ANALOG LAB is intended for elementary as well as advance training of analog electronics. The trainer covers regular analog circuits by solderless interconnections on breadboard and as well as compatible with all optional modules, through use of 2mm brass terminals and patch cords. Various DC regulated power supplies, Function Generator, DMM, Continuity Tester etc are in-built. The unit housed in attractive enclosure is supplied with mains cord, patch cords, Instruction manual and **Component Set**.

Experimental Coverage:
- 001. Study of Diodes in DC circuits
- 002. Study of Light Emitting Diodes in DC Circuits
- 003. Study of Half wave rectifier
- 004. Study of Full wave rectifier
- 005. Study of Zener Diode as a voltage regulator
- 006. Study of transistor series voltage regulator
- 007. Study of transistor shunt voltage regulator
- 008. Study of Low pass filter
- 009. Study of High pass filter.
- 010. Study of band pass filter
- 011. Study of CE configuration of NPN transistor
- 012. Study of CB configuration of NPN transistor
- 013. Study of CE amplifier
- 014. Study of Monostable multivibrator using transistor
- 015. Study of Bistable multivibrator using transistor
- 016. Study of Astable multivibrator using transistor
- 017   Study of CB Amplifier (PNP)
- 018   Study of CC Amplifier (PNP)
- 019   Transistor Audio Amplifier
- 020   Two Stage R.C. Coupled Transistor
- 021   Inverting Amplifier
- 022   Non-inverting Amplifier
- 023   Integrating Amplifier for A.C input Signal
- 024   Differentiator Amplifier
- 025   Square Wave Generator

Features:

Bread Board	:	Unique solder-less large size, spring loaded breadboard consisting of two Terminal Strips with 1280 tie points and 4 Distribution Strips with 100 tie points each, totaling to 1680 tie points. (Size:112mm x 170mm approx)
Regulated DC Power Supply	:	+5V at 1 Amp, -5V at 1Amp, +12V/0 to 20V at 500mA, and -12 V/0 to -20V at 500 mA
AC Supply	:	5-0-5V, 10-0-10V at 100mA. Can be used as 5V,10V,15V,20V and also as center tap
Function Generator	:	Sine / Square / Triangular waveforms frequency 1 Hz to 110 KHz in 5 Steps. Variable in between steps. Sine / Square / Triangular waveform output 50mV ~10Vpp variable
Modulation Generator	:	Sine / Square / Triangular wave forms frequency 1 Hz to 110 KHz in 5 Steps. Variable in between (100 KHz) steps. Sine / Square / Triangular waveform output 50mV ~ 10Vpp variable with 100 KHz Modulation
Digital Meter (3½ Digit)	:	Dual range DC voltmeter 0-20 V / Ammeter 0-200mA
Continuity Tester	:	For testing the continuity. Provided with Beeper Sound
Potentiometers	:	3 Potentiometers (1K, 100K and 100K) with terminals
On Board Switches	:	2 Switches Single pole double through
Power	:	230 V ± 10%, 50 Hz
Components Provided	:	Resistance ± 5% 1W 100E/1, ½ W 47E/2,100E/1, 220E/1, 390E/1,1K/1,¼W 100E/1, 220E/2, 270E/1, 330E/, 1K/3, 2K2/2, 3K3/1, 4K7/2, 5K1/1, 5K6/1, 10K/2, 12K/1, 15K/2, 47K/2, 68K/1, 100K/4, 180K/2, 220K/1 Capacitor 0.1uF/1, 0.22uF/3, 10uF/25V/3, 22uF/25V/2, 47uF/25V/2, 100uF/25V/1, Diode 1N 4007/4, LED 5mm Red/1, Zener Diode 5V6/400mW/1, Transistor SL 100/1, SK 100/1, BC 107/2, BC 177/2,IC 741/2
Accessories	:	Mains cord, Operating and Experimental manual, Red & Black patch cords (2mm with Pin) 10 each, Red & Black patch cord (Pin to Pin) 10 each & **Component Set**
Instruction manual	:	Strongly supported by detailed operating instructions
* Weight	:	5 Kg. (Approx.)
* Dimension	:	W 412 x H 150 x D 310

Note: Specifications are subject to change.

OPTIONAL MODULES:

Apart from above given experimental coverage of 25 experiments on breadboard, customers can purchase these optional modules. These are ready to use modules with wired components & circuit schematic drawn on top compatible to use with Analog Lab.

36001	Study of Diodes in DC circuits		36024	To Study CC characteristics of NPN transistor
36002	Study of Light Emitting Diodes in DC Circuits		36025	To study CE characteristics of PNP transistor
36003	Study of Half wave rectifier		36026	To study CB characteristics of PNP transistor
36004	Study of Full wave rectifier		36027	To study CC characteristics of PNP transistor
36005	Study of Zener Diode as a voltage regulator		36028	Study full wave dual supplies
36006	Study of transistor series voltage regulator		36029	FET charactersistic
36007	Study of transistor shunt voltage regulator		36030	Verify superposition theorem
36008	Study of Low pass filter		36031	Verify thevenin's theorem
36009	Study of High pass filter		36032	Verify receprocity theorem
36010	Study of band pass filter		36033	Phase shift oscillator
36011	Study of CE configuration of NPN transistor		36034	Verify kirchoff's law (V& I)
36012	Study of CB configuration of NPN transistor		36035	Ohm's law
36013	Study of CE amplifier		36036	Ideal resistance
36014	Study of Monostable multivibrator using transistor		36037	Resistance in series
			36038	Resistance in parallel
36015	Study of Bistable multivibrator using		36039	Verification of maximum power transfer theorem
36016	Study of Astable multivibrator using transistor		36040	Study of series and parallel resistance, capacitors and inductance circuits
36017	Study CB amplifier (PNP)		36041	Study of basic electrical DC circuits
36018	Study CC amplifier (PNP)		36042	Study of AC circuits
36019	Study Zener diode voltage regulator		36043	Study of series and parallel resonance and operational amplifier circuits
36020	Study power supply having two zener diodes in series		36044	Study of power supply circuit, 555 timer and solid state switch
36021	Study dual polarity voltage regulated supply		36045	Study of difference Amplifier
36022	Plot V / I of LED		36046	Analog to digital converter (using IC ADC 0800)
36023	To practically understood the operation of a 7-segment LED display			

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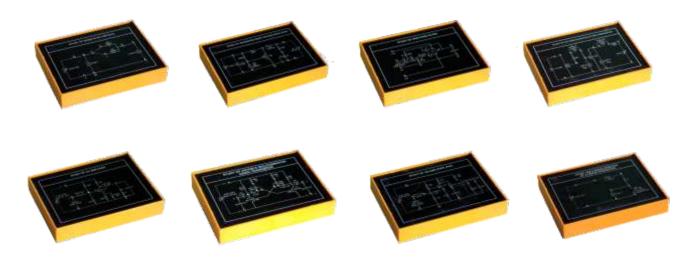Email: info@tesca.in, tesca.technologies@gmail.com
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