

<u>ControlEZ Technology Sdn Bhd</u> (515007-U) Machine Vision, Motion, PLC-PC-Based Industry Control Automation.

**Education Control Training Equipment.**Tel: 603-8945 2922 Fax: 603-8945 3922

Email: <a href="mailto:sales@controlEZ.com"><u>http://www.controlEZ.com</u></a>

No	<b>Product Description</b>	<b>Product Code</b>
01	Sensor Trainer	EZ-SENSR001
02	CPM1A PLC Trainer (Micro Size)	EZ-CPM1A001
03	CJ PLC Trainer (Small Size)	EZ-CJ1M001P
04	CSI PLC Trainer (Middle Size)	EZ-CS1G002
05	FA TRAINING KIT	EZ-FAMY001P
06	Analog Input Servo Trainer	EZ-SERVO002
07	Pulse Trainer Servo Trainer	EZ-PSERV01P
08	Touch Panel Trainer	EZ-NT31001P
09	PLC Analog Trainer	EZ-BSCQM1HSK
10	F160 Monochrome Vision Inspection Trainer	EZ-NEZF160001P
11	F400 Color Vision Inspection Trainer	EZ-F4000001P
12	Protocol Macro & PID Trainer	EZ-PMPID01P
13	PLC Networking Trainer	EZ-NETW001P
14	Factor Manufacturing Trainer	EZ-AOT0001P

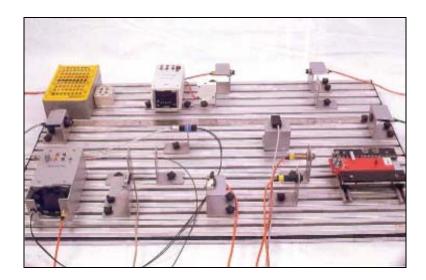


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# Sensor Trainer EZ-SENSR001



### **Description:**

The Sensor Trainer has been **designed with** an easy set up sensor testing accessories to study different type of sensor. The program cover on the performance, characteristic, output type, linearity, precision, hysteretic and maintenance for the individual sensor. A series of real application example are given to enhance student understanding in sensor usage in different industrial environment.

The **sensors used** in this trainer are Inductive sensor, capacitive sensor, thru' beam photo-electric sensor, Retro-reflective photo-electric sensor and, Diffuse Reflective photo-electric sensor and a list of sensor selection guide to broaden student knowledge.

The sensors able to interface with DAQ data acquisition card which allow the information of the sensors to display as GUI.

This trainer is **complete with** a total of **over 20 experiments**. Each experiment identifies the objective, gives a background briefing, explains the procedures, and student is required to answer a series of observation and assignment.

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#### CPM1A PLC Trainer (Micro size) EZ-CPMA001



# **Description:**

User-friendly CPMA PLC Trainer specially include **step-by-step guide** to assist student with the fundamentals of **PLC operation, programming and wiring**.

The trainer kit base **consists of** lamp, switches, banana sockets and a selector switch. By selecting LAMP mode using the selector switch, student is able to simulate and test their Ladder program by using the pre-wired switches and lamps to confirm the correct operation of their Ladder program before switching into SOCKET mode. Switching to SOCKET mode will provides student with hands-on wiring experience. The entire banana socket is directly connected of PLC Input and Output terminals.

Besides learning on PLC concept, operation, programming and wiring, the course consists of 15 Life Application, 12 useful Ladder circuitries, Installation and Wiring consideration, Maintenance and Trouble shooting.

#### The trainer is **complete with:**

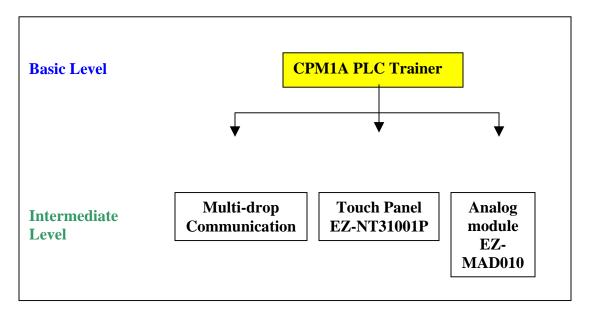
PLC CPU unit (CPM1A-20CDR-A)	PLC Training Manual	
Trainer Kit Base	<ul> <li>Ladder Programming Software</li> </ul>	
	(Syswin)	
• RS 232 Adapter (CPM1-CIF01)	<ul> <li>Syswin User Manual</li> </ul>	
RS 232 Training Manual	Trainer Storage Box	



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## Learning path of CPM1A PLC Trainer:-



\*\*The PLC system able to interface with DAQ data acquisition card which allow the information of the PLC to display as GUI.

