

**Second Quarter (April - June) 2005 Results**  
**Production and Shipments of Manipulators and Robots by Application Areas (based on Value)**  
**(JARA Member Companies)**

(Unit: million yen)

| Production | April - June 2004 | April - June 2005 | Change from 2004 |
|------------|-------------------|-------------------|------------------|
|            |                   | 116,002           | 124,703          |

| Shipments                 | April - June 2004  |               |                | April - June 2005  |               |                | Change from 2004   |               |              | April - June 2004<br>(percentage distribution) |               |               | April - June 2005<br>(percentage distribution) |               |               |
|---------------------------|--------------------|---------------|----------------|--------------------|---------------|----------------|--------------------|---------------|--------------|--|---------------|---------------|--|---------------|---------------|
|                           | Domestic shipments | Exports       | Total          | Domestic shipments | Exports       | Total          | Domestic shipments | Exports       | Total        | Domestic shipments                             | Exports       | Total         | Domestic shipments                             | Exports       | Total         |
| <b>Application area</b>   |                    |               |                |                    |               |                |                    |               |              |  |               |               |  |               |               |
| <b>Plastic moulding</b>   | 2,889              | 3,144         | 6,033          | 3,190              | 2,827         | 6,017          | 10.4%              | -10.1%        | -0.3%        | 7.4%   | 4.4%          | 5.5%          | 6.8%   | 3.7%          | 4.9%          |
| Arc welding               | 3,895              | 4,529         | 8,424          | 6,177              | 5,849         | 12,026         | 58.6%              | 29.1%         | 42.8%        | 9.9%   | 6.4%          | 7.7%          | 13.2%  | 7.6%          | 9.7%          |
| Spot welding              | 5,887              | 5,731         | 11,618         | 5,844              | 7,631         | 13,475         | -0.7%              | 33.2%         | 16.0%        | 15.0%  | 8.1%          | 10.6%         | 12.5%  | 10.0%         | 10.9%         |
| Gas welding               |                    |               |                |                    | 3             | 3              |                    |               |              |  |               |               |  |               |               |
| Laser welding             | 15                 | 6             | 21             | 19                 |               | 19             |                    |               |              |  |               |               |  |               |               |
| Others                    | 6                  | 6             | 12             | 18                 | 49            | 67             |                    |               |              |  |               |               |  |               |               |
| <b>Welding</b>            | <b>9,803</b>       | <b>10,272</b> | <b>20,075</b>  | <b>12,058</b>      | <b>13,532</b> | <b>25,591</b>  | <b>23.0%</b>       | <b>31.7%</b>  | <b>27.5%</b> | <b>25.0%</b>                                   | <b>14.5%</b>  | <b>18.2%</b>  | <b>25.8%</b>                                   | <b>17.7%</b>  | <b>20.7%</b>  |
| Loading/unloading         | 1,122              | 802           | 1,924          | 1,260              | 959           | 2,219          |                    |               |              |  |               |               |  |               |               |
| Mechanical cutting        |                    |               |                | 15                 |               | 15             |                    |               |              |  |               |               |  |               |               |
| Grinding/deburring        | 89                 | 5             | 94             | 175                | 19            | 194            |                    |               |              |  |               |               |  |               |               |
| Others                    | 34                 | 3             | 37             | 9                  |               | 9              |                    |               |              |  |               |               |  |               |               |
| <b>Machining</b>          | <b>1,246</b>       | <b>810</b>    | <b>2,055</b>   | <b>1,459</b>       | <b>978</b>    | <b>2,437</b>   | <b>17.1%</b>       | <b>20.8%</b>  | <b>18.6%</b> | <b>3.2%</b>                                    | <b>1.1%</b>   | <b>1.9%</b>   | <b>3.1%</b>                                    | <b>1.3%</b>   | <b>2.0%</b>   |
