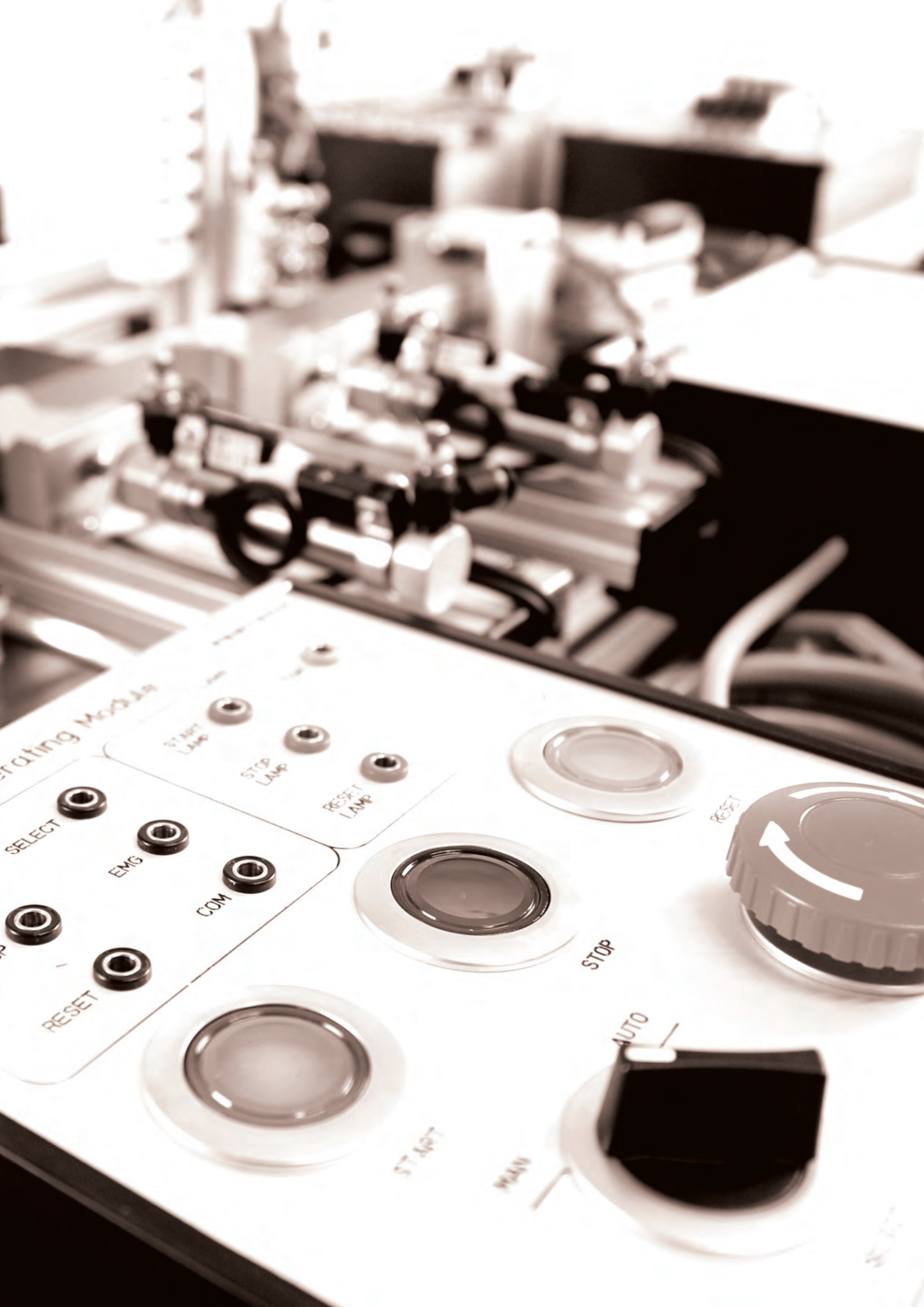
START LAMP
STOP LAMP
RESET LAMP
SELECT
EMG
COM
RESET
STOP
RESET
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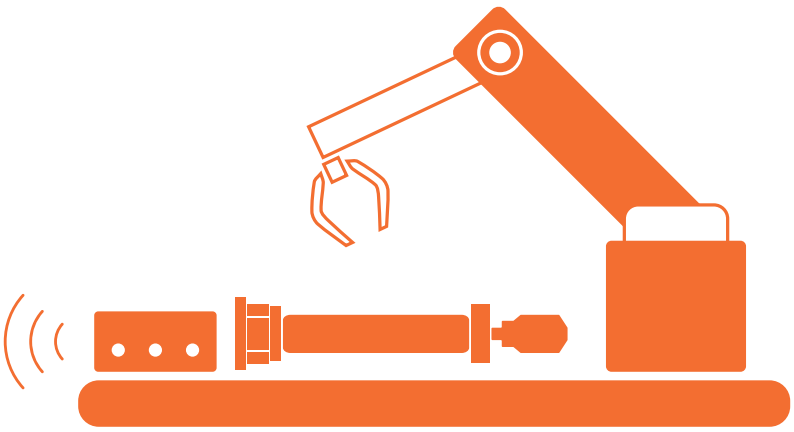
START
MAN



CHAPTER
05

FA APPLICATION

FA APPLICATION

01 Servo mechatronics trainer

02 Mechatronics automation system trainer

03 Mini MPS (mini mechatronics trainer)

04 PTP Pneumatic robot trainer

05 Conveyor belt trainer

06 Palletizing control trainer

07 Automatic warehouse trainer, Basic, Advanced

08 Sorting conveyor trainer

09 Coil feed and winder trainer

10 Building automation system trainer

11 Elevator trainer

12 Parking management trainer

13 Automatic door trainer

14 Traffic signal control trainer

15 Fortress game

16 Pinball game

17 Motor & cylinder control module

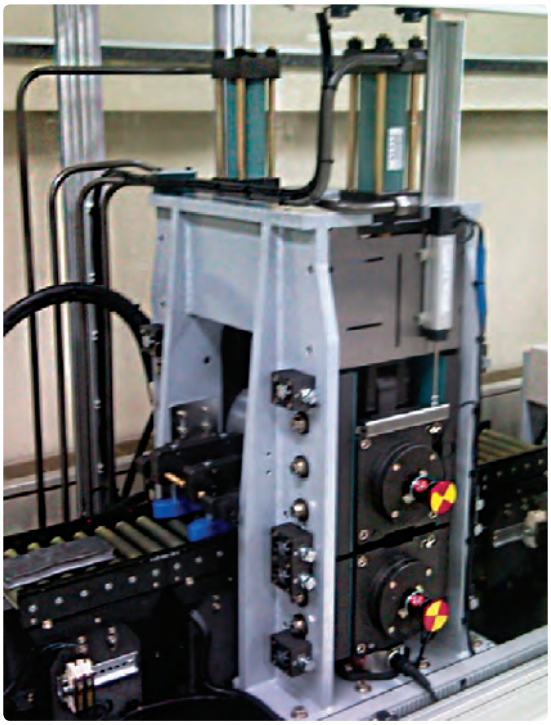
18 Automation display models

FA APPLICATION

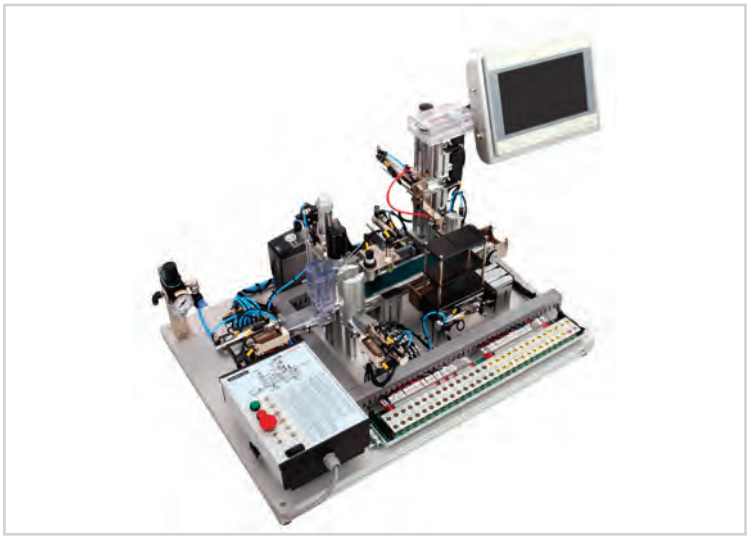
Introduction

FA applications were developed to improve the level of understanding of apprentices through various applications. Overall knowledge of factory automation such as pneumatics, electric sequence, sensors, and networks could be mastered and a control programs could be designed for the corresponding PLC, microprocessor, and VLC.

