

Pendulums



Secondary and higher education



Independent Test Bench



1 workstation



Semiautomatic control



Over 10 hands-on experiments



Powered by
- NI myDAQ
- NI ELVIS II

Required hardware and software

- Educational Board (1 pc)
- Compact Disk with Lab software (1 pc)
- DC external Power supply ² (1 pc)
- Electromagnet power supply cable (1 pc)
- Mathematical pendulum bobs' prototypes (2 pc)
- Physical pendulum (1 pc)
- Maxwell's wheel (1 pc)
- Product guide (1 pc)
- User Manual (1 pc)

List of labs

- Harmonic oscillations in mathematical pendulum
- Determination of dependency between period and mass and length
- Determination of free-fall acceleration using a mathematical pendulum
- Determination of free-fall acceleration using a physical pendulum
- Determination of free-fall acceleration using a Maxwell's pendulum
- Free-fall acceleration absolute and relative accuracy calculation of physical pendulum
- Determination of the mathematical pendulum's period with the length of physical pendulum's equivalent length
- Determination of Maxwell's pendulum's moment of inertia
- Free-fall acceleration absolute and relative accuracy calculation of Maxwell's pendulum's

Overview

The Pendulum educational test bench has been designed for the study of the Theory of Periodic Motions. A highly flexible board, based on the NI myDAQ\ELVIS platform, 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

- Single stand with 3 pendulums
- Wide range of configuration
- Parallel investigation of pendulums ¹
- Easy maintainable user interface
- Experiment step-by-step instruction
- Interactive tutorials for each experiment



"10X Engineering" LLC
Armenia, Yerevan,
Engineering City,

(+374 77) 21-21-93
info@10x.am
www.10x.am

¹ Current option is available only for ELVIS.

² DC external power supply comes with NI myDAQ based configuration, for ELVIS configuration there is no need.