# **Product Information Sheet**

## **PLC Trainer**





The 291-01 training system offers a platform that enables students to perform a comprehensive range of programming tasks culminating in the control of the unit using an industrial programmable logic controller (PLC).

The unit is designed to sort metal discs one at a time, checking them for a machined hole and dispensing them into to one of two bins based upon programming logic.

The speed of the sorting disc is controlled using an analog input signal. The position of the sorting disc can be determined using the in-built rotary encoder.

The supplied STEM learning materials have been designed to provide practical real world problem solving tasks and activities within the classroom or lab environment.

Students develop their understanding of PLC programming using our unique software simulation of an industrial work-cell. They progress to practical tasks designed around a Siemens S7-1200 industrial programmable logic controller. (Not included - see 291-00 and 290-02).

#### **Typical Topic Areas Include:**

- **Industrial Controllers**
- Logic (AND, OR and NOT), Truth Tables & Step Logic
- Latching Actuators
- Counting Parts and Timing Events
- Controlling Motor Speed and Position
- Sorting Parts

#### **Industrial Control Application Components:**

- Manual override switch
- 4 x Manual control switches
- 7 x Input/Output LED indicators
- 2 x Push buttons (Red/Green)
- 2 x Lamp indicators (Red/Green)
- 2 x Part bins
- Analog speed control dial
- Variable speed DC motor controlled sorting cisc
- Infra-red hole detection sensor
- Two channel rotary encoder with index position
- Connection block and rack bar for PLC extension

#### **Items Included:**

- Industrial Control Sorter Application
- Power Supply
- **USB** Lead
- Selection of solid and holed discs
- PLC Simulation Software
- Curriculum CDROM

### **Other Items Required:**

- Computer with DVD and USB Port
- Siemens S7 PLC (Order 290-02)

#### **General Information:**

Dimensions: 360 x 480 x 240 mm

 $(W \times D \times H)$ 

Supply Voltage: 50-60Hz 110-240V

Packed Volume: Approx. 0.135 m<sup>3</sup> Packed Weight: Approx. 9 kg

Order Code: 291-01

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