

**Product Name :**  
Motorised Gyroscope

**Product Code :**  
NLAB-ENGINEERINGLB27004



**Description :**

Motorised Gyroscope

**Technical Specification :**

**DESCRIPTION**

The unit's of a motorized gyroscope consist of a disc rotor mounted on a horizontal shaft rotating in the ball bearing of one frame. The rotor shaft is coupled to a motor mounted on a turning frame having bearings in the yoke frame which is free to rotate about vertical axis. Thus a disc can be rotated about three perpendicular axes. Angular scale and a pointer fitted to frame help to measure precision rate.

**FEATURES**

- Demonstrates relationship between applied torque and the rate and direction of rotation and precision.
- Gyroscopic couple easily varied by an assortment of weights.

- Precisely balanced rotor.
- Completely portable and suitable for classroom demonstration.
- Useful to verify the relationship  $T=I\omega\dot{\phi}$ .

#### **RANGE OF EXPERIMENTS**

- Observation of gyroscopic behaviour (two laws and stability).
- Experimental justification of the equation  $T=I\omega\dot{\phi}$  for calculating the gyroscopic couple by observation and measurement of results for independent variations in applied couple (T) and precision (WP).

#### **SPECIFICATION**

- Disc rotor - 30cm dia.10m.m. thick.
- Drive - A.C. /D.C. single phase motor.
- Overall size - 30 cm dia. Base, 50 cm. height.
- Weight - 30 Kg approx.

#### **SERVICE REQUIRED**

- Single Phase 15 amp Electric Connection.
- Tachometer for speed measurement.
- Suitable bench area to mount the instrument.

## **Naugralabequipments**

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