Product Overview
Innovation is in our DNA

Our story began in 1949 when Nippondenso Co. Ltd. (today DENSO), a separate entity from Toyota Motor Co. Ltd., was established.

Our Business Fields

Automotive
One of TOP 3 auto parts suppliers worldwide

Customer Products

New business fields
Micro Grid, Electric Power Assist, Security, Healthcare, Biotechnology, Agriculture Support, Cold Chain, Community Network Solution Business

Industrial products

DENSO Corporation at a Glance*

$48.3b in annual revenue (USD)

9% of revenue re-invested in R&D

170.000 employees in 211 group companies

1994 QR-Code invented

Robotics pioneer

50 years
Over 50 Years Developing Industrial Robots
Since 1967 we are developing robots for our automotive industry.

130.000 robots
Worldwide Market Leader
With over 130.000 DENSO robots we are the market leaders in small industrial robots.

OEM supplier

21.500 own use
One of the World’s Largest Robot Users
Over 21.500 DENSO robots work in our own manufacturing facilities.

*Data as of 31.03.2023
Customer Voice

“For nearly two decades DENSO robots have proven their performance and reliability in our machines. Furthermore, a wide product range in the size of robots we are using, makes DENSO robots a natural choice for us.”

Jakob Nors, Innovation Manager, PIM, Denmark

“DENSO deliver fast and precise robots that are reliable and robust. Denso is also a highly reliable supplier who delivers at the agreed time in an increasingly difficult market.”

Anders Linneberg, Sales Director, Eltronic, Denmark

“We want to bring happiness among our customers and avoid troubles for ourselves. Denso robotics has been our technology partner almost over 12 years”.

Ossi Parviainen, CEO Newicon Oy, Pharmacy automation

„In order to be able to maintain its high quality standard, USIMECA seeks for a safe, innovative and cost-efficient support for robotics solution."

Thierry Blay, Technical Director, USIMECA, France

„The excellent quality is appreciated not only by us when installing and programming the technology, but also by our innovative customers in the field of automation. We are very satisfied with the long-term cooperation and support of our contact partner.”

Rüdiger Storre, Senior Key Account Manager, SIM Automation GmbH

„With DENSO robots, in combination with measuring camera systems, we achieve particularly precise, highly flexible and fast handling of very small components.”

Florian Fill, Sales, HOLZ automation GmbH

„From start to finish, COBOTTA from DENSO Robotics proved to be an ideal candidate to create a standardized mobile manipulator. The straight forward integration does not stop at a tiny hardware footprint, but it also includes ready-made software interfaces.”

Christian Deppe, Product Manager Robotics and Virtual Training, Festo Didactic

“DENSO robots are easy to integrate into our NFC object test benches and provide robustness, reliability, and precision for both characterization and compliance testing.”

David Mouret, R&D Director, KEDOLABS, France
### Our full range of small industrial robots

<table>
<thead>
<tr>
<th>Series</th>
<th>Max arm reach</th>
<th>Payload</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 &amp; 6-AXIS - VP Series</td>
<td>430 – 432 mm</td>
<td>2.5 – 3 kg</td>
</tr>
<tr>
<td>6-AXIS - VP Series</td>
<td>653 – 854 mm</td>
<td>7 kg</td>
</tr>
<tr>
<td>6-AXIS - VS Series</td>
<td>505 – 905 mm</td>
<td>4 – 7 kg</td>
</tr>
<tr>
<td>6-AXIS - VS-6556/6557</td>
<td>1.021 – 1.298 mm</td>
<td>13 kg</td>
</tr>
<tr>
<td>6-AXIS - VMB Series</td>
<td>1.506 – 1.804 mm</td>
<td>25 kg</td>
</tr>
<tr>
<td>6-AXIS - VLA Series</td>
<td>2.503 – 2.257 mm</td>
<td>40 – 60 kg</td>
</tr>
<tr>
<td>4-AXIS - VS Series</td>
<td>505 – 905 mm</td>
<td>4 – 7 kg</td>
</tr>
<tr>
<td>4-AXIS - HM Series</td>
<td>600 – 1.000 mm</td>
<td>10 – 20 kg</td>
</tr>
<tr>
<td>4-AXIS - LPH Series</td>
<td>400 mm</td>
<td>3 kg</td>
</tr>
<tr>
<td>4-AXIS - HSR Series</td>
<td>480 – 650 mm</td>
<td>8 kg</td>
</tr>
<tr>
<td>4-AXIS - HS-A1 Series</td>
<td>350 – 550 mm</td>
<td>5 kg</td>
</tr>
<tr>
<td>4-AXIS - COBOTT A Series</td>
<td>342 – 1.303 mm</td>
<td>0.5 – 12 kg</td>
</tr>
<tr>
<td>6-AXIS - VM Series</td>
<td>1.021 – 1.298 mm</td>
<td>13 kg</td>
</tr>
<tr>
<td>6-AXIS - VLA Series</td>
<td>2.503 – 2.257 mm</td>
<td>40 – 60 kg</td>
</tr>
</tbody>
</table>
6 AXIS Robots

