

Meishan:

20220403

ORI_SLAM3 github

https://github.com/UZ-SLAMLab/ORB_SLAM3/tree/a80b4677009e673b9939a7e91e6ea7bcb5090294

ORI_SLAM3 setup

<https://www.ybliu.com/2020/07/ORB-SLAM3-demo.html>

(Note: opencv↓ and ORI SLAM3↓ (follow github readme) and rest here.↑)

OpenCV tutorial

https://docs.opencv.org/4.x/d7/d9f/tutorial_linux_install.html

Step:

1. Build core modules
2. Configure and build
3. Install

Follow **Building ORB-SLAM3 library and examples** from github **ORI_SLAM3 github**

Issues and solution:

Pangolin Visualization not showing:

“ORB_SLAM3::System SLAM(argv[1],argv[2],ORB_SLAM3::System::MONOCULAR, true);

check this code, the last param should be 'true'.”

(Path: /home/m33/eece5554_final_project/ORB_SLAM3/Examples/Monocular)

https://github.com/UZ-SLAMLab/ORB_SLAM3/issues/517

EuRoC Examples

datasets

<https://projects.asl.ethz.ch/datasets/doku.php?id=knavvisualinertialdatasets>

Paper - datasets parameters - for data analysis

<https://journals.sagepub.com/doi/pdf/10.1177/0278364915620033>

Mingxi:

ORB-SLAM3 installation 20220403

1. Ran into error when ran the following pangolin building tutorial
"cmake --build . -t pypangolin_pip_install"

Solution:

Use this tutorial instead:

<https://www.ybliu.com/2020/07/ORB-SLAM3-demo.html>

2. Ran into error when buiding ORBSLAM3 using build.sh
"/usr/local/include/sigslot/signal.hpp:109:79: error: 'decay_t' is not a member of 'std'; did you mean 'decay'?"
Same problem:https://github.com/UZ-SLAMLab/ORB_SLAM3/issues/458

Solution:

Modify build.sh by:

sed -i 's/++11/++14/g' CMakeLists.txt

3. Opencv 4.4.0 prerequisites:
Need python2 with numpy by:
sudo apt install python-numpy

Need link python with python2 by:
alias python="python2"

Need install gstreamer

<https://gstreamer.freedesktop.org/documentation/installing/on-linux.html?gi-language=c>

Need atlas

Same issue: <https://github.com/opencv/opencv/issues/10442>

Install liblapacke-dev

ORB-SLAM3 Examples 20220403

1. In order to use plug-in realsense cameras, librealsense needs to be installed before building orbslam, only then the executable file will be compiled in Examples.
2. Modify the yaml (calibration) and .cc (streaming) to use other cameras.

Testing on iPhone webcam app 20220404

Guanang

Xcode 20220403

1. iPhone 13 Pro does not work on both simulation and real machine.
2. Need to set up the camera in private env parameters.