J-CAT LYRA

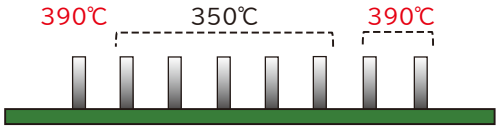
Iron Tip Soldering Robot

Cell production type

Thanks to localized iron tip temperature control and approach function / angle retract function, the LYRA is equipped with a high level of functionality designed to improve the overall quality of soldering.

Localized iron tip temperature control

The iron tip temperature can be set for each point according to the work needs, e.g.: in heat capacity, solder through-hole filling rate, back fillet, etc.



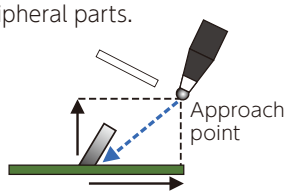
Easy setting of the soldering conditions

You can easily set and change the soldering conditions with the included teaching pendant. Since each parameter is registered interactively, there is no need to learn complicated operations.

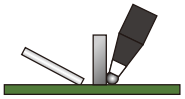
Soldering Condition 1	1/2
Soldering Type	Point Soldering
Temp. Setting Function	Disable
1st Amount	7mm
1st Feed Speed	15mm/s
1st Reverse Amount	3mm
1st Reverse Speed	50mm/s
Iron Down Motion	Enable
Approach Function	Disable
Pre-Heat Time	0.5esc
2nd Amount	7mm
2nd Feed Speed	10mm/s
2nd Reverse Amount	3mm

Approach function / angle retract function

You can move the iron tip closer to the coordinates of the soldering point at the set speed from any approach point. Similarly, after soldering, you can move the iron tip to any location safely.
It reduces the risk of damaging pins, which may occur due to unstable pin position. It also prevents interference with peripheral parts.



Move from any approach point to a teaching point at any speed



Soldering is possible without damaging the pin

Supports dual iron feeder option

You can select the dual iron unit feeder specification as an option.
Simultaneous soldering at two locations shortens the tact time, and for workpieces with a large heat capacity, simultaneous heating with two irons solves this soldering dilemma which was not possible until now.

Type		J-CAT 320 LYRA	J-CAT 330 LYRA	J-CAT 340 LYRA
Operation Range	X axis	200mm	300mm	400mm
	Y axis	200mm	320mm	400mm
	Z axis	50mm	100mm	150mm
	R axis	±360°	±360°	±360°
Portable Weight (X table stage)		7kg	15kg	
Repeatability		X, Y, Z axes ±0.01mm R axis ±0.008°		
Resolution		X, Y, Z axes 0.01mm R axis 0.08°		
Teaching Method		Remote teaching (JOG) / Manual Data Input (MDI)		
Program Capacity		999 programs		
Memory Capacity		32,000 points		
External input / Output		input : 16 output : 16		
Soldering Condition		Point and Slide Total : 500 conditions		
Setting Temperature		0 ～ 500℃		
Solder Feeding Speed		1.0 ～ 50.0mm/sec		
Solder Feeding Amount Resolution		0.1mm		
Solder Wire Diameter	Using ZSB Feeder	Φ0.4 ～ 1.0mm (Option: Φ0.3mm)		
	Using Normal Roller	Φ0.3 ～ 1.0mm		
	Using Large Diameter Feeder	Φ1.2 ～ 2.0mm		
Heater Capacity		200W (Max.)		
Air Supply		0.4 ～ 0.5MPa (Dry & Clean Air)		
Power Source		AC94 ～ 260V (Single Phase)		
Power Consumption		800W		
Dimensions (W×D×H)		443×454×818mm	680×600×872mm	682×660×898mm
Weight		33kg	49kg	57kg

* Position repeatability is not a guarantee of absolute precision. With usage conditions, it may exceed the above value.

ARC-5000

Iron Unit Electric Arch (optional)

By combining the iron unit with a motor, the angle of the iron unit can be easily programmed as required.

The iron unit angle can be adjusted

By combining the iron unit with a motor, the iron unit can be changed to any angle.You can register the coordinates of the iron insertion angle for each point. Eliminates the risk of interference between the iron tip and peripheral parts, and it also makes the iron tip reach the point accurately. Even when using irons with different tip angles, such as in high-mix production, the angle can be changed to the taught angle for each registration program, so it can be used without problems in recreating the position.

Type	ARC-5000
Operation Range	-30°~+25°
Motor Specification	Stepping motor with the reduction gear (Harmonic drive®) (without encoder) Basic step angle: 0.018 degrees /pulse (Positioning accuracy ±0.006 degrees)
Maximum Speed	210deg/s
Maximum Acceleration	420deg/s²
Mountable Robot	J-CAT3□□ LYRA Soldering robot JS-3 LYRA Ⅱ Soldering robot JC-3 LYRA Ⅱ Soldering robot

Harmonic Drive is a registered trademark of Harmonic Drive Systems INC.