

Here's the Github Link of the Codes of Publisher and Subscriber:

1) Talker File:

https://github.com/KraKE-bit/ALTAIR_RECruit/blob/main/Week-3/ROS_Tasks/src/my_robot_controller/my_robot_controller/talker.py

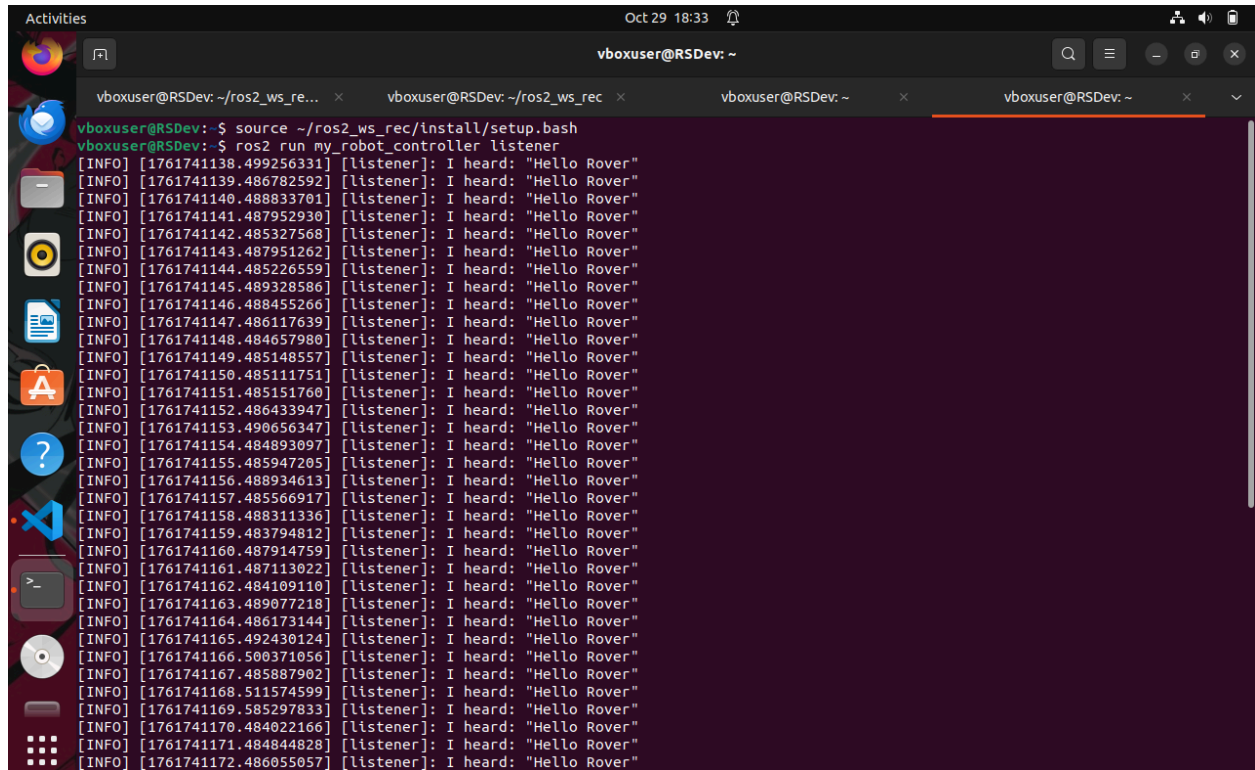
2) Subscriber File:

https://github.com/KraKE-bit/ALTAIR_RECruit/blob/main/Week-3/ROS_Tasks/src/my_robot_controller/my_robot_controller/listener.py

What's happening is that:

