

SR300 Soldering Robot



Soldering Principle:

Operation mode: Multi-axis drive manipulator and software control to achieve precise positioning of the welding head.

Welding method: high temperature eddy current heating with a soldering iron.

Working principle: Fix the soldering iron on the robot, move to the specified welding coordinates, and automatically feed the wire at the tip; the soldering iron is welded at high temperature and engaged with the target.

Introduce:

I.C.T soldering robot is a soldering robot with soldering wire feeding motion system. high frequency heating system with rapid heat recovery, soldering tip is easy to be exchanged with low cost. Break tin automatic solder wire feeder can reduce flux remaining problem after soldering.

Features:

1. Cost saving: High-efficiency operation is achieved by only one person. one person's efficiency amounts to 3-5 persons' efficiency.
2. X,Y,Z,R, and soldering wire feeding motion system are all controlled by one combined 5 axis motion control card with PC, so it can integrate all the functions into one software. it makes machine running more stable and easy to operate.
3. X,Y,Z,R axis adopt quality step motor with its control system, make machine run smoothly and precisely.
4. It is equipped with automatic soldering tip cleaning device, which can improve soldering quality and prolong lifetime of soldering tip.
5. Windows 7 English operation system, use touchscreen with wireless controller and teach method for programming, working very easy.
6. Break tin solder wire feeding system can pierce holes when feeding solder wire, it can reduce burst tin that causes flux remaining on PCB when soldering under high temperature to improve the soldering quality. solder wire feeding accuracy can reach 0.1mm.
7. High frequency induction heating system has rapid temperature recovery time, heating element adopt silver coil which can ensure long lifetime. soldering tip can be easily changed with lower cost.
8. Self-developed advanced software, fool-style programming with wireless controller like play game, all parameters can be set in one program, such as moving path, solder wire feeding quantity, soldering time etc, very easy to use.
9. Optional smoke cover and smoke extractor can provide a very clean work environment.
10. Various soldering tips can meet different process requirement. customized soldering tips is also available.
11. One worker can operate 2-3 robots. what this worker does is only pick and place fixture.
12. Robot is strictly customized based on requirements on products and soldering, in line with requirements of production line.

TOP Advantage:

1. Spot soldering, drag soldering, automatic cleaning and multi-angle soldering are available.
2. Position calibration, soldering dot array, parameter copy, automatic location and skip are available.
3. Teaching programming enables customers to implement all types of hand soldering upon their requirement.
4. Program calibration achieves workpiece integral coordinate position compensation.
5. Program insertion and deletion make program revised easily and rapidly.
6. Intelligent control system achieves accurate delivery of solder, speed, time, temperature and quantity of solder can be adjusted and controlled.



Single and double platform options, can soldering parts in different positions to ensure the best soldering results.



Special structural design ensures good supply of tin wire, no broken wire, stuck and other problems.



Flexible operation, simple programming, fast switching between different products.



Vision options to monitor the soldering effect throughout the process, and can handle high-precision product soldering.

Applications:





Specification:

Model	I.C.T-SR300	I.C.T-SR530	I.C.T-SR250D	I.C.T-SR250DD
Platform Number	1	1	2	2
Heating Power	150w	300w	150w	300w
Max. PCB Size(mm)	300*300	500*300	250*250 for each Platform	250*250 for each Platform
Max Move Speed	X,Y axis:600-800mm/s. Z axis:400 mm/s. R axis:300°/s			
Solder Wire	Φ 0.6~1.2mm solder wire			
Solder Feeding Speed	1~50mm/s			
Repeate Accuracy	±0.02mm			
Temperature Range	0-550C°			
Temperature Accuracy	±3°			
Driving Mode	Step Motor			
Control Mode	Teach Pendant			
Air Pressure	4.5~6Kg/cm2			
Power Supply	AC:220±10%,50/60HZ			
Dimension(mm)	620*660*770	780*660*770	780*660*770	780*660*770
Weight	Approx:60kg	Approx:65kg	Approx:70kg	Approx:75kg

* The data is obtained under ambient temperature of 25 °C and humidity of 60%

Standard Accessories:

1	Teach Pendant	1 set
2	Soldering Tip	5 pcs
3	Fuse	1 pcs
4	Relay	2 pcs
5	Manual	1 book

* Attachments may change with product upgrade. If different, please follow the new list.