Solids and fluids mechanical assembly, straight ramp, analog and digital multimeter, multiple functions, sensor

EQ005JM

Function

Intended for experimental study, physics laboratory and carrying out physics experiments on: Kinematics, range, uncertainty and velocity in a horizontal launch, measuring range, dynamics, the simple machine called fixed pulley, the simple machine called moving pulley, the mechanical advantage of the moving pulley, building the simple two-element exponential hoist machine with a fixed pulley, the mechanical advantage of the exponential hoist, building the simple three-element exponential hoist machine with a fixed pulley, the moving pulley, building the parallel tackle simple machine, the golden law of mechanics, the characteristic elongation curve of a helical spring and a rubber band, elastic hysteresis, Hookes law in a helical spring, the restoring force of the spring and Newtons third law, association of springs helical springs in series, elastic deformation and plastic deformation, resulting elasticity constant in helical springs in series, association of helical springs in parallel, the resulting elasticity constant in helical springs in parallel, static, stable, unstable and indifferent static equilibrium conditions, force diagram, equilibrium conditions of a suspended rigid body, polyhedral geometric solid, non-polyhedral geometric solid, homogeneous body, regular and irregular body, equilibrium conditions of an extended body, barycenter (center of gravity), conservation of mechanical energy, work and mechanical energy in a mass and helical spring system, mechanical work, work done by the force along the central axis of the spring, elastic potential energy and kinetic energy (energy of motion), principle of conservation of mechanical energy in a mass system and helicoidal spring, determining the

values ¿¿of potential energy, kinetic energy and velocity in a given position of the trajectory, horizontal launch, range, uncertainty and horizontal momentum, etc.

Knowledge areas

Physics

Level

Graduation - Technical education - High school