Physics192M: Introduction to measurement using the Arduino

- A recommended course for physics majors.
- 1 credit (one meeting per week)
- Pre-req: Phys151 or 181; no programming exp. needed.
- Offered in S19 for the second time
- Instructor: A. Dinsmore

By the end of the course, students will have defined their own question, set up a device to collect data, and answered the question. The course also provides a first experience (for many) in creating a logical sequence of steps to carry out a task, in preparation for programming. No prior experience with computing or hardware is needed. Key skills to be developed:

(i) Defining a curiosity-driven question in a constructive way.
(ii) Designing, making, and trouble-shooting an apparatus to measure a physical quantity.
(iii) Facility with the hardware-software interface.
(iv) Confidence in completing a technical task independently.

The Arduino is a powerful and simple-to-use microcontroller, a powerful interface between your computer and a huge variety of detection and measurement devices.