

January - December 2013 Results
Production and Shipments of Manipulators and Robots by Application Areas
[JARA Member Companies]

Number of units, (): million yen

Production	January - December 2012		January - December 2013		Change from 2012	
		100,173 (421,161)		99,225 (397,030)		-0.9% (-5.7%)

Shipments	January - December 2012			January - December 2013			Change from 2012			January - December 2012 (percentage distribution)			January - December 2013 (percentage distribution)		
	Application area	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports
Plastic moulding	2,214	5,144	7,358	2,077	4,713	6,790	-6.2%	-8.4%	-7.7%	8.1%	6.9%	7.2%	8.3%	6.2%	6.7%
Arc welding	3,211	15,094	18,305	3,015	14,268	17,283	-6.1%	-5.5%	-5.6%	11.7%	20.2%	17.9%	12.1%	18.8%	17.1%
Spot welding	3,233	12,052	15,285	2,514	12,262	14,776	-22.2%	+1.7%	-3.3%	11.8%	16.1%	15.0%	10.1%	16.1%	14.6%
Laser welding	57	9	66	42	4	46									
Others	4	5	9	29	7	36									
Welding Units	6,505	27,160	33,665	5,600	26,541	32,141	-13.9%	-2.3%	-4.5%	23.7%	36.3%	32.9%	22.5%	35.0%	31.9%
(million yen)	(29,489)	(69,031)	(98,520)	(25,581)	(67,686)	(93,268)	(-13.3%)	(-1.9%)	(-5.3%)	(23.1%)	(22.9%)	(23.0%)	(22.3%)	(23.5%)	(23.2%)
Painting	549	1,142	1,691	325	1,252	1,577	-40.8%	+9.6%	-6.7%	2.0%	1.5%	1.7%	1.3%	1.6%	1.6%
Loading/unloading	1,208	2,769	3,977	1,103	3,909	5,012	-8.7%	+41.2%	+26.0%	4.4%	3.7%	3.9%	4.4%	5.1%	5.0%
Mechanical cutting	3	4	7	4	28	32									
Grinding/deburring	153	108	261	124	26	150									
Others	63	22	85	41	10	51									
Machining Units	1,427	2,903	4,330	1,272	3,973	5,245	-10.9%	+36.9%	+21.1%	5.2%	3.9%	4.2%	5.1%	5.2%	5.2%
(million yen)	(5,588)	(6,516)	(12,104)	(3,305)	(6,597)	(9,902)	(-40.9%)	(+1.2%)	(-18.2%)	(4.4%)	(2.2%)	(2.8%)	(2.9%)	(2.3%)	(2.5%)
Surface Mount Technology	1,116	8,130	9,246	914	7,258	8,172	-18.1%	-10.7%	-11.6%	4.1%	10.9%	9.0%	3.7%	9.6%	8.1%
General Assembly	5,013	9,114	14,127	4,216	7,872	12,088	-15.9%	-13.6%	-14.4%	18.3%	12.2%	13.8%	16.9%	10.4%	12.0%
Other Assembly	1,191	430	1,621	1,743	453	2,196	+46.3%	+5.3%	+35.5%	4.3%	0.6%	1.6%	7.0%	0.6%	2.2%
Bonding	1,071		1,071	1,648	6	1,654									
Soldering	1	5	6	1		1									
Sealing/glueing	93	186	279	46	234	280									
Screwing	1		1	9		9									
Others	25	239	264	39	213	252									
Assembly Units	6,204	9,544	15,748	5,959	8,325	14,284	-3.9%	-12.8%	-9.3%	22.6%	12.8%	15.4%	23.9%	11.0%	14.2%
(million yen)	(28,629)	(141,216)	(169,845)	(24,421)	(117,265)	(141,686)	(-14.7%)	(-17.0%)	(-16.6%)	(22.4%)	(46.9%)	(39.6%)	(21.3%)	(40.8%)	(35.2%)
Palletizing/depalletizing	838	1,805	2,643	893	1,844	2,737	+6.6%	+2.2%	+3.6%	3.1%	2.4%	2.6%	3.6%	2.4%	2.7%
Material handling	4,078	13,606	17,684	3,658	15,231	18,889	-10.3%	+11.9%	+6.8%	14.8%	18.2%	17.3%	14.7%	20.1%	18.7%
FPD	294	564	858	302	859	1,161	+2.7%	+52.3%	+35.3%	1.1%	0.8%	0.8%	1.2%	1.1%	1.2%
Semiconductor	2,423	3,174	5,597	2,426	3,385	5,811	+0.1%	+6.6%	+3.8%	8.8%	4.2%	5.5%	9.7%	4.5%	5.8%
Others	6	1	7	2		2									
Cleanroom Units	2,723	3,739	6,462	2,730	4,244	6,974	+0.3%	+13.5%	+7.9%	9.9%	5.0%	6.3%	10.9%	5.6%	6.9%
(million yen)	(18,991)	(18,452)	(37,443)	(17,900)	(22,269)	(40,169)	(-5.7%)	(+20.7%)	(+7.3%)	(14.9%)	(6.1%)	(8.7%)	(15.6%)	(7.7%)	(10.0%)
Other applications	1,808	1,549	3,357	1,509	2,552	4,061	-16.5%	+64.8%	+21.0%	6.6%	2.1%	3.3%	6.1%	3.4%	4.0%
Total Units	27,462	74,722	102,184	24,937	75,933	100,870	-9.2%	+1.6%	-1.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
(million yen)	(127,687)	(301,341)	(429,028)	(114,676)	(287,667)	(402,343)	(-10.2%)	(-4.5%)	(-6.2%)	(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 - December 2013 Results
Shipments of Manipulators and Robots by Industrial Branches
[JARA Member Companies]

