

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

Number of units, ( ) : million yen

	October - December 2022	October - December 2023	Change from 2022
<b>Orders</b>	60,631 (221,019)	36,430 (157,873)	-39.9% (-28.6%)
<b>Production</b>	63,853 (218,301)	43,274 (175,014)	-32.2% (-19.8%)

Shipments Applications	October - December 2022			October - December 2023			Change from 2022			October - December 2022 (percentage distribution)			July - September 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>	721	933	1,654	683	658	1,341	-5.3%	-29.5%	-18.9%	6.4%	1.8%	2.6%	7.0%	1.8%	2.9%
Arc welding	1,006	4,574	5,580	559	4,133	4,692	-44.4%	-9.6%	-15.9%	8.9%	8.6%	8.7%	5.7%	11.3%	10.2%
Spot welding	569	5,432	6,001	687	3,259	3,946	20.7%	-40.0%	-34.2%	5.1%	10.2%	9.3%	7.0%	8.9%	8.5%
Laser welding	3	131	134	7	77	84	133.3%	-41.2%	-37.3%	0.0%	0.2%	0.2%	0.1%	0.2%	0.2%
Others	15	11	26	15	2	17		-81.8%	-34.6%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%
<b>Welding</b> Units	1,593	10,148	11,741	1,268	7,471	8,739	-20.4%	-26.4%	-25.6%	14.2%	19.1%	18.2%	13.0%	20.5%	18.9%
(million yen)	(6,659)	(24,365)	(31,023)	(6,820)	(18,314)	(25,134)	(2.4%)	(-24.8%)	(-19.0%)	(14.3%)	(13.5%)	(13.6%)	(14.6%)	(13.4%)	(13.7%)
<b>Painting</b>	69	628	697	121	663	784	75.4%	5.6%	12.5%	0.6%	1.2%	1.1%	1.2%	1.8%	1.7%
Loading/unloading	599	3,663	4,262	358	5,003	5,361	-40.2%	36.6%	25.8%	5.3%	6.9%	6.6%	3.7%	13.7%	11.6%
Mechanical cutting	6		6	6		6				0.1%		0.0%	0.1%		0.0%
Grinding/deburring	41	123	164	36	97	133	-12.2%	-21.1%	-18.9%	0.4%	0.2%	0.3%	0.4%	0.3%	0.3%
Others	15	21	36	7	27	34	-53.3%	28.6%	-5.6%	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%
<b>Machining</b> Units	661	3,807	4,468	407	5,127	5,534	-38.4%	34.7%	23.9%	5.9%	7.2%	6.9%	4.2%	14.1%	12.0%
(million yen)	(2,124)	(6,047)	(8,172)	(1,524)	(8,633)	(10,156)	(-28.3%)	(42.8%)	(24.3%)	(4.6%)	(3.3%)	(3.6%)	(3.3%)	(6.3%)	(5.6%)
<b>Surface Mount Technology</b>	257	3,104	3,361	257	2,911	3,168		-6.2%	-5.7%	2.3%	5.8%	5.2%	2.6%	8.0%	6.9%
General Assembly	1,983	4,664	6,647	1,466	4,022	5,488	-26.1%	-13.8%	-17.4%	17.6%	8.8%	10.3%	15.0%	11.0%	11.9%
Other Assembly	193	613	806	169	166	335	-12.4%	-72.9%	-58.4%	1.7%	1.2%	1.3%	1.7%	0.5%	0.7%
Bonding															
Soldering	4		4				-100.0%		-100.0%	0.0%		0.0%			
Sealing/glueing	52	123	175	43	68	111	-17.3%	-44.7%	-36.6%	0.5%	0.2%	0.3%	0.4%	0.2%	0.2%
Screwing	30	6	36	24		24	-20.0%	-100.0%	-33.3%	0.3%	0.0%	0.1%	0.2%		0.1%
Others	107	484	591	102	98	200	-4.7%	-79.8%	-66.2%	1.0%	0.9%	0.9%	1.0%	0.3%	0.4%
<b>Assembly</b> Units	2,176	5,277	7,453	1,635	4,188	5,823	-24.9%	-20.6%	-21.9%	19.3%	9.9%	11.6%	16.8%	11.5%	12.6%
(million yen)	(6,344)	(7,525)	(13,869)	(5,531)	(6,456)	(11,987)	(-12.8%)	(-14.2%)	(-13.6%)	(13.7%)	(4.2%)	(6.1%)	(11.9%)	(4.7%)	(6.6%)
<b>Palletizing/depalletizing</b>	298	1,000	1,298	286	413	699	-4.0%	-58.7%	-46.1%	2.6%	1.9%	2.0%	2.9%	1.1%	1.5%
<b>Material handling</b>	2,069	21,201	23,270	2,070	11,030	13,100	0.0%	-48.0%	-43.7%	18.4%	39.9%	36.1%	21.2%	30.3%	28.4%
FPD	10	51	61	12	39	51	20.0%	-23.5%	-16.4%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Semiconductor	2,580	2,748	5,328	2,323	1,913	4,236	-10.0%	-30.4%	-20.5%	22.9%	5.2%	8.3%	23.8%	5.2%	9.2%
Others	1	202	203		48	48	-100.0%	-76.2%	-76.4%	0.0%	0.4%	0.3%		0.1%	0.1%
<b>Cleanroom</b> Units	2,591	3,001	5,592	2,335	2,000	4,335	-9.9%	-33.4%	-22.5%	23.0%	5.6%	8.7%	24.0%	5.5%	9.4%
(million yen)	(8,202)	(8,604)	(16,806)	(7,695)	(6,207)	(13,902)	(-6.2%)	(-27.9%)	(-17.3%)	(17.7%)	(4.8%)	(7.4%)	(16.5%)	(4.6%)	(7.6%)
<b>Other applications</b>	653	1,415	2,068	489	687	1,176	-25.1%	-51.4%	-43.1%	5.8%	2.7%	3.2%	5.0%	1.9%	2.5%
<b>Unspecified</b>	158	2,657	2,815	197	1,305	1,502	24.7%	-50.9%	-46.6%	1.4%	5.0%	4.4%	2.0%	3.6%	3.3%
<b>Total</b> Units	11,246	53,171	64,417	9,748	36,453	46,201	-13.3%	-31.4%	-28.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
(million yen)	(46,407)	(181,087)	(227,494)	(46,603)	(136,309)	(182,912)	(0.4%)	(-24.7%)	(-19.6%)	(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.

