

Ultra High-Speed SCARA Robot



FANUC Robot SR-3iA/SR-6iA



FANUC SCARA Robot Features and Benefits

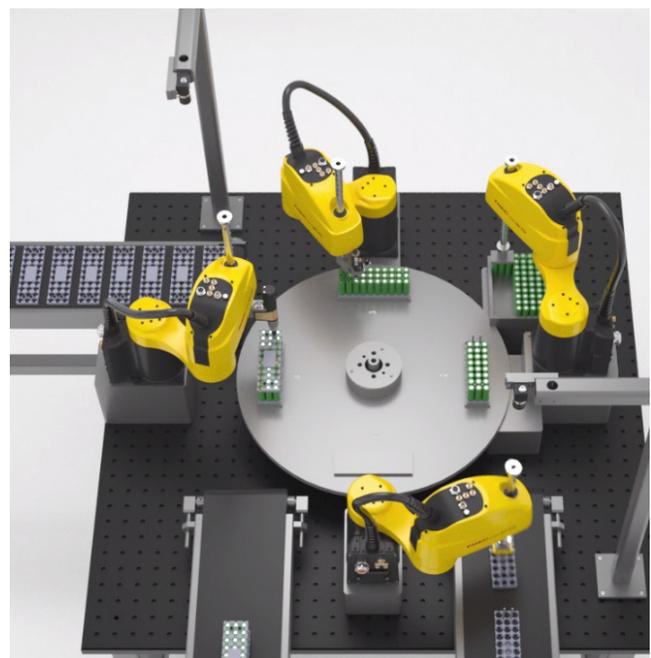
FANUC's new SCARA SR-3iA and SR-6iA robots feature a compact design and four-axis articulation for high-speed and precise small part assembly and handling operations.

- Ultra-compact footprint and slim profile minimizes interference with peripheral devices.
- Two models available: SR-3iA (400mm reach) and SR-6iA (650mm reach).
- Lightweight design enables easy system integration and continuous fast operation.
- High inertia capacity maximizes flexibility to handle large work pieces.
- Generous vertical stroke makes it possible to perform assembly, packaging and handling operations.
- Bottom cable exit (optional) provides cable protection, and saves valuable floor space for higher efficiency.
- Integral air lines, 24VDC power and I/O signal cables, and solenoid valves (optional) simplify system integration and reduce overall cost.
- Brake release switch on the robot's arm allows easy error recovery.
- New high-performance R-30iB Compact Plus controller requires minimal space and allows layout and installation flexibility.
- New web-based "iRProgrammer" user interface for intuitive and easy robot setup and programming on a Tablet or PC (Teach Pendant is optional).
- Standard CE/NRTL compliance on the R-30iB Compact Plus controller allows global deployment without any additional cost.
- Same high performance intelligent software options across the entire FANUC robot line, including iRVision (Integrated Vision), force sensing, conveyor tracking, fieldbus connectivity and integrated safety.

Application examples



R-30iB Compact Plus controller



SR-3iA SCARA Robots assembling battery packs

FANUC Robot SR-3iA/SR-6iA

SR-3iA/SR-6iA SPECIFICATIONS:

SR-3iA/SR-6iA datasheet items

Model		SR-3iA	SR-6iA
Type		Scara Type	
Reach		400	650
Controlled Axes		4 axes (J1, J2, J3, J4)	
Motion Range (Maximum speed) (Note 3)	J1 Axis	±142° (720°/s) 2.48 rad (12.57 rad/s)	±148° (440°/s) 2.58 rad (7.68 rad/s)
	J2 Axis	±145° (780°/s) 2.53 rad (13.61 rad/s)	±150° (700°/s) 2.62 rad (12.22 rad/s)
	J3 Stroke	200mm (1800mm/s)	210mm (2000mm/s)
	J4 Axis	±360° (3000°/s) 6.28 rad (52.36 rad/s)	±360° (2500°/s) 6.28 rad (43.63 rad/s)
Cycle Time (Note 2)		0.33s	0.29s
Max. load capacity at wrist		3 kg	6 kg
Allowable load inertia at wrist	J4 axis	0.06 kg·m ²	0.12 kg·m ²
Repeatability	J1 + J2 axis	±0.01 mm	±0.01 mm
	J3 Stroke	±0.01 mm	±0.01 mm
	J4 axis	±0.004°	
Cables and air for user	Standard	RI x 4 / RO x 4, Φ6mm x1, Φ4mm x 2	
	Option	RI x 4, Φ6mm x 1, Solenoid valve x 2	
Mass (Note 3)		19 kg	30 kg
Installation environment			
Ambient temperature		0 to 45°C	
Ambient humidity		Normally 75% RH or less (No dew or frost) Short term 95%RH or less (within one month)	
Vibration acceleration		4.9m/s ² (0.5G) or less	

Note 1) In case of short distance motion, the axis speed may not reach the maximum value stated.

Note 2) Cycle time for 25mm-300mm-25mm motion pattern with 2kg payload.

Note 3) Without controller.



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