

Task 10:

Control Rover using Teleop Commands

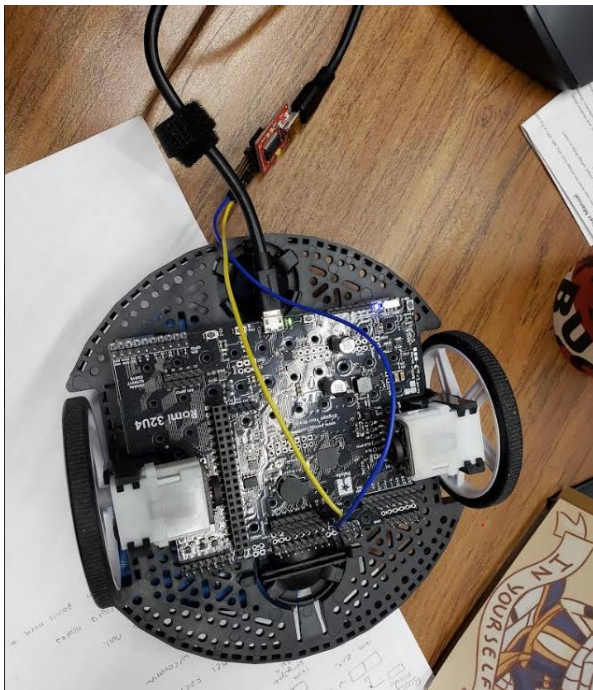
Video:

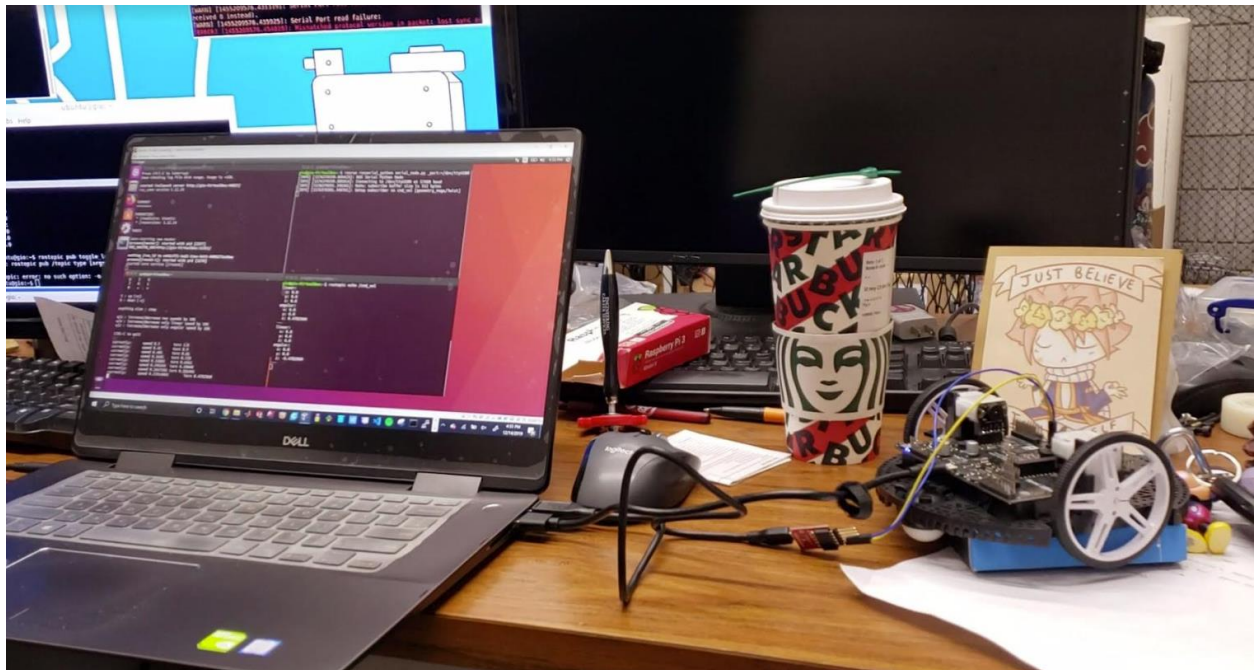
https://www.youtube.com/watch?v=dqVmhy_WNGQ

Steps:

- 1.) Make sure to have the latest Arduino Software installed with respected libraries and drivers installed for the Romi32U4
- 2.) Download the “Romi-pi Master” code from git hub
- 3.) Load it onto the board, make sure preferences, board, and port are correct. We had to use a FTDI.
- 4.) Open four terminals on ROS
 - a. Terminal 1: Run roscore
 - b. Terminal 2: `roslaunch rosserial_python serial_node.py _port:=/dev/ttyUSB0`
 - c. Terminal 3: `roslaunch teleop_twist_keyboard teleop_twist_keyboard.py`
 - d. Terminal 4: `rostopic echo /cmd_vel`
- 5.) After commands have been pressed. You can run the rover left, right, forward, backward, and stop it using keyboard commands.

Setup:





Commands:

```

PARAMETERS
* /roscpp: kinetic
* /roscpp: 1.12.14

NODES
auto-starting new master
process[master]: started with pid [2257]
ROS_MASTER_URI=http://gio-VirtualBox:11311/

setting /run_id to e442c772-1ed2-11ea-b615-0000273c69ee
process[roscout-1]: started with pid [2270]
started core service [/roscout]

gio@gio-VirtualBox:~$ rosrun teleop_twist_keyboard teleop_twist_keyboard.py
Reading from the keyboard and Publishing to Twist!

Moving around:
    u    l    o
    j    k    i
    m    ,    .

For Holonomic mode (strafing), hold down the shift key:
    U    I    O
    J    K    L
    M    <    >

t : up (+z)
b : down (-z)
anything else : stop

q/z : increase/decrease max speeds by 10%
w/x : increase/decrease only linear speed by 10%
e/c : increase/decrease only angular speed by 10%

gio@gio-VirtualBox:~$ rostopic echo /cmd_vel

```