FESTECH offers various solutions for industrial lines, including customization. Apprentices can better understand the trends of brand-new automation, and adapt to industry technology using a touch screen or monitoring system.



Servo mechatronics trainer (FMCA-300-SERVO)



Order number : 25020

Features

- DC geared motor and conveyor system
- Applied control with actuator and sensor
- 1 axes servo motor system
- Touch panel
- Linear spindle drive unit
- Easy connect I/O
- Training in narrow space
- Basic and advanced training
- Minimum required PLC IO : 25 DI / 22 DO / 1-axis position control module

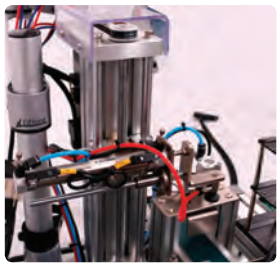
Training contents

- PLC digital input/ output signal
- Senor principle, feature, and usage
- Counter/ timer usage
- Buzzer and lamp usage
- Conveyor module control
- 1-axis servo motor control
- Servo motor driver parameter setting
- Various PLC program control
- System defect tracking and maintenanc

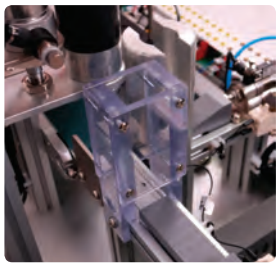
Component

No.	Component	Qty.
1	Working table	1
2	Distribution module	1
3	Processing module	1
4	Transfer module	1
5	Conveyor and testing module	1
6	Stopper module	1
7	Ejecting module	1
8	Lift (spindle) module	1

No.	Component	Qty.
9	PTP handling module	1
10	Vacuum and suction cup module	1
11	Storage module (3 stacks)	1
12	Touch module	1
13	Power and operating module	1
14	Solenoid valve module	1
15	I/O interface terminal board	1

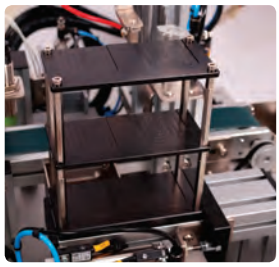


▲ Lift module



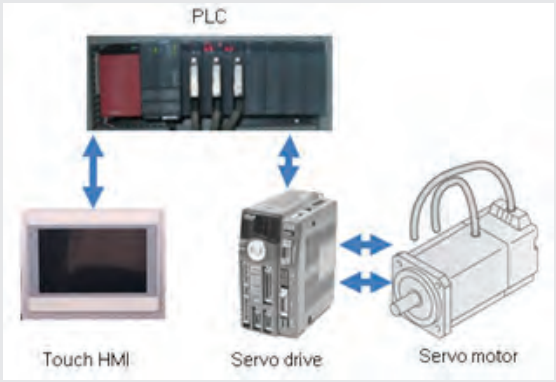
▲ Distribution and processing module

▲ Transfer module



▲ Storage module

Servo mechatronics trainer (FMCA-300-SERVO)



Servo motor

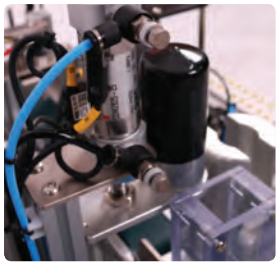
- Output : 50W, 100W
- Rotary speed : 3000rpm
- Encoder : absolute position, incremental

Servo motor drive

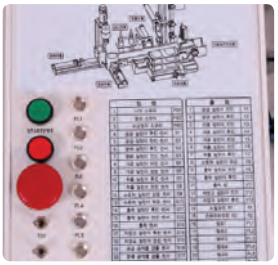
- AD converter : 16bit
- Encoder : absolute position : 11bit
  incremental : 2000 ~ 6000(p/rev)
- Communication : rs-232, rs-485
- Digital IO : 12/10
- JOG mode
- Sine wave PWM control, current control type

Touch module & bracket

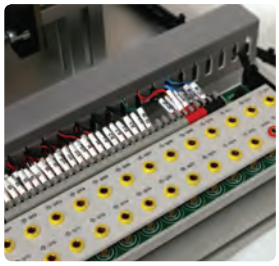
- Display : 7" wide
- Color : 800×480
- Communication : rs-232, 485, Ethernet, USB
- Controller : SIEMENS, Mitsubishi, LS, EasyView, M2I etc.



▲ Processing module

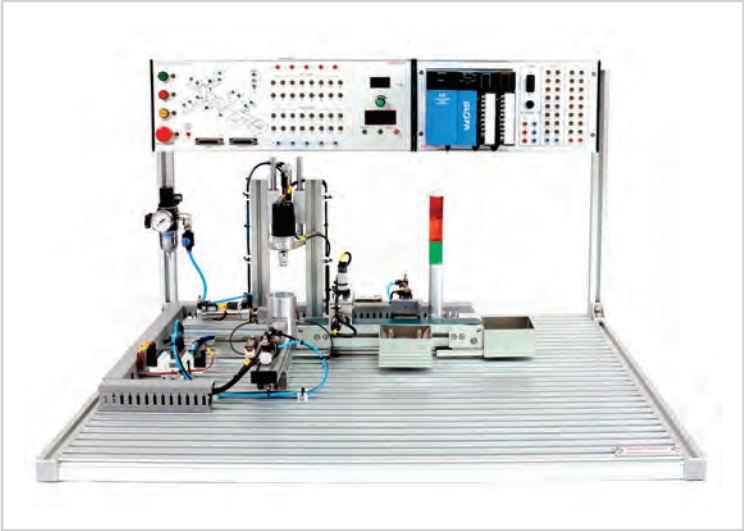


▲ Operating module



▲ PLC terminal board

Mechatronics automation system trainer (standard type) (FMAT-110-S-PLC)



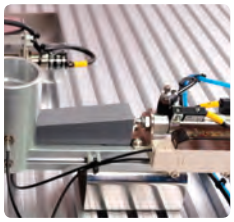
Order number : 25003

Features

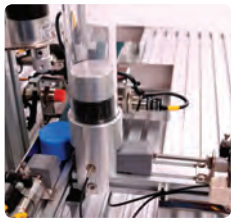
- Stable aluminum profile panel
- Training in narrow space
- Various PLC exercise sheets
- Completed wiring and tubing
- Easy addition I/O module

Training contents

- PLC digital input/ output signal
- Usage of sensors
- Usage of counter and timer
- Usage of buzzer and lamp
- Conveyor module control
- Various PLC program control
- System defect tracking and maintenance