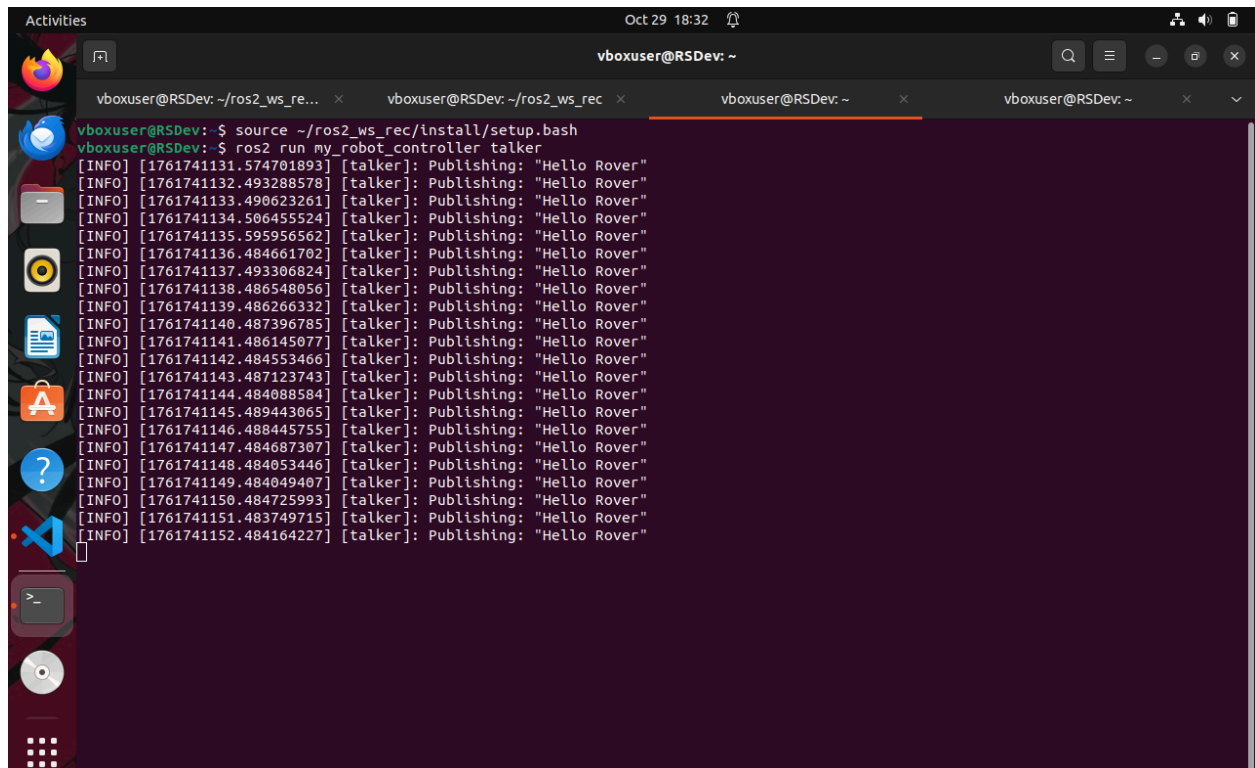
In Terminal-1 I ran the publisher and it sends “**Hello Rover**” every second on a ROS2 topic named **chatter**. In Terminal-2 I ran the subscriber and it listens to that topic and prints the message it receives.

Here's an Image of the Subscriber listening to the Publisher and prints the msg that it receives:

