taochenshh / **Kinect-ASUS-Xtion-Pro-Live-Calibration-Tutorials**

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A complete kