October - December 2021 Results Production and Shipments of Manipulators and Robots by Applications [JARA Member Companies]

			Number of units, (): million yen
	October - December 2020	October - December 2021	Change from 2020
Orders	59,824	68,243	14.1%
Orders	(222,287)	(231,004)	(3.9%)
Production	48,661	61,405	26.2%
	(173,714)	(211,040)	(21.5%)

Shipments	October - December 2020 October - December 2021					Change from 2020			October - December 2020			October - December 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	586	870	1,456	839	1,055	1,894	43.2%	21.3%	30.1%	7.0%	2.2%	3.1%	8.1%	2.1%	3.1%
Arc welding	699	4,622	5,321	878	4,351	5,229	25.6%	-5.9%	-1.7%	8.3%	11.9%	11.2%	8.4%	8.5%	8.5%
Spot welding	687	2,691	3,378	738	4,757	5,495	7.4%	76.8%	62.7%	8.2%	6.9%	7.1%	7.1%	9.3%	8.9%
Laser welding	1	22	23	1	199	200		804.5%	769.6%	0.0%	0.1%	0.0%	0.0%	0.4%	0.3%
Others	11	26	37	12	13	25	9.1%	-50.0%	-32.4%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%
Welding Units	1,398	7,361	8,759	1,629	9,320	10,949	16.5%	26.6%	25.0%	16.6%	18.9%	18.5%	15.6%	18.3%	17.8%
(million yen)	(8,204)	(14,982)	(23,186)	(9,016)	(20,207)	(29,223)	(9.9%)	(34.9%)	(26.0%)	(20.0%)	(11.7%)	(13.7%)	(18.2%)	(12.2%)	(13.6%)
Painting	110	359	469	121	303	424	10.0%	-15.6%	-9.6%	1.3%	0.9%	1.0%	1.2%	0.6%	0.7%
Loading/unloading	340	974	1,314	505	1,754	2,259	48.5%	80.1%	71.9%	4.0%	2.5%	2.8%	4.9%	3.4%	3.7%
Mechanical cutting	8		8	4		4	-50.0%		-50.0%	0.1%		0.0%	0.0%		0.0%
Grinding/deburring	55	77	132	44	117	161	-20.0%	51.9%	22.0%	0.7%	0.2%	0.3%	0.4%	0.2%	0.3%
Others	7	12	19	27	3	30	285.7%	-75.0%	57.9%	0.1%	0.0%	0.0%	0.3%	0.0%	0.0%
Machining Units	410	1,063	1,473	580	1,874	2,454	41.5%	76.3%	66.6%	4.9%	2.7%	3.1%	5.6%	3.7%	4.0%
(million yen)	(1,319)	(1,671)	(2,989)	(1,776)	(2,899)	(4,674)	(34.7%)	(73.5%)	(56.4%)	(3.2%)	(1.3%)	(1.8%)	(3.6%)	(1.7%)	(2.2%)
Surface Mount Technology	228	4,257	4,485	285	3,875	4,160	25.0%	-9.0%	-7.2%	2.7%	10.9%	9.5%	2.7%	7.6%	6.8%
General Assembly	1,575	6,325	7,900	1,758	8,175	9,933	11.6%	29.2%	25.7%	18.7%	16.2%	16.7%	16.9%	16.0%	16.2%
Other Assembly	148	58	206	136	125	261	-8.1%	115.5%	26.7%	1.8%	0.1%	0.4%	1.3%	0.2%	0.4%
Bonding															
Soldering				3		3							0.0%		0.0%
Sealing/glueing	38	43	81	22	116	138	-42.1%	169.8%	70.4%	0.5%	0.1%	0.2%	0.2%	0.2%	0.2%
Screwing	2	2	4	10	1	11	400.0%	-50.0%	175.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Others	108	13	121	101	8	109	-6.5%	-38.5%	-9.9%	1.3%	0.0%	0.3%	1.0%	0.0%	0.2%
Assembly Units	1,723	6,383	8,106	1,894	8,300	10,194	9.9%	30.0%	25.8%	20.5%	16.4%	17.1%	18.2%	16.3%	16.6%
(million yen)	(4,856)	(6,323)	(11,180)	(5,655)	(8,386)	(14,041)	(16.4%)	(32.6%)	(25.6%)	(11.8%)	(4.9%)	(6.6%)	(11.4%)	(5.0%)	(6.5%)
Palletizing/depalletizing	407	610	1,017	416	1,079	1,495	2.2%	76.9%	47.0%	4.8%	1.6%	2.1%	4.0%	2.1%	2.4%
Material handling	1,611	12,681	14,292	1,921	18,002	19,923	19.2%	42.0%	39.4%	19.1%	32.6%	30.2%	18.5%	35.3%	32.4%
FPD	35	83	118	22	57	79	-37.1%	-31.3%	-33.1%	0.4%	0.2%	0.2%	0.2%	0.1%	0.1%
Semiconductor	1,364	2,222	3,586	2,016	3,910	5,926	47.8%	76.0%	65.3%	16.2%	5.7%	7.6%	19.4%	7.7%	9.7%
Others		128	128		140	140		9.4%	9.4%		0.3%	0.3%		0.3%	0.2%
Cleanroom Units	1,399	2,433	3,832	2,038	4,107	6,145	45.7%	68.8%	60.4%	16.6%	6.2%	8.1%	19.6%	8.1%	10.0%
(million yen)	(5,067)	(5,539)	(10,606)	(6,836)	(9,173)	(16,010)	(34.9%)	(65.6%)	(50.9%)	(12.4%)	(4.3%)	(6.3%)	(13.8%)	(5.5%)	(7.4%)
Other applications	391	819	1,210	504	904	1,408	28.9%	10.4%	16.4%	4.6%	2.1%	2.6%	4.8%	1.8%	2.3%
Unspecified	153	2,110	2,263	183	2,175	2,358	19.6%	3.1%	4.2%	1.8%	5.4%	4.8%	1.8%	4.3%	3.8%
Total Units	8,416	38,946	47,362	10,410	50,994	61,404	23.7%	30.9%	29.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
(million yen)	(41,024)	(128,302)	(169,326)	(49,477)	(166,095)	(215,572)	(20.6%)	(29.5%)	(27.3%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)
Note)															

