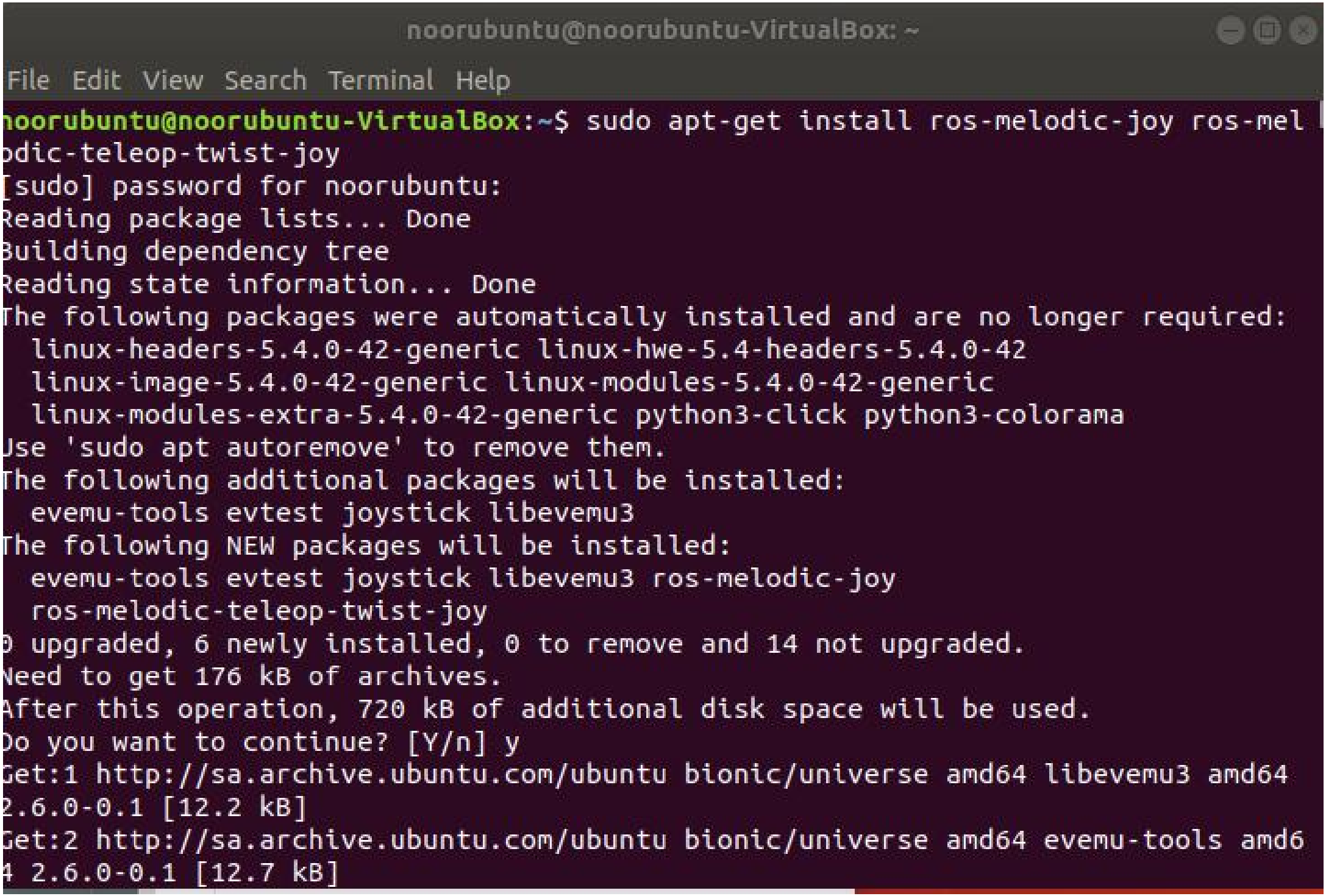
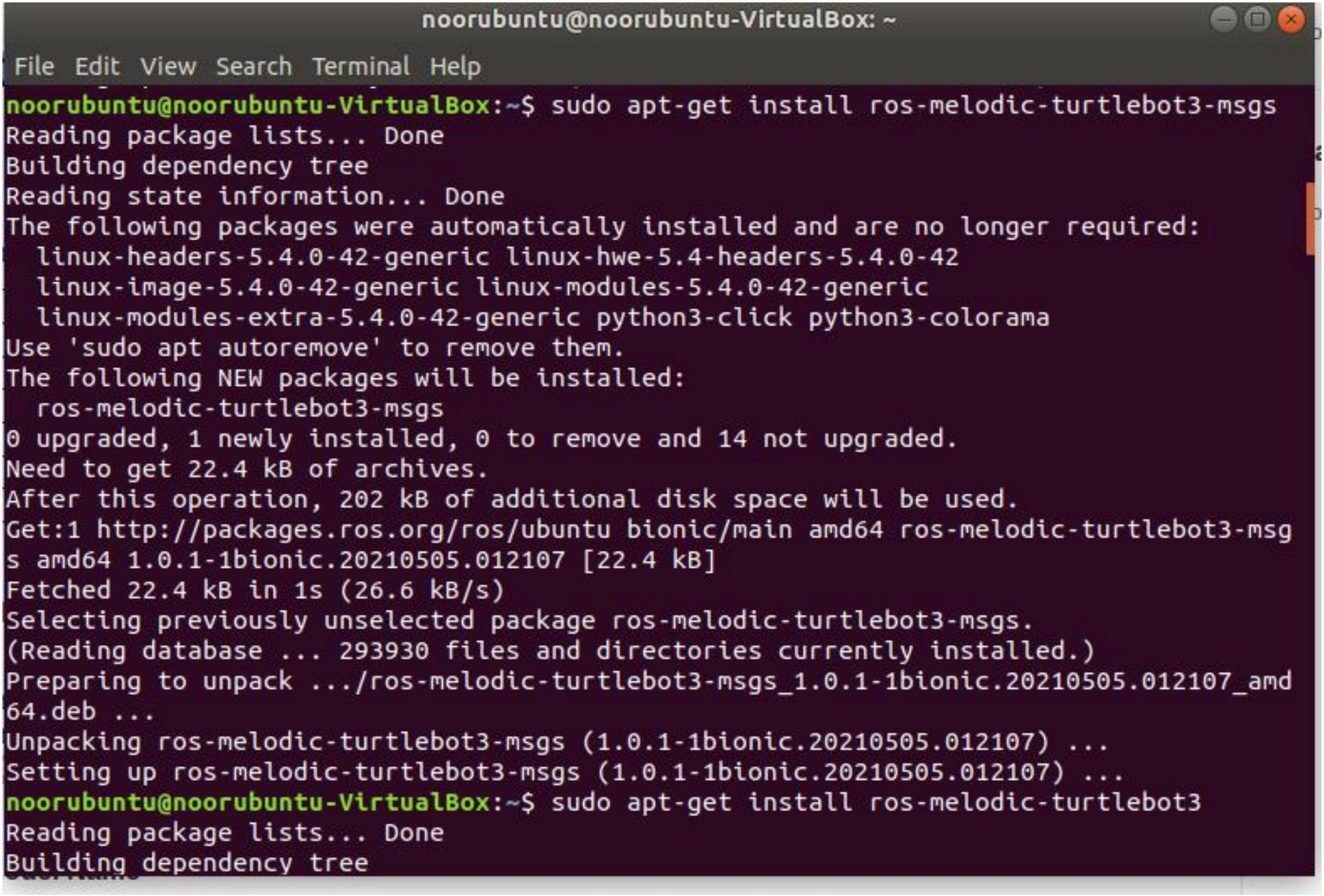
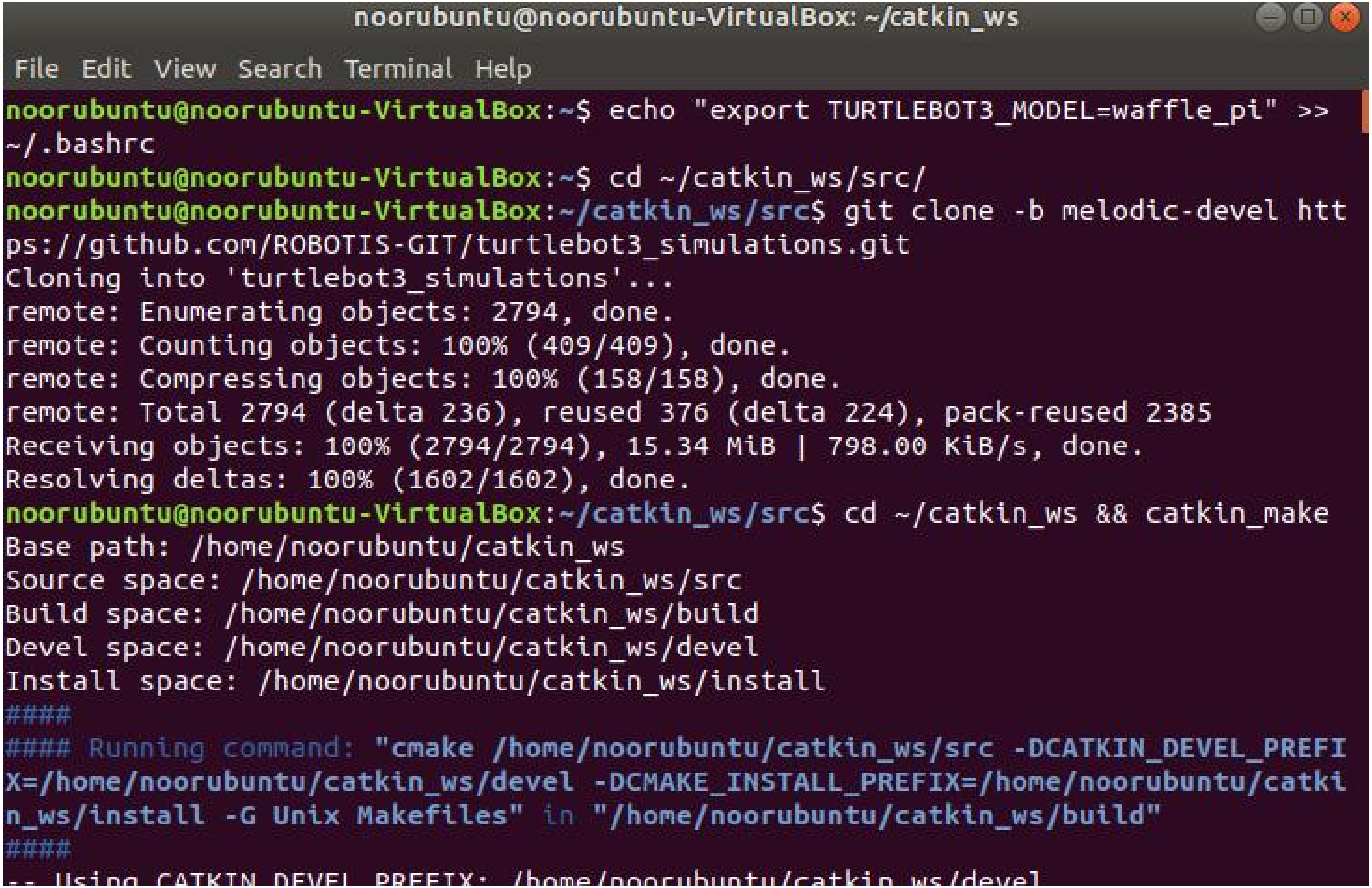
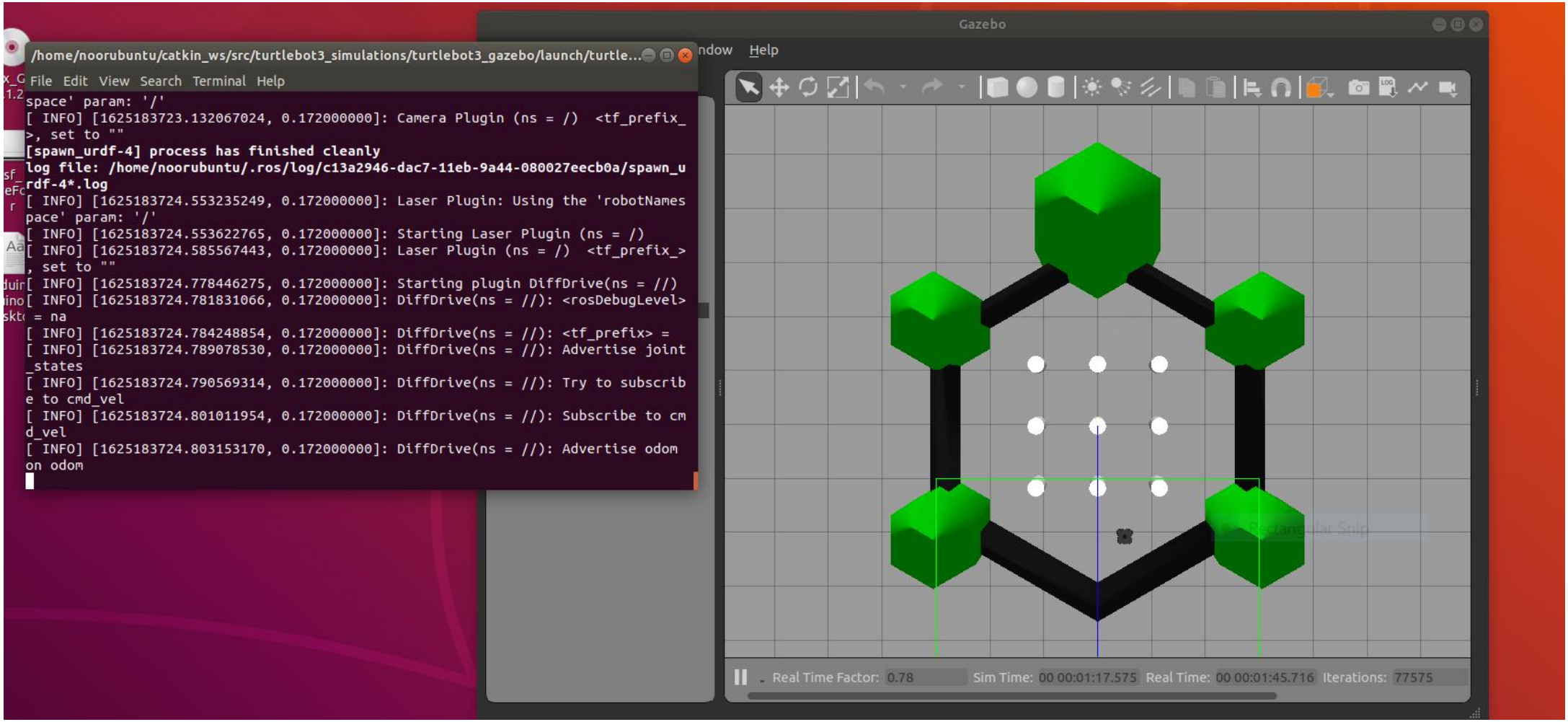
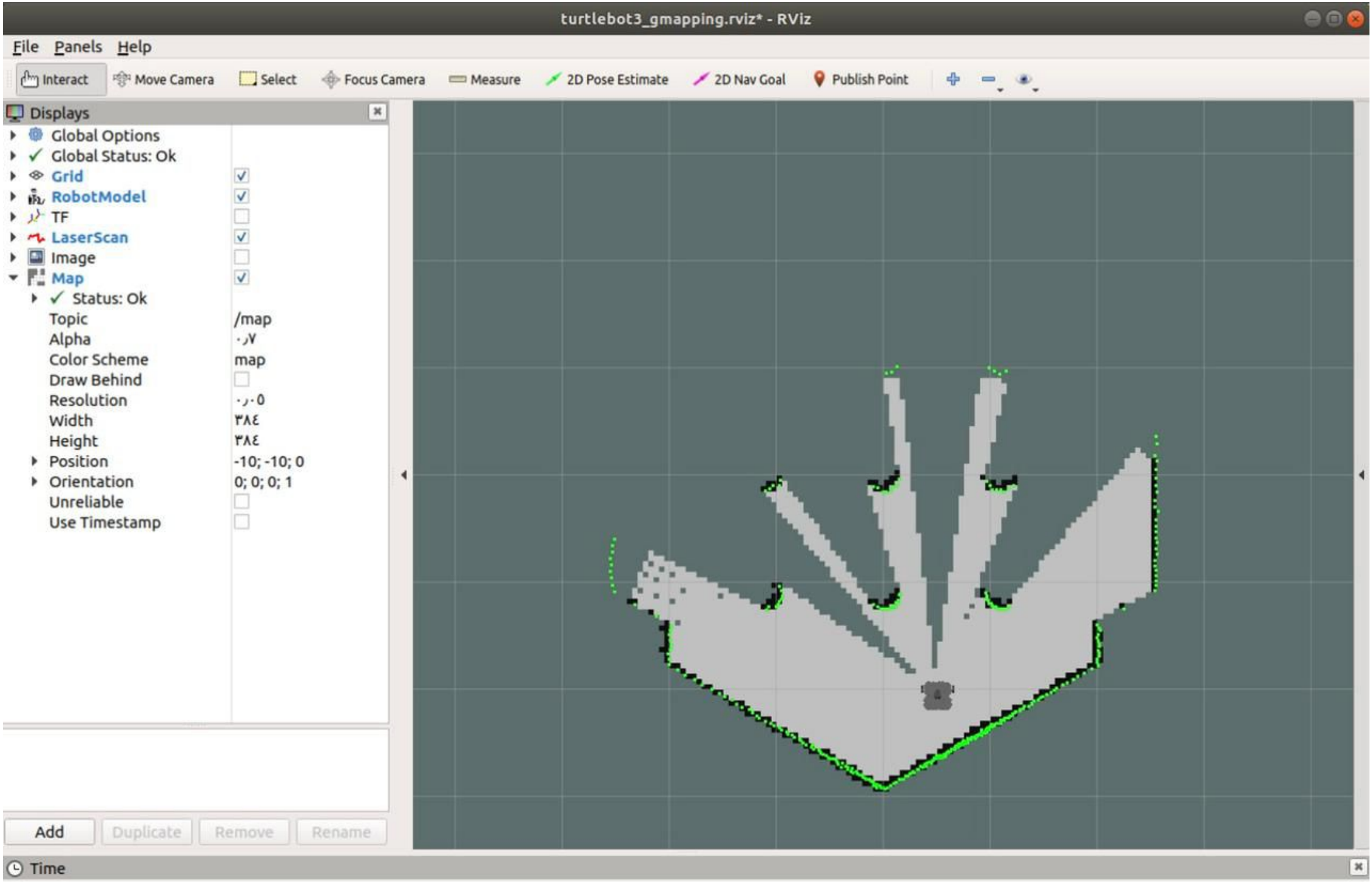

noorubuntu@noorubuntu-VirtualBox: ~
File Edit View Search Terminal Help
noorubuntu@noorubuntu-VirtualBox:~$ sudo apt-get install ros-melodic-joy ros-mel
odic-teleop-twist-joy
