

January - December 2011 Results
Production and Shipments of Manipulators and Robots by Application Areas (based on Value)
(JARA Member Companies)

(Unit: million yen)

Production	January - December 2010	January - December 2011	Change from 2010
	448,021	489,232	9.2%

Shipments	January - December 2010			January - December 2011			Change from 2010			January - December 2010 (percentage distribution)			January - December 2011 (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	6,446	7,971	14,417	7,943	10,164	18,107	23.2%	27.5%	25.6%	6.0%	2.3%	3.2%	6.3%	2.9%	3.8%
Arc welding	(12,300)	(24,000)	(36,301)	(14,588)	(33,326)	(47,914)	18.6%	38.9%	32.0%	11.5%	7.0%	8.1%	11.6%	9.4%	10.0%
Spot welding	(6,155)	(23,285)	(29,439)	(9,490)	(41,981)	(51,470)	54.2%	80.3%	74.8%	5.8%	6.8%	6.6%	7.6%	11.8%	10.7%
Gas welding															
Laser welding	(71)	(61)	(132)	(143)	(51)	(194)									
Others	(95)	(42)	(138)	(121)	(40)	(161)									
Welding	18,621	47,389	66,009	24,342	75,397	99,739	30.7%	59.1%	51.1%	17.5%	13.9%	14.7%	19.4%	21.2%	20.7%
Painting	3,067	4,814	7,881	2,782	10,241	13,024	-9.3%	112.8%	65.3%	2.9%	1.4%	1.8%	2.2%	2.9%	2.7%
Loading/unloading	(2,433)	(4,883)	(7,315)	(4,136)	(6,421)	(10,557)									
Mechanical cutting	(3)		(3)	(8)		(8)									
Grinding/deburring	(389)	(121)	(509)	(534)	(293)	(827)									
Others	(286)	(8)	(294)	(171)	(87)	(258)									
Machining	3,110	5,011	8,122	4,849	6,801	11,649	55.9%	35.7%	43.4%	2.9%	1.5%	1.8%	3.9%	1.9%	2.4%
General Assembly	8,438	8,868	17,306	9,173	10,590	19,763	8.7%	19.4%	14.2%	7.9%	2.6%	3.9%	7.3%	3.0%	4.1%
Surface Mount Technology	19,900	197,438	217,338	21,354	167,186	188,540	7.3%	-15.3%	-13.3%	18.7%	57.9%	48.5%	17.0%	47.0%	39.2%
Other Assembly	1,338	718	2,057	764	601	1,364	-42.9%	-16.4%	-33.7%	1.3%	0.2%	0.5%	0.6%	0.2%	0.3%
(Bonding)	(577)		(577)	(484)		(484)									
(Soldering)															
(Sealing/glueing)	(129)	(348)	(477)	(137)	(393)	(531)									
(Screwing)	(15)	(4)	(19)	(16)	(6)	(22)									
(Others)	(618)	(367)	(984)	(126)	(202)	(328)									
Assembly	29,676	207,024	236,701	31,291	178,377	209,668	5.4%	-13.8%	-11.4%	27.8%	60.7%	52.9%	25.0%	50.1%	43.6%
Palletizing/depalletizing	6,061	5,448	11,508	7,548	5,295	12,844	24.6%	-2.8%	11.6%	5.7%	1.6%	2.6%	6.0%	1.5%	2.7%
Material handling	10,956	22,888	33,844	14,056	32,932	46,988	28.3%	43.9%	38.8%	10.3%	6.7%	7.6%	11.2%	9.3%	9.8%
(FPD)	(10,523)	(26,176)	(36,699)	(10,170)	(20,964)	(31,134)	-3.4%	-19.9%	-15.2%	9.9%	7.7%	8.2%	8.1%	5.9%	6.5%
(Semiconductor)	(12,886)	(8,703)	(21,589)	(15,724)	(9,479)	(25,203)	22.0%	8.9%	16.7%	12.1%	2.6%	4.8%	12.5%	2.7%	5.2%
(Others)	(721)	(21)	(742)	(303)	(1)	(304)									
Cleanroom	24,130	34,900	59,029	26,197	30,444	56,641	8.6%	-12.8%	-4.0%	22.6%	10.2%	13.2%	20.9%	8.6%	11.8%
Other applications	4,529	5,783	10,312	6,294	6,351	12,645	39.0%	9.8%	22.6%	4.2%	1.7%	2.3%	5.0%	1.8%	2.6%
Total	106,597	341,227	447,824	125,302	356,003	481,305	17.5%	4.3%	7.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note)

These statistics include dedicated type (Surface Mount Technology / Bonding).

These statistics are 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 2011 Results
Shipments of Manipulators and Robots by Industrial Branches (based on Value)
(JARA Member Companies)

Industrial branches	2010	2011	Change from 2010	Percentage distribution	
	million yen	million yen		2010	2011
Metal products	3,840	4,119	7.3%	3.6%	3.3%
Construction Machinery	(470)	(930)	97.9%	0.4%	0.7%
Metalworking machinery	(573)	(925)	61.4%	0.5%	0.7%
Other machinery and equipment	(1,686)	(2,423)	43.7%	1.6%	1.9%
Machinery and equipment	2,729	4,278	56.8%	2.6%	3.4%
Computers	(440)	(389)	-11.7%	0.4%	0.3%
Consumer electrical machinery	(2,042)	(1,752)	-14.2%	1.9%	1.4%
Industrial electrical machinery	(1,191)	(3,638)	205.3%	1.1%	2.9%
Info-communications equipment	(14,785)	(14,688)	-0.7%	13.9%	11.7%
VTR	(435)	(175)	-59.9%	0.4%	0.1%
Electronic components/devices	(16,017)	(20,134)	25.7%	15.0%	16.1%
Other electrical machinery	(16,060)	(15,745)	-2.0%	15.1%	12.6%
Electrical machinery	50,971	56,519	10.9%	47.8%	45.1%
Precision and optical instruments	1,763	2,049	16.3%	1.7%	1.6%
Motor vehicles	(7,448)	(12,443)	67.1%	7.0%	9.9%
Auto parts	(15,740)	(20,200)	28.3%	14.8%	16.1%
Motor vehicles and auto parts	23,188	32,643	40.8%	21.8%	26.1%
Food products, beverages, and tobacco products	2,742	3,843	40.2%	2.6%	3.1%
Plastic products	6,297	7,642	21.4%	5.9%	6.1%
EMS companies (Subconstructors)	67	141	110.4%	0.1%	0.1%
Non-manufacturing	4,586	1,509	-67.1%	4.3%	1.2%
Other industries	10,414	12,558	20.6%	9.8%	10.0%
Total domestic shipments	106,597	125,302	17.5%	100.0%	100.0%
				(23.8%)	(26.0%)
Export	341,227	356,003	4.3%	(76.2%)	(74.0%)
Grand total	447,824	481,305	7.5%	(100.0%)	(100.0%)

Note) These statistics include dedicated type (Surface Mount Technology / Bonding).
These statistics are 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.