

**April - June 2015 Results**  
**Production and Shipments of Manipulators and Robots by Application Areas**  
**[JARA Member Companies]**

Number of units, ( ): million yen

Production	April - June 2014		April - June 2015		Change from 2014	
		33,388 (121,842)		36,126 (138,646)		+8.2% (+13.8%)

Shipments Application area	April - June 2014			April - June 2015			Change from 2014			April - June 2014 (percentage distribution)			April - June 2015 (percentage distribution)		
	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total
<b>Plastic moulding</b>	434	959	1,393	572	1,236	1,808	+31.8%	+28.9%	+29.8%	6.8%	3.5%	4.1%	7.8%	4.3%	5.0%
Arc welding	766	4,745	5,511	778	5,031	5,809	+1.6%	+6.0%	+5.4%	12.0%	17.4%	16.4%	10.6%	17.6%	16.2%
Spot welding	995	4,229	5,224	416	4,251	4,667	-58.2%	+0.5%	-10.7%	15.5%	15.5%	15.5%	5.7%	14.9%	13.0%
Laser welding	9	49	58	2	1	3									
Others	4	2	6	5	2	7									
<b>Welding</b> Units	1,774	9,025	10,799	1,201	9,285	10,486	-32.3%	+2.9%	-2.9%	27.7%	33.2%	32.1%	16.3%	32.5%	29.2%
(million yen)	(7,320)	(22,259)	(29,579)	(7,047)	(23,617)	(30,664)	(-3.7%)	(+6.1%)	(+3.7%)	(28.8%)	(23.7%)	(24.8%)	(20.1%)	(23.7%)	(22.7%)
<b>Painting</b>	60	266	326	70	413	483	+16.7%	+55.3%	+48.2%	0.9%	1.0%	1.0%	1.0%	1.4%	1.3%
Loading/unloading	286	1,211	1,497	412	1,337	1,749	+44.1%	+10.4%	+16.8%	4.5%	4.4%	4.5%	5.6%	4.7%	4.9%
Mechanical cutting				4	1	5									
Grinding/deburring	32	15	47	66	12	78									
Others	10	4	14	10		10									
<b>Machining</b> Units	328	1,230	1,558	492	1,350	1,842	+50.0%	+9.8%	+18.2%	5.1%	4.5%	4.6%	6.7%	4.7%	5.1%
(million yen)	(723)	(1,855)	(2,578)	(1,146)	(2,035)	(3,181)	(+58.5%)	(+9.7%)	(+23.4%)	(2.8%)	(2.0%)	(2.2%)	(3.3%)	(2.0%)	(2.4%)
<b>Surface Mount Technology</b>	219	2,386	2,605	396	2,513	2,909	+80.8%	+5.3%	+11.7%	3.4%	8.8%	7.7%	5.4%	8.8%	8.1%
General Assembly	1,318	6,506	7,824	1,675	4,534	6,209	+27.1%	-30.3%	-20.6%	20.6%	23.9%	23.3%	22.8%	15.9%	17.3%
Other Assembly	9	43	52	18	140	158	+100.0%	+225.6%	+203.8%	0.1%	0.2%	0.2%	0.2%	0.5%	0.4%
Bonding				1		1									
Soldering															
Sealing/glueing	5	31	36	3	36	39									
Screwing				2		2									
Others	4	12	16	12	104	116									
<b>Assembly</b> Units	1,327	6,549	7,876	1,693	4,674	6,367	+27.6%	-28.6%	-19.2%	20.7%	24.1%	23.4%	23.0%	16.4%	17.7%
(million yen)	(5,873)	(45,535)	(51,408)	(10,552)	(44,970)	(55,522)	(+79.7%)	(-1.2%)	(+8.0%)	(23.1%)	(48.6%)	(43.1%)	(30.0%)	(45.1%)	(41.2%)
<b>Palletizing/depalletizing</b>	146	358	504	158	684	842	+8.2%	+91.1%	+67.1%	2.3%	1.3%	1.5%	2.1%	2.4%	2.3%
<b>Material handling</b>	1,116	4,736	5,852	1,305	6,144	7,449	+16.9%	+29.7%	+27.3%	17.4%	17.4%	17.4%	17.7%	21.5%	20.7%
FPD	49	82	131	47	67	114	-4.1%	-18.3%	-13.0%	0.8%	0.3%	0.4%	0.6%	0.2%	0.3%
Semiconductor	658	854	1,512	948	1,514	2,462	+44.1%	+77.3%	+62.8%	10.3%	3.1%	4.5%	12.9%	5.3%	6.9%
Others															
<b>Cleanroom</b> Units	707	936	1,643	995	1,581	2,576	+40.7%	+68.9%	+56.8%	11.0%	3.4%	4.9%	13.5%	5.5%	7.2%
(million yen)	(3,725)	(3,349)	(7,074)	(5,338)	(4,723)	(10,060)	(+43.3%)	(+41.0%)	(+42.2%)	(14.6%)	(3.6%)	(5.9%)	(15.2%)	(4.7%)	(7.5%)
<b>Other applications</b>	290	770	1,060	472	693	1,165	+62.8%	-10.0%	+9.9%	4.5%	2.8%	3.2%	6.4%	2.4%	3.2%
<b>Total</b> Units	6,401	27,215	33,616	7,354	28,573	35,927	+14.9%	+5.0%	+6.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
(million yen)	(25,462)	(93,767)	(119,229)	(35,124)	(99,779)	(134,903)	(+37.9%)	(+6.4%)	(+13.1%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)

Note)

Data includes dedicated type (Surface Mount Technology / Bonding).