▲ Distribution module



▲ Transfer module

▲ Conveyor module

Specification

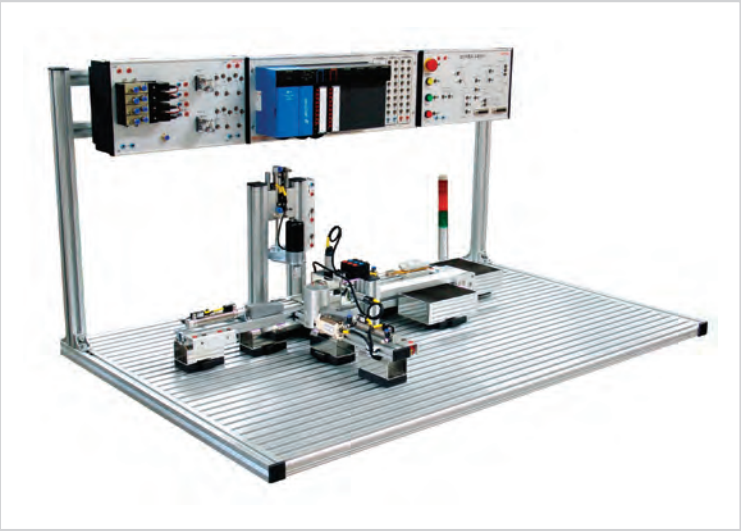
- Size : 900(w)×750(d)×530(h)
- Weight : 23kg
- Operating pressure : 4 ~ 6 bar
- Power : AC 220V
- Required PLC IO : 16 DI / 10 DO

Component

No.	Component	Qty.
1	Training plate (aluminum profile panel)	1
2	Distribution module cylinder (magnetic reed sensor attached)	1
3	Optical fiber sensor	1
4	Drill motor	1
5	Drill module cylinder (magnetic reed sensor attached)	1
6	Transfer module cylinder (magnetic reed sensor attached)	1
7	Inductive sensor	1
8	Capacitive sensor	1
9	Optical sensor	1
10	Ejecting cylinder (magnetic reed sensor attached)	1

No.	Component	Qty.
11	Conveyor module	1
12	Motor control unit	1
13	5/2-way single solenoid valve	4
14	5/2-way double solenoid valve	1
15	MAS display module	1
16	Input terminal board	1
17	Output terminal board	1
18	Tower lamp unit	1
19	PLC controller (Optional)	

Mechatronics automation system trainer (module type) (FMAT-120-M-PLC)



Order number : 25005

Features

- Stable aluminum profile panel
- Training in narrow space
- Various PLC exercise sheets
- Modular type components (mounting attached)
- Sensor protection circuit

Training contents

- Electro-pneumatics system
- PLC digital input/ output signal
- Usage of sensors
- Usage of counter/ timer
- Composition of MAS
- Various conditions
- Usage of buzzer and lamp
- Conveyor module control
- Various PLC program control
- System defect tracking and maintenance
- Motion step diagram

Specification

- Size : 1200(w)×750(d)×530(h) mm
- Weight : 28kg
- Operating pressure : 4 ~ 6 bar
- Power : AC 220V
- Required PLC IO : 16 DI / 10 DO

Component

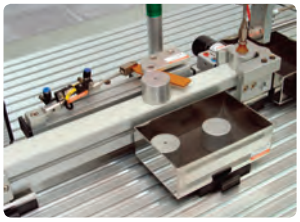
No.	Component	Qty.
1	Training plate (aluminum profile panel)	1
2	Distribution cylinder (magnetic reed sensor attached)	1
3	Optical fiber sensor	1
4	Drill motor	1
5	Drill module cylinder (magnetic reed sensor attached)	1
6	Transfer module cylinder (magnetic reed sensor attached)	1
7	Inductive sensor	1
8	Capacitive sensor	1
9	Optical sensor	1
10	Ejecting cylinder (magnetic reed sensor attached)	1

No.	Component	Qty.
11	Conveyor module	1
12	Motor control unit	1
13	5/2-way single solenoid valve	4
14	5/2-way double solenoid valve	1
15	MAS display module	1
16	Input terminal board	1
17	Output terminal board	1
18	Tower lamp unit	1
19	PLC controller (Optional)	

▲ Distribution module

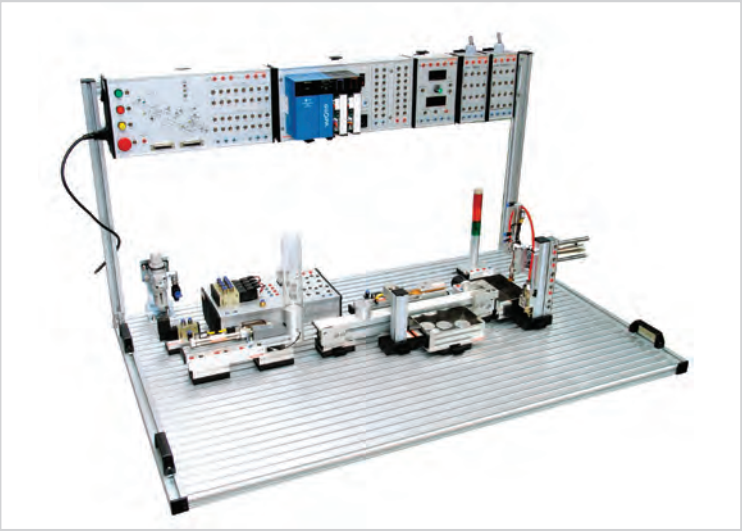
▲ Processing & transfer module

▲ Testing (sensor) module



▲ Conveyor & ejecting module

Mechatronics automation system trainer II (module type) (FMAT-140-M-PLC)



Order number : 25034

Features

- Stable aluminum profile panel
- Training in narrow space
- Various PLC exercise sheets
- Modular type components (mounting attached)
- Sensor protection circuit

Training contents

- Electro-pneumatics system
- PLC digital input/ output signal
- Usage of sensors
- Usage of counter/ timer
- Composition of MAS
- Various conditions
- Usage of buzzer and lamp
- Conveyor module control
- Various PLC program control
- System defect tracking and maintenance
- Motion step diagram

Specification

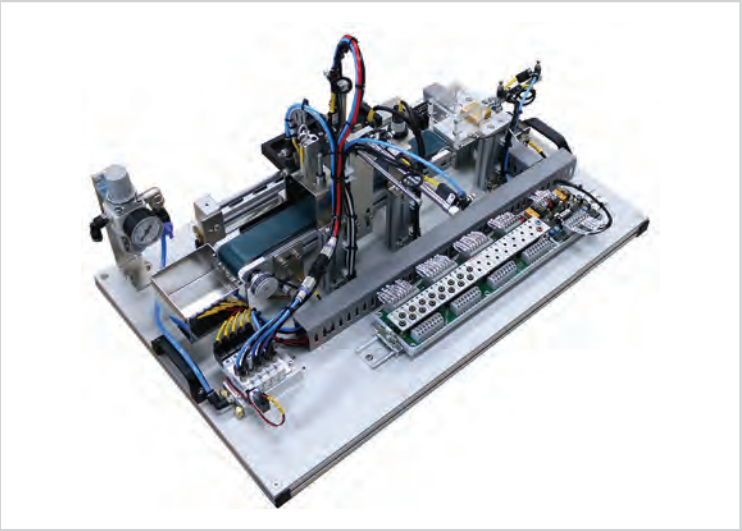
- Size : 1200(w)×750(d)×530(h) mm
- Weight : 30kg
- Operating pressure : 4 ~ 6 bar
- Power : AC 220V
- Required PLC IO : 16 DI / 10 DO

Component

No.	Component	Qty.
1	Training plate (aluminum profile panel)	1
2	Distribution cylinder (magnetic reed sensor attached)	1
3	Optical fiber sensor	1
4	Drill motor	1
5	Drill module cylinder (magnetic reed sensor attached)	1
6	Transfer module cylinder (magnetic reed sensor attached)	1
7	Inductive sensor	1
8	Capacitive sensor	1
9	Optical sensor	1
10	Ejecting cylinder (magnetic reed sensor attached)	1

