MTA SKILLLAB SDN. BHD.

3 Axis Cartesian Robot Training System

Model: FA-RA801

Design subject to change based on robot selection size

Overview

A 3 Axis Cartesian Robot Arm is a type of industrial robot designed to move in three linear directions: X, Y, and Z axes. It operates using a set of motors and linear actuators to achieve precise and repeatable movements in a Cartesian coordinate system. This type of robot is often used in applications requiring accurate positioning and handling, such as in pick-and-place tasks, assembly, and automated testing. Its straightforward design makes it ideal for tasks requiring linear motion and can be integrated into various manufacturing and laboratory environments.

Learning Outcome

1. Function and characteristic of cartesian robot arm system
2. Design a control architecture integrating PLC, drives, and sensors.
3. Program robot kinematics (forward/inverse) for precise motion planning.
4. Design HMI screens for control, status, and alarm
5. Fault findings robot arm electrical control system

Technical Specification

Robot Arm

- 1 unit X-axis linear drive 300mm
- 1 unit Y-axis linear drive 300mm
- 1 unit Z-axis linear drive 100mm
- Payload 3kg
- Maximum speed 600m/s
- Repeatability 0.02mm
- 1 unit end effector Gripper

PLC Control Panel

- 1 unit assembly aluminum profile working table 900x900mm .
- 1 set HMI 7" + PLC 40 I/O
- 1 set license programming software
- Ethernet communication protocol
- 1 set tower lamp status indication
- 1 set operation push button (Start, Stop, Estop, Reset)
- 1 lot vacuum Pick and Place system
- 1 lot photo sensor
- 1 lot of work piece
- 1 lot of cavity storage tray

Training & Documentation

2 days + Training Manual

Warranty

12 months against manufacturing defects only

Delivery

8-10 weeks

Brand : SKILLLAB
Made in Malaysia

Contact Us
+60124209420
jonathantan@multitradepac.com
www.multitradepac.com