

6.S078 Planning Algorithms, Fall 2013

September 11, 2013

Organization Updates

- You will be allowed three “late days” (72 hours) for your assignments, to be used in any combination, for your assignments. After that, assignment credit will go down by 20% per day.
- There will be no class on Wednesday, Sept. 18. Please use the time to work on the assignment.

Assignment 2 (due Mon. Sept 23 before class)

Implement a visibility-graph planner for polygons on the plane; same setup as in assignment 1, but no grid.

Part 0. Implement configuration space obstacles for convex polygons.

Part 1. Implement visibility graph for just translations.

Part 2. Extend it to a fixed set of closely spaced orientations of the robot.

The simplest version of the visibility-graph has many useless links; keep only the links that are “tangent” to the obstacles. Also, remember that you will need the edges of the C-space polygons to be in the graph.

Please send email to ask for any clarifications.

You should upload a zip file with your code to the Stellar site. Also write a brief description of your approach in a PDF file and include some runs of your algorithm, with tables showing performance, as you did for assignment 1.