

ROS2 Tutorial

Installation and Set-Up:

You will need to work with ROS2 for this tutorial and the assignment. Let's start by installing it. We recommend using a Ubuntu 22.04 machine running ROS2 Humble natively.

If you haven't already, [install an Ubuntu distribution](#) on your laptop and [install ROS2 Humble](#).

First Steps With ROS:

To familiarize yourself with the ROS concepts, do the following tutorials in the language of your choice:

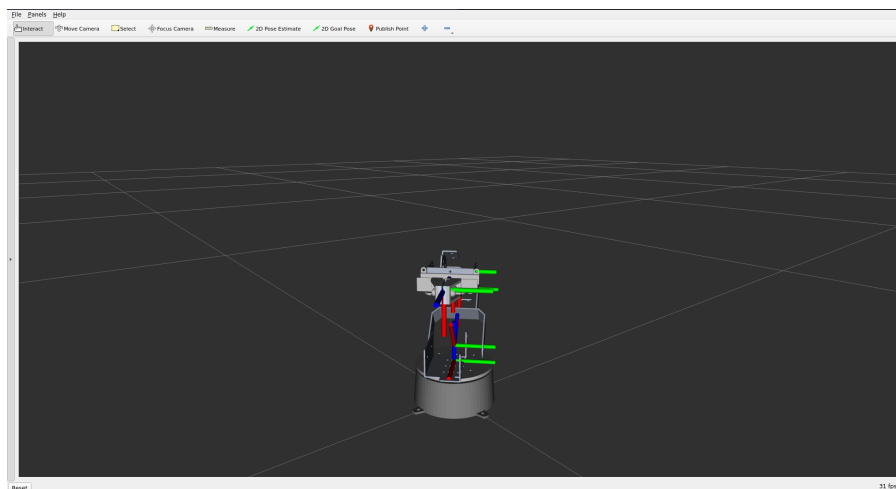
- Simple Publisher - Subscriber
 - [C++](#)
 - [Python](#)
- Simple Service Client - Server
 - [C++](#)
 - [Python](#)

First Steps with the Robot Simulation:

Clone and compile the Robot Simulation repository from [here](#). After compilation and sourcing, you should be able to launch the simulation with the command

```
ros2 launch edubot sim.launch.py
```

This command opens the visualization of the robot in RViz:



In a different terminal, source the Python or C++ workspace and run the example controller with,

```
ros2 run controllers example_traj
```

which causes the robot to take on a sequence of joint states. Familiarize yourself with the code of the example trajectory controller and try to make the robot follow your own set of joint states.