## Theory of Machines



# Gear Train Apparatus (EDC-TM-105)

## **EXPERIMENTAL DATA:**

- To show that for a single spur gear train, the ratio of the speeds of the driver and driven wheels are inversely proportional to the ratio of the number of teeth
- To verify that intermediate gears have no effect on the velocity ratio
- To establish the sense of rotation of a gear train with one or more intermediate wheels
- To verify that for a compound gear train the velocity ratio depends on the ratio of teeth on the intermediate wheel



## **DESCRIPTION:**

This wall mounted apparatus is used to demonstrate the fundamentals of gear drives. Spur gears of module 1 with 40, 60, 80 and 100 teeth are provided.

The bar which mounts the gear have holes spaced 10mm which allow the user to make any combination of gear train.

Each gear is provided with a threaded hole to fit the driving knob. This allows any gear to be the driving gear in the gear train.

#### **TECHNICAL SPECIFICATIONS:**

- Spur Gears: 40, 60, 80, 100 teeth
- Module 1

## WEIGHT AND DIMENSIONS:

- L x W x H (mm) : 500 x 200 x 150
- Weight (approx) : 3kgs

## **SCOPE OF DELIVERY:**

- 1 x EDC-TM-105 Assembly
- 4 x Spur Gears
- 3 x Gear Knobs
- Instruction manual

## **RELATED LAWS:**

- Gear Trains
- Ratios
- Number of Teeth
- Velocity Ratio
- Driver and Follower
- Automotive

