

**April - June 2013 Results**  
**Production and Shipments of Manipulators and Robots by Application Areas**  
**[JARA Member Companies]**

Number of units, ( ): million yen

Production	April - June 2012	April - June 2013	Change from 2012
	26,500 (114,854)	24,465 (100,326)	-7.7% (-12.6%)

Shipments	April - June 2012			April - June 2013			Change from 2012			April - June 2012 (percentage distribution)			April - June 2013 (percentage distribution)		
	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total
<b>Application area</b>															
<b>Plastic moulding</b>	499	1,417	1,916	422	1,520	1,942	-15.4%	+7.3%	+1.4%	8.0%	6.8%	7.1%	8.2%	7.9%	8.0%
Arc welding	736	3,970	4,706	625	3,703	4,328	-15.1%	-6.7%	-8.0%	11.8%	19.0%	17.4%	12.2%	19.3%	17.8%
Spot welding	775	2,574	3,349	570	2,658	3,228	-26.5%	+3.3%	-3.6%	12.4%	12.3%	12.4%	11.1%	13.9%	13.3%
Laser welding	21		21	10	3	13									
Others	1		1	4	1	5									
<b>Welding</b> Units	1,533	6,544	8,077	1,209	6,365	7,574	-21.1%	-2.7%	-6.2%	24.5%	31.4%	29.8%	23.6%	33.2%	31.2%
(million yen)	(6,948)	(16,406)	(23,354)	(5,570)	(15,647)	(21,217)	(-19.8%)	(-4.6%)	(-9.2%)	(24.2%)	(18.7%)	(20.0%)	(22.0%)	(20.7%)	(21.0%)
<b>Painting</b>	128	300	428	73	329	402	-43.0%	+9.7%	-6.1%	2.0%	1.4%	1.6%	1.4%	1.7%	1.7%
Loading/unloading	257	916	1,173	192	888	1,080									
Mechanical cutting		2	2	1	5	6									
Grinding/deburring	51	8	59	15	5	20									
Others	13	1	14	14		14									
<b>Machining</b> Units	321	927	1,248	222	898	1,120	-30.8%	-3.1%	-10.3%	5.1%	4.4%	4.6%	4.3%	4.7%	4.6%
(million yen)	(1,536)	(2,094)	(3,631)	(744)	(1,356)	(2,100)	(-51.6%)	(-35.2%)	(-42.2%)	(5.3%)	(2.4%)	(3.1%)	(2.9%)	(1.8%)	(2.1%)
<b>Surface Mount Technology</b>	272	2,749	3,021	224	2,379	2,603	-17.6%	-13.5%	-13.8%	4.3%	13.2%	11.1%	4.4%	12.4%	10.7%
General Assembly	1,266	2,692	3,958	875	2,125	3,000	-30.9%	-21.1%	-24.2%	20.2%	12.9%	14.6%	17.1%	11.1%	12.4%
Other Assembly	224	103	327	362	131	493	+61.6%	+27.2%	+50.8%	3.6%	0.5%	1.2%	7.1%	0.7%	2.0%
Bonding	215		215	340	6	346									
Soldering		5	5												
Sealing/glueing	8	35	43	11	78	89									
Screwing				5		5									
Others	1	63	64	6	47	53									
<b>Assembly</b> Units	1,490	2,795	4,285	1,237	2,256	3,493	-17.0%	-19.3%	-18.5%	23.8%	13.4%	15.8%	24.1%	11.8%	14.4%
(million yen)	(6,849)	(47,717)	(54,566)	(6,276)	(37,061)	(43,337)	(-8.4%)	(-22.3%)	(-20.6%)	(23.8%)	(54.4%)	(46.8%)	(24.8%)	(49.0%)	(42.9%)
<b>Palletizing/depalletizing</b>	162	410	572	159	433	592	-1.9%	+5.6%	+3.5%	2.6%	2.0%	2.1%	3.1%	2.3%	2.4%
<b>Material handling</b>	858	4,212	5,070	661	3,350	4,011	-23.0%	-20.5%	-20.9%	13.7%	20.2%	18.7%	12.9%	17.5%	16.5%
FPD	50	129	179	67	298	365	+34.0%	+131.0%	+103.9%	0.8%	0.6%	0.7%	1.3%	1.6%	1.5%
Semiconductor	571	1,110	1,681	504	898	1,402	-11.7%	-19.1%	-16.6%	9.1%	5.3%	6.2%	9.8%	4.7%	5.8%
Others				1		1									
<b>Cleanroom</b> Units	621	1,239	1,860	572	1,196	1,768	-7.9%	-3.5%	-4.9%	9.9%	5.9%	6.9%	11.2%	6.2%	7.3%
(million yen)	(3,989)	(5,105)	(9,093)	(3,626)	(4,178)	(7,804)	(-9.1%)	(-18.1%)	(-14.2%)	(13.9%)	(5.8%)	(7.8%)	(14.3%)	(5.5%)	(7.7%)
<b>Other applications</b>	374	259	633	345	430	775	-7.8%	+66.0%	+22.4%	6.0%	1.2%	2.3%	6.7%	2.2%	3.2%
<b>Total</b> Units	6,258	20,852	27,110	5,124	19,156	24,280	-18.1%	-8.1%	-10.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
(million yen)	(28,731)	(87,781)	(116,511)	(25,280)	(75,638)	(100,917)	(-12.0%)	(-13.8%)	(-13.4%)	(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 2013 Results**  
**Shipments of Manipulators and Robots by Industrial Branches**  
**[JARA Member Companies]**