Number of units, (): million yen

Industrial branches	2012 Jan-Dec	2013 Jan-Dec	Change from 2012	Percentage distribution	
				2012	2013
Metal products	1,309	1,032	-21.2%	4.8%	4.1%
Construction Machinery	123	86	-30.1%	0.4%	0.3%
Metalworking machinery	458	502	+9.6%	1.7%	2.0%
Other machinery and equipment	419	421	+0.5%	1.5%	1.7%
Machinery and equipment	1,000	1,009	+0.9%	3.6%	4.0%
Units				(3.5%)	(3.2%)
(million yen)	(4,422)	(3,671)	(-17.0%)		
Computers	192	32	-83.3%	0.7%	0.1%
Consumer electrical machinery	426	470	+10.3%	1.6%	1.9%
Industrial electrical machinery	639	569	-11.0%	2.3%	2.3%
Info-communications equipment	825	602	-27.0%	3.0%	2.4%
VTR	2	0		0.0%	0.0%
Electronic components/devices	3,707	4,531	+22.2%	13.5%	18.2%
Other electrical machinery	2,928	2,265	-22.6%	10.7%	9.1%
Electrical machinery	8,719	8,469	-2.9%	31.7%	34.0%
Units				(34.9%)	(35.9%)
(million yen)	(44,523)	(41,114)	(-7.7%)		
Precision and optical instruments	682	407	-40.3%	2.5%	1.6%
Motor vehicles	3,453	2,363	-31.6%	12.6%	9.5%
Auto parts	5,609	5,307	-5.4%	20.4%	21.3%
Motor vehicles and auto parts	9,062	7,670	-15.4%	33.0%	30.8%
Units				(34.0%)	(29.8%)
(million yen)	(43,457)	(34,151)	(-21.4%)		
Food products, beverages, and tobacco products	540	731	+35.4%	2.0%	2.9%
Plastic products	2287	2138	-6.5%	8.3%	8.6%
Chemical products	217	271	+24.9%	0.8%	1.1%
Non-manufacturing	241	341	+41.5%	0.9%	1.4%
Other industries	3,405	2,869	-15.7%	12.4%	11.5%
Total domestic shipments	27,462	24,937	-9.2%	100.0%	100.0%
Units				26.9%	24.7%
(million yen)	(127,687)	(114,676)	(-10.2%)	(100.0%)	(100.0%)
Export	74,722	75,933	+1.6%	73.1%	75.3%
Units				(70.2%)	(71.5%)
(million yen)	(301,341)	(287,667)	(-4.5%)		
Grand total	102,184	100,870	-1.3%	100.0%	100.0%
Units				(100.0%)	(100.0%)
(million yen)	(429,028)	(402,343)	(-6.2%)		

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

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