| General Assembly          | 2,666              | 1,313         | 3,979          | 3,741              | 1,480         | 5,221          | 40.3%              | 12.7%         | 31.2%        | 6.8%   | 1.9%          | 3.6%          | 8.0%   | 1.9%          | 4.2%          |
| Surface Mount Technology  | 11,490             | 41,288        | 52,779         | 11,457             | 38,162        | 49,619         | -0.3%              | -7.6%         | -6.0%        | 29.3%  | 58.2%         | 47.9%         | 24.5%  | 49.8%         | 40.2%         |
| Other Assembly            | 475                | 1,713         | 2,188          | 271                | 194           | 465            | -43.0%             | -88.7%        | -78.7%       | 1.2%   | 2.4%          | 2.0%          | 0.6%   | 0.3%          | 0.4%          |
| (Bonding)                 | (210)              | (1,666)       | (1,876)        |                    |               |                |                    |               |              |  |               |               |  |               |               |
| (Soldering)               | (17)               | (17)          | (34)           | (76)               | (21)          | (97)           |                    |               |              |  |               |               |  |               |               |
| (Sealing/glueing)         | (232)              | (30)          | (262)          | (190)              | (173)         | (363)          |                    |               |              |  |               |               |  |               |               |
| (Screwing)                | (5)                |               | (5)            | (5)                |               | (5)            |                    |               |              |  |               |               |  |               |               |
| (Others)                  | (11)               |               | (11)           |                    |               |                |                    |               |              |  |               |               |  |               |               |
| <b>Assembly</b>           | <b>14,632</b>      | <b>44,314</b> | <b>58,945</b>  | <b>15,470</b>      | <b>39,836</b> | <b>55,305</b>  | <b>5.7%</b>        | <b>-10.1%</b> | <b>-6.2%</b> | <b>37.4%</b>                                   | <b>62.5%</b>  | <b>53.5%</b>  | <b>33.1%</b>                                   | <b>52.0%</b>  | <b>44.8%</b>  |
| <b>Material handling</b>  | <b>2,567</b>       | <b>3,023</b>  | <b>5,589</b>   | <b>3,688</b>       | <b>5,033</b>  | <b>8,721</b>   | <b>43.7%</b>       | <b>66.5%</b>  | <b>56.0%</b> | <b>6.6%</b>                                    | <b>4.3%</b>   | <b>5.1%</b>   | <b>7.9%</b>                                    | <b>6.6%</b>   | <b>7.1%</b>   |
| <b>Painting</b>           | <b>1,260</b>       | <b>957</b>    | <b>2,216</b>   | <b>1,974</b>       | <b>2,170</b>  | <b>4,144</b>   | <b>56.7%</b>       | <b>126.8%</b> | <b>87.0%</b> | <b>3.2%</b>                                    | <b>1.3%</b>   | <b>2.0%</b>   | <b>4.2%</b>                                    | <b>2.8%</b>   | <b>3.4%</b>   |
| <b>Clean room</b>         | <b>3,251</b>       | <b>6,291</b>  | <b>9,542</b>   | <b>4,654</b>       | <b>9,178</b>  | <b>13,832</b>  | <b>43.2%</b>       | <b>45.9%</b>  | <b>45.0%</b> | <b>8.3%</b>                                    | <b>8.9%</b>   | <b>8.7%</b>   | <b>9.9%</b>                                    | <b>12.0%</b>  | <b>11.2%</b>  |
| (FPD)                     | (1,730)            | (5,160)       | (6,890)        | (3,653)            | (8,483)       | (12,136)       | 111.2%             | 64.4%         | 76.1%        | 4.4%   | 7.3%          | 6.3%          | 7.8%   | 11.1%         | 9.8%          |
| (Semiconductor)           | (1,498)            | (1,131)       | (2,629)        | (999)              | (695)         | (1,694)        | -33.3%             | -38.5%        | -35.5%       | 3.8%   | 1.6%          | 2.4%          | 2.1%   | 0.9%          | 1.4%          |
| (Others)                  | (23)               |               | (23)           | (2)                |               | (2)            |                    |               |              |  |               |               |  |               |               |
| <b>Other applications</b> | <b>3,512</b>       | <b>2,109</b>  | <b>5,621</b>   | <b>4,311</b>       | <b>3,045</b>  | <b>7,356</b>   | <b>22.7%</b>       | <b>44.4%</b>  | <b>30.9%</b> | <b>9.0%</b>                                    | <b>3.0%</b>   | <b>5.1%</b>   | <b>9.2%</b>                                    | <b>4.0%</b>   | <b>6.0%</b>   |
| <b>Total</b>              | <b>39,159</b>      | <b>70,918</b> | <b>110,076</b> | <b>46,805</b>      | <b>76,599</b> | <b>123,404</b> | <b>19.5%</b>       | <b>8.0%</b>   | <b>12.1%</b> | <b>100.0%</b>                                  | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b>                                  | <b>100.0%</b> | <b>100.0%</b> |

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.