<table>
<thead>
<tr>
<th>VP Series</th>
<th>VS-6 Series</th>
<th>VS Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>VP-5243</td>
<td>VS-6556</td>
<td>VS-050</td>
</tr>
<tr>
<td>VP-6242</td>
<td>VS-6577</td>
<td>VS-060</td>
</tr>
<tr>
<td>430 mm</td>
<td>653 mm</td>
<td>505 mm</td>
</tr>
<tr>
<td>432 mm</td>
<td>854 mm</td>
<td>605 mm</td>
</tr>
<tr>
<td>3 kg</td>
<td>7 kg</td>
<td>4 kg</td>
</tr>
<tr>
<td>± 0.02 mm</td>
<td>± 0.03 mm</td>
<td>± 0.02 mm</td>
</tr>
<tr>
<td>0.99 s¹</td>
<td>0.59 s¹</td>
<td>0.35 s¹</td>
</tr>
<tr>
<td>Standard IP30</td>
<td>Standard IP40</td>
<td>Standard IP40</td>
</tr>
<tr>
<td>Mounting: floor &amp; ceiling</td>
<td>Dust &amp; Splash-proof (IP65/54), Cleanroom (ISO 5 &amp; 3), UL Specifications</td>
<td>Dust &amp; Splash-proof (IP65/54), Protected Type, IP67, Cleanroom (ISO 5 &amp; 3), UL Specifications</td>
</tr>
<tr>
<td>RC8A controller</td>
<td>Dust &amp; Splash-proof (IP65/54), Cleanroom (ISO 5 &amp; 3), UL Specifications</td>
<td>Dust &amp; Splash-proof (IP65/54), Cleanroom (ISO 5 &amp; 3), UL Specifications</td>
</tr>
<tr>
<td>Communication Interface – Patented Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Connect servo grippers and GigE devices easily to the robot’s flange.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Avoid long cables and their entanglement with surrounding equipment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Available for VS-Series and VS-050-S2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VM Series</th>
<th>VMB Series</th>
<th>VLA Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>VM-6083</td>
<td>VM-6081</td>
<td>VLA-4025</td>
</tr>
<tr>
<td>VM-2518</td>
<td>VMB-2518</td>
<td>VLA-6022</td>
</tr>
<tr>
<td>1.021 mm</td>
<td>1.298 mm</td>
<td>2.503 mm</td>
</tr>
<tr>
<td>1.506 mm</td>
<td>1.804 mm</td>
<td>2.257 mm</td>
</tr>
<tr>
<td>13 kg</td>
<td>25 kg</td>
<td>40 kg</td>
</tr>
<tr>
<td>± 0.05 mm</td>
<td>± 0.07 mm</td>
<td>± 0.05 mm</td>
</tr>
<tr>
<td>0.89 s¹</td>
<td>0.95 s¹</td>
<td>–</td>
</tr>
<tr>
<td>Standard IP40</td>
<td>Standard IP40</td>
<td>Standard IP65</td>
</tr>
<tr>
<td>Mounting: floor &amp; ceiling</td>
<td>Dust &amp; Splash-proof (IP65/54), Cleanroom (ISO 5), UL Specifications</td>
<td>Dust &amp; Splash-proof (wrist IP67/65), Cleanroom (ISO 5), UL Specifications</td>
</tr>
<tr>
<td>RC8A controller</td>
<td>Dust &amp; Splash-proof (IP65/54), Cleanroom (ISO 5), UL Specifications</td>
<td>Dust &amp; Splash-proof (wrist IP67/65), Cleanroom (ISO 5), UL Specifications</td>
</tr>
</tbody>
</table>

Hygienic design according to GMP, certified by Fraunhofer Institute, perfectly suited for pharmaceutical and medical industries.

