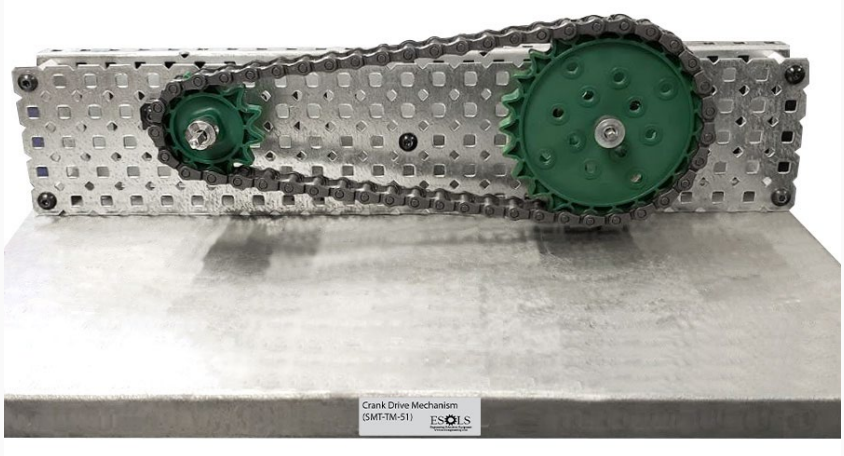
Chain Drive Mechanism(SMT-TM-51)

The Chain Drive Mechanism is a didactic laboratory apparatus designed to help students understand the working principle of power transmission using chain and sprockets. This unit provides a clear and practical understanding of chain drive systems, widely used in machines, bicycles, motorcycles, and industrial equipment. The apparatus is constructed with durable metal plate and a precision-mounted sprocket-chain assembly, allowing smooth manual operation. It is hand-driven to let students safely observe the fundamental behaviour of chain drives without requiring electrical power.

Technical Specifications

Specifications:

- **Drive Mechanism:**
  - 1 × Large sprocket (Driver/Driven)
  - 1 × Small sprocket (Driver/Driven)
- Standard roller chain mounted on sprockets
- **Operation:** Hand-operated crank/handle for safe manual control.
- **Drive Ratios:** Demonstrates speed ratio between large and small sprockets.



Experimental Data:

- Observe how the chain transmits motion from the driver sprocket to the driven sprocket
- Drive the large sprocket and observe the increased speed at the smaller sprocket.
- Drive the small sprocket and observe the torque increase at the larger sprocket.

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