Traffic Simulator
Team
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About Us

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Project Overview

- Develop a smart city intersection for the model intersection in the ORBIT lab
- The simulation is a testbed for self-driving research and we hope to emulate human driving
Methodology and Equipment

- SUMO – Simulation of Urban Mobility
- Gazebo – Robotics Simulation
- ROS – Robot Operating System (Melodic)
Project Goals

- Feed real-time data from SUMO to a Gazebo simulation
- Gazebo software will provide a 3D robotics simulation of the data collected from SUMO
- Create objects within the simulation such as a traffic light
INTERSECTION MODEL AND EXPLANATION

- Gazebo receives information from SUMO → the software outputs a 3D rendered model
- Gazebo can receive this information as coordinates for street intersections, cars, pedestrians, stop lights, etc.
- These plug in values do not control the execution of the simulation – this must be done in the simulation itself
Intersection Simulation
Stoplight Video
Stoplight

Publisher
Node (Gives
Keyboard
Commands)

Traffic Light
Test Node

Shows
Gazebo
Output
Thank You

Any Questions?