, and IH cooking heaters. Its Others segment provides procurement, logistics, real estate, advertising, finance, and other services. The company was founded in 1921 and is headquartered in Tokyo, Japan.

# **Robotics & Automation Description:**

Mitsubishi manufactures robotics components, including programmable logic controllers (PLC), inverters, servomotors, human-machine interfaces, motors, computerized numerical controllers, laser processing machines, and full scale industrial robots. Its industrial robots are capable of managing heavier loads, both in terms of weight and functionality. More recent models are now equipped with collision detection functionality. Its PLC are equipped with a multiple CPU function that allows multiple CPUs to be mounted simultaneously. This capability allows for system configurations that match the scale and objectives of the production site. The PLC are also used to facilitate human-machine interfaces. The industrial automation systems segment produces roughly 25% of Mitsubishi's total revenue.

Fundamentals	2010	2011	2012	2013	2014	6503 2014 Revenue by Geography North
Sales	\$36,072	\$44,330	\$44,432	\$38,054	\$39,526	America 7%
YoY % Change	(9%)	9%	(0%)	(2%)	14%	Europe
EBITDA	\$2,526	\$4,315	\$4,356	\$2,152	\$3,396	7%
YoY % Change	(11%)	21%	(2%)	(5%)	18%	
Net Income	\$303	\$1,503	\$1,360	\$738	\$1,491	Asia
YoY % Change	132%	340%	(10%)	(38%)	121%	18%
Earnings Per Share	\$0.14	\$0.70	\$0.63	\$0.34	\$0.69	
YoY % Change	132%	340%	(10%)	(38%)	121%	Japan
EBITDA Margin %	7%	10%	10%	6%	9%	68%
Net % Margin	1%	3%	3%	2%	4%	
Top 5 Comps	PE	PB	P/S E	//EBITDA D	)iv Yield %	Analyst Recommendations
Fujitsu Limited	18.03	2.40	0.29	5.00	1.19	
Toshiba Corporation	30.97	1.78	0.33	7.77	1.57	Buy <b>10</b>
Hitachi Ltd.	14.30	1.53	0.42	7.36	1.31	Hold 7
ABB Ltd.	21.68	3.13	1.34	11.29	3.26	
Sharp Corporation	17.98	2.66	0.17	5.37	0.00	Sell 1
Mitsubishi Electric	18.33	2.03	0.76	7.76	1.51	0 5 10
Intraubiant Libeu 16	10.33	2.03	0.70	7.70	1.01	No. of analyst recommendations





Ticker	6474	Currency USD	Date	9/30	)/14
Nachi-Fujikoshi Corp.					
Headquarters	Toyama, Japan	Share Price	7.31	75%	Stock Price vs S&P 500
Website	nachi-fujikoshi.co.jp	52 Week Range	4.07475-7.43847		
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	1.817	50%	
Exchange	TSE	Enterprise Value (\$B)	2.047	25%	M man
Share Type	Common Stock	YTD Change	35.24%	0%	
Functional FX	JPY	PE	21.73	(05%)	hand
Ticker	6474	P/S	0.98	(25%)	
SEDOL	6619905	Dividend Yield	1.00%		9,907,9,907,9,907,9,907,9,907,9,907,9,907,9,9,9,07,9,9,9,9
Industry (GICS)	Industrial Machinery			c	
Robo-Stox Subgroup	Industrial Automation Soft	ware & Equipment			S&P Price 6474 Price

Nachi-Fujikoshi Corp. is engaged in machining, robots, components, and materials and heat treatment businesses. The company operates through Cutting Tools; Machine Tools/Precision Machinery; Robots; Bearings; Hydraulic Equipment; and Special Steels/Industrial Furnaces and Others segments. It provides cutting tools, including drills, end mills, gear cutters, and broaches; and machine tools comprising broaching machines, precision roll forming machines, machining cells, power finishers, and gear shape machining centers. The company also offers precision machinery, such as ultra-precision non-axisymmetric generators, precision slicing machines, ultra-precise prism groove cutting machines, ultra-fine vertical rotary grinding machines, grinding machines, broach grinding machines, and fluidized finishing/washing machines. In addition, it provides robots for spot welding, arc welding, handling, heavy duty, cleanroom, and option, as well as controllers and support services; and radial ball, radial roller, thrust ball, and thrust roller bearings, as well as bearing units and plummer block housings. Further, the company offers hydraulic equipment consisting of valves, pumps, motors, and units; special steels, including pre-harden, pre-shape, and micron hard steel products; coating equipment; and industrial furnaces comprising vacuum carburizing furnace, vacuum degreasing system, and gas-quenching vacuum furnace thermo systems. Additionally, it provides forming tools, cutting saws, machining systems, automotive hydraulics, seismic isolation systems, and filtration systems. Nachi-Fujikoshi Corp. also provides engineering services, including the re-sharpening and recoating of cutting tools and robot maintenance. The company serves automotive, retail, machinery, energy, and infrastructure markets in Japan, Asia, Oceania, the Middle East, the United States, and Europe. Nachi-Fujikoshi Corp. was founded in 1928 and is headquartered in Toyama, Japan.

# **Robotics & Automation Description:**

Nachi-Fujikoshi manufactures robotics components and industrial robots, such as hydraulic, electric drive, welding, clean room, load handling, vision sensing, press handling, and AX robots. Robot sales represent about 5% of the firms' total revenue. The World's Fastest Lightweight, Compact Robot MZ07 was deployed as an easy-to-use and easy-to-install robot and can complete a back-and-forth motion in just 0.31 seconds.

Fundamentals	2009	2010	2011	2012	2013		6474 2013 Revenue	by Geography	
Sales	\$1,250	\$1,614	\$2,138	\$2,087	\$1,715	Amoria	Europe		
		25%	23%	\$2,087 4%	2%	Americ 12%	xa_ 5%		
YoY % Change	(47%)					1270	X		
EBITDA	\$76	\$210	\$311	\$252	\$221				
YoY % Change	(63%)	79%	29%	(6%)	10%				
Net Income	(\$87)	\$67	\$129	\$56	\$65				
YoY % Change	0%	0%	80%	(54%)	46%		Asia		
Earnings Per Share	(\$0.35)	\$0.27	\$0.52	\$0.22	\$0.26		23%	Japan	
YoY % Change	0%	0%	80%	(54%)	46%			60%	
EBITDA Margin %	6%	13%	15%	12%	13%				
Net % Margin	(7%)	4%	6%	3%	4%				
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	Div Yield %		Analyst Recomm	endations	
Makino Milling Machine Co. Ltd.	17.78	0.92	0.71	10.57	1.48	1		I.	
THK Co., Ltd.	20.92	1.58	1.78	8.23	1.32	Buy		5	į.
DMG Mori Seiki Co., Ltd.	18.20	1.23	1.00	13.28	1.71	lold O			
Nabtesco Corporation	20.28	2.51	1.59	9.11	1.52				
NSK Ltd.	23.56	2.29	0.94	8.81		Sell 0			
Nachi-Fujikoshi Corp.	21.73	2.48	0.98	7.92	1.00	0	2 No. of analyst red	4	





Ticker	RSW	Currency USD	Date	9/30	D/14
Renishaw plc					
Headquarters	Wotton-under-Edge, UK	Share Price	26.44	75%	Stock Price vs S&P 500
Website	renishaw.com	52 Week Range	23.84622-36.33709		
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	1.924	50%	
Exchange	LSE	Enterprise Value (\$B)	1.850	25%	a M
Share Type	Ordinary Shares	YTD Change	(16.20%)	0%	A start was a star
Functional FX	GBP	PE	13.76	(050()	
Ticker	RSW	P/S	3.34	(25%)	
SEDOL	0732358	Dividend Yield	2.53%	, g	9,30/3 0,0144/0 0,0144/0 1,1/12/1/12 1,2/23/12 2/23/17 2/23/21 2/23/17 2/23/17 2/23/17 2/23/17 2/23/12
Industry (GICS)	Electronic Equipment and	Instruments		0	
Robo-Stox Subgroup	Industrial Automation Sof	tware & Equipment			S&P Price RSW Price

Renishaw plc designs, manufactures, and sells precision metrology and inspection equipment, and products for the healthcare sector worldwide. The company operates in two segments, Metrology and Healthcare. It offers industrial metrology products, including co-ordinate measuring machine probe systems, machine tool probe systems, styli for touch probes, laser calibration and telescoping ballbar, and gauging products; additive manufacturing products, such as laser melting, and vacuum and metal casting systems; and position encoders comprising magnetic, optical incremental linear, optical incremental rotary, optical absolute, and laser interferometer encoders. The company also provides dental/neurological systems comprising dental CAD/CAM and stereotactic neurological systems; Raman spectroscopy applications consisting of inVia Raman microscope, AFM Raman, SEM Raman, and molecular diagnostics systems; and geometry software and services for software engineers. In addition, it offers travel agency services; manufactures and sells surgical robots for neurosurgical applications, as well as fixturing products; distributes and services laser scanning equipment; and supplies dimensional measurement products and services. Renishaw plc was founded in 1973 and is headquartered in Wotton-under-Edge, the United Kingdom.

# **Robotics & Automation Description:**

Renishaw manufactures robots and systems for dentistry and stereotactic neurosurgery as well as components commonly used in robotics focused on factory automation. Its stereotactic neurosurgery robots are used for electrode implantation procedures for deep brain stimulation (DBS), and stereoelectroencephalography (SEEG), as well as stereotactic applications in neuron-endoscopy, biopsy, and other research applications. The Neuromate® provides consistent, rapid, precise targeting and reduces clinical complication rates during stereotactic procedures. It's dentistry systems focus on digital imaging and scanning automation with 3D crown design capabilities. Its factory automation robotics components include those used for metrology, positioning, and additive manufacturing. It's additive manufacturing techniques include vacuum casting, injection molding, and laser melting. Laser melting is also utilized in most of Renishaw's dental product offering, mainly crowns and bridges. Renishaw also produces incremental optical encoders, laser interferometer encoders, magnetic encoders and absolute optical encoders that are used to ensure accurate linear and rotary control in various robotics applications.

13.76	3.36	3.34	13.80	2.53	0			•	5
21.76	4.76	3.42	14.88	1.83			2	4	5
					Soll				
					Hold			4	
					Buy			4	
31.97	4.15	1.61	16.17	1.22	_				
PE	PB					Analyst Recom	mendatio	ns	
				24%					
19%	32%	29%	26%	23%		29%			
464%	203%	5%	(3%)	27%					
						Contl			
			\$103	\$147	25%			39%	
25%	83%	10%	3%	(3%)					ia
\$53	\$148	\$152	\$136	\$140					
6%	59%	15%	5%	2%	North,			Far Fact	
\$272	\$464	\$521	\$527	\$608					
2010	2011	2012	2013	2014		RSW 2014 Revenu UK and	o of accert	,	
	\$272 6% \$53 25% \$33 464% \$0.45 464% 19% 12% PE 31.97 15.40 19.76 24.47 21.76	\$272         \$464           6%         59%           \$53         \$148           25%         83%           \$33         \$106           464%         203%           \$0.45         \$1.46           464%         203%           19%         32%           12%         23%           PE         PB           31.97         4.15           15.40         2.58           19.76         3.48           24.47         7.00           21.76         4.76	\$272         \$464         \$521           6%         59%         15%           \$53         \$148         \$152           25%         83%         10%           \$33         \$106         \$109           464%         203%         5%           \$0.45         \$1.46         \$1.50           464%         203%         5%           19%         32%         29%           12%         23%         21%           PE         PB           P/S EV         31.97         4.15           15.40         2.58         1.83           19.76         3.48         1.97           24.47         7.00         4.13           21.76         4.76         3.42	\$272         \$464         \$521         \$527           6%         59%         15%         5%           \$533         \$148         \$152         \$136           25%         83%         10%         3%           \$333         \$106         \$109         \$103           464%         203%         5%         (3%)           \$0.45         \$1.46         \$1.50         \$1.41           464%         203%         5%         (3%)           \$1.97         \$23%         29%         26%           12%         23%         21%         20%           PE         PB         P/S EV/EBITDA D           31.97         4.15         1.61         16.17           15.40         2.58         1.83         10.15           19.76         3.48         1.97         12.31           24.47         7.00         4.13         15.23           21.76         4.76         3.42         14.88	\$272         \$464         \$521         \$527         \$608           6%         59%         15%         5%         2%           \$533         \$148         \$152         \$136         \$140           25%         83%         10%         3%         (3%)           \$333         \$106         \$109         \$103         \$147           464%         203%         5%         (3%)         27%           \$0.45         \$1.46         \$1.50         \$1.41         \$2.03           464%         203%         5%         (3%)         27%           19%         32%         29%         26%         23%           12%         23%         21%         20%         24%           PE         PB         P/S EV/EBITDA Div Yield %           31.97         4.15         1.61         16.17         1.22           15.40         2.58         1.83         10.15         2.36           19.76         3.48         1.97         12.31         3.55           24.47         7.00         4.13         15.23         1.74           21.76         4.76         3.42         14.88         1.83	\$272       \$464       \$521       \$527       \$608         6%       59%       15%       5%       2%         \$533       \$148       \$152       \$136       \$140         25%       83%       10%       3%       (3%)         \$333       \$106       \$109       \$103       \$147         464%       203%       5%       (3%)       27%         \$0.45       \$1.46       \$1.50       \$1.41       \$2.03         464%       203%       5%       (3%)       27%         19%       32%       29%       26%       23%         12%       23%       21%       20%       24%         PE       PB       P/S EV/EBITDA Div Yield %         31.97       4.15       1.61       16.17       1.22         15.40       2.58       1.83       10.15       2.36         19.76       3.48       1.97       12.31       3.55         19.76       3.48       1.97       12.31       3.55         4hold       21.76       4.76       3.42       14.88       1.83	Survey         Survey<	S272       \$464       \$521       \$527       \$608         6%       59%       15%       5%       2%         \$533       \$148       \$152       \$136       \$140         25%       83%       10%       3%       (3%)         \$333       \$106       \$109       \$103       \$147         464%       203%       5%       (3%)       27%         \$0.45       \$1.46       \$1.50       \$1.41       \$2.03         464%       203%       5%       (3%)       27%         19%       32%       29%       26%       23%         12%       23%       21%       20%       24%         Analyst Recommendation         31.97       4.15       1.61       16.17       1.22         15.40       2.58       1.83       10.15       2.36         19.76       3.48       1.97       12.31       3.55         24.47       7.00       4.13       15.23       1.74         21.76       4.76       3.42       14.88       1.83         0       1       2       3	Survey       Survey





Ticke	SU	Currency USD	Date	9/3	0/14
Schneider Electric S	E				
Headquarters	Rueil Malmaison, France	Share Price	76.73	50%	Stock Price vs S&P 500
Website	schneider-electric.com	52 Week Range	73.06115-91.14659		
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	44.18	30%	
Exchange	ENXTPA	Enterprise Value (\$B)	52.90	10%	and many that have
Share Type	Common Shares	YTD Change	(4.10%)	(10%)	manufactor and
Functional FX	EUR	PE	18.77	(20%)	
Ticker	SU	P/S	1.43	(30%)	
SEDOL	4834108	Dividend Yield	3.08%		9/30/ 10/14/ 11/12/5/ 11/25/ 12/23/ 12/23/ 12/23/ 12/23/ 12/23/ 12/23/ 12/23/ 12/23/ 12/23/ 12/23/ 12/24/ 6/23/ 17/7/ 17/7/ 17/21/ 17/2
Industry (GICS)	Electrical Components ar	nd Equipment			
Robo-Stox Subgroup	Industrial Automation Sol	ftware & Equipment			S&P Price SU Price

Schneider Electric SE provides integrated energy management solutions to utilities and infrastructure, industries and machines manufacturers, non-residential building and residential, and data centers and networks markets worldwide. It operates in five segments: Partner, Infrastructure, Industry, IT, and Buildings. The company designs and manufactures automation and control solutions; secondary distribution network products, primary distribution switchgears, transformers, and network automation products; electrical products, including circuit breakers, switches, meters, enclosures, and switchboards; installation systems, and control products and solutions; building management and security systems; and critical power and cooling systems. It also offers solar solutions for photovoltaic integration and connection, such as power conversion, electrical distribution, monitoring, supervision, and technical support; critical information products for weather-sensitive businesses; smart grid solutions; topesecurity solutions; transaction management and market intelligence solutions; environmental products; and electrical educational solutions. In addition, the company provides field services comprising electric distribution, automation, critical power and cooling, and building management services; professional services that include IT consulting and integration, and energy management services; and training services. The company was founded in 1836 and is headquartered in Rueil Malmaison, France.

# **Robotics & Automation Description:**

Schneider manufactures robotics components primarily used in industrial robots geared towards process automation and motion control. Schneider also integrates the installation of customized automation systems that allow for remote monitoring and control. Its customized automation and control products include programmable relays, motion controllers / starters / coordinators, speed drives, and human-machine interfaces. Its robotics components include motor speed controller units, switches, and HVAC sensors. Additionally, Schneider provides substation automation, protection, monitoring, and control solutions for energy distribution from LV substations to EHV transmission grid solutions. Schneider ranks #1 in low voltage and building automation, #1 in grid automation and medium voltage, #2 in discrete industrial automation, and #4 in factory automation worldwide.