Note:

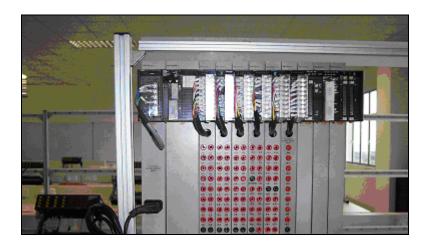


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#### CJ PLC Trainer (Small Size) EZ-CJ1M001P



### **Description:**

User-friendly CJ PLC Trainer specially comes with **step-by-step guide** to assist students with the fundamental of **PLC operation, programming and wiring**.

This trainer kit base **consists of** lamps, switches, banana sockets and a selector switch. By selecting LAMP mode using the selector switches, student is able to simulate and test their Ladder program by using the pre-wired switches and lamps to confirm the correct operation of their Ladder program before switching into SOCKET mode. Switching to SOCKET mode will provide student with hands-on wiring experience. All the banana sockets are directly connected PLC Input and Output terminals.

Beside learning PLC concept, programming and wiring, the courseware consist of operation of 15 real Life applications, 12 useful Ladder circuitries, Installation and Wiring consideration, Maintenance and Trouble shooting.

The trainer is **complete with**:

CJ Kit Base	Programming Console
• 16 Digital Input Card	Kit Base Power Supply
16 Digital Output Card	Training Manual
PLC Power Supply	<ul> <li>Ladder Programming Software (Syswin)</li> </ul>
CJ PLC CPU	(Byswin)

Note:

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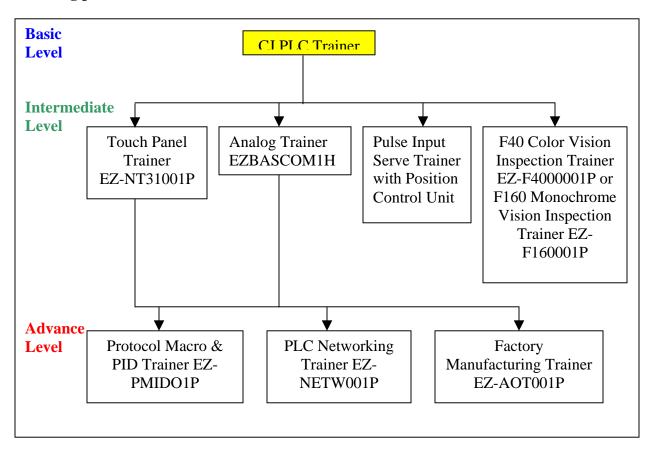


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### Learning path of PLC trainer:-



<sup>\*\*</sup>The PLC system able to interface with DAQ data acquisition card which allow the information of the PLC to display as GUI.

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#### CS1 PLC Trainer (middle size) EZ-CS1G002



#### **Description:**

User-friendly CJ PLC Trainer specially comes with **step-by-step guide** to assist students with the fundamentals of PLC programming and wiring.

This trainer kit base **consists of** lamps, switches, banana sockets and 2 set of 25 ways D-Connor. By using the 25 way D-connector plug to port A, student is able to simulate and test their Ladder program by using the pre-wired switches and lamps to confirm the correct operation of their Ladder program before switching into port B. Switching are directly connected to PLC Input and Troubleshooting.

