## July - September 2012 Results Production and Shipments of Manipulators and Robots by Application Areas (based on Value) (JARA Member Companies)

(Unit: million yen)

Production	July - September 2011	July - September 2012	Change from 2011		
	138,787	108,844	-21.6%		

Shipments	Shipments July - September 2011		July - September 2012		Change from 2011			July - September 2011 (percentage distribution)			July - September 2012 (percentage distribution)				
Application area	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total
Plastic moulding	2,304	2,868	5,172	2,470	2,864	5,334	7.2%	-0.2%	3.1%	6.9%	2.8%	3.8%	7.1%	3.8%	4.9%
Arc welding	(3,816)	(9,104)	(12,920)	(4,524)	(7,377)	(11,901)	18.6%	-19.0%	-7.9%	11.4%	9.0%	9.6%	13.0%	9.9%	10.9%
Spot welding	(1,385)	(11,916)	(13,300)	(3,460)	(9,065)	(12,524)	149.9%	-23.9%	-5.8%	4.1%	11.8%	9.9%	9.9%	12.2%	11.5%
Gas welding															
Laser welding	(21)	(36)	(57)	(167)	(9)	(176)									
Others	(31)	(35)	(66)	(34)	(0)	(34)									
Welding	5,252	21,091	26,343	8,185	16,451	24,636	55.8%	-22.0%	-6.5%	15.7%	20.9%	19.6%	23.5%	22.1%	22.5%
Painting	633	3,398	4,031	1,044	3,077	4,121	65.0%	-9.5%	2.2%	1.9%	3.4%	3.0%	3.0%	4.1%	3.8%
Loading/unloading	(1,524)	(2,141)	(3,665)	(1,470)	(1,689)	(3,160)									
Mechanical cutting	(5)		(5)	(3)	(2)	(5)									
Grinding/deburring	(79)	(19)	(98)	(143)	(90)	(233)									
Others	(45)	(72)	(117)	(59)	(1)	(60)									
Machining	1,653	2,232	3,885	1,675	1,782	3,457	1.3%	-20.2%	-11.0%	4.9%	2.2%	2.9%	4.8%	2.4%	3.2%
General Assembly	2,259	2,828	5,088	2,153	3,397	5,550	-4.7%	20.1%	9.1%	6.7%	2.8%	3.8%	6.2%	4.6%	5.1%
Surface Mount Technology	5,718	48,580	54,298	5,646	30,404	36,050	-1.3%	-37.4%	-33.6%	17.1%	48.2%	40.4%	16.2%	40.8%	33.0%
Other Assembly	225	310	535	332	341	672	47.6%	9.8%	25.7%	0.7%	0.3%	0.4%	1.0%	0.5%	0.6%
(Bonding)	(116)		(116)	(69)		(69)									
(Soldering)				(4)		(4)									
(Sealing/glueing)	(39)	(208)	(247)	(240)	(150)	(390)									
(Screwing)	(7)		(7)	(3)		(3)									
(Others)	(63)	(102)	(165)	(16)	(191)	(207)									
Assembly	8,202	51,718	59,921	8,131	34,141	42,272	-0.9%	-34.0%	-29.5%	24.5%	51.3%	44.6%	23.4%	45.8%	38.7%
Palletizing/depalletizing	2,063	1,374	3,437	1,654	1,758	3,412	-19.8%	27.9%	-0.7%	6.2%	1.4%	2.6%	4.8%	2.4%	3.1%
Material handling	3,594	8,499	12,093	3,879	6,444	10,323	7.9%	-24.2%	-14.6%	10.7%	8.4%	9.0%	11.1%	8.7%	9.4%
(FPD)	(4,403)	(5,172)	(9,575)	(2,096)	(3,364)	(5,460)	-52.4%	-35.0%	-43.0%	13.1%	5.1%	7.1%	6.0%	4.5%	5.0%
(Semiconductor)	(3,562)	(2,047)	(5,609)	(2,461)	(1,625)	(4,086)	-30.9%	-20.6%	-27.1%	10.6%	2.0%	4.2%	7.1%	2.2%	3.7%
(Others)	(9)		(9)												
Cleanroom	7,974	7,219	15,193	4,557	4,989	9,546	-42.8%	-30.9%	-37.2%	23.8%	7.2%	11.3%	13.1%	6.7%	8.7%
Other applications	1,838	2,479	4,317	3,200	2,965	6,165	74.1%	19.6%	42.8%	5.5%	2.5%	3.2%	9.2%	4.0%	5.6%
Total	33,513	100,879	134,392	34,795	74,471	109,266	3.8%	-26.2%	-18.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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.

## July - September 2012 Results Shipments of Manipulators and Robots by Industrial Branches (based on Value) (JARA Member Companies)

Industrial branches	2011	2012	Change	Percentage distribution		
		million yen	from 2011	2011	2012	
Metal products	966	1,223	26.6%	2.9%	3.5%	
Construction Machinery	(261)	(403)	54.6%	0.8%	1.2%	
Metalworking machinery	(159)	(296)	86.3%	0.5%	0.9%	
Other machinery and equipment	(507)	(392)	-22.7%	1.5%	1.1%	
Machinery and equipment	927	1,091	17.8%	2.8%	3.1%	
Computers	(80)	(83)	4.1%	0.2%	0.2%	
Consumer electrical machinery	(492)	(133)		1.5%	0.4%	
Industrial electrical machinery	(860)	(613)	-28.7%	2.6%	1.8%	
Info-communications equipment	(3,989)	(3,760)	-5.7%	11.9%	10.8%	
VTR	(21)	(0)	-100.0%	0.1%	0.0%	
Electronic components/devices	(5,261)	(3,179)	-39.6%	15.7%	9.1%	
Other electrical machinery	(5,146)	(3,954)	-23.2%	15.4%	11.4%	
Electrical machinery	15,850	11,723	-26.0%	47.3%	33.7%	
Precision and optical instruments	502	389	-22.6%	1.5%	1.1%	
Motor vehicles	(2,733)	(6,051)	121.4%	8.2%	17.4%	
Auto parts	(5,419)	(6,999)	29.2%	16.2%	20.1%	
Motor vehicles and auto parts	8,152	13,049	60.1%	24.3%	37.5%	
Food products, beverages, and tobacco products	1,208	822	-32.0%	3.6%	2.4%	
Plastic products	2,184	2,311	5.8%	6.5%	6.6%	
Chemical products	514	244	-52.6%	1.5%	0.7%	
Non-manufacturing	313	289	-7.7%	0.9%	0.8%	
Other industries	2,897	3,653	26.1%	8.6%	10.5%	
Total domestic shipments	33,513	34,795	3.8%	100.0%	100.0%	
·				(24.9%)	(31.8%)	
Export	100,879	74,471	-26.2%	(75.1%)	(68.2%)	
Grand total	134,392	109,266	-18.7%	(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.