

MOTORISED GYROSCOPE (EE-1587)

The set up consists of heavy stainless steel disc mounted on a horizontal shaft, rotated by a variable speed motor. The rotor shaft is coupled to a motor mounted on a trunion frame having bearings in a yoke frame, which is free to rotate about vertical axis. A weight pan on other side of disc balances the weight of motor. Rotor disc can be move about three axis. Torque can be applied by calculating the weight and distance of weight from the center of rotor. The gyroscopic couple can be determined.

SCOPE OF EXPERIMENTATIONS:

- Experimental justification of the equation $\tau = I \cdot \dot{\omega} \cdot \omega$
- To study the gyroscopic effect of a rotating disc.

UTILITIES REQUIRED:

- Electric supply
- 230 V AC, Single Phase.
- Bench area
- 1m x 1m
- Tachometer to find out RPM of disc.



TECHNICAL DETAILS:

- Disc
- Material : Stainless Steel
- Dia : 300 mm x 10 mm thick precisely balanced which can be rotated in 3 Mutually Perpendicular axis.
- Motor : Variable speed of standard make.
Supplied with Speed Control Unit.
- Weights : 1 Kg, 500Gm
- Stop Watch : Electronic
- Accurately marked scale & pointer to measure precession rate.