[sudo] password for noorubuntu:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
linux-headers-5.4.0-42-generic linux-hwe-5.4-headers-5.4.0-42
linux-image-5.4.0-42-generic linux-modules-5.4.0-42-generic
linux-modules-extra-5.4.0-42-generic python3-click python3-colorama
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
evemu-tools evtest joystick libevemu3
The following NEW packages will be installed:
evemu-tools evtest joystick libevemu3 ros-melodic-joy
ros-melodic-teleop-twist-joy
0 upgraded, 6 newly installed, 0 to remove and 14 not upgraded.
Need to get 176 kB of archives.
After this operation, 720 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://sa.archive.ubuntu.com/ubuntu bionic/universe amd64 libevemu3 amd64
2.6.0-0.1 [12.2 kB]
Get:2 http://sa.archive.ubuntu.com/ubuntu bionic/universe amd64 evemu-tools amd6
4 2.6.0-0.1 [12.7 kB]

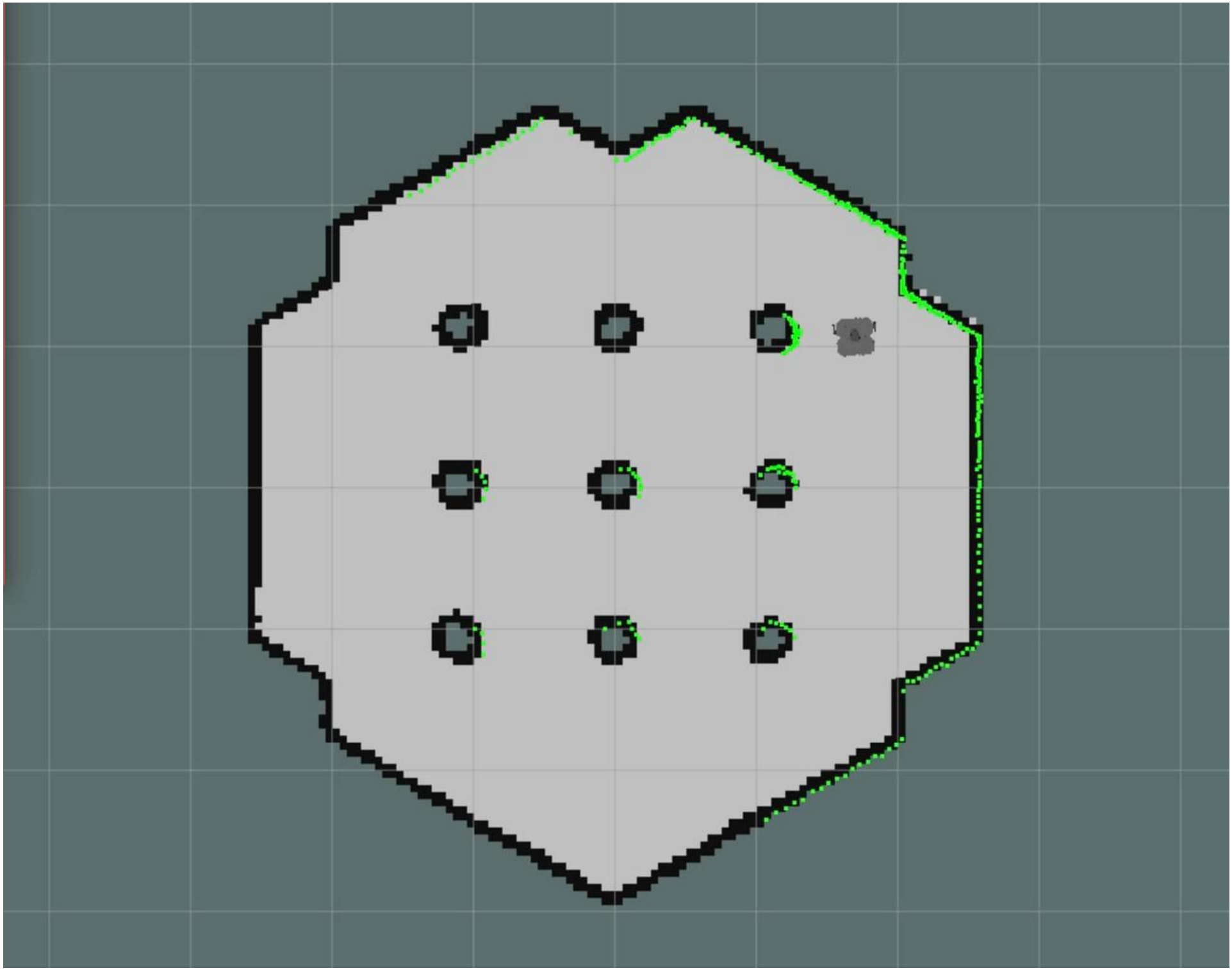

noorubuntu@noorubuntu-VirtualBox: ~
File Edit View Search Terminal Help
noorubuntu@noorubuntu-VirtualBox:~$ sudo apt-get install ros-melodic-turtlebot3-msgs
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
linux-headers-5.4.0-42-generic linux-hwe-5.4-headers-5.4.0-42
linux-image-5.4.0-42-generic linux-modules-5.4.0-42-generic
linux-modules-extra-5.4.0-42-generic python3-click python3-colorama
Use 'sudo apt autoremove' to remove them.
The following NEW packages will be installed:
ros-melodic-turtlebot3-msgs
0 upgraded, 1 newly installed, 0 to remove and 14 not upgraded.
Need to get 22.4 kB of archives.
After this operation, 202 kB of additional disk space will be used.
Get:1 http://packages.ros.org/ros/ubuntu bionic/main amd64 ros-melodic-turtlebot3-msgs amd64 1.0.1-1bionic.20210505.012107 [22.4 kB]
Fetched 22.4 kB in 1s (26.6 kB/s)
Selecting previously unselected package ros-melodic-turtlebot3-msgs.
(Reading database ... 293930 files and directories currently installed.)
Preparing to unpack .../ros-melodic-turtlebot3-msgs_1.0.1-1bionic.20210505.012107_amd64.deb ...
Unpacking ros-melodic-turtlebot3-msgs (1.0.1-1bionic.20210505.012107) ...
Setting up ros-melodic-turtlebot3-msgs (1.0.1-1bionic.20210505.012107) ...