Number of units, ( ): million yen

Industrial branches	2012 Apr-Jun	2013 Apr-Jun	Change from 2012	Percentage distribution	
				2012	2013
<b>Metal products</b>	<b>314</b>	<b>181</b>	<b>-42.4%</b>	<b>5.0%</b>	<b>3.5%</b>
Construction Machinery	35	14	-60.0%	0.6%	0.3%
Metalworking machinery	115	84	-27.0%	1.8%	1.6%
Other machinery and equipment	113	62	-45.1%	1.8%	1.2%
<b>Machinery and equipment</b>	<b>263</b>	<b>160</b>	<b>-39.2%</b>	<b>4.2%</b>	<b>3.1%</b>
Units				<b>(4.6%)</b>	<b>(2.7%)</b>
(million yen)	<b>(1,332)</b>	<b>(684)</b>	<b>(-48.7%)</b>		
Computers	74	5	-93.2%	1.2%	0.1%
Consumer electrical machinery	86	76	-11.6%	1.4%	1.5%
Industrial electrical machinery	104	136	+30.8%	1.7%	2.7%
Info-communications equipment	149	156	+4.7%	2.4%	3.0%
VTR	0	0		0.0%	0.0%
Electronic components/devices	829	918	+10.7%	13.2%	17.9%
Other electrical machinery	790	503	-36.3%	12.6%	9.8%
<b>Electrical machinery</b>	<b>2,032</b>	<b>1,794</b>	<b>-11.7%</b>	<b>32.5%</b>	<b>35.0%</b>
Units				<b>(34.8%)</b>	<b>(38.3%)</b>
(million yen)	<b>(10,003)</b>	<b>(9,671)</b>	<b>(-3.3%)</b>		
<b>Precision and optical instruments</b>	<b>167</b>	<b>78</b>	<b>-53.3%</b>	<b>2.7%</b>	<b>1.5%</b>
Motor vehicles	791	549	-30.6%	12.6%	10.7%
Auto parts	1,290	1,167	-9.5%	20.6%	22.8%
<b>Motor vehicles and auto parts</b>	<b>2,081</b>	<b>1,716</b>	<b>-17.5%</b>	<b>33.3%</b>	<b>33.5%</b>
Units				<b>(34.8%)</b>	<b>(31.4%)</b>
(million yen)	<b>(10,013)</b>	<b>(7,926)</b>	<b>(-20.8%)</b>		
<b>Food products, beverages, and tobacco products</b>	<b>111</b>	<b>130</b>	<b>+17.1%</b>	<b>1.8%</b>	<b>2.5%</b>
<b>Plastic products</b>	<b>518</b>	<b>427</b>	<b>-17.6%</b>	<b>8.3%</b>	<b>8.3%</b>
<b>Chemical products</b>	<b>47</b>	<b>33</b>	<b>-29.8%</b>	<b>0.8%</b>	<b>0.6%</b>
<b>Non-manufacturing</b>	<b>38</b>	<b>92</b>	<b>+142.1%</b>	<b>0.6%</b>	<b>1.8%</b>
<b>Other industries</b>	<b>687</b>	<b>513</b>	<b>-25.3%</b>	<b>11.0%</b>	<b>10.0%</b>
<b>Total domestic shipments</b>	<b>6,258</b>	<b>5,124</b>	<b>-18.1%</b>	<b>100.0%</b>	<b>100.0%</b>
Units				<b>23.1%</b>	<b>21.1%</b>
(million yen)	<b>(28,731)</b>	<b>(25,280)</b>	<b>(-12.0%)</b>	<b>(100.0%)</b>	<b>(100.0%)</b>
<b>Export</b>	<b>20,852</b>	<b>19,156</b>	<b>-8.1%</b>	<b>76.9%</b>	<b>78.9%</b>
Units				<b>(75.3%)</b>	<b>(75.0%)</b>
(million yen)	<b>(87,781)</b>	<b>(75,638)</b>	<b>(-13.8%)</b>		
<b>Grand total</b>	<b>27,110</b>	<b>24,280</b>	<b>-10.4%</b>	<b>100.0%</b>	<b>100.0%</b>
Units				<b>(100.0%)</b>	<b>(100.0%)</b>
(million yen)	<b>(116,511)</b>	<b>(100,917)</b>	<b>(-13.4%)</b>		

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