



### Specifications

- Covers Op-Amp (741) and its various applications
- Allows study of timer using 555 IC
- Study of F/ V, V/ F using LM331
- On-board Resistor, Capacitor, Diode and Potentiometer banks of different values
- Bread board area allows construction of circuits using external components along with on-board resources
- On-board fixed power supply and variable regulated positive and negative power supply
- $\pm 15V$ ,  $\pm 12$  and  $+5V$  fixed DC power supply
- DC 1.5 to 10V, -1.5 to -10V variable power supply
- IC 741 Op-Amp stage
- 555IC stage
- LM331IC stage
- 16pin ZIF socket
- Resistor bank
- Capacitorbank
- Potentiometers
- Diodes
- Zener diodes
- NPN Transistor
- N-channelMOSFET
- LED
- Breadboard

### Experiments

Op-Amp IC -741 based

- Measurement of input offset voltage, input bias current, input offset current
- Measurement of differential input impedance, output resistance
- Measurement of common mode rejection ratio (CMRR), slew rate, unity gain bandwidth
- Inverting and non-inverting amplifier (AC / DC)
- Low pass, high pass, band pass, narrow band reject, all pass filters
- Current to voltage, voltage to current, digital to analog converter
- Frequency to voltage, voltage to frequency converter using L 331

IC-555 based

- Astable, bi-stable, mono-stable multi-vibrator
- Frequency divider and frequency stretcher
- Schmitt trigger
- PWM modulator
- Many more

Note: Specifications are subject to change.