Automate repetitive tasks

VT6-L 6-axis robot
Compact, easy-to-use and affordable

Maximum usability for simple tasks
Automate your simple, repetitive material handling tasks and allow your team to concentrate on more creative work.

Engineered for maximum usability, with a low total cost of ownership (TCO), the VT6-L is ideal if you’re looking for an affordable solution to non-automated tasks – especially within the automotive, medical and electronics sectors.

Simple to set up, easy to integrate
As the first model in the Epson VT series to offer the all-in-one concept, you can plug in and begin even if you have limited robot installation experience. Designed with simplicity and flexibility in mind, the VT6-L can be integrated easily into a variety of environments and scenarios – from machine tending to packing and placement.

With a range of 900mm and a payload of up to 6kg, the VT6-L can accommodate low volume production with a high mix of repetitive tasks. It’s perfect if you’re looking to take the first step towards automation or are looking to downsize existing machinery.
**Name:** VT6-L 6-axis robot  
**Reach:** 900mm  
**Payload:** 6kg

Set up and install the VT6-L quickly, with little programming knowledge required.

Save space with built-in controller.

Highly economical design and low TCO.

Reduce maintenance cost and machine downtime with a battery-less motor unit.

Optional camera brackets  
For easy mobile camera mounting.

Optional external cabling mounting plates  
Flexible external cable routing.

Hollow end-of-arm design  
Reduces the workload for the end-of-arm tooling.
Maximum usability for simple tasks

With a reach of 900mm and a payload of 6kg, the VT6-L is designed for a wide range of applications. Whether loading and unloading, packaging or assembling parts, this all-in-one robot offers the perfect solution for simple automation applications.

With unrivaled setup ease, space-saving design, and low TCO, the VT6-L lowers the cost barrier to simple manual task automation.
The VT6-L all-in-one 6-axis robot is extremely versatile, providing a wide range of automation possibilities including:

Assembly
Pick and place
Material handling
Packaging
Machine tending
- and more.

**Benefits of VT6-L at a glance:**

More stable, continuous work processes
Minimised error rate
Significantly lower space requirements due to the built-in controller
Seamless traceability in digitised processes
Shorter throughput times

The low weight, easy installation, powerful and intuitive RC+ programming platform make the VT6-L robot a simple solution for many industrial applications.

This example shows the VT6-L robot performing a loading and unloading application, putting casted parts into a washer dryer to clean and remove any impurities for the assembly process.
Integrated concept, simple networking

Similar to our high-end Epson controller, the VT6-L built-in controller is designed for simple integration to the complete machine. The VT6-L built-in controller communicates with all conventional fieldbus systems.

Servo power indicator lamp
Flexible external cable routing
Easy mobile camera mounting
Simplified cabling — minimizes cable pulling
Controller is built-in to the base of the arm: CPU, DPB, CPU battery, CF card
Energy and cost-saving solution

Compared to conventional 6-axis robots, the power consumption of the VT6-L is reduced by up to 30%. The battery-less motor unit reduces operating costs and is environmentally friendly.
Intuitive and powerful development environment
EPSON RC+7.0

The powerful Epson RC+7.0 project management and development environment is ideal for the straightforward programming of your applications with an intuitive windows interface, open structure and integrated image processing.
Supported software options:

**Vision Guide 7.0**
Epson image processing software with support for high-resolution cameras and colour cameras

**RC+ API 7.0**
Convenient integration of external software and databases, development of custom user-interfaces

**External control point (ECP)**
For easy teaching of corners and curves

**GUI Builder 7.0**
To design your own user interface based on the simple Epson programming language SPEL +

**Optical character recognition (OCR)**
For safe detection and control of fonts and symbols
### Technical specifications VT6-L

<table>
<thead>
<tr>
<th>Payload (load)</th>
<th>Rated</th>
<th>3kg</th>
<th>Max.</th>
<th>6kg</th>
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</thead>
<tbody>
<tr>
<td>Max. reach</td>
<td>P point: Joint#1-5 center</td>
<td>920mm</td>
<td>Joint#1-6 flange surface</td>
<td>1000mm</td>
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<tr>
<td>Repeatability</td>
<td>Joint#1-6</td>
<td>± 0.1mm</td>
<td></td>
<td></td>
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<tr>
<td>Max. motion range</td>
<td>Joint#1</td>
<td>±170°</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Joint#2</td>
<td>-160° ~ +65° (225°)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Joint#3</td>
<td>-51° ~ +190° (241°)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Joint#4</td>
<td>±200°</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Joint#5</td>
<td>±125°</td>
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</tr>
<tr>
<td></td>
<td>Joint#6</td>
<td>±360°</td>
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<tr>
<td>Max. operating speed</td>
<td>Joint#1</td>
<td>183.7°/s</td>
<td></td>
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<tr>
<td></td>
<td>Joint#2</td>
<td>122.5°/s</td>
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<tr>
<td></td>
<td>Joint#3</td>
<td>118.8°/s</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Joint#4</td>
<td>271.4°/s</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Joint#5</td>
<td>296.8°/s</td>
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<tr>
<td></td>
<td>Joint#6</td>
<td>296.8°/s</td>
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<tr>
<td>Allowable moment of inertia</td>
<td>Joint#4</td>
<td>0.3 kg·m²</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Joint#5</td>
<td>0.3 kg·m²</td>
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<td></td>
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<tr>
<td></td>
<td>Joint#6</td>
<td>0.1 kg·m²</td>
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<tr>
<td>Mounting type</td>
<td>Table top / Ceiling</td>
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<tr>
<td>Robot installation screw hole and interval</td>
<td>200×200 [mm] Φ9[mm]</td>
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<tr>
<td>Brake</td>
<td>All Axes</td>
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<tr>
<td>Environment spec</td>
<td>Standard</td>
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<tr>
<td>Weight (cables not included)</td>
<td>Less than 40kg</td>
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<tr>
<td>Applicable Controller</td>
<td>Built-in controller</td>
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<tr>
<td>Power Source / Power cable length</td>
<td>AC100-240V single phase / 5m</td>
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<tr>
<td>Power capacity</td>
<td>1.25kVA</td>
<td></td>
<td></td>
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<tr>
<td>Installed wire for customer use</td>
<td>None (External Wiring Option available)</td>
<td></td>
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<tr>
<td>Installed pneumatic tube for customer use</td>
<td>None (External Wiring Option available)</td>
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<tr>
<td>I/O</td>
<td>Standard I/O</td>
<td>In 24, Out 16 (Non polarity)</td>
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<tr>
<td></td>
<td>Remote I/O</td>
<td>In 8, Out 8 (Remote function assigned to standard I/O)</td>
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<tr>
<td>Safety Standard</td>
<td>EU Directive complied</td>
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<td></td>
<td>KC KCs</td>
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<tr>
<td></td>
<td>(Scheduled to be on sale 3 months after standard spec launch)</td>
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</tr>
</tbody>
</table>
Ensure your production line hits top gear

