

Product name:
Flexible Manufacturing System Trainer

Product code:
CIVIL-FMS-159-0003



Description

Flexible Manufacturing System Trainer

Technical specification

2. Sensor Technology and Application

- a. Characteristics and application of the photoelectric sensor
- b. Characteristics and application of the inductive sensor
- c. Characteristics and application of the electromagnetic sensor
- d. Characteristics and application of the position sensor

3. Pneumatic Control Technology

- a. Working principle and application of electronically controlled pneumatic valve
- b. Working principle and application of vacuum generator
- c. Working principle and application of pneumatic two conjoined parts
- d. Working principle and application of various cylinders

4. Motion Control System

- a. Servo motor positioning control technology
- b. DC motor control technology
- c. AC motor frequency control technology

5. Robot Application Technology

- a. Robot language action command programming
- b. Robot external IO control
- c. Applications of Handling robot

6. Visual Sensing System

- a. Composition and application of machine vision system
- b. Image acquisition and evaluation

7. Hydraulic Control System

- a. Composition and application of the hydraulic pump station
- b. Transmitter installation and signal acquisition
- c. Use of oil cylinder and building of circuits
- d. Application and control of solenoid valve
- e. Proportional control of the hydraulic circuit
- f. Application of HMI
- g. Transmission principle of the sprocket chain and link mechanism

8. Configuration Control and Man-Machine Interface Technology

- a. Basic application of configuration monitoring software
- b. Application experiments of configuration monitoring software communications

9. Mechanical Structure Training Techniques

- a. Design and characteristics research of belt drive transmission
- b. Design and characteristics of gear transmission mechanism
- c. Design and characteristics of the cylindrical guide rod
- d. Characteristics and application of the ball screw
- e. Design and characteristics of the toothed belt

10. Fault Detection Skills Training

- a. Program troubleshooting training

- b. Parameter troubleshooting training
- c. Electrical wiring troubleshooting training
- d. Mechanical troubleshooting training

11. Network Communication Technology and PROFIBUS Technology

- a. Principles and applications of network communication foundation
- b. Research and application of PROFIBUS-DP module
- c. Research and application of PROFIBUS communication protocol
- d. Communication between the PROFIBUS master and slave stations

12. Experiment of Various Sensors and Encoders

- a. Photoelectric sensor positioning detection technology training
- b. Photoelectric sensor limit detection technology training
- c. Limit switch limit detection technology training
- d. Limit switch positioning detection technology training

The flexible manufacturing system trainer is divided into 16 work units or stations, which are control platform, feeding unit, detection unit, manipulator unit 1, processing unit, image detecting unit, extraction unit, hydraulic stamping unit, Mitsubishi robot unit, finished product testing unit, automated storage unit, manipulator unit 2, finished product packaging unit, transport unit, cargo storage unit, and endless conveyor line.

NAUGRA

Civil Laboratory Equipment Manufacturers and Suppliers India Civil Lab Exports India

1. Design and Application of PLC

- a. Data transfer function experiment
- b. Timing, counting, shift function test
- c. Comparison function experiments
- d. Application of step function
- e. Application of jump function
- f. Application of subroutine call function
- g. Application of interrupt control function
- h. Application of PWM control function
- i. Application of stepper motor speed and position control function
- j. Program design of detection system
- k. Program design of automatic frequency control annular transmission system
- l. Program design of automatic storage system

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