Battery test equipment

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Location: Lausanne, CH
Duration: 2 months

Overview

Logitech developed various battery test equipments in the past, suffering of inhomogeneity and thus being difficult to maintain.

Goal of this project is to develop a tool that is easy to maintain and adapt, and that can be easily installed in several sites. It shall be based on standardised Lab supply, most likely the Keithley 2401 and operate on a popular OS (Windows 7 / 8 / 10 for instance)

Objectives

- Develop SW architecture
  - Multiple simultaneous measurements with a single computer and several Lab power supplies.
  - Allow user to easily define charge and discharge sequences. Scripts ?
  - Compatible with various batteries technologies (LiPol, Alkaline, NiMH, etc …)
  - Not SW licence dependant
  - Easy to install and maintain
- Develop SW to communicate with the Lab power supply (Keithley 2401)
- Develop intuitive User interface
- Measurement files in a format that can be easily imported in spreadsheet (CSV or similar)
- Complete documentation and user guide
- Examples of scripts / sequences
- Qualification

Knowledge/Skills

- Software
- Basics of metrology