Friction and Inclined Plane Kit (EDC-FIPK-525)

SPECIFICATIONS:

- Versatile lab system for demonstrating fundamental principles of forces, torques, center of mass, and simple machines.
- Magnetic steel board with a writable whiteboard finish for interactive learning.
- Magnetically mounted components for easy repositioning and setup of experiments.
  - Supports multiple experiments, including:
  - Forces on an inclined plane.
  - Rolling and sliding friction on different surfaces.
  - Hooke's Law (spring force and elasticity).
  - Torque analysis for parallel and non-parallel forces.
  - Spring scale for force measurement with a minimum range of 5N.

DESCRIPTION:

The Statics System is a comprehensive and versatile lab apparatus designed for demonstrating key principles in mechanics, including vector forces, torques, center of mass, and simple machines. The system features a magnetic steel board with a writable whiteboard finish, allowing users to visualize and document experimental results directly on the surface. The magnetically mounted components enable quick and easy setup of various experiments, making the system highly adaptable for different learning objectives.

With this system, students can explore concepts such as forces on an inclined plane, rolling and sliding friction, static and kinetic friction, torque due to parallel and non-parallel forces, Hooke's Law, and simple harmonic motion. The spring scale (minimum range of 5N) ensures precise force measurements. The compact design, measuring at least 45 cm × 45 cm, allows for easy setup in laboratory or classroom environments. This system is ideal for educational institutions, offering a hands-on approach to understanding fundamental physics and engineering principles.

TECHNICAL DATA:

- **Structure & Design**:
  - Magnetic steel board with writable whiteboard finish.
  - Magnetically mounted components for easy repositioning.
  - Versatile experiment configurations.
- **Supported Experiments**:
  - Forces on an inclined plane.
  - Rolling and sliding friction on different surfaces.
  - Kinetic and static friction analysis.
  - Surface angle and friction effects.
  - Hooke's Law and spring elasticity.
  - Torque in parallel and non-parallel force conditions.
  - Center of mass calculations.
  - Simple harmonic motion studies.
  - Simple machines and force applications.
  - Forces on a boom structure.
- **Measurement Tools**:
  - Spring scale: Min. 5N range.
- **Physical Dimensions**:
  - Size: Min. 45 cm × 45 cm.