

How to use 3DGEMS Dataset with Gazebo ROS??

Step-1:

Install turtlebot3 package from source (if you already have it you can skip this step):

```
cd ~/catkin_ws/src/  
git clone -b melodic-devel https://github.com/ROBOTIS-GIT/turtlebot3.git  
cd ~/catkin_ws && catkin_make
```

Step-2:

Install turtlebot3_simulation package (if you already have it you can skip this step):

```
cd ~/catkin_ws/src/  
git clone -b melodic-devel  
https://github.com/ROBOTIS-GIT/turtlebot3_simulations.git  
cd ~/catkin_ws && catkin_make
```

Step-3:

Go to [3DGEMS](#)

Download all the models given in the website i.e, files like :

furniture.tar.gz , **kitchen.tar.gz**, **food.tar.gz**, **electronics.tar.gz**, **decoration.tar.gz**, etc. files.

Extract them.

These folders contain subfolders with 3D models of chair, table, laptop, etc.

(Example names of subfolders: chair_1, table_dining, laptop_pc_1)

Copy all these subfolder to the following folder:

[/catkin_ws/src/turtlebot3_simulations/turtlebot3_gazebo/models](#)

Step-4:

Now, also download the **world.tar.gz** file from the website.

Extract it and

Now copy **office_small.world** file to the following folder

[/catkin_ws/src/turtlebot3_simulations/turtlebot3_gazebo/worlds](#)

and rename **office_small.world** to **office_env_small.world**

Step-5:

Now, download the file [office_env_small.launch](#)

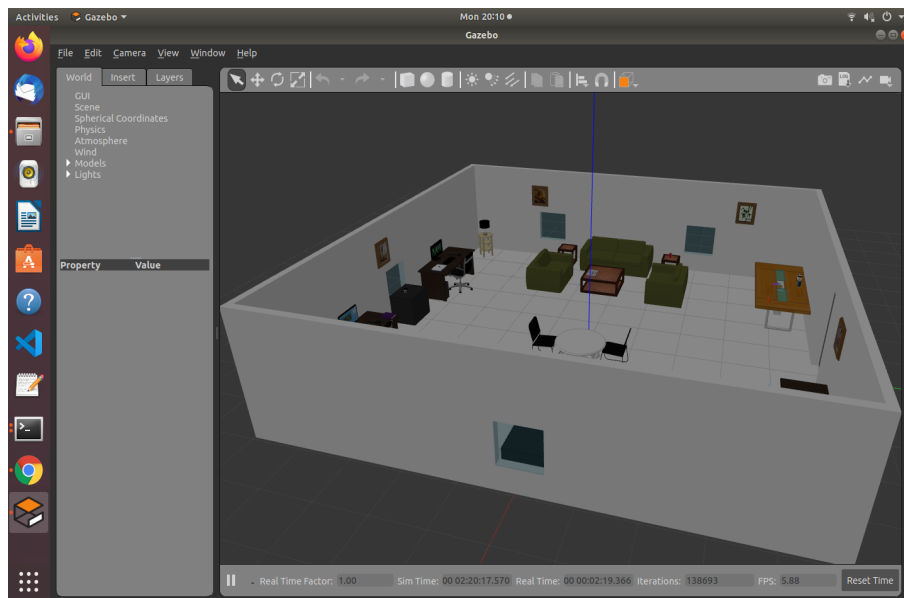
And copy to the folder `/catkin_ws/src/turtlebot3_simulations/turtlebot3_gazebo/launch`

Step-6:

Now, to launch the small office environment for turtlebot3 follow the following steps:

```
export TURTLEBOT3_MODEL=waffle
roslaunch turtlebot3_gazebo office_env_small.launch
```

You can easily launch the environment as shown below example:



Now, you can perform any task with turtlebot3 in this environment.

You can launch any environment by changing the **.world** file name in the launch file as below:
(Change the darken part):

```
<include file="$(find gazebo_ros)/launch/empty_world.launch">
  <arg name="world_name" value="$(find
turtlebot3_gazebo)/worlds/office_env_small.world"/>
```