Fundamentals	2009	2010	2011	2012	2013	SU 2013 Revenue by Geography	
Sales	\$22,634	\$26,255	\$29,029	\$31,572	\$32,433	Asia-PacificWestern	
YoY % Change	(14%)	24%	14%	7%	(2%)	10%Europe	
EBITDA	\$3,530	\$4,656	\$4,656	\$5,186	\$5,199	28%	
YoY % Change	(16%)	24%	8%	8%	(2%)		
Net Income	\$1,181	\$2,306	\$2,329	\$2,390	\$2,600		
YoY % Change	(51%)	109%	4%	1%	4%		
Earnings Per Share	\$2.38	\$4.42	\$4.33	\$4.40	\$4.72		
YoY % Change	(53%)	98%	1%	0%	3%	Rest of the	
-						World USA	
EBITDA Margin %	16%	18%	16%	16%	16%	26%	
Net % Margin	5%	9%	8%	8%	8%		
Top 5 Comps	PE	PB	P/S EV	//EBITDA	Div Yield %	Analyst Recommendations	
Alstom SA	15.21	1.66	0.41	6.49	0.00		1
ABB Ltd.	21.68	3.13	1.34	11.29	3.26	Buy <b>10</b>	
Siemens Aktiengesellschaft	16.35	2.81	1.07	10.43	3.19	Hold	
Legrand SA	20.85	3.44	2.47	12.22	2.55		14
Rockwell Automation Inc.	19.44	5.57	2.32	11.79	2.11	Sell 3	
	10.11	0.07	2.02	11.70	2.11		
Schneider Electric SE	18.77	1.91	1.43	11.07	3.08	0 5 10	15
	10.77	1.91	1.40	11.07	5.00	No. of analyst recommendations	





Ticker	SIE	Currency USD	Date	9/30	0/14
Siemens Aktiengese	llschaft				
Headquarters	Munich, Germany	Share Price	118.51	50%	Stock Price vs S&P 500
Website	siemens.com	52 Week Range	109.42134-127.77182	40%	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	99.76	30%	
Exchange	DB	Enterprise Value (\$B	) 113.2	20%	
Share Type	Common Stock	YTD Change	(5.63%)	10%	and the second s
Functional FX	EUR	PE	16.35	0%	
Ticker	SIE	P/S	1.07	(10%)	
SEDOL	5727973	Dividend Yield	3.19%		9,50() 10,14() 11,11,111,112,8() 11,12,11,12,11,12,11,12,11,12,12,12,12,1
Industry (GICS)	Industrial Conglomerates				
Robo-Stox Subgroup	Industrial Automation Soft	ware & Equipment			S&P Price SIE Price

Siemens Aktiengesellschaft operates as an electronics and electrical engineering company worldwide. The company operates in six segments: Energy, Healthcare, Industry, Infrastructure & Cities, Equity Investments, and Financial Services. The company offers a range of products, solutions, and services comprising wind turbines, gas turbines, steam turbines, compressors, and power transmission solutions, as well as electrical, instrumentation, and telecommunication solutions for generating and transmitting power, as well as for extracting, converting, and transporting oil and gas. In the healthcare sector, it develops, manufactures, and markets diagnostic, therapeutic, imaging, and clinical systems, devices, and consumables; and information technology systems for clinical and administrative purposes, as well as provides technical maintenance, professional and consulting, and financing services. The company also offers a range of industry automation, industry software, and drive products and services, as well as system integration and solutions for plant businesses. In the infrastructure and cities sector, it provides rail systems; building and mobility solutions; low and medium voltage components, systems, and solutions; power distribution equipment, including smart grid applications; and building technologies. In addition, the company provides various financial services, such as solutions for equipment financing, leasing, and rental; project and structure dinancing solutions, including debt financing, equity participations, and financial advisory services; venture capital financing; treasury services; financing and investment management services; and insurance brokerage services. Further, it holds equity investments in various sectors. The company was formerly known as Siemens & Halske and changed its name to Siemens Aktiengesellschaft in January 1966. Siemens Aktiengesellschaft was founded in 1847 and is headquartered in Munich, Germany.

# **Robotics & Automation Description:**

Siemens provides robot-assisted imaging systems in healthcare through its Syngo imaging software and is developing a robot nurse for lab work, surgeries, and rehab centers. Robot-assisted imaging systems are used in spinal fusion, radiography, ultrasounds, tomography, fluoroscopy, and mammography procedures. With syngo Dynamics one can rapidly read multi-modality images and create reports for cardiovascular patients in real-time. Siemens also provides imaging systems for robots used in car factories and manufacturing systems. Its "Totally Integrated Automation" uses open system architecture covering the entire production process and offers maximum cooperation across all automation components. Siemens also offers building automation solutions for efficient energy management, monitoring, and optimization.

Fundamentals	2009	2010	2011	2012	2013		SIE 2013 Revenue by Ge	ography
Sales	\$102,439	\$93,510	\$97,527	\$99,396	\$102,703	Germany		Europe,
YoY % Change	(9%)	(2%)	5%	7%	(2%)	16%		C.I.S.,
EBITDA	\$12,329	\$13,170	\$13,405	\$11,457	\$10,292			Africa, Middle
YoY % Change	(9%)	6%	9%	0%	(5%)			East
Net Income	\$3,352	\$5,297	\$7,696	\$5,331	\$5,798	11.21.2		(Excluding
YoY % Change	(60%)	70%	47%	(27%)	3%	United States		Germany)
Earnings Per Share	\$3.88	\$6.10	\$8.81	\$6.09	\$6.87	20%		42%
YoY % Change	41%	77%	54%	(30%)	(6%)		Asia, Australia	
							22%	
EBITDA Margin %	12%	14%	14%	12%	10%			
Net % Margin	3%	6%	8%	5%	6%			
Top 5 Comps	PE	PB	P/S E	V/EBITDA D	Div Yield %		Analyst Recommend	dations
Alstom SA	15.21	1.66	0.41	6.49	0.00	1	1	1
Schneider Electric SE	18.77	1.91	1.43	11.07	3.08	Buy		17
ABB Ltd.	21.68	3.13	1.34	11.29	3.26	Hold	9	
Koninklijke Philips N.V	22.17	2.17	1.01	9.46	3.17	HUIU	9	
General Electric Company	17.52	1.92	1.77	22.33	3.43	Sell	5	
	10.05		4 07			0	5 10	15
Siemens Aktiengesellschaft	16.35	2.81	1.07	10.43	3.19		No. of analyst recom	mendations





Ticke	r 1504	Currency USD	Date	9/30/14
TECO Electric & Ma	chinery Co. Ltd.			
Headquarters	Taipei, Taiwan	Share Price	1.03	Stock Price vs S&P 500
Website	teco.com.tw	52 Week Range	1.0095-1.36135	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	2.057	30%
Exchange	TSEC	Enterprise Value (\$B)	1.933	20%
Share Type	Common Stock	YTD Change	(8.49%)	10%
Functional FX	TWD	PE	14.38	
Ticker	1504	P/S	1.08	(10%) L S S S S S S S S S S S S S S S S S S
SEDOL	6879851	Dividend Yield	3.52%	9,90,14,11,11,11,11,11,11,11,11,11,11,11,11,
Industry (GICS)	Electrical Components	s and Equipment		
Robo-Stox Subgroup	Industrial Automation	Software & Equipment		S&P Price 1504 Price

TECO Electric & Machinery Co., Ltd. is engaged in the manufacture, installation, wholesale, and retail of electronic, telecommunication, and office equipment worldwide. The company offers low, medium, and high voltage, as well as high performance motors; DC/AC frequency inverters; industrial automation systems; electrical power systems and engineering project services; and home-appliances, including window/cabinet air-conditioning units, refrigerators, twin split air-conditioners, aerobic purifying split air-conditioners, inverter air-conditioners, and networking refrigerators. It also provides audio-visual products, such as CRT TV, flat-screen TV, LCD-TV, LCOS, plus DVD players, DVR, PVR, AV servers, etc.; and engineering services for air conditioning projects, high-rise water/electric-air conditioning systems, special air conditioning systems for hospitals and precision factories, and clean rooms for semiconductor factories, as well as engages in the production, sale, and service for central water chilling systems. In addition, it offers health insurance cards with an IC chip; information appliances; manufactures switches, busway and related components, nano material products; repairs of electric appliances; provides business management and consulting services; inverses in various undertakings; offers fiber optic cables, interconnects, transceivers/media converters, patch cords, and LC connectors and adapters. Additionally, it is engaged in commodity sales and trading business; manufacturing mechanical equipment, aerogenerators, wheel bays and other components, and wired communication equipment and apparatus; communication network information technology development; the development and sale of software; and real estate business. The company was founded in 1956 and is based in Taipei, Taiwan.

# **Robotics & Automation Description:**

Teco manufactures and installs various components such as programmable logic controllers, electronic relays, and motors into robotics and automation systems through its Industrial Products & System Automation and Industrial Motor & Applications divisions. TECO develops solutions in industrial automation technology from the manufacturing of DC/AC frequency inverters, and is able to integrate various automation systems in the machine tool, steel, semiconductor plant, TFT plant, and mechanical electronics industries. Teco intends to expand its system automation products to factory, building, and home automation processes. Its AC motor drive F510 series, which is designed to handle very heavy payloads, has won multiple Taiwan Excellence Awards for technological innovation.

TECO Electric & Machinery	14.38	1.36	1.08	9.10	3.52	0	2 No. of c	4 naivst recomme	6	
Weg SA	25.65	4.98	3.18	18.37	2.00	Sell 0				
Regal Beloit Corporation	24.49	1.35	0.92	7.48	1.37		_			
Velling Holding Limited	6.85	1.32	0.56	3.38		Hold	1			
Crompton Greaves Limited	51.09	3.46	0.92	22.42	0.00	Buy				7
lohnson Electric Holdings Ltd.	16.42	1.96	1.62	9.06	1.54					
Fop 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %		Analyst	Recommenda	tions	
let % Margin	J 70	0 70	0 70	070	1 70					
BITDA Margin %	11% 5%	11% 6%	10% 6%	11% 6%	11% 7%					
oY % Change	8%	27%	11%	11%	19%					
arnings Per Share	\$0.03	\$0.05	\$0.05	\$0.06	\$0.07		America 18%		57%	
oY % Change	7%	27%	12%	11%	22%				Taiwan	
let Income	\$61	\$85	\$92	\$106	\$126					
oY % Change	(3%)	4%	0%	7%	18%	15%				
BITDA	\$134	\$176	\$148	\$180	\$203	Other				
oY % Change	(12%)	12%	4%	4%	16%	1	0%			
ales	\$1,251	\$1,543	\$1,544	\$1,676	\$1,895		nina			
undamentals	2009	2010	2011	2012	2013	Mai	nland _	Revenue by Geo	grapny	





Ticker	6481	Currency USD	Date	9/30/14
THK Co., Ltd.				
Headquarters	Tokyo, Japan	Share Price	24.89	Stock Price vs S&P 500
Website	thk.com	52 Week Range	17.66636-25.75205	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	3.150	30%
Exchange	TSE	Enterprise Value (\$B)	2.482	10%
Share Type	Common Stock	YTD Change	4.04%	(10%)
Functional FX	JPY	PE	20.92	(200)
Ticker	6481	P/S	1.78	(30%)
SEDOL	6869131	Dividend Yield	1.32%	9,50,11 11,125,11 11,125,11 11,25,11 11,25,12 11,25,12 2,17,12
Industry (GICS)	Industrial Machinery			
Robo-Stox Subgroup	Industrial Automation Sol	ftware & Equipment		S&P Price 6481 Price

THK Co., Ltd. manufactures and sells machinery components worldwide. The company provides linear motion (LM) guides, LM actuators, spline nuts, LM strokes, cross roller guides, linear ball slides, flat rollers, slide rails, LM guide actuators, ball splines, linear bushes, precision linear packs, cross roller tables, LM rollers, and slide packs. It also offers ball screws, screw nuts, change nuts, double-row angular contact roller rings, cross roller rings, cam followers, roller followers, spherical plain bearings, link balls, rod ends, actuators/custom assemblies, lubrication accessories, and seismic isolation products. In addition, it provides glass-type substrate processing equipment, optical machinery, and spherical joints. Further, the company is involved in the transportation equipment-related business. Its products are used in various applications, including machine tools, general industrial machinery, precision instruments, semiconductor and LCD manufacturing equipment, industrial robots, electronic devices, and transport systems, as well as in construction, aerospace, medical and assistive, and other manufacturing industries. THK Co., Ltd. was founded in 1971 and is headquartered in Tokyo, Japan.

# **Robotics & Automation Description:**

THK produces industrial linear motion systems and other components in the manufacturing of positioning, welding, scalar, and double-arm robots. Many of its robots are capable of mimicking human hand and arm mobility. THK's linear motion systems and cross roller rings can reduce the size of robots while increasing their rigidity and operation speed. A combination of LM Guides, ball screws, and linear motor driving systems are used to transfer large glass substrates, produce LCD panels, and to guide automated machine tools. Additionally THK's LM guides and actuators are used in surgery support robots, which aid doctors in tasks such as setting bones and radiation absorption during radiology. Its SEED (Smart End Effector Devices) won outstanding performance awards in the component category at the Fifth Robot Awards, an event put-on by multiple organizations in Japan.

Fundamentals	2010	2011	2012	2013	2014	6481 2014 Revenue by Geography
Sales	\$1,234	\$2,301	\$2,389	\$1,787	\$1,802	Europe
YoY % Change	(36%)	65%	3%	(14%)	10%	China 8%
EBITDA	\$89	\$371	\$368	\$235	\$280	3%
YoY % Change	(52%)	135%	(1%)	(18%)	19%	America
Net Income	(\$153)	\$168	\$153	\$104	\$151	11%
YoY % Change	0%	0%	(9%)	(22%)	59%	
Earnings Per Share	(\$1.19)	\$1.31	\$1.19	\$0.82	\$1.20	
YoY % Change	0%	0%	(9%)	(22%)	60%	
						Japan
EBITDA Margin %	7%	16%	15%	13%	16%	72%
Net % Margin	(12%)	7%	6%	6%	8%	
Top 5 Comps	PE	PB	P/S EV	//EBITDA C	)iv Yield %	Analyst Recommendations
Nabtesco Corporation	20.28	2.51	1.59	9.11	1.52	
Amada Co. Ltd.	30.91	0.99	1.52	12.39	2.49	Buy 12
SMC Corp.	23.64	2.58	4.98	14.10	0.60	Hold 4
Fanuc Corporation	29.06	3.18	7.63	13.87	0.86	4 4
Nachi-Fujikoshi Corp.	21.73	2.48	0.98	7.92	1.00	Sell 4
						0 5 10
THK Co., Ltd.	20.92	1.58	1.78	8.23	1.32	No. of analyst recommendations





Ticker	6104	Currency USD	Date	9/30/14
Toshiba Machine Co	. Ltd.			
Headquarters	Numazu, Japan	Share Price	4.56	Stock Price vs S&P 500
Website	toshiba-machine.co.jp	52 Week Range	3.66454-6.08933	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.692	50%
Exchange	TSE	Enterprise Value (\$B)	0.493	25%
Share Type	Common Stock	YTD Change	(17.76%)	0%
Functional FX	JPY	PE	16.73	
Ticker	6104	P/S	0.67	
SEDOL	6897262	Dividend Yield	1.60%	9 (20) 9 (20) 9 (20) 11/1/11/ 11/1/11/ 11/1/11/ 12/29 12/2
Industry (GICS)	Industrial Machinery			
Robo-Stox Subgroup	Industrial Automation So	ftware & Equipment		S&P Price 6104 Price

Toshiba Machine Co., Ltd. manufactures and sells various machines in Japan and internationally. The company offers injection molding machines, including electric injection molding machines, hybrid molding machines, hydraulic injection molding machines, and control systems; die-casting machines; and extrusion machines, such as TEM/twin screw extruders, SPU/sheet manufacturing equipment, FPU/film manufacturing equipment, CMT/coating machines, roll-to-roll type UV imprinting machines, rotogravure printing presses, and process controllers. It also provides nano processing systems comprising high precision aspeheric and free-form surface grinders; high precision vertical machines; high precision micro-grooving machines; high precision grooving lathe machines; high precision dicing machines; laser dicing machines; high precision optical glass mold press machines; micro-pattern imprinting machines; ultra high precision flat polygon mirror generators; high precision turning machines; high precision optical communication device automated alignment and assembling machines, horizontal machining centers, vertical boring and turning mills, roll grinders, mold base cutting machines; FA controllers; micro pattern imprinting machines; electronic controls; castings; Servo motor products; industrial robots; hydraulic equipment comprising motors, piston pumps, and control valves; and semiconductor manufacturing equipment. Toshiba Machine Co., Ltd. was founded in 1875 and is headquartered in Numazu, Japan.

### **Robotics & Automation Description:**

Toshiba develops, manufactures, and sells 6-axis, FPD handling, semiconductor palletizing, painting, and class handling robots as well as robotic components. TH-A Series of SCARA robots provides quicker acceleration / deceleration, a longer life span, and easier maintenance. These robots are most ideal for use in pick-and-place, assembly, and production lines. Its BA-II Series of Cartesian robots is a nice alternative to costly industrial robots that are difficult to program and operate. Toshiba also manufactures a custom-made programmable logic controller, the TCmini®, for high product mix/low volume automation that performs sequencing, temperature, operational panel, and communication control functions. This PLC is most commonly seen in food, environmental, health, and industrial appliances.

Fundamentals	2010	2011	2012	2013	2014	6104 2014 Revenue by Geography Other	
Sales	\$799	\$1,154	\$1,450	\$1,283	\$1,098	North Regions	
YoY % Change	(39%)	28%	25%	1%	(6%)	17%	
EBITDA	\$2	\$77	\$118	\$107	\$67		
YoY % Change	(51%)	41%	22%	8%	(6%)	Jap	
Net Income	(\$48)	\$40	\$82	\$84	\$43	42	%
YoY % Change	0%	0%	105%	17%	(44%)		
Earnings Per Share	(\$0.32)	\$0.26	\$0.54	\$0.55	\$0.28		
YoY % Change	0%	0%	105%	17%	(44%)	Asia 39%	
EBITDA Margin %	0%	7%	8%	8%	6%		
Net % Margin	(6%)	3%	6%	7%	4%		
Top 5 Comps	PE	PB	P/S EV	/EBITDA [	)iv Yield %	Analyst Recommendations	
Haitian International Holdings Limited	18.62	3.45	3.06	12.67	1.82		
Sintokogio., Ltd.	16.22	0.51	0.47	4.12	1.83	Buy 1	
The Japan Steel Works, Ltd.	34.09	1.18	0.87	8.00	1 1 4		
Mesnac Co.,Ltd.	67.02	2.72	3.50	39.10	0.08	Hold O	
Nissei Plastic Industrial Co., Ltd.	11.34	0.73	0.56	4.35	1.31	Sell 0	
Taskika Mashira Oa lad	16 70	0.00	0.67	6.06	1 60	0 0.5 1	1.5
Toshiba Machine Co. Ltd.	16.73	0.89	0.67	6.36	1.60	No. of analyst recommendations	

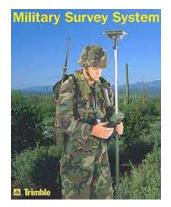




# Machine Navigation Technology









Ticker	TRMB	Currency USD	Date	9/30/14
Trimble Navigation l	.imited			
Headquarters	Sunnyvale, CA	Share Price	30.50	Stock Price vs S&P 500
Website	trimble.com	52 Week Range	27.97-40.17	60%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	7.927	40%
Exchange	NasdaqGS	Enterprise Value (\$B)	8.316	20%
Share Type	Common Stock	YTD Change	(12.10%)	0%
Functional FX	USD	PE	30.79	
Ticker	TRMB	P/S	3.29	
SEDOL	2903958	Dividend Yield	0.00%	9/30/14/1 10/28/11/1/1/25/11/11/12/25/11/11/25/11/11/25/11/11/25/11/11/25/11/11/25/11/12/23/17/12/22/22/22/22/22/22/22/22/22/22/22/22/
Industry (GICS)	Electronic Manufactu	ring Services		
Robo-Stox Subgroup	Machine Navigation	<b>Fechnology</b>		S&P Price TRMB Price

Trimble Navigation Limited designs and distributes positioning products and applications enabled by global positioning system (GPS), optical, laser, and wireless communications technology. The company's Engineering and Construction segment offers optimized route selection and design software; automatic guide and control construction systems for bulldozers, graders, and paving equipment, systems to monitor, track, and manage assets, equipment, and workers; and software to facilitate the sharing and communication of data in real time. Its Field Solutions segment provides agriculture products, including guidance and positioning, automated application, and information management solutions that enable farmers to enhance crop performance, profitability, and environmental quality. The company's Mobile Solutions segment offers vehicle solutions, such as GPS receivers, business logic, sensor interfaces, and wireless modems; mobile worker solutions to automate service technician work in the field; and scheduling and dispatch solution, an enterprise software program to optimize scheduling and routing of field service technicians. Its Advanced Devices segment supplies global navigation satellite system modules (GNSS), licensing and complementary technologies, and GNSS-integrated sub-system solutions; GPS receivers and embedded modules for aircraft navigation and timing applications; information for outdoor recreational activities; precision products; and ultra high frequency radio frequency identification (RFID) reader modules, and finished/fixed-position RFID readers and design services. It serves agriculture, architecture, civil engineering, construction, environmental management, government, natural resources, transportation, and utilities industries through dealers, distributors, and authorized representatives worldwide. The company has a strategic alliance with 3Gtms, Inc. Trimble Navigation Limited was founded in 1978 and is headquartered in Sunnyvale, California.

