ZED Camera

Using zed camera with ROS it can output the camera left and right images, depth map, point cloud.

Installation Steps

1. Install Cuda10

<https://computervisionpoints.com/installation-of-nvidia-driver-and-cuda-10-0-in-ubuntu-16-04/>

2. Install ZED SDK

We can choose the different version based on the cuda version we installed. In our project we choose the newest one 3.1.2

3. Download the ZED ROS wrapper

<https://github.com/stereolabs/zed-ros-wrapper/archive/master.zip>

This version only adapts for SDK 3.0 or more. If we want to change the different version of SDK, we need the wrapper version in the following link.

<https://github.com/stereolabs/zed-ros-wrapper/releases/tag/v2.x>

4. Change the package folder zed-\_wrapper into f110\_ws/src

5. cd f110\_ws/

catkin\_make

source ./devel/setup.bash

Now, we can use the ZED camera with ROS. In its package, shows the tools it has

cd usr/local/zed/tools

It has many tools such as ZED\_Explorer, ZED\_Depth\_Viewer, ZED\_Diagnostic

Run the program

roslaunch zed\_wrapper zed.launch

visualization

roslaunch zed\_display display\_zed.launch

It can show like IMU on the screen.

Tutorials

ZED node can be used on the image capture, depth perception, camera tracking,spatial mapping, object detection

<https://github.com/stereolabs/zed-ros-examples/blob/master/tutorials/zed_video_sub_tutorial/README.md>