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

Number of units, ( ) : million yen

Industries	2022 Oct. - Dec.	2023 Oct. - Dec.	Change from 2022	Percentage distribution	
				2022	2023
<b>Metal products</b>	<b>750</b>	<b>695</b>	<b>-7.3%</b>	<b>6.7%</b>	<b>7.1%</b>
Construction and mining machinery	26	51	96.2%	0.2%	0.5%
Metalworking machinery	151	173	14.6%	1.3%	1.8%
Other machinery and equipment	815	739	-9.3%	7.2%	7.6%
<b>Machinery and equipment</b> Units	<b>992</b>	<b>963</b>	<b>-2.9%</b>	<b>8.8%</b>	<b>9.9%</b>
(million yen)	<b>(3,842)</b>	<b>(4,232)</b>	<b>(10.2%)</b>	<b>(8.3%)</b>	<b>(9.1%)</b>
Electronic computers	7	4	-42.9%	0.1%	0.0%
Consumer electrical machinery	261	221	-15.3%	2.3%	2.3%
Industrial electrical machinery	447	254	-43.2%	4.0%	2.6%
Communication equipment	286	185	-35.3%	2.5%	1.9%
Video and audio equipment	5	11	120.0%	0.0%	0.1%
Electronic components/devices/circuits	2,153	1,914	-11.1%	19.1%	19.6%
Other electrical machinery	662	661	-0.2%	5.9%	6.8%
<b>Electrical machinery</b> Units	<b>3,821</b>	<b>3,250</b>	<b>-14.9%</b>	<b>34.0%</b>	<b>33.3%</b>
(million yen)	<b>(16,237)</b>	<b>(15,227)</b>	<b>(-6.2%)</b>	<b>(35.0%)</b>	<b>(32.7%)</b>
<b>Precision instruments</b>	<b>65</b>	<b>56</b>	<b>-13.8%</b>	<b>0.6%</b>	<b>0.6%</b>
Motor vehicles	1,044	985	-5.7%	9.3%	10.1%
Auto parts	2,141	1,859	-13.2%	19.0%	19.1%
<b>Motor vehicles and auto parts</b> Units	<b>3,185</b>	<b>2,844</b>	<b>-10.7%</b>	<b>28.3%</b>	<b>29.2%</b>
(million yen)	<b>(12,422)</b>	<b>(13,849)</b>	<b>(11.5%)</b>	<b>(26.8%)</b>	<b>(29.7%)</b>
<b>Other transport equipment</b>	<b>119</b>	<b>101</b>	<b>-15.1%</b>	<b>1.1%</b>	<b>1.0%</b>
<b>Food products, beverages, and tobacco products</b>	<b>219</b>	<b>229</b>	<b>4.6%</b>	<b>1.9%</b>	<b>2.3%</b>
<b>Chemical products</b>	<b>87</b>	<b>52</b>	<b>-40.2%</b>	<b>0.8%</b>	<b>0.5%</b>
<b>Plastic products</b>	<b>280</b>	<b>262</b>	<b>-6.4%</b>	<b>2.5%</b>	<b>2.7%</b>
<b>Other industries</b>	<b>732</b>	<b>640</b>	<b>-12.6%</b>	<b>6.5%</b>	<b>6.6%</b>
<b>Non-manufacturing industry</b>	<b>76</b>	<b>51</b>	<b>-32.9%</b>	<b>0.7%</b>	<b>0.5%</b>
<b>Unspecified</b>	<b>920</b>	<b>605</b>	<b>-34.2%</b>	<b>8.2%</b>	<b>6.2%</b>
<b>Total domestic shipments</b> Units	<b>11,246</b>	<b>9,748</b>	<b>-13.3%</b>	<b>100.0%</b>	<b>100.0%</b>
(million yen)	<b>(46,407)</b>	<b>(46,603)</b>	<b>(0.4%)</b>	<b>17.5%</b>	<b>21.1%</b>
				<b>(100.0%)</b>	<b>(100.0%)</b>
				<b>(20.4%)</b>	<b>(25.5%)</b>
<b>Export</b> Units	<b>53,171</b>	<b>36,453</b>	<b>-31.4%</b>	<b>82.5%</b>	<b>78.9%</b>
(million yen)	<b>(181,087)</b>	<b>(136,309)</b>	<b>(-24.7%)</b>	<b>(79.6%)</b>	<b>(74.5%)</b>
<b>Grand total</b> Units	<b>64,417</b>	<b>46,201</b>	<b>-28.3%</b>	<b>100.0%</b>	<b>100.0%</b>
(million yen)	<b>(227,494)</b>	<b>(182,912)</b>	<b>(-19.6%)</b>	<b>(100.0%)</b>	<b>(100.0%)</b>

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