BioE 101   Instrumentation in Biology and Medicine
Spring 2017   Steven Conolly

Lab 1

Objectives

- Learn how to use an oscilloscope and function generator.

- Learn to use breadboard to build and test simple circuits like resistive voltage divider, and RLC filter.

- Learn how to use Arduino/Python to acquire signals.

IPython Installation

Go to https://www.continuum.io/downloads and download the Python 3.5 Version for your OS.

Follow the instructions to install Anaconda on your computer. Anaconda is a packaging system that includes ipython, numpy, scipy and jupyter notebooks that are convenient for scientific computing.

To verify your installation works, open a command prompt window (on Windows) or a bash terminal (on OSX/Linux) and type in `ipython`. It should open up an ipython interpreter. You can also type in `which python` and check that the path for python is in the anaconda installation directory.

`cd` to the folder where you downloaded the Lab 1 materials. Type in `ipython notebook lab1.ipynb` to open up the ipython notebook file and follow the instructions from there.