

October - December 2015 Results
Production and Shipments of Manipulators and Robots by Applications
[JARA Member Companies]

Number of units, (): million yen

Production	October - December 2014	October - December 2015	Change from 2014
		30,220 (114,998)	32,999 (124,621)

Shipments	October - December 2014			October - December 2015			Change from 2014			October - December 2014 (percentage distribution)			October - December 2015 (percentage distribution)			
	Applications	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total
Plastic moulding		683	1,054	1,737	809	1,016	1,825	+18.4%	-3.6%	+5.1%	10.0%	4.5%	5.7%	9.9%	3.9%	5.3%
Arc welding		755	4,783	5,538	769	3,365	4,134	+1.9%	-29.6%	-25.4%	11.0%	20.3%	18.2%	9.4%	12.9%	12.1%
Spot welding		627	4,645	5,272	667	5,356	6,023	+6.4%	+15.3%	+14.2%	9.2%	19.7%	17.3%	8.1%	20.6%	17.6%
Laser welding		5	3	8	7	7	7									
Others		2	2	2	13	2	15									
Welding	Units	1,389	9,431	10,820	1,456	8,723	10,179	+4.8%	-7.5%	-5.9%	20.3%	40.0%	35.6%	17.7%	33.5%	29.7%
	(million yen)	(7,795)	(23,136)	(30,931)	(7,874)	(23,959)	(31,833)	(+1.0%)	(+3.6%)	(+2.9%)	(25.9%)	(26.9%)	(26.7%)	(20.7%)	(26.4%)	(24.7%)
Painting		61	213	274	135	466	601	+121.3%	+118.8%	+119.3%	0.9%	0.9%	0.9%	1.6%	1.8%	1.8%
Loading/unloading		381	809	1,190	475	1,360	1,835	+24.7%	+68.1%	+54.2%	5.6%	3.4%	3.9%	5.8%	5.2%	5.4%
Mechanical cutting					1		1									
Grinding/deburring		48	10	58	58	9	67									
Others		8	1	9	23		23									
Machining	Units	437	820	1,257	557	1,369	1,926	+27.5%	+67.0%	+53.2%	6.4%	3.5%	4.1%	6.8%	5.3%	5.6%
	(million yen)	(1,045)	(1,409)	(2,454)	(1,575)	(3,061)	(4,636)	(+50.7%)	(+117.2%)	(+88.9%)	(3.5%)	(1.6%)	(2.1%)	(4.1%)	(3.4%)	(3.6%)
Surface Mount Technology		279	1,841	2,120	292	1,597	1,889	+4.7%	-13.3%	-10.9%	4.1%	7.8%	7.0%	3.6%	6.1%	5.5%
General Assembly		1,474	2,501	3,975	1,806	3,494	5,300	+22.5%	+39.7%	+33.3%	21.5%	10.6%	13.1%	22.0%	13.4%	15.5%
Other Assembly		31	44	75	14	151	165	-54.8%	+243.2%	+120.0%	0.5%	0.2%	0.2%	0.2%	0.6%	0.5%
Bonding		2		2												
Soldering					2		2									
Sealing/glueing		9	35	44	9	53	62									
Screwing						2	2									
Others		20	9	29	3	96	99									
Assembly	Units	1,505	2,545	4,050	1,820	3,645	5,465	+20.9%	+43.2%	+34.9%	22.0%	10.8%	13.3%	22.2%	14.0%	16.0%
	(million yen)	(7,498)	(34,671)	(42,169)	(9,908)	(32,364)	(42,272)	(+32.1%)	(-6.7%)	(+0.2%)	(24.9%)	(40.4%)	(36.4%)	(26.0%)	(35.7%)	(32.8%)
Palletizing/depalletizing		213	428	641	164	588	752	-23.0%	+37.4%	+17.3%	3.1%	1.8%	2.1%	2.0%	2.3%	2.2%
Material handling		1,168	5,533	6,701	1,669	6,300	7,969	+42.9%	+13.9%	+18.9%	17.0%	23.5%	22.0%	20.3%	24.2%	23.3%
FPD		28	156	184	78	105	183	+178.6%	-32.7%	-0.5%	0.4%	0.7%	0.6%	0.9%	0.4%	0.5%
Semiconductor		696	827	1,523	800	1,384	2,184	+14.9%	+67.4%	+43.4%	10.2%	3.5%	5.0%	9.7%	5.3%	6.4%
Others																
Cleanroom	Units	724	983	1,707	878	1,489	2,367	+21.3%	+51.5%	+38.7%	10.6%	4.2%	5.6%	10.7%	5.7%	6.9%
	(million yen)	(3,657)	(4,676)	(8,333)	(5,051)	(4,892)	(9,942)	(+38.1%)	(+4.6%)	(+19.3%)	(12.2%)	(5.4%)	(7.2%)	(13.3%)	(5.4%)	(7.7%)
Other applications		393	733	1,126	432	832	1,264	+9.9%	+13.5%	+12.3%	5.7%	3.1%	3.7%	5.3%	3.2%	3.7%
Total	Units	6,852	23,581	30,433	8,212	26,025	34,237	+19.8%	+10.4%	+12.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	(million yen)	(30,072)	(85,916)	(115,988)	(38,112)	(90,748)	(128,861)	(+26.7%)	(+5.6%)	(+11.1%)	(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.

