Mechanical assembly of solids, with rods, force system

SCN-F001A1

Function

Intended for experimental study, physics laboratory and carrying out physics experiments on: Statics. Mass, weight and determination of the local g value. Mass, a scalar quantity, force, a vector quantity, and the vector that represents it. Measuring mass weights. Building table and graph. Calculation of percentage relative error. The simple machine called a fixed pulley. Identifying the driving force and the resistant force in the use of the fixed pulley. The fixed pulley is a simple machine. The simple machine called a moving pulley. Identifying the driving force and the resistant force in the use of the movable pulley. The movable pulley is a simple machine. The composition and decomposition of concurrent coplanar forces. Recognizing the forces acting at a given point in equilibrium. Modifying one of the components and determining the new resultant at the equilibrium point. Rigid body equilibrium conditions, Varignons theorem. Checking the equilibrium conditions of the rigid body. undulatory. The Laws of the Simple Pendulum. The ideal simple pendulum. Elongation and amplitude in pendulum motion. The period and frequency as a function of the amplitude of the simple pendulum. Varying amplitudes in a simple pendulum, keeping length and pendulum mass constant. The law of small amplitudes. Varying pendulum masses and keeping the length of the simple pendulum constant. The law of masses and pendular substances. Varying lengths and keeping constant the pendulum mass of the simple pendulum. The law of the lengths of the pendulum, etc.

Knowledge areas

Physics - Compact Kits

Level

Graduation - High school