INDUSTRIAL AUTOMATION TECHNOLOGY LABORATORY TRAINING SETS



Y-0045 ROBOT TRAINING SET

It is a platform that has been developed to use in factory automation systems in terms of programming and using of the robots.

Robot Training Set is intended to train the robot for the position, to move the robot with the circular and direct commands as well as to operate the robot in various speeds, to hold and leave the object and to instruct the system integration.

Operation of the System; as soon as the work piece is perceived, the conveyor will be moved. While the work pieces have been moving on the conveyor, the decomposition of metal or plastic could be performed by various sensors. The application program loaded to the robot controller will be settled in the appropriate roofs in complying with their materials and types and the robotic arm will be stepped in.

On one hand, the Robocell 3D robot software submitted by the system will prompt the imagination of the pupils and on the other hand, it could pave the way for the pupils to set a model in the graphic environment immediately, to teach them various positions as well as to develop the program and simulation. On the simulation screen, in accordance with the scenarios to be prepared, the robot could be monitored real-time.

The main components of the robot training set are robotic arm, controller, 3D software, conveyor mechanism and storing unit. The Robot Training Set is structured on the anodized aluminum sigma profile table. Due to the channel structure of the profiles, the various applications could be added on the set.

TECHNICAL SPECIFICATIONS

Robotic Arm

- 5 degree of freedom (axes) and parallel gripper
- Payload Capacity: 2,1 kg
- Speed: 700 mm/sn
- Repeatability: 0,18 mm
- Working area: 610 mm (by gripper)
- Axis 1:Base rotation 310°
- Axis 2:Shoulder rotation +130° /-35
- Axis 3:Elbow rotation +130°
- Axis 4:Wrist pitch +130°
- Axis 5:Wrist roll ±570°

Robot Controller

- PC Communication: USB (Plug&Play)
- Digital input/output number: 8 input/8 output
- · Analog input/output: 4 input/2 output
- Position Description: Absolute, Relative, Cartesian, Joints, Encoders, Emergency stop, short circuit and over temperature protection, possible communication and for PC failure, the security precautions are available.

Teach pendant

Software

• SCORBASE and Robocell 3D robot programming and operating software

Conveyor Units

- DC Engine Conveying Belt
- 2 pieces optic sensor
- Inductive Sensor
- Capacitive Sensor

Storing Unit

3 Fold PVC roof

System Structure

- Anodized aluminum sigma profile
- Channel aluminum table (120x70 cm)
- 220 V Power Supply
- Dimensions: 120x150x70 (WxHxD)

ACCESSORIES

- 1 user's guide and experiment booklet and application CD
- 1 Robocell 3 D and Scorbase robot programming software CD
- 1 USB robot programming cable
- 6 work pieces

