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Liberlab, a pocket lab for all

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The Open Source project Liberlab aims to promote scientific experimentation through the creation and use of a digital lab at a very low cost (15 ϵ /\$).

Its modular and open design encourages original uses, particularly in the field of education, and can also be used to learn about robotics, automation, human-machine interface or interactive arts.

The heart of the project is based on the ongoing improvements of microcontrollers. These low price integrated circuits are like tiny and autonomous "computers" used in many devices (DVD players, cars, etc.). Instead of using them in an autonomous way Liberlab combines the computing power of a PC with the commands and measuring capabilities of the microcontroller.

Liberlab is available under the free GPL licence with a GUI application (Tkinter) and a Python module to allow users to build their own programs using Python.

The presentation will explain the technological choices for this project and show examples of usages with Python modules like Vpython, Xturtles and CherryPy.

Author: Mr SCHNELL, Francois (ULP Multimedia)

Presenter: Mr SCHNELL, Francois (ULP Multimedia)

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