PolyDAQ Quick Start Guide

rev. 6/2016

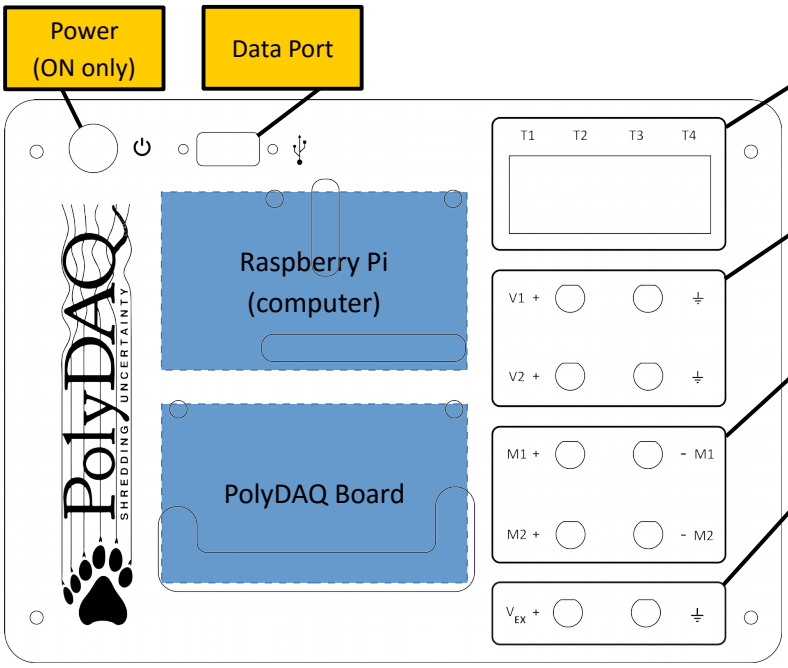
START SYSTEM

Turn monitor on.
Press power button ⏻ on PolyDAQ (Boots PolyDAQ and the Raspberry Pi).

LOG IN

Login: student Password: gosset

CONNECT SENSORS



Note: Binding posts take banana plugs or bare wires. To connect bare wires, feed through side hole and tighten binding nut as shown at right.

RUN THE CODE

From the Desktop: open **PolyDAQ:**

Choose DAQ port /dev/ttyUSB0

- Connection ERROR? Select **Choose Port** again and repeat.

Rename file (optional). Click the ellipsis ... button.

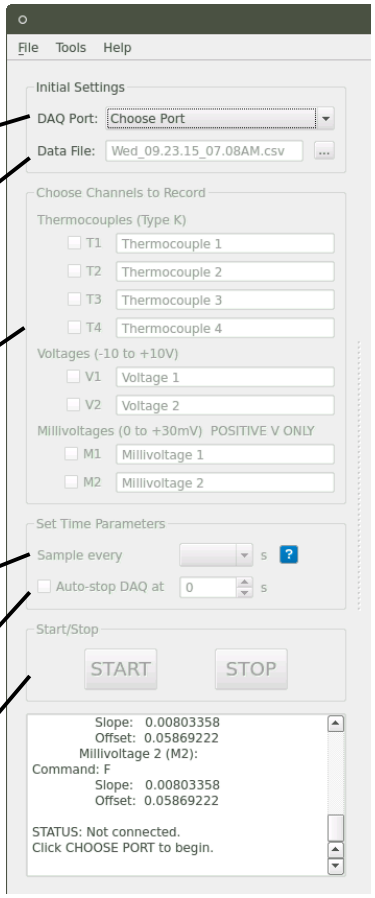
Select channels to record.

Rename the selected channels (these names will appear in the data file).

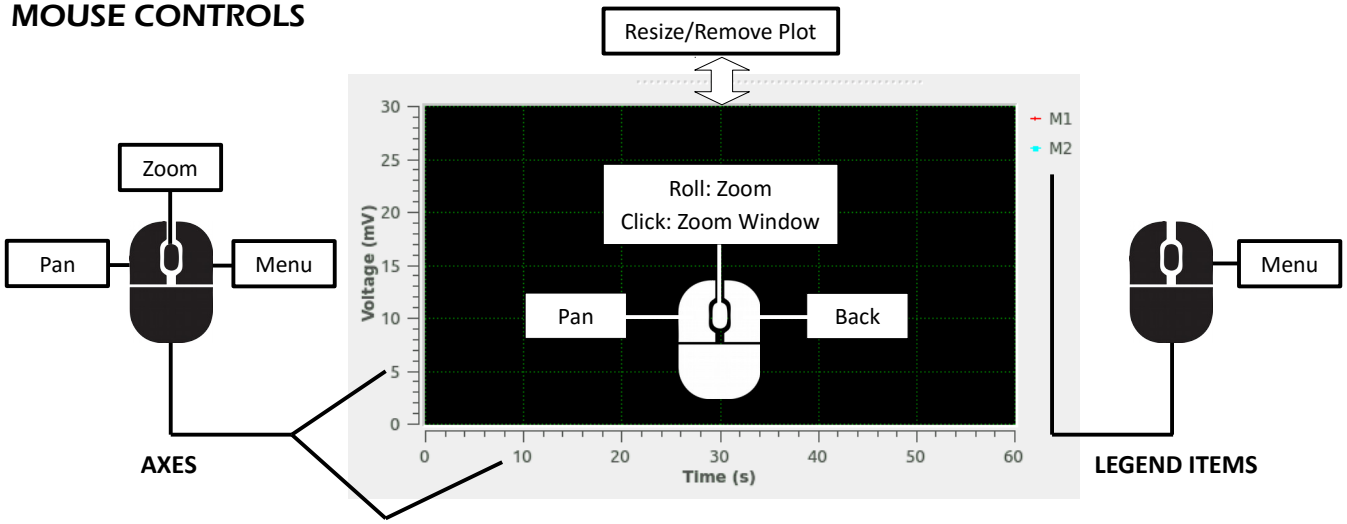
Set the sample rate. NOTE: the minimum sample rate is about 0.005s per sample for each channel. Click the information button for details.

OPTIONAL: Select and set an auto-stop time.

START/STOP the data acquisition.



PLOT NAVIGATION AND MOUSE CONTROLS



[Click the **Help** menu for more details]

RETRIEVE DATA FILES	Data files are stored on the **Desktop** in the **PolyDAQ_Data_Files** folder. The files are the type comma-separated values (.csv). To retrieve: copy files a thumb drive via the USB port, or e-mail the file.
OPEN FILE	Excel will open .csv files automatically. If the file is not visible, choose **All Files** in the **File Open** menu. For other programs like LibreCalc, the software may ask you the format of the file. Select **Comma-Delimited** as the type.
SAVE FILE AS...	When saving your file within Excel, be sure to change the file type to **Excel Workbook** (.xlsx). In LibreOffice, change the file type to **ODF Spreadsheet** (.ods).
SYSTEM SHUTDOWN	Do NOT perform a "hard" shutdown on the system! It can corrupt the Pi's operating system. To properly shut down: select **Shutdown** from the **Power** button the top right corner of the desktop screen. Turn monitor off. Or, to log out: select **Switch User** at the top right corner of the desktop screen. Select **Log Out**.

PolyDAQ™ is a computerized data acquisition (DAQ) system designed and fabricated in the Cal Poly Mechanical Engineering department. The hardware was designed by Dr. John Ridgely, and is similar to hardware you may be designing in your Mechatronics courses. The software was written by Dr. Glen Thorncroft using the Python programming language, and is installed on a Raspberry Pi running the Ubuntu MATE operating system.

PolyDAQ SHREDDING UNCERTAINTY