#### **Robotics & Automation Description:**

Trimble develops GPS systems and navigation technology that guide and help automated machinery such as tractors and bulldozers. Its imaging software transforms geospatial data into information used to increase productivity and improve decision-making within survey, engineering and GIS service companies, governments, utilities and transportation authorities. Utilizing Trimble operated VRS technology, centimeter level accuracy is available on demand, anywhere within the reference station network. Trimble UAS Aerial Imaging Solutions is being used to perform boundary & topographic surveys, site & route planning, progress monitoring, volume determination, and vegetation health and disaster analysis. Trimble's 4D Control Systems support over 20 different types of sensors including position sensors, total station, strain meter, data logger, tiltmeters, and weather station data.

Fundamentals	2009	2010	2011	2012	2013		TRMB 2013 Reven	ue by Geograp	hy
Sales	\$1,126	\$1,294	\$1,644	\$2,040	\$2,288	Oth	ers		
YoY % Change	(15%)	15%	27%	24%	12%	13	1%		
EBITDA	\$172	\$213	\$284	\$387	\$463				
YoY % Change	(15%)	21%	30%	27%	16%	Asia Pacific_			
Net Income	\$63	\$104	\$151	\$191	\$219	14%			United
YoY % Change	(55%)	63%	45%	27%	15%				States
Earnings Per Share	\$0.26	\$0.43	\$0.61	\$0.76	\$0.85				50%
YoY % Change	(54%)	62%	43%	23%	14%		Europe 23%		
EBITDA Margin %	15%	16%	17%	19%	20%				
Net % Margin	6%	8%	9%	9%	10%				
	DE	DD			Viold 0/		Analyst Recom	mondations	
Top 5 Comps	PE	PB		/EBITDA D			Analyst Recon	menuations	
Garmin Ltd.	15.61	2.88	3.66	12.72	3.69	D.u.			7
Semtech Corporation	NM	3.28	3.35	19.34	0.00	Buy			1
CalAmp Corp.	50.43	4.57	2.57	21.24	0.00	Hold		5	
Hexagon AB	24.84	3.00	3.63	16.41	1.23				
L-3 Communications Holdings Inc.	14.56	1.72	0.85	9.54	2.02	Sell 0			
Trimble Navigation Limited	30.79	3.27	3.29	15.80	0.00	0	2	4	6





# Machine Vision & Image Recognition





Ticker	CGNX	Currency USD	Date	9/30	)/14
Cognex Corporation					
Headquarters	Natick, MA	Share Price	40.27	100%	Stock Price vs S&P 500
Website	cognex.com	52 Week Range	29.22-45.7999	80%	
Robo-Stox Classification	Bellwether	Market Cap (\$B)	3.492	60%	
Exchange	NasdaqGS	Enterprise Value (\$B)	3.369	40%	- min
Share Type	Common Stock	YTD Change	5.47%	20%	- man man man
Functional FX	USD	PE	41.97	0%	well-
Ticker	CGNX	P/S	9.07	(20%)	
SEDOL	2208288	Dividend Yield	0.00%		9,430, 0,0144, 1,1,1,1,1,1,25, 1,1,25,1,2,1,1,25,1,1,25,1,1,20,6,1,23,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,
Industry (GICS)	Electronic Equipment	and Instruments		c	
Robo-Stox Subgroup	Machine Vision & Ima	ge Recognition			S&P Price CGNX Price

Cognex Corporation provides machine vision products that capture and analyze visual information in order to automate tasks primarily in manufacturing processes. It operates in two divisions, Modular Vision Systems and Surface Inspection Systems. The Modular Vision Systems division develops, manufactures, and markets modular vision systems and ID products that are used to automate the manufacture and tracking of discrete items, such as cellular phones, aspirin bottles, and automobile wheels by locating, identifying, inspecting, and measuring them during the manufacturing or distribution process. The Surface Inspection Systems division develops, manufactures, and markets surface inspection Systems that are used to inspect the surfaces of materials processed in a continuous fashion, such as metal, paper, nonwoven, plastic, and glass. The company serves customers in factory automation, semiconductor and electronics capital equipment, and surface inspection markets. Cognex Corporation sells its products through direct sales force, as well as through a network of integration and distribution partners worldwide. The company was founded in 1981 and is headquartered in Natick, Massachusetts.

#### **Robotics & Automation Description:**

Cognex has 2 primary robotics divisions, the Modular Vision Systems (MVSD) and Surface Inspection Systems (SISD). Historically, the MVSD division has generated nearly 90% of Cognex's revenue. Cognex automation equipment includes machine builders/suppliers, robotic systems integrators, and line builders, which are designed to perform with the highest reliability at high production speeds and are optimized to operate in the tightest of spaces. Guiding robots with machine vision is an enabling technology for flexible manufacturing, allowing production lines to readily accommodate product changes. Cognex is the machine vision systems leader by most installed systems (150,000+), largest engineering group (over 250 engineers in R&D and sales), patents (281 with 183 pending), and sales volume.

Fundamentals	2009	2010	2011	2012	2013	CGNX 2013 Revenue by Geography
Sales	\$176	\$291	\$322	\$324	\$354	Japan
YoY % Change	(28%)	65%	11%	1%	9%	11% United
EBITDA	\$2	\$86	\$95	\$94	\$97	States 33%
YoY % Change	(32%)	79%	14%	0%	10%	33%
Net Income	(\$5)	\$61	\$70	\$68	\$74	Other
YoY % Change	0%	0%	14%	(3%)	8%	25%
Earnings Per Share	(\$0.06)	\$0.77	\$0.83	\$0.79	\$0.85	
YoY % Change	0%	0%	8%	(5%)	6%	
EBITDA Margin %	1%	29%	30%	29%	28%	Europe
Net % Margin	(3%)	21%	22%	21%	21%	31%
Top 5 Comps	PE	PB	P/S EV	EBITDA Di	v Yield %	Analyst Recommendations
FARO Technologies Inc.	35.77	2.64	2.78	16.39	0.00	
GSI Group Inc.	32.48	1.60	1.08	9.81	0.00	Buy 2
FEI Company	26.83	2.88	3.35	14.93	1.00	Hold
Zebra Technologies Corp.	24.21	3.44	3.19	12.79	0.00	
Rudolph Technologies Inc.	NM	1.09	1.73	17.64	0.00	Sell 0
Cognex Corporation	41.97	5.12	9.07	29.86	0.00	0 0.5 1 1.5 2
codiev corboration	41.3/	5.12	3.07	23.00	0.00	No. of analyst recommendations





Ticker	E2V	Currency USD	Date	9/30/14	
e2v Technologies pla	)				
Headquarters	Chelmsford, UK	Share Price	2.61	Stock Price vs S&P 500	
Website	e2vtechnologies.com	52 Week Range	2.24025-2.80639		
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.567	50%	
Exchange	LSE	Enterprise Value (\$B)	0.566	25%	
Share Type	Ordinary Shares with Pa	r V YTD Change	7.33%	0%	-
Functional FX	GBP	PE	14.04		
Ticker	E2V	P/S	1.60	(25%)	4 4
SEDOL	B01DW90	Dividend Yield	2.73%	9(30/14/11/11/12/11/12/11/12/11/12/11/12/11/12/11/12/11/12/11/12/12	(15/
Industry (GICS)	Electronic Equipment an	d Instruments			ര്ര്
Robo-Stox Subgroup	Machine Vision & Image	Recognition		S&P Price E2V Price	

e2v technologies plc provides solutions for high performance systems in the United Kingdom, North America, Europe, the Asia Pacific, and internationally. It operates through three divisions: Radio Frequency (RF) Power Solutions, High Performance Imaging Solutions, and Hi-rel Semiconductor Solutions. The RF Power Solutions division offers RF power systems for the generation of X-rays for the treatment of cancer; ITAR free components and compact subsystems for electronic countermeasure protection of air, land, and naval platforms, such as platform life extensions and upgrades; and microwave and RF generators for the processing of bulk materials, delivering transformation economics into a range of material processing applications. The High Performance Imaging Solutions division provides cameras and modules for sensitive and high speed inspection processes with standard interfaces for integration; space-qualified imaging sensors and arrays for space science, earth observation, and astronomy applications; and high sensitivity and low noise sensors enabling high end scientific instruments, intra-oral X-ray sensors, and thermal imaging cameras for fire and security. The Hi-rel Semiconductor Solutions division offers semiconductors and services, including high precision assembly, packaging, and test of microprocessors, memory, and analogue components for military and space markets; and high speed data converters for aerospace and defense applications, as well as semiconductor lifecycle management under the SLiM brand name. The company serves medical and science, aerospace and defense, and commercial and industrial markets. e2v technologies plc is based in Chelmsford, the United Kingdom.

#### **Robotics & Automation Description:**

E2V produces imaging technology implemented on robots. Its Complementary Metal Oxide Semiconductor (CMOS) image sensors are used in the space and defense industries and come with features such as high radiation tolerance and low power consumption. Charge Coupled Device (CCD) imaging sensors provide the best performance when low noise levels and uniformity are critical at low speeds. The Argus® division is responsible for developing thermal imaging solutions. L3Vision™ is an advanced Electron Multiplying (EM) imaging technology that offers nighttime surveillance and other vision capabilities in poorly lit areas. Optical Coherence Tomography (OCT) is a non-invasive optical imaging technique that uses near-infrared light for various eye care diagnostics. The AViiVA, DiViiNA, and ELiXA camera families address a very broad range of applications including food sorting, flat panel display inspection, PCB inspection, solar cell inspection, railway inspection, etc.

Fundamentals	2010	2011	2012	2013	2014		E2V 2014 Revenue by Ge	ography	
0-1	<b>\$005</b>	<b>0007</b>	075	<b>*••••</b>	<b>*</b> 000	Unite			
Sales	\$305	\$367	\$375	\$304	\$363	Kingdo 15%			
YoY % Change	(14%)	14%	3%	(15%)	9%	15%	,	North	
EBITDA	\$44	\$75	\$79	\$71	\$71			America	a
YoY % Change	(22%)	41%	7%	(16%)	7%			36%	
Net Income	(\$3)	\$31	\$38	\$41	\$42	Asia Desifia			
YoY % Change	0%	0%	21%	14%	(6%)	Asia Pacific 19%			
Earnings Per Share	(\$0.03)	\$0.15	\$0.18	\$0.19	\$0.19	2070			
YoY % Change	0%	0%	20%	14%	(7%)		Europe		
							30%		
EBITDA Margin %	14%	21%	21%	23%	19%				
Net % Margin	(1%)	9%	10%	13%	11%				
Top 5 Comps	PE	PB	P/S EV/	/EBITDA D	iv Yield %		Analyst Recommend	lations	
Comtech Telecommunications Corp.	31.05	1.54	1.74	8.94	3.23	1		I.	
Oxford Instruments plc	31.97	4.15	1.61	16.17	1.22	Buy		3	
TT Electronics plc	65.42	1.40	0.50	10.41	3.24	Hold <b>O</b>			
Chemring Group plc	NM	1.44	0.71	7.66	3.21				
Nice SpA	20.47	1.61	1.22	8.55	1.47	Sell 0			
	20.17		1.22	5.00					
e2v Technologies plc	14.04	2.14	1.60	8.24	2.73	0	1 2	3	
sza reenneregies hie	14.04	4.17	1.00	3.24	2.75		No. of analyst recom	mendations	





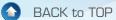
Ticker	FLIR	Currency USD	Date	9/30/14
FLIR Systems, Inc.				
Headquarters	Wilsonville, OR	Share Price	31.34	Stock Price vs S&P 500
Website	flir.com	52 Week Range	27.91-37.42	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	4.441	30%
Exchange	NasdaqGS	Enterprise Value (\$B)	4.220	10%
Share Type	Common Stock	YTD Change	4.12%	(10%)
Functional FX	USD	PE	30.15	
Ticker	FLIR	P/S	3.00	(30%) L (30%) (1) (30%) (2) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3
SEDOL	2344717	Dividend Yield	1.28%	9/30/ 11/11/11/ 11/12/28/ 11/25/ 12/23/ 12/23/ 12/23/ 12/23/ 2/37/ 2/37/ 2/37/ 2/37/ 2/37/ 2/37/ 2/37/ 2/37/ 2/37/ 2/37/ 2/37/ 7/77/ 7/27/27/ 7/27/27/27/ 7/27/27/ 7/27/27/27/27/27/27/27/27/27/27/27/27/27
Industry (GICS)	Electronic Equipment	and Instruments		नननन न
Robo-Stox Subgroup	Machine Vision & Ima	ige Recognition		S&P Price FLIR Price

FLIR Systems, Inc. designs, manufactures, and markets thermal imaging, and other sensing products and systems worldwide. The company operates in five segments: Thermal Vision & Measurement (TVM), Raymarine, Surveillance, Detection, and Integrated Systems. The TVM segment provides thermal imaging and night vision systems, personal vision thermal cameras, cameras and imaging algorithms, hand-held systems, infrared systems, and test equipment; and camera cores, sensors, and readout integrated circuits, as well as offers training services. The Raymarine segment provides marine electronics comprising multifunction displays, autopilot systems, thermal imaging cameras, radars, sonar modules, connectivity software, and other instruments to monitor boat speed, direction, and location. The Surveillance segment offers imaging and recognition solutions for a range of applications consisting of force protection, drug interdiction, search and rescue, special operations, and target designation, as well as for the intelligence, surveillance, and reconnaissance. The Detection segment provides sensor instruments that detect and identify chemical, biological, radiological, nuclear, and explosives threats for military force protection, homeland security, and commercial applications. The Integrated Systems manufactures and markets mobile and fixed solutions for perimeter surveillance. This segment's products include Cerberus mobile unmanned towers, the MSC/MVSS mobile surveillance vehicle, and manned SkyWatch towers for protecting borders, securing facilities, protecting forces, and safeguarding the public. The company markets its products to commercial and government customers. FLIR Systems, Inc. was founded in 1978 and is headquartered in Wilsonville, Oregon.

#### **Robotics & Automation Description:**

Flir produces vision technology that is integrated into various machines, security systems, and other automated architectures such as process monitoring, quality control, fire detection, and other safety applications. FLIR thermal imagers offer fully integrated thermal imaging and measurement solutions for applications such as process development and optimization, industrial process monitoring, product verification, quality assurance, safety applications, etc. "Smart" thermal imagers and software can alert operators to impending equipment failures and security breaches 24/7. Flir also offers optical gas imaging cameras that can quickly identify harmful, invisible gas leaks from a distance without having to halt any production processes. Flir has the #1 global market share in infrared detector cores, thermography equipment, and do-it-yourself security systems. Additionally it is #4 in military infrared equipment. Thermal systems currently represents over 50% of Flir's revenue.

Fundamentals	2009	2010	2011	2012	2013	FLIR 20	13 Revenue by Geography
Sales	\$1,147	\$1,388	\$1,544	\$1,405	\$1,496	Other Intl.	
YoY % Change	7%	21%	11%	(9%)	6%	25%	
EBITDA	\$390	\$425	\$437	\$365	\$331		
YoY % Change	9%	17%	9%	(12%)	0%		
Net Income	\$230	\$248	\$221	\$222	\$177		_United
YoY % Change	15%	8%	(11%)	0%	(20%)		States
Earnings Per Share	\$1.54	\$1.59	\$1.40	\$1.47	\$1.24	Euro	50%
YoY % Change	13%	7%	(11%)	7%	(17%)	25	
EBITDA Margin %	34%	31%	28%	26%	22%		
Net % Margin	20%	18%	14%	16%	12%		
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %	Analy	st Recommendations
OSI Systems, Inc.	27.24	2.38	1.40	8.50	0.00	1	1
Checkpoint Systems Inc.	43.59	1.41	0.74	6.26	0.00	Buy	6
L-3 Communications Holdings Inc.	14.56	1.72	0.85	9.54	0.00	Hold	
FEI Company	26.83	2.88	3.35	14.93	1.33		5
HORIBA, Ltd.	18.70	1.49	1.15	7.34	1.60	Sell 1	
						0 2	4 6





Ticker	6756	Currency USD	Date	9/30	/14
Hitachi Kokusai Elec	tric Inc.				
Headquarters	Tokyo, Japan	Share Price	14.09	75%	Stock Price vs S&P 500
Website	hitachi-kokusai.co.jp	52 Week Range	9.89973-15.45123	-	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	1.448	50%	
Exchange	TSE	Enterprise Value (\$B)	0.930	25%	and a start and the
Share Type	Common Stock	YTD Change	4.46%	0%	and the second s
Functional FX	JPY	PE	9.23	(0500)	
Ticker	6756	P/S	0.91	(25%)	
SEDOL	6496368	Dividend Yield	1.81%	/30/	0,134,40,126,124,124,124,124,124,124,124,124,124,124
Industry (GICS)	Communications Equipm	ent		σ	
Robo-Stox Subgroup	Machine Vision & Image	Recognition			S&P Price 6756 Price

Hitachi Kokusai Electric Inc. provides information communication systems in Japan, the United States, Taiwan, Korea, other Asian countries, Europe, and internationally. The company operates through Video and Wireless Network Solutions, and Eco- and Thin Film Processing Solutions segments. It offers wireless communications and information systems, including infrastructure for mobile telecommunications; disaster-preventive administration radio systems; radio systems for transportation and fire departments; local area wireless communication systems; land mobile products; wireless broadband systems; and wireless packet communication information display, and IC card systems. The company also provides financial/stock exchange information systems comprising multimedia information display, securities information display, and IC card systems, as well as securities and financial, and IT solutions. In addition, it offers broadcasting and video systems, such as transmission and transmitter, receiving station, camera, area one-segment, and shortwave broadcasting systems; and CATV equipment and antennas consisting of home receiver and shared receiver equipment, broadcasting antennas, CATV and communication systems, and µ-chip readers. Further, the company provides video monitoring systems, which comprise HD-SDI camera, network, PTZ camera, and general surveillance series products for the safe and secure operation of roads, bridges, tunnels, and other facilities; and digital interface and television signal system cameras for semiconductor manufacturing, material inspection, medical and biological imaging, ITS, and other applications. Additionally, it offers semiconductor manufacturing systems. The company was founded in 1949 and is headquartered in Tokyo, Japan. Hitachi Kokusai Electric Inc. is a subsidiary of Hitachi, Ltd.

