

The Instrumentation trainer introduce student to input sensors, output sensors, signal conditioning circuits and display devices through a wide range of hands-on practical activities. This self contained trainer has all the necessary power supplies, light sources and a wide range of hands on experiment work.



The trainer is supplied with a detailed curriculum manual that provides background theory, practical activities and student assessment questions.

A student workbook is also provided allowing students to create a personalized record of their work together with practical results as they work through the curriculum materials. Finally, an instructor's guide is provided offering solutions to all of the questions and practical activities contained in the curriculum manual and student workbook. The bench-mounted trainer features the following devices and circuits.

INPUT TRANSDUCERS:

- Linear variable differential transformer
- Linear variable capacitor
- Strain guage
- Humidity Sensor
- Dynamic microphone
- Ultrasonic receiver

SIGNAL CONDITIONING:

- Signal conditioning amplifiers
- Comparator, Oscillator and filters
- Mathematical Operation.

TYPICAL TOPIC AREAS INCLUDE:

- Positional resistance transducer
- Wheatstone bridge measurement
- Linear position or force Application
- Environmental measurement
- Sound measurement
- Sound output
- Linear motion
- Display Devices

OUTPUT DEVICES:

- Buzzer
- Relay
- Solenoid
- Loudspeaker
- Ultrasonic Transmitter
- Bargraph voltage indicator
- Analog 10V Center-zero meter

POSITIONAL RESISTANCE TRANSDUCERS:

- Carbon Potentiometer
- Wire wound potentiometer
- Slide potentiometer
- Wheatstone Bridge

ITEM SUPPLIED WITH THE INSTRUMENTATION STUDY MODULE INCLUDE:

- Instrumentation Technical Manual
- Curriculum manual
- Instructor's Guide and student workbook

EXTERNAL POWER SUPPLIES:

- -5V, +5V 1A precision supply
- -12V, +12V 1A regulated supply On board power supply terminals

Note: Specifications are subject to change.

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