

July - September 2018 Results
Production and Shipments of Manipulators and Robots by Applications
[JARA Member Companies]

Number of units, () : million yen

	July - September 2017	July - September 2018	Change from 2017
Orders	51,768 (178,206)	51,180 (184,770)	-1.1% (3.7%)
Production	55,998 (189,067)	53,108 (185,842)	-5.2% (-1.7%)

Shipments Applications	July - September 2017			July - September 2018			Change from 2017			July - September 2017 (percentage distribution)			July - September 2018 (percentage distribution)		
	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total
Plastic moulding	832	1,497	2,329	800	1,283	2,083	-3.8%	-14.3%	-10.6%	7.9%	3.3%	4.1%	7.0%	3.2%	4.0%
Arc welding	1,108	4,302	5,410	1,061	4,861	5,922	-4.2%	13.0%	9.5%	10.6%	9.4%	9.6%	9.2%	12.1%	11.5%
Spot welding	1,189	6,428	7,617	1,150	3,684	4,834	-3.3%	-42.7%	-36.5%	11.3%	14.0%	13.5%	10.0%	9.2%	9.4%
Laser welding	3	1	4							0.0%	0.0%	0.0%			
Others	18	136	154	14	7	21	-22.2%	-94.9%	-86.4%	0.2%	0.3%	0.3%	0.1%	0.0%	0.0%
Welding Units	2,318	10,867	13,185	2,225	8,552	10,777	-4.0%	-21.3%	-18.3%	22.1%	23.7%	23.4%	19.3%	21.3%	20.9%
(million yen)	(11,115)	(26,679)	(37,793)	(10,026)	(21,727)	(31,753)	(-9.8%)	(-18.6%)	(-16.0%)	(23.0%)	(18.1%)	(19.3%)	(20.9%)	(15.7%)	(17.1%)
Painting	140	373	513	206	695	901	47.1%	86.3%	75.6%	1.3%	0.8%	0.9%	1.8%	1.7%	1.7%
Loading/unloading	545	1,860	2,405	647	1,635	2,282	18.7%	-12.1%	-5.1%	5.2%	4.1%	4.3%	5.6%	4.1%	4.4%
Mechanical cutting	1		1	2		2	100.0%		100.0%	0.0%		0.0%	0.0%		0.0%
Grinding/deburring	92	373	465	86	8	94	-6.5%	-97.9%	-79.8%	0.9%	0.8%	0.8%	0.7%	0.0%	0.2%
Others	7	3	10	6	8	14	-14.3%	166.7%	40.0%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%
Machining Units	645	2,236	2,881	741	1,651	2,392	14.9%	-26.2%	-17.0%	6.1%	4.9%	5.1%	6.4%	4.1%	4.6%
(million yen)	(1,981)	(3,718)	(5,698)	(1,821)	(2,326)	(4,147)	(-8.0%)	(-37.4%)	(-27.2%)	(4.1%)	(2.5%)	(2.9%)	(3.8%)	(1.7%)	(2.2%)
Surface Mount Technology	518	3,759	4,277	387	3,599	3,986	-25.3%	-4.3%	-6.8%	4.9%	8.2%	7.6%	3.4%	9.0%	7.7%
General Assembly	1,605	10,113	11,718	2,008	8,921	10,929	25.1%	-11.8%	-6.7%	15.3%	22.1%	20.8%	17.5%	22.2%	21.2%
Other Assembly	21	480	501	44	142	186	109.5%	-70.4%	-62.9%	0.2%	1.0%	0.9%	0.4%	0.4%	0.4%
Bonding															
Soldering	2		2	1		1				0.0%		0.0%	0.0%		0.0%
Sealing/glueing	17	289	306	18	83	101	5.9%	-71.3%	-67.0%	0.2%	0.6%	0.5%	0.2%	0.2%	0.2%
Screwing		10	10	23		23			130.0%		0.0%	0.0%	0.2%		0.0%
Others	2	181	183	2	59	61	-67.4%	-66.7%	-66.7%	0.0%	0.4%	0.3%	0.0%	0.1%	0.1%
Assembly Units	1,626	10,593	12,219	2,052	9,063	11,115	26.2%	-14.4%	-9.0%	15.5%	23.2%	21.7%	17.8%	22.6%	21.5%
(million yen)	(3,344)	(10,545)	(13,889)	(4,027)	(9,697)	(13,723)	(20.4%)	(-8.0%)	(-1.2%)	(6.9%)	(7.1%)	(7.1%)	(8.4%)	(7.0%)	(7.4%)
Palletizing/depalletizing	271	294	565	242	617	859	-10.7%	109.9%	52.0%	2.6%	0.6%	1.0%	2.1%	1.5%	1.7%
Material handling	2,150	12,643	14,793	2,282	10,946	13,228	6.1%	-13.4%	-10.6%	20.5%	27.6%	26.3%	19.8%	27.3%	25.6%
FPD	32	230	262	50	129	179	56.3%	-43.9%	-31.7%	0.3%	0.5%	0.5%	0.4%	0.3%	0.3%
Semiconductor	1,340	2,466	3,806	1,530	2,112	3,642	14.2%	-14.4%	-4.3%	12.8%	5.4%	6.8%	13.3%	5.3%	7.1%
Others		2	2	2		2					0.0%	0.0%	0.0%		0.0%
Cleanroom Units	1,372	2,698	4,070	1,582	2,241	3,823	15.3%	-16.9%	-6.1%	13.1%	5.9%	7.2%	13.7%	5.6%	7.4%
(million yen)	(5,609)	(8,442)	(14,051)	(5,558)	(6,081)	(11,638)	(-0.9%)	(-28.0%)	(-17.2%)	(11.6%)	(5.7%)	(7.2%)	(11.6%)	(4.4%)	(6.3%)
Other applications	629	797	1,426	989	1,466	2,455	57.2%	83.9%	72.2%	6.0%	1.7%	2.5%	8.6%	3.7%	4.8%
Total Units	10,501	45,757	56,258	11,506	40,113	51,619	9.6%	-12.3%	-8.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
(million yen)	(48,325)	(147,629)	(195,954)	(48,010)	(138,077)	(186,086)	(-0.7%)	(-6.5%)	(-5.0%)	(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 2018 Results
Shipments of Manipulators and Robots by Industries
[JARA Member Companies]

