

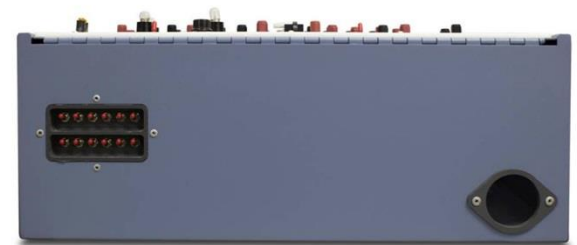


DESCRIPTION:

This kit allows students to gain a foundation in the principles of electricity and electronics. It provides a “hands on” working knowledge of voltage, current and resistance with series and parallel circuits. Graphic symbols are screened into each component’s acrylic background. This helps the student to understand circuit reading and wiring diagrams. The trainer includes many features of our popular MEGLECTRO trainer, including a built in switchable 13.8 VDC @ 3A fixed regulated power supply, to 3-18 VDC variable power supply; and hinged top for storing leads. Also like the MEGLECTRO-2 trainer, the MEGLECTRO-STEM’s electronic components that are used for building circuits, are permanently mounted to the acrylic top.

FAULT INSERTION:

Because the MEGLECTRO-STEM Trainer does not require the user to insert and remove its components, we get the ability to insert faults into a working circuit. The trainer has several switches on the rear panel which can be used to create an open or resistive fault in many of the components. The fault switches are numbered, with a legend provided, to show which component each switch effects. All components have test points between the banana jack and the component. This allows them to be tested for differences in voltage or high resistance.



HARDWARE:

3/16” Acrylic Plastic mounted in a steel chassis for desk or tabletop use. Hinged top allows storage of manuals and leads. Plastic has screen print of individual modules for training; each screen includes a schematic screening of the component and a “pin-out” test point for DMM usage. The backside of the trainer will have 12 three position switches for open, normal and resistive faults. There will be a set of jumpers (QTY 8) of red and black to build a circuit and power up the different activities.

MODULAR COURSEWARE:

- 83 Page Notebook with Explanations, examples and questions.

STEM CONCEPTS APPLIED!

1. Discovering Hybrid Modes of Operation
2. Thermistors
3. Cadmium Sulfide LDRs
4. PN Junction/LED
5. Series Connected LEDs
6. Pulse Width Modulation
7. Zener Diodes
8. MOSFET

MODULES INCLUDED:

- Lamp 12V, 2W (Qty 2)
- Lamp 12V, 1W (Qty 2)
- Resistor 100 ohm, 2W
- Resistor 200 ohm, 1W
- Resistor 300 ohm, 1W
- Switch SPST, On-Off
- Switch DPDT, On-Off-On
- Relay, NO or Nc
- PWM Control
- Motor
- Capacitor 2200 mfd, 470 mfd
- In Series LED (QTY 9)
- Diode 12V
- Zener Diode, 12V
- NPN Transistor with resistor
- Ohm Potentiometer 100K Vari
- MOSFET N-CH
- NTC Thermistor
- LDR

SPECIFICATIONS:

Size – 14½" x 17½" (including stand) 4 ¾" high in front, 7" high in back

Weight – 40 lbs. Approximately

Fuse – 5 Amp 3 AG

Power – Switchable: 0 - 14V @ 3 A Variable Regulated Supply and 12V @ 3 A Fixed Regulated Supply