Turtlesim TurtleBot remap 02/02/18

harman@D104-45931:~$ **roscore**

harman@D104-45931:~$ **rosrun turtlesim turtlesim_node**

harman@D104-45931:~$ **cd Desktop**
harman@D104-45931:~/Desktop$ **ls | grep py**
go_in_circleTurtlesim.py

Run Turtlesim in a circle:

harman@D104-45931:~/Desktop$ **python go_in_circleTurtlesim.py**
[INFO] [1517603612.336740]: Press CTRL+c to stop Turtlesim
[INFO] [1517603612.337787]: Set rate 10Hz
^C[INFO] [1517603625.581991]: Stopping Turtlesim

go_in_circleTurtlesim.py move_cmd.linear.x = 0.5 m/s move_cmd.angular.z = 0.5 r/s

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#!/usr/bin/env python   go_in_circleTurtlesim.py
# Execute as a python script
# Set linear and angular values of Turtlesim's speed and turning.
import rospy                                # Needed to create a ROS node
from geometry_msgs.msg import Twist    # Message that moves base

class ControlTurtlesim():
   def __init__(self):
      # ControlTurtlesim is the name of the node sent to the master
      rospy.init_node('ControlTurtlesim', anonymous=False)

                  # Message to screen
      rospy.loginfo(" Press CTRL+c to stop Turtlesim")

      # Keys CNTL + c will stop script
      rospy.on_shutdown(self.shutdown)

         # Publisher will send Twist message on topic
      # /turtle1/cmd_vel   This is for Turtlesim only

      self.cmd_vel = rospy.Publisher('/turtle1/cmd_vel', Twist, queue_size=10)

            # Turtlesim will receive the message 10 times per second.
      rate = rospy.Rate(10);
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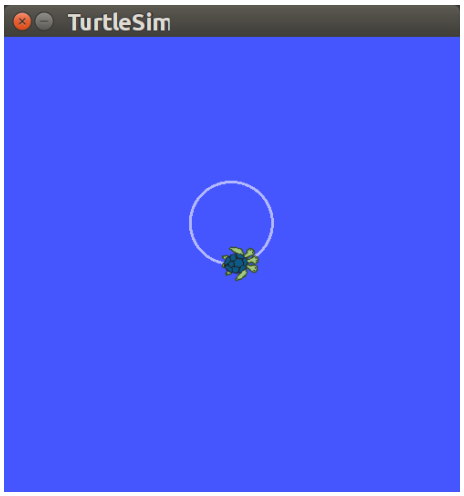
        # 10 Hz is fine as long as the processing does not exceed
    #   1/10 second.
    rospy.loginfo(" Set rate 10Hz")
    # Twist is geometry_msgs for linear and angular velocity
    move_cmd = Twist()
        # Linear speed in x in meters/second is + (forward) or
    # - (backwards)
    move_cmd.linear.x = 0.5         # Modify this value to change speed
        # Turn at 0.5 radians/s
    move_cmd.angular.z = 0.5
    # Modify this value to cause rotation rad/s

        # Loop and Turtlesim will move until you type CNTL+c
    while not rospy.is_shutdown():
            # publish Twist values to the Turtlesim node /cmd_vel
      self.cmd_vel.publish(move_cmd)
            # wait for 0.1 seconds (10 HZ) and publish again
      rate.sleep()


  def shutdown(self):
    # You can stop turtlesim by publishing an empty Twist message
    rospy.loginfo("Stopping Turtlesim")

    self.cmd_vel.publish(Twist())
        # Give Turtlesim time to stop
    rospy.sleep(1)

if __name__ == '__main__':
  try:
    ControlTurtlesim()
  except:
    rospy.loginfo("End of the trip for Turtlesim")
```



Let’s try TurtleBot Remap /turtle1/cmd_vel To cmd_vel_mux/input/navi (Book Page103)

harman@D104-45931:~/Desktop$ **roslaunch turtlebot_gazebo turtlebot_world.launch**

harman@D104-45931:~/Desktop$ **ls | grep py**
go_in_circleTurtlesim.py

Use Turtlesim Code Remapped
harman@D104-45931:~/Desktop$ **python go_in_circleTurtlesim.py /turtle1/cmd_vel:=cmd_vel_mux/input/navi**
[INFO] [1517604599.364039, 0.000000]: Press CTRL+c to stop Turtlesim
[INFO] [1517604599.366276, 0.000000]: Set rate 10Hz
^C[INFO] [1517604651.589054, 441.280000]: Stopping Turtlesim
[INFO] [1517604652.705720, 442.280000]: End of the trip for Turtlesim