Official ROS Packages:

- 1. gmapping demo.launch file, you can easily perform SLAM and build a map of the environment with a robot equipped with laser range finder sensors or RGB-D cameras.
- 2. <u>turtlebot_teleop:</u> With the keyboard_teleop.launch file, you can manually control a robot using keyboard commands.
- 3. <u>turtlebot_rviz_launchers:</u> With the view_navigation.launch file, you can load a preconfigured rviz workspace. You'll save a lot of time by launching this file, because it will automatically load the robot model, trajectories, and map for you.
- 4. <u>turtlebot_gazebo:</u> With the turtlebot_world.launch you can deploy a turtlebot in a gazebo environment by linking the world file to it.

Additional nodes:

- wall_follower node: drives the robot autonomously to map the world
- <u>pick_objects node:</u> robot moves to desired position, picks up an object and delivers it to the desired drop off zone
- <u>add_markers node:</u> node subscribes to robot's odometry, keeps track of the robot's pose and publishes markers to rviz.