

TurtlesimDemo1_Noetic_Foxy_8_22_2022 Brief

ROS1 Turtlesim

ROS2 Turtlesim

08/22/2022 **ROS1 Turtlesim** Cheat Sheet pages (PG) in book *ROS Robotics By Example 2nd*, Fairchild and Harman (Cntl+Windows Arrows to shift page location)

<https://www.packtpub.com/hardware-and-creative/ros-robotics-example-second-edition>

harman@harman-VirtualBox:~\$ noetic

\$ cd catkin_ws

1. \$ roscore (PG 19 leave running but minimize)

2. 2nd Terminal

3. \$ rosruntime turtlesim turtlesim_node PG 19 -20
(See the turtle with Blue Background – leave terminal window running and view turtle)

4. 3rd Terminal

\$ rosnode info turtlesim (Determine node information) PG 21-23

```
tlharmanphd@D125-43873:~$ rosnode info turtlesim
```

```
-----  
Node [/turtlesim]
```

```
Publications:
```

- * /turtle1/color_sensor [turtlesim/Color]
- * /rosout [roscpp_msgs/Log]
- * /turtle1/pose [turtlesim/Pose]

```
Subscriptions:
```

- * /turtle1/cmd_vel [unknown type]

```
Services:
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- * /turtle1/teleport_absolute
- * /turtlesim/get_loggers
- * /turtlesim/set_logger_level
- * /reset (Back to center position)
- * /spawn
- * /clear
- * /turtle1/set_pen
- * /turtle1/teleport_relative

* /kill

contacting node http://D125-43873:41890/ ...

Pid: 7420

Connections:

* topic: /rosout

* to: /rosout

* direction: outbound

* transport: TCPROS

\$ roslaunch ros_robotics turtlesim_teleop.launch

Use arrow keys to move the turtle.

Up arrow Turtle up

Down arrow Turtle down

Right arrow Rotate CW

Left arrow Rotate CCW

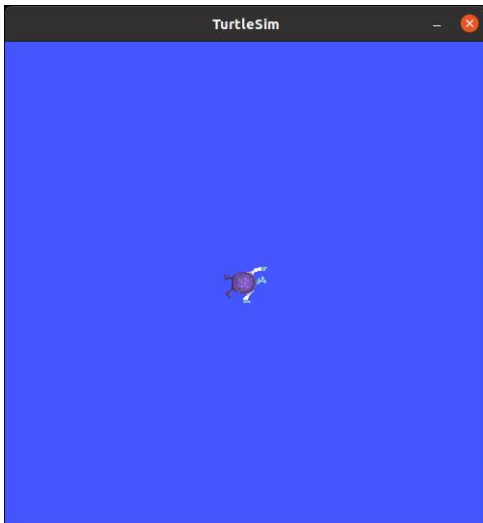
----- ROS2 Foxy

08/21/22 ROS2 Turtlesim

Alias foxy or noetic

harman@harman-VirtualBox:~\$ foxy

harman@harman-VirtualBox:~\$ ros2 run turtlesim turtlesim_node



```
[INFO] [1661122162.739460001] [turtlesim]: Starting turtlesim with node name /turtlesim
[INFO] [1661122162.744957816] [turtlesim]: Spawning turtle [turtle1] at x=[5.544445],
y=[5.544445], theta=[0.000000]
```

(New Terminal)

Alias foxy or noetic

harman@harman-VirtualBox:~\$ foxy (New Terminal)

harman@harman-VirtualBox:~\$ ros2 node info /turtlesim

/turtlesim

Subscribers:

/parameter_events: rcl_interfaces/msg/ParameterEvent

/turtle1/cmd_vel: geometry_msgs/msg/Twist

Publishers:

/parameter_events: rcl_interfaces/msg/ParameterEvent

/rosout: rcl_interfaces/msg/Log

/turtle1/color_sensor: turtlesim/msg/Color

/turtle1/pose: turtlesim/msg/Pose

Service Servers:

/clear: std_srvs/srv/Empty
/kill: turtlesim/srv/Kill
/reset: std_srvs/srv/Empty
/spawn: turtlesim/srv/Spawn
/turtle1/set_pen: turtlesim/srv/SetPen
/turtle1/teleport_absolute: turtlesim/srv/TeleportAbsolute
/turtle1/teleport_relative: turtlesim/srv/TeleportRelative
/turtlesim/describe_parameters: rcl_interfaces/srv/DescribeParameters
/turtlesim/get_parameter_types: rcl_interfaces/srv/GetParameterTypes
/turtlesim/get_parameters: rcl_interfaces/srv/GetParameters
/turtlesim/list_parameters: rcl_interfaces/srv/ListParameters
/turtlesim/set_parameters: rcl_interfaces/srv/SetParameters
/turtlesim/set_parameters_atomically: rcl_interfaces/srv/SetParametersAtomically

Service Clients:

Action Servers:

/turtle1/rotate_absolute: turtlesim/action/RotateAbsolute

Action Clients:

Alias foxy or noetic

harman@harman-VirtualBox:~\$ foxy

harman@harman-VirtualBox:~\$ ros2 run turtlesim turtle_teleop_key

Reading from keyboard

FOCUS ON ROS2 RUN TELEOP WINDOW!!

Use arrow keys to move the turtle.

Use G|B|V|C|D|E|R|T keys to rotate to absolute orientations. 'F' to cancel a rotation.
'Q' to quit