

July - September 2017 Results
Production and Shipments of Manipulators and Robots by Applications
[JARA Member Companies]

Number of units, () : million yen

Production	July - September 2016		July - September 2017		Change from 2016	
		38,639 (140,658)		55,998 (189,067)		44.9% (34.4%)

Shipments Applications	July - September 2016			July - September 2017			Change from 2016			July - September 2016 (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	777	1,090	1,867	832	1,497	2,329	7.1%	37.3%	24.7%	8.4%	3.8%	5.0%	7.9%	3.3%	4.1%
Arc welding	1,070	3,573	4,643	1,108	4,302	5,410	3.6%	20.4%	16.5%	11.5%	12.6%	12.3%	10.6%	9.4%	9.6%
Spot welding	1,137	3,510	4,647	1,189	6,428	7,617	4.6%	83.1%	63.9%	12.2%	12.4%	12.3%	11.3%	14.0%	13.5%
Laser welding	3		3	3	1	4									
Others	6	5	11	18	136	154									
Welding Units	2,216	7,088	9,304	2,318	10,867	13,185	4.6%	53.3%	41.7%	23.9%	25.0%	24.7%	22.1%	23.7%	23.4%
(million yen)	(10,975)	(18,492)	(29,467)	(11,115)	(26,679)	(37,793)	(1.3%)	(44.3%)	(28.3%)	(25.4%)	(19.1%)	(21.0%)	(23.0%)	(18.1%)	(19.3%)
Painting	156	441	597	140	373	513	-10.3%	-15.4%	-14.1%	1.7%	1.6%	1.6%	1.3%	0.8%	0.9%
Loading/unloading	333	967	1,300	545	1,860	2,405	63.7%	92.3%	85.0%	3.6%	3.4%	3.5%	5.2%	4.1%	4.3%
Mechanical cutting	1		1	1		1									
Grinding/deburring	59	20	79	92	373	465									
Others	12	7	19	7	3	10									
Machining Units	405	994	1,399	645	2,236	2,881	59.3%	124.9%	105.9%	4.4%	3.5%	3.7%	6.1%	4.9%	5.1%
(million yen)	(1,017)	(1,580)	(2,597)	(1,981)	(3,718)	(5,698)	(94.7%)	(135.2%)	(119.4%)	(2.3%)	(1.6%)	(1.9%)	(4.1%)	(2.5%)	(2.9%)
Surface Mount Technology	354	2,191	2,545	518	3,759	4,277	46.3%	71.6%	68.1%	3.8%	7.7%	6.8%	4.9%	8.2%	7.6%
General Assembly	1,538	4,336	5,874	1,605	10,113	11,718	4.4%	133.2%	99.5%	16.6%	15.3%	15.6%	15.3%	22.1%	20.8%
Other Assembly	16	145	161	21	480	501	31.3%	231.0%	211.2%	0.2%	0.5%	0.4%	0.2%	1.0%	0.9%
Bonding					2	2									
Soldering				2		2									
Sealing/glueing	8	62	70	17	289	306									
Screwing	2		2		10	10									
Others	6	83	89	2	181	183									
Assembly Units	1,554	4,481	6,035	1,626	10,593	12,219	4.6%	136.4%	102.5%	16.7%	15.8%	16.0%	15.5%	23.2%	21.7%
(million yen)	(2,898)	(5,458)	(8,356)	(3,344)	(10,545)	(13,889)	(15.4%)	(93.2%)	(66.2%)	(6.7%)	(5.6%)	(6.0%)	(6.9%)	(7.1%)	(7.1%)
Palletizing/depalletizing	223	609	832	271	294	565	21.5%	-51.7%	-32.1%	2.4%	2.1%	2.2%	2.6%	0.6%	1.0%
Material handling	1,936	8,832	10,768	2,150	12,643	14,793	11.1%	43.1%	37.4%	20.8%	31.1%	28.6%	20.5%	27.6%	26.3%
FPD	62	251	313	32	230	262	-48.4%	-8.4%	-16.3%	0.7%	0.9%	0.8%	0.3%	0.5%	0.5%
Semiconductor	963	1,790	2,753	1,340	2,466	3,806	39.1%	37.8%	38.2%	10.4%	6.3%	7.3%	12.8%	5.4%	6.8%
Others					2	2									
Cleanroom Units	1,025	2,041	3,066	1,372	2,698	4,070	33.9%	32.2%	32.7%	11.0%	7.2%	8.1%	13.1%	5.9%	7.2%
(million yen)	(5,795)	(6,658)	(12,453)	(5,609)	(8,442)	(14,051)	(-3.2%)	(26.8%)	(12.8%)	(13.4%)	(6.9%)	(8.9%)	(11.6%)	(5.7%)	(7.2%)
Other applications	644	623	1,267	629	797	1,426	-2.3%	27.9%	12.5%	6.9%	2.2%	3.4%	6.0%	1.7%	2.5%
Total Units	9,290	28,390	37,680	10,501	45,757	56,258	13.0%	61.2%	49.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
(million yen)	(43,283)	(96,762)	(140,045)	(48,325)	(147,629)	(195,954)	(11.6%)	(52.6%)	(39.9%)	(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 2017 Results
Shipments of Manipulators and Robots by Industries
[JARA Member Companies]