**Epson robot systems:**
*Precise, fast and reliable*

Our robots pallet, saw, mill, drill, grind, assemble, move and build together. They work precisely and at a breathtaking speed in all these and many other applications – often for up to 24 hours a day.

Our product portfolio includes one of the most extensive SCARA model ranges worldwide, 6-axis robots, controllers and software.

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**Epson Spider robots**
The economic miracle. Thanks to its unique design, the Epson Spider can reach every corner of its workspace while achieving unmatched cycle times.

**Epson SCARA robots**
Precise working even at high speeds. Compact and powerful, Epson has the world’s largest range of SCARA robots – with over 300 models.
Discover the full potential of your Epson robot systems

As a service, we offer a comprehensive pre and after-sales support program, including:

Feasibility studies for maximum planning and project security

Support for planning and implementation

Introductory seminars, programming/maintenance courses, operator training

Inspection and individual maintenance concepts

Hotline service, on-site repair service

Central spare part stocking

**Epson controllers**

Strong performance in a small space. Epson controllers are based on a robust, integrated system and can control manipulators and peripherals.

**Epson 6-axis robot**

Flexibility through rotating axes. Unrivalled point and track accuracy enable complex work processes to be precisely executed.
Simulation of robot cells

Good preparation is everything. Plan and visualise all procedures in your production, validate your program offline initially and carry out troubleshooting and editing work easily from your desk. With the Epson RC+ Simulator – included in the software package – you save time and money through all phases of your project.

Phase 1
Design
Plan your robot cell at full size in advance and work out the expected cycle time for your application to check feasibility before a single part for the system has been made. Plan future system expansions in the simulation system to keep downtime to a minimum.

Phase 2
Integration
Completing the program validation process before the robots are delivered enables you to create programs at the same time, with the system capable of displaying and evaluating even complex motions. Collision risks are identified, and equipment damage is prevented.

Phase 3
Operation and maintenance
Troubleshoot and modify programs from your desk. Use the 3D layout to visualise collision detection, reachability checks and robot motions.
About Epson

Epson Robotic Solutions is one of the leading suppliers of high-tech robot systems that are renowned worldwide for their reliability. The product range includes 6-axis robots, SCARA robots, the SCARA entry-level LS and T models, the special Epson-developed Spider and N robots types, as well as the pioneering Dual Arm robot. Added to this are image processing controls and the Epson Force Sensor for force-controlled applications.

This gives Epson Robotic Solutions one of the most comprehensive ranges of high-precision industrial robots in the world, making them a technological pioneer for intelligently controlled automation processes.

Technological pioneer

1982  
Epson SCARA robots freely available in Japan for the first time

1986  
First cleanroom robot class 1

1997  
First PC-based controller

2008  
Inventor of the right or left arm-optimised G3 SCARA robot

2009  
Inventor of the spider – a unique SCARA robot with no dead zones

2013  
First application of Epson QMEMS® sensors in robotics, reducing 6-axis kinematics vibrations

2014  
Epson Compact Vision CV2: Epson’s own ultra-fast image processing computer

2016  
Epson N2 series: World’s first 6-axis robot with folding arm – extremely compact and space-saving

2017  
Epson Dual Arm robot with an arm geometry inspired by human physiology, as well as integrated sensors such as cameras, force sensors, and accelerometers

Pre and after-sales support

Feasibility studies for maximum planning and project security

Support for planning and implementation

Introductory seminars, programming/maintenance courses, operator training

Inspection and individual maintenance concepts

Hotline service, on-site repair service

Central spare part stocking
Experience all our Epson robots in action. Build, simulate and improve your automation application in a workshop cell, with help from our experts. The cell can be controlled and networked using all conventional fieldbus systems. In addition, we can supply you with modern peripherals such as a vision and conveyor tracking system.

Make an appointment

Call us on
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or send an email to
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Seiko Epson Corp
http://global.epson.com/products/robots/

Epson China Co, Ltd.
www.epson.com.cn/robots/

1. Do not apply the load exceeding the maximum payload.
2. If the center of gravity is not at the center of each arm, set the eccentric quantity using INERTIA command.
3. Manipulators are set to "Table Top mounting" at shipment. To use the manipulators by other installation coordination, need to change the model settings on RC+ software.
4. Actual required capacity depends on the robot motion.