

EPSON[®]
EXCEED YOUR VISION

SCARA ROBOTS





Why Epson® Robots?

As precision automation specialists, the Epson Robots team has been building automation products for over 35 years.

Leading the industry in small-parts-assembly applications, we've introduced many firsts. As a result, our innovative products are hard at work in thousands of manufacturing facilities throughout the world.

1 Leading Epson technology

- Epson is the #1 SCARA robot manufacturer in the world
- We introduced the world's first folding-arm 6-Axis robot
- Many of our robots contain integrated motion sensors to reduce vibration and increase performance

2 What you need, when you need it

- The Epson lineup features both SCARA and 6-Axis robots which use the same controls and software platform
- We offer a wide range of integrated options including Vision Guidance, Force Guidance and more

3 Intuitive programming software

- Epson RC+® software is extremely user-friendly, making automation setup fast and easy

4 Reliability you can count on

- Our team is dedicated to helping you find the best solution for your automation needs
- Epson robots are long-lasting and require little maintenance

Why Epson SCARA Robots?



Epson's lineup of over 300 models gives users the power to choose the right robot for their application.

Hundreds of models available

- Sizes ranging from 175 to 1,000 mm in reach
- Payloads up to 20 kg
- Tabletop, wall and ceiling mount options

Fast speeds

- Extraordinary cycle times maximize parts per hour

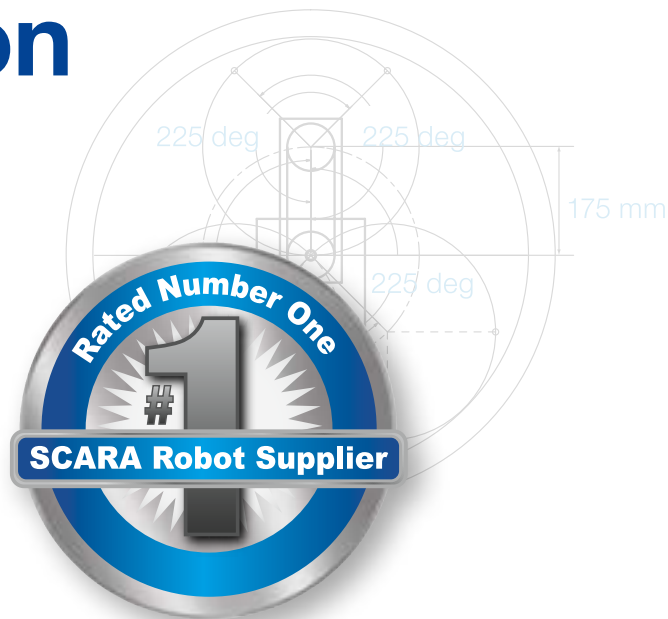
Extreme precision

- Repeatability down to 5 microns

Advantage Epson

#1 SCARA robot manufacturer in the world

- **Epson is committed** to continual improvements in performance, ease of use and integrated options
- **Advanced Servo Technology** — no overshoot or ringing

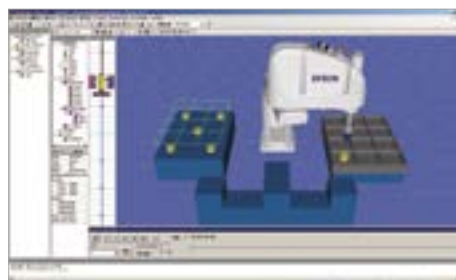


Epson RC+ Software

- **Intuitive graphical interface** significantly reduces programming time
- **Open architecture** provides the flexibility to achieve maximum productivity with minimum programming overhead
- **Easy-to-use** integrated options like Force Guidance, Vision Guidance, GUI Builder and more can help reduce overall development time



