



E11: Autonomous Vehicles

Lab 0: Shop Orientation

In this lab, you will receive a briefing on the machine shop and complete the safety training. In Labs 2 or 3, you will use the mill and sheet metal tools in the machine shop to build some sensor mounts. Bring your laptop to this lab session.

Shop Orientation

This hour-long orientation presented by the shop proctors will include

- Safety highlights
- Hands-on instruction with the machines
- Tour of the 3 machine shops (wood, main, sheet metal)
- Brief discussion of what the students will be doing in their lab, and Q&A

The orientations will take place during the following time slots:

- Thursday, 08/31: 6-7pm
- Thursday, 08/31: 7-8pm
- Friday, 09/01: 6-7pm
- Friday, 09/01: 7-8pm

Safety Videos

Many students find it easier to pass the Machine shop safety test by watching the videos linked below:

<http://hmc-machine-shop.wikidot.com/video-tutorials>

Safety Manual and Test

Read the shop safety manual at the link below. Although E11 will focus on a few machines, you will need to be familiar with all of the equipment for the safety test.

<http://hmc-machine-shop.wikidot.com/general-safety>

Once you have read the manual, take the shop safety test online at the same link. A score of at least 60/64 is required to pass the test. You may review the safety manual or ask questions of the teaching team, then retake the test if you do not pass the first time. Be sure to pass the test before leaving the lab section.

Install Arduino Software

Download the Arduino software on your computer (PC or Mac recommended; the software indicates that Linux also works).

<http://arduino.cc/en/main/software>

Connect to the instructor's Mudduino board and verify that you can download and run a program. A Mudduino board will be left in the mail slot outside of Prof. Clark's office on the second floor of Parson's building. Also, you can attend office hours in the E80 lab (Parson's basement) where proctors equipped with Mudduino boards can help you test your software install.

Also, from 2-4pm on Sunday Sept. 3, proctors and 2 Mudduino boards will be available in the E80 lab (Parsons B171).