#### **Robotics & Automation Description:**

Hitachi manufactures vision systems used in industrial and healthcare robotics and help with quality control and factory automation. These vision systems are equipped with the latest digital code processing for high sensitivity and performance capabilities as well as surveillance benefits from networking and H.264 Advanced Video Compression Technologies.

Fundamentals	2010	2011	2012	2013	2014	North	6756 2013 Revenue by	Geography
Sales	\$1,306	\$1,722	\$1,786	\$1,474	\$1,626	Amerio	ca	
YoY % Change	(5%)	17%	0%	(6%)	21%	11%		
EBITDA	\$4	\$101	\$139	\$97	\$196	Taiwan		
YoY % Change	23%	48%	0%	(9%)	37%	11%		
Net Income	(\$19)	(\$61)	\$62	\$65	\$149			
YoY % Change	0%	0%	0%	20%	149%	South_		
Earnings Per Share	(\$0.19)	(\$0.59)	\$0.60	\$0.64	\$1.45	Korea		
YoY % Change	0%	0%	0%	20%	149%	12%		Japan
								66%
EBITDA Margin %	0%	6%	8%	7%	12%			
Net % Margin	(1%)	(4%)	3%	4%	9%	* 201	14 Revenue Breakdown by Geo	graphy Not Available
Top 5 Comps	PE	РВ	P/S EV	/EBITDA	Div Yield %		Analyst Recommen	dations
Fiberhome Telecommunication Tech	37.85	2.65	1.89	20.71	1.08			1
Datang Telecom Technology Co., L	97.18	4.35	1.70	35.29	0.00	Buy		7
Tokyo Electron Limited	NM	2.19	1.95	11.68	0.56	Hold	3	
Wistron NeWeb Corp.	16.29	2.25	0.60	7.09	4.12	noiu	3	
Nanjing Panda Electronics Co. Ltd.	33.24	1.95	2.26	NM	1.08	Sell 0		
Hitachi Kokusai Electric Inc.	0.00	1.00	0.01	4 51	1 01	0	2 4	6
nitachi kokusai Electric Inc.	9.23	1.86	0.91	4.51	1.81		No. of analyst recorr	mendations





Ticker	XTRA:ISR	Currency USD	Date	9/30	)/14
Isra Vision AG.					
Headquarters	Darmstadt, Germany	Share Price	61.21	100%	Stock Price vs S&P 500
Website	isravision.com	52 Week Range	42.8914-69.37591	80%	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.268	60%	
Exchange	XTRA	Enterprise Value (\$B)	0.306	40%	wit have
Share Type	Bearer Shares	YTD Change	21.10%	20%	manne
Functional FX	EUR	PE	16.74	0%	
Ticker	ISR	P/S	2.19	(20%)	1 $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$
SEDOL	5949777	Dividend Yield	0.72%	, ,	0.0/14/1 0.0/14/1 1.1/25/1 1.2/29/1 1.2/29/1 1.2/20/1 2.2/3/1
Industry (GICS)	Electronic Equipment an	d Instruments		0	
Robo-Stox Subgroup	Machine Vision & Image	Recognition			S&P Price ISR Price

ISRA VISION AG, together with its subsidiaries, develops, produces, and markets image processing systems in Germany and internationally. It operates in two segments, Industrial Automation and Surface Vision. The company offers robot vision solutions, such as 2D and 2 ½D robot vision, mono 3D, 3D form matching, 3D photogrammetry, 3D stereosensor, 3D stereosystems, 3D visual servo, and 3D adapted uncalibrated robot automation; surface vision products, including panels and sheets, painted finishes, and patterned finishes; quality inspection solutions comprising modular can inspection, code identification, bead and seam inspection, completeness and quality inspection, and versatile intelligence for vision automation; and in line gauging solutions consisting of sensor systems, gauging package, and quality database Q-VIS. It also provides ISRA BrainWARE, a software for intelligent machine vision systems that integrate scientific know-how and complex system design. In addition, the company operates in the electronics and semiconductors markets. It serves automobile industry, machine tool manufacturers, automation industry, general industry, plant and system manufacturers, and the OEM market; and flat glass, solar, display glass, foil, nonwovens, metal, paper, and printing industries. The company was formerly known as ISRA VISION AG in November 2006. ISRA VISION AG was founded in 1985 and is headquartered in Darmstadt, Germany.

#### **Robotics & Automation Description:**

ISRA manufactures 2D and 3D vision components and software to enable robot and automation machine guidance in picking, placing, and inspecting items. MON03D enables 3D robot guidance using just one camera that can precisely define a 3D objects' dimensions. Its predecessor; LOCMES, (Location Measurement Sensor) required at least two cameras plus other peripheral equipment to accomplish this. The 2D robot vision system is typically used for item identification and position recognition. ISRA also has a 2-1/2D robot vision that is essentially the same as the 2D system only it provides information about an objects' height. Its more recent developments include automatic conveyor synchronization (Visual Servoing) using its 3D vision systems and robot learning capabilities called AURA (Adapted Uncalibrated Robot Automation). ISRA also offers surface vision solutions that focus mainly on inspection and quality control.

Fundamentals	2009	2010	2011	2012	2013		XTRA:IS	R 2013 Reve	enue by Geo	graphy	
Sales	\$85	\$88	\$101	\$108	\$121	Americ					
YoY % Change	(15%)	12%	16%	12%	7%	20%	·			Asia, Re	
EBITDA	\$13	\$15	\$18	\$20	\$23					of the World	
YoY % Change	(16%)	14%	17%	13%	8%					36%	
Net Income	\$9	\$9	\$12	\$14	\$16						
YoY % Change	(15%)	7%	31%	18%	8%						
Earnings Per Share	\$2.22	\$2.18	\$2.81	\$3.13	\$3.57						
YoY % Change	(14%)	6%	30%	17%	8%	Europe. 22%	/ \				
						22%					
EBITDA Margin %	15%	17%	18%	19%	19%				Germ	nany	
Net % Margin	11%	11%	12%	13%	13%				22		
Top 5 Comps	PE	РВ	P/S EV	/EBITDA D	iv Yield %		Analy	st Recomr	nendatior	IS	
Key Technology, Inc.	NM	1.21	0.65	74.36	0.00			1			
Perceptron, Inc.	37.65	1.43	1.48	15.19	1.53	Buy				2	
Cognex Corporation	41.97	5.12	9.07	29.86	0.00	Hold					
Flow International Corporation	0.00	0.00	0.00	0.00	0.00	нош				2	
Augusta Technologie AG	19.09	1.44	2.00	8.44	1.56	Sell 0					
Augusta roomologio Ao	10.00		2.00	0.11							
Isra Vision AG.	16.74	1.72	2.19	12.74	0.72	0	0.5	1	1.5	2	2
	10.74		2.10		0.72		No. of	f analyst red	commenda	tions	





Ticker	6861	Currency USD	Date	9/3	0/14
Keyence Corp.					
Headquarters	Osaka, Japan	Share Price	434.50	75%	Stock Price vs S&P 500
Website	kevence.co.ip	52 Week Range	311.75933-439.60801		
Robo-Stox Classification	Bellwether	Market Cap (\$B)	26.34	50%	
Exchange	TSE	Enterprise Value (\$B	) 21.93	25%	
Share Type	Common Stock	YTD Change	5.92%	0%	- marken and a second
Functional FX	JPY	PE	31.43		
Ticker	6861	P/S	10.35	(25%)	
SEDOL	6490995	Dividend Yield	0.13%		9,30/1 (11/11/11/11/11/11/11/11/11/11/11/11/11/
Industry (GICS)	Electronic Equipment an	d Instruments			
Robo-Stox Subgroup	Machine Vision & Image	Recognition			S&P Price 6861 Price

Keyence Corporation develops, manufactures, and sells sensors, measuring systems, laser markers, microscopes, and machine vision systems. The company offers fiber optic, photoelectric, laser, RGB color, and proximity sensors; positioning sensors, such as application and contact sensors; measurement sensors/systems comprising image measurement systems, laser displacement sensors, inductive displacement sensors, and optical micrometers; and machine vision/vision sensors, such as image processing systems, multi-camera systems, LED illumination units, and vision sensors. It also provides safety products, including high visibility curtains, heavy duty curtains, and no dead zone curtains; auto-sensing static eliminators/ionisers, such as ultra high speed sensing ionisers, bar type eliminators, blower type eliminators, spot type eliminators, and micro ionisers; digital microscopes; CO2 and YVO4 laser markers; separate-amplifier type flow sensors; persure sensors; PLC and other controllers; and barcode readers, such as 2D code readers, digital laser barcode readers, such as 2D code readers, long range readers, LED/CCD barcode readers, and handheld barcode readers. Its products has applications in various industries, including R and D, IC and semiconductor, automotive/metal, electrical/electronics, food packaging, construction, rubber/plastic, and medical. The company was founded in 1972 and is based in Osaka, Japan.

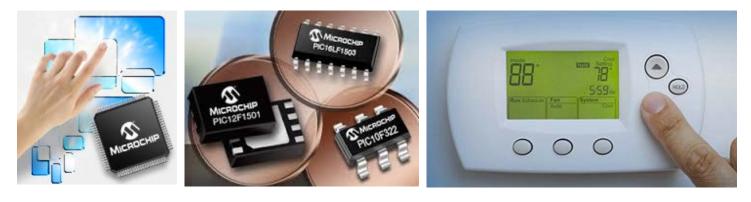
#### **Robotics & Automation Description:**

Keyence's 2 primary segments include automation products and inspection products. Automation products are primarily sensors, laser markers, and safety light curtains that are used to detect the presence or absence of parts, accurately and quickly make markings and other inscriptions on objects, and to eliminate static. Inspection products are primarily bar code readers, microscopes, and various forms of machine vision to perform quality control inspections such as the ability to determine whether or not manufactured parts are an exact match to design specifications.

Keyence Corp.	31.43	3.49	10.35	16.61	0.13	0	2	4	6	8	1
/okogawa Electric Corp.	31.09	1.99	0.95	9.97	0.83	Sell	2				
himadzu Corporation	34.29	1.54	0.92	8.54	1.05	HUIU		4			
anuc Corporation	29.06	3.18	7.63	13.87	0.86	Hold		4			
HK Co., Ltd.	20.92	1.58	1.78	8.23	1.32	Buy					9
MC Corp.	23.64	2.58	4.98	14.10	0.60	1	I	1	1	1	
op 5 Comps	PE	PB	P/S EV	EBITDA E	Div Yield %		Analy	st Recomm	nendatior	IS	
et % Margin	30%	29%	29%	31%	32%						
BITDA Margin %	48%	47%	47%	47%	51%						
Y % Change	47%	5%	0%	16%	27%					61	
rnings Per Share	\$11.25	\$11.47	\$12.37	\$11.66	\$13.83					Japa	an
Y % Change	47%	5%	0%	16%	27%						
et Income	\$682	\$696	\$750	\$707	\$839		39%				
Y % Change	36%	7%	0%	8%	25%		Other				
BITDA	\$1,095	\$1,126	\$1,196	\$1,070	\$1,309						
Y % Change	36%	8%	0%	9%	22%						
les	\$2,279	\$2,385	\$2,555	\$2,280	\$2,587						
Indamentals	2011	2012	2012	2013	2014		686120	)13 Revenue	by Geogra	phy	



# Microcontrollers





Ticker	ATML	Currency USD	Date	9/30/14
Atmel Corporation				
Headquarters	San Jose, CA	Share Price	8.08	Stock Price vs S&P 500
Website	atmel.com	52 Week Range	6.45-9.76	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	3.381	30%
Exchange	NasdaqGS	Enterprise Value (\$B)	3.117	10%
Share Type	Common Stock	YTD Change	3.19%	(10%)
Functional FX	USD	PE	100.83	
Ticker	ATML	P/S	2.45	(30%) (30%)
SEDOL	2062310	Dividend Yield	0.00%	
Industry (GICS)	Semiconductors			
Robo-Stox Subgroup	Microcontrollers			S&P Price ATML Price

Atmel Corporation designs, develops, manufactures, and sells semiconductor integrated circuit (IC) products. The company's Microcontrollers segment provides various proprietary and non-proprietary architectures, such as AVR 8-bit and 32-bit products, ARM-based products, Atmel's 8051 8-bit products, and XSense products, as well as capacitive touch products, including maXTouch and QTouch. Its Nonvolatile Memories segment offers electrically erasable programmable read-only and erasable programmable read-only memory devices. The company's Radio Frequency and Automotive segment provides automotive electronics, as well as wireless and wired devices for industrial, consumer, and automotive applications. This segment also offers foundry services. Its Application Specific Integrated Circuits segment provides custom application specific ICs designed to meet specialized single-customer requirements of high performance devices in a range of specific applications. This segment provides hardware security for embedded digital systems; and products for military and aerospace applications, as well as develops application specific standard products for space applications, power management, and secure crypto memory products. The company sells its products directly, as well as through distributors to original equipment manufacturers. It operates primarily in the United States, Asia, Europe, South Africa, and Central and South America. Atmel Corporation was founded in 1984 and is headquartered in San Jose, California.

#### **Robotics & Automation Description:**

Atmel manufactures microcontrollers that enable communication between and imbed intelligence into machines. Its microcontrollers are optimized for low power, high-speed connectivity, data bandwidth, and rich interface support. These microcontrollers can also support seamless integration of capacitive touch technology to implement buttons, sliders, and wheels. Its maXTouch® products combine touch sensing with advanced algorithms that enable the ability to discern wanted from unwanted touches and; therefore, the ability ignore any unwanted touches. Its QTouch® devices utilize "proximity sensing" allowing the user to integrate multiple touch features within one device. The AVR picoPower® technology optimizes power consumption, allows devices to make intelligent decisions, and transmit data between one another. The microcontroller segment has historically produced roughly 60% of the firms' revenue.

Fundamentals	2009	2010	2011	2012	2013		L 2013 Revenue by Geo	ography	
Sales	\$1,217	\$1,644	\$1,803	\$1,432	\$1,386	South Korea			
						15%			
YoY % Change	(22%)	35%	10%	(21%)	(3%)	10/10			
EBITDA	\$49	\$293	\$448	\$161	\$144			China	a,
YoY % Change	(30%)	76%	25%	(34%)	(5%)			Includ	
Net Income	(\$109)	\$423	\$315	\$30	(\$22)	United		Hong K	
YoY % Change	0%	0%	(26%)	(90%)	0%	States		44%	Ď
Earnings Per Share	(\$0.24)	\$0.92	\$0.69	\$0.07	(\$0.05)	20%			
YoY % Change	0%	0%	(24%)	(90%)	0%		Germany		
							21%		
EBITDA Margin %	4%	18%	25%	11%	10%				
Net % Margin	(9%)	26%	17%	2%	(2%)				
-									
Top 5 Comps	PE	PB	P/S EV	/EBITDA	Div Yield %	An	alyst Recommenda	tions	
Maxim Integrated Products, Inc.	24.59	3.54	3.49	11.08	3.70	1	1	1	
Altera Corp.	24.87	3.26	6.12	16.63	2.01	Buy		10	
Linear Technology Corporation	23.36	7.97	7.69	14.21	2.43	Hold	8		
Spansion Inc.	NM	2.66	1.12	21.75	0.00		0		
Cypress Semiconductor Corporation	NM	8.75	2.13	28.04	4.46	Sell 📃 1			
					_	0	5	10	-
Atmel Corporation	100.83	3.74	2.45	20.65	0.00	No	o. of analyst recomme	ndations	





Ticker	MCHP	Currency USD	Date	9/30/14
Microchip Technolo	gy Inc.			
Headquarters	Chandler, AZ	Share Price	47.23	Stock Price vs S&P 500
Website	microchip.com	52 Week Range	38.46-50.035	40%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	9.464	30%
Exchange	NasdaqGS	Enterprise Value (\$B)	9.058	20%
Share Type	Common Stock	YTD Change	5.54%	10%
Functional FX	USD	PE	25.59	
Ticker	MCHP	P/S	4.71	
SEDOL	2592174	Dividend Yield	3.02%	9,30( 11,25) 11,25) 11,25) 11,25) 11,25) 11,25) 11,25) 11,25) 12,23) 12,
Industry (GICS)	Semiconductors			
Robo-Stox Subgroup	Microcontrollers			S&P Price MCHP Price

Microchip Technology Incorporated develops, manufactures, and sells semiconductor products for various embedded control applications. The company offers microcontrollers, such as 8-bit, 16-bit, and 32-bit microcontrollers under the PIC brand name; and 16-bit dsPIC digital signal controllers, as well as provides microcontrollers for automotive networking, computing, wireless communication, and wireless audio applications. It also offers development tools that enable system designers to program PIC microcontrollers for specific applications; analog, interface, and mixed signal products comprising power management, linear, mixed-signal, thermal management, RF Linear drivers, safety and security, USB, Ethernet, wireless, and interface products; and memory products consisting of serial electrically erasable programmable read-only memory, serial flash memories, parallel flash memories, and serial SRAM memories for production of very small footprint devices. In addition, the company licenses its SuperFlash embedded flash and Smartbits one time programmable NVM technologies to foundries, integrated device manufacturers, and design partners for use in the manufacture of their advanced microcontroller products, gate array, RF, and analog products that require embedded non-volatile memory, as well as provides engineering services. It serves automotive, communications, computing, consumer, office automation, telecommunication, aerospace, medical, and industrial control markets. The company sells its products through a network of direct sales personnel and distributors in the Americas, Europe, and Asia. Microchip Technology Incorporated was founded in 1989 and is headquartered in Chandler, Arizona.

