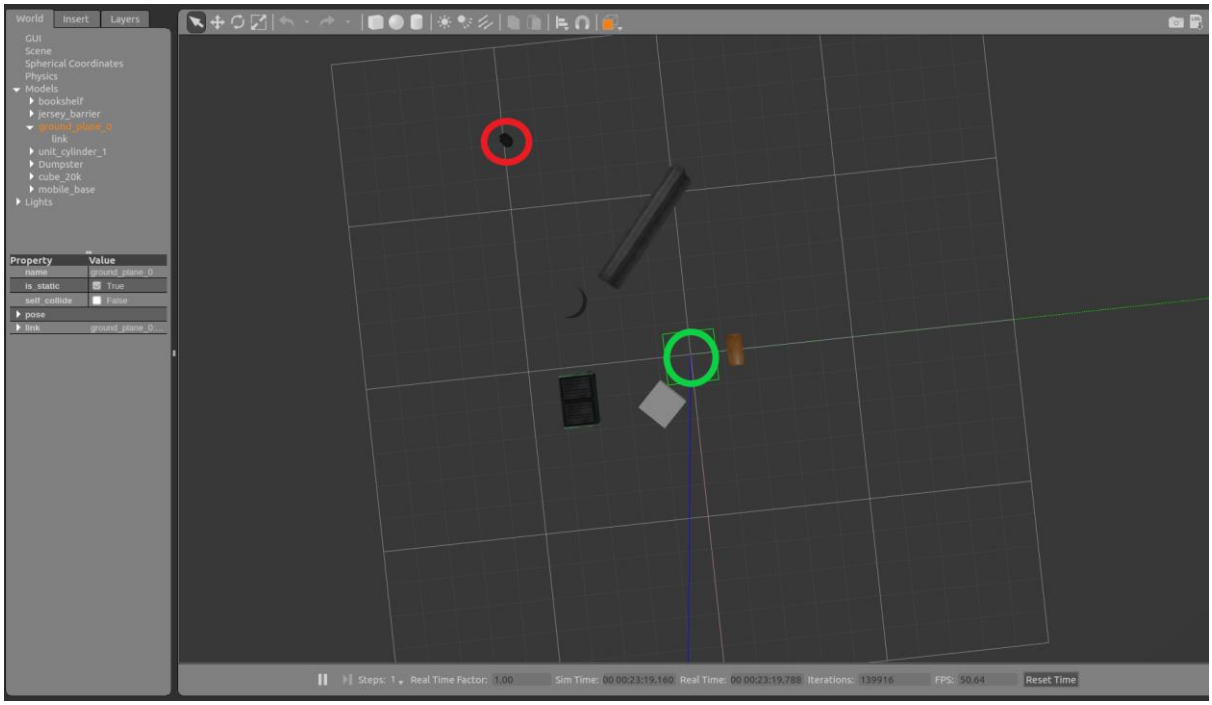
Introduction to Robotics – Exercise 3

Date of submission – 07/01/20 (14:00:00)

Assignment

1. Make a new ROS package called bug, with the appropriate dependencies.
2. Fill in your name and ID in the package manifest file.
   (not doing that = -10 point)
3. You are basically going to implement bug2 algorithm.
   (details in the lecture presentation).
4. You should write the node that will drive turtlebot around.
   (like you did in exercises 2)
5. Your code will be run on turtlebot_world but with different world's settings (for example - more obstacles, different arrangement etc.).
6. Your goal is the coordinate **(-8,-7)** - marked in red circle in the following screenshot. **It should be configurable via the launch file** (meaning – changing it in the launch file will cause the robot to go toward different goal).

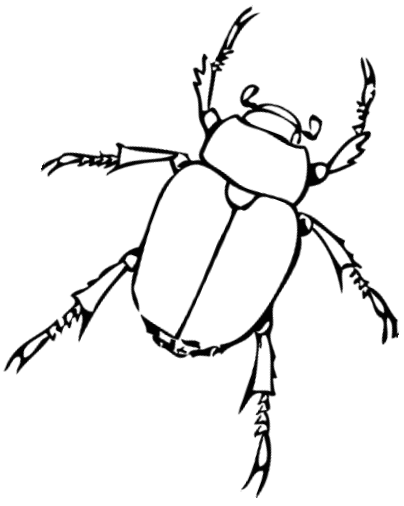


Rules

1. You can write your code in python2.7 or python3.
2. Make sure that your code is tidy and well-commented.
3. You should do this lab on your own or in pairs.
4. If you use any external sources of inspiration, other than ros.org, then let us know in a README file.
5. Specify which ROS distribution you implemented the code in in your README file.

What to Hand In

1. You should **zip** your package and submit it.
2. In the package.xml you should have the line
   <author> Jane Doe 111111111 <\author>
   (for pairs : <author> name1 ID1 name2 ID2<\author>)
3. **Add readme file with your name and ID.**
4. You should not hand in executable files, or any other files that can be regenerated.
5. Your code should be easy to run.
   After getting a copy of your code, running:
   catkin_make --pkg bug
   roslaunch bug bug.launch
   should be sufficient to start up Gazebo and make the robot move!



Good luck!