

GSoC-2025 JdeRobot
ROS2 Challenge

Part 1: Introduction to ROS2

a. 'Hello! ROS2 is fun.'

- Create a new ROS2 workspace
- Create ROS2 publisher-subscriber nodes and publish the message 'Hello! ROS2 is fun.'
- Build the package using colcon
- Use ROS2 run for executable

b. Launch your robot

- Choose a ROS2 robot of your choice, install its package
- Visualize the robot's laser scan data rviz2

Part 2: ROS2 Navigation2

a. Navigate your turtlebot

- Install ROS2 Navigation2 and gazebo
- Perform waypoint navigation with turtlebot robot(or any other robot if you wish to). Include at least 3 waypoints in your result video.
- You have freedom to decide how to perform this exercise; the bare minimum results are stated above. If you wish to experiment more, it would be great to showcase.

Instructions:

1. You have to submit a YouTube video containing the results as well as the source code. A nicely documented solution will always be good!
2. It is recommended to use ROS2 Humble