**Second Quarter (April - June) 2005 Results**  
**Shipments of Manipulators and Robots by Industrial Branches (based on Value)**  
**(JARA Member Companies)**

| Industrial branches                                   | 2004           | 2005           | Change<br>from 2004 | Percentage distribution |                 |
|---|----------------|----------------|---------------------|-------------------------|-----------------|
|   | million yen    | million yen    |                     | 2004                    | 2005            |
| <b>Metal products</b>                                 | <b>1,058</b>   | <b>1,076</b>   | <b>1.7%</b>         | <b>2.7%</b>             | <b>2.3%</b>     |
| Construction Machinery                                | 521            | 366            | -29.8%              | 1.3%                    | <b>0.8%</b>     |
| Metalworking machinery                                | 70             | 149            | 113.3%              | 0.2%                    | 0.3%            |
| Other machinery and equipment                         | 732            | 893            | 22.1%               | 1.9%                    | 1.9%            |
| <b>Machinery and equipment</b>                        | <b>1,323</b>   | <b>1,408</b>   | <b>6.5%</b>         | <b>3.4%</b>             | <b>3.0%</b>     |
| Computers   | 1,869          | 376            | -79.9%              | 4.8%                    | 0.8%            |
| Consumer electrical machinery                         | 283            | 163            | -42.4%              | 0.7%                    | 0.3%            |
| Industrial electrical machinery                       | 4,183          | 2,813          | -32.8%              | 10.7%                   | 6.0%            |
| Info-communications equipment                         | 2,162          | 7,192          | 232.7%              | 5.5%                    | 15.4%           |
| VTR   | 235            | 56             | -76.0%              | 0.6%                    | 0.1%            |
| Electronic components/devices                         | 3,165          | 2,578          | -18.5%              | 8.1%                    | 5.5%            |
| Other electrical machinery                            | 3,680          | 4,146          | 12.7%               | 9.4%                    | 8.9%            |
| <b>Electrical machinery</b>                           | <b>15,577</b>  | <b>17,325</b>  | <b>11.2%</b>        | <b>39.8%</b>            | <b>37.0%</b>    |
| <b>Precision and optical instruments</b>              | <b>408</b>     | <b>411</b>     | <b>0.8%</b>         | <b>1.0%</b>             | <b>0.9%</b>     |
| Motor vehicles  | 6,716          | 8,842          | 31.7%               | 17.2%                   | 18.9%           |
| Auto parts  | 7,718          | 10,331         | 33.9%               | 19.7%                   | 22.1%           |
| <b>Motor vehicles and auto parts</b>                  | <b>14,434</b>  | <b>19,174</b>  | <b>32.8%</b>        | <b>36.9%</b>            | <b>41.0%</b>    |
| <b>Food products, beverages, and tobacco products</b> | <b>518</b>     | <b>487</b>     | <b>-5.9%</b>        | <b>1.3%</b>             | <b>1.0%</b>     |
| <b>Plastic products</b>                               | <b>2,761</b>   | <b>2,842</b>   | <b>2.9%</b>         | <b>7.1%</b>             | <b>6.1%</b>     |
| <b>EMS companies (Subconstructors)</b>                | <b>101</b>     | <b>59</b>      | <b>-42.0%</b>       | <b>-</b>                | <b>0.1%</b>     |
| <b>Non-manufacturing</b>                              | <b>156</b>     | <b>122</b>     | <b>-21.5%</b>       | <b>0.4%</b>             | <b>0.3%</b>     |
| <b>Other industries</b>                               | <b>2,822</b>   | <b>3,900</b>   | <b>38.2%</b>        | <b>7.2%</b>             | <b>8.3%</b>     |
| <b>Total domestic shipments</b>                       | <b>39,159</b>  | <b>46,805</b>  | <b>19.5%</b>        | <b>100.0%</b>           | <b>100.0%</b>   |
|   |                |                |                     | <b>(35.6%)</b>          | <b>(37.9%)</b>  |
| <b>Export</b>   | <b>70,918</b>  | <b>76,599</b>  | <b>8.0%</b>         | <b>(64.4%)</b>          | <b>(62.1%)</b>  |
| <b>Grand total</b>                                    | <b>110,076</b> | <b>123,404</b> | <b>12.1%</b>        | <b>(100.0%)</b>         | <b>(100.0%)</b> |

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