• Payload 4 kg
• Arm reach 520 mm
• Round edges and no external screws, avoiding bacteria accumulation and maintain high sanitation levels
• Resistant to UV light, H2O2 (35% concentration) and other chemicals

1 With 1 kg Payload
2 Operation angle is limited on wall-mount and sloping-mount
**COBOTTA-Series**

<table>
<thead>
<tr>
<th>Electric Gripper/ Vacuum Gripper</th>
<th>Camera Built-In Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Built-in electrical Gripper (force controlled)</td>
<td>• Built-in AF Camera</td>
</tr>
<tr>
<td>• Electrical Vacuum Generator/ Vacuum Gripper</td>
<td>• End-effector Ethernet Cable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reach</th>
<th>Payload</th>
<th>Repeatability</th>
<th>Max. TCP speed</th>
<th>Protection</th>
<th>Weight</th>
<th>ISO Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>342.5 mm</td>
<td>0.5 [0.7 kg]</td>
<td>± 0.05 mm</td>
<td>450 mm/s</td>
<td>IP 30</td>
<td>4 kg</td>
<td>EN ISO 102181:2011, EN ISO 13849 1:2015, ISO/TS 15066:2016</td>
</tr>
</tbody>
</table>

1 When the end-effector faces downward (within ±10°)

**Camera Built-In Set**
- Built-in AF Camera
- End-effector Ethernet Cable

**Safety Design**
Power- and force limited Cobot with inherent safe design and certified functional safety.

**Portable body**
With its total weight of 4 kg (incl. controller) COBOTTA is easy to transport between different stations or mounting on mobile platforms.

**Open platform**
Wide range of possibilities from first-time user to robot expert.

**Easy to use**
Intuitive programme creation through hand-guided teaching, integrated gripper and vision and tablet-based app applications.

**COBOTTA PRO-Series**

<table>
<thead>
<tr>
<th>Option</th>
<th>Bottom Connector Mounting: All directions</th>
<th>CRC9 controller</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Reach</th>
<th>Payload</th>
<th>Repeatability</th>
<th>Max. TCP speed</th>
<th>Protection</th>
<th>Weight</th>
<th>ISO Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>908 mm</td>
<td>6 kg</td>
<td>± 0.03 mm</td>
<td>2,100 mm/s (^2)</td>
<td>IP 54</td>
<td>28.5 kg</td>
<td>EN ISO 102181:2011, EN ISO 13849 1:2015, ISO/TS 15066:2016</td>
</tr>
<tr>
<td>1.303 mm</td>
<td>12 kg</td>
<td>± 0.04 mm</td>
<td>2,500 mm/s (^2)</td>
<td>IP 54</td>
<td>38 kg</td>
<td></td>
</tr>
</tbody>
</table>

1 Option, \(^2\) Maximum TCP speed during high speed operation

**High speed**
A high-speed collaborative robot that balancing high productivity with safety.

**Easy to use**
Simple, intuitive programming using visual programming „Blockly“. Realize complex & high precision teaching & program applications easily.

**Safety**
Equipped with various safety functions that ensures highest safety standards.

**Integrated control**
RC9 with integrated equipment control and open development environment.
# 4 AXIS Robots

<table>
<thead>
<tr>
<th></th>
<th>HS-A1 Series</th>
<th>HSR Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reach</td>
<td>HS-035A1 350 mm</td>
<td>HSR-035 480 mm</td>
</tr>
<tr>
<td></td>
<td>HS-045A1 450 mm</td>
<td>HSR-048 550 mm</td>
</tr>
<tr>
<td></td>
<td>HS-055A1 550 mm</td>
<td>HSR-055 650 mm</td>
</tr>
<tr>
<td>Vertical Stroke</td>
<td>100, 150, 200 and 320 mm</td>
<td>100, 200, 320 and 510 mm (with bellows 170 and 290 mm)</td>
</tr>
<tr>
<td>Payload</td>
<td>5 kg</td>
<td>8 kg</td>
</tr>
<tr>
<td>Repeatability</td>
<td>± 0.015 mm</td>
<td>± 0.02 mm ± 0.02 mm</td>
</tr>
<tr>
<td>Cycle time</td>
<td>0.29 s²</td>
<td>0.28 s² 0.31 s²</td>
</tr>
<tr>
<td>Standard Protection class</td>
<td>Standard IP20</td>
<td>Standard IP20</td>
</tr>
<tr>
<td>Options</td>
<td>Bellows on 3rd axis, Dust &amp; splash-proof (IP65), Cleanroom (ISO3), UL Specification</td>
<td>Bellows on 3rd axis, Dust &amp; splash-proof (IP65), Cleanroom (ISO385), UL Specification</td>
</tr>
</tbody>
</table>

- HS-A1 Series options: Ceiling Mounted (with HS-A1A and HS-055A1)
- HSR Series options: Ceiling Mounted (only with HSR-048 and HSR-055)

## HSR Highlights

**High-speed motion**

High acceleration & motion profiles. Improved cycle per minute allows the robot to move at high speed continuously.

