

Electronic Work Station

An integrated workbench consisting of instrument panels and working table is suitable for students to learn and perform various experiments of electronics and electrical related subjects. Instruments are internally electrically connect and is fitted in the panel such that only front panel and necessary interfaces are easily accessible to use. The structure is made up of 1.5 mm thick CRC powder coated pipes with top made up of good quality 19 mm thick plywood and covered with 1.8 mm off white colour mica. The bench working area covered by a 2 mm thick antistatic mat which help students to controls static discharge as static cause interference or damage to students, equipment and all Accessories.



Note Shown image is just for illustration original may differ

Electrical Sockets And Switches (for External Use)

- ❖ Two Pole MCB - 32- 01
- ❖ Mains Supply - 230V AC, 50 Hz.- 01
- ❖ 15 Amp. Socket provision with Switch (Modular)- 01
- ❖ 5 Amp. Socket provision with Switch (Modular)- 06
- ❖ RCCB 40 AMP-01

Structure and Design of Work Bench:

- ❖ Structure of workbench made up of 1.5 mm thick CRC powder coated pipes with top made up of good quality 19 mm thick plywood and covered with 1.8 mm mica.
- ❖ The basic structure made of 38 x 38 x 1.5 mm CRC powder coated pipes for sturdiness.
- ❖ The overall dimensions of Workbench* not less than W = 1200 mm; D = 750 mm; H = 1150 mm
- ❖ MS drawers 03 numbers W = 275 mm; D = 375 mm; H = 100 mm and thickness 1.2mm with handle and separate lock on each drawer provided
- ❖ For the panel section, raised back height of 1200mm from floor with matching height support
- ❖ From the side at a depth 500mm for instrument housing with a MS Panel strip below it for housing
- ❖ Supplied with Power cable, Probes, Instruction manual

100 MHz 2 CHANNEL DIGITAL STORAGE OSCILLOSCOPE :

100 MHz Two Channel Digital Storage Oscilloscope has sampling rate of 1 GSa/s (single-channel), 500 MSa/s (dual-channel), Memory Depth is more than standard 20 Mpts (single-channel) and 10 Mpts (dual-channel); Horizontal range : 2 ns/div to 50 s/div; Vertical range : 500 uV/div to 10 V/div ; Vertical Resolution 8 bits; math functions : A+B, A-B, A*B, A/B, FFT, AaB, A||B, AAB, !A, Intg, Diff, Sqrt, Lg, Ln, Exp, Abs, Filter; FFT Window Rectangle, Hanning, Blackman, Hamming, Flat Top, Triangle; Half, Full FFT display; Low Pass Filter, High Pass Filter, Band Pass Filter, Band Stop Filter. 7.0- inch TFT LCD display. Supports USB Host, USB Device, and LAN connectivity.

Component Tester: To work with DSO to test short circuit, open circuit, polarity testing of diode and transistors comparative test for trouble shooting of electronic circuits

25 MHz, TWO CHANNEL ARBITRARY FUNCTION GENERATOR:

This generator is with 125MSa/s sample rate, 16 bit vertical resolution, 7 Digit 240MHz frequency counter, min 150 built in waveform, 8Mpts record length, min 8th order harmonic generator and 4.3 inch touch screen display.

5 ½ DIGIT DIGITAL MULTIMETER :

This meter with 200mV to 1000V (DC), 200mV to 750V (AC) voltage range, 200uA to 10A (AC/DC) current range, math function including Max, Min, Average, Standard Deviation, Pass/Fail, dBm, dB, Relative Measurement and Histogram, Pass / Fail test feature, Sensor (DCV, DCI, Freq, 2WR, 4WR and TC) measurement.

MULTIPLE DC POWER SUPPLY :

- ❖ DC Output: 0-32 V, 2 A, continuously variable by means of Coarse and Fine controls
- ❖ B: 5 V, 5 A adjustable from 4 V - 6 V
- ❖ C: 0 - ±15 V, 1 A Dual tracking adjustable
- ❖ Resolution: Voltage: 10 mV
- ❖ Current: 10 mA
- ❖ Load Regulation: ± (0.05 % + 100 mV)
- ❖ Line Regulation: ± (0.05 % + 100 mV)
- ❖ Ripple and Noise: ≤ 1 mVrms
- ❖ Display: 3 digits for voltage and current
- ❖ LED indication for voltage and current
- ❖ Over Range Indication: There



SOLDERING AND DESOLDERING STATION :

Soldering Operation: Power Consumption: 60W Input Voltage: 170-270V Temperature Range: 180-270°C
Temperature accuracy: $\pm 1^{\circ}\text{C}$ Desoldering Operation: Power Consumption: 70W, Input Voltage: 170-270V
Temperature Range: 180-480°C.

The Workbench set up has Blended Learning Software with having built-in 20,000 or more component libraries. Enable build circuit and test it for different input conditions. It is capable of building and testing Analog, Digital, Mixed, etc. Supports PCB Design and able to generate g code and Gerber files. Include all major Hardware Description Languages are included: VHDL, Verilog, Verilog A, Verilog AMS, and System. The set up is also includes Classroom, laboratory, leaning and teaching content module on Basic Electronics. Covers Topics such as Electronic Components, Series and Parallel Circuits, Voltage Divider and Current Divider Circuit, Circuit Analysis etc.

