

EE183DA (Winter 2017)

Design of Robotic Systems I

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Preliminary project proposals
Due 2pm Thursday Feb. 9, 2017

1 Overview

The goal of this assignment is to lay the groundwork for selecting your team's design project. By the end of this term, you will need a comprehensive project proposal: this means that you will need to have completed all relevant background research, planning, and preparation. In order to get there, you will need to first identify what such steps will be necessary. Then you can determine how the results of that background will impact your ability to successfully complete the proposed project next term. Your preliminary proposal will capture this process.

2 Description

As a team, identify three candidate design problems. Describe in detail what your potential solutions would look like, and explain why they would make for reasonable projects for this class. Conduct a preliminary analysis of each of them, identifying what further work you will need to do to be able to fully specify a plan for completing the project. Finally, describe what factors will be relevant in selecting between the candidates, and what your decision process will entail.

3 Content

For each candidate project, consider the following questions:

- What is the specific problem statement being addressed?
- What is your team's proposed solution?
- What is novel about this candidate project?
- Why is this project interesting, valuable, and/or meaningful?
- How do you know that your team can complete this project in this class?

Clearly explain your responses to these questions if you can. Otherwise, if you just have a partial answer or no answer at all, describe in detail how you plan to come to one. What further research, study, or experimentation do you need to do?

Explain how you will select a single project from these three candidates. What are the criteria that matter to you for your project, and how will you evaluate each project on those criteria?

4 Deliverables

There will be two deliverables for this assignment. As a team, create a single document compiling all the content described above. As an individual, fill out a questionnaire identifying each team member's contribution to this assignment.

Have one member of your team upload a PDF of the document to CCLE by 2pm Thursday Feb. 9, 2017. Every member of the team must fill out the questionnaire independently by the same due date. Submissions that are up to 24 hours late will be accepted for a 10 percentage point reduction in final grade. No submissions will be accepted more than 24 hours late.