

IGVC Milestone 6

Task matrix:

Task	Completion %	Viet Dung
Assist other member with simulation	100	100
Refactor the code	100	100
Add obstacles to the simulation	100	100

Task Discussion:

Assist other member with the simulation:

- ▶ Adjust the build script for different Linux distros.
- ▶ When using ROS1 with Python3, the users must specify the location of Python 3.
 - ▶ Different between distros.

Task Discussion:

Refactor the code:

- ▶ Improve the mapping function.
 - ▶ Previous method:
 - ▶ Extract the list of coordinates of objects (obstacle, lane)
 - ▶ Perform rotation and scaling on the list using transformation matrices.
 - ▶ Current method:
 - ▶ Perform rotation and scaling on the image using OpenCV provided methods.
 - ▶ Extract the coordinates

Adding obstacles:

- ▶ Add the model for obstacle and place obstacles on simulation.

Contribution discussion:

- ▶ Viet Dung Nguyen
 - ▶ Contact with other members to improve the software
 - ▶ Improve the mapping function
 - ▶ Create the model for obstacle
 - ▶ Change the map.

Lessons learned:

- ▶ Learn how to use ROS
 - ▶ Writing publisher, subscriber and custom ROS msg and service
- ▶ Learn how to use Gazebo for simulation:
 - ▶ Design models using specification document
 - ▶ Writing plugins for controlling robot
- ▶ Learn more about image filtering and mapping

Questions?