

## 准备工作：

ubuntu 20.04 + ROS2 - foxy - desktop

gazebo11

rviz2

## chapter 1 : load neor\_mini urdf file into rviz by ROS2 - foxy

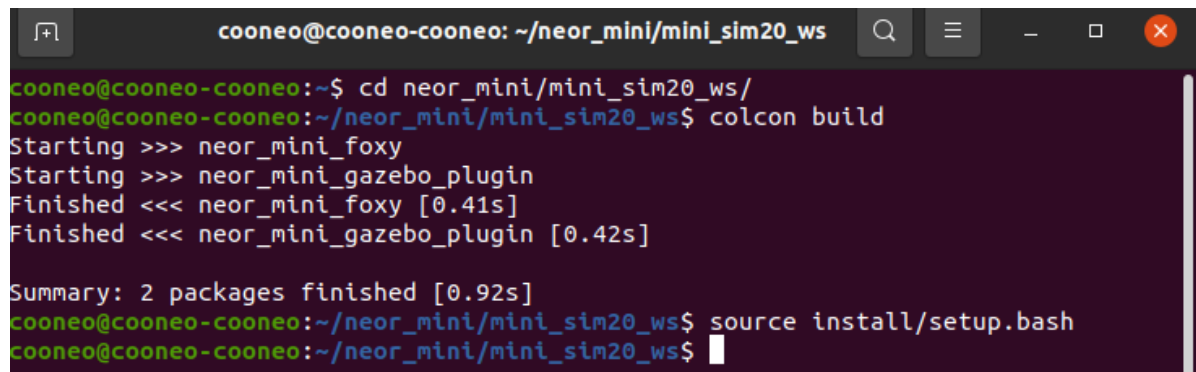
### Step 1 : down load code && compile its.

```
# after download neor_mini_foxy project.
cd neor_mini/mini_sim20_ws

# auto install dependence packages by packages.xml file or one by one by your hand
rosdep install -i --from-path src --rosdistro foxy -y

# compile ROS packages
colcon build

# wait a moment && source ROS workspace
source install/setup.bash
```

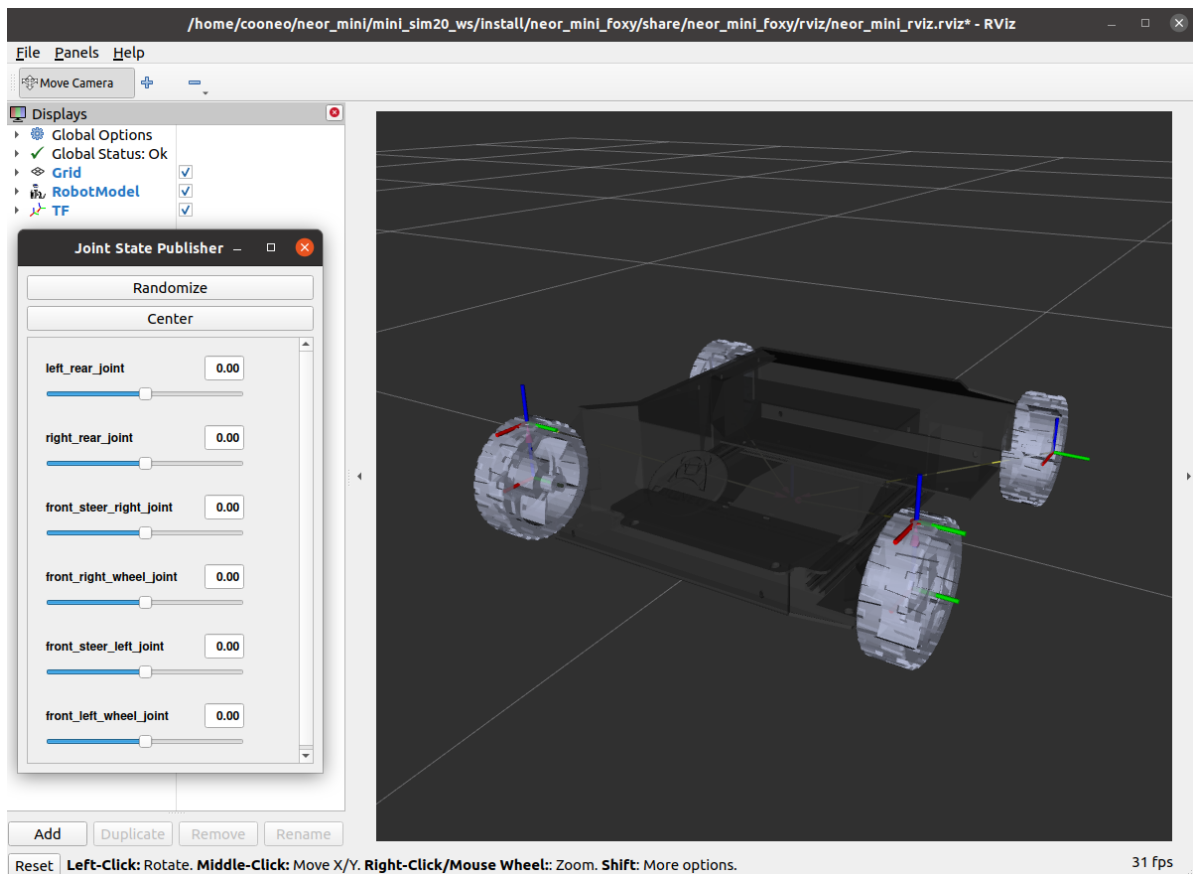
A terminal window titled 'cooneo@cooneo-cooneo: ~/neor\_mini/mini\_sim20\_ws' showing the execution of Step 1. The user runs 'cd neor\_mini/mini\_sim20\_ws/' and 'colcon build'. The build process shows 'Starting >>> neor\_mini\_foxy', 'Starting >>> neor\_mini\_gazebo\_plugin', 'Finished <<< neor\_mini\_foxy [0.41s]', and 'Finished <<< neor\_mini\_gazebo\_plugin [0.42s]'. A summary states 'Summary: 2 packages finished [0.92s]'. Finally, the user runs 'source install/setup.bash' and the prompt returns to the shell.

```
cooneo@cooneo-cooneo: ~/neor_mini/mini_sim20_ws
cooneo@cooneo-cooneo:~$ cd neor_mini/mini_sim20_ws/
cooneo@cooneo-cooneo:~/neor_mini/mini_sim20_ws$ colcon build
Starting >>> neor_mini_foxy
Starting >>> neor_mini_gazebo_plugin
Finished <<< neor_mini_foxy [0.41s]
Finished <<< neor_mini_gazebo_plugin [0.42s]

Summary: 2 packages finished [0.92s]
cooneo@cooneo-cooneo:~/neor_mini/mini_sim20_ws$ source install/setup.bash
cooneo@cooneo-cooneo:~/neor_mini/mini_sim20_ws$
```