#### The trainer is **complete with**:-

• PLC CPU (CS1G-CPU42H)	Programming Console
<ul> <li>16 Digital Input Card</li> </ul>	Kit Base Power Supply
<ul> <li>16 Digital Output Card</li> </ul>	Training Manual
PLC Power Supply	Ladder Programming
	Software( Syswin )
CS1 Kit Base	

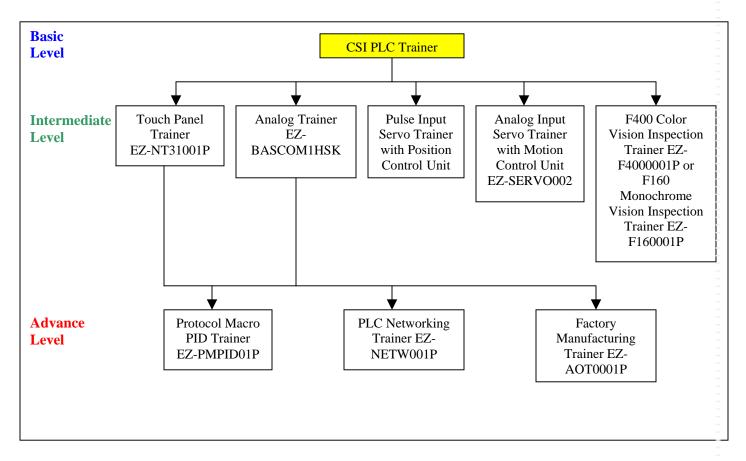


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### Learning path of CS1 PLC trainer:-



\*\*The PLC system able to interface with DAQ data acquisition card which allow the information of the PLC to display as GUI.

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# FA Training Kit EZ-FAMY001P



## **Description:**

This trainer is suitable for **basic Factor Automation training** as it provide flexibility to integrate sensor, PLC, Relay, timer, counter and conveyor based on the student creativity.

#### The courseware cover on:-

Outline of Control	Installation Work
• Switches	Protective Structure
Sequence Circuits	• Symbols
• Relays	Sensor Output Forms
• Timers	Internal Schematic Diagram of Sensors
• Counters	Programming Console Operations
• Sensor	PLC Internal Processing
Programmable Logic Control	PLC Errors & Solutions
List of Items, Materials & Parts used	

This trainer is **complete with over 20 experiments**. Each experiment identifies the objectives, gives a background briefing, explains the procedures, and the student is required to answer a series of observation and assignment.



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# **Components:**

CPM2A PLC	Single pole Double pole Relay
Programming Console	Double pole Double Relay
Proximity Sensor	Plastic Casing
4 type of Photo-electric Sensor	Relay Socket
FA Kit Briefcase	Timer Socket
Timer	Training Manual (Student &
	Lecturer)
Counter	

<sup>\*\*</sup>The PLC system able to interface with DAQ data acquisition card which allow the information of the PLC to display as GUI.

Note:				
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# PLC Servo Trainer EZ-SERBVO002



#### **Description**;

This trainer is integrated PLC, Sensor, Touch Panel, Linear guide, Power supply, Solenoid, Analog Input Servo Driver and Servo Motor. The student shall be able to interpret electrical system circuit diagram, troubleshooting fault on electrical system and Servo driver, enhance PLC and Touch Panel programming skill, and program Two-axis Motion control with multi-tasking PLC programming. This trainer is complete with **over 10 real application exercises on PLC Code Programming.** 

#### This trainer complete with:

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- Touch Panel
- Servo Driver Programming Console
- RS232 Cable
- Analog Servo Driver AC200V 50W
- Servo Power Cable
- Servo Motor
- Ladder Programming Software
- Sensor Terminal



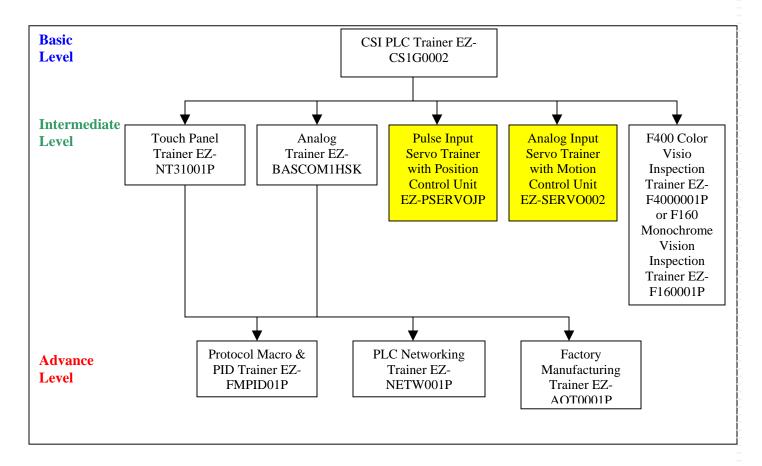
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- PLC
- Sensor Terminal Cable
- Training manual
- Motion Control Unit
- Computer

