

Pendulums Lab



Overview

The Pendulum educational test bench has been designed for the study of the Theory of Periodic Motions. A highly flexible board allows the students to use a single bench for the study of both mathematical and physical pendulums, as well as Maxwell's wheel.

The software contains all required theoretical materials for the labs, and provides tools for visualization of measurement results.

A combination of manual and automated procedures, along with processing of experiments results, makes this test bench an ideal experimental and research tool.

Features

- Semiautomatic control
- High flexible architecture of the stand
- 3 types of pendulums in one bench
- Students registration mechanism
- Parallel investigation of pendulums
- Easy maintainable user interface
- Experiment step-by-step instruction

List of Labs

1. Harmonic oscillations in mathematical pendulum
2. Determination of dependency between period and mass and length
3. Determination of free-fall acceleration using a mathematical pendulum
4. Determination of free-fall acceleration using a physical pendulum
5. Determination of free-fall acceleration using a Maxwell's pendulum
6. Free-fall acceleration absolute and relative accuracy calculation of physical pendulum
7. Determination of the mathematical pendulum's period with the length of physical pendulum's equivalent length
8. Determination of Maxwell's pendulum's moment of inertia