## January - March 2022 Results Production and Shipments of Manipulators and Robots by Applications [JARA Member Companies]

Number of units, ( ): million yen

	January - March 2021	January - March 2022	Change from 2021		
Orders	66,905	70,772	5.8%		
	(245,994)	(256,677)	(4.3%)		
Production	59,081	63,189	7.0%		
	(207,421)	(216,188)	(4.2%)		

Shipments January - March 2021			2021	January - March 2022			Change from 2021			January - March 2021			January - March 2022		
January - Ivial Cit 2021		2021	, , , , , , , , , , , , , , , , , , , ,		(percentage distribution)					(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	758	992	1,750	771	873	1,644	1.7%	-12.0%	-6.1%	7.4%	2.0%	2.9%	6.7%	1.7%	2.6%
Arc welding	899	6,231	7,130	1,084	5,855	6,939	20.6%	-6.0%	-2.7%	8.8%	12.3%	11.8%	9.4%	11.2%	10.9%
Spot welding	796	4,088	4,884	903	5,246	6,149	13.4%	28.3%	25.9%	7.8%	8.1%	8.1%	7.8%	10.0%	9.6%
Laser welding	2	72	74	5	118	123	150.0%	63.9%	66.2%	0.0%	0.1%	0.1%	0.0%	0.2%	0.2%
Others	19	45	64	10	169	179	-47.4%	275.6%	179.7%	0.2%	0.1%	0.1%	0.1%	0.3%	0.3%
Welding Units	1,716	10,436	12,152	2,002	11,388	13,390	16.7%	9.1%	10.2%	16.9%	20.7%	20.0%	17.3%	21.8%	21.0%
(million yen)	(9,218)	(21,774)	(30,992)	(8,560)	(26,045)	(34,606)	(-7.1%)	(19.6%)	(11.7%)	(18.3%)	(13.3%)	(14.5%)	(15.6%)	(15.8%)	(15.7%)
Painting	294	304	598	215	483	698	-26.9%	58.9%	16.7%	2.9%	0.6%	1.0%	1.9%	0.9%	1.1%
Loading/unloading	392	1,310	1,702	560	3,670	4,230	42.9%	180.2%	148.5%	3.9%	2.6%	2.8%	4.8%	7.0%	6.6%
Mechanical cutting	6		6	5		5	-16.7%		-16.7%	0.1%		0.0%	0.0%		0.0%
Grinding/deburring	42	342	384	42	198	240		-42.1%	-37.5%	0.4%	0.7%	0.6%	0.4%	0.4%	0.4%
Others	6	5	11	17	11	28	183.3%	120.0%	154.5%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%
Machining Units	446	1,657	2,103	624	3,879	4,503	39.9%	134.1%	114.1%	4.4%	3.3%	3.5%	5.4%	7.4%	7.0%
(million yen)	(1,391)	(2,440)	(3,831)	(1,904)	(6,683)	(8,587)	(36.9%)	(173.9%)	(124.1%)	(2.8%)	(1.5%)	(1.8%)	(3.5%)	(4.0%)	(3.9%)
Surface Mount Technology	174	5,057	5,231	256	3,662	3,918	47.1%	-27.6%	-25.1%	1.7%	10.0%	8.6%	2.2%	7.0%	6.1%
General Assembly	1,806	8,274	10,080	1,662	8,881	10,543	-8.0%	7.3%	4.6%	17.7%	16.4%	16.6%	14.4%	17.0%	16.5%
Other Assembly	190	217	407	208	172	380	9.5%	-20.7%	-6.6%	1.9%	0.4%	0.7%	1.8%	0.3%	0.6%
Bonding	1		1	2		2	100.0%		100.0%	0.0%		0.0%	0.0%		0.0%
Soldering	2		2				-100.0%		-100.0%	0.0%		0.0%			
Sealing/glueing	71	173	244	83	164	247	16.9%	-5.2%	1.2%	0.7%	0.3%	0.4%	0.7%	0.3%	0.4%
Screwing	2		2	3		3	50.0%		50.0%	0.0%		0.0%	0.0%		0.0%
Others	114	44	158	120	8	128	5.3%	-81.8%	-19.0%	1.1%	0.1%	0.3%	1.0%	0.0%	0.2%
<b>Assembly</b> Units	1,996	8,491	10,487	1,870	9,053	10,923	-6.3%	6.6%	4.2%	19.6%	16.8%	17.3%	16.1%	17.3%	17.1%
(million yen)	(5,809)	(9,898)	(15,706)	(5,779)	(8,717)	(14,496)	(-0.5%)	(-11.9%)	(-7.7%)	(11.5%)	(6.0%)	(7.3%)	(10.5%)	(5.3%)	(6.6%)
Palletizing/depalletizing	499	665	1,164	447	1,655	2,102	-10.4%	148.9%	80.6%	4.9%	1.3%	1.9%	3.9%	3.2%	3.3%
Material handling	1,989	16,911	18,900	2,115	11,490	13,605	6.3%	-32.1%	-28.0%	19.5%	33.5%	31.2%	18.3%	22.0%	21.3%
FPD	33	59	92	23	79	102	-30.3%	33.9%	10.9%	0.3%	0.1%	0.2%	0.2%	0.2%	0.2%
Semiconductor	1,706	2,804	4,510	2,434	3,924	6,358	42.7%	39.9%	41.0%	16.8%	5.6%	7.4%	21.0%	7.5%	10.0%
Others	3	109	112		209	209	-100.0%	91.7%	86.6%	0.0%	0.2%	0.2%		0.4%	0.3%
Cleanroom Units	1,742	2,972	4,714	2,457	4,212	6,669	41.0%	41.7%	41.5%	17.1%	5.9%	7.8%	21.2%	8.1%	10.4%
(million yen)	(6,628)	(6,949)	(13,576)	(8,116)	(9,904)	(18,019)	(22.5%)	(42.5%)	(32.7%)	(13.2%)	(4.2%)	(6.3%)	(14.8%)	(6.0%)	(8.2%)
Other applications	393	1,165	1,558	576	2,057	2,633	46.6%	76.6%	69.0%	3.9%	2.3%	2.6%	5.0%	3.9%	4.1%
Unspecified	168	1,840	2,008	247	3,554	3,801	47.0%	93.2%	89.3%	1.7%	3.6%	3.3%	2.1%	6.8%	5.9%
Total Units	10,175	50,490	60,665	11,580	52,306	63,886	13.8%	3.6%	5.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
(million yen)	(50,340)	(164,036)	(214,376)	(54,807)	(165,110)	(219,917)	(8.9%)	(0.7%)	(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 2022 Results Shipments of Manipulators and Robots by Industries [JARA Member Companies]