#### **Learning path of Servo Trainer:**



\*\*The PLC system able to interface with DAQ data acquisition card which allow the information of the PLC to display as GUI.

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#### PLC Touch Panel Trainer EZ-NT31001P



### **Description:**

This trainer needs to cooperate with PLC trainer CPM1A PLC Trainer (EZ-CPM1A001), CJ PLC Trainer (EZ-CJ1M001P) or CS1 PLC Trainer (EZ-CS1G0002). Through this trainer student will be expose to **Man Machine Interface programming, monitoring, operating and troubleshooting.** In industrial, Touch Panel (Man Machine Interface) is very common in automations it assists the worker to understand and operate the system easier.

#### The trainer complete:

- Touch Panel
- Window base Touch Panel Programming Software
- Training Manual for Student & Lecturer

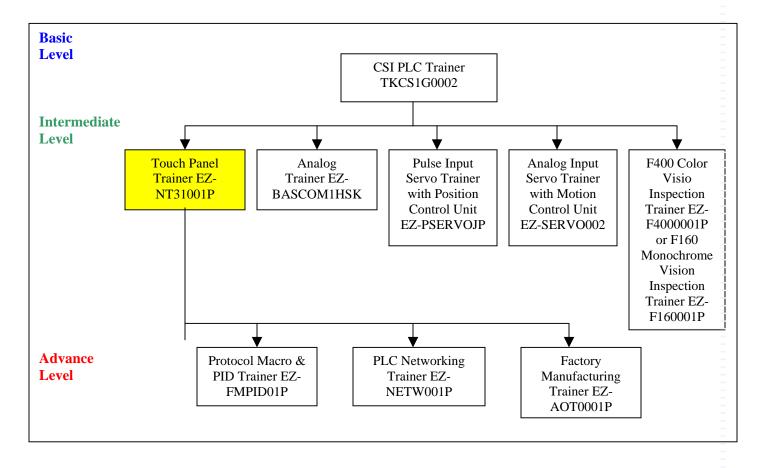


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#### Learning path of Touch Panel Trainer:-



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# PLC Analog Trainer EZ-BASCQM1HSK



#### **Description:**

PLC Analog Trainer is a necessary tool for PLC trainer. It extend trainer understanding / learning PLC. Learning PLC shall not be complete knowing how PLC manage Analog signals are the crucial signal for automation operation.

Analog Input	Analog Output	
• One set of –10V to +10Vbanana	• One set of -10V to +10Vbanana	
socket input	socket input	
• One set of 0 to 20mA banana socket	• One set of 0 to 20mA banana socket	
input	input	
• Four units of –10V to +10V	• Two units of –10V to +10V	
terminals	terminals	
• Four units of 0 to 20mA terminals	• Two units of 0 to 20mA terminals	
Two units potentiometer	<ul> <li>Two sets of 7 segment displays</li> </ul>	
Two sets of 7 segment displays		

#### This trainer is complete with:-

- PLC Analog Trainer (EZ-CS1AD001P)
- CPM1A PLC Trainer (EZ-CPM1A001) and CPM1A Mix Analog Input and Output Module.