Epson RC+ features built-in source level debugger



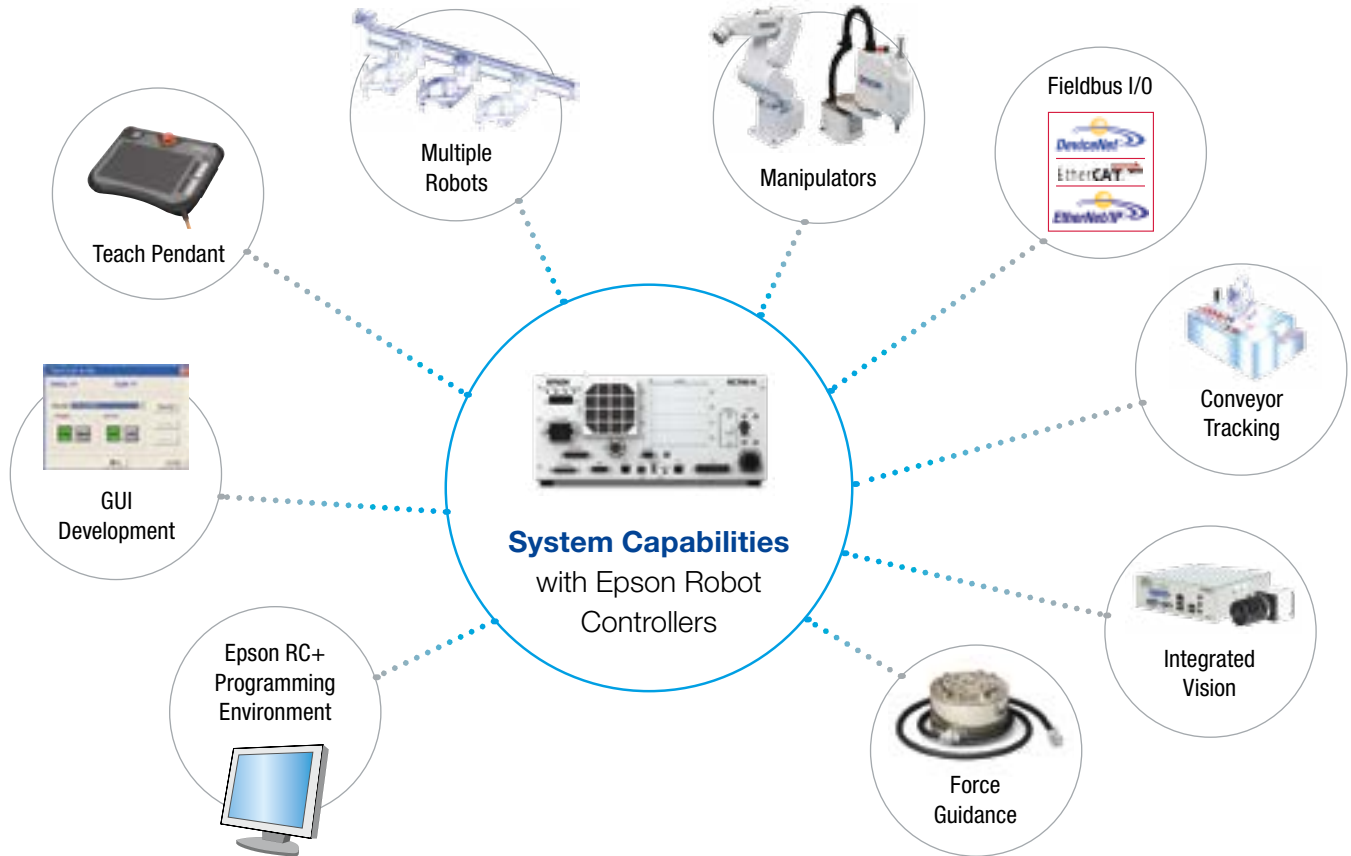
3D simulation included with Epson RC+ software

Epson Robots Precision Automation Specialists

For more than 35 years, the world's top manufacturers have relied on Epson Robots to reduce production costs, improve product quality, and increase their bottom line. Drawing on our global expertise in robotic solutions development, we are committed to providing customers with the tools they need to automate manufacturing processes and achieve higher productivity.