#### **Robotics & Automation Description:**

Microchip manufactures microcontrollers used to imbed intelligence into machines for medical, home, automotive, power monitoring, wireless, illumination, temperature, and other motor control applications. Automotive products developed by Microchip enable solutions to reduce fuel consumption with lower emissions. Microchip's battery management products offer advanced features to maximize battery operating life. Microchip offers a broad portfolio of touch solutions for that make it easy for designers to integrate touch-sensing interfaces. These touch-sensing interfaces are also integrated with various medical devices. Additionally, Microchips microcontrollers can withstand temperatures up to 150 degrees Celsius. UBM Tech's 2014 Embedded Market Survey of design engineers once again ranked Microchip #1 for 8, 16, and 32-bit MCUs, as well as DSPs, in response to the question, "Which chip family would you consider for your next project?"

Fundamentals	2010	2011	2012	2013	2014		MCHP 2014	Revenue by Geo	ography	
Sales	\$948	\$1,487	\$1,383	\$1,582	\$1,931		ricas			
YoY % Change	5%	57%	(7%)	14%	22%	19	1%			
EBITDA	\$336	\$583	\$503	\$447	\$670					
YoY % Change	3%	65%	(9%)	8%	32%					
Net Income	\$217	\$419	\$337	\$127	\$395					
YoY % Change	(12%)	93%	(20%)	(62%)	210%		Europe			
Earnings Per Share	\$1.18	\$2.24	\$1.76	\$0.65	\$1.99		21%		Asia	
YoY % Change	(11%)	90%	(25%)	(62%)	194%				60%	
EBITDA Margin %	35%	39%	36%	28%	35%					
Net % Margin	23%	28%	24%	8%	20%					
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	)iv Yield %		Analyst R	ecommendat	ions	
Linear Technology Corporation	23.36	7.97	7.69	14.21	2.43	1	1		I	
Kilinx Inc.	18.83	4.04	4.69	12.33	2.74	Buy				7
Analog Devices, Inc.	21.82	3.11	5.67	14.21	2.99	Hold			6	
LSI Corporation	0.00	0.00	0.00	0.00	0.00	noiu			0	
NVIDIA Corporation	20.21	2.32	2.37	8.23	1.84	Sell 0				



### Military UAS, Defense, & Space





Ticker	AVAV	Currency USD	Date	9/30	D/14
AeroVironment, Inc.					
Headquarters	Monrovia, CA	Share Price	30.07	125%	Stock Price vs S&P 500
Website	avinc.com	52 Week Range	21.66-41.67	100%	
Robo-Stox Classification	Bellwether	Market Cap (\$B)	0.696	75%	. M
Exchange	NasdaqGS	Enterprise Value (\$B)	0.472	50%	and the manual and
Share Type	Common Stock	YTD Change	3.19%	25%	
Functional FX	USD	PE	40.20	0%	
Ticker	AVAV	P/S	2.61	(25%)	
SEDOL	B1P5YY8	Dividend Yield	0.00%		930/12/11/10/02/4/11/11/12/12/12/12/12/12/12/12/12/12/12/
Industry (GICS)	Aerospace and Defense			0	
Robo-Stox Subgroup	Military UAS, Defense, &	Space			S&P Price AVAV Price

AeroVironment, Inc. designs, develops, produces, supports, and operates unmanned aircraft systems (UAS), tactical missile systems, and efficient energy systems in the United States and internationally. It operates in two segments, Unmanned Aircraft Systems and Efficient Energy Systems. It offers small UAS that provides ISR and communications, including real-time tactical reconnaissance, tracking, combat assessment, and geographic data to the small tactical unit or individual operator. The company's small UAS wirelessly transmit critical live video and other information to a hand-held ground control unit enabling the operator to view and capture images. It also provides spare equipment, alternative payload modules, batteries, chargers, repair services, and customer support services for small UAS; and contract engineering services in support of customer-funded research and development projects. In addition, AeroVironment, Inc. offers electric vehicle charging systems, services, and related solutions for plug-in passenger and fleet vehicles; PosiCharge industrial electric vehicle charging systems for electric material handling vehicles and airport ground support equipment; and power cycling and test systems for developers and manufacturers of electric vehicles, as well as battery packs, electric motors, and fuel cells. It serves organizations in the U.S. Department of Defense, including the U.S. Army, Marine Corps, Special Operations Command, and Air Force, as well as commercial, consumer, and government customers. The company was incorporated in 1971 and is headquartered in Monrovia, California.

#### **Robotics & Automation Description:**

AeroVironment has robotics exposure to the defense sector in the form of unmanned aerial solutions (UAS) and missile defense systems. AeroVironment first introduced the Pointer in 1987, which was the first small UAS used by the military. In addition to military uses, its UAS are now commonly used for reconnaissance missions of remote locations, by law enforcement agencies, in search and rescue operations, and for helping fire fighters fight, monitor, and control fires. Just about all of its smaller UAS can be assembled without tools in a matter of minutes and require minimal training to be flown by one or two individuals. From 2008-13, AeroVironment generated 85% of its revenue from its UAS division. Additionally it has won every United States Department of Defense competition for programs of record involving small UAS. Its electric vehicle and charging solutions include plug-in stations for use at home, work, and various public locations as well as for large fleet transportation. Its EV charging systems are divided into three categories that differ in recharging times and infrastructure requirements.

AeroVironment, Inc.	40.20	2.01	2.61	19.35	0.00	-	-		commenda		_0
						0	2	4	6	8	
The KEYW Holding Corporation	NM	1.35	1.46	32.45	0.00	Sell 0					
American Science & Engineering Inc.	37.69	2.23	2.38	13.16	3.61					8	
Sparton Corp.	19.26	2.20	0.74	8.42	0.00	Hold				_	
API Technologies Corp.	NM	1.15	0.57	13.30	0.00	Buy	2				
Mercury Systems, Inc.	NM	1.05	1.64	25.14	0.00	1	I.		1	1	1
Top 5 Comps	PE	PB	P/S EV	EBITDA C	)iv Yield %		Analys	t Recomr	nendation	S	
Net % Margin	8%	9%	9%	4%	5%						
EBITDA Margin %	16%	15%	16%	6%	10%						
'oY % Change	(15%)	24%	16%	(65%)	28%				ites 5%		
arnings Per Share	\$0.97	\$1.20	\$1.40	\$0.47	\$0.61				ted		
oY % Change	(15%)	25%	18%	(66%)	32%						
let Income	\$21	\$26	\$30	\$10	\$14						
'oY % Change	9%	21%	10%	(28%)	1%				\ \		
BITDA	\$39	\$45	\$52	\$15	\$25						
'oY % Change	1%	17%	11%	(26%)	5%	15	5%				
ales	\$250	\$293	\$325	\$240	\$252	Sta	ites				
undamentals	2010	2011	2012	2013	2014	Non-I	Jnited _		by Geograp	niy	





Ticker	CUB	Currency USD	Date	9/30/14
Cubic Corporation				
Headquarters	San Diego, CA	Share Price	46.80	Stock Price vs S&P 500
Website	cubic.com	52 Week Range	40.69-56.92	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	1.253	30%
Exchange	NYSE	Enterprise Value (\$B)	1.197	10%
Share Type	Common Stock	YTD Change	(11.13%)	(10%)
Functional FX	USD	PE	NM	the company
Ticker	CUB	P/S	0.93	$(30\%) \ \ \square \qquad \qquad$
SEDOL	2239266	Dividend Yield	0.51%	9/30/ 9/30/ 9/30/ 9/30/ 1/11/11/11/ 1/25/ 1/25/ 1/22/ 2/23/ 2/24/ 2/2
Industry (GICS)	Aerospace and Defense			
Robo-Stox Subgroup	Military UAS, Defense, &	Space		S&P Price CUB Price

Cubic Corporation designs, develops, manufactures, and sells mass transit fare collection systems, air and ground combat training systems, and secure communications products for various federal and regional government agencies in the United States and internationally. It operates in three segments: Cubic Transportation Systems (CTS), Mission Support Services (MSS), and Cubic Defense Systems (CDS). The CTS segment provides fare collection devices, software, systems and multiagency, multimodal integration technologies, and operational services for public transportation authorities and operators. It also offers various services, including computer hosting, call center and Web, payment media issuance and distribution, retail point of sale network management, payment processing, financial clearing and settlement, software application support, and outsourced asset operations and maintenance services. The MSS segment offers support services, such as live, virtual, and constructive training; real-world mission rehearsal exercises; professional military education; infelligence support, information technology, information assurance, and related cyber support; military doctrine development; consequence management, infrastructure protection, and force protection; risk mitigation, and subject matter and operational services for law enforcement and homeland security clients; and support services for field operations, force deployment and redeployment, and logistics. The CDS segment provides military range design and maintenance activities; and communications products, including datalinks, power amplifiers, avionics systems, multi-band communication tracking devices, and cross domain hardware solutions to address multi-level security requirements. The company was founded in 1949 and is headquartered in San Diego, California.

#### **Robotics & Automation Description:**

Cubic builds software and control systems for unmanned aerial vehicles (UAV) such as reconnaissance data links, search and rescue avionics, high frequency amplifiers, and signal jammers. Additionally Cubic designs and builds UAV for bomb disposal missions. The Mission Rehearsal Planning System is a simulator that allows the military to prepare for any possible threat in real-time. The Shoot Through the Walls Detection System is designed for training in complex and other 3-dimensional environments. The Free Space Optical Communications tool helps reduce the chances of "friendly fire" incidents by identifying a soldier as either a friend or foe based on unique identifying features of the solder or his/her equipment.

Fundamentals	2009	2010	2011	2012	2013			venue by Geogr	aphy	
Sales	\$1,026	\$1,198	\$1,302	\$1,404	\$1,361	A	Far Eas	st		
YoY % Change	16%	17%	9%	8%	(3%)	Austral 12%				
EBITDA	\$111	\$121	\$141	\$162	\$124	12,0				
YoY % Change	34%	12%	24%	8%	(11%)					
Net Income	\$63	\$72	\$86	\$97	\$25					
YoY % Change	71%	14%	19%	13%	(74%)		United Kingdom	7		
Earnings Per Share	\$2.36	\$2.70	\$3.22	\$3.64	\$0.94		22%		United	
YoY % Change	71%	14%	19%	13%	(74%)				States 60%	
EBITDA Margin % Net % Margin	11% 6%	10% 6%	11% 7%	12% 7%	9% 2%					
Top 5 Comps	PE	PB	P/S EV	/EBITDA	Div Yield %		Analyst Re	commendati	ons	
Esterline Technologies Corp.	20.83	1.78	1.68	10.64	0.00	I.	I	1	1	
CAE Inc.	18.83	2.50	1.68	10.49	2.06	Buy			3	
ManTech International Corporation	NM	0.88	0.51	7.34	3.12	Hold			3	
Engility Holdings, Inc.	13.09	1.20	0.39	7.80	0.00	HOIU			3	
Orbital Sciences Corp.	26.82	2.03	1.26	10.17	0.00	Sell 0				
Cubic Corporation	NM	1.62	0.93	13.18	0.51	0	1	2 l <b>yst recomme</b> r	3	4





Ticker	ESLT	Currency USD	Date	9/30	D/14
Elbit Systems Ltd.					
Headquarters	Haifa, Israel	Share Price	62.01	80%	Stock Price vs S&P 500
Website	elbitsystems.com	52 Week Range	49.30361-62.19966	60%	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	2.646	40%	
Exchange	TASE	Enterprise Value (\$B)	3.077	40% 20%	
Share Type	Ordinary Shares	YTD Change	8.40%	20% 0%	manter
Functional FX	USD	PE	15.33		
Ticker	ESLT	P/S	0.97	(20%)	
SEDOL	6308913	Dividend Yield	2.06%		9,230/3 (11,11,11,11,11,11,11,11,11,11,11,11,11,
Industry (GICS)	Aerospace and Defense				
Robo-Stox Subgroup	Military UAS, Defense, &	Space			S&P Price ESLT Price

Elbit Systems Ltd., a defense electronics company, designs, develops, manufactures, and integrates defense electronic systems and products worldwide. It operates in the areas of aerospace, land and naval systems, unmanned aircraft systems, advanced electro-optics, electro-optic space systems, electronic warfare (EW) suites, airborne warning systems, electronic intelligence systems, data links, artillery systems, military communications systems, and radios, as well as command, control, communications, computers, intelligence, surveillance and reconnaissance. The company also focuses on upgrading existing military platforms, and developing new technologies for defense, homeland security, and commercial aviation applications. It offers military aircraft and helicopter systems; helmet mounted systems; commercial aviation systems and aero structures; unmanned aircraft systems; land vehicle systems; and control, communications, computer, and intelligence and cyber systems; electro-optic and countermeasures systems; homeland security systems; and EW and signal intelligence systems, as well as is engaged in applications of defense technologies to commercial applications and other commercial activities. In addition, it provides a range of support services. The company markets its systems and products as a prime contractor or subcontractor to various governments and defense contractors. Elbit Systems Ltd. was founded in 1966 and is based in Haifa, Israel.

#### **Robotics & Automation Description:**

Elbit Produces unmanned ground and air vehicles (UGAV) used for defense through the integration of multirole A/A and A/G capabilities, multimode radar, structural modifications, leading edge avionics systems, display and sight helmets, and advanced weapons and pods. It's UGAV can carry out multiple missions spanning close to 15 hours and altitudes of nearly 30,000 feet. In the area of guided munitions, it developed the "OPHER" and "Lizard" systems. OPHER is a thermal-imaging, autonomous precision guidance system and The Lizard system provides munitions guidance towards laser designated targets. SWORD (Surveillance, Warning, Obstacle Ranging and Display) is for low visibility landings by taking real time digital images of the terrain below. STAR<sup>TM</sup>, a Smart Tactical Advanced Rocket, is laser-guided with high-precision strike capabilities designed to greatly improve hit probability; while at the same time, reduce collateral damage.

Fundamentals	2009	2010	2011	2012	2013		ESLT 2013 Revenue by Geography	
Sales	\$2,832	\$2,670	\$2,817	\$2,889	\$2,925	Asia-Pacit	ific_	
YoY % Change	7%	(6%)	6%	3%	1%	17%	North	
EBITDA	\$386	\$348	\$339	\$342	\$362		America	
YoY % Change	11%	(5%)	(1%)	1%	1%		34%	
Net Income	\$215	\$183	\$90	\$168	\$183			
YoY % Change	5%	(15%)	(51%)	86%	9%			
Earnings Per Share	\$5.08	\$4.30	\$2.11	\$3.98	\$4.35	Europe _		
YoY % Change	5%	(15%)	(42%)	62%	9%	21%	Israel	
-							28%	
EBITDA Margin %	14%	13%	12%	12%	12%			
Net % Margin	8%	7%	3%	6%	6%			
Top 5 Comps	PE	PB	P/S EV	/EBITDA	Div Yield %		Analyst Recommendations	
SAAB AB (publ.)	21.86	1.64	0.82	9.27	2.54	1		
Aselsan Elektronik Sanayi ve Ticaret A.S.	13.62	2.59	1.98	9.67	0.54	Buy O		
Esterline Technologies Corp.	20.83	1.78	1.68	10.64	0.00	0 <sub>Hold</sub>		
Exelis Inc.	11.83	1.80	0.69	5.58	2.50		3	
Rockwell Collins Inc.	17.28	5.45	2.15	11.41	1.53	Sell 0		
	17.20	5.45	2.15	11.41	1.50			
Elbit Systems Ltd.	15.33	2.29	0.97	8.67	2.06	0	1 2 3	4
Libit Oystonis Etc.	13.00	2.23	5.57	0.07	2.00		No. of analyst recommendations	





Ticker	IQT20142730	Currency USD	Date	9/30/14
Kongsberg Gruppen	ASA			
Headquarters	Kongsberg, Norway	Share Price	22.80	Stock Price vs S&P 500
Website	kongsberg.com	52 Week Range	17.97453-23.57698	40%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	2.723	30%
Exchange	OB	Enterprise Value (\$B)	2.270	20%
Share Type	Class A Shares	YTD Change	14.90%	
Functional FX	NOK	PE	15.24	0%
Ticker	KOG	P/S	1.07	(10%) (
SEDOL	5208241	Dividend Yield	2.90%	9 (30) 11/11/11/11/11/11/11/11/11/11/11/11/11/
Industry (GICS)	Aerospace and Defense			
Robo-Stox Subgroup	Military UAS, Defense, &	Space		S&P Price KOG Price

Kongsberg Gruppen ASA, together with its subsidiaries, provides technology systems and solutions to customers in the oil and gas, merchant marine, and defense and aerospace industries. The company operates in four segments: Kongsberg Maritime, Kongsberg Defence Systems, Kongsberg Protech Systems, and Kongsberg Oil and Gas Technologies. The Kongsberg Maritime segment provides products and systems for positioning, navigation, and automation for commercial vessels and offshore installations, as well as products and systems for seabed surveys, surveillance, training simulators and fishing vessels, and fisheries research. The Kongsberg Defense Systems segment supplies defense and space-related systems for command and weapon control, weapon guidance and surveillance, communications solutions, and missiles. The Kongsberg Protech Systems segment offers Protector Remote Weapon Station, a weapon guidance system to protect military personnel in armored vehicles. The Kongsberg Oil and Gas Technologies segment supplies high-tech solutions to the oil and gas industry, including engineer services, underwater solutions, and decision making systems for various phases of the lifetime of a field, from searching to development and production. Kongsberg Gruppen ASA primarily operates in Norway, the European Union, rest of Europe, North America, South America, and Asia. The company was founded in 1624 and is headquartered in Kongsberg, Norway.