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.

October - December 2021 Results Shipments of Manipulators and Robots by Industries [JARA Member Companies]

				Nun	nber of units, ()	,	
Industries	2020	2021	Change	Percentage distribution			
industries	Oct Dec.	Oct Dec.	from 2020	2020	2021		
Metal products	439	724	64.9%	5.2%	7.0%		
Construction and mining machinery		39	28	-28.2%	0.5%	0.3%	
Metalworking machinery		105	185	76.2%	1.2%	1.8%	
Other machinery and equipment	521	820	57.4%	6.2%	7.9%		
Machinery and equipment	Units	665	1,033	55.3%	7.9%	9.9%	
(million	yen)	(2,984)	(3,818)	(27.9%)	(7.3%)	(7.7%)	
Electronic computers		37	77	108.1%	0.4%	0.7%	
Consumer electrical machinery		181	205	13.3%	2.2%	2.0%	
Industrial electrical machinery		180	334	85.6%	2.1%	3.2%	
Communication equipment		266	303	13.9%	3.2%	2.9%	
Video and audio equipment		6	11	83.3%	0.1%	0.1%	
Electronic components/devices/circuit	1,175	1,589	35.2%	14.0%	15.3%		
Other electrical machinery		518	730	40.9%	6.2%	7.0%	
Electrical machinery	Units	2,363	3,249	37.5%	28.1%	31.2%	
(million	yen)	(11,024)	(15,611)	(41.6%)	(26.9%)	(31.6%)	
Precision instruments	78	84	7.7%	0.9%	0.8%		
Motor vehicles		1,206	656	-45.6%	14.3%	6.3%	
Auto parts		1,630	2,369	45.3%	19.4%	22.8%	
Motor vehicles and auto parts	Units	2,836	3,025	6.7%	33.7%	29.1%	
(million	yen)	(13,620)	(14,124)	(3.7%)	(33.2%)	(28.5%)	
Other transport equpment		42	95	126.2%	0.5%	0.9%	
Food products, beverages, and tobacco produ	cts	178	272	52.8%	2.1%	2.6%	
Chemical products		96	82	-14.6%	1.1%	0.8%	
Plastic products		318	340	6.9%	3.8%	3.3%	
Other industries		634	692	9.1%	7.5%	6.6%	
Non-manufacturing industry		92	102	10.9%	1.1%	1.0%	
Unspecified		675	712	5.5%	8.0%	6.8%	
Total domestic shipments	Units	8,416	10,410	23.7%	100.0%	100.0%	
					(17.8%)	(17.0%)	
(million	yen)	(41,024)	(49,477)	(20.6%)	(100.0%)	(100.0%)	
					(24.2%)	(23.0%)	
Export	Units	38,946	50,994	30.9%	(82.2%)	(83.0%)	
(million	yen)	(128,302)	(166,095)	(29.5%)	(75.8%)	(77.0%)	
Grand total	Units	47,362	61,404	29.6%	(100.0%)	(100.0%)	
(million	yen)	(169,326)	(215,572)	(27.3%)	(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.