Or

■ CJ PLC Trainer (EZ-CJ1001P) and CJ1W Analog Input and Output Cards

Or

CS1 PLC Trainer (EZ-CS1G0002) and CS1W Analog Input and Output Cards

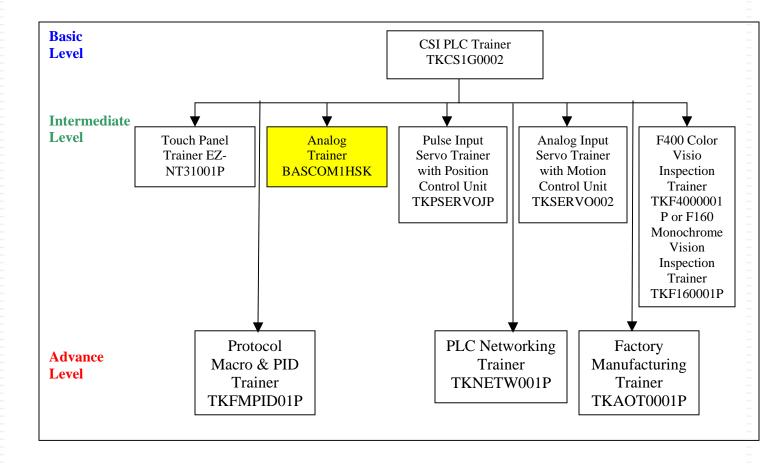


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#### **Learning path of PLC Analog Trainer:**





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# F160 Monochrome Vision Inspection Trainer EZF160001P

#### **Description:**

This trainer has been developed to provide **basic facilities to study Vision Inspection Sensor.** The program incorporates a wide variety of checking accessories to expose the capability and the performance of the Vision Inspection Sensor.

#### Components:-

Metal Briefcase	Polarizer
Programming Console	Extension Tube Set
F160 Vision Inspection System	• 30 DEG. Red LED Ring Light
Memory Card	• 70 DEG. Ring Light W Polarizer
• S82V-0524 AC100/200 24V2.1A	• 75 DEG. Ring Light
• 12MM LENS	• LED Power Supply, 10W
• 25MM LENS	• 2 Ways, 1M Extension Cable
• 50MM LENS	Camera + Light Holder
Red Filter	Training Manual

F160 vision system Inspection System allows participants to expose

- the measurement algorithms in pattern matching
- width measurement
- surface detect
- character recognition
- surface density and slotting

which can apply in various kind of applications.

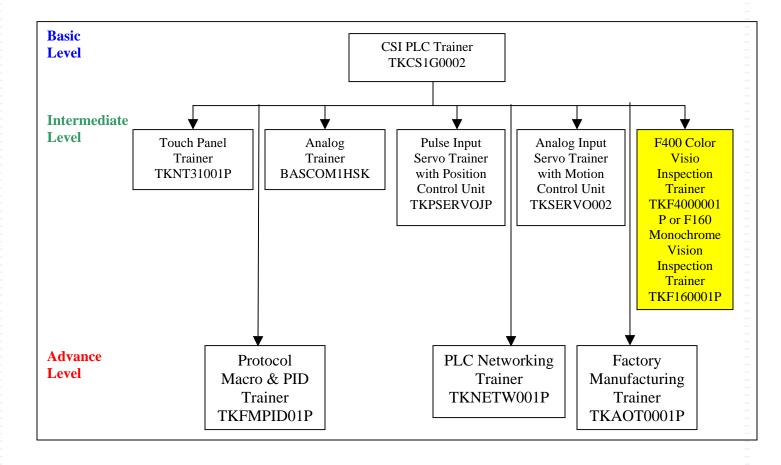


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#### Learning path of F160 Monochrome Vision Inspection Trainer





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#### F400 Color Vision Inspection trainer EZF4000001P

#### **Description:**

This trainer has been developed to provide basic facilities in **studding Vision Inspection sensor.** The program incorporates a wide variety checking accessories to expose the capability and the performance of the color Vision Inspection sensor.

#### Components:-

Metal Briefcase	• 25MM LENS
Programming Console	• 50MM LENS
• F400 color inspection system	Extension Tube Set
Memory Card	• LDR-50B-SW (White LED Light)
Power supply	Training Manual
• 12MM LENS	

F400 color Vision System able to distinguish differences in color, 56 colors in RGB filter matters. It also capable to detect up to 8 color pickup for inspection.