#### **Robotics & Automation Description:**

Kongsberg provides a variety of industries and defense organizations with software and hardware tools for automation and unmanned-guidance. Kongsberg Protech Systems is the world's leading supplier of Remote Weapon Stations. Kongsberg Integrated Tactical Systems (KITS) provides C4I CORTEX, a solution that ties subsystems and sensors together by using an open standard infrastructure and a common operator interface for each control position. The Missile Systems Division has technology for automatic missile control and mission simulation. Kongsberg also designs autonomous underwater vehicles (AUV) and positioning systems for Navy operations and oceanographic data collection.

Fundamentals	2009	<b>2010</b>	2011	2012	2013	IQT2014:	2730 2013 Revenue by Geography
Sales	\$2,383	\$2,663	\$2,537	\$2,811	\$2,687	North	Asia
YoY % Change	25%	12%	(2%)	3%	4%	America 23%	_26%
EBITDA	\$273	\$421	\$396	\$405	\$345	23%	
YoY % Change	22%	13%	11%	14%	0%		
Net Income	\$141	\$257	\$240	\$235	\$202		
YoY % Change	41%	82%	(4%)	(9%)	(6%)		
Earnings Per Share	\$1.18	\$2.14	\$2.00	\$1.96	\$1.68		
YoY % Change	41%	82%	(4%)	(9%)	(6%)		
						European _	Norway
EBITDA Margin %	11%	16%	16%	14%	13%	Union (EU)	26%
Net % Margin	6%	10%	9%	8%	8%	25%	
Top 5 Comps	PE	PB	P/S EV	//EBITDA Di	iv Yield %	Analys	t Recommendations
Meggitt PLC	17.31	1.78	2.33	10.54	2.83		
Subsea 7 SA	8.49	0.73	0.74	3.89	3.92	Buy	
Rolls Royce Holdings plc	7.98	2.68	1.22	10.55	2.28	Hold 1	
LinetiQ Group Plc	NM	3.88	1.23	7.96	2.05		
Feledyne Technologies Inc.	17.61	2.24	1.51	11.48	0.00	Sell 0	
Kongsberg Gruppen ASA	15.24	2.65	1.07	7.36	2.90	0 2	4 6





Ticker	MDA	Currency USD	Date	9/30/14
Macdonald Dettwiler	& Associates Ltd.			
Headquarters	Richmond, Canada	Share Price	74.92	Stock Price vs S&P 500
Website	mda.ca	52 Week Range	66.78415-81.57935	40%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	2.704	00%
Exchange	TSX	Enterprise Value (\$B)	3.262	20%
Share Type	Common Shares	YTD Change	1.76%	0%
Functional FX	CAD	PE	22.69	
Ticker	MDA	P/S	1.52	
SEDOL	2610883	Dividend Yield	1.55%	9(30): 9(30): 9(30): 11(1): 12(3):
Industry (GICS)	Aerospace and Defense			
Robo-Stox Subgroup	Military UAS, Defense, & S	Space		S&P Price MDA Price

MacDonald, Dettwiler and Associates Ltd., a communications and information company, provides operational solutions to commercial and government organizations worldwide. The company operates through Communications, and Surveillance and Intelligence segments. The Communications segment offers space-based solutions for the delivery of a range of services, including television and radio distribution, broadband Internet, and mobile communications. This segment supplies communication satellite, satellite antenna subsystems, and associated ground infrastructure and support services for the communication satellite operators, communication satellite ground systems, and government agencies. The Surveillance and Intelligence segment provides space-based and airborne surveillance solutions, imaging satellite ground systems, geospatial information services, and associated support services. Its solutions support the operational needs of government and commercial customers, including space agencies, defence departments, civil departments, intelligence agencies, aerospace prime contractors, aviation authorities, imaging satellite services operators, and oil and gas companies. This segment also supplies robotic systems for the space and terrestrial markets. The company was founded in 1969 and is headquartered in Richmond, Canada.

#### **Robotics & Automation Description:**

MacDonald manufactures unmanned aerial vehicles (UAV) along with robots commonly used in space exploration applications. It also develops space automation capabilities for planetary exploration and on-orbit satellite servicing and repair. MacDonald's robotic and planetary exploration solutions have played key roles in four previous Mars missions, and will play a leading role on NASA's upcoming Mars Science Lab mission. MacDonald developed the Robotic Workstation (RWS) for NASA, to provide a reliable, seamless interface between operators and robotic systems deployed on the International Space Station. Additionally, MacDonald develops high reliability, long-endurance UAV services providing real-time multi-sensor surveillance to support critical military operations and for commercial use.

Fundamentals	2009	2010	2011	2012	2013		MDA 2013	3 Revenue t	by Geograf	phy	
Sales	\$495	\$692	\$749	\$883	\$1,712	Canada	1				
YoY % Change	(56%)	33%	11%	16%	107%	17%					
EBITDA	\$85	\$128	\$182	\$163	\$193					United	
oY % Change	(43%)	46%	14%	11%	56%					States	
Net Income	\$103	\$131	\$157	\$84	\$99					41%	
/oY % Change	124%	21%	22%	(48%)	25%	Europe					
Earnings Per Share	\$2.56	\$3.22	\$4.02	\$2.64	\$2.82	19%					
YoY % Change	45%	(16%)	128%	(20%)	14%		A	ustralia			
								23%			
BITDA Margin %	17%	19%	24%	18%	11%						
Net % Margin	21%	19%	21%	10%	6%						
Fop 5 Comps	PE	PB	P/S EV	EBITDA Di	iv Yield %		Analyst	Recomm	endatio	ns	
onstellation Software Inc.	57.98	21.79	3.81	40.95	1.59	1	I.	1	1	1	
GI Group, Inc.	15.33	2.45	1.11	8.69	0.00	Buy				8	
vertz Technologies Ltd.	17.78	3.68	3.48	11.36	3.45	Hold		_			
Enghouse Systems Limited	32.41	4.63	4.57	17.86	1.11	ною		4			
ASSUR Aerospace, Inc.	61.85	2.15	2.01	10.04	0.00	Sell 0					
Meederald Dethyller	22.60	2 60	1 50	15.00	1 66	0	2	4	6	8	:
Macdonald Dettwiler	22.69	3.60	1.52	15.96	1.55		No. of a	nalyst rec	ommenda	ations	





Ticker	NOC	Currency USD	Date	9/30	)/14
Northrop Grumman	Corporation				
Headquarters	Falls Church, VA	Share Price	131.76	100%	Stock Price vs S&P 500
Website	northropgrumman.com	52 Week Range	92.51-134.24	80%	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	27.39	60%	
Exchange	NYSE	Enterprise Value (\$B)	29.85	40%	
Share Type	Common Stock	YTD Change	14.96%	20%	
Functional FX	USD	PE	14.22	0%	
Ticker	NOC	P/S	1.20	(20%)	
SEDOL	2648806	Dividend Yield	2.13%	106	9/30/ 20/24/ 11/11/ 2/92/ 2/3/ 2/32/ 2/3/ 2/3/2/ 2/3/ 2/3/ 2/3/2/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/ 2/3/2/ 2/3
Industry (GICS)	Aerospace and Defense			σ	
Robo-Stox Subgroup	Military UAS, Defense, &	Space			S&P Price NOC Price

Northrop Grumman Corporation provides systems, products, and solutions in aerospace, electronics, information systems, and technical service areas to government and commercial customers worldwide. The company's Aerospace Systems segment designs, develops, integrates, and produces manned aircraft, unmanned systems, spacecraft, high-energy laser systems, microelectronics, and other systems and subsystems. This segment sells its products primarily to government agencies for use in various mission areas, including intelligence, surveillance, and reconnaissance; communications; battle management; strike operations; electronic warfare; earth observation; satellite communications; space science; and space exploration. Its Electronic Systems segment offers solutions for sensing, understanding, anticipating, and controlling operating environment to military, civil, and commercial customers. This segment's solutions comprise defense electronics and systems, airborne fire control radars, situational awareness systems, early warning systems, airspace management systems, navigation systems, communications systems, marine power and propulsion systems, space systems, and logistics services. The company's Information Systems segment offers advanced solutions for Department of Defense, national intelligence, federal civilian and state agencies, and commercial and international customers. This segment offers products and services primarily for the areas, such as command and control, communications, cybersecurity, air and missile defense, intelligence processing, civil security, health information technology, government support systems, and systems engineering and integration. Its Technical Services segment provides logistics, modernization, and sustainment support; and other advanced technology and engineering services, including space, missile defense, nuclear security, training, and simulation. The company was founded in 1939 and is based in Falls Church, Virginia.

#### **Robotics & Automation Description:**

Northrop Grumman provides all types of robotic/unmanned aerial, ground, space and underwater systems with a focus on keeping humans out of harms way. Its unmanned systems operate in areas where manned vehicles cannot, allow for prolonged missions, and help reduce risk to both national security and human lives. These systems and technologies are used for a wide range of missions from intelligence, surveillance and reconnaissance, protected communications, battle management, strike operations, electronic warfare, and space exploration. The Andros™ HD Series is quickly becoming the "go-to" unmanned ground vehicle (UGV) for military, EOD, and other first-responders worldwide. Unmanned systems accounts for roughly 25% of the Aerospace divisions' revenue and 10% of the overall firm revenue.

Fundamentals	2009	2010	2011	2012	2013		NOC 2013 Revenue by Geography
Sales	\$27,650	\$28,143	\$26,412	\$25,218	\$24,661		Intl
YoY % Change	(14%)	2%	(6%)	(5%)	(2%)		11%
EBITDA	\$2,861	\$3,344	\$3,820	\$3,640	\$3,618		
YoY % Change	(18%)	8%	6%	(1%)	(4%)		
Net Income	\$1,686	\$2,053	\$2,118	\$1,978	\$1,952		
YoY % Change	0%	22%	3%	(7%)	(1%)		
Earnings Per Share	\$5.28	\$6.91	\$7.65	\$7.96	\$8.50		
YoY % Change	0%	42%	17%	5%	7%		
EBITDA Margin %	10%	12%	14%	14%	15%		United
Net % Margin	6%	7%	8%	8%	8%		States 89%
Top 5 Comps	PE	PB	P/S E	V/EBITDA	Div Yield %		Analyst Recommendations
Raytheon Company	16.15	2.69	1.41	9.49	2.38	1	
General Dynamics Corporation	17.65	3.26	1.42	10.02	1.95	Buy	7
Lockheed Martin Corporation	18.86	13.33	1.30	9.94		Hold	14
L-3 Communications Holdings Inc.	14.56	1.72	0.85	9.54	2.02	HUIU	14
Precision Castparts Corp.	19.03	2.88	3.52	12.25	0.05	Sell	1
Northrop Grumman	14.22	2.68	1.20	8.05	2.13	0	5 10 15
Norunop Grunnian	14.22	2.00	1.20	0.00	2.13		No. of analyst recommendations



No. of analyst recommendation



Ticker	QQ.	Currency USD	Date	9/30/14
QinetiQ Group Plc				
Headquarters	Farnborough, UK	Share Price	3.64	Stock Price vs S&P 500
Website	ginetig.com	52 Week Range	2.9313-3.87217	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	2.305	30%
Exchange	LSE	Enterprise Value (\$B)	2.032	20%
Share Type	Ordinary Shares with Par	V YTD Change	3.46%	
Functional FX	GBP	PE	NM	0%
Ticker	QQ.	P/S	1.23	
SEDOL	B0WMWD0	Dividend Yield	2.05%	9/30/ 0/14/12/ 0/14/12/ 1/12/ 1/20/ 2/31/31/ 2/31/2/2/2/2/31/ 2/31/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2
Industry (GICS)	Aerospace and Defense			
Robo-Stox Subgroup	Military UAS, Defense, & S	Space		S&P Price QQ. Price

QinetiQ Group plc provides test, evaluation, and training support services primarily for defense, aerospace, and security markets. The company operates through EMEA Services, Global Products, and US Services segments. It provides independent research, design, integration, test, and evaluation services for military aircraft and equipment, integrated weapons systems, and maritime businesses. The company also offers research and advice on sensors, communications, and intelligence; engineering and consultancy services for defense, maritime, and rail markets; consultancy, managed security services, secure information exchange, and threat and risk assessment services for commercial enterprises; open source threat intelligence and remediation services; and training services. In addition, it is involved in the lifecycle solutions, and software and systems engineering businesses, which provides systems engineering, fleet management, and software development services to defense agencies, as well as modeling and simulation for training. Further, the company offers space flight and launch support, mission analytics, satellite integrated software solutions to defense, security, intelligence agencies, and other customers in the federal and civil markets. Additionally, it provides military robots, such as bomb disposal/explosive ordnance disposal, reconnaissance, hazardous material detection and fire-fighting, security, and cargo handling robots, as well as robot controllers; Q-Net, a vehicle survivability product to fit to M-ATV vehicles that protect people and assets; and OptaSense, a bespoke fibre sensing product. The company also offers satellites, payload instruments, sub-systems, and ground station services. QinetiQ Group plc is headquartered in Farnborough, the United Kingdom.

#### **Robotics & Automation Description:**

QinetiQ develops unmanned aerial vehicles (UAV) and ground robots for the military and first responders. it has sold over 4,500 robots for use in bomb disposal, reconnaissance, cargo handling, and hazardous material detection and removal. Its tactical ground robots now operate in more than 30 countries around the world. Reconnaissance robots support a wide range of ISTAR (Intelligence, Surveillance, Target Acquisition and Reconnaissance) missions and are equipped with night vision cameras, motion detectors, acoustic microphones, and hostile fire detection systems. Many HAZMAT robots were used in Japan in 2011 to assist with the country's natural disaster recovery efforts at the Fukushima Nuclear Plant. QinetiQ also produces security robots and robot controllers for use in border control and critical infrastructure protection.

Fundamentals	2010	2011	2012	2013	2014		QQ. 2014 Revenue Other_	ny deograpi	U.	
Sales	\$2,466	\$2,733	\$2,350	\$2,016	\$1,986		9%			
YoY % Change	1%	5%	(14%)	(10%)	(10%)					
EBITDA	\$244	\$317	\$325	\$303	\$262					
YoY % Change	(17%)	17%	9%	(4%)	(23%)					
Net Income	(\$96)	\$8	\$394	(\$202)	(\$21)				United	-
YoY % Change	0%	0%	4826%	0%	0%		United		Kingdor 49%	п
Earnings Per Share	(\$0.15)	\$0.01	\$0.61	(\$0.31)	(\$0.03)		States		40%	
YoY % Change	0%	0%	4823%	0%	0%		42%			
EBITDA Margin %	10%	12%	14%	15%	13%					
Net % Margin	(4%)	0%	17%	(10%)	(1%)					
Top 5 Comps	PE	PB	P/S EV	/EBITDA	Div Yield %		Analyst Recom	mendatior	IS	
Meggitt PLC	17.31	1.78	2.33	10.54	2.83	1			1	
Cobham plc	28.14	2.69	1.78	8.24	3.33	Buy	2			
lltra Electronics Holdings plc	28.79	3.69	1.72	10.72	2.38	Hold			8	
Chemring Group plc	NM	1.44	0.71	7.66	3.21	пош			8	
	81.12	5.47	0.94	8.34	4.26	Sell 0				
3AE Systems plc	01.12	5.47	0.01							





Ticker	TDY	Currency USD	Date	9/30/14
Teledyne Technologi	Iedyne Technologies Inc.         dquarters       Thousand Oaks, CA       Share Price         bsite       teledynetechnologies.com       52 Week Range         o-Stox Classification       Non-Bellwether       Market Cap (\$B)         hange       NYSE       Enterprise Value         re Type       Common Stock       YTD Change         ctional FX       USD       PE         veer       TDY       P/S         OL       2503477       Dividend Yield         ustry (GICS)       Aerospace and Defense			
Headquarters	Thousand Oaks, CA	Share Price	94.01	Stock Price vs S&P 500
Website	teledynetechnologies.com	52 Week Range	82.075-102.395	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	3.528	30%
Exchange	NYSE	Enterprise Value (\$B)	3.981	20%
Share Type	Common Stock	YTD Change	2.34%	
Functional FX	USD	PE	17.61	0%
Ticker	TDY	P/S	1.51	
SEDOL	2503477	Dividend Yield	0.00%	9/30/1 11/25/1 11/25/1 12/23/1 12/23/1 12/23/1 12/23/1 2/3/1
Industry (GICS)	Aerospace and Defense			
Robo-Stox Subgroup	Military UAS, Defense, & S	pace		S&P Price TDY Price

Teledyne Technologies Incorporated manufactures and sells aerospace and defense products primarily in the United States and Canada. The company operates through four segments: Instrumentation, Digital Imaging, Aerospace and Defense Electronics, and Engineered Systems. The Instrumentation segment offers monitoring and control instruments for marine, environmental, and industrial and other applications, as well as electronic test and measurement equipment; and power and communications connectivity devices for distributed instrumentation systems and sensor networks. The Digital Imaging segment provides image sensors and digital cameras for industrial, scientific, medical, and professional applications; designs, develops, and manufactures hardware and software for image processing; provides manufacturing services for MEMS and high voltage CMOS devices and integrated circuit products; and offers light detection and ranging systems. The Aerospace and Defense Electronics esgment offers electronic components and subsystems and subsystems and sensor networks, and subsystems and subsystems and sensor segment for aircraft; components and subsystems for wireless and satellite communications; date acquisition and communications equipment for aircraft; components and subsystems for wireless and satellite communications; delerated aviation batteries. The Engineered Systems segment provides systems engineering and manufactures hydrogen/oxygen gas generators; thermoelectric and electrochemical energy solutions, and small turbine engines. Teledyne Technologies Incorporated was founded in 1960 and is headquartered in Thousand Oaks, California.

#### **Robotics & Automation Description:**

Teledyne manufactures components for underwater, ground, and aerial unmanned devices and systems. Teledyne Imaging Sensors (TIS) is primarily engaged in the design, development, and production of high performance infrared and visible sensor subsystems used in space missions, long range terrestrial surveillance, and targeting and astronomy applications. It is expanding to make X-ray detectors for dental and surgical radiography. Teledyne's acoustic Doppler current profilers measure water in motion and motion in water; combining that data with its multibeam sonar and LIDAR solutions. Its avionics systems have provided "intelligence in flight" to the world's major aircraft manufacturers and airlines helping improve flight safety, efficiency, and maintenance. Ultra high resolution and multispectral image sensors are used in satellites and aerial photography for environmental and earth observation.