**Continuous motion**

Improved heat dissipation performance at the base unit allows the robot to achieve continuous motion.

## XR Series

- **Payload:** 5 kg
- **Motion range:** Up to 1660 mm
- **R-axis stroke:** 1660 mm
- **Application examples:** palletizing, assembly, pick & place, feeding & carrier, etc.

**Longer motion range**

Compared to 4 and 6-axis robots thanks to X-R structure.

**Compact**

Ideal for shortened production lines with restricted spaces and low-height areas.

<table>
<thead>
<tr>
<th></th>
<th>HM Series</th>
<th>LPH Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reach</td>
<td>HM-4060* 600 mm</td>
<td>LPH-040 400 mm</td>
</tr>
<tr>
<td></td>
<td>HM-4070* 700 mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HM-4085* 850 mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HM40A0* 1000 mm</td>
<td></td>
</tr>
<tr>
<td>Vertical Stroke</td>
<td>100, 150, 200, 300 and 400 mm</td>
<td>150 mm</td>
</tr>
<tr>
<td>Payload</td>
<td>10/20 KG 3 kg</td>
<td></td>
</tr>
<tr>
<td>Repeatability</td>
<td>± 0.02 mm</td>
<td>± 0.025 mm ± 0.02 mm</td>
</tr>
<tr>
<td>Cycle time</td>
<td>0.29 s²</td>
<td>0.31 s² 0.45 s²</td>
</tr>
<tr>
<td>Standard Protection class</td>
<td>Standard IP20</td>
<td>Standard IP20</td>
</tr>
<tr>
<td>Options</td>
<td>Bellows on 3rd axis, Dust &amp; Splash-proof (IP65), Cleanroom (ISO 5), UL Specification</td>
<td>Ceiling Mounted (only HM-4070°C &amp; HM-4085°C 10 kg and 20 kg)</td>
</tr>
</tbody>
</table>

- With 1 kg Payload *With 2 kg Payload *Cleanroom type is only suitable for floor mounting
- UL Specifications are only for floor mounting (HS-A1 Series) *UL Specifications are for floor and ceiling mounting (HM series) *Not for Dust & Splash Proof
ESD Series

When handling electronic components, for example during PCB assembly, visual inspection, product testing and packaging, uncontrolled electrostatic discharges (ESD) endanger product integrity.

By expanding the possible protection classes to include ESD, DENSO offers the ideal solution for the electronics industry. The ESD series includes the HS-A1 series, as well as the VS series. Ranges from 350 mm up to 905 mm with payloads of up to 7 kg are fully covered. In order to achieve the ESD conformity, required in many parts of the electronics industry, the HS-A1 series as well as the VS series have been subjected to a type approval test by the ESD Academy to ensure that all necessary limits according to IEC 61340-5-1:2016 / ANSI/ESD S20.20:2021 are met and that the product integrity is not compromised.

The ESD conformity was determined and certified by an independent testing institute (ESD Academy) with the following tests.

- Testing of the leakage resistances up to the robot flange (dynamic and static)
- Testing of the electrostatic charge on all surfaces of the robot (dynamic and static)
- Testing of dynamic charging and discharging on the robot
RC8A Functions

Command Slave
Robots can be controlled with PLC languages (ladder programs). Function blocks that support 107 robot commands are offered.

b-CAP (communications protocol)
By directly sending packets of motion commands to the robot from a PC, PLC or other device, the robot can be controlled.