No.	Component	Qty.
11	Conveyor module	1
12	Motor control unit	1
13	5/2-way single solenoid valve	4
14	5/2-way double solenoid valve	1
15	MAS display module	1
16	Input terminal board	1
17	Output terminal board	1
18	Tower lamp unit	1
19	PLC controller (Optional)	

Mini MPS (mini mechatronics trainer) (FMCT-120)



Order number : 41115

Features

- Stable aluminum profile
- Training in narrow space
- Completed wiring and tubing
- Easy addition an I/O module
- Conveyor speed with Encoder
- Linear spindle drive
- Fieldbus communication

Specification

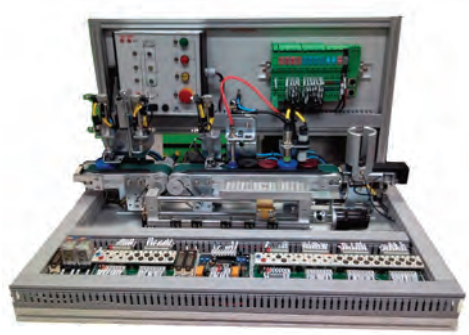
- Size : 660(w)×460(d)×440(h) mm
- Weight : 30kg
- Operating pressure : 4 ~ 6 bar
- Power : AC 220V
- Minimum required PLC IO : 22 DI / 18 DO

Order number : 25039

Component

No.	Component	Qty.
1	Training plate (aluminum profile panel)	1
2	Distribution module	1
3	Conveyor belt module	1
4	Testing module	1
5	PTP handling module	1
6	Vacuum module	1

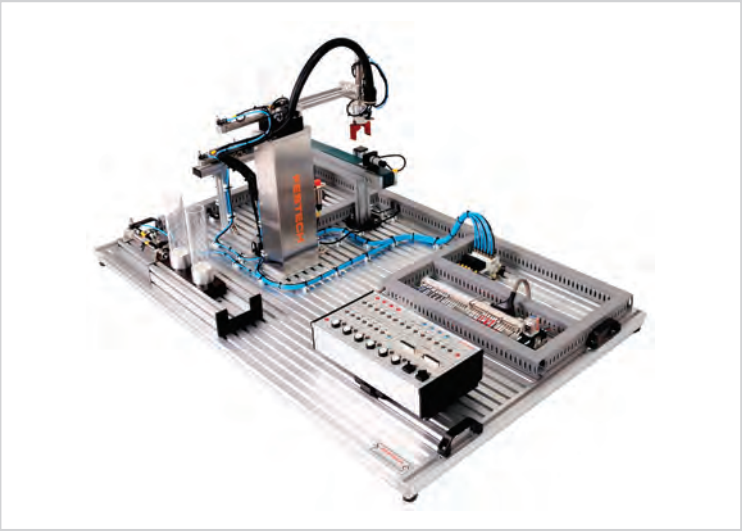
No.	Component	Qty.
7	Stepper module	1
8	Spindle drive module	1
9	Solenoid valve module	1
10	I/O interface terminal	1
11	Mechatronics control circuit	1
12	PLC controller (Optional)	



Mini MPS Advanced features

- Stable aluminum profile
- Training in narrow space
- Completed wiring and tubing
- Easy addition an I/O module
- Conveyor speed with Encoder
- Linear spindle drive
- Fieldbus communication
- Double conveyor system
- Linear potentiometer for testing
- Analog input value
- Minimum Advanced require PLC IO : 29DI / 22 DO / 1AI

PTP Pneumatic robot trainer (FPLC-PTP-ROB-TK)



Order number : 23021

Features

- 3-axes robot with pneumatic cylinders
- Pneumatic chuck gripper
- Distribution of work pieces
- Conveyor motor control
- Work piece sorting with various sensors
- Storing process control
- Input / output module with a manual / auto selection
- Easy movement with four castors in table (Optional)

Training contents

- Automation training such as motor, sensor, and pneumatics
- Work piece sorting by material : aluminum, plastic
- Various industrial sensors
- Features of sensors
- Conveyor motor control
- Various conditions
- System defect tracking and maintenance
- Control programming

▲ Conveyor belt and Sensor

▲ Operation module

▲ Storing magazine

Specification

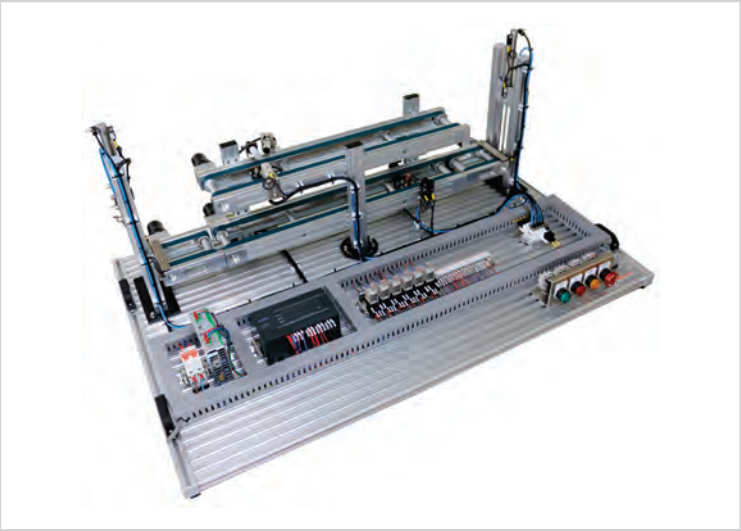
- Size : 1200(w)×750(d)×650(h) mm
- Weight : 40kg
- Operating pressure : 4 ~ 6 bar
- Power : AC 220V
- Rotary cylinder, Gripper module
- Minimum required PLC IO : 22 DI / 13 DO

Component

No.	Component	Qty.
1	Table	1
2	PTP pneumatic robot module	1
3	Pneumatic gripper	1
4	Solenoid pneumatic valve block	1
5	Operation module	1
6	Conveyor module	1
7	Power terminal	1
8	I/O terminal	1

No.	Component	Qty.
9	Distribution magazine	2
10	Magazine sliding module	1
11	Distribution module	1
12	Storing magazine	1
13	Work piece	6
14	Inductive sensor	1
15	Optical fiber sensor	2

Conveyor belt trainer (FATK-BCT)



Order number : 23091

Features

- 2-floor circulating conveyor system
- Maximize training efficiency with continuous mode
- Overall automation system with motor, sensor, pneumatics
- Pallet buffering and control with a stopper cylinder
- Various training with defect tracking simulation switch
- Various industrial sensors
- Elevator (lift) cylinder
- Aluminum work piece
- Touch panel operation

Training contents

- Pneumatics, electro-pneumatics
- Logic circuit training
- Self-holding circuit training
- Directional control of DC motor
- Timer / counter circuit training
- Principle and usage of sensors
- Limit switch and position control
- Sensor and actuator control
- Conveyor control

