

**April - June 2023 Results**  
**Production and Shipments of Manipulators and Robots by Applications**  
**[JARA Member Companies]**

Number of units, ( ) : million yen

	April - June 2022	April - June 2023	Change from 2022
<b>Orders</b>	71,860 (242,047)	47,978 (196,684)	-33.2% (-18.7%)
<b>Production</b>	64,251 (221,686)	53,942 (202,287)	-16.0% (-8.8%)

Shipments Applications	April - June 2022			April - June 2023			Change from 2022			April - June 2022 (percentage distribution)			April - June 2023 (percentage distribution)		
	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total
<b>Plastic moulding</b>	616	1,018	1,634	638	709	1,347	3.6%	-30.4%	-17.6%	6.7%	1.9%	2.6%	7.1%	1.6%	2.5%
Arc welding	786	4,492	5,278	618	2,789	3,407	-21.4%	-37.9%	-35.4%	8.6%	8.3%	8.3%	6.9%	6.3%	6.4%
Spot welding	462	4,546	5,008	384	7,131	7,515	-16.9%	56.9%	50.1%	5.1%	8.4%	7.9%	4.3%	16.0%	14.0%
Laser welding	2	187	189	2	460	462		146.0%	144.4%	0.0%	0.3%	0.3%	0.0%	1.0%	0.9%
Others	16	7	23	12	13	25	-25.0%	85.7%	8.7%	0.2%	0.0%	0.0%	0.1%	0.0%	0.0%
<b>Welding</b> Units	1,266	9,232	10,498	1,016	10,393	11,409	-19.7%	12.6%	8.7%	13.8%	17.0%	16.6%	11.4%	23.3%	21.3%
(million yen)	(6,683)	(21,742)	(28,424)	(5,697)	(26,453)	(32,151)	(-14.7%)	(21.7%)	(13.1%)	(16.7%)	(12.1%)	(12.9%)	(13.5%)	(16.3%)	(15.7%)
<b>Painting</b>	86	407	493	104	595	699	20.9%	46.2%	41.8%	0.9%	0.8%	0.8%	1.2%	1.3%	1.3%
Loading/unloading	653	2,238	2,891	450	3,223	3,673	-31.1%	44.0%	27.0%	7.1%	4.1%	4.6%	5.0%	7.2%	6.9%
Mechanical cutting	9		9	6	1	7	-33.3%		-22.2%	0.1%		0.0%	0.1%	0.0%	0.0%
Grinding/deburring	33	150	183	50	88	138	51.5%	-41.3%	-24.6%	0.4%	0.3%	0.3%	0.6%	0.2%	0.3%
Others	13	17	30	8	15	23	-38.5%	-11.8%	-23.3%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%
<b>Machining</b> Units	708	2,405	3,113	514	3,327	3,841	-27.4%	38.3%	23.4%	7.7%	4.4%	4.9%	5.7%	7.5%	7.2%
(million yen)	(2,141)	(4,132)	(6,273)	(1,911)	(6,562)	(8,473)	(-10.7%)	(58.8%)	(35.1%)	(5.3%)	(2.3%)	(2.9%)	(4.5%)	(4.1%)	(4.1%)
<b>Surface Mount Technology</b>	176	5,262	5,438	234	2,996	3,230	33.0%	-43.1%	-40.6%	1.9%	9.7%	8.6%	2.6%	6.7%	6.0%
General Assembly	1,457	7,632	9,089	1,680	5,638	7,318	15.3%	-26.1%	-19.5%	15.9%	14.1%	14.3%	18.8%	12.7%	13.7%
Other Assembly	163	513	676	132	911	1,043	-19.0%	77.6%	54.3%	1.8%	0.9%	1.1%	1.5%	2.0%	1.9%
Bonding		1	1					-100.0%	-100.0%		0.0%	0.0%			
Soldering	1		1				-100.0%		-100.0%	0.0%		0.0%			
Sealing/glueing	55	132	187	19	788	807	-65.5%	497.0%	331.6%	0.6%	0.2%	0.3%	0.2%	1.8%	1.5%
Screwing				6	4	10						0.1%	0.0%	0.0%	
Others	107	380	487	107	119	226		-68.7%	-53.6%	1.2%	0.7%	0.8%	1.2%	0.3%	0.4%
<b>Assembly</b> Units	1,620	8,145	9,765	1,812	6,549	8,361	11.9%	-19.6%	-14.4%	17.7%	15.0%	15.4%	20.3%	14.7%	15.6%
(million yen)	(5,533)	(9,321)	(14,854)	(7,033)	(8,148)	(15,181)	(27.1%)	(-12.6%)	(2.2%)	(13.8%)	(5.2%)	(6.8%)	(16.6%)	(5.0%)	(7.4%)
<b>Palletizing/depalletizing</b>	307	985	1,292	313	983	1,296	2.0%	-0.2%	0.3%	3.4%	1.8%	2.0%	3.5%	2.2%	2.4%
<b>Material handling</b>	1,558	18,264	19,822	1,649	14,700	16,349	5.8%	-19.5%	-17.5%	17.0%	33.7%	31.3%	18.4%	33.0%	30.6%
FPD	17	103	120	4	42	46	-76.5%	-59.2%	-61.7%	0.2%	0.2%	0.2%	0.0%	0.1%	0.1%
Semiconductor	2,238	3,978	6,216	1,970	1,483	3,453	-12.0%	-62.7%	-44.4%	24.5%	7.3%	9.8%	22.0%	3.3%	6.5%
Others		147	147		70	70		-52.4%	-52.4%		0.3%	0.2%		0.2%	0.1%
<b>Cleanroom</b> Units	2,255	4,228	6,483	1,974	1,595	3,569	-12.5%	-62.3%	-44.9%	24.7%	7.8%	10.2%	22.1%	3.6%	6.7%
(million yen)	(7,298)	(10,720)	(18,018)	(6,016)	(5,117)	(11,133)	(-17.6%)	(-52.3%)	(-38.2%)	(18.2%)	(6.0%)	(8.2%)	(14.2%)	(3.2%)	(5.5%)
<b>Other applications</b>	412	1,101	1,513	558	908	1,466	35.4%	-17.5%	-3.1%	4.5%	2.0%	2.4%	6.2%	2.0%	2.7%
<b>Unspecified</b>	142	3,150	3,292	136	1,801	1,937	-4.2%	-42.8%	-41.2%	1.6%	5.8%	5.2%	1.5%	4.0%	3.6%
<b>Total</b> Units	9,146	54,197	63,343	8,948	44,556	53,504	-2.2%	-17.8%	-15.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
(million yen)	(40,040)	(179,787)	(219,828)	(42,334)	(161,869)	(204,204)	(5.7%)	(-10.0%)	(-7.1%)	(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.

