EECS 287 Project 3 – Final Project

For the final project you may choose any topic of your interest, as long as it is related to a topic seen (or to be seen) in class. You may choose to do the project as a continuation of one of your previous projects or as a new project. Below are two popular topics for final projects:

Ex. 1 - Steering: Simulate many agents (cylinders ok) navigating with reactive behaviors to random targets. For this topic you will develop a few of the behaviors described in the steering behaviors reading.

Ex. 2 - Planning: Here you will implement a planning solution to one of the topics seen in class, for example: a sampling-based 3DOF polygon planner or 6-DOF object movement planner, or planning paths for cylinders in a crowd simulation. If you use an existing planning code, you have to develop something of your own on top of it. For example, you can add collision avoidance or several steering behaviors.

Requirements:

1. If your project is a continuation of a previous project, you have to include a clear **new module or development** to be considered as the final project. It has to include a new addition, and not just be an incremental update.
2. Your project has to address an interesting problem or topic and you have to **provide your own implementation solution for one key part of the problem**. This requirement is here to avoid that you merely re-use available solutions from the support code or elsewhere. Include at least one non-trivial algorithm that you will implement yourself.
3. You will also need to **evaluate your main algorithm/solution**, and you will describe your evaluation in a 1-page project report. Your report is not a summary of everything your project does, think of it as a poster highlighting the most interesting thing(s) your project can do. (You will write in a readme.txt file how to see everything your program can do.) Your evaluation should lead to some conclusion: which variations of your method worked better, or worked faster, or in which scenarios the method work or did not work, etc.

Group Projects:

Group projects are acceptable but only if the goal is to obtain a more challenging project that requires the help of several people. A good motivation for this is to develop some idea which could become a paper to be submitted for publication. Talk to me in advance if you'd like to do a group project.

Grading

75% - basic requirements **and overall quality** of your project,
15% - your report (see specific report instructions below),
5% - your report has 1 page only,
5% - reame.txt file explaining how I can see everything your program can do.

Submission

Submit by the deadline a 7zip/zip file with: 1) project code (**do a cleanall before!**) and 2) report.

Report

The report is a **1-page report** in the format described by the template below. The report will have a few paragraphs and at least one image. Note that you have to describe an evaluation of your main algorithm/solution. You have to make everything fit in 1 page, which means you have to put in the report only the most relevant/interesting results of your project. You may use any layout (like 1 or 2 columns) as long as it fits in 1 page.

Project Title:
Name and email:

1) Project Description and Goal
Explain here your project.

2) Evaluation and Results
Comment here your main algorithm(s)/solution(s) implemented to achieve the results of your project. For example: describe the key solutions you implemented for your blending and key control to work well, and evaluate in which conditions/situations it works well and when it does not work. The goal is to describe here the most interesting capabilities of your project, and to evaluate them. Use at least one image to illustrate results. Your evaluation may be based on showing images of cases working well and cases not working.

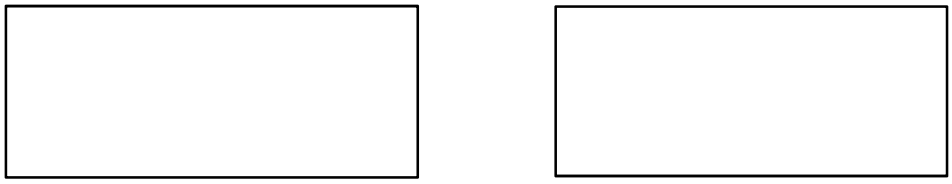

Image 1 – Illustrative image(s). You can put the image(s) anywhere and in any layout.

3) Conclusion
Write here the main conclusion(s) you have achieved as a result of your evaluation.