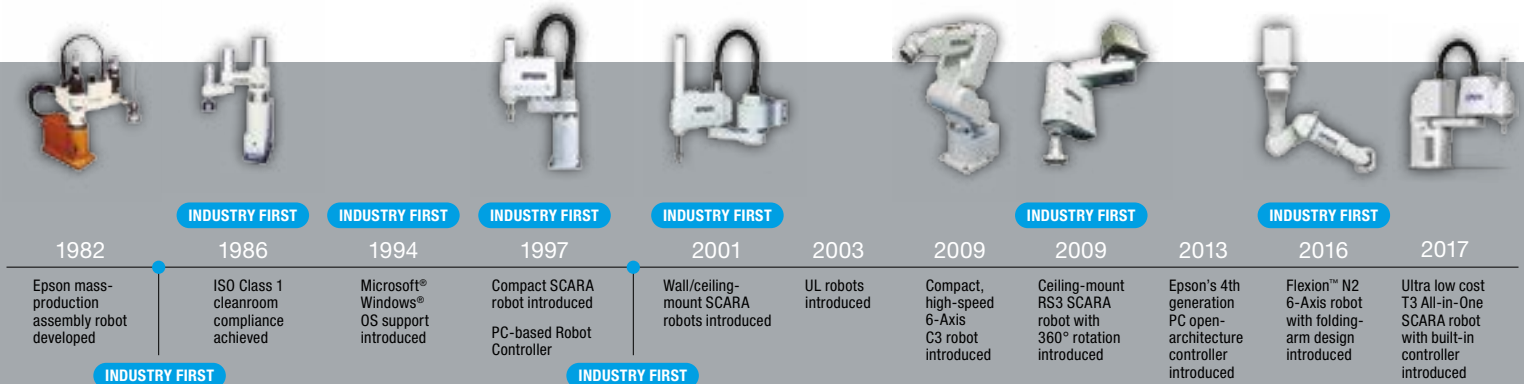
Multi-tiered Controller Offering

- Gives customers the power to select the right controller for the job
- Open architecture plus a wide variety of integrated options



Superior Technical Service and Support

- Our robot experts have many years of extensive training and experience, allowing them to help solve even the most difficult automation issues
- Our technical team is readily available to help with layout reviews, cycle time optimization, tooling ideas, component integration and more





Integrated vision options, designed specifically for robot guidance, make it easy to automate simple applications when vision is required

G-Series



With a vast product lineup including reach options from 175 to 1,000 mm, G-Series robots lead the industry in features and performance. With payloads ranging from 1 kg to 20 kg and cycle times down to 0.29 seconds, G-Series robots offer the speed and overall performance to tackle any task. Featuring a unique high-rigidity arm design, which reduces vibration, these robots deliver fast speeds and high precision with no overshoot or ringing.

G-SERIES



G1 High-performance, high-precision mini SCARA robot

G3 Compact, fast and powerful with straight or unique curved arms



G6 Ultra fast speeds with best-in-class motion range



G10 Provides high speed plus heavy payloads



G20 Long reach and high payload with smooth motion



Cleanroom models available

G-SERIES SPECIFICATIONS

		G1	G3	G6	G10	G20
Arm length		175 – 225 mm	250 – 350 mm	450 – 650 mm	650 – 850 mm	850 – 1000 mm
Repeatability	Joints #1 – #2	±0.005 – ±0.008 mm	±0.008 – ±0.010 mm	±0.015 mm	±0.025 mm	±0.025 mm
Payload	Rated	0.5 kg	1 kg	3 kg	5 kg	10 kg
	Maximum	1 kg	3 kg	6 kg	10 kg	20 kg
Standard cycle time¹		0.29 – 0.30 sec	0.36 – 0.37 sec	0.33 – 0.38 sec	0.34 – 0.37 sec	0.37 – 0.42 sec
Installation environment		Standard / Cleanroom ² & ESD		Standard / Cleanroom ² & ESD / Protection (IP54 & IP56)		
Available controllers		RC180, RC700A				

