UDACITY

PROJECT SPECIFICATION

Home Service Robot

Basic Requirements

CRITERIA	MEETS SPECIFICATIONS
Did the student submit all required files?	Student submitted all required files: ROS Packages Shell scripts

Simulation Setup

CRITERIA	MEETS SPECIFICATIONS
Did the student set up the simulation environment properly?	Student's simulation world and robot could properly load in Gazebo.

Mapping

CRITERIA	MEETS SPECIFICATIONS

CRITERIA	MEETS SPECIFICATIONS
Did the student's mapping function work properly?	The student should write a test_slam.sh script file and launch it to manually test SLAM.
Did the student create a map using SLAM?	Student created a functional map of the environment which would be used for localization and navigation tasks.

Localization and Navigation

CRITERIA	MEETS SPECIFICATIONS
Was the student's navigation stack configured properly?	The student's robot could navigate in the environment after a 2D Nav Goal command is issued. The student created a test_navigation.sh script file to launch it for manual navigation test.
Did the student's goal node function properly?	"The student created a pick_objects.sh file that will send multiple goals for the robot to reach. The robot travels to the desired pickup zone, displays a message that it reached its destination, waits 5 seconds, travels to the desired drop off zone, and displays a message that it reached the drop off zone."

Home Service Functions

CRITERIA	MEETS SPECIFICATIONS
Did the student create virtual object with markers?	The student should write a add_marker.sh file that will publish a marker to rviz. The marker should initially be published at the pickup zone. After 5 seconds it should be hidden. Then after another 5 seconds it should appear at the drop off zone.
Does the student's robot perform home service tasks correctly?	The student should write a home_service.sh file that will run all the nodes in this project. The student's home service robot should be simulated as follow: Initially show the marker at the pickup zone. Hide the marker once your robot reach the pickup zone. Wait 5 seconds to simulate a pickup. Show the marker at the drop off zone once your robot reaches it.
Did the student include a write-up explaining the packages used to achieve home service functionalities?	The student should include a brief write-up explaining the packages used for this project, covering localization, mapping and navigation.