ROB 456: Homework Set 2

Download and Modify rob456_hw2.zip
1. The zip file has a .py file (hw2.py) that you will be modifying for homework set 2
2. hw2.py includes how to import and use the odometry, how to loop through laser scans, and how to set the commanded velocities of the robot
3. launch/hw2.launch is where the world file is selected and the goal location set

Your job is to tell the robot how to move so that it:
1. Moves to the target position
2. Doesn't run into anything immediately in its path

Make sure you read through all the code before starting. Grading rubric is in Canvas.

What to Turn In:
1. (Modified) hw2.py and launch/hw2.launch
2. A PDF document that has the following
    a. A cover sheet listing the people you worked with, websites you used, and who did what (if working in groups)
    b. An English, high-level description of how you told the robot to move
3. Make an appointment with the TA to demo your code

A Few Notes:
1. The odometry data is with respect to the global reference frame, so the (x,y,theta) pose of the robot is with respect to global coordinates.
2. The laser scan data is with respect to the robot's reference frame. This means that the angle of laser scans is with respect to the robot, NOT the global coordinates.
3. Proper documentation of your code, i.e. readme and code comments, are essential.