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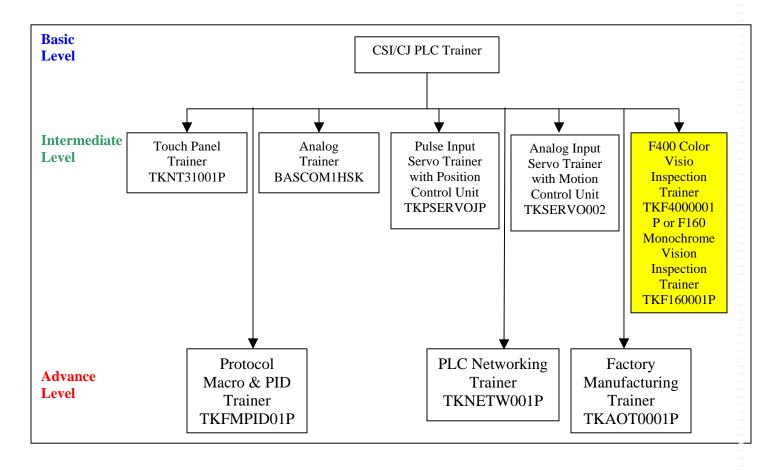


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## Learning path of this trainer:-





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#### Protocol Macro & PID Trainer.

#### **Description:**

#### **Brief explanation**:

The simulation of reference temperature is set through the potential that to temperature controller with the information is being fed to CSI via protocol macro function. CSI will then supply a 4~20m to the inverter which controls the blower speed. This airflow is then monitored through a flow sensor and fed back to CSI-MAD. It is to maintain the speed at the set point.NT31C is used display and simulate door access system that can communicate with CSI via protocol macro function.

#### This trainer is **complete with**:

1- Briefcase for storage Which will lead the student how to interpret electrical system circuit diagram, troubleshooting fault on electrical system and inverter, enhance PLC and Touch Panel programming skill, create external device protocol for data exchange by executing with single instruction, and the real effect of tuning PID.

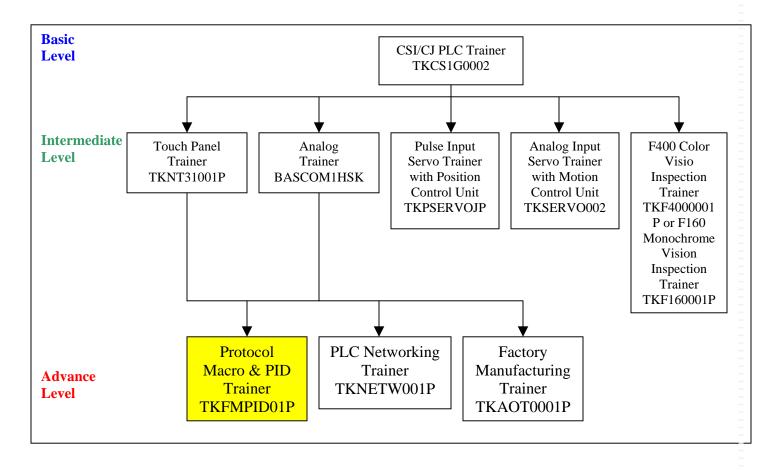


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# Learning path of this trainer:-



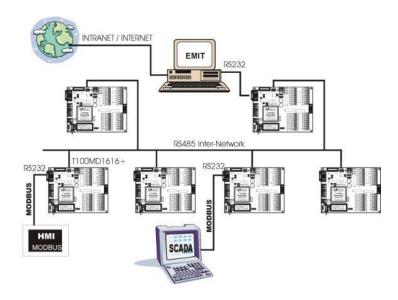


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#### PLC Networking Trainer EZNNETW001P



#### **Description:**

This trainer emphasis on seamless Massage Communication across the automation network levels. Networks are available for every level: Ethernet for information, Controller Link and Sysmac Link for Controller and Device Net ad Compo Bus/S for components. Massage communications can be performance smoothly across three network levels, dramatically accelerating the exchange of information at the production site. Student shall also learn to construct a system in multi vendor environments simplified with protocol macros for data exchange.

