CS 3630 Lab 4 Grading Rubric

| Group # | A* sim. | Update Map | Navigate to Goal | Correct Orientation | Obstacle Avoidance | Total |
|------------|---------|---------------|---------------------|------------------------|-----------------------|-------|
| | /40 | /10 | /20 | /15 | /15 | /100 |
| | /40 | /10 | /20 | /15 | /15 | /100 |
| | /40 | /10 | /20 | /15 | /15 | /100 |
| | /40 | /10 | /20 | /15 | /15 | /100 |
| | /40 | /10 | /20 | /15 | /15 | /100 |
| | /40 | /10 | /20 | /15 | /15 | /100 |
| | /40 | /10 | /20 | /15 | /15 | /100 |
| | /40 | /10 | /20 | /15 | /15 | /100 |
| | /40 | /10 | /20 | /15 | /15 | /100 |
| | /40 | /10 | /20 | /15 | /15 | /100 |

A* Sim: Find the correct shortest path from start to goal using the A* algorithm. Evaluated by autograder in simulation; a new map will be used for grading purposes.

Update Map: Correctly update the map with obstacles detected by the robot

Navigate to Goal: Successfully navigate to and stop within 4" of Cube 1

Correct Orientation: The final stopped position of the robot faces the "front" of Cube 1:



Obstacle Avoidance: The robot successfully avoids Cubes 2 and 3 if they are in the space. Note that cubes may be added to the space at any time, so make sure your code supports continuous detection, map updates and replanning.