EECS106A/206A / BIOE106A

Final Project Presentation/Demo/Report Instructions

Fall 2020

Due Date Reminders

- **Presentations/Demos**: Thursday, December 10th - Friday, December 11th, class zoom link, schedule below
- **Reports**: due Friday, December 18th, 11:59p, submitted via online survey

1 Presentations/Demos

On the final presentation day (12/10-12/11), each group will give a two-part presentation of their final project, including *a)* a $\sim$ 5 minute talk (with slides), *b)* a working demo, and *c)* $\sim$ 5 minutes after for questions. Because there are so many of you (35 groups!), we will be splitting you up into 5 blocks of 7 teams each. **Each team will be granted a 15min slot, 10 minutes of which will be for presentation and demo, 5 minutes for questions, and all team members will be expected to remain as audience members for the other teams in their block.** The overall schedule is as follows:

Thursday

12:30-3p	BLOCK 1
3-3:30p	*Coffee*
3:30-6p	BLOCK 2

Friday

9-11:30a	BLOCK 3
11:30a-12:30p	*Lunch*
12:30-3p	BLOCK 4
3-3:30p	*Coffee*
3:30-6p	BLOCK 5

Please fill out this google form (also on Piazza) to sign up for a presentation block. A detailed presentation schedule will be generated based on these preferences. We will do our best to schedule presentations such that each team has sufficient setup time. **Between the slide deck talk and the demo, all team members are expected to have a speaking role in the presentation.**

Specific expectations for each presentation element are described below.

1.1 Slide Deck Presentation

Your presentation should give a brief overview of:

- the original goals for the project;
- what your project does (ideally, illustrated with system design and operation diagrams);
- difficulties your encountered; and
- improvements/extensions you would make if you had more time.

To avoid wasting time on laptop/projector troubleshooting, **please be ready to share your screen to present slides when it is your team's turn to present.**

1.2 Demo

The second part of your presentation will be a (working!) demo of your system. While it does not need to be completely polished or finalized, you should demonstrate the basic idea of your project and show that it is functional. You may also include a short video if it enhances your presentation (e.g., a sped-up video showing the completion of a usually slow task). **Please have your demo ready to present right after your slides.**

2 Report (website & video)

Your final reports will take the form of a **website**, the address of which should be submitted to the provided survey by 12/18 at 11:59p (information forthcoming). Your website should show off all aspects of your project, and it should be something you're proud of and can show off during job interviews. Your website should also link to your **video(s)**, in which you should describe the purpose of your project and show your project in action. You may have one single video or multiple videos; it's up to you.

You may use any platform you like to host the website; Google Sites, Wordpress, and Weebly are easy options if you don't have another preference. You may host videos on Youtube or any other service.

Your website should include the following sections:

1. **Introduction**
   (a) Describe the end goal of your project.
   (b) Why is this an interesting project? What interesting problems do 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 trade-offs did you have to make?
   (d) How do these design choices impact how well the project meets design criteria that 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, and/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 pictures and **at least one** video.
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) Include names and short bios of each member of your project group.

(b) Describe the major contributions of each team member.

7. **Additional materials**

   (a) code, URDFs, and launch files you wrote

   (b) CAD models for any hardware you designed

   (c) data sheets for components used in your system

   (d) any additional videos, images, or data from your finished solution

   (e) links to other public sites (e.g., GitHub), if that is where your files are stored