Principles of Robot Autonomy I

Final Project Group Logistics

Section 4

Stanford University

ASL

Autonomous Systems Lab

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.

Principles of Robot Autonomy I

Section 4: Visualizing Information with rviz!

Stanford University

Autonomous Systems Lab

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!