Implementation of Robot Behaviour Learning Simulator

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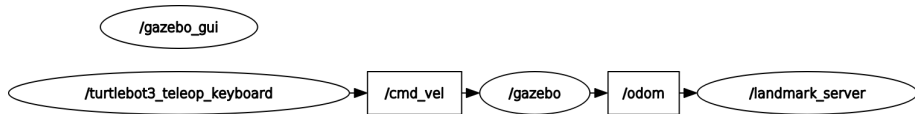May 11, 2021

A Recap

In our last meeting,

- We discussed about the log file that was needed to be given as an output.
- Discussion regarding the Gazebo world was done.
- I was expected to present a simulation for the same.

Today's Agenda

I have made a basic simulation, consisting of the following parts I will present after this slide.

- Development of Gazebo Grid Box, to our own personalization.
- An example of a teleop (controlling the robot with keyboard)
- A ROS Simulation Client.
- A ROS Simulation Server.
- A Potential log file, presenting the X and Y coorinates of the turtlebot.

Work done on Friday/Monday

- I started to work on a method that could make a seperate folder for the log files that are output in the terminal and then save it.
- I started learning the Simultaneous Localization and Mapping *(SLAM)* algorithm for the robot to move around automatically and then provide a log file for the behaviour.

Potential Work Goals

- Simultaneous Localization and Mapping is a big part, and will take time.
- The current Gazebo world is not implemented in our own preference. Implementing SLAM in that Gazebo World.
- Learning and building Gazebo World Models with URDF file descriptions.
- The Log File's development.

Thank you!