

## *EE470 Lab 2 –Update Monday, March 25, 2013*

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Download the latest version of [analog\\_wire\\_spi](#). This version is designed for the newest version of the Arduino Uno (version 1.0), plus initializes the spi output pins. My earlier version is now obsolete and Jason's version used a software implementation of the SPI interface, where the latest version uses the SPI hardware interface. This should boost performance so that your lab performs at the same level as last semester.

I have also posted a [sample lab report](#). I am not really that happy with the lab and believe you can do better.

Here are some tips to help you with the lab.

1. Comment out any `Serial.print` instructions within the main loop.
2. Use two scope probes (input and output). Trigger on input. Set time/div so one or two cycles are displayed.
3. Add a 2.2 K to 10K resistor with clamping Schottky diodes to protect the Analog input pin of the Arduino.
4. 9v power supply. Recommend power adapter over battery.
5. Beware of breadboard with power and ground bars separated.
6. Place capacitor directly between power and ground pins (pins 1 and 7).
7. Run tests at input frequencies of 10, 100, 1000, and 10,000 Hz