

January - December 2005 Results
Production and Shipments of Manipulators and Robots by Application Areas (based on Value)
(JARA Member Companies)

(Unit: million yen)

Production	January - December 2004	January - December 2005	Change from 2004
		467,821	512,514

Shipments	January - December 2004			January - December 2005			Change from 2004			January - December 2004 (percentage distribution)			January - December 2005 (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	11,981	12,086	24,067	12,150	10,817	22,967	1.4%	-10.5%	-4.6%	7.1%	4.3%	5.4%	5.9%	3.3%	4.3%
Arc welding	18,486	18,540	37,025	25,884	22,831	48,715	40.0%	23.1%	31.6%	11.0%	6.6%	8.3%	12.7%	7.0%	9.2%
Spot welding	19,673	25,035	44,708	28,221	28,130	56,351	43.4%	12.4%	26.0%	11.7%	9.0%	10.0%	13.8%	8.7%	10.7%
Gas welding	3		3		3	3									
Laser welding	105	8	113	224	12	236									
Others	47	13	60	307	93	400									
Welding	38,314	43,596	81,909	54,636	51,069	105,706	42.6%	17.1%	29.1%	22.8%	15.6%	18.3%	26.7%	15.7%	20.0%
Loading/unloading	5,781	3,804	9,585	7,019	3,394	10,413									
Mechanical cutting	152		152	35	2	37									
Grinding/deburring	457	91	548	623	82	704									
Others	606	34	640	126		126									
Machining	6,995	3,929	10,924	7,803	3,478	11,281	11.6%	-11.5%	3.3%	4.2%	1.4%	2.4%	3.8%	1.1%	2.1%
General Assembly	11,089	5,261	16,350	14,511	6,705	21,216	30.9%	27.4%	29.8%	6.6%	1.9%	3.7%	7.1%	2.1%	4.0%
Surface Mount Technology	45,079	138,273	183,352	49,741	164,292	214,033	10.3%	18.8%	16.7%	26.9%	49.6%	41.0%	24.3%	50.7%	40.5%
Other Assembly	3,010	6,066	9,076	1,292	908	2,200	-57.1%	-85.0%	-75.8%	1.8%	2.2%	2.0%	0.6%	0.3%	0.4%
(Bonding)	(1,447)	(5,464)	(6,911)	(285)	(381)	(666)									
(Soldering)	(105)	(72)	(177)	(19)	(4)	(23)									
(Sealing/glueing)	(1,278)	(526)	(1,805)	(948)	(517)	(1,465)									
(Screwing)	(91)		(91)	(27)		(27)									
(Others)	(89)	(4)	(92)	(13)	(6)	(19)									
Assembly	59,178	149,600	208,778	65,544	171,905	237,449	10.8%	14.9%	13.7%	35.3%	53.6%	46.7%	32.1%	53.0%	44.9%
Material handling	11,632	13,884	25,516	16,831	18,795	35,626	44.7%	35.4%	39.6%	6.9%	5.0%	5.7%	8.2%	5.8%	6.7%
Painting	6,376	5,330	11,706	13,085	9,585	22,670	105.2%	79.8%	93.7%	3.8%	1.9%	2.6%	6.4%	3.0%	4.3%
Clean room	16,989	40,233	57,222	18,309	48,625	66,935	7.8%	20.9%	17.0%	10.1%	14.4%	12.8%	9.0%	15.0%	12.7%
(FPD)	(11,435)	(34,853)	(46,288)	(13,535)	(44,920)	(58,456)	18.4%	28.9%	26.3%	6.8%	12.5%	10.4%	6.6%	13.9%	11.1%
(Semiconductor)	(5,460)	(5,362)	(10,822)	(4,767)	(3,705)	(8,472)	-12.7%	-30.9%	-21.7%	3.3%	1.9%	2.4%	2.3%	1.1%	1.6%
(Others)	(94)	(18)	(112)	(7)		(7)									
Other applications	16,364	10,273	26,637	16,104	10,003	26,107	-1.6%	-2.6%	-2.0%	9.8%	3.7%	6.0%	7.9%	3.1%	4.9%
Total	167,828	278,931	446,759	204,463	324,276	528,739	21.8%	16.3%	18.4%	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 2005 Results
Shipments of Manipulators and Robots by Industrial Branches (based on Value)
(JARA Member Companies)

Industrial branches	2004	2005	Change from 2004	Percentage distribution	
	million yen	million yen		2004	2005
Metal products	4,982	5,344	7.2%	3.0%	2.6%
Construction Machinery	1,974	1,960	-0.7%	1.2%	1.0%
Metalworking machinery	405	913	125.4%	0.2%	0.4%
Other machinery and equipment	3,637	4,886	34.3%	2.2%	2.4%
Machinery and equipment	6,016	7,759	29.0%	3.6%	3.8%
Computers	12,272	1,869	-84.8%	7.3%	0.9%
Consumer electrical machinery	949	781	-17.7%	0.6%	0.4%
Industrial electrical machinery	9,951	10,024	0.7%	5.9%	4.9%
Info-communications equipment	9,273	27,380	195.3%	5.5%	13.4%
VTR	1,809	298	-83.5%	1.1%	0.1%
Electronic components/devices	13,940	13,341	-4.3%	8.3%	6.5%
Other electrical machinery	18,467	13,971	-24.3%	11.0%	6.8%
Electrical machinery	66,660	67,664	1.5%	39.7%	33.1%
Precision and optical instruments	1,903	2,579	35.5%	1.1%	1.3%
Motor vehicles	24,849	45,060	81.3%	14.8%	22.0%
Auto parts	35,600	44,398	24.7%	21.2%	21.7%
Motor vehicles and auto parts	60,450	89,458	48.0%	36.0%	43.8%
Food products, beverages, and tobacco products	2,395	2,788	16.4%	1.4%	1.4%
Plastic products	11,249	11,488	2.1%	6.7%	5.6%
EMS companies (Subconstructors)	941	601	-36.1%	0.6%	0.3%
Non-manufacturing	1,232	1,477	19.8%	0.7%	0.7%
Other industries	12,002	15,306	27.5%	7.2%	7.5%
Total domestic shipments	167,828	204,463	21.8%	100.0%	100.0%
				(37.6%)	(38.7%)
Export	278,931	324,276	16.3%	(62.4%)	(61.3%)
Grand total	446,759	528,739	18.4%	(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.