October - December 2015 Results
Shipments of Manipulators and Robots by Industries
[JARA Member Companies]

Number of units, (): million yen

Industries	2014 Oct.-Dec.	2015 Oct.-Dec.	Change from 2014	Percentage distribution	
				2014	2015
Metal products	403	469	+16.4%	5.9%	5.7%
Construction and mining machinery	34	22	-35.3%	0.5%	0.3%
Metalworking machinery	161	153	-5.0%	2.3%	1.9%
Other machinery and equipment	144	412	+186.1%	2.1%	5.0%
Machinery and equipment	339	587	+73.2%	4.9%	7.1%
Units					
(million yen)	(1,387)	(3,194)	(+130.3%)	(4.6%)	(8.4%)
Electronic computers	14	48	+242.9%	0.2%	0.6%
Consumer electrical machinery	161	514	+219.3%	2.3%	6.3%
Industrial electrical machinery	141	88	-37.6%	2.1%	1.1%
Communication equipment	323	171	-47.1%	4.7%	2.1%
Video and audio equipment	0	0		0.0%	0.0%
Electronic components/devices/circuits	777	735	-5.4%	11.3%	9.0%
Other electrical machinery	673	960	+42.6%	9.8%	11.7%
Electrical machinery	2,089	2,516	+20.4%	30.5%	30.6%
Units					
(million yen)	(10,281)	(12,441)	(+21.0%)	(34.2%)	(32.6%)
Precision instruments	86	109	+26.7%	1.3%	1.3%
Motor vehicles	649	886	+36.5%	9.5%	10.8%
Auto parts	1,425	1,871	+31.3%	20.8%	22.8%
Motor vehicles and auto parts	2,074	2,757	+32.9%	30.3%	33.6%
Units					
(million yen)	(8,589)	(12,132)	(+41.3%)	(28.6%)	(31.8%)
Other transport equipment	(48)	(67)	(+39.6%)	(0.7%)	(0.8%)
Food products, beverages, and tobacco products	137	124	-9.5%	2.0%	1.5%
Chemical products	99	65	-34.3%	1.4%	0.8%
Plastic products	712	294	-58.7%	10.4%	3.6%
Other industries	865	1,177	+36.1%	12.6%	14.3%
Non-manufacturing industry	0	47		0.0%	0.6%
Total domestic shipments	6,852	8,212	+19.8%	100.0%	100.0%
Units					
(million yen)	(30,072)	(38,112)	(+26.7%)	22.5%	24.0%
				(100.0%)	(100.0%)
				(25.9%)	(29.6%)
Export	23,581	26,025	+10.4%	77.5%	76.0%
Units					
(million yen)	(85,916)	(90,748)	(+5.6%)	(74.1%)	(70.4%)
Grand total	30,433	34,237	+12.5%	100.0%	100.0%
Units					
(million yen)	(115,988)	(128,861)	(+11.1%)	(100.0%)	(100.0%)

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

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