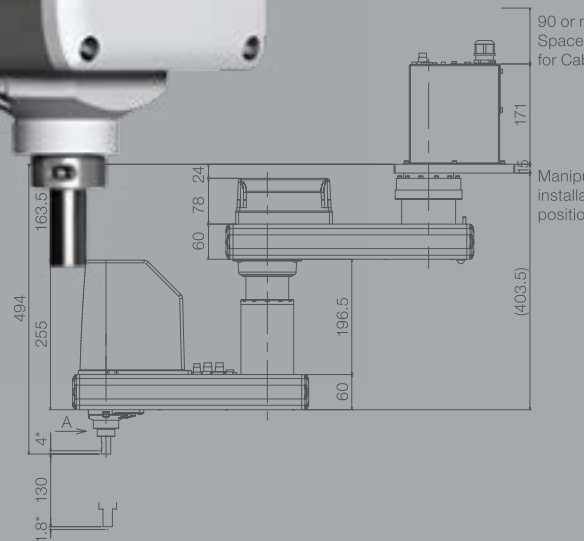
¹ Cycle time based on round-trip arch motion (300 mm horizontal, 25 mm vertical; G1: 150 mm horizontal, 25 mm vertical).

² Complies with ISO Class 3 (ISO 14644-1) and older Class 10 (<10 0.1 µm particles per 28,317 cm³: 1ft³) cleanroom standards.



RS-Series

RS-Series robots are the most unique and flexible SCARA robots available in the market today, offering payloads ranging from 3 kg to 4 kg and cycle times starting at 0.34 seconds. With the ability to cross under as well as reach behind, RS-Series robots are able to utilize the entire workspace underneath the arm. As a result, there is no lost space in the center of the work envelope. These zero-footprint robots offer all the benefits of a typical Epson SCARA robot, plus more.



RS3

Compact, high-performance SCARA robot with unique workspace design



RS4

Industry-leading workspace design with longer reach capabilities



RS-SERIES SPECIFICATIONS

		RS3	RS4
Arm length		350 mm	550 mm
Repeatability	Joints #1 – #2	±0.010 mm	±0.015 mm
Payload	Rated	1 kg	1 kg
	Maximum	3 kg	4 kg
Standard cycle time ¹		0.34 sec	0.39 sec
Installation environment		Standard / Cleanroom ² & ESD	
Available controllers		RC180, RC700A	

¹ Cycle time based on round-trip arch motion (300 mm horizontal, 25 mm vertical).

² Complies with ISO Class 3 (ISO 14644-1) and older Class 10 (<10 0.1 µm particles per 28,317 cm³: 1ft³) cleanroom standards.



LS-Series

These fast, compact, low-cost solutions are ideal for factories looking for maximum value, without sacrificing performance. With payloads ranging from 3 kg to 20 kg and cycle times starting at 0.38 seconds, LS-Series SCARA robots offer a variety of opportunities for manufacturers searching for a reduced-cost, high performance automation solution with great reliability.

LS-SERIES SPECIFICATIONS

		LS3	LS6	LS20
Arm length		400 mm	500 - 700 mm	800 - 1000 mm
Repeatability	Joints #1 – #2	±0.010 mm	±0.020 mm	±0.025 mm
Payload	Rated	1 kg	2 kg	10 kg
	Maximum	3 kg	6 kg	20 kg
Standard cycle time¹		0.42 sec	0.38 – 0.42 sec	0.38 – 0.42 sec
Installation environment		Standard / Cleanroom ²		
Available controllers		RC90		

¹ Cycle time based on round-trip arch motion (300 mm horizontal, 25 mm vertical).

² Complies with ISO Class 3 (ISO 14644-1) and older Class 10 (<10 0.1 µm particles per 28,317 cm³: 1ft³) cleanroom standards.

LS-SERIES



LS3

Fast, compact and low cost



LS6

Powerful performance at an affordable price



LS20

High performance and large payloads at a great value



T-Series

Looking to automate your factory without wasting time or money on complex slide-based solutions? Now you can — with the T3 All-in-One SCARA robot from Epson.



Feature-packed at an Amazing Price

- **Easy to install, fast integration** — unlike complex linear-slide systems, the T3 installs in minutes and requires less time and money for system integration
- **All-in-One solution** — built-in controller with power for end-of-arm tooling; takes up less space than linear-slide solutions
- **Full featured; ultra low cost** — includes same powerful feature set as Epson's high-end robot lineup at an incredibly affordable price
- **Built-in controller** — saves critical workspace with the controller conveniently housed in the robot's base
- **Easy to use** — intuitive and feature-packed Epson RC+ development software makes it easy to create powerful solutions
- **Comes standard with 110 V and 220 V power** — low wattage and power consumption (no special panel or plug required)

T3 All-in-One

This space-saving robot has it all — and installs in minutes. Plus, it includes the same intuitive software and powerful features found in Epson's high-end robots.