Fundamentals	2009	2010	2011	2012	2013		TDY 2013 R Canada	evenue by Geog	aphy	
Sales	\$1,652	\$1,644	\$1,942	\$2,127	\$2,339	All Oth	Q%			
YoY % Change	(4%)	(0%)	18%	10%	10%	Countr				
EBITDA	\$214	\$224	\$294	\$321	\$331	15%	·~			
YoY % Change	(8%)	4%	32%	14%	12%					
Net Income	\$113	\$121	\$255	\$164	\$185					
YoY % Change	2%	6%	112%	(36%)	13%					
Earnings Per Share	\$3.15	\$3.33	\$6.97	\$4.47	\$4.96					
YoY % Change	(1%)	3%	17%	14%	12%					
EBITDA Margin %	13%	14%	15%	15%	14%				United	
Net % Margin	7%	7%	13%	8%	8%				States 76%	
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %		Analyst R	ecommendat	ions	
Triumph Group, Inc.	13.40	1.43	0.91	8.83	0.25	I.	I	1	I.	
Curtiss-Wright Corporation	19.41	1.94	1.20	9.93	0.79	Buy			3	
Esterline Technologies Corp.	20.83	1.78	1.68	10.64	0.00	Hold			3	
Moog Inc.	23.36	1.94	1.16	9.62	0.00				3	
B/E Aerospace Inc.	21.86	3.09	2.23	13.48	0.00	Sell 0				
						0	1	2	3	





### Sensors, Motion Processing, & Voice Recognition





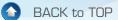
Ticker	r FARO	Currency USD	Date	9/30/14
FARO Technologies	Inc.			
Headquarters	Lake Mary, FL	Share Price	50.75	Stock Price vs S&P 500
Website	faro.com	52 Week Range	38.56-60.91	
Robo-Stox Classification	Bellwether	Market Cap (\$B)	0.875	50%
Exchange	NasdaqGS	Enterprise Value (\$B)	0.680	25%
Share Type	Common Stock	YTD Change	(12.95%)	0%
Functional FX	USD	PE	35.77	
Ticker	FARO	P/S	2.78	
SEDOL	2106661	Dividend Yield	0.00%	9,30/, 0,0/14/, 1,1/11/, 1,1/11/, 1,2/5/, 1,2/26/, 1,2/26/, 1,2/26/, 1,2/26/, 1,2/26/, 2/31/, 2/31/, 2/31/, 2/31/, 2/32/, 5/26/, 5/26/, 5/26/, 5/26/, 8/14/14/, 8/1
Industry (GICS)	Electronic Equipment	and Instruments		
Robo-Stox Subgroup	Sensors, Motion Proc	cessing, & Voice Recognition		S&P Price FARO Price

FARO Technologies, Inc., together with its subsidiaries, designs, develops, manufactures, markets, and supports software-based three-dimensional measurement and imaging systems for manufacturing, industrial, building construction, and forensic applications. The company's articulated electromechanical measuring devices include FaroArm, a combination of six or seven-axis, articulated measurement arm, a computer, and computer-aided measurement (CAM2) software programs; and FARO Laser ScanArm, a FaroArm equipped with a combination of a hard probe and non-contact line laser probe to measure products without touching them and offers a seven-axis, contact/non-contact measurement device with an integrated laser scanner. It also provides FARO Gage, an articulated arm device with a computer and software; FARO Laser Tracker Vantage that combines a laser measurement tool, a computer, and CAM2 software programs; FARO Focus3D to measure and collect data points; and FARO 3D Imager AMP, a non-contact 3D imager capable of collecting millions of points to generate infinitely-focused fringe patterns. In addition, the company offers FARO Software, a proprietary CAD-based measurement and laser scanner software; CAM2 Measure 10 that allows customers to complete measurement jobs; FARO CAM2 Gage Software for measuring geometry and building dimensions; and FARO SCENE, a software to deliver scan processing solutions. Further, it provides extended warranties, as well as support, training, and technology consulting services. The company sells its products through direct sales and distributors. It serves automobile, aerospace, and heavy equipment markets, as well as universities and law enforcement agencies in the Americas, Europe, Africa, and the Asia Pacific. FARO Technologies, Inc. was founded in 1981 and is headquartered in Lake Mary, Florida.

#### **Robotics & Automation Description:**

Faro's laser trackers and measuring arms enable the automation of inspection processes, faster and more accurate measurements of 3D and other complex objects, detailed 3D documentation, robot and machine repairs, and robot and machine recalibration convenience. Many of these tools are also used in accident reconstruction, crime scene analysis, virtual simulation, and reverse engineering applications. The CAM2 software has remote measurement capabilities that can be done in real-time, which includes the automatic compensation for temperature variations that could potentially impact measurement accuracy. Through the use of Faro's QuickTools programming, users can automate and replicable the measurement of multiple parts.

Fundamentals	2009	2010	2011	2012	2013		FARO 2013 Revenue by	Geography	
Sales	\$148	\$192	\$254	\$273	\$292	Asia Paci	fic_		
YoY % Change	(29%)	30%	33%	8%	7%	23%			
EBITDA	(\$5)	\$23	\$40	\$39	\$37				
YoY % Change	(36%)	41%	27%	4%	8%			America	íS
Net Income	(\$11)	\$11	\$23	\$23	\$22			41%	
YoY % Change	0%	0%	111%	(2%)	(6%)				
Earnings Per Share	(\$0.66)	\$0.69	\$1.42	\$1.36	\$1.26		Europe		
YoY % Change	0%	0%	104%	(4%)	(7%)		and Africa		
ERITDA Margin %							36%		
EBITDA Margin %	(4%)	12%	16%	14%	13%				
Net % Margin	(7%)	6%	9%	8%	7%				
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %		Analyst Recomme	ndations	
Cognex Corporation	41.97	5.12	9.07	29.86	0.00	1		I	
Newport Corp.	26.42	2.02	1.18	8.76	0.00	Buy		3	
GSI Group Inc.	32.48	1.60	1.08	9.81	0.00	Hold		3	
Electro Scientific Industries Inc.	NM	0.98	1.20	NM	4.71	noiu		3	
FEI Company	26.83	2.88	3.35	14.93	1.33	Sell 0			
FARO Technologies Inc.	35.77	2.64	2.78	16.39	0.00	0	1 2	3	
in the rectine of a set in the	00.77				0.00		No. of analyst reco	mmendations	





Ticker	IMMR	Currency USD	Date	9/30/14
Immersion Corporat	ion			
Headquarters	San Jose, CA	Share Price	8.58	Stock Price vs S&P 500
Website	immersion.com	52 Week Range	8.51-14.7194	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.245	20%
Exchange	NasdaqGS	Enterprise Value (\$B)	0.170	0%
Share Type	Common Stock	YTD Change	(17.34%)	(20%)
Functional FX	USD	PE	6.30	
Ticker	IMMR	P/S	4.82	
SEDOL	2517854	Dividend Yield	0.00%	9/30/ 0/14/ 11/11/ 12/5/ 12/5/ 12/5/ 12/5/ 12/5/ 12/5/ 12/5/ 2/3/ 1/20/ 5/25/ 5/26/ 6/23/ 17/7/ 2/26/ 6/23/ 8/4/14/ 17/7/ 2/26/ 9/26/26/ 9/26/20/2000 9/26/ 9/20/20/ 9/20/20/ 9/20/20/20/ 9/20/20/20/ 9/20/20/20/20/20/20/20/20/20/20/20/20/20/
Industry (GICS)	Technology Hardware	e, Storage and Peripherals		नननन न
Robo-Stox Subgroup	Sensors, Motion Proc	essing, & Voice Recognition		S&P Price IMMR Price

Immersion Corporation, an intellectual property (IP) and technology licensing company, creates, designs, develops, and licenses technologies in North America, Europe, the Far East, and internationally. It provides haptic technologies that allow people to use their sense of touch when operating various digital devices. The company licenses its software under the TouchSense brand to original equipment manufacturers (OEMs) or their suppliers. It offers a range of software for incorporation into mobile devices, video console gaming systems, consumer electronics, medical simulation and surgical robotic systems, and automotive controls. The company also licenses its customers to implement the licensed software in their products. In addition, it offers turn-key engineering and integration services, design kits for prototyping, authoring tools, and application programming interfaces, as well as develops hardware and software technologies that are compatible with industry standards. The company sells its products through a direct sales force. Immersion Corporation was founded in 1993 and is headquartered in San Jose, California.

#### **Robotics & Automation Description:**

Haptics is the Greek word for "touch". Immersion specializes in haptics, which are integrated into robotics to enable the user to "touch" or "feel" what is actually happening remotely. Immersion implements haptic feedback into robotic surgical systems that can transform the physician's user experience by enabling identification of different tissue structures, preventing tissue damage, insuring correct suture placement, and decreasing the amount of time needed to complete the operation. These vibrations are managed and controlled by embedded software and can be integrated into device user interfaces and applications via the embedded control software APIs. Haptics are also present in consumer products such as smart phones, tablets, and video game controllers to create a more realistic and confident user experience. These devices typically leverage Immersion's TouchSense® Force Feedback System, while TouchSense is typically used to provide haptic effects in larger objects or in more extreme environments.

Immersion Corporation	6.30	3.07	4.82	33.39	0.00		No. of a	nalvst re	commendat	tions		
	0.00	0.07	4.00	00.00	0.00	0	1	2	3	4	Ę	
Atmel Corporation	100.83	3.74	2.45	20.65	0.00	Sell 0						
Cypress Semiconductor Corporation	NM	8.75	2.13	28.04	4.46							
Synaptics Inc.	58.10	3.85	2.69	13.08	0.00 <sub>H</sub>	lold	1					
Ambarella, Inc.	46.76	7.11	7.20	35.66	0.00	Buy				4		
Pixelworks, Inc.	NM	8.37	2.38	NM	0.00	1	1	1	1			
Fop 5 Comps	PE	PB	P/S EV	EBITDA D	iv Yield %		Analyst	Recomn	nendations	;		
Net % Margin	(102%)	(19%)	(11%)	(22%)	85%							
BITDA Margin %	(96%)	(9%)	(2%)	(19%)	9%					68%		
YoY % Change	0%	0%	0%	0%	0%					Asia		
arnings Per Share	(\$1.01)	(\$0.21)	(\$0.12)	(\$0.26)	\$1.42							
'oY % Change	0%	0%	0%	0%	0%							
Net Income	(\$28)	(\$6)	(\$3)	(\$7)	\$40							
/oY % Change	(5%)	45%	4%	5%	52%							
BITDA	(\$27)	(\$3)	(\$1)	(\$6)	\$4	20/0	7					
′oY % Change	(1%)	12%	(2%)	5%	48%	Amerio 28%						
ales	\$28	\$31	\$31	\$32	\$47	North	ı 4%					
Fundamentals	2009	2010	2011	2012	2013		Europe _					
	0000	0040	0044	0040	0040		IMMR 201	3 Revenue	e by Geograp	hy		





Ticker	JEN	Currency USD	Date	9/30/14
Jenoptik AG				
Headquarters	Jena, Germany	Share Price	11.24	Stock Price vs S&P 500
Website	jenoptik.com	52 Week Range	11.02669-17.46703	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.643	40%
Exchange	XTRA	Enterprise Value (\$B)	0.750	20%
Share Type	Bearer Shares	YTD Change	(27.89%)	
Functional FX	EUR	PE	11.40	(20%)
Ticker	JEN	P/S	0.85	(40%)
SEDOL	5470556	Dividend Yield	2.25%	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Industry (GICS)	Electronic Equipment and	l Instruments		0001111111 000 00 - 00 00011111111 000 00 - 00 000
Robo-Stox Subgroup	Sensors, Motion Process	ing, & Voice Recognition		S&P Price JEN Price

JENOPTIK Aktiengesellschaft is engaged in the optoelectronics business in Germany and internationally. Its Lasers & Material Processing division offers semiconductor materials, diode lasers, solid-state and fiber lasers, laser machines, and exhaust cleaning systems, as well as integrates these components or systems into laser machines for laser material processing. The company's Optical Systems division offers polymer optics, conventional optics, micro optics, optoelectronic systems, and digital imaging products; and develops and produces integrated optical modules and systems. Its Industrial Metrology division operates as a manufacturer and system provider of high-precision, tactile, and nontactile production metrology. This division provides solutions for a range of measurement tasks, such as testing surfaces, form, and determining dimensional tolerances; and consulting, training, and services, including long-term maintenance contracts. The company's Traffic Solutions division develops, produces, and sells traffic solutions for speed enforcement, red light enforcement, section speed control, and traffic violation processing; and number plate recognition systems, as well as provides traffic services. This division also offers service, support, and training for traffic enforcement; and components and accessories for traffic safety technology, including housings and masts for various applications and requirements, alarm systems for the prevention of vandalism, software for the administration and operation of installations in a single network, camera systems for traffic enforcement, aviation subsystems, and radomes and composites for violation subsystems, and radomes and composites for defense technologies, civil aviation, transportation, and industrial and environmental engineering sectors. The company was founded in 1846 and is headquartered in Jena, Germany.

#### **Robotics & Automation Description:**

Jenoptik manufactures sensors and vision systems used in factory robots. Optical sensors are used; for example, in safety light curtains to avoid accidents. The Hommel-Etamic IPS100 internal test sensor provides for automatic inspection of bore internal surfaces. It checks for and identifies faults such as scratches, cavities, or porosities in cylindrical bores. The Asphero5 process enables fast (~30 minutes) and error free production of high-precision Aspheric (non-spherical) lenses, which used to take days, was manually intensive, and often produced many lenses that had to be thrown out. Its lasers, such as the JENOPTIK-VOTAN® BIM, utilize robotic technology for highly precise (+/- 0.05mm) 3D cutting of metals and plastics. Jenoptik thermographic cameras can automatically detect temperature variations as little as 0.1 degrees Celsius as well as conduct quick, non-contact measurement and visualization of 2D temperature distributions in real-time. Jenoptik also produces robotic SmartCameras for automated traffic solutions such automatic number plate recognition and red light violations.

Fundamentals	2009	2010	2011	2012	2013		JEN 20:	L3 Revenue by (	Geography	
Sales	\$633	\$642	\$706	\$771	\$827		Asia			
YoY % Change	(20%)	8%	13%	8%	3%		11%			
EBITDA	\$14	\$74	\$98	\$101	\$97					
YoY % Change	(25%)	24%	22%	11%	1%	Americas				rmany
Net Income	(\$54)	\$49	\$46	\$66	\$65	21%	_		4	1%
YoY % Change	0%	0%	(3%)	42%	(6%)					
Earnings Per Share	(\$1.04)	\$0.87	\$0.80	\$1.16	\$1.14					
YoY % Change	0%	0%	265%	36%	(3%)			Europe		
								27%		
EBITDA Margin %	2%	12%	14%	13%	12%					
Net % Margin	(9%)	8%	7%	9%	8%					
Top 5 Comps	PE	PB	P/S EV	/EBITDA	Div Yield %		Analy	st Recomme	ndations	
Coherent Inc.	25.30	1.87	1.88	10.71	0.00	1		1	1	
Rofin-Sinar Technologies Inc.	28.45	1.17	1.22	10.28	0.00	Buy 📃				13
Newport Corp.	26.42	2.02	1.18	8.76	0.00	Hold	2			
Aixtron SE	NM	3.02	6.95	NM	0.00	HUIU	2			
LPKF Laser & Electronics AG	51.03	5.22	2.80	25.86	1.80	Sell 0				
						0		5	10	
Jenoptik AG	11.40	1.35	0.85	8.32	2.25	Ũ	No. o		mmendations	





Ticker	NUAN	Currency USD	Date	9/30/14
Nuance Communica	tions, Inc.			
Headquarters	Burlington, MA	Share Price	15.42	Stock Price vs S&P 500
Website	nuance.com	52 Week Range	13-19.61	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	4.924	25%
Exchange	NasdaqGS	Enterprise Value (\$B)	6.411	0%
Share Type	Common Shares	YTD Change	1.41%	(25%)
Functional FX	USD	PE	NM	
Ticker	NUAN	P/S	2.57	(50%)
SEDOL	2402121	Dividend Yield	0.00%	9/30// 0/14// 1/11// 1/12/9/ 1/12/ 2/31/ 2/2/2/ 2/31/ 2/2/2/ 2/2/2/ 2/2/2/ 2/2/2/ 2/2/2/ 2/2/2/ 2/2/2/2/ 2/2/2/ 2/2/2/ 2/2/2/2/ 2/2/2/ 2/2/2/ 2/2/2/ 2/
Industry (GICS)	Application Software			ित्तनन् न
Robo-Stox Subgroup	Sensors, Motion Process	sing, & Voice Recognition		S&P Price NUAN Price

Nuance Communications, Inc. provides voice and language solutions for businesses and consumers worldwide. It provides hosted and on-premise solutions services and services that support the clinical documentation through platforms to generate and distribute through the use of dictation and transcription features; clinical documentation improvement programs; and speech recognition solutions for radiology, cardiology, pathology, and related specialties enabling healthcare providers to dictate, edit, and sign reports without manual transcription. The company also offers mobile and consumer solutions comprising voice control and text-to-speech solutions; dictation applications; predictive text technologies; mobile messaging services; and dictation, Web search, and voicemail-to-text services for use in phones, cars, tablets, desktop and portable computers, personal navigation devices, and other consumer electronics. In addition, it provides customer service business intelligence and authentication solutions, such as speech recognition, natural language understanding, text-to-speech, voice biometrics, and virtual assistants and analytics for the telecommunications, financial services, travel, entertainment, and government sectors to support, understand, and communicate with customers. Further, the company offers document imaging, print management, and PDF solutions to printer manufacturers, home offices, small businesses, and enterprise customers; and sells its products through direct sales force and a network of resellers, and its e-commerce Website. The company was formerly known as ScanSoft, Inc. and changed its name to Nuance Communications, Inc. in October 2005. Nuance Communications, Inc. was founded in 1992 and is headquartered in Burlington, Massachusetts.

#### **Robotics & Automation Description:**

Nuance develops speech recognition, voice biometrics, and imaging software that facilitate human interaction with machines. Its speech recognition software enables automation of self-service phone calls by creating more natural human-like conversations. In healthcare, it can automatically convert clinician dictations into formatted documents. Voice biometrics can essentially replace PINs and other passwords with that of the user's voice by authenticating hundreds of unique vocal characteristics. Dragon Voicemail, Dragon Missed Call Messenger, and Dragon API are various tools that turn voice messages into text messages or emails within in minutes of being recorded. OmniPage Capture SDK has robust imaging, OCR recognition, and PDF capabilities well as optical text recognition technology, intelligent character recognition, and zonal recognition. Lastly Dragon PDF enables quick and easy paper file to PDF conversion and the ability to convert PDFs to different formats.