Number of units, () : million yen

Industries	2017 Jul. - Sep.	2018 Jul. - Sep.	Change from 2017	Percentage distribution	
				2017	2018
Metal products	741	962	29.8%	7.1%	8.4%
Construction and mining machinery	24	31	29.2%	0.2%	0.3%
Metalworking machinery	120	193	60.8%	1.1%	1.7%
Other machinery and equipment	789	706	-10.5%	7.5%	6.1%
Machinery and equipment Units	933	930	-0.3%	8.9%	8.1%
(million yen)	(3,537)	(4,003)	(13.2%)	(7.3%)	(8.3%)
Electronic computers	8			0.1%	
Consumer electrical machinery	431	336	-22.0%	4.1%	2.9%
Industrial electrical machinery	185	217	17.3%	1.8%	1.9%
Communication equipment	267	233	-12.7%	2.5%	2.0%
Video and audio equipment		11			0.1%
Electronic components/devices/circuits	1,193	1,437	20.5%	11.4%	12.5%
Other electrical machinery	787	888	12.8%	7.5%	7.7%
Electrical machinery Units	2,871	3,122	8.7%	27.3%	27.1%
(million yen)	(15,501)	(14,142)	(-8.8%)	(32.1%)	(29.5%)
Precision instruments	190	190		1.8%	1.7%
Motor vehicles	1,418	1,160	-18.2%	13.5%	10.1%
Auto parts	2,471	2,820	14.1%	23.5%	24.5%
Motor vehicles and auto parts Units	3,889	3,980	2.3%	37.0%	34.6%
(million yen)	(16,208)	(16,010)	(-1.2%)	(33.5%)	(33.3%)
Other transport equipment	61	66	8.2%	0.6%	0.6%
Food products, beverages, and tobacco products	240	233	-2.9%	2.3%	2.0%
Chemical products	75	125	66.7%	0.7%	1.1%
Plastic products	300	270	-10.0%	2.9%	2.3%
Other industries	1,146	1,569	36.9%	10.9%	13.6%
Non-manufacturing industry	55	59	7.3%	0.5%	0.5%
Total domestic shipments Units	10,501	11,506	9.6%	100.0%	100.0%
(million yen)	(48,325)	(48,010)	(-0.7%)	(18.7%)	(22.3%)
Export Units	45,757	40,113	-12.3%	(81.3%)	(77.7%)
(million yen)	(147,629)	(138,077)	(-6.5%)	(75.3%)	(74.2%)
Grand total Units	56,258	51,619	-8.2%	(100.0%)	(100.0%)
(million yen)	(195,954)	(186,086)	(-5.0%)	(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.