Specification

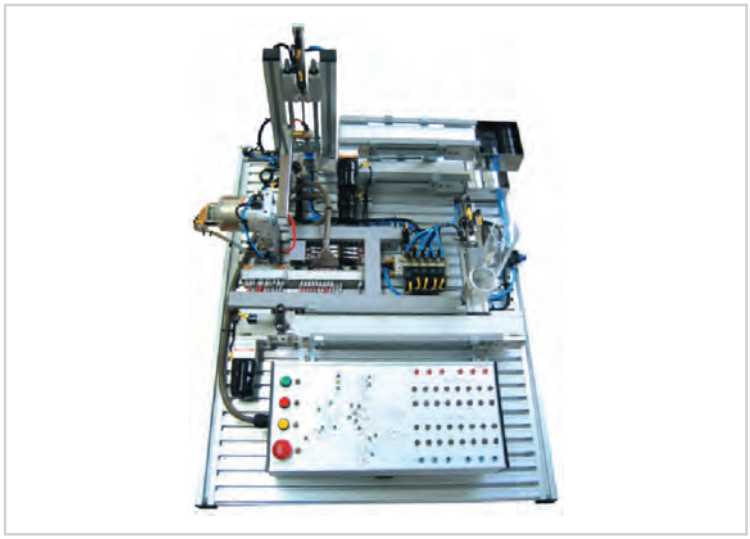
- Size : 1200(w)×750(d)×580(h) mm
- Weight : 47kg
- Operating pressure : 4 ~ 6 bar
- Power : AC 220V, DC24V
- Minimum required PLC IO : 17 DI / 19 DO

Component

No.	Component	Qty.
1	Geared motor	4
2	Lifting cylinder(reed switch attached)	2
3	Solenoid valve block	6
4	Palette	6
5	Inductive sensor	1
6	Optical sensor	2
7	Capacitive sensor	3
8	Palette check module	2
9	Belt type conveyor	4

No.	Component	Qty.
10	Stopper cylinder	4
11	Rodless cylinder with reed switch	2
12	Work piece	6
13	Conveyor supporter	1
14	Table	1
15	PLC controller	1
16	Switch box	1
17	I/O terminal	1
18	Relay module	1

Conveyor belt trainer (FATK-BCR)



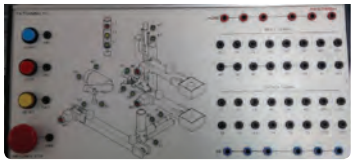
Order number : 24014

Features

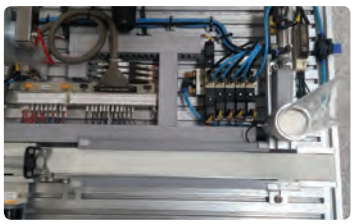
- 2-floor conveyor system
- Overall automation system with motor, sensor, pneumatics
- Rotary cylinder using 5/3-way valve
- Display module with switches
- Various training with defect tracking simulation switch
- Various industrial sensors
- Elevator (lift) cylinder
- Aluminum work piece

Training contents

- Pneumatics, electro-pneumatics
- Logic circuit training
- Self-holding circuit training
- Directional control of DC motor
- Timer/ counter circuit training
- Principle and usage of sensors
- Limit switch and position control
- Sensor and actuator control
- Conveyor control



▲ Display module



▲ Belt type conveyor

Specification

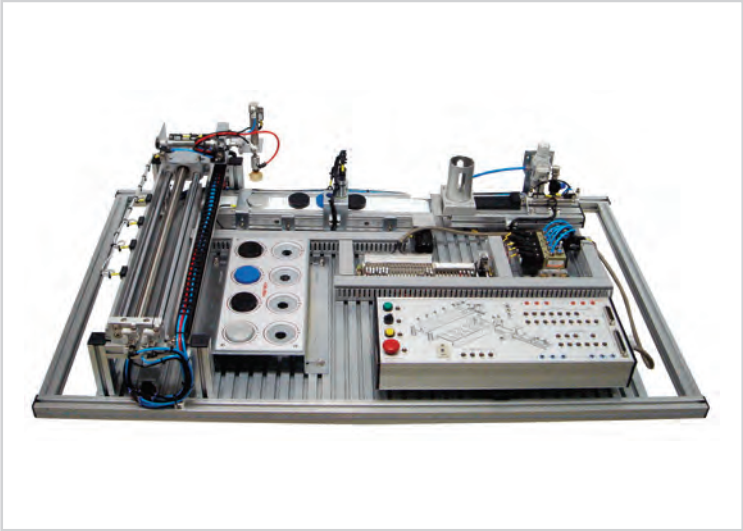
- Size : 800(w)×500(d)×400(h) mm
- Weight : 24kg
- Operating pressure : 4 ~ 6 bar
- Power : AC 220V, DC24V
- Rotary cylinder module
- Minimum required PLC IO : 17 DI / 12 DO

Component

No.	Component	Qty.
1	Table	1
2	Belt type conveyor	1
3	Geared motor	1
4	Lifting cylinder (reed switch attached)	1
5	Solenoid valve block	1
6	Inductive sensor	1

No.	Component	Qty.
7	Optical sensor	1
8	Capacitive sensor	1
9	Switch and display module	1
10	Work piece	6
11	Relay module	2
12	PLC controller (Optional)	

Palletizing control trainer (FPLC-EPR-TK)



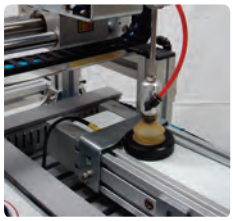
Order number : 23013

Features

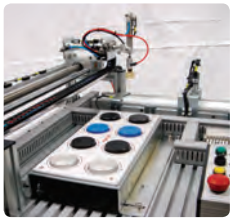
- 3-axes control system
- Pneumatic drive type
- 4mm socket wiring
- Aluminum work piece
- Sensor attached on pallet

Training contents

- Conveyor control training
- Suction cup usage
- Linear drive control with rodless
- PLC connecting training with 4mm socket



▲ Handling cylinder unit



▲ Pallet and work piece

▲ Conveyor and sensor unit

Specification

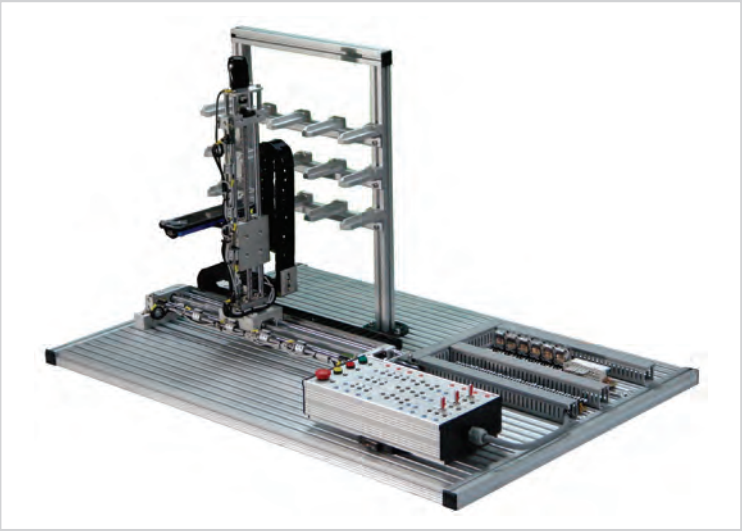
- Size : 1200(w)×750(d)×280(h) mm
- Weight : 45kg
- Operating pressure : 4 ~ 6 bar
- Power : AC 220V, DC24V
- Spindle drive
- Minimum required PLC IO : 18 DI / 18 DO

Component

No.	Component	Qty.
1	Distribution module	1
2	Conveyor module	1
3	Sensor module	1
4	Linear drive	1
5	Handling cylinder	1

No.	Component	Qty.
6	Pallet	1
7	I/O Control module	1
8	Service unit	1
9	Solenoid valve block	1

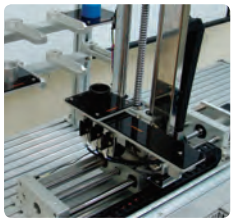
Automatic warehouse trainer, Basic (FPLC-AS/RS-TK)