A screenshot of a Linux terminal window titled 'vboxuser@RSDev: ~'. The terminal shows the execution of ROS commands to start a subscriber. The output consists of a series of log messages, each starting with '[INFO]' and a timestamp, followed by '[listener]: I heard: "Hello Rover"'. The messages are repeated 20 times, with timestamps increasing by approximately 0.001 seconds per message. The terminal window has a dark background and a light-colored text. The top of the window shows the system clock as 'Oct 29 18:33' and the user's name 'vboxuser@RSDev: ~'. The left side of the window shows a sidebar with various application icons.

```
vboxuser@RSDev: ~  
vboxuser@RSDev: $ source ~/ros2_ws_rec/install/setup.bash  
vboxuser@RSDev: $ ros2 run my_robot_controller listener  
[INFO] [1761741138.499256331] [listener]: I heard: "Hello Rover"  
[INFO] [1761741139.486782592] [listener]: I heard: "Hello Rover"  
[INFO] [1761741140.488833701] [listener]: I heard: "Hello Rover"  
[INFO] [1761741141.487952930] [listener]: I heard: "Hello Rover"  
[INFO] [1761741142.485327568] [listener]: I heard: "Hello Rover"  
[INFO] [1761741143.487951262] [listener]: I heard: "Hello Rover"  
[INFO] [1761741144.485226559] [listener]: I heard: "Hello Rover"  
[INFO] [1761741145.489328586] [listener]: I heard: "Hello Rover"  
[INFO] [1761741146.488455266] [listener]: I heard: "Hello Rover"  
[INFO] [1761741147.486117639] [listener]: I heard: "Hello Rover"  
[INFO] [1761741148.484657980] [listener]: I heard: "Hello Rover"  
[INFO] [1761741149.485148557] [listener]: I heard: "Hello Rover"  
[INFO] [1761741150.485111751] [listener]: I heard: "Hello Rover"  
[INFO] [1761741151.485151760] [listener]: I heard: "Hello Rover"  
[INFO] [1761741152.486433947] [listener]: I heard: "Hello Rover"  
[INFO] [1761741153.490656347] [listener]: I heard: "Hello Rover"  
[INFO] [1761741154.484893097] [listener]: I heard: "Hello Rover"  
[INFO] [1761741155.485947205] [listener]: I heard: "Hello Rover"  
[INFO] [1761741156.488934613] [listener]: I heard: "Hello Rover"  
[INFO] [1761741157.485566917] [listener]: I heard: "Hello Rover"  
[INFO] [1761741158.488311336] [listener]: I heard: "Hello Rover"  
[INFO] [1761741159.483794812] [listener]: I heard: "Hello Rover"  
[INFO] [1761741160.487914759] [listener]: I heard: "Hello Rover"  
[INFO] [1761741161.487113022] [listener]: I heard: "Hello Rover"  
[INFO] [1761741162.484109110] [listener]: I heard: "Hello Rover"  
[INFO] [1761741163.489077218] [listener]: I heard: "Hello Rover"  
[INFO] [1761741164.486173144] [listener]: I heard: "Hello Rover"  
[INFO] [1761741165.492430124] [listener]: I heard: "Hello Rover"  
[INFO] [1761741166.500371056] [listener]: I heard: "Hello Rover"  
[INFO] [1761741167.485887902] [listener]: I heard: "Hello Rover"  
[INFO] [1761741168.511574599] [listener]: I heard: "Hello Rover"  
[INFO] [1761741169.585297833] [listener]: I heard: "Hello Rover"  
[INFO] [1761741170.484022166] [listener]: I heard: "Hello Rover"  
[INFO] [1761741171.484844828] [listener]: I heard: "Hello Rover"  
[INFO] [1761741172.486055057] [listener]: I heard: "Hello Rover"
```

Here's an Image of the Talker sending "Hello Rover" Every second:



The image shows a Linux desktop environment with a terminal window open. The terminal displays the execution of a ROS2 talker node. The user has sourced the environment and run the command `ros2 run my_robot_controller talker`. The output shows a series of log messages where the talker publishes the string "Hello Rover" at regular intervals, with timestamps increasing by approximately one second per message.

```
vboxuser@RSDev: ~  
vboxuser@RSDev: $ source ~/ros2_ws_rec/install/setup.bash  
vboxuser@RSDev: $ ros2 run my_robot_controller talker  
[INFO] [1761741131.574701893] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741132.493288578] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741133.490623261] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741134.506455524] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741135.595956562] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741136.484661702] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741137.493306824] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741138.486548056] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741139.486266332] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741140.487396785] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741141.486145077] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741142.484553466] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741143.487123743] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741144.484088584] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741145.489443065] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741146.488445755] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741147.484687307] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741148.484053446] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741149.484049407] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741150.484725993] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741151.483749715] [talker]: Publishing: "Hello Rover"  
[INFO] [1761741152.484164227] [talker]: Publishing: "Hello Rover"
```