

January - March 2020 Results
Production and Shipments of Manipulators and Robots by Applications
[JARA Member Companies]

Number of units, () : million yen

	January - March 2019	January - March 2020	Change from 2019
Orders	41,075 (156,017)	43,105 (171,803)	4.9% (10.1%)
Production	42,185 (162,502)	45,587 (169,847)	8.1% (4.5%)

Shipments Applications	January - March 2019			January - March 2020			Change from 2019			January - March 2019 (percentage distribution)			January - March 2020 (percentage distribution)		
	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total
Plastic moulding	1,071	1,142	2,213	698	816	1,514	-34.8%	-28.5%	-31.6%	8.1%	3.8%	5.1%	6.5%	2.2%	3.2%
Arc welding	1,356	3,885	5,241	960	3,838	4,798	-29.2%	-1.2%	-8.5%	10.2%	13.0%	12.2%	9.0%	10.6%	10.2%
Spot welding	1,425	2,915	4,340	811	3,283	4,094	-43.1%	12.6%	-5.7%	10.8%	9.8%	10.1%	7.6%	9.0%	8.7%
Laser welding	1		1	14	60	74	1300.0%		7300.0%	0.0%		0.0%	0.1%	0.2%	0.2%
Others	22	2	24	10	17	27	-54.5%	750.0%	12.5%	0.2%	0.0%	0.1%	0.1%	0.0%	0.1%
Welding Units	2,804	6,802	9,606	1,795	7,198	8,993	-36.0%	5.8%	-6.4%	21.2%	22.8%	22.3%	16.8%	19.8%	19.1%
(million yen)	(12,018)	(18,027)	(30,045)	(10,078)	(15,448)	(25,526)	(-16.1%)	(-14.3%)	(-15.0%)	(20.6%)	(16.5%)	(17.9%)	(19.1%)	(13.0%)	(14.8%)
Painting	284	392	676	229	272	501	-19.4%	-30.6%	-25.9%	2.1%	1.3%	1.6%	2.1%	0.7%	1.1%
Loading/unloading	670	1,044	1,714	482	2,047	2,529	-28.1%	96.1%	47.5%	5.1%	3.5%	4.0%	4.5%	5.6%	5.4%
Mechanical cutting	2		2	5	7	12	150.0%		500.0%	0.0%		0.0%	0.0%	0.0%	0.0%
Grinding/deburring	67	22	89	22	100	122	-67.2%	354.5%	37.1%	0.5%	0.1%	0.2%	0.2%	0.3%	0.3%
Others	13		13	13	15	28			115.4%	0.1%		0.0%	0.1%	0.0%	0.1%
Machining Units	752	1,066	1,818	522	2,169	2,691	-30.6%	103.5%	48.0%	5.7%	3.6%	4.2%	4.9%	6.0%	5.7%
(million yen)	(1,975)	(1,696)	(3,671)	(1,912)	(4,410)	(6,323)	(-3.2%)	(160.1%)	(72.3%)	(3.4%)	(1.6%)	(2.2%)	(3.6%)	(3.7%)	(3.7%)
Surface Mount Technology	353	2,388	2,741	251	2,780	3,031	-28.9%	16.4%	10.6%	2.7%	8.0%	6.4%	2.4%	7.7%	6.4%
General Assembly	1,992	5,443	7,435	1,666	6,932	8,598	-16.4%	27.4%	15.6%	15.1%	18.2%	17.3%	15.6%	19.1%	18.3%
Other Assembly	38	139	177	186	258	444	389.5%	85.6%	150.8%	0.3%	0.5%	0.4%	1.7%	0.7%	0.9%
Bonding							-100.0%		-100.0%	0.0%		0.0%			
Soldering	1		1												
Sealing/glueing	23	90	113	50	204	254	117.4%	126.7%	124.8%	0.2%	0.3%	0.3%	0.5%	0.6%	0.5%
Screwing	3		3	2		2	-33.3%		-33.3%	0.0%		0.0%	0.0%		0.0%
Others	11	49	60	134	54	188	1118.2%	10.2%	213.3%	0.1%	0.2%	0.1%	1.3%	0.1%	0.4%
Assembly Units	2,030	5,582	7,612	1,852	7,190	9,042	-8.8%	28.8%	18.8%	15.3%	18.7%	17.7%	17.3%	19.8%	19.2%
(million yen)	(3,722)	(6,844)	(10,566)	(5,393)	(8,155)	(13,548)	(44.9%)	(19.2%)	(28.2%)	(6.4%)	(6.3%)	(6.3%)	(10.2%)	(6.8%)	(7.9%)
Palletizing/depalletizing	322	404	726	527	599	1,126	63.7%	48.3%	55.1%	2.4%	1.4%	1.7%	4.9%	1.6%	2.4%
Material handling	2,916	9,358	12,274	2,377	8,358	10,735	-18.5%	-10.7%	-12.5%	22.0%	31.3%	28.5%	22.3%	23.0%	22.8%
FPD	26	111	137	35	63	98	34.6%	-43.2%	-28.5%	0.2%	0.4%	0.3%	0.3%	0.2%	0.2%
Semiconductor	1,743	1,305	3,048	1,616	2,773	4,389	-7.3%	112.5%	44.0%	13.2%	4.4%	7.1%	15.1%	7.6%	9.3%
Others		4	4		42	42			950.0%		0.0%	0.0%		0.1%	0.1%
Cleanroom Units	1,769	1,420	3,189	1,651	2,878	4,529	-6.7%	102.7%	42.0%	13.4%	4.8%	7.4%	15.5%	7.9%	9.6%
(million yen)	(6,101)	(4,547)	(10,648)	(6,711)	(7,007)	(13,718)	(10.0%)	(54.1%)	(28.8%)	(10.5%)	(4.2%)	(6.4%)	(12.7%)	(5.9%)	(8.0%)
Other applications	792	916	1,708	617	1,038	1,655	-22.1%	13.3%	-3.1%	6.0%	3.1%	4.0%	5.8%	2.9%	3.5%
Unspecified	140	386	526	158	3,035	3,193	12.9%	686.3%	507.0%	1.1%	1.3%	1.2%	1.5%	8.4%	6.8%
Total Units	13,233	29,856	43,089	10,677	36,333	47,010	-19.3%	21.7%	9.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
(million yen)	(58,239)	(109,367)	(167,606)	(52,776)	(119,153)	(171,929)	(-9.4%)	(8.9%)	(2.6%)	(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.

