

Environment using to test SLAM

استخدام البيئة لإختبار SLAM

Ubuntu 20.04 → Noetic ROS

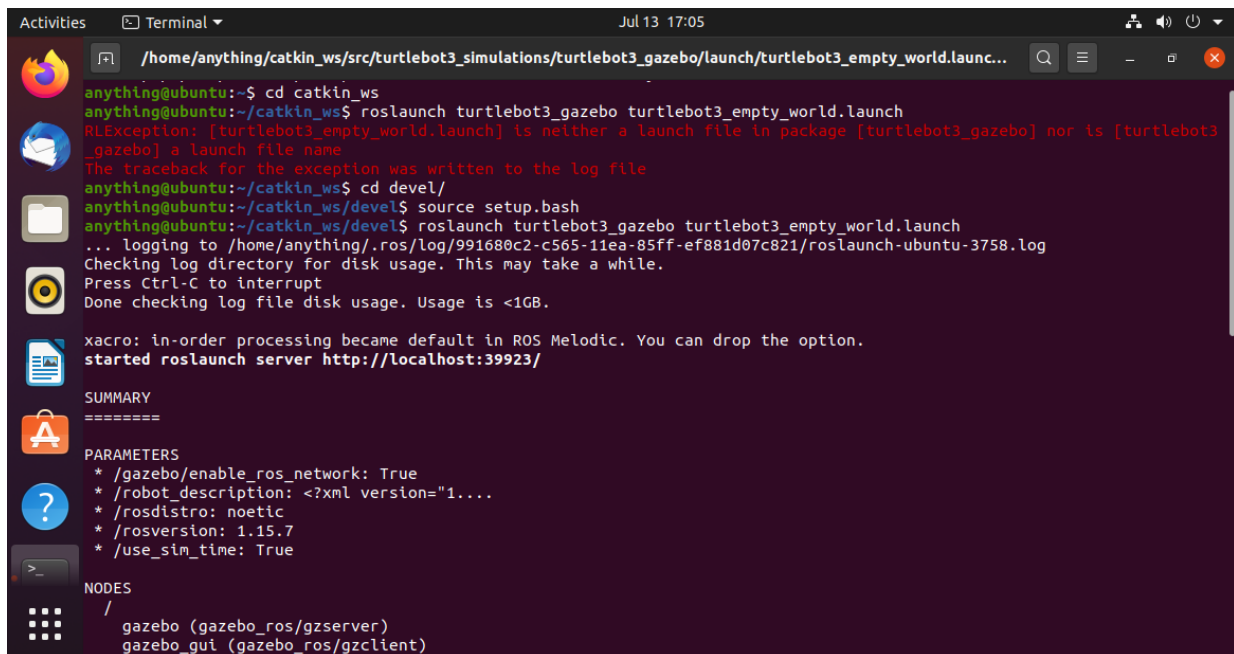
Write this command:

أكتب هذا الأمر:

```
roslaunch turtlebot3_gazebo turtlebot3_world.launch
```

Maybe you face the following problem in image :

من الممكن ان تواجهه مشكلة مطابقة للصوره التاليه:



```
anything@ubuntu:~$ cd catkin_ws
anything@ubuntu:~/catkin_ws$ roslaunch turtlebot3_gazebo turtlebot3_empty_world.launch
RLException: [turtlebot3_empty_world.launch] is neither a launch file in package [turtlebot3_gazebo] nor is [turtlebot3_gazebo] a launch file name
The traceback for the exception was written to the log file
anything@ubuntu:~/catkin_ws$ cd devel/
anything@ubuntu:~/catkin_ws/devel$ source setup.bash
anything@ubuntu:~/catkin_ws/devel$ roslaunch turtlebot3_gazebo turtlebot3_empty_world.launch
... logging to /home/anything/.ros/log/991680c2-c565-11ea-85ff-ef881d07c821/roslaunch-ubuntu-3758.log
Checking log directory for disk usage. This may take a while.
Press Ctrl-C to interrupt
Done checking log file disk usage. Usage is <1GB.

xacro: in-order processing became default in ROS Melodic. You can drop the option.
started roslaunch server http://localhost:39923/

SUMMARY
=====
PARAMETERS
* /gazebo/enable_ros_network: True
* /robot_description: <?xml version="1....
* /roscpp: noetic
* /rosversion: 1.15.7
* /use_sim_time: True

NODES
/
  gazebo (gazebo_ros/gzserver)
  gazebo_gui (gazebo_ros/gzclient)
```

To solve it, navigate the directory to devel file:

لحل المشكلة اذهب للملف devel:

```
cd ~ /catkin_ws/devel
```

and write the following command:

أكتب هذا الامر:

```
source setup.bash
```

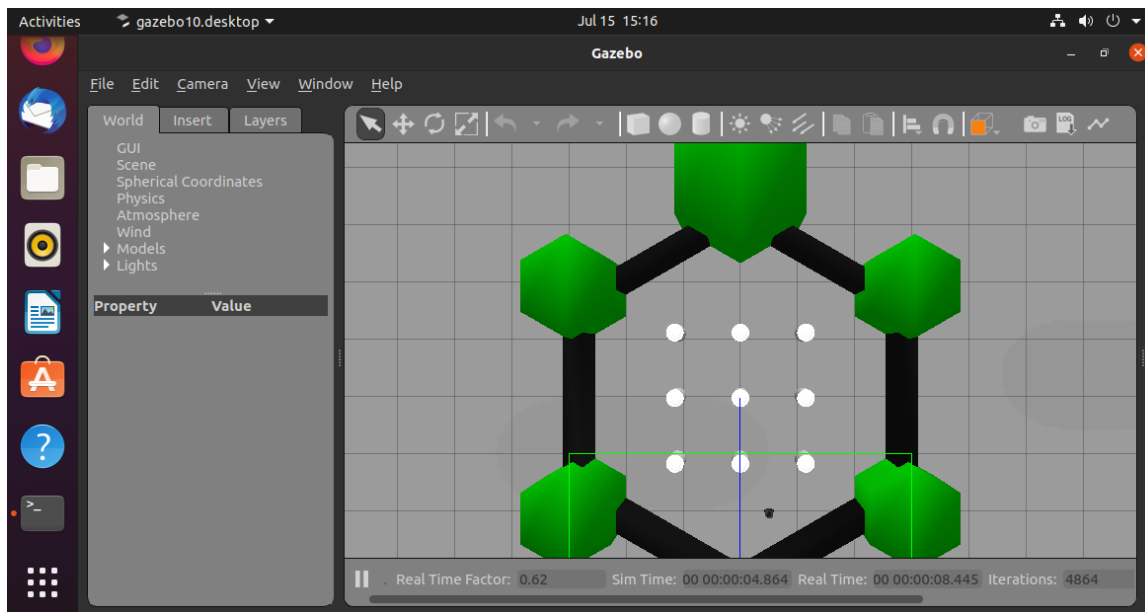
then rewrite the previous command to start simulation:

ومن ثم قم بكتابة الامر السابق لتتمكن من بدأ المحاكاة:

```
roslaunch turtlebot3_gazebo turtlebot3_world.launch
```

The output will be :

النتيجة :



If you want to move the TurtleBot3 with your keyboard, use this command in new window :

إذا كنت ترغب بالتحكم عن طريق لوحة المفاتيح قم بكتابة هذا الامر في لوحة تحكم جديدة:

```
roslaunch turtlebot3_teleop turtlebot3_teleop_key.launch
```