Number of units, (): million yen

	2021	2022	Change	Percentage distribution			
Industries	Jan Mar.	Jan Mar.	from 2021	2021	2022		
Metal products	561	781	39.2%	5.5%	6.7%		
Construction and mining machinery	44	14	-68.2%	0.4%	0.1%		
Metalworking machinery	133	180	35.3%	1.3%	1.6%		
Other machinery and equipment	659	954	44.8%	6.5%	8.2%		
Machinery and equipment Units	836	1,148	37.3%	8.2%	9.9%		
(million yen)	(3,727)	(4,564)	(22.4%)	(7.4%)	(8.3%)		
Electronic computers	42	7	-83.3%	0.4%	0.1%		
Consumer electrical machinery	286	352	23.1%	2.8%	3.0%		
Industrial electrical machinery	207	268	29.5%	2.0%	2.3%		
Communication equipment	269	254	-5.6%	2.6%	2.2%		
Video and audio equipment	10	9	-10.0%	0.1%	0.1%		
Electronic components/devices/circuits	1,397	1,882	34.7%	13.7%	16.3%		
Other electrical machinery	813	599	-26.3%	8.0%	5.2%		
Electrical machinery Units	3,024	3,371	11.5%	29.7%	29.1%		
(million yen)	(13,335)	(15,223)	(14.2%)	(26.5%)	(27.8%)		
Precision instruments	97	41	-57.7%	1.0%	0.4%		
Motor vehicles	1,271	1,269	-0.2%	12.5%	11.0%		
Auto parts	2,207	2,281	3.4%	21.7%	19.7%		
Motor vehicles and auto parts Units	3,478	3,550	2.1%	34.2%	30.7%		
(million yen)	(17,734)	(16,296)	(-8.1%)	(35.2%)	(29.7%)		
Other transport equpment	47	168	257.4%	0.5%	1.5%		
Food products, beverages, and tobacco products	186	230	23.7%	1.8%	2.0%		
Chemical products	103	84	-18.4%	1.0%	0.7%		
Plastic products	319	308	-3.4%	3.1%	2.7%		
Other industries	730	936	28.2%	7.2%	8.1%		
Non-manufacturing industry	92	130	41.3%	0.9%	1.1%		
Unspecified	702	833	18.7%	6.9%	7.2%		
Total domestic shipments Units	10,175	11,580	13.8%	100.0%	100.0%		
				16.8%	18.1%		
(million yen)	(50,340)	(54,807)	(8.9%)	(100.0%)	(100.0%)		
				(23.5%)	(24.9%)		
<b>Export</b> Units	50,490	52,306	3.6%	83.2%	81.9%		
(million yen)	(164,036)	(165,110)	(0.7%)	(76.5%)	(75.1%)		
Grand total Units	60,665	63,886	5.3%	100.0%	100.0%		
(million yen)	(214,376)	(219,917)	(2.6%)	(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.