

# Using Turtlebot4

## What is it?

The Turtlebot 4 is the latest addition to the Turtlebot series, which is a popular robotics research and education platform. The Turtlebot 4 shares the same base as the [iRobot Create 3](#) and it is powered by ROS2 (Robot Operating System 2). For reference, iRobot are the creators of the famous [Roomba Robot Vaccums](#).



**What can it do?**

With the onboard OAK-D pro camera and RPLIDAR A1M8 laser range scanner, the Turtlebot 4 is capable of operations such as:

- Mapping and Localization
- Path Planning
- Autonomous Navigation
- Object Recognition

Since this is a robotics platform, you can integrate your own sensor payloads or even a small robotic arm on it and conduct even more interesting applications with it.

## Getting ready to use Turtlebot 4

As of writing this documentation (02/02/2024), the Turtlebot primarily supports [ROS2 Humble](#), therefore please ensure that you have it installed within your system.

### User PC setup

To get your PC/Laptop setup to work with the Turtlebot, please follow the instructions found [here](#)

## Demos/Tutorials

1. [Driving your Turtlebot 4](#)
2. [Generating a map](#)
3. [Navigation](#)

## Additional Resources

- Turtlebot 4 User Manual - [click here](#)
- Turtlebot github page - [click here](#)
- Documentation for iRobot Create 3 - [click here](#)

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