Data is collected in unit of 10,000 yen. However, the results are shown in unit of million yen by rounding the figures of 100,000 yen.

**April - June 2015 Results**  
**Shipments of Manipulators and Robots by Industrial Branches**  
**[JARA Member Companies]**

Number of units, ( ): million yen

Industrial branches	2014 Apr-Jun	2015 Apr-Jun	Change from 2014	Percentage distribution	
				2014	2015
<b>Metal products</b>	<b>253</b>	<b>443</b>	<b>+75.1%</b>	<b>4.0%</b>	<b>6.0%</b>
Construction and mining machinery	21	22	+4.8%	0.3%	0.3%
Metalworking machinery	138	100	-27.5%	2.2%	1.4%
Other machinery and equipment	182	389	+113.7%	2.8%	5.3%
<b>Machinery and equipment</b>	<b>341</b>	<b>511</b>	<b>+49.9%</b>	<b>5.3%</b>	<b>6.9%</b>
Units					
(million yen)	<b>(1,075)</b>	<b>(2,680)</b>	<b>(+149.4%)</b>	<b>(4.2%)</b>	<b>(7.6%)</b>
Electronic computers	8	18	+125.0%	0.1%	0.2%
Consumer electrical machinery	100	385	+285.0%	1.6%	5.2%
Industrial electrical machinery	49	325	+563.3%	0.8%	4.4%
Communication equipment	270	187	-30.7%	4.2%	2.5%
Video and audio equipment	0	4		0.0%	0.1%
Electronic components/devices/circuits	696	832	+19.5%	10.9%	11.3%
Other electrical machinery	610	1,051	+72.3%	9.5%	14.3%
<b>Electrical machinery</b>	<b>1,733</b>	<b>2,802</b>	<b>+61.7%</b>	<b>27.1%</b>	<b>38.1%</b>
Units					
(million yen)	<b>(8,098)</b>	<b>(13,676)</b>	<b>(+68.9%)</b>	<b>(31.8%)</b>	<b>(38.9%)</b>
<b>Precision instruments</b>	<b>94</b>	<b>111</b>	<b>+18.1%</b>	<b>1.5%</b>	<b>1.5%</b>
Motor vehicles	1,004	617	-38.5%	15.7%	8.4%
Auto parts	1,595	1,511	-5.3%	24.9%	20.5%
<b>Motor vehicles and auto parts</b>	<b>2,599</b>	<b>2,128</b>	<b>-18.1%</b>	<b>40.6%</b>	<b>28.9%</b>
Units					
(million yen)	<b>(9,670)</b>	<b>(9,191)</b>	<b>(-5.0%)</b>	<b>(38.0%)</b>	<b>(26.2%)</b>
<b>Food products, beverages, and tobacco products</b>	<b>124</b>	<b>121</b>	<b>-2.4%</b>	<b>1.9%</b>	<b>1.6%</b>
<b>Plastic products</b>	<b>457</b>	<b>256</b>	<b>-44.0%</b>	<b>7.1%</b>	<b>3.5%</b>
<b>Chemical products</b>	<b>83</b>	<b>45</b>	<b>-45.8%</b>	<b>1.3%</b>	<b>0.6%</b>
<b>Other industries</b>	<b>717</b>	<b>904</b>	<b>+26.1%</b>	<b>11.2%</b>	<b>12.3%</b>
<b>Non-manufacturing industry</b>	<b>0</b>	<b>33</b>		<b>0.0%</b>	<b>0.4%</b>
<b>Total domestic shipments</b>	<b>6,401</b>	<b>7,354</b>	<b>+14.9%</b>	<b>100.0%</b>	<b>100.0%</b>
Units					
(million yen)	<b>(25,462)</b>	<b>(35,124)</b>	<b>(+37.9%)</b>	<b>19.0%</b>	<b>20.5%</b>
				<b>(100.0%)</b>	<b>(100.0%)</b>
				<b>(21.4%)</b>	<b>(26.0%)</b>
<b>Export</b>	<b>27,215</b>	<b>28,573</b>	<b>+5.0%</b>	<b>81.0%</b>	<b>79.5%</b>
Units					
(million yen)	<b>(93,767)</b>	<b>(99,779)</b>	<b>(+6.4%)</b>	<b>(78.6%)</b>	<b>(74.0%)</b>
<b>Grand total</b>	<b>33,616</b>	<b>35,927</b>	<b>+6.9%</b>	<b>100.0%</b>	<b>100.0%</b>
Units					
(million yen)	<b>(119,229)</b>	<b>(134,903)</b>	<b>(+13.1%)</b>	<b>(100.0%)</b>	<b>(100.0%)</b>

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