VIJAYANTA

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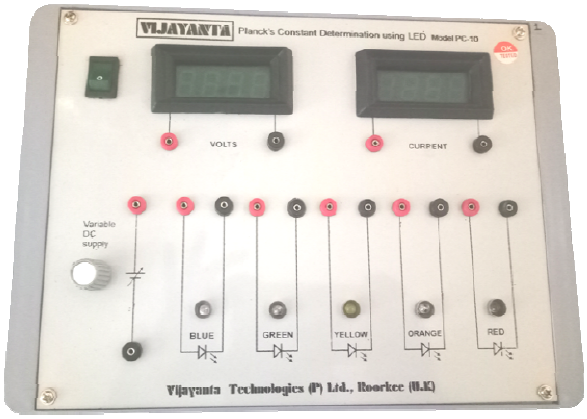
PLANCK'S CONSTANT DETERMINATION USING LED

Model : PC-10



PC-10 Planck's Constant determination using LED is a useful setup which illustrates the basic concept of the Quantum Mechanics. The setup familiarizes the concept of photon energy and explains how it is related to its frequency. Setup is mainly designed to evaluate Planck's Constant. For this purpose five LEDs of different colors are included with the setup. This setup facilitates to determine the Planck's Constant by measuring the voltage drop across LEDs.

- Weight : 2 Kg. Approximately
- Dimension : 250mm × 325mm × 70mm

SPECIFICATION

DC Power Supply : 0-5 V
LED Type : Super bright
Size : 5 mm
Colours : Blue, Green, Orange, Red and Yellow

DC Voltmeter
Type : LCD
Display : 3½ digit
Range : 200mV - 200V

DC Ammeter
Type : LCD
Display : 3½ digit
Range : 2µA- 200mA

Mains Supply : 230V ±10%, 50Hz
Fuse : 0.5A

VIJAYANTA TECHNOLOGIES PVT. LTD.
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FEATURES:

1. Self contained setup requires no other accessory
2. Super bright LEDs
3. LCD for current and voltage measurement
4. Variable DC Supply (0-5 Volt)
5. Online product tutorial
6. 2 Year Warranty

SCOPE OF LEARNING:

1. Determination of Planck's Constant using Light Emitting Diode (LED)
2. Draw the I-V characteristic for Light Emitting Diode (LED) and hence
3. Determine the Threshold Voltage
4. Determination of Planck's Constant by plotting curve between
5. Threshold Voltage and Wavelength of LEDs

Note: There may be any change in specification due to continuous R & D without notice.

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