#### The trainer is complete with

Ethernet Module	Programming Software
Controller Link Module	Temperature Controller
• PLC	Serial Communication Mod
Data Modem	Compo Bus/ D communication Unit
GSM Modem	Mounting Board
• HUB	Cross Cable
Device Net Module	RS 233 Cable
Programming Console	Training Manual

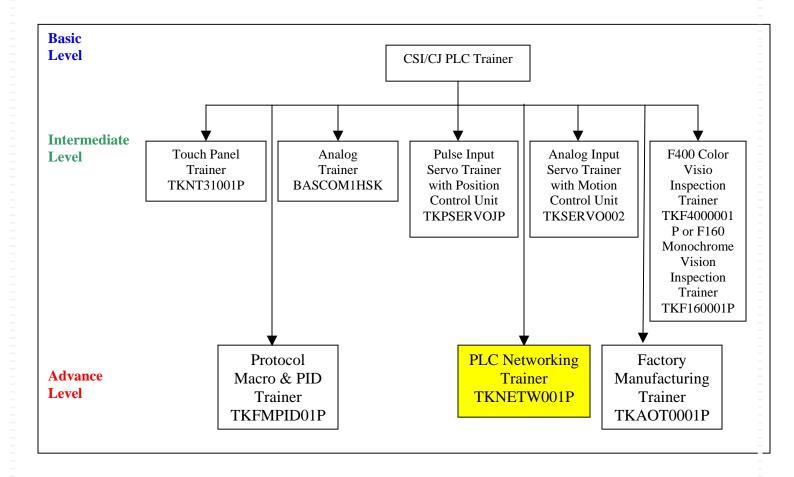


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## Learning path of this trainer:-



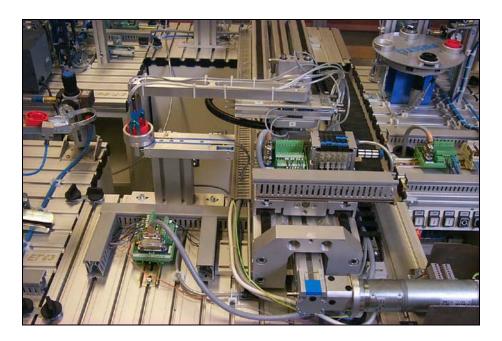


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# Factory Manufacturing Trainer EZAOT0001P



#### **Description:**

#### Station 1

**The loading station**. It must receive a model number from the operator before it pushes out the part for loading. The pick place sequence will only start with the depression of the "start" push button.

#### Station 2

To simulate a **drilling station**. It is to read the data carrier to determine which model is present on the pallet and then decide the drilling pattern to be carried out

#### Station 3

**The heating station** and the control of even temperature is assigned to a PID controller (E5CK). The PLC only has sends the required "set" value for the oven and to display the 'present' value of the oven temperature. The communication between the temperature controller and PLC is done using the protocol macro function.

#### Station 4

The testing station. It will read from the data carrier the model number and then select the appropriate tolerance range to conduct the test. After the test, the station will write the result to the data carrier.



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#### Station 5

**The reject station**. It will read from the data carrier and if the pass/fail statuses reflect as fail, the pick and place sequence will then star.

#### Station 6

**The accept station**. It will read from data carrier and if the pass/fail statuses reflect as pass, the pick and place sequence will then start.

This trainer shall analysis, installation, troubleshooting diagnosis and repair, design, and understanding and drawing up of documentation.

#### This trainer is **complete with**:

Photo Sensor	
<ul> <li>Proximity Sensor</li> </ul>	
ID sensor System	
<ul> <li>Inverter</li> </ul>	
• PLC	
Temperature Contr	oller
<ul> <li>Compo bus/S Inpu</li> </ul>	t and Output module
<ul> <li>Relay Sockets</li> </ul>	
<ul> <li>Relays</li> </ul>	
<ul> <li>Touch panel</li> </ul>	
• Robot	
<ul> <li>Conveyor</li> </ul>	
<ul> <li>Switches</li> </ul>	
• Lamps	
Pneumatic	
• SCADA	
Mechanical Structu	ire
Training manual	
Computer	



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#### Learning path of this trainer:-

