

## Guide to these Notes:

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These notes have accompanying code in: [https://github.com/wsnewman/ros\\_class.git](https://github.com/wsnewman/ros_class.git) (referred to herein as the “class repository”).

All documents (including this roadmap) are contained in the “Documents” folder of the above repository. Clone this repository to your catkin subdirectory, “/src” to compile the examples.

In addition, to use catkin\_simple and publish-selected-points, also clone the repository:

[https://github.com/wsnewman/ros\\_helper\\_packages.git](https://github.com/wsnewman/ros_helper_packages.git).

## ROADMAP:

1. Start with “Introduction to ROS (v4)”, and accompanying code in repository package “minimal\_nodes.”
2. ROS messages are further explored in “How to Define Custom Messages”, and the corresponding code in package “example\_ros\_msg.”
3. Services are introduced in “Introduction to ROS Services”, with accompanying code in “example\_ros\_service”
4. Action servers are introduced in “Introduction to Action Servers”, with accompanying code in the package “example\_action\_server”
5. An example of how to use classes in ROS is provided in “Cplusplus\_classes\_in\_ROS” with accompanying code in the package “example\_ros\_class.”
6. The notes “intro\_to\_rviz” introduces visualization and interaction using Rviz, with code examples of using Markers and InteractiveMarkers in rviz from the packages example\_rviz\_marker and example\_interactive\_marker.
7. The notes “robot\_model\_visualization” introduce how to define a robot model and how to display it in rviz. These notes reference the package “minimal\_robot\_description.”
8. Robot modelling is extended to dynamic simulation using Gazebo, as introduced in “Intro\_to\_gazebo.” These notes references the packages minimal\_robot\_description and minimal\_joint\_controller.