



**PLC BASED PICK & PLACE ROBOTIC APPLICATION MODULE**

The **Pick & place robotic application trainer (SAP - 48)** gives provision to interface PLC with X-Y-Z Three axis displacement and a robotic arm.

**Technical Specification:-**

No.	Item Name	Technical Specifications
1	<b>Bidirectional Stepper Motor-</b>	10 Kg/cm <sup>2</sup> , Shaft Length: 20.6 mm, Shaft Diameter: 6.35 mm. Electrical with actuator driven mechanism.
2		
3	<b>Bipolar Stepper Driver Card-</b>	Motor supply voltage: 24 VDC, auto / manual, enable – disable and direction selection facility, angular rotation / pulse: 1.8° / 0.9°
4	<b>Lead / Ball Screw Linear Guide ways Mechanical Mechanism-</b>	For X-Y Movement and Robotic Jaw with open / close facility.
5	<b>PLC-</b>	<b>MicroLogix 1400 / Equivalent</b> Digital inputs- 14, Digital outputs- 10. PC interface facility, PC-PLC interfacing cable. Ladder Programming Software.

**Range of experiments-**

- ❖ To pick and place an object from one position to another with the help of PLC ladder program & XYZ position control module.

### Features-

- ❖ Controlled by PLC
- ❖ Displacement in 3 axes : X-Y-Z axis
- ❖ Capable to pick and place an object from one position to another.
- ❖ Variable Jaw area to Pick objects of different shapes.
- ❖ Object Lift movement height Selectable

### Services Required-

- ❖ Control Panel: 1.5 Ft (L) × 1 Ft (W) × 1.5 Ft (H)
- ❖ Pick & Place Platform: 1.5 Ft (L) × 1.5 Ft (W) × 2 Ft (H)

### Equipment Required:-

- ❖ PLC Micrologix 1400 with PWM output.

### Services Required-

- ❖ Electric Supply of 1φ 230 VAC motor.

### Note-

All descriptive matter and illustrations are intended to give only a general idea of the equipment Detailed specifications may be altered at the company's discretion without any notice.

