Final Project

March 12, 2020

1 Project Overview

The instructions for the final project of the course are the following:

- Work in pairs: The project is in groups of 2 only. There are 47 students in the course, so the final student without a group, will be added to one of the existing ones. (Don't ask if you can form a group of three)
- Open Topic: You can choose your topic of research or problem that you will be tackling
- Related to Mobile Manipulation: Of course, whatever topic you pick, it has to involve mobile manipulation.

2 Deliverable Dates

The project will be graded at three different stages:

1. Project Proposal. Due: March 24th
2. Project Presentation. Due: April 13th
3. Final Report. Due April 21th

A Rubric for each deliverable will be posted 1 week before each deadline.

3 Project Proposal

The project proposal will be 1-2 pages document where you specify the following:

- Problem Statement: Describing the main problem that you are going to tackle and why is it related to mobile manipulation
- Related Work: Give an overview of the state of the art regarding your problem. 2 or 3 paper should be referenced.
- Goals: Description of the goals that you are setting for your project to be consider successful. We expect around 3 main goal.
- Evaluation: Describing how will you evaluate the given goal.
- Bibliography: Papers that you have as references.

NOTE: If we consider that your project is not related to mobile manipulation, we will ask you to present another project.

4 Project Presentation

For the project presentation, you will show the progress you have made up to this point. The presentation should have the following slides:

1. Title: Name of the project and students names
2. Problem Statement
3. State of the Art/ Related Work
4. Goals and Evaluation method
5. Current progress
6. Preliminary results
7. Bibliography

NOTE: The initial idea is that you will be presenting your project to the class. Due to the corona virus situation, we will evaluate how we will do this. More information will be released as we get closer to this date.

5 Final Report

The final report is a detailed document that present all the work you did. The report needs to have the following sections:

1. Introduction
   (a) Problem relevance
   (b) Related work
   (c) project contribution
2. Approach: Depending on your project, this section content might change.
   (a) Methodology: Present a detailed explanation of the work done, considering the math that is involved and algorithm used.
   (b) Implementation: If you did simulations or real robot experiment, how where they made.
3. Results: Should present all that apply to your project: qualitative results, a discussion regarding the evaluation methods, and quantitative results. If you have videos, add the link to them here.
4. Discussion: Discussion about the results obtained and possible future work to improve what has been done.
5. Meta-learning: A Discussion about what you, as students, learn from this project.