

The Radar Trainer is a very useful and realistic classroom training equipment. provided with different types of accessories for experimentation and a Windows® based software for observation and calculation of different parameters. On-board Test points are provided which enable students to observe the signals on an Oscilloscope or a PC. The trainer is capable to measure the Speed of object, Frequency of vibrations and RPM of any fan. Students can also study the properties of different types of material like Metal, Acrylic, Teflon, Bakelite, etc.

#### Technical Specifications

<b>Transmitter Frequency</b>	: 10 GHz
<b>Output Power</b>	: 10 mW (approximate)
<b>Operating Voltage</b>	: 8.6 V
<b>Antenna</b>	: Horn
<b>Antenna Gain</b>	: 16dB
<b>Sensitivity</b>	: -50 to -70dBm
<b>IF Output</b>	: Audio range
<b>Power Supply</b>	: 230 V±10%, 50 Hz
<b>Alarm</b>	: Onboard detected signal indication

#### About Software

<b>Oscilloscope</b>	: Real time/Storage mode with FFT analysis
<b>Display</b>	: Voltage : Vpp Speed : Km/hr, Miles/hr, m/s, rpm Frequency: Hz & kHz
<b>Time domain window</b>	: Display the Doppler Frequency in Time domain
<b>Frequency domain window</b>	: Display the Doppler Frequency in Frequency domain
<b>Control Panel window</b>	:
<b>User interface for</b>	: Measurement of Doppler Frequency, Amplitude Measurement of Velocity, RPM

#### Utilities :

- Start / Stop of Display
- Setting of Time base and Amplitude range on display window
- Printing of Doppler Frequency signal
- Cursors for Time & Voltage measurements
- Save, Load



#### Features :

- Complete hardware and software setup to demonstrate Radar concepts
- Signals study on Software / Oscilloscope with the help of test points given on trainer
- Object counter provided on trainer
- Real time fan RPM measurements and vibrations measurements with the help of tuning forks
- Tripod stand provided for height and level matching
- LED Indication for Doppler Echo Signal
- On board alarm for detected signals

Note: Specifications are subject to change.

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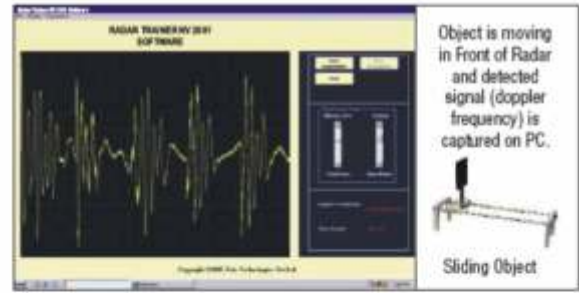
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**Scope of Learning**

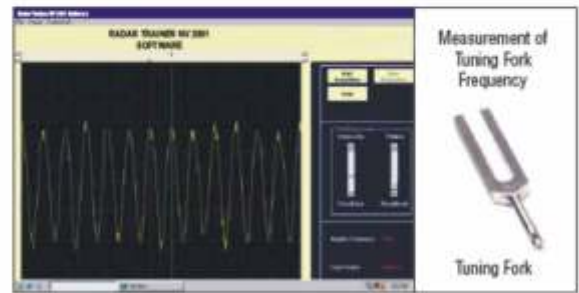
- Study of the working of a Doppler Radar
- Study of determine the Velocity of the object moving in the Radar range
- Study of understand the principle of Doppler Radar of Time and Frequency measurement with the help of moving pendulum
- Study of an Alarm System by using Radar
- Study the Object Counting with the help of Radar
- Study of the detection of vibration of different Tuning forks
- Determine the rotation per minute (RPM) of a moving object (Fan)
- Study of the effect of different types of materials on Radar reception or detection

**Included Accessories**

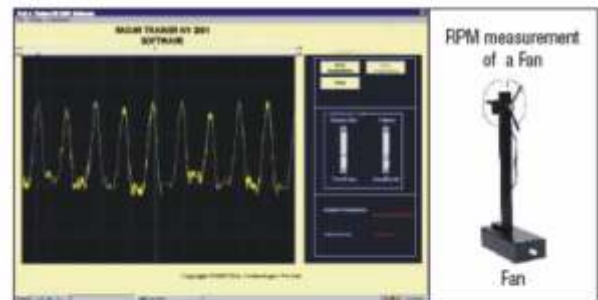
01	Trainer Board -----	1
02	Audio Cable for PC Line In input -----	1
03	Din connector cable (5 Pin) -----	1
04	Mains Cord -----	1
05	Tripod Stand -----	1
06	Fan Stand -----	1
07	Fan -----	1
08	Sliding Platform -----	1
09	Different objects -----	3
10	Horn Antenna -----	1
11	Trans-receiver Unit -----	1
12	Software CD -----	1
13	Pendulum -----	1
14	Stand for moving the pendulum -----	1
15	Tuning forks -----	3
16	Operation manual -----	1



Application software window



Application software window



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