Air rail with analogue and digital multimeter, flow unit and 2 photoelectric sensors

SCN-F002K2JM

Function

Intended for experimental study, physics laboratory and carrying out physics experiments on: Kinematics. Referential, position, movement and trajectory. The mobile. Trajectory and displacement. The difference between displacement and distance traveled. The Cartesian frame of reference in the plane, Cartesian plane. Scalar magnitude. Vector greatness. The rectilinear and uniform movement, MRU, air rail. The table and the S versus t graph. Determining average speed. Determining the hourly MRU equation. Checking the characteristics of the MRU. Uniformly varied rectilinear motion, MRUV, air rail. Constructing the table and graph S versus t. The trend line of the chart points, displayed by the spreadsheet. The function that informs how the quantity S behaves in relation to t in the MRUV. The S versus t graph and the slope of the graphs tangent. Calculating, tabulating and building the v versus t graph of an MRUV. The Torricelli equation, time-independent equation for the MRUV. Dynamics. The fundamental law of dynamics, Newtons second law. The relationship between acceleration and force. Energy conservation. Coefficient of restitution, momentum and kinetic energy in an inelastic collision. Data acquisition, before and after the inelastic collision. What is meant by system. Mechanical collisions, momentum and kinetic energy. The coefficient of restitution between two colliding bodies. The momentum before and after an inelastic collision. The kinetic energy before and after the inelastic collision. Coefficient of restitution, momentum and kinetic energy in an elastic

collision. Data acquisition, before and after the elastic collision. The momentum before and after a perfectly elastic collision. The kinetic energy before and after the perfectly elastic collision. undulatory, etc.

Knowledge areas

Physics

Level

Graduation - Technical education - High school