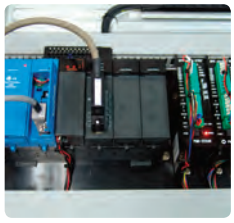
Order number : 23027

Training contents

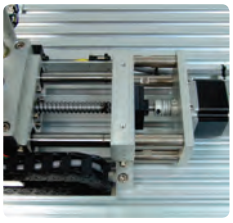
- Composition of the AS/RS
- 3-axes control and spindle drive control
- Position control system training
- Digital input and output signal
- Directional control of DC geared motor
- Additional conditions
- Principle and usage of various sensors
- Control programming
- PLC connection training with 4mm socket



▲ Conveyor belt and Sensor



▲ Operation module



▲ Storing magazine

Specification

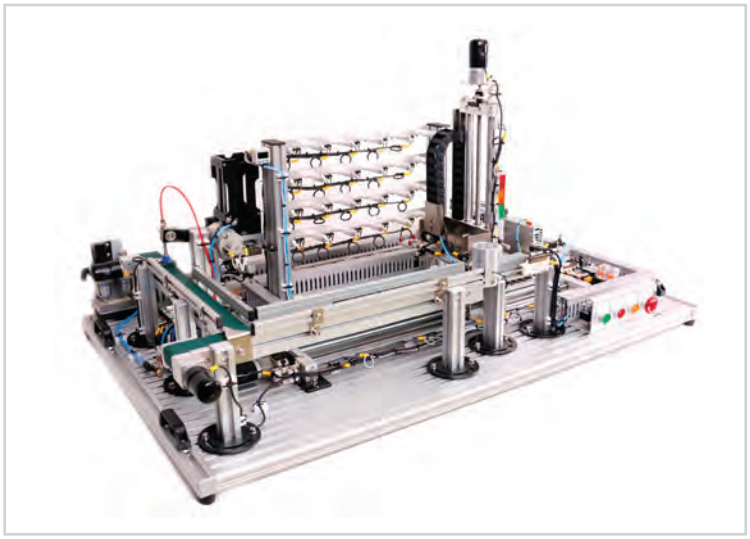
- Size : 1200(w)×750(d)×650(h) mm
- Weight : 43kg
- Operating pressure : 4 ~ 6 bar
- Power : AC 220V, DC24V
- Spindle drive
- 3 rows, 3 columns
- Minimum required PLC IO : 12 DI / 6 DO

Component

No.	Component	Qty.
1	Profile panel	1
2	Spindle drive	2
3	Rack frame	1
4	Magnetic sensor	7
5	End limit switch	6

No.	Component	Qty.
6	Photo-interrupter sensor	3
7	DC motor	3
8	Control console	1
9	Motor controller	2
10	Work piece & Palette	4

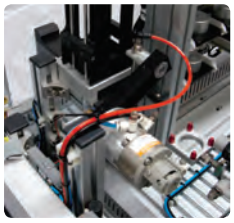
Automatic warehouse trainer, Advanced (FATK-AS/RS-A)



Order number : 23076

Training contents

- Composition of the AS/RS
- 3-axes and spindle drive control
- Usage of position control system
- Digital input and output signal
- Directional control of DC geared motor
- Storing practice with pallet
- Unloading system usage
- Principle and usage of various sensors
- Control programming
- PLC connection training with 4mm socket



▲ Rotary cylinder and magazine

▲ Solenoid valve block

▲ Multi function motor controller

Specification

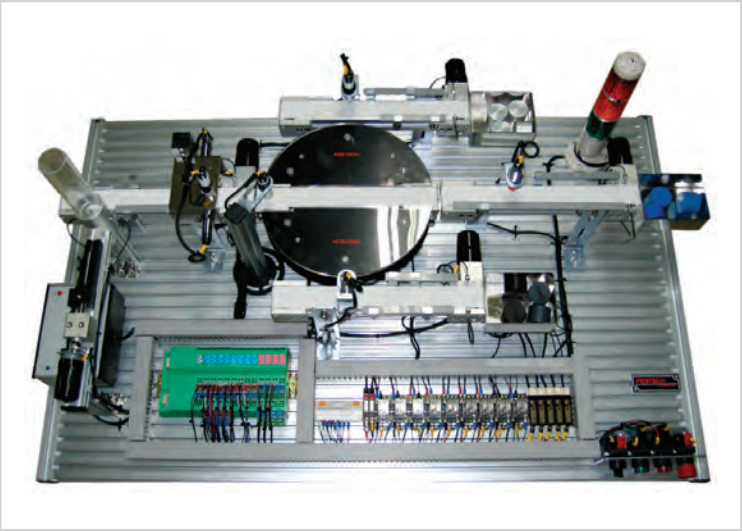
- Size : 1200(w)×750(d)×650(h) mm
- Weight : 60kg
- Operating pressure : 4 ~ 6 bar
- Power : AC 220V, DC24V
- Spindle drive
- 4 rows, 5 columns
- Rotary cylinder module
- Minimum required PLC IO : 50 DI / 24 DO

Component

No.	Component	Qty.
1	Profile panel	1
2	Spindle drive	2
3	Rack frame	1
4	Magnetic sensor	14
5	DC motor	4
6	Operating switch module	1
7	2axes motor controller	1

No.	Component	Qty.
8	Work piece & pallet	1
9	Limit switches for storage	1
10	Unloading module	1
11	Pallet distribution module	1
12	Rotary transfer module	1
13	Conveyor module	1

Sorting conveyor trainer (FVLC-RS-TK)



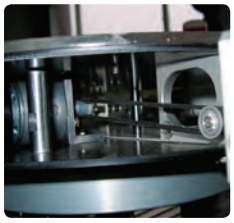
Order number : 23081

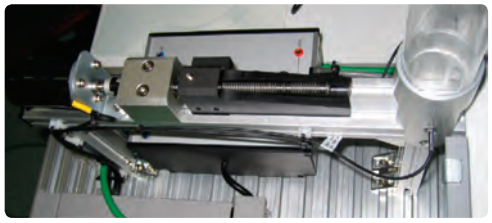
Features

- Only electric powered system
- 4 belts conveyor
- Rotary conveyor
- Proximity sensors
- Photo-electric sensors
- Various controller(PLC, PC-based etc.)

Training contents

- Composition of product sorting system
- Structure and training of Indexing table
- Digital input and output signal
- Directional control of DC geared motor
- Various conditions
- Features and usage of various sensors
- Control programming





Specification

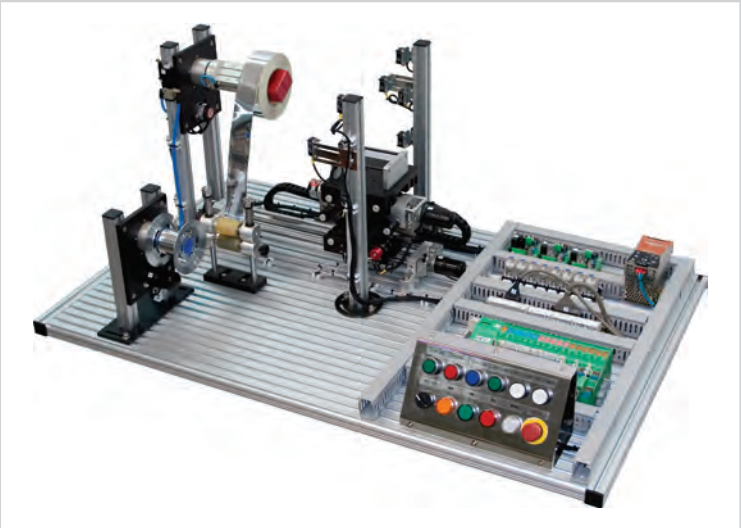
- Size : 1200(w)×750(d)×450(h) mm
- Weight : 47kg
- Operating pressure : 4 ~ 6 bar
- Power : AC 220V, DC24V
- Indexing table module (conveyor attached)
- Optical fiber sensor module
- Minimum required PLC IO : 15 DI / 16 DO

