



## Inclined hitch plane

SCN-F002

### Function

Intended for experimental study, physics laboratory and carrying out physics experiments on: Physics. Dynamics. Reference, position, movement and trajectory. What is meant by mobile. The trajectory and displacement. The difference between displacement and distance travelled. The Cartesian frame of reference in the plane, orthogonal Cartesian plane. The quadrants. The coordinates of any point on the plane that contains the orthogonal Cartesian system. Differences between scalar magnitude and vector magnitude. Friction forces and Newton first law of motion. The force of friction and the nature of the surfaces in contact. Friction between contacting surfaces versus Newton first law of motion. The friction forces between surfaces of different nature that are in contact. The friction force, the apparent area and the real area of contact of the surfaces. The force of kinetic friction. The driving force and its equilibrant, the condition of equilibrium of a piece of furniture on an inclined plane. Experimental determination of the mechanical advantage of the inclined plane, etc.

### Knowledge areas

Physics - Math & Science Fundamentals - Compact Kits

### Key Experiments

The movement and the trajectory.

The frictional forces and Newton's first law of motion

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