noorubuntu@noorubuntu-VirtualBox:~$ sudo apt-get install ros-melodic-turtlebot3
Reading package lists... Done
Building dependency tree

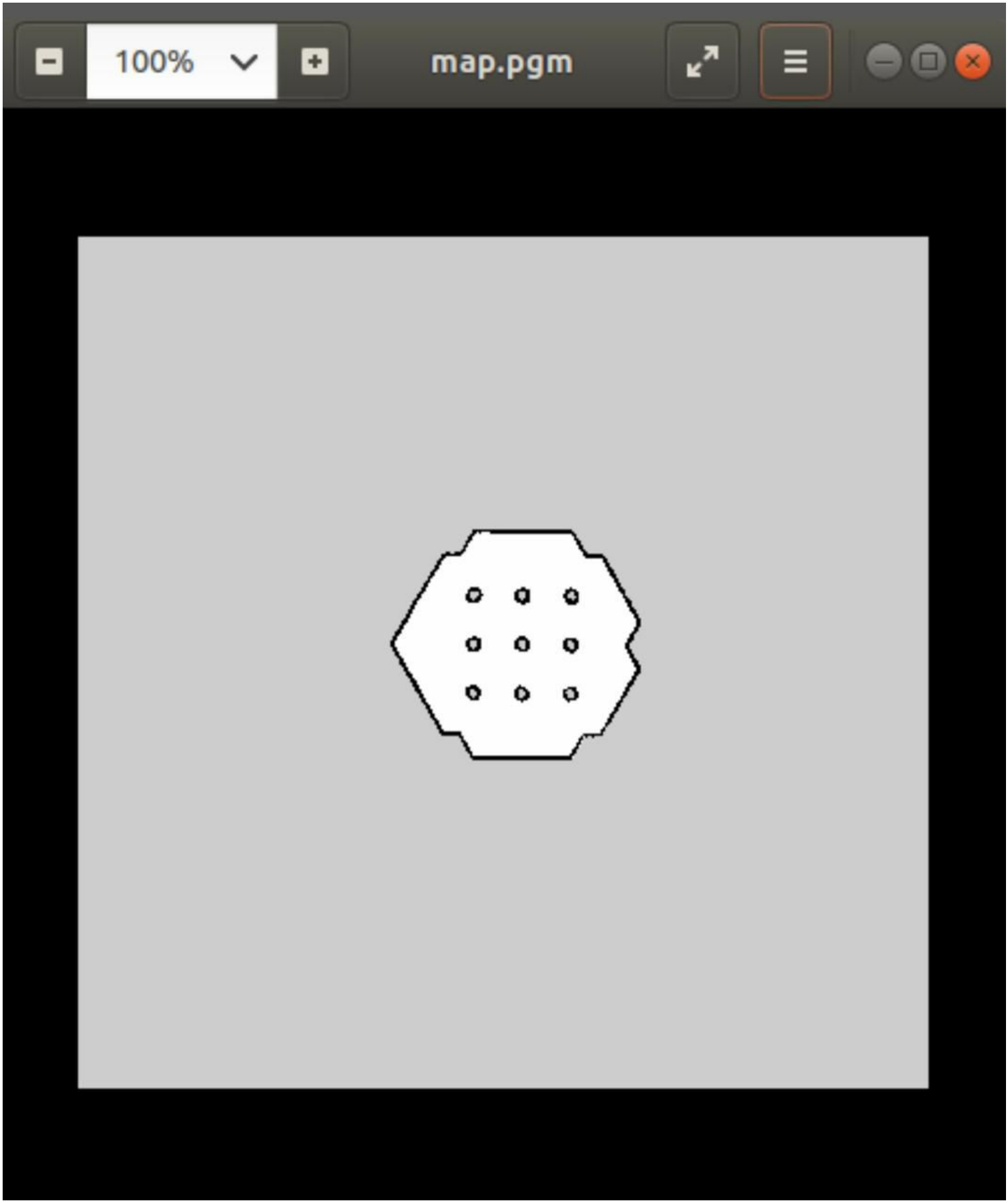

noorubuntu@noorubuntu-VirtualBox: ~/catkin_ws
File Edit View Search Terminal Help
noorubuntu@noorubuntu-VirtualBox:~$ echo "export TURTLEBOT3_MODEL=waffle_pi" >>
~/.bashrc
noorubuntu@noorubuntu-VirtualBox:~$ cd ~/catkin_ws/src/
noorubuntu@noorubuntu-VirtualBox:~/catkin_ws/src$ git clone -b melodic-devel htt
ps://github.com/ROBOTIS-GIT/turtlebot3_simulations.git
Cloning into 'turtlebot3_simulations'...
remote: Enumerating objects: 2794, done.
remote: Counting objects: 100% (409/409), done.
remote: Compressing objects: 100% (158/158), done.
remote: Total 2794 (delta 236), reused 376 (delta 224), pack-reused 2385
Receiving objects: 100% (2794/2794), 15.34 MiB | 798.00 KiB/s, done.
