

January - December 2010 Results
Production and Shipments of Manipulators and Robots by Application Areas (based on Value)
(JARA Member Companies)

(Unit: million yen)

Production	January - December 2009	January - December 2010	Change from 2009
		219,768	448,021

Shipments	January - December 2009			January - December 2010			Change from 2009			January - December 2009 (percentage distribution)			January - December 2010 (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	6,511	7,648	14,159	6,446	7,971	14,417	-1.0%	4.2%	1.8%	7.4%	5.4%	6.2%	6.0%	2.3%	3.2%
Arc welding	(11,489)	(11,414)	(22,903)	(12,300)	(24,000)	(36,301)	7.1%	110.3%	58.5%	13.1%	8.0%	10.0%	11.5%	7.0%	8.1%
Spot welding	(6,419)	(12,173)	(18,592)	(6,155)	(23,285)	(29,439)	-4.1%	91.3%	58.3%	7.3%	8.6%	8.1%	5.8%	6.8%	6.6%
Gas welding															
Laser welding	(11)		(11)	(71)	(61)	(132)									
Others	(125)	(17)	(142)	(95)	(42)	(138)									
Welding	18,044	23,605	41,648	18,621	47,389	66,009	3.2%	100.8%	58.5%	20.6%	16.6%	18.1%	17.5%	13.9%	14.7%
Painting	8,406	4,449	12,855	3,067	4,814	7,881	-63.5%	8.2%	-38.7%	9.6%	3.1%	5.6%	2.9%	1.4%	1.8%
Loading/unloading	(2,162)	(1,718)	(3,880)	(2,433)	(4,883)	(7,315)									
Mechanical cutting				(3)		(3)									
Grinding/deburring	(218)	(19)	(237)	(389)	(121)	(509)									
Others	(136)	(4)	(140)	(286)	(8)	(294)									
Machining	2,516	1,741	4,257	3,110	5,011	8,122	23.6%	187.9%	90.8%	2.9%	1.2%	1.9%	2.9%	1.5%	1.8%
General Assembly	5,339	3,818	9,156	8,438	8,868	17,306	58.1%	132.3%	89.0%	6.1%	2.7%	4.0%	7.9%	2.6%	3.9%
Surface Mount Technology	13,882	64,411	78,292	19,900	197,438	217,338	43.4%	206.5%	177.6%	15.9%	45.3%	34.1%	18.7%	57.9%	48.5%
Other Assembly	415	268	683	1,338	718	2,057	222.4%	167.8%	201.0%	0.5%	0.2%	0.3%	1.3%	0.2%	0.5%
(Bonding)				(577)		(577)									
(Soldering)															
(Sealing/glueing)	(320)	(206)	(526)	(129)	(348)	(477)									
(Screwing)	(3)		(3)	(15)	(4)	(19)									
(Others)	(92)	(62)	(154)	(618)	(367)	(984)									
Assembly	19,635	68,497	88,132	29,676	207,024	236,701	51.1%	202.2%	168.6%	22.4%	48.2%	38.4%	27.8%	60.7%	52.9%
Palletizing/depalletizing	6,018	2,795	8,814	6,061	5,448	11,508	0.7%	94.9%	30.6%	6.9%	2.0%	3.8%	5.7%	1.6%	2.6%
Material handling	7,860	11,032	18,892	10,956	22,888	33,844	39.4%	107.5%	79.1%	9.0%	7.8%	8.2%	10.3%	6.7%	7.6%
(FPD)	(11,250)	(18,400)	(29,650)	(10,523)	(26,176)	(36,699)	-6.5%	42.3%	23.8%	12.9%	12.9%	12.9%	9.9%	7.7%	8.2%
(Semiconductor)	(4,815)	(2,202)	(7,017)	(12,886)	(8,703)	(21,589)	167.6%	295.2%	207.7%	5.5%	1.5%	3.1%	12.1%	2.6%	4.8%
(Others)	(96)	(3)	(98)	(721)	(21)	(742)									
Cleanroom	16,160	20,604	36,765	24,130	34,900	59,029	49.3%	69.4%	60.6%	18.5%	14.5%	16.0%	22.6%	10.2%	13.2%
Other applications	2,339	1,720	4,059	4,529	5,783	10,312	93.7%	236.3%	154.1%	2.7%	1.2%	1.8%	4.2%	1.7%	2.3%
Total	87,490	142,091	229,580	106,597	341,227	447,824	21.8%	140.1%	95.1%	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 2010 Results
Shipments of Manipulators and Robots by Industrial Branches (based on Value)
(JARA Member Companies)

Industrial branches	2009	2010	Change from 2009	Percentage distribution	
	million yen	million yen		2009	2010
Metal products	2,629	3,840	46.1%	3.0%	3.6%
Construction Machinery	(1,163)	(470)	-59.6%	1.3%	0.4%
Metalworking machinery	(454)	(573)	26.1%	0.5%	0.5%
Other machinery and equipment	(1,472)	(1,686)	14.5%	1.7%	1.6%
Machinery and equipment	3,089	2,729	-11.7%	3.5%	2.6%
Computers	(371)	(440)	18.7%	0.4%	0.4%
Consumer electrical machinery	(1,097)	(2,042)	86.2%	1.3%	1.9%
Industrial electrical machinery	(2,366)	(1,191)	-49.6%	2.7%	1.1%
Info-communications equipment	(8,550)	(14,785)	72.9%	9.8%	13.9%
VTR	(173)	(435)	151.4%	0.2%	0.4%
Electronic components/devices	(12,101)	(16,017)	32.4%	13.8%	15.0%
Other electrical machinery	(7,966)	(16,060)	101.6%	9.1%	15.1%
Electrical machinery	32,624	50,971	56.2%	37.3%	47.8%
Precision and optical instruments	802	1,763	119.7%	0.9%	1.7%
Motor vehicles	(15,053)	(7,448)	-50.5%	17.2%	7.0%
Auto parts	(14,170)	(15,740)	11.1%	16.2%	14.8%
Motor vehicles and auto parts	29,223	23,188	-20.7%	33.4%	21.8%
Food products, beverages, and tobacco products	2,587	2,742	6.0%	3.0%	2.6%
Plastic products	6,251	6,297	0.7%	7.1%	5.9%
EMS companies (Subconstructors)	98	67	-31.6%	0.1%	0.1%
Non-manufacturing	1,809	4,586	153.5%	2.1%	4.3%
Other industries	8,377	10,414	24.3%	9.6%	9.8%
Total domestic shipments	87,490	106,597	21.8%	100.0%	100.0%
				(38.1%)	(23.8%)
Export	142,091	341,227	140.1%	(61.9%)	(76.2%)
Grand total	229,580	447,824	95.1%	(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.