RC8A Features

Compact & light
357mm x 320mm x 94mm smallest lightweight high-performance 8-axis controller in its class

High control capacity
• Control up to 8 axis
• Control additional peripheral

Safe control
• Safety I/O
• Safety Motion up to Plc, Cat 4

Expandability
• Supporting all network standards
• Control versatile external devices

Programming Flexibility
3D visual programming, PacScript, Python, Java, C++, C#, VB, LabVIEW, ... or PLC code

Standard Connections
• 16 Inputs / 15 Outputs
• GigE Ethernet

RC8A Controller

1. Safety Motion Input Cable (8m, 15m)
   Safety Devices, Safety Laser Scanner, Safety Light Curtain, Safety Mat, Safety PLC

2. Safety Motion Output Cable (8m, 15m)
   Safety Devices, Safety PLC

3. Control Expansion Boards
   • Parallel I/O
   • DeviceNet Slave
   • DeviceNet Master
   • PROBUS Slave
   • PROFINET I/O Device
   • CC-Link RD
   • EtherNet/IP
   • EtherCAT Slave
   • CONTEC Serial Comm.
   • CONTEC Analog I/O
   • CONTEC Digital I/O
   • External Axis

4. Software
   • WINCAPS III
   • EMU
   • Robot Tools
   • ORIN 2 SDK
   • RC Vision

5. Mini I/O Cable (8m, 15m)
   Peripheral Devices: PLC, Conveyor
   Hand I/O Cable (8 m, 15 m)
   8 Inputs / 8 Outputs

6. Operating Devices
   Teach Pendant, Mini Pendant, Emergency Stop Box

7. Robot Connector Cable (2, 4, 6, 12, 20 m)
   Additional Axis, Eyefeeder with Camera

8. Power-Supply Cable

9. Conveyer tracking
   Since a robot can track workpieces, workpieces can be conveyed and aligned without stopping the conveyer.

Dual Arm Control
Allows a single controller to control two SCARA robots. Saves space and simplifies operations.
**RC9 Controller**

- **Simplified teaching and operation**
  - Master & Slave function
  - Intuitive Smart TP

- **Software**
  - WINCAPS III
  - WINCAPS Plus
  - EMU
  - EVP2
  - Imitative learning engine

- **Enable various field networks**
  - Fieldbus
  - Industrial EtherNet

- **RC9/CRC9 controller available for**
  - VM8 1500/1800 (RC9)
  - VLA 2500 (RC9)
  - COBOTTA PRO (CRC9)

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**RC9 Features**

**Built in PLC**
- Fully integrated Beckhoff TwinCAT
- Real-Time control
- Compatible with all Beckhoff components

**Real-time Control Architecture**
- Real-time intelligent control robots & equipment
- 250 ms motion control real-time capability

**Safe control**
- Safety I/O
- Safety Motion up to Pe, Cat 4

**Smart Teach Pendant**
- Multifunctional smart Teach pendant
- TwinCAT3 PLC UI and Wincaps Plus UI

**Programming Flexibility**
- Advanced software functionality / known RC8 programming environment

**Standard Connections**
- 20 inputs / 20 Outputs
- GigE Ethernet

**Expandability**
- Control up to 4 robot arms or 32 axis
Safety Motion Function

Safety function that allows humans and robots to work in a shared area

- EN ISO 13849-1 (safety function). Certified by TÜV Rheinland.
- Performance level PL = d/SIL2 (standard controller; PL = e/SIL3).

Overview

The safety function monitors and controls the robot operation status to realize safe and highly-productive robot equipment.

1. Monitor the motion area
   Robot motion area is limited to monitor the motions is within the limited area.
   - Small-sized equipment mutual access to the work area common to human and robots.

2. Monitor the speed
   Robot speed is controlled to monitor the robot speed is slower than the speed limit.
   - Continuous motion as maintaining the safe speed is enabled even when human approaches the robot.

3. Monitor the robot stop
   The stop status of the robot is monitored without shutting down the motive power.
   - Smooth recovery of robot motion when human leaves the common work area is assured to improve the productivity.

Use scenarios

When entry of a human into the set motion area is detected by devices such as laser scanners, the robot speed is limited to the specified safe speed or less to enable continuous production. The robot stops moving when the human enters the stop area.

Safety Function

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>STO (Safe Torque Off)</td>
<td>Function of immediate shutdown of the motor power</td>
</tr>
<tr>
<td>SS1 (Safe Stop 1)</td>
<td>Function to shut down the motor power after slowing down and stopping the robot</td>
</tr>
<tr>
<td>SS2 (Safe Stop 2)</td>
<td>Function to leave the power on after slowing down and stopping the robot</td>
</tr>
<tr>
<td>SOS (Safe Operating Stop)</td>
<td>Function to monitor the robot does not move from the stop position</td>
</tr>
<tr>
<td>SLP (Safely-Limited Position)</td>
<td>Function to monitor the axes do not exceed the soft limit</td>
</tr>
<tr>
<td>RSM (Robot Speed Monitoring)</td>
<td>Function to monitor the robot’s specified sections do not exceed the specified speed.</td>
</tr>
<tr>
<td>RMP (Robot Position Monitoring)</td>
<td>Function to monitor the robot’s specified sections do not exceed the specified motion area.</td>
</tr>
<tr>
<td>SBC (Safe Brake Control)</td>
<td>Function to turn off the external brake power and lock the brake.</td>
</tr>
</tbody>
</table>

* Equipment must be used only after performing risk assessment, implementing safety measures, and checking that hazard to humans is thoroughly prevented.
Standard Software

WINCAPS III - Offline Programming Software

Arm 3D View
Displays the robot and peripheral devices in 3D and simulates robot motion.

