Principles of Robot Autonomy I

Final Project Group Logistics

Section 4
Final Project Group Logistics

• Please form groups of 3-4 for the final project.

• They do not have to be in your section.
• They do not have to be in the same course code.
• We’ll have a signup sheet online this week.

• The reason we’re asking you to think about this now is because HW3 has a group component!
  • Also because it’s good practice to figure this out early.
Section 4: Visualizing Information with rviz!
Aims

• Learn about catkin package installation
• Become familiar with information visualization in ROS with rviz
• Learn about Markers in rviz
Catkin Package Installation

• It’s actually quite simple:
  1. Obtain the package and place it in the `catkin_ws/src` directory
  2. `catkin_make`
rviz

• ROS’ 3D visualization tool

• Can think of it as a graphical user interface (GUI) wrapper around `rostopic echo`

• Visualizes information which otherwise wouldn’t even be parseable, let alone parsable in context
  
  • E.g. Velodyne laser scans are a complicated mix of floating-point numbers, but rviz nicely plots them as point clouds which respect world scale.
rviz Markers

• Say you have some intermediate goals or other world points that you use in your robot stack.
• Markers allow you to visualize these points aside from just printing them in the terminal.
Section 4

• Focuses on getting you used to rviz and visualizing information from your Turtlebots, an essential debugging tool for the final project!