Resolving deltas: 100% (1602/1602), done.
noorubuntu@noorubuntu-VirtualBox:~/catkin_ws/src$ cd ~/catkin_ws && catkin_make
Base path: /home/noorubuntu/catkin_ws
Source space: /home/noorubuntu/catkin_ws/src
Build space: /home/noorubuntu/catkin_ws/build
Devel space: /home/noorubuntu/catkin_ws/devel
Install space: /home/noorubuntu/catkin_ws/install
####
Running command: "cmake /home/noorubuntu/catkin_ws/src -DCATKIN_DEVEL_PREFI
X=/home/noorubuntu/catkin_ws/devel -DCMAKE_INSTALL_PREFIX=/home/noorubuntu/catki
n_ws/install -G Unix Makefiles" in "/home/noorubuntu/catkin_ws/build"
####
-- Using CATKIN_DEVEL_PREFIX: /home/noorubuntu/catkin_ws/devel

```
/home/noorubuntu/catkin_ws/src/turtlebot3_simulations/turtlebot3_gazebo/launch/turtle...
File  Edit  View  Search  Terminal  Help
noorubuntu@noorubuntu-VirtualBox:~/catkin_ws$ export TURTLEBOT3_MODEL=waffle_pi
noorubuntu@noorubuntu-VirtualBox:~/catkin_ws$ roslaunch turtlebot3_gazebo turtle
bot3_world.launch
... logging to /home/noorubuntu/.ros/log/c13a2946-dac7-11eb-9a44-080027eecb0a/ro
slaunch-noorubuntu-VirtualBox-7894.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.

started roslaunch server http://noorubuntu-VirtualBox:33533/

SUMMARY
========

PARAMETERS
 * /gazebo/enable_ros_network: True
 * /robot_description: <?xml version="1....
 * /rosdistro: melodic
 * /rosversion: 1.14.11
 * /use_sim_time: True

NODES
  /
    gazebo (gazebo_ros/gzserver)
```


/home/noorubuntu/catkin_ws/src/turtlebot3_simulations/turtlebot3_gazebo/launch/turtle...
File Edit View Search Terminal Help
space' param: '/'
[INFO] [1625183723.132067024, 0.172000000]: Camera Plugin (ns = /) <tf_prefix_
>, set to ""
[spawn_urdf-4] process has finished cleanly
log file: /home/noorubuntu/.ros/log/c13a2946-dac7-11eb-9a44-080027eecb0a/spawn_u
rdf-4*.log
[INFO] [1625183724.553235249, 0.172000000]: Laser Plugin: Using the 'robotNames
pace' param: '/'
[INFO] [1625183724.553622765, 0.172000000]: Starting Laser Plugin (ns = /)
[INFO] [1625183724.585567443, 0.172000000]: Laser Plugin (ns = /) <tf_prefix_>
, set to ""
[INFO] [1625183724.778446275, 0.172000000]: Starting plugin DiffDrive(ns = //)
[INFO] [1625183724.781831066, 0.172000000]: DiffDrive(ns = //): <rosDebugLevel>
= na
[INFO] [1625183724.784248854, 0.172000000]: DiffDrive(ns = //): <tf_prefix> =
[INFO] [1625183724.789078530, 0.172000000]: DiffDrive(ns = //): Advertise joint
_states
[INFO] [1625183724.790569314, 0.172000000]: DiffDrive(ns = //): Try to subscrib
e to cmd_vel
[INFO] [1625183724.801011954, 0.172000000]: DiffDrive(ns = //): Subscribe to cm
d_vel
[INFO] [1625183724.803153170, 0.172000000]: DiffDrive(ns = //): Advertise odom
on odom
Gazebo
ndow Help
Real Time Factor: 0.78 Sim Time: 00 00:01:17.575 Real Time: 00 00:01:45.716 Iterations: 77575


turtlebot3_gmapping.rviz* - RViz
File Panels Help
Interact
Move Camera
Select
Focus Camera
Measure
2D Pose Estimate
2D Nav Goal
Publish Point
Displays
Global Options
Global Status: Ok
Grid
RobotModel
TF
LaserScan
Image
Map
Status: Ok
Topic /map
Alpha ٠٫٧
Color Scheme map
Draw Behind
Resolution ٠٫٠٥
Width ٣٨٤
Height ٣٨٤
Position -10; -10; 0
Orientation 0; 0; 0; 1
Unreliable
Use Timestamp
Add
Duplicate
Remove
Rename
Time




100%
map.pgm