

Steps of use another ROS robot (AGV) with SLAM approach to create and save a map

Install AGV on ROS

Enter the below command to a terminal

1. Download and install ros
2. Install package ros

```
$ sudo apt-get install ros-melodic-hector-trajectory-server ros-melodic-slam-gmapping ros-melodic-navigation
```

Turtlebot3 Simulation

Gazebo simulation

1. Install simulation package

```
cd ~/catkin_ws/src
git clone https://github.com/wh200720041/warehouse_simulation_toolkit.git
cd ..
catkin_make
source ~/catkin_ws/devel/setup.bash
```

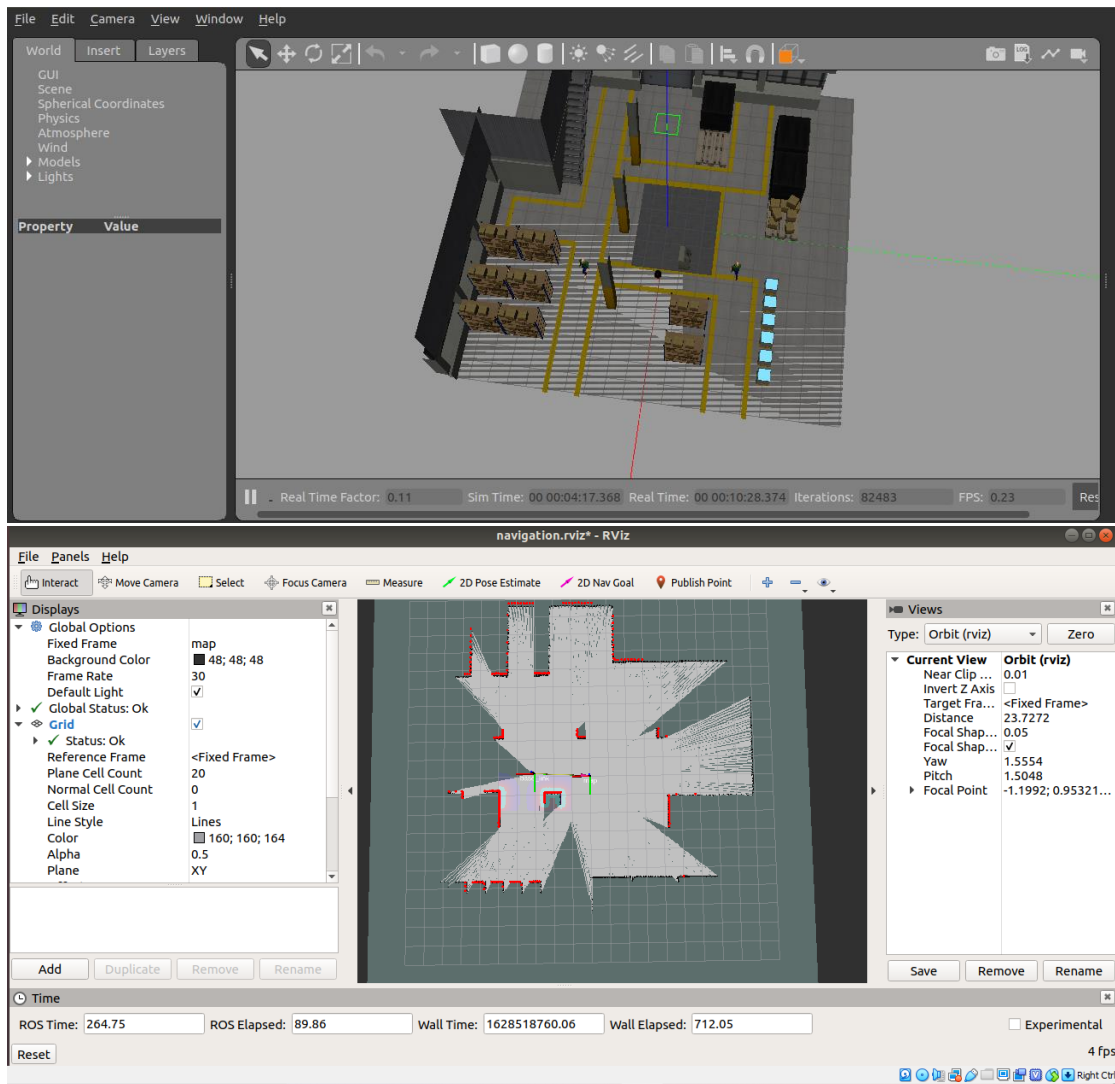
SLAM Simulation

1. Launch simulation world

```
roslaunch warehouse_simulation warehouse_simulation.launch
```

2. Operate TurtleBot3



```
roslaunch teleop_twist_keyboard teleop_twist_keyboard.py
```



1. Save Map

```
roslaunch map_server map_saver -f ~/test_map
```

```
jamal@jamal:~/AGV$ rosrund map_server map_saver -f ~/test_map
[ INFO] [1628518834.767779600]: Waiting for the map
[ INFO] [1628518834.951973348]: Received a 480 X 480 map @ 0.050 m/pix
[ INFO] [1628518834.955868031, 272.811000000]: Writing map occupancy data to /home/jamal/test_map.pgm
[ INFO] [1628518835.059398608, 272.825000000]: Writing map occupancy data to /home/jamal/test_map.yaml
[ INFO] [1628518835.060223930, 272.825000000]: Done
```

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<div>Home</div>	<div><div> test_map.pgm</div><div>230.5 kB</div><div>15:20</div></div>
<div>Desktop</div>	
<div>Documents</div>	<div><div> test_map.yaml</div><div>148 bytes</div><div>15:20</div></div>
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