

# Large-Scale Direct SLAM

This guide demonstrates how to install the monocular LSD SLAM ROS package on Ubuntu 14.04.

## Installation

First, we install the LSD SLAM ROS package:

- Install all dependencies by executing '***sudo apt-get install ros-indigo-libg2o ros-indigo-cv-bridge liblapack-dev libblas-dev freeglut3-dev libqglviewer-dev libsuitesparse-dev libx11-dev***'
- Clone the LSD SLAM ROS package at [https://github.com/tum-vision/lsd\\_slam](https://github.com/tum-vision/lsd_slam) into your ROS workspace. If you have followed the simulation tutorials of Erle-Robotics, this folder is located at `~/simulation/ros_catkin_ws/src`.
- Compile the ROS package by executing '***rosmake lsd\_slam***'
- Install `rqt_reconfigure` by running '***sudo apt-get install ros-indigo-rqt\_reconfigure***'. This package will help us to change LSD SLAM parameters dynamically.