Principles of Robot Autonomy I

Final Project Group Logistics
Section 4
Final Project Group Logistics

• You should now be in groups of 4 for the final project.

• Please *IMMEDIATELY* reach out to the staff mailing list if you are not in a group!

• The reason we’re asking you to ensure this now is because HW3 has a group component!
  • Also because it’s good practice to figure this out early for the final project.
Principles of Robot Autonomy I

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!