Welcome!

This is where the Tufts Robotics Club documents EVERYTHING WE KNOW! All projects are documented here, as well as the takeaway knowledge from those projects. The goal of this wiki is to preserve lessons learned from projects so that we will build even better in the future. We will also post how-to’s here for new members or really just anyone interested in robotics. How-to’s are written to be universally accessible.

Contributing to This Wiki

If you are a member of the club and would like to contribute something to this wiki, there are a few steps to getting set up:

1. Log in to https://spark.uit.tufts.edu/ with your Tufts username and password. This will create a wiki account for you automatically.
2. Email the President or Webmaster of the club (found on the About page), giving them your username and asking to be given permissions to add to/edit the wiki.

If you are adding a new page, make sure its parent page is correct. For example, if you are adding a new project page, make sure its parent is the “Projects” page. Similarly, for new tutorials/how-to’s, add those under the “Tutorials/How-to’s” page.

Quick Links

- Club Website - General info about the club including meeting location & time, points of contact, and blog
- Club Google Drive - Where important files are shared with club members
- Club Github Page - Where we host all code/collaborative files for our projects. Hosted by the Tufts CS department.

Project Pages

- Intel-Cornell Cup
- Trinity College Firefighting Robot Competition
- Drivable Couch
- Potential Future Projects

Tutorials/How-to's

- Python and OpenCV

External Resources
Other tutorials:

- Just starting out:
  - Brief overview of electronics - If you haven't worked with electronics before, give this a read. Talks about different devices and terminologies.
  - Make a Light Blink with Arduino - Great first project for someone new to Arduino

- Random tutorials:
  - Programming ATTINY chips with an Arduino Uno - The ATTINY is a family of really small microcontrollers, and you can program them using an Arduino and then stick them right onto a breadboard, saving a lot of space.

Downloads

- Arduino Editor

References

- Arduino Reference - Reference manual for Arduino programming
- Feel free to contact any of our specialists (listed on the About Us) with any specific questions!

Trusted Vendors:

- Pololu - Go-to vendor for small motors and motor drivers, among other things
- Servo City - Sells more heavy-duty mechanical parts and motors
- McMaster-Carr - Go-to vendor for any mechanical parts
- Sparkfun - All kinds of breakout boards to speed up development
- Digikey - Sells every electronic component you can imagine. Harder to interface with, though, because they don't come assembled on breakout boards.
- Mouser - If Digikey doesn't have it, try here

Recent space activity

Riley J. Wood
- Dave, Sleep On It, and Eg - 2016 updated May 14, 2016 • view change
- Tufts Robotics Wiki updated Mar 18, 2016 • view change
- Drone Customization updated Feb 29, 2016 • view change
- Intel Edison updated Feb 29, 2016 • view change

Thomas C. Hebb
- Python and OpenCV updated Feb 19, 2016 • view change

Space contributors

- Riley J. Wood (819 days ago)
- Thomas C. Hebb (904 days ago)
- Anuththari S. Gamarallage (1009 days ago)
- Samuel Gertler (1011 days ago)
- remote user (1065 days ago)