

July - September 2016 Results
Production and Shipments of Manipulators and Robots by Applications
[JARA Member Companies]

Number of units, (): million yen

Production	July - September 2015		July - September 2016		Change from 2015	
		34,708 (133,643)		38,639 (140,658)		+11.3% (+5.2%)

Shipments Applications	July - September 2015			July - September 2016			Change from 2015			July - September 2015 (percentage distribution)			July - September 2016 (percentage distribution)		
	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total
Plastic moulding	725	1,138	1,863	777	1,090	1,867	+7.2%	-4.2%	+0.2%	8.9%	4.2%	5.3%	8.4%	3.8%	5.0%
Arc welding	925	3,640	4,565	1,070	3,573	4,643	+15.7%	-1.8%	+1.7%	11.4%	13.4%	12.9%	11.5%	12.6%	12.3%
Spot welding	828	5,083	5,911	1,137	3,510	4,647	+37.3%	-30.9%	-21.4%	10.2%	18.7%	16.8%	12.2%	12.4%	12.3%
Laser welding	8		8	3		3									
Others	20		20	6	5	11									
Welding Units	1,781	8,723	10,504	2,216	7,088	9,304	+24.4%	-18.7%	-11.4%	21.9%	32.1%	29.8%	23.9%	25.0%	24.7%
(million yen)	(8,620)	(23,926)	(32,546)	(10,975)	(18,492)	(29,467)	(+27.3%)	(-22.7%)	(-9.5%)	(23.0%)	(24.7%)	(24.2%)	(25.3%)	(19.1%)	(21.0%)
Painting	186	428	614	156	441	597	-16.1%	+3.0%	-2.8%	2.3%	1.6%	1.7%	1.7%	1.6%	1.6%
Loading/unloading	526	1,577	2,103	333	967	1,300	-36.7%	-38.7%	-38.2%	6.5%	5.8%	6.0%	3.6%	3.4%	3.5%
Mechanical cutting	2	3	5	1		1									
Grinding/deburring	40	17	57	59	20	79									
Others	12		12	12	7	19									
Machining Units	580	1,597	2,177	405	994	1,399	-30.2%	-37.8%	-35.7%	7.1%	5.9%	6.2%	4.4%	3.5%	3.7%
(million yen)	(1,513)	(2,716)	(4,229)	(1,017)	(1,580)	(2,597)	(-32.8%)	(-41.8%)	(-38.6%)	(4.0%)	(2.8%)	(3.1%)	(2.3%)	(1.6%)	(1.9%)
Surface Mount Technology	296	2,014	2,310	340	2,149	2,489	+14.9%	+6.7%	+7.7%	3.6%	7.4%	6.6%	3.7%	7.6%	6.6%
General Assembly	1,649	4,022	5,671	1,538	4,336	5,874	-6.7%	+7.8%	+3.6%	20.3%	14.8%	16.1%	16.6%	15.3%	15.6%
Other Assembly	31	107	138	16	145	161	-48.4%	+35.5%	+16.7%	0.4%	0.4%	0.4%	0.2%	0.5%	0.4%
Bonding															
Soldering															
Sealing/glueing	12	52	64	8	62	70									
Screwing	6		6	2		2									
Others	13	55	68	6	83	89									
Assembly Units	1,680	4,129	5,809	1,554	4,481	6,035	-7.5%	+8.5%	+3.9%	20.7%	15.2%	16.5%	16.7%	15.8%	16.0%
(million yen)	(9,102)	(39,526)	(48,627)	(9,159)	(39,039)	(48,199)	(+0.6%)	(-1.2%)	(-0.9%)	(24.3%)	(40.7%)	(36.2%)	(21.2%)	(40.3%)	(34.4%)
Palletizing/depalletizing	216	597	813	223	609	832	+3.2%	+2.0%	+2.3%	2.7%	2.2%	2.3%	2.4%	2.1%	2.2%
Material handling	1,521	6,064	7,585	1,950	8,874	10,824	+28.2%	+46.3%	+42.7%	18.7%	22.3%	21.5%	21.0%	31.3%	28.7%
FPD	53	243	296	62	251	313	+17.0%	+3.3%	+5.7%	0.7%	0.9%	0.8%	0.7%	0.9%	0.8%
Semiconductor	705	1,443	2,148	963	1,790	2,753	+36.6%	+24.0%	+28.2%	8.7%	5.3%	6.1%	10.4%	6.3%	7.3%
Others		1	1												
Cleanroom Units	758	1,687	2,445	1,025	2,041	3,066	+35.2%	+21.0%	+25.4%	9.3%	6.2%	6.9%	11.0%	7.2%	8.1%
(million yen)	(4,840)	(5,966)	(10,806)	(5,795)	(6,659)	(12,454)	(+19.7%)	(+11.6%)	(+15.3%)	(12.9%)	(6.1%)	(8.0%)	(13.4%)	(6.9%)	(8.9%)
Other applications	374	757	1,131	644	623	1,267	+72.2%	-17.7%	+12.0%	4.6%	2.8%	3.2%	6.9%	2.2%	3.4%
Total Units	8,117	27,134	35,251	9,290	28,390	37,680	+14.5%	+4.6%	+6.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
(million yen)	(37,480)	(97,017)	(134,497)	(43,298)	(96,803)	(140,101)	(+15.5%)	(-0.2%)	(+4.2%)	(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.

July - September 2016 Results
Shipments of Manipulators and Robots by Industries
[JARA Member Companies]

Number of units, (): million yen

Industries	2015 Jul.-Sep.	2016 Jul.-Sep.	Change from 2015	Percentage distribution	
				2015	2016
Metal products	574	470	-18.1%	7.1%	5.1%
Construction and mining machinery	37	42	+13.5%	0.5%	0.5%
Metalworking machinery	156	82	-47.4%	1.9%	0.9%
Other machinery and equipment	398	548	+37.7%	4.9%	5.9%
Machinery and equipment	591	672	+13.7%	7.3%	7.2%
Units (million yen)	(3,282)	(3,629)	(+10.6%)	(8.8%)	(8.4%)
Electronic computers	35	12	-65.7%	0.4%	0.1%
Consumer electrical machinery	407	505	+24.1%	5.0%	5.4%
Industrial electrical machinery	161	372	+131.1%	2.0%	4.0%
Communication equipment	182	262	+44.0%	2.2%	2.8%
Video and audio equipment	0	2		0.0%	0.0%
Electronic components/devices/circuits	678	763	+12.5%	8.4%	8.2%
Other electrical machinery	797	808	+1.4%	9.8%	8.7%
Electrical machinery	2,260	2,724	+20.5%	27.8%	29.3%
Units (million yen)	(11,066)	(13,512)	(+22.1%)	(29.5%)	(31.2%)
Precision instruments	103	100	-2.9%	1.3%	1.1%
Motor vehicles	1,010	1,397	+38.3%	12.4%	15.0%
Auto parts	1,758	2,175	+23.7%	21.7%	23.4%
Motor vehicles and auto parts	2,768	3,572	+29.0%	34.1%	38.4%
Units (million yen)	(12,588)	(14,637)	(+16.3%)	(33.6%)	(33.8%)
Other transport equipment	(60)	(68)	(+13.3%)	(0.7%)	(0.7%)
Food products, beverages, and tobacco products	131	221	+68.7%	1.6%	2.4%
Chemical products	75	96	+28.0%	0.9%	1.0%
Plastic products	282	251	-11.0%	3.5%	2.7%
Other industries	1,228	1,075	-12.5%	15.1%	11.6%
Non-manufacturing industry	45	41	-8.9%	0.6%	0.4%
Total domestic shipments	8,117	9,290	+14.5%	100.0%	100.0%
Units (million yen)	(37,480)	(43,298)	(+15.5%)	23.0%	24.7%
				(100.0%)	(100.0%)
				(27.9%)	(30.9%)
Export	27,134	28,390	+4.6%	77.0%	75.3%
Units (million yen)	(97,017)	(96,803)	(-0.2%)	(72.1%)	(69.1%)
Grand total	35,251	37,680	+6.9%	100.0%	100.0%
Units (million yen)	(134,497)	(140,101)	(+4.2%)	(100.0%)	(100.0%)

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

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