### Step 2 : launch file && load neor\_mini urdf into rviz2

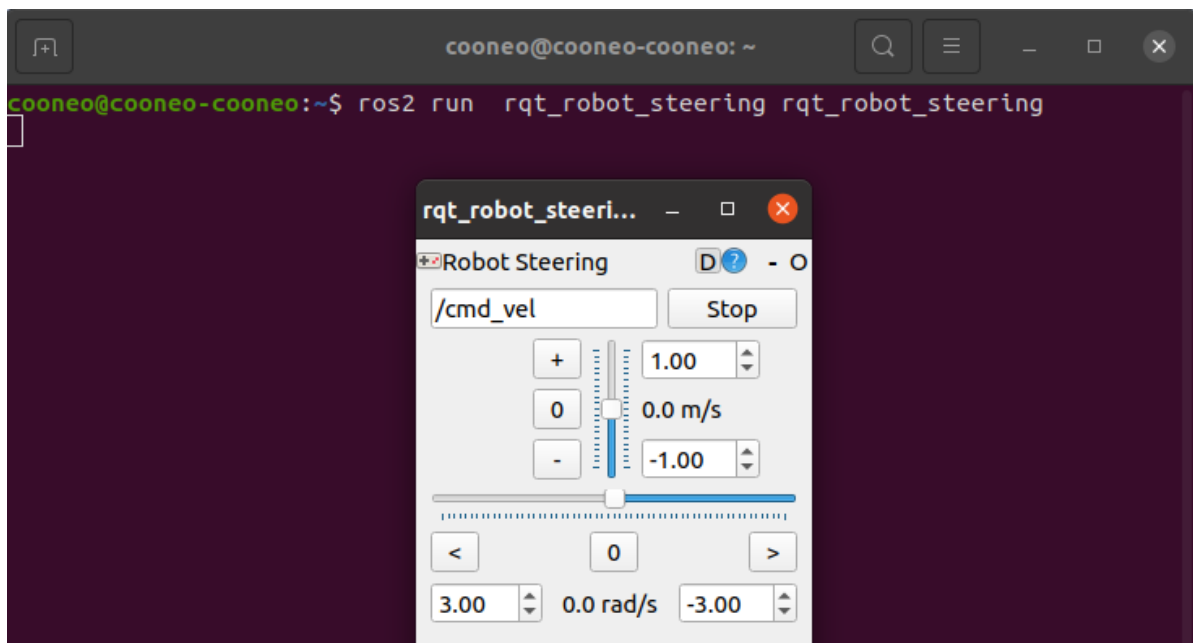
```
# Terminal same as up
ros2 launch neor_mini_foxy display.launch.py
```



## chapter 2 : load neor\_mini urdf file into gazebo11 & drive it by topics

### Step 1 : launch rqt\_robot\_steering ROS node

```
# open a new terminal
ros2 run rqt_robot_steering rqt_robot_steering
```



## Step 2 : launch file && load neor\_mini into gazebo11 and drive it.

```
# open a new terminal
cd neor_mini/mini_sim20_ws
colcon build
source install/setup.bash

# launch file
ros2 launch neor_mini_foxy neor_mini_gazebo.launch.py
```

```
cooneo@cooneo-cooneo: ~/neor_mini/mini_sim20_ws
cooneo@cooneo-cooneo:~$ cd neor_mini/mini_sim20_ws/
cooneo@cooneo-cooneo:~/neor_mini/mini_sim20_ws$ colcon build
Starting >>> neor_mini_foxy
Starting >>> neor_mini_gazebo_plugin
Finished <<< neor_mini_foxy [0.41s]
Finished <<< neor_mini_gazebo_plugin [0.56s]

Summary: 2 packages finished [1.07s]
cooneo@cooneo-cooneo:~/neor_mini/mini_sim20_ws$ source install/setup.bash
cooneo@cooneo-cooneo:~/neor_mini/mini_sim20_ws$ ros2 launch neor_mini_foxy neor_mini_gazebo.launch.py
```