T-SERIES SPECIFICATIONS

		T3
Arm length	Joints #1 – #2	400 mm
Repeatability	Joints #1 – #2	±0.020 mm
Payload	Rated	1 kg
	Maximum	3 kg
Standard cycle time ¹		0.54 sec
Installation environment		Standard
Controller		Built-in Controller

¹ Cycle time based on round-trip arch motion (300 mm horizontal, 25 mm vertical).



The perfect alternative to complex, slide-based solutions, Epson T3 All-in-One SCARA robots make automating your factory fast, easy and affordable.

Options and Accessories

Integrated Vision Guidance

- **Highly regarded in the industry** as simple to use with a wide variety of powerful tools, Epson Vision Systems have provided integrated robot guidance for over 20 years. Our Vision Guide software features high-performance tools in an intuitive point-and-click environment.



Epson SCARA robots work with fixed- or mobile-mounted cameras. Epson G6 shown with mobile-mounted Gig-E camera

Force Guidance

- **Epson Force Guide** integrates force sensing with our advanced servo system to provide high precision-motion performance.
- **With high rigidity, performance and precision,** Epson Force Guide provides new application solutions that were not possible in the past.



Epson force sensors offer both high sensitivity and high rigidity, allowing for successful high-precision applications when teaching or vision are not enough

Additional I/O

- **Epson robots** come standard with discrete input and output (I/O) electrical lines. However, many applications require additional I/O points for interfacing with peripheral workcell equipment such as conveyors, grippers, tooling, etc. For this reason, we offer additional I/O boards that can be easily installed.
- **Analog I/O boards** are available, providing both Analog In and Analog Out signals. Fully integrated with robot motion profiles, Analog I/O boards can be used for dispensing applications to sync robot motion with dispense flow.

Fieldbus Interface Options

- **Fieldbus I/O interfaces** are used in factories worldwide to reduce cabling costs and setup time, and promote standard device usage. However, there is not one accepted Fieldbus I/O standard. That's why we offer the following options:
 - Ethernet/IP
 - DeviceNet
 - EtherCAT
 - PROFINET
 - PROFIBUS
 - CC-Link

GUI Builder

- **Epson's GUI Builder** provides the tools necessary to create graphical user interfaces from within the Epson RC+ Development Environment. This allows users to work from one development environment, which helps reduce overall development time.
 - **Create GUIs** without Visual Studio or other third-party software tools
 - **Create and debug** GUI forms from your Epson RC+ project
 - **Full integration** with Epson Vision Guide to easily add vision image windows on forms

Industry Solutions

Epson Robots is a leading supplier to a wide variety of manufacturing industries including automotive, medical, electronics, consumer products, industrial and many more. Our customers range from large Fortune 100 companies to small manufacturing facilities.

- **Automotive:** Epson robots are used to manufacture various automotive parts including brakes, clutch components, ignition systems, instrument panels, headlights, mirrors, locks and more.
- **Medical:** Popular with leading medical manufacturers, Epson robots are used to produce contact lenses, glasses, dental instruments, dental implants, hearing aids, pacemakers, blood test systems and much more.
- **Electronics:** Epson robots are used in major electronic and semiconductor facilities across the globe. Industry-specific applications include chip handling and placement, encoder assembly, board and laser diode testing, wire bonding and more.

Automation Applications

Epson robots are extremely versatile and provide a wide range of automation possibilities:

- Assembly
- Pick and place
- Material handling
- Packaging
- Kitting/Tray loading
- Machine tending
- Screw driving
- Dispensing
- Palletizing
- Lab analysis and testing
- Inspection and test
- Finishing
- Grinding/Polishing





Epson Business Solutions

Epson is a leading provider of innovative technology solutions that help businesses succeed.

We partner with you to best meet your specific needs, focusing on:

- Improved productivity
- World-class customer service and support
- Cost-effective, high-quality solutions
- A commitment to the environment

Discover how Epson can help you work toward the future. www.epson.com/forbusiness

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