**Passos para executar o agente do micro-ROS**

**Referência:** https://micro.ros.org/docs/tutorials/core/first\_application\_rtos/freertos/

1. Instale o ROS2
2. Instale o micro-ROS

*# Source the ROS 2 installation*

source /opt/ros/$ROS\_DISTRO/setup.bash

*# Create a workspace and download the micro-ROS tools*

mkdir microros\_ws

cd microros\_ws

git clone -b $ROS\_DISTRO https://github.com/micro-ROS/micro\_ros\_setup.git src/micro\_ros\_setup

*# Update dependencies using rosdep*

sudo apt update **&&** rosdep update

rosdep install --from-path src --ignore-src -y

*# Install pip*

sudo apt-get install python3-pip

*# Build micro-ROS tools and source them*

colcon build

source install/local\_setup.bash

1. Crie o agente micro-ROS

*# Download micro-ROS-Agent packages*

ros2 run micro\_ros\_setup create\_agent\_ws.sh

1. Construa o pacote do agente

*# Build step*

ros2 run micro\_ros\_setup build\_agent.sh

1. Execute o agente micro-ROS

*# Run a micro-ROS agent*

source install/local\_setup.bash

ros2 run micro\_ros\_agent micro\_ros\_agent serial --dev $(ls /dev/serial/by-id/\*) -b 115200

1. Teste um publisher do micro-ROS (com um subscriber). Em um outro terminal

source /opt/ros/$ROS\_DISTRO/setup.bash

*# Set ROS\_DOMAIN\_ID with the same value set in micro-ROS (line 239, app\_frertos.c)*

export ROS\_DOMAIN\_ID=25

*# Subscribe to micro-ROS joint\_state topic*

ros2 topic echo /joint\_state

1. Teste um subscriber do micro-ROS (com um publisher). Em um outro terminal

*# Set ROS\_DOMAIN\_ID with the same value set in micro-ROS (line 239, app\_frertos.c)*

export ROS\_DOMAIN\_ID=25

*# Publish to micro-ROS /cmd\_vel geometry\_msgs/msg/Twist topic*

ros2 topic pub --rate 20 /cmd\_vel geometry\_msgs/msg/Twist '{linear: {x: 2.0, y: 0.0, z: 0.0}, angular: {x: 0.0, y: 0.0, z: 0.0}}'