

4-Axis Automatic Soldering Robot



Soldering Robot — Key Highlights

- **High-Precision 4-Axis Soldering Robot** built for durability and industrial performance
- Proudly **Made in India**, supporting local innovation and manufacturing
- **10-inch HMI Touchscreen Interface** provides an intuitive UI — eliminating the need for traditional teach pendants.
- **Integrated Weller 150W Soldering Station** with original Weller tips delivers consistent and high-quality joints. (Customizable for JBC station)
- **Auto Temperature Adjustment** tailored to each soldering point via intelligent software control
- Automatic **Air-blast tip cleaning** system to maintain soldering quality
- **Pneumatically Controlled Soldering Tip** allows rapid and stable movement, reducing cycle time.
- **On-Tip Camera Integration** offers live feed for enhanced visibility and real-time inspection.
- **Joystick-Based Navigation** simplifies point programming, making the setup quick and operator-friendly.
- **Solder Wire Run-Out Detection** with auto-stop to avoid dry or defective joints.
- **Ball Screw Driven Mechanism** ensures high-precision motion, durability, and smooth operation.
- **Solder Feeder with V-Groove Cutting** - Reduces flux splash by releasing gas pressure during soldering.
- **Local Engineering & Service Support**, backed by our experienced technical team.

Specifications		
Model	SG-300X	
Voltage	200-240 VAC 50/60 HZ	
Operation mode	Manual (Position, Speed, Coordinates, Control Commands) Auto (Program mode)	
Max Program	500+	
Soldering Type	Point Soldering, Drag Soldering	
Programing/Controlling Method	10" HMI Touch Screen LCD + Joystick	
Temperature Controller	Weller WT1H Controller. 150W (Options: JBC, Bakon)	
Scope of work	X, Y Axis	300mm
	Z Axis	120mm
	R Axis	300°
Max Speed	X, Y Axis	500 mm/s
	Z Axis	300 mm/s
Repeat Accuracy	X, Y, Z Axis	± 0.02 mm
	R Axis	+0.02°
Solder Feeder	Solder Wire (Ø): 0.6 -1.8mm Feeding Speed: 0.5 - 50 mm/s	
Drive way	2 Phase Stepping Motor Driving Ball Screw + Belt Drive	
Camera	5 MP (Fixed/Auto Focus) Solder Head Camera	
Weight	About 60 kg	