

## Aula Pratica 4 de ROS

1.- Abrir um terminal

```
>ros2 run turtlesim turtlesim_node
```

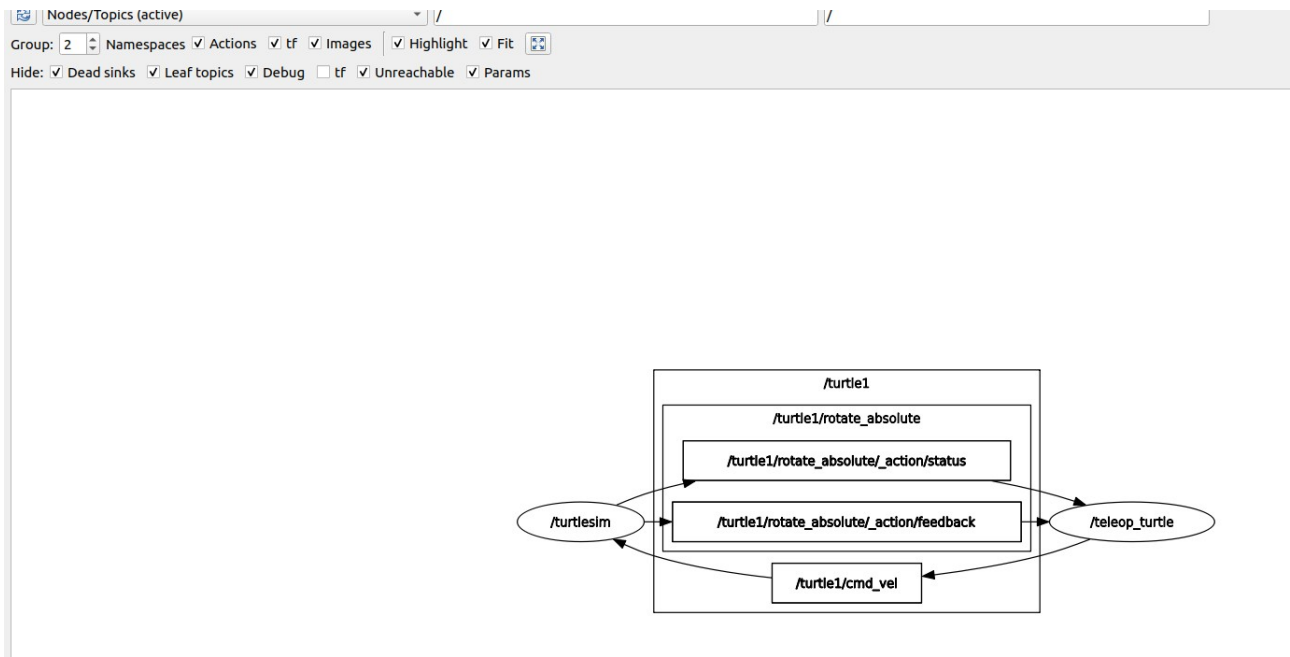
2.-em um novo terminal

```
>ros2 run turtlesim turtle_teleop_key
```

3.-em um terceiro terminal

```
>ros2 run rqt_graph rqt_graph
```

4.-no rqt\_graph, selecionar Nodes/active e load it



5.-Em um quarto terminal

```
>ros2 topic list
```

6.-no quarto terminal

```
>ros2 topic list -t
```

7.-Fazer mover a turtlesim e depois no quarto terminal

```
>ros2 topic echo /turtle1/cmd_vel
```

8.-No quinto terminal

```
>ros2 topic info /turtle1/cmd_vel
```

9.-No quinto terminal

```
>ros2 topic info /turtle1/cmd_vel --verbose
```

10.-No quinto terminal

```
>ros2 interface show geometry_msgs/msg/Twist
```

11.-No quinto termina:

```
>ros2 topic pub /turtle1/cmd_vel geometry_msgs/msg/Twist "{linear: {x: 2.0, y: 0.0, z: 0.0}, angular: {x: 0.0, y: 0.0, z: 1.8}}"
```

12.-No quinto terminal

```
>ros2 topic pub --once -w 2 /turtle1/cmd_vel geometry_msgs/msg/Twist "{linear: {x: 2.0, y: 0.0, z: 0.0}, angular: {x: 0.0, y: 0.0, z: 1.8}}"
```

13.-No quinto terminal

```
>ros2 topic pub /pose geometry_msgs/msg/PoseStamped '{header: "auto", pose: {position: {x: 1.0, y: 2.0, z: 3.0}}}'
```

12.-Abrir um sexto terminal

```
>ros2 topic hz /turtle1/pos
```

13.-Abrir um setimo terminal

```
ros2 topic find geometry_msgs/msg/Twist
```