Online Functions
Connect online to robot controller to use various monitoring and debugging functions

Simulation functionality
Execute offline user created programs on the pc to check cycle time, robot movement, pose and interference.

Log Function
User can view and export various logs to analyze.

WINCAPS Plus
The Software package offers five independent software packages and is a perfect add-on for WINCAPS III to reduce man-hours for nearly each Industrial Scenario during Design, Installation, Operation and Maintenance.

• 3D visual programming
• Optimized motion planner
• Home position guidance
• Robot viewer
• Palletizing builder

ORiN
ORiN 2 SDK is a software tool kit used to develop an application program or provider based on ORiN2 specification. It provides a standard communication interface for robots as well as various FA peripherals and databases. The superior expendability of ORiN2 supports not only industrial robots, but a variety of devices (including PLC, CNC machine tools, bar code readers and many more) to enable application development that is independent of manufacturer or model.

Robot Tools

Fully featured suite of utility tools created for optimize maintenance and operation of DENSO robots.

Virtual TP
A virtual teach pendant on the PC works with a controller set on manual mode, allowing configuration and monitoring from a remote location.

Mobile monitor
Monitors controller operating status and enables quick response to an error by sending notification email.

Control log analyzer
Obtains the control log from a designated controller and automatically displays it in a graph.

GP Operator
Connect a robot controller to a PC and use a mouse or game pad for easy robot operation.

Easy Backup
Performs backup and restores all data from single or multiple controllers in a batch.

Image logger
Help to determine cause of sudden errors and incorrect equipment assembly.
DENSO Difference + USP’s

Our highest priority at DENSO is offering you the best quality and cost-effective products, which allows you to maximise your production while delivering maximum ROI.

Over 10 Years Working Life and Reliability
DENSO robots are well-known for operating over decade delivering the same precision and performance as from their first day.

Ease of Integration
Solutions to program DENSO robots and factory automation devices such as external axis, feed systems and sensors using only one interface.

Ease of Programming
Templates and wizards to program pick & place and palletising.
Program DENSO robots with LabVIEWTM, Matlab, Python, C++, C#, Java, ROS and Visual Basic or via PLC.

Low Maintenance
DENSO robot gears are lubricated with life-time grease. This results in a low cost of ownership.

Standard 24-Months Guarantee
DENSO offers a 24 months guarantee to all of our customers.

Unique Technologies
Optional Ethernet and electrical internal wiring up to the robot’s flange to protect cables.

Compact Design
Small and slim robot arm.
Smallest robot controller.

Wide Variety of Options
Extensive array of robot arms and optional features, e.g. from standard to water protected and clean room.

Cost of ownership

DENSO RC3 V3-C series robot

Installed at 601 plant 11/06/2003
• Performed oxygen sensor heater setting at DENSO Manufacturing plant in Athens, TN
• Total hours run in production: 45,400
• Total cycles on robot: 35,000,000
• Removed from production on 6/1/2016

• Original purchase price $20,000 USD
• Maintenance performed over 20 years service life: Batteries, belts, filters, grease exchange, amplifier replacement, motor an drive replacement cost $6978.45
• Total cost of ownership per production hour: $0.59
OUTSTANDING Worldwide Service and Support

No matter where you need us, our team of highly qualified specialists are ready to help you; fast and personal contact, no hotlines.
We offer a vast range of services such as:

**Training**
- Programming
- Operator
- Maintenance
- Repair
- And more

**Technical support**
- Simulations
- Tests
- Troubleshooting
- Programming
- And more

**Repair centre located in Germany**
- Quick and professional repair (on and off-site)
- Robot refurbishment
- Robot optimization

**AMC**
- Trouble-free production thanks to plannable maintenance
- Priority spare parts supply
- Attractive pricing and further discounts

Local spare parts centres that provide fast delivery

support@densorobotics-europe.com
Tel. +49 (0) 6105 2735 150