EE 106 Final Project Notes

- Demos/Presentations: December 8th. Location and time: Blum Center B100, 2PM – ~7PM
- Reports Due: Friday, December 14th, 10am

Demos/Presentations

You'll get a chance to present your project to the class and see your classmates' projects at a demo session the week of Dec 7th.

In addition to your working demo, your group should bring a short ~6 minute (1 minute of questions after) presentation describing your project. The presentation should give a brief overview of:

- The original design goals for the project
- What does your project do? (Ideally illustrated with a diagram of the whole system)
- What did you have trouble with/what would you change if you had more time?

We'll ask you to send us your presentation slides by the morning of the presentation so we can collect them all on one computer (specific instructions to follow later). That way we can avoid wasting time with laptop/projector troubleshooting.

After we finish with presentations we'll have a demo fair where you can check out everyone else's projects. We'll also make the rounds and take a look at each of your projects individually. We'll bring the network hardware for the Baxter and Zumy robots to Blum Center B100. If you're using any other hardware, you'll need to bring it to the demo along with any equipment necessary to make it work (power adapters, etc.).

Reports

As with last year's class, your final reports will be in the form of a web site. The following sections should be included:

1) Introduction
   a) Describe the end goal of your project.
   b) Why is this an interesting project? What interesting problems did you need to solve to make your solution work?
   c) In what real-world robotics applications could the work from your project be useful?
2) Design
   a) What design criteria must your project meet? What is the desired functionality?
   b) Describe the design you chose.
   c) What design choices did you make when you formulated your design? What tradeoffs did you have to make?
   d) How do these design choices impact how well the project meets design criteria which would be encountered in a real engineering application, such as robustness, durability, and efficiency?
3) Implementation
   a) Describe any hardware you used or built. Illustrate with pictures and diagrams.
   b) What parts did you use to build your solution?
   c) Describe any software you wrote in detail. Illustrate with diagrams, flow charts, or other appropriate visuals. This includes launch files, URDFs, etc.
   d) How does your complete system work? Describe each step.
4) Results
   a) How well did your project work? What tasks did it perform?
   b) Illustrate with a **video (required)** and pictures
5) Conclusion
   a) Discuss your results. How well did your finished solution meet your design criteria?
   b) Did you encounter any particular difficulties?
   c) Does your solution have any flaws or hacks? What improvements would you make if you had additional time?
6) Team
   a) Names and short bios of each member of your project group.
7) Additional Materials
   a) Code, URDFs, and launch files you wrote
   b) CAD models for any hardware you designed
   c) Datasheets for components used in your solution
   d) Any additional videos, images, or data from your finished solution

You can use any platform you like to host the website. Google Sites is an easy option if you don't have another preference. Please submit the address of your finished website to us on the online survey we'll provide. Your site must be finished by 10am on Monday, December 14th. Please note that this is a **hard deadline** to give us time to grade the finished projects.