

# Robot development using ROS

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# Overview of Project

This project deals with the exploring the ROS framework for development of a robotic system with various sensors and actuators in order to understand the underlying concepts and to create a robot/quadcopter capable of forming a 3D map of a given environment using a depth camera (Microsoft Kinect).

# What is ROS?

The Robot Operating System (ROS) is a flexible framework for developing software with tools, libraries and conventions that facilitate the creation of complex robot behaviour on a wide variety of robotic platforms.

# Weekly Plan

Week	Objective
1 to 3	Installing ROS, Understanding the underlying concepts.
4 to 5	Interfacing the Microsoft Kinect sensor on Gazebo simulator.
6 to 8	Understanding Pointclouds and RTAB Map for real time environment mapping.
9	Interface the Kinect sensor for mapping of real world environments.

# Thank You

**THANK YOU !**