**April - June 2023 Results**  
**Shipments of Manipulators and Robots by Industries**  
**[JARA Member Companies]**

Number of units, ( ) : million yen

Industries	2022 Apr. - Jun.	2023 Apr. - Jun.	Change from 2022	Percentage distribution	
				2022	2023
<b>Metal products</b>	<b>561</b>	<b>612</b>	<b>9.1%</b>	<b>6.1%</b>	<b>6.8%</b>
Construction and mining machinery	29	26	-10.3%	0.3%	0.3%
Metalworking machinery	260	161	-38.1%	2.8%	1.8%
Other machinery and equipment	858	674	-21.4%	9.4%	7.5%
<b>Machinery and equipment</b> Units	<b>1,147</b>	<b>861</b>	<b>-24.9%</b>	<b>12.5%</b>	<b>9.6%</b>
(million yen)	<b>(4,430)</b>	<b>(3,613)</b>	<b>(-18.4%)</b>	<b>(11.1%)</b>	<b>(8.5%)</b>
Electronic computers	4	20	400.0%	0.0%	0.2%
Consumer electrical machinery	245	248	1.2%	2.7%	2.8%
Industrial electrical machinery	274	419	52.9%	3.0%	4.7%
Communication equipment	166	210	26.5%	1.8%	2.3%
Video and audio equipment	13	15	15.4%	0.1%	0.2%
Electronic components/devices/circuits	1,699	1,638	-3.6%	18.6%	18.3%
Other electrical machinery	597	621	4.0%	6.5%	6.9%
<b>Electrical machinery</b> Units	<b>2,998</b>	<b>3,171</b>	<b>5.8%</b>	<b>32.8%</b>	<b>35.4%</b>
(million yen)	<b>(13,277)</b>	<b>(15,161)</b>	<b>(14.2%)</b>	<b>(33.2%)</b>	<b>(35.8%)</b>
<b>Precision instruments</b>	<b>18</b>	<b>38</b>	<b>111.1%</b>	<b>0.2%</b>	<b>0.4%</b>
Motor vehicles	769	676	-12.1%	8.4%	7.6%
Auto parts	1,700	1,530	-10.0%	18.6%	17.1%
<b>Motor vehicles and auto parts</b> Units	<b>2,469</b>	<b>2,206</b>	<b>-10.7%</b>	<b>27.0%</b>	<b>24.7%</b>
(million yen)	<b>(11,014)</b>	<b>(11,258)</b>	<b>(2.2%)</b>	<b>(27.5%)</b>	<b>(26.6%)</b>
<b>Other transport equipment</b>	<b>41</b>	<b>49</b>	<b>19.5%</b>	<b>0.4%</b>	<b>0.5%</b>
<b>Food products, beverages, and tobacco products</b>	<b>174</b>	<b>175</b>	<b>0.6%</b>	<b>1.9%</b>	<b>2.0%</b>
<b>Chemical products</b>	<b>93</b>	<b>100</b>	<b>7.5%</b>	<b>1.0%</b>	<b>1.1%</b>
<b>Plastic products</b>	<b>248</b>	<b>239</b>	<b>-3.6%</b>	<b>2.7%</b>	<b>2.7%</b>
<b>Other industries</b>	<b>592</b>	<b>651</b>	<b>10.0%</b>	<b>6.5%</b>	<b>7.3%</b>
<b>Non-manufacturing industry</b>	<b>105</b>	<b>62</b>	<b>-41.0%</b>	<b>1.1%</b>	<b>0.7%</b>
<b>Unspecified</b>	<b>700</b>	<b>784</b>	<b>12.0%</b>	<b>7.7%</b>	<b>8.8%</b>
<b>Total domestic shipments</b> Units	<b>9,146</b>	<b>8,948</b>	<b>-2.2%</b>	<b>100.0%</b>	<b>100.0%</b>
(million yen)	<b>(40,040)</b>	<b>(42,334)</b>	<b>(5.7%)</b>	<b>14.4%</b>	<b>16.7%</b>
<b>Export</b> Units	<b>54,197</b>	<b>44,556</b>	<b>-17.8%</b>	<b>85.6%</b>	<b>83.3%</b>
(million yen)	<b>(179,787)</b>	<b>(161,869)</b>	<b>(-10.0%)</b>	<b>(81.8%)</b>	<b>(79.3%)</b>
<b>Grand total</b> Units	<b>63,343</b>	<b>53,504</b>	<b>-15.5%</b>	<b>100.0%</b>	<b>100.0%</b>
(million yen)	<b>(219,828)</b>	<b>(204,204)</b>	<b>(-7.1%)</b>	<b>(100.0%)</b>	<b>(100.0%)</b>

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