January - March 2020 Results
Shipments of Manipulators and Robots by Industries
[JARA Member Companies]

Number of units, () : million yen

Industries	2019 Jan. - Mar.	2020 Jan. - Mar.	Change from 2019	Percentage distribution	
				2019	2020
Metal products	901	694	-23.0%	6.8%	6.5%
Construction and mining machinery	28	34	21.4%	0.2%	0.3%
Metalworking machinery	239	185	-22.6%	1.8%	1.7%
Other machinery and equipment	745	821	10.2%	5.6%	7.7%
Machinery and equipment Units	1,012	1,040	2.8%	7.6%	9.7%
(million yen)	(4,178)	(4,761)	(14.0%)	(7.2%)	(9.0%)
Electronic computers	4	1	-75.0%	0.0%	0.0%
Consumer electrical machinery	454	345	-24.0%	3.4%	3.2%
Industrial electrical machinery	294	131	-55.4%	2.2%	1.2%
Communication equipment	212	280	32.1%	1.6%	2.6%
Video and audio equipment	17	3	-82.4%	0.1%	0.0%
Electronic components/devices/circuits	1,715	1,429	-16.7%	13.0%	13.4%
Other electrical machinery	904	688	-23.9%	6.8%	6.4%
Electrical machinery Units	3,600	2,877	-20.1%	27.2%	26.9%
(million yen)	(16,425)	(14,322)	(-12.8%)	(28.2%)	(27.1%)
Precision instruments	195	127	-34.9%	1.5%	1.2%
Motor vehicles	1,459	1,419	-2.7%	11.0%	13.3%
Auto parts	3,370	2,227	-33.9%	25.5%	20.9%
Motor vehicles and auto parts Units	4,829	3,646	-24.5%	36.5%	34.1%
(million yen)	(20,478)	(18,073)	(-11.7%)	(35.2%)	(34.2%)
Other transport equipment	91	40	-56.0%	0.7%	0.4%
Food products, beverages, and tobacco products	345	289	-16.2%	2.6%	2.7%
Chemical products	97	98	1.0%	0.7%	0.9%
Plastic products	426	250	-41.3%	3.2%	2.3%
Other industries	715	866	21.1%	5.4%	8.1%
Non-manufacturing industry	139	119	-14.4%	1.1%	1.1%
Unspecified	883	631	-28.5%	6.7%	5.9%
Total domestic shipments Units	13,233	10,677	-19.3%	100.0%	100.0%
(million yen)	(58,239)	(52,776)	(-9.4%)	(30.7%)	(22.7%)
Export Units	29,856	36,333	21.7%	(69.3%)	(77.3%)
(million yen)	(109,367)	(119,153)	(8.9%)	(65.3%)	(69.3%)
Grand total Units	43,089	47,010	9.1%	(100.0%)	(100.0%)
(million yen)	(167,606)	(171,929)	(2.6%)	(100.0%)	(100.0%)

Note)

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