Nuance Communications	NM	1.89	2.57	37.25	0.00	0	2	4 analyst rec	6	8			
TC Inc.	24.92	4.49	3.28	13.74	0.00	Sell 0							
itrix Systems, Inc.	40.42	5.57	4.25	16.82	0.00								
IBCO Software Inc.	65.45	4.22	3.57	23.18	0.00	Hold					9		
nformatica Corporation	38.48	2.93	3.71	16.70	0.00	Buy		4					
dobe Systems Inc.	147.19	5.13	8.38	45.73	0.00	1	1	1	1	1			
Fop 5 Comps	PE	PB	P/S EV	/EBITDA	Div Yield %		Analys	st Recomm	nendation	าร			
let % Margin	22% (2%)	(2%)	3%	13%	(6%)					1270			
BITDA Margin %		21%	16%	19%			13%					States 72%	
		010/	100/		100/					United			
oY % Change	0%	0%	0%	433%	0%								
arnings Per Share	(\$0.08)	(\$0.07)	\$0.13	\$0.67	(\$0.37)								
oY % Change	0%	0%	0%	442%	0%								
let Income	(\$19)	(\$19)	\$38	\$207	(\$115)								
oY % Change	9%	20%	15%	27%	4%								
BITDA	\$213	\$239	\$213	\$320	\$240								
oY % Change	9%	18%	18%	25%	12%	289							
ales	\$950	\$1,119	\$1,319	\$1,652	\$1,855	Intl							
undamentals	2009	2010	2011	2012	2013		NUAN 20	013 Revenue	by Geogra	ipny			





Ticker	7732	Currency USD	Date	9/30	D/14
<b>Topcon Corporation</b>					
Headquarters	Tokyo, Japan	Share Price	22.75	150%	Stock Price vs S&P 500
Website	topcon.co.jp	52 Week Range	11.46764-23.10848	125%	
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	2.457	100%	
Exchange	TSE	Enterprise Value (\$B)	2.717	75% 50%	
Share Type	Common Stock	YTD Change	56.39%	25%	
Functional FX	JPY	PE	38.94	0%	
Ticker	7732	P/S	2.27	(25%)	
SEDOL	6894241	Dividend Yield	0.64%		9,30() 0/14() 1/1/1/25() 1/5() 1/5() 1/5() 1/20() 1/20() 1/20() 1/20() 1/20() 1/20() 1/20() 1/21() 1/20() 1
Industry (GICS)	Electronic Equipment an	d Instruments			तत्त्त् त
Robo-Stox Subgroup	Sensors, Motion Process	sing, & Voice Recognition			S&P Price 7732 Price

Topcon Corporation provides smart infrastructure, positioning, and eye care products worldwide. Its positioning products include GNSS (GPS) receivers, machine control systems, precision agriculture systems, and IT site management solutions. The company's eye care products comprise retinal cameras, 3D optical coherence tomography systems, ophthalmic digital image filing systems, auto refractometers/auto kerato-refractometers, slit lamps, computerized tonometers, lens edgers and meters, and ophthalmic laser photocoagulators. Its infrastructure products consists motorized robotic total stations, imaging stations, mobile mapping systems, 3D laser scanners, data collectors, theodolites, levels/digital levels, self-leveling construction lasers, pipe lasers, and asset management systems. The company was formerly known as Tokyo Optical Co., Ltd. and changed its name to Topcon Corporation in 1989. Topcon Corporation was founded in 1932 and is headquartered in Tokyo, Japan.

#### **Robotics & Automation Description:**

Topcon Develops global positioning systems with laser optical instruments used in driverless cars, precision agriculture, construction, and other various applications. Its positioning division accounts for roughly 35-40% of the total firm revenue. Its Global Navigation Satellite Systems (GNSS) include high-speed precision grading, hybrid GNSS positioning systems with sub-centimeter accuracy, and advanced crop sensing and nutrition application control. With the addition of Sitelink3D Enterprise, real-time site management can be performed from any location and shared amongst multiple users throughout the whole production process. Topcon's millimeter level GPS technology allows for paving and finish grading of the highest precision. It's mobile mapping systems can capture and integrate 360 degree video with positional information while driving, generate 3D computer graphics of roadside features, and overlay 3D computer graphics on the video image.

Fundamentals	2010	2011	2012	2013	2014		7732 2014 Revenue by Geography	
Sales	\$1,015	\$1,237	\$1,199	\$1,033	\$1,133	Asia Ocear		
YoY % Change	(16%)	8%	(4%)	(2%)	20%	15%	Europe	
EBITDA	\$92	\$86	\$83	\$108	\$168		30%	
YoY % Change	3%	2%	(7%)	12%	30%			
Net Income	\$1	(\$16)	(\$45)	\$5	\$58			
YoY % Change	0%	0%	0%	0%	1067%	North		
Earnings Per Share	\$0.02	(\$0.17)	(\$0.48)	\$0.06	\$0.54	America		
YoY % Change	0%	0%	0%	0%	908%	27%	Japan	
EBITDA Margin %	9%	7%	7%	10%	15%		28%	
Net % Margin	5 % 0%	(1%)	(4%)	1%	5%			
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	iv Yield %		Analyst Recommendations	
HORIBA, Ltd.	18.70	1.49	1.15	7.34	1.60	1		
Anritsu Corp.	14.12	1.62	1.18	5.87	2.87	Buy	3	
Carl Zeiss Meditec AG	22.11	2.72	2.01	13.13	1.96	Hold 0		
The Nippon Signal Co., Ltd.	15.91	1.17	0.74	6.72	1.42			
Renishaw plc	13.76	3.36	3.34	13.80	2.53	Sell 0		
Topcon Corporation	38.94	5.00	2.27	16.06	0.64	0	1 2 3	
	30.34	5.00	2.21	10.00	0.04		No. of analyst recommendations	



# **Technology Manufacturing Automation**









Ticke	r BRKS	Currency USD	Date	9/30/14
Brooks Automation,	Inc.			
Headquarters	Chelmsford, MA	Share Price	10.51	Stock Price vs S&P 500
Website	brooks.com	52 Week Range	8.75-11.64	30%
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.702	
Exchange	NasdaqGS	Enterprise Value (\$B)	0.538	10%
Share Type	Common Stock	YTD Change	0.19%	
Functional FX	USD	PE	87.48	
Ticker	BRKS	P/S	1.40	
SEDOL	2145460	Dividend Yield	3.81%	9/30/ 10/14/ 11/11/ 11/25/ 11/25/ 12/23/ 2/31/ 2/31/ 2/31/ 2/31/ 2/31/ 2/32/ 5/12/ 5/12/ 5/12/ 5/12/ 5/12/ 5/12/ 5/12/ 5/12/ 1/21/ 7/7/ 7/7/ 7/21/21/ 7/21/21/ 7/21/21/ 7/21/ 7/21/21/ 7/21/21/21/ 7/21/21/21/21/2
Industry (GICS)	Semiconductor Equip	ment		
Robo-Stox Subgroup	Technology Manufact	uring Automation		S&P Price BRKS Price

Brooks Automation, Inc. provides automation, vacuum, and instrumentation solutions for semiconductor manufacturing, life sciences, and technology device manufacturing markets. The company's Brooks Product Solutions segment provides a range of products critical to technology equipment productivity and availability. This segment offers atmospheric and vacuum tool automation systems, atmospheric and vacuum robots and robotic modules, and cryogenic vacuum pumping, thermal management, and vacuum measurement solutions, which are used to create, measure, and control critical process vacuum applications. Its Brooks Global Services segment provides a range of support services, including on and off-site repair services, on and off-site diagnostic support services to enable the customers to maximize process tool uptime and productivity. This segment also offers spare part support services to end-user customers. The company's Brooks Life Science Systems segment provides automated sample management systems for automated cold sample storage, equipment for sample preparation and handling, consumables, and parts and support services to a range of life science customers, including pharmaceutical companies, biotechnology companies, biobanks, national laboratories, research institutes, and research universities. Brooks Automation, Inc. markets its products through its direct sales organizations in Asia, Europe, the Middle East, and North America. The company was founded in 1978 and is headquartered in Chelmsford, Massachusetts.

#### **Robotics & Automation Description:**

Brooks designs and integrates automation technology for use in semiconductor and other clean room manufacturing. Its core market is composed primarily of "Semi and Adjacent" (SAM) systems and subsystems. Such systems and subsystems include robotics handlers for precise movement of silicon wafers, cryogenic vacuum pumps that create extremely intense vacuums (10-9 torr) at freezing cold temperatures, (-250 degrees Celsius or -400 Fahrenheit), and other various vacuum instruments that can create clean rooms up to 10,000 times more sterile than typical operating rooms. SAM represents roughly 80% of Brooks' total revenue and in 2011 Brooks held an approximate 30% market share in the SAM space, which includes being the market leader in wafer level factory automation, front-end tool automation, vacuum system automation, and cryogenic pumps. Brooks launched Brooks Life Science Systems in 2011 to specialize in automated sample management and bio-storage. Automated sample management.

Brooks Automation, Inc.	87.48	1.02	1.40	12.64	3.81	0	No. of a	nalyst reco	-		0
rnouonics inc.	10.57	0.01	1.15	5.55		0	1	2	3	4	5
Entegris, Inc. Photronics Inc.	42.94 18.97	2.09 0.81	2.08 1.13	13.31 5.53	0.00 0.00	Sell	1				
MKS Instruments, Inc.		1.70				Hold	1				
Cabot Microelectronics Corporation	20.97		2.30	9.31	1.00						
Advanced Energy Industries, Inc.	13.02 20.97	1.61 2.70	1.30 2.30	7.11 9.31	0.00 0.00	Buy				4	
Top 5 Comps	<b>PE</b>	<b>PB</b>			Div Yield %		Analyst	Recomme	ndations		
Net % Margin	(104%)	10%	19%	26%	(0%)						
EBITDA Margin %	(38%)	11%	14%	8%	6%						
/oY % Change	0%	0%	116%	3%	0%		379	6			
Earnings Per Share	(\$3.62)	\$0.94	\$2.02	\$2.10	(\$0.03)		Asi				
YoY % Change	0%	0%	118%	5%	0%						
Net Income	(\$228)	\$60	\$130	\$137	(\$2)						
YoY % Change	(88%)	1014%	34%	(22%)	(13%)					North America	
BITDA	(\$82)	\$68	\$99	\$43	\$27						
/oY % Change	(58%)	171%	16%	(25%)	(13%)		20%				
Sales	\$219	\$593	\$688	\$519	\$451		urope _				
Fundamentals	2009	2010	2011	2012	2013		DRN3 201	3 Revenue b	y deograpi	ny -	





Ticker	TSEC:2354	Currency USD	Date	9/30/14	
Foxconn Technology	Stock Price vs S&P 500         Stock Price vs S&P 500         fox conntech.com.tw       52 Week Range       2.00429-2.53198         ssification       Non-Bellwether       Market Cap (\$B)       3.392         TSEC       Enterprise Value (\$B)       1.930         Common Stock       YTD Change       13.45%         TWD       PE       18.27         2354       P/S       1.27				
Headquarters	New Taipei City, Taiwan	Share Price	2.47		
Website	foxconntech.com.tw	52 Week Range	2.00429-2.53198		
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	3.392	20%	
Exchange	TSEC	Enterprise Value (\$B)	1.930	0%	
Share Type	Common Stock	YTD Change	13.45%	(20%)	
Functional FX	TWD	PE	18.27		
Ticker	2354	P/S	1.27		
SEDOL	6801779	Dividend Yield	1.27%	9/30/ 0/14/ 0/14/ 0/14/ 0/14/ 0/14/ 1/12/ 1/25/ 0/23/ 0/24/ 0/23/ 0/24/ 0/22/ 0/24/ 0/22/ 0/24/ 0/22/ 0/24/ 0/22/ 0/24/ 0/22/ 0/22/ 0/22/ 0/24/ 0/22/ 0/22/ 0/22/ 0/22/ 0/22/ 0/2/ 0/	
Industry (GICS)	Technology Hardware, St	torage and Peripherals		नननन न	
Robo-Stox Subgroup	Technology Manufacturin	ng Automation		S&P Price 2354 Price	

Foxconn Technology Co., Ltd. is engaged in design sales, and manufacturing of Mg/Al casing and mechanic parts, thermal modules, and consumer electronic products. The company's products and solutions include system assembly of 3C products, mechanical design, processing, and sales. It offers thermal modules for O/T, NB, server, and other 3C products. The company's Mg and alloy products include portable computer enclosures, mobile phone enclosures, and 3C product enclosures. Foxconn Technology Co., Ltd. was founded in 1979 and is headquartered in New Taipei City, Taiwan.

#### **Robotics & Automation Description:**

Foxconn recently activated its first batch Foxconn robots or "Foxbots" in 2011. The Foxbots are designed to perform simple tasks such as lifting, placing, and selecting. It initially launched 10,000 robots in 2011 and hopes to have over 1 million by the end of 2014.

Fundamentals	2009	2010	2011	2012	2013		TSEC:2354 2013 Re	United			
Sales	\$4,846	\$4,689	\$4,341	\$4,596	\$3,166	Other 6%		States 4%			
YoY % Change	(3%)	(12%)	(4%)	2%	(29%)			470			
EBITDA	\$360	\$460	\$404	\$462	\$375						
YoY % Change	(4%)	16%	(20%)	19%	(14%)						
Net Income	\$196	\$261	\$264	\$288	\$235						
YoY % Change	1%	22%	5%	5%	(16%)		Mainland China	Japa 519			
Earnings Per Share	\$0.15	\$0.19	\$0.20	\$0.21	\$0.17		39%	517	0		
YoY % Change	1%	21%	5%	4%	(17%)						
EBITDA Margin %	7%	10%	9%	10%	12%						
Net % Margin	4%	6%	6%	6%	7%						
Top 5 Comps	PE	PB	P/S EV	/EBITDA D	)iv Yield %		Analyst Recomm	endations			
Catcher Technology Co., Ltd.	16.78	2.73	4.48	8.79	1.77		1	1	1		
Casetek Holdings Limited	12.24	2.64	1.86	5.46	4.84	Buy	2				
HTC Corporation	NM	1.39	0.58	203.69	0.00	Hold			-		
Quanta Computer, Inc.	15.92	2.50	0.32	12.17	4.92	noiu			5		
IBASE Technology Inc.	16.05	2.62	1.54	10.85	4.25	Sell			5		
Foxconn Technology Co., Ltd.	18.27	1.47	1.27	6.37	1.27	0	2	4	e		
Toxoonn Toonnology oo., Ltd.	10.27	1.47	1.47	0.07	1.27		No. of analyst ree	o. of analyst recommendations			





Ticke	KOSDAQ:A056190	Currency USD	Date	9/30/14	4
SFA Engineering Co	rporation				
Headquarters	Hwaseong, South Korea	Share Price	41.02	50%	Stock Price vs S&P 500
Website	sfa.co.kr	52 Week Range	34.82889-44.70574		
Robo-Stox Classification	Non-Bellwether	Market Cap (\$B)	0.725	25%	
Exchange	KOSDAQ	Enterprise Value (\$B)	0.413	0% 🛹	man man man man
Share Type	Common Stock	YTD Change	5.60%	(25%)	
Functional FX	KRW	PE	18.98		
Ticker	A056190	P/S	2.24	(50%) 🖵 ពុ ពុ	
SEDOL	6430140	Dividend Yield	0.00%	/30/	10/28/ 11/25/ 11/25/ 12/29/ 12/29/ 1/6/ 1/6/ 3/33/ 3/31/ 3/33/ 3/31/ 3/33/ 3/31/ 3/32/ 5/26/ 5/22/ 5/22/ 5/22/ 5/22/ 7/7/ 7/7/ 7/7/
Industry (GICS)	Electronic Equipment and	Instruments		-0 10,0	
Robo-Stox Subgroup	Technology Manufacturin	g Automation			S&P Price A056190 Price

SFA Engineering Corporation manufactures and sells material handling systems, and process and precision equipment in Korea and internationally. The company offers display equipment, such as liquid crystal display manufacturing equipment, organic light emitting diode manufacturing equipment, and PDP manufacturing equipment; solar cell manufacturing equipment; semiconductor equipment; and vacuum equipment, including nuclear fusion equipments and aerospace equipment. It also provides module, film, printing electronic, automobile parts manufacturing, heavy industrial, test, AGV/LGV, packaging/loading, and distribution automation equipment; FA systems; FPD manufacturing, inspection, solar cell deposition, and secondary cell manufacturing equipment; and logistics consulting services. The company was founded in 1998 and is headquartered in Hwaseong, South Korea.

#### **Robotics & Automation Description:**

SFA produces automated guided vehicles (AGV) for automated storage retrieval, materials handling and packaging, and clean-room systems. The AGV use a laser guided navigation system and can handle payloads of up to 5,000 kg (~11,000 pounds). The I-FORK is an automated forklift for transportation of products in a distribution warehouse and to transport products between processes during assembly. Its material handling systems are capable of sorting, picking, and transporting equipment and other products. Its clean-room systems are used for distributing LCD, PDP, OLED, and semiconductor equipment.

							1/00040	4050400.0044	Descent to	
Fundamentals	2009	<b>2010</b>	<b>2011</b>	2012	2013		KOSDAQ China	:A056190 2013	Kevenue by	Geography
Sales	\$268	\$385	\$673	\$477	\$453		13%			
YoY % Change	(28%)	38%	81%	(35%)	(6%)					
EBITDA	\$18	\$38	\$100	\$74	\$69					
YoY % Change	(53%)	87%	127%	(15%)	(8%)					
Net Income	\$15	\$35	\$76	\$67	\$60					
YoY % Change	(64%)	118%	126%	(20%)	(12%)					
Earnings Per Share	\$0.87	\$1.98	\$4.32	\$3.83	\$3.42					
YoY % Change	(63%)	118%	126%	(19%)	(11%)					
BITDA Margin %	7%	10%	15%	16%	15%				South	
Net % Margin	6%	9%	11%	14%	13%				Korea 87%	
Top 5 Comps	PE	PB	P/S EV	EBITDA Div	/ Yield %		Analys	t Recommer	dations	
LG Display Co., Ltd.	24.58	1.15	0.48	3.48	0.00		1	1	1	1
Espec Corp.	15.14	0.76	0.75	4.42	1.91	Buy				9
Viscom AG	23.61	1.97	1.83	14.56	3.93	Hold		5		
OHT Inc.	0.00	0.00	0.00	0.00	0.00	noiu		- 5		
R-Tec Holding, Inc.	0.00	0.00	0.00	0.00	0.00	Sell 0				
	18.98	1.69	2.24	10.43	0.00	0	2	4	6	8





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