Number of units, () : million yen

Industries	2016 Jul. - Sep.	2017 Jul. - Sep.	Change from 2016	Percentage distribution	
				2016	2017
Metal products	470	741	57.7%	5.1%	7.1%
Construction and mining machinery	42	24	-42.9%	0.5%	0.2%
Metalworking machinery	82	120	46.3%	0.9%	1.1%
Other machinery and equipment	548	789	44.0%	5.9%	7.5%
Machinery and equipment Units	672	933	38.8%	7.2%	8.9%
(million yen)	(3,629)	(3,537)	(-2.5%)	(8.4%)	(7.3%)
Electronic computers	12	8	-33.3%	0.1%	0.1%
Consumer electrical machinery	505	431	-14.7%	5.4%	4.1%
Industrial electrical machinery	372	185	-50.3%	4.0%	1.8%
Communication equipment	262	267	1.9%	2.8%	2.5%
Video and audio equipment	2			0.0%	
Electronic components/devices/circuits	763	1,193	56.4%	8.2%	11.4%
Other electrical machinery	808	787	-2.6%	8.7%	7.5%
Electrical machinery Units	2,724	2,871	5.4%	29.3%	27.3%
(million yen)	(13,512)	(15,501)	(14.7%)	(31.2%)	(32.1%)
Precision instruments	102	190	86.3%	1.1%	1.8%
Motor vehicles	1,395	1,418	1.6%	15.0%	13.5%
Auto parts	2,175	2,471	13.6%	23.4%	23.5%
Motor vehicles and auto parts Units	3,570	3,889	8.9%	38.4%	37.0%
(million yen)	(14,634)	(16,208)	(10.8%)	(33.8%)	(33.5%)
Other transport equipment	68	61	-10.3%	0.7%	0.6%
Food products, beverages, and tobacco products	221	240	8.6%	2.4%	2.3%
Chemical products	96	75	-21.9%	1.0%	0.7%
Plastic products	251	300	19.5%	2.7%	2.9%
Other industries	1,075	1,146	6.6%	11.6%	10.9%
Non-manufacturing industry	41	55		0.4%	0.5%
Total domestic shipments Units	9,290	10,501	13.0%	100.0%	100.0%
(million yen)	(43,283)	(48,325)	(11.6%)	(24.7%)	(18.7%)
Export Units	28,390	45,757	61.2%	(75.3%)	(81.3%)
(million yen)	(96,762)	(147,629)	(52.6%)	(69.1%)	(75.3%)
Grand total Units	37,680	56,258	49.3%	(100.0%)	(100.0%)
(million yen)	(140,045)	(195,954)	(39.9%)	(100.0%)	(100.0%)

Note)

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

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