expEYES Junior Science Learning and Experimentation Kit

expEYES is from the PHOENIX project which forms part of the Inter-University Accelerator Centre, New Delhi. It is a hardware & software framework for developing science and electronics experiments, demonstrations and projects without getting in to the details of electronics or computer programming. It converts your windows PC, your Raspberry Pi and most Linux supporting tablets into a science laboratory. It provides several Analog Input/Outputs with 12 bit resolution,

in addition to a host of other features like wave generation, capacitance measurement, time interval measurement etc. The interface is accessed from Python using simple commands. A Graphical User Interface (GUI) is already available for a large number of experiments. PHOENIX (Physics with Home-made Equipment and Innovative Experiments) project was started in 2005 as a part of IUAC's outreach program, with the objectives of developing affordable laboratory equipment and training teachers. The design of expEYES combines the real-time measurement capability of micro-controllers with the ease and flexibility of the Python programming language for data analysis and visualisation. It also functions as a piece of test equipment for electronics hobbyists and engineering students. Software for all products from PHOENIX are distributed under GNU General Public License.

FEATURES

- A tool for learning science by exploring and experimenting.

- 50 documented experiments and easy to add more.

- This kit includes all the parts required for the documented experiments.

- Wide range, High school and above.

- Built-in Signal Generator and CRO.

- USB Powered.

- 12bit analog resolution.

- Microsecond timing resolution.

- Open Hardware & Free Software.

- Software in Python language.

- Compact, 8.6x5.8x1.6 cm, 60 gm.

- Low Cost