CS225a Spring 2018-19

CS225a Final Report Instructions

For your final assignment in Experimental Robotics, you will write an 8-10 page report detailing your project. The report and video of your project (see details below) should be submitted via email (you can use something like Google Drive, Dropbox or weTransfer for the video if it is too large) to mjorda@ and apiedra@. The report should be neatly formatted and clearly written. Make sure to include your group name and the names of all members at the top of the report.

The report is due Monday, June 10 at 11:59pm. We will not accept any late submissions.

Report

Below are detailed guidelines for structuring your report.

- **Abstract/Introduction.** Introduce your project at a high level. What was your motivation for choosing this project? Explain the challenges of your task, and summarize the design of your final implementation. This is similar to the milestone and in-class presentations. (~0.5-1 page)

- **Final implementation.** Provide a detailed description of how you implemented your project. Give the equations, show figures/photos, and write about anything that makes it easier to understand how you implemented your solution. Talk about the different subsystems and how they integrate with each other. When you discuss the robot controller in detail, do not mention the specific functions that you used. Instead, explain what controller you used (e.g., we do not want to see "we used a posori task" -- instead, say "we used an operational space controller for the end effector position/orientation control with/without dynamic decoupling ...") and give your control equations. This part should be written in a way such that someone with a robotics background who reads it could re-implement your idea. (~5-8 pages)

- **Challenges.** Discuss the major problems you ran into, and your solutions for solving them. For each problem, tell us about what you did to resolve it, and what other options you considered. If you had to reimplement your project from scratch, would you do anything differently? (~1 page)

- **Results/Conclusion.** Give us your final thoughts about the project. What were the most important lessons/skills that you learned? Include at least one link to a video of your demonstration. (~0.5-1 page)

Video

We also ask you to send us a good video of your final demo. It can be filmed with your phone if you have a good enough phone. Please pay special attention to the details such as the background
of the video, not having something too shaky, making sure that all the aspects of your demo are well shown, and so on. You can do a video montage to make it look better.

**Feedback**

Please answer the questions in the form linked here: [https://forms.gle/Bd4WMdexZzqaCGN17](https://forms.gle/Bd4WMdexZzqaCGN17)