Component

No.	Component	Qty.
1	4 Belt conveyor	1
2	Rotary conveyor	1
3	Proximity sensor	1

No.	Component	Qty.
4	Optical sensor	1
5	Power supply (DC 24V)	1
6	VLC remote I/O	1

Coil feed and winder trainer (FVLC-COIL-TK)



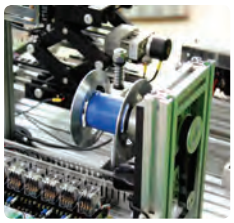
Order number : 23095

Features

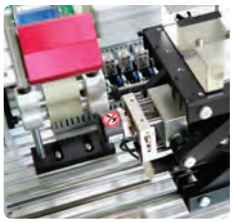
- Simulator for coil winder of steel industry
- Feedback control with motor and encoder
- Position control of spindle drive unit
- Various industrial sensors
- Aluminum foil tape for steel coil simulation
- Start slow / end slow function
- DC geared motor
- Measure thickness and length of coil

Training contents

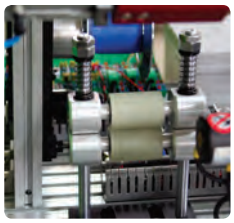
- Principle and algorithm of coil winder
- Multi axes position control
- Principle and usage of an encoder
- Usage and principle of proximity sensor
- PLC or VLC program
- Remote control with FieldBUS



▲ Coil feed and winder



▲ Lifter



▲ Gripper

Specification

- Size : 1200(w)×750(d)×600(h) mm
- Weight : 26kg
- Operating pressure : 4 ~ 6 bar
- Power : AC 220V, DC24V
- Encoder module
- Optical fiber sensor module
- Required PLC IO : 24 DI / 20 DO / 3 HSC

Component

No.	Component	Qty.
1	DC geared motor	3
2	Encoder	3
3	Spindle drive	2
4	Cross link lifter	1
5	Single acting pneumatic gripper	1
6	Optical	4

No.	Component	Qty.
7	Relay	13
8	Operating switch module	1
9	Power supply module	1
10	Training plate (aluminum profile panel)	1
11	Limit switch	6
12	Cable chain	1

Building automation system trainer (FVLC-BAS-TK)

Order number : 23084

Features

- Fire and Gas alarm
- Security alarm
- Temperature and humidity
- Room light and boiler control
- Gate control and door camera
- Light and curtain control
- Miniature house
- DC power supply
- External I/O block

Training contents

- Usage and principle various sensor
- Usage and principle of proximity sensor
- PLC program
- HMI
- Operation and program of system

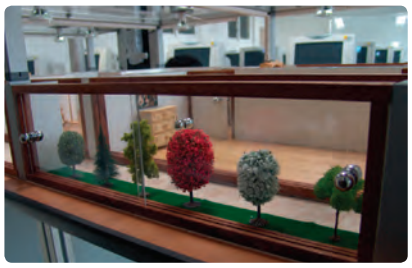
Specification

- Size : 2000(w)×1000(d)×850(h) mm
- Power : AC 220V, DC24V
- Door controller and camera
- Light control switch
- Blind control
- Temperature control
- Gas detector and controller
- Various fire sensor
- Various security sensor
- Required PLC IO : 16 DI / 16 DO / 2 AI / 1 AO

Component

No.	Component	Qty.
1	Video phone	1
2	Motion sensor and gas controller	1
3	Temperature controller	1
4	Camera, switch, VLC controller	1
5	Gas/fire, invasion alarm	1
6	Boiler control	1

No.	Component	Qty.
7	Door control	1
8	Light control	1
9	Curtain control	1
10	PLC controller (Optional)	1
11	External IO module	1



Elevator trainer (FPLC-EP-ELE-TK)

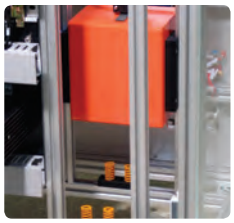
Order number : 23019

Features

- Mechanical construction similar to the real elevator
- Geared motor, chain system, and wire rope
- Simulating 3 elevator floors
- Floor indicating lamp, up/down button
- Transparent poly-carbonate glass at side and back
- Graphically symbolized limit switch and motor
- 4mm socket and plug wiring
- Easy movement with four castors

▲ Poly-carbonate glass cover

▲ Balance unit



▲ Case and safety spring

Specification

- Size : 550(w)×400(d)×1064(h) mm
- Weight : 42kg
- Power : AC 220V, DC24V
- Up/ down control with DC geared motor
- Door open control with DC geared motor
- Required PLC IO : 20 DI / 16 DO

Component

No.	Component	Qty.
1	Geared motor	4
2	Relay : 2a 2b	12
3	Lift	1
4	Weight balance unit	1
5	Safety spring	2
6	Limit switch	20

No.	Component	Qty.
7	Buzzer	1
8	Floor call lamp	4
9	Push-button (1a 1b)	4
10	Emergency switch (1a 1b)	1
11	FND	3

Parking management trainer (FPLC-EP-PARKING TOWER-TK)

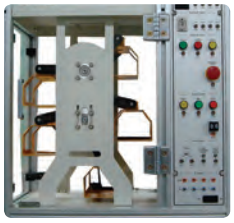
Order number : 23039

Features

- Circulation type
- Reality simulation
- Stable aluminum profile frame
- Various controllers
- Sensor protection circuit
- Wiring with 4mm cables

Training contents

- Mechanical principle of parking tower
- Electric sequence control
- DC motor control
- Various conditions (auto/ manual select circuit, emergency stop circuit and etc.)
- Usage of rotary switch
- Usage of 7-segment display
- Electric self-holding circuit
- Concept and application of proximity sensor
- Control programming



▲ Front image

▲ Parking area

▲ Electric terminal

Specification

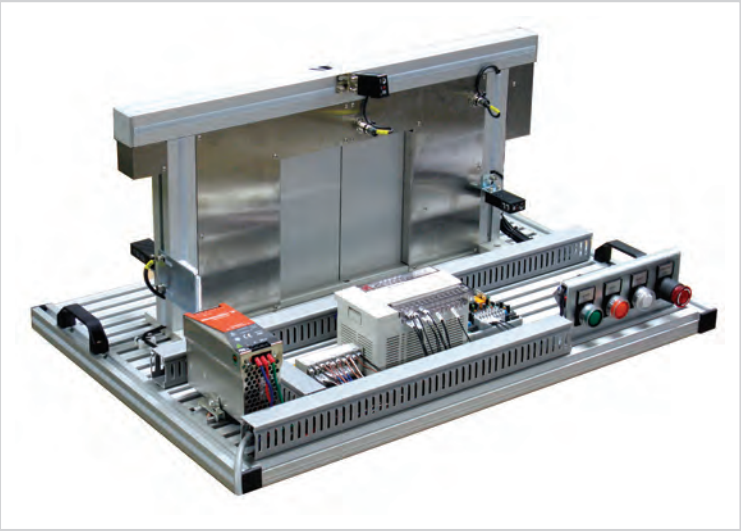
- Size : 530(w)×330(d)×620(h) mm
- Weight : 28kg
- Power : AC 220V, DC24V
- Storage control with DC geared motor
- Required PLC IO : 16 DI / 16 DO

Component

No.	Component	Qty.
1	Terminal	2
2	Inductive sensor module	1
3	Optical sensor module	1
4	Relay module	2
5	Geared motor module	1
6	Input switch module	1
7	Base frame	1

No.	Component	Qty.
8	Chain	3
9	Distribution board	1
10	PLC module	1
11	Roller chain sprocket kit	2
12	Power supply	1
13	1 digit digital switch	1
14	1 digit FND	1

Automatic door trainer (DC motor type) (FPLC-PD-PEM)



Order number : 23012

Features

- PLC controller
- VLC controller
- Microprocessor controller
- Relay controller
- 4mm socket (external controller)
- Terminal (external controller)

Training contents

- Auto door control using pneumatic (cylinder) or electric (DC motor)
- Directional control of modules and double solenoid valve control
- Limit switches for up and down
- Usage and principle of proximity switch

Specification

- Size : 600(w)×400(d)×350(h) mm
- Weight : 20kg
- Power : AC 220V, DC24V
- Storage control with DC geared motor
- Minimum required PLC IO : 10 DI / 6 DO

Component

No.	Component	Qty.
1	Switch	4
2	Direct-reflection sensor	2
3	Mirror-reflect sensor	1
4	Optical sensor	1
5	Inductive sensor	1
6	DC motor	1
7	Power supply	1

Automatic door trainer (Pneumatic type) (FPLC-PD-PE)

Order number : 23094

Component

No.	Component	Qty.
1	Switch	3
2	Optical sensor	2
3	Double-acting cylinder	2
4	Double solenoid valve	1
5	Power supply	1

Traffic signal control trainer (FPLC-TRF)

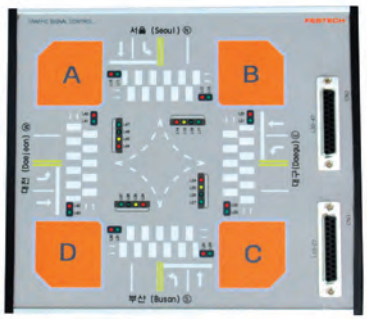
Order number : 23093

Features

- Traffic control system
- Manual and remote mode
- High bright LED lamps
- Sequence control circuit and various conditions
- Standard profile case and clamp
- Precise graphic board
- Wiring with 4mm cables

Training contents

- Understanding of traffic signal system
- Usage of time programming control
- Programming for cross-walk signal
- Usage of relay sequence circuit
- Various PLC programming



D-SUB connector type

Order number : 23072

Specification

- Power : DC24V
- Signal lamp : right, left, straight, stop - 4EA
- 3 Push-button and 1 select switch
- Minimum required PLC IO : 12 DI / 32 DO

Fortress game (FATK-FT)

Order number : 23097

Features

- Relay control or PLC control type
- Air tank
- Sequence control circuit and various conditions
- Adjustable angle
- Adjustable pressure
- Quick exhaust valve

Training contents

- Automation training such as pneumatics, electro-pneumatics, PLC and etc
- Advanced control programming

Component

No.	Component	Qty.
1	Aluminum profile panel	8
2	Pneumatic tank	1
3	Power supply	1
4	Electric relay	2
5	Single solenoid valve	2
6	Start switch unit	1
7	Shut off valve	1
8	Quick exhaust valve	1
9	Double-acting cylinder	1
10	Reed switch	2
11	Flow control valve	2
12	Acrylic round bar	1
13	Silencer	4
14	Capacitive sensor	1
15	PLC	1

Specification

- Size : 500(w)×650(d) mm
- Power : DC24V
- Capacitive sensor
- Transparent acrylic pipe
- Air tank : more than 2ℓ
- Minimum required PLC IO : 8 DI / 7 DO

Pinball game (FPLC-PIN-TK)

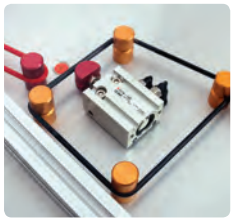
Order number : 23038

Features

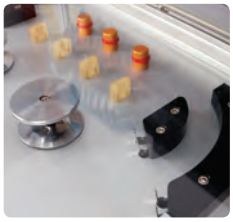
- Various actuators
- Inductive sensor and limit switch.
- 7-segments
- PLC programming
- Interested in electric pneumatic and controller

Training contents

- Automation training such as pneumatics, electro-pneumatics, PLC and etc.
- Cylinder usage and structure understanding
- Usage and principle of various sensors
- Advanced control programming



▲ Punching cylinder



▲ Ball detecting sensors

▲ Operating switches

Specification

- Size : 850(w)×600(d)×560(h) mm
- Weight : 32kg
- Power : AC 220V, DC24V
- Operating pressure : 4 ~ 6 bar
- Punching with rotary module
- Score display : 3-digits FND
- Required PLC IO : 25 DI / 21 DO

Component

No.	Component	Qty.
1	Rotary cylinder	2
2	Double acting cylinder	3
3	Single acting cylinder	2
4	5/2-way single solenoid valve	5
5	3/2-way solenoid valve	3
6	Inductive sensor	12

No.	Component	Qty.
7	Limit switch	8
8	4/2-way select switch	1
9	5/2-way push button switch	2
10	3/2-way push-button switch	1
11	7-segment	3
12	PLC	1

Motor & cylinder control module (FPLC-M/CYL-C)

Order number : 23212

Features

- DC Motor CD/CCW control
- Detecting motor revolutions
- Slide crank structure
- Bearing unit
- Slide position sensor
- Solenoid valve control
- Air cylinder position control
- Compact size

Training contents

- DC Motor CW/CCW electric diagram
- Sequence control
- Basic elector-pneumatics control

05

Component

No.	Component	Qty.
1	DC geared motor	1
2	Pneumatic cylinder	1
3	Single solenoid valve	1
4	Double solenoid valve	1
5	Proximity sensor	1

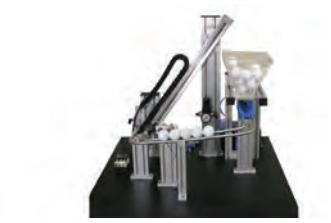
No.	Component	Qty.
6	Inductive sensor	1
7	Tower lamp module	1
8	Relay module	2
9	Operating console	1
10	Socket terminal module	1

Automation display models

These models display the basic processes of automation. They are a great demonstration for students or guests interested in automation, featuring a variety of devices used in the field and a very clean design.

Air blowing transfer system

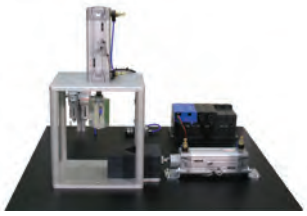
Order number : 23022



- Blowing pressure control with a pressure regulating valve
- Transfer system with a rodless cylinder
- Work piece separation and transfer with a vibrating valve
- Usage of a rotary cylinder
- Usage and principle of a stopper cylinder
- Application and design of an air blower

Punch & dies system

Order number : 23023



- Punching and dies simulation
- Completion check with high bright LEDs
- Press and punching application with a pneumatic cylinder
- Applied model of a non-rotating cylinder

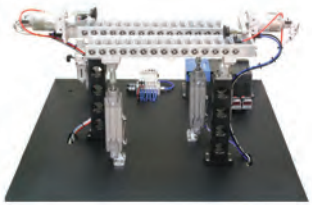
High speed position control system

Order number : 23024

- 4 positions control with 2 rotary cylinders
- High speed position control with link system
- Work piece detection with an optical sensor
- Mechanical applied model of rotary cylinder
- Pneumatic rotary devices and applications

Roller conveyor system

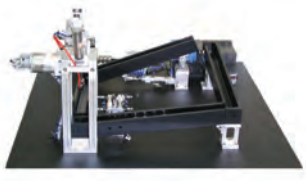
Order number : 23025



- Continuous transfer system with various pneumatic cylinder
- Horizontal transfer with a suction cup
- Cylinder angle control
- Work piece position control of rotary cylinder
- Transferring system using position energy

Steel ball circulation system

Order number : 23026



- Continuous steel ball circulating system
- Mechanical combination of suction cup and cylinder
- Various cylinder application
- Transferring system using position energy