

## 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.