Set of Hookes Law with association of springs
EQ028C

Function

Physical. Dynamics. Dynamic determination of the elasticity constant of a helical spring, mass oscillator and spring. Observing amplitude and frequency. Newtons second Law with Hookes Law. The equation for the period of oscillation of the system. The period of oscillation of the system and the elastic constant of the spring. The helical spring and Hookes Law. The mathematical ratio between the applied force and the elongation. The slope of the graph and its physical interpretation. Association of helical springs in series. Determination of the elasticity constant of helical springs in series. Association of helical springs in parallel. Determination of the elasticity constant of helical springs in parallel. Energy conservation. Work and energy in a mass and helical spring system, conservation of mechanical energy. The energy exchanges that occur in an oscillating mass-spring system. The work done by the elastic force. Elastic potential energy. The work done by an external force that displaces a body and the energy in transit. Energy can neither be generated nor destroyed. Kinetic energy. The conservation of mechanical energy, etc.

Knowledge areas

Physics

Key Experiments