



Control System Lab explores students & industry professional to the fundamentals of Control System. It demonstrates, how one device can be used to manage, command, direct or regulate the behavior of other system. Sequential Control, Linear Control is also well explained in the trainer.

Control System Lab has sensors like Temperature sensor, Light sensor, DC motor, Filament lamps, IR sensor and many more which can be used for the study of Control system. There is a wide range of experiments which can be performed on the trainer. Application software for Interfacing with PC increases range of experiments.

- Open loop Control system
- Close loop Control system
- Feedback concept
- Servo motor control
- DC motor control
- Speed control
- Light intensity control
- Temperature Control
- V/F & F/V conversion
- LED bar display
- Bread board for circuit design
- User can design & develop own circuits
- On board DC supply
- PC interface for open loop & Close loop control
- PC based Frequency counter
- PC based DC voltmeter
- Real time graphical representation
- User friendly software
- Exhaustive course material & references

Note: Specifications are subject to change.

***Tesca Technologies Pvt. Ltd.***

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**Technical Specifications:**

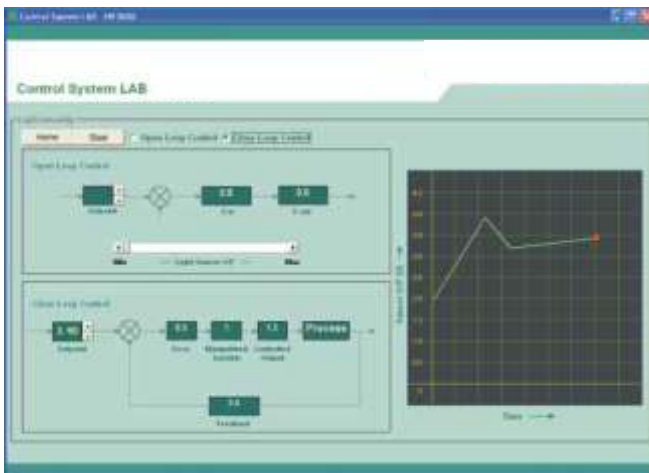
<b>DC Motor</b>	: 12 VDC
<b>Servo Motor</b>	: 5 VDC
<b>Temperature Sensor</b>	: 10 mV/°C
<b>Light Sensor</b>	: Photo Conductive Cell (LDR)
<b>Light Source</b>	: Two numbers of filament lamps
<b>V/F</b>	: For 0 - 5 V output is 0 - 50 KHz (approx.)
<b>F/V</b>	: For 0 - 50 KHz output is 0 - 5 V (approx)
<b>PC based Analog Inputs</b>	: 4 Inputs with 0 to 5 V / 0 to 10V
<b>PC based Analog Output</b>	: 1 Output with 0 to 5 V / 0 to 10V
<b>PC based Digital Inputs</b>	: 3 Inputs
<b>PC based Digital Outputs</b>	: 3 Outputs
<b>PC based DC Voltmeter</b>	: 0 to 10 V range
<b>PC based Frequency counter</b>	: 0 to 6 MHz (square wave)
<b>DPM</b>	: Rang 0-20 Vdc
<b>De-Bounced Switch</b>	: Monostable (5 V output)
<b>Buzzer</b>	: 5 V operated
<b>Switches</b>	: IR Switch, DIP selector switch
<b>Clock</b>	: 0-50 KHz (approx)
<b>Power Supply</b>	: 230 V ±10%, 50 Hz
<b>Power Consumption</b>	: 4 VA (Approx)
<b>Test Points</b>	: 28
<b>Dimension (mm)</b>	: W 365 D 265 H 120
<b>Weight</b>	: 4 Kg (approx)

**Experiments that can be performed**

- To study and observe Voltage to Frequency converter
- To study and observe Frequency to Voltage converter
- To study and implement Light intensity control using PWM method
- To study and observe Characteristics of Photoconductive Cell (LDR)
- To study and implement Motor speed and input characteristics
- To study and implement Bidirectional motor speed control
- To study and implement tachogenerator using F/V converter
- To study and implement Motor control using PWM method
- To study and observe Position control of DC Servo Motor
- To study and implement DC Motor Control-Open Loop
- To study and observe DC Motor Control-Close Loop
- To study and implement Temperature Control-Open Loop
- To study and observe Temperature Control-Close Loop
- To study and implement Light intensity Control-Open Loop
- To study and observe Light intensity Control-Close Loop

**Accessories Include :**

- Patch Cord 8" (2 mm to 1 mm) 4 nos.
- Patch Cord 12" 8 nos.
- 5 Pin DIN cable 1 no.
- PC Interface Module 1 no.
- Software CD 1 no.
- Mains Cord 1 no.
- Operating Manual 1 no.
- Dust Cover 1 no.



Application software window



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