The National Instruments USB-6008 is a USB connected data acquisition unit with eight 12-bit analog inputs, two 12-bit analog outputs and digital input/output ports. It can be used to acquire data in the range of +/- 10 V from an experiment.

Before proceeding with the steps described below, download and install LabVIEW and the NI-DAQmx device drivers. Instructions for how to do this are in the “LabVIEW Quick Start” document, which can be found on the LabVIEW resources page of the ME2011 web site.

If you have this hardware, complete these steps.

If the device is new, upack and set up following the directions on page 2 of the “Getting Started Guide” that came in the box. If not already done, snap the screw terminals into the data acquisition unit. Attach labels, taking care with placement and orientation Keep all packing material and documentations with the box.

Do not install the software on the CDs that come with the hardware as the software that you downloaded is newer.

Connect the USB-6008 to a USB port on the computer. The green LED will blink and after some time Windows will deliver a message saying the device is ready to use.
Later, if this window shown below appears, select the Cancel button.

![Image of window](image1)

Run the Measurement and Automation Explorer (under Start Button > Programs or shortcut on the desktop, or it may pop up automatically at the end of the installation process).

The USB-6008 will appear under Devices and Interfaces > NI-DAQmx Devices

![Image of Measurement and Automation Explorer](image2)

Right-click on the device and select the Self-Test to verify that the device has been recognized by your computer.

Right-click and select Device Pinouts to examine what the pins do.
Right-click and select Test Panels, which runs a test program. Select the Analog Input tab, select Channel name = AI0, Input Configuration = RSE, and deselect Auto-scale chart. Click the Start button. On the USB-6008 unit, use a wire to connect AI0 to GND (pin 2 to pin 1). The data in the Amplitude versus Samples Chart should go to zero. Disconnect AI0 from GND and connect to +5V (pin 2 to pin 31). The amplitude will jump to 5 V as shown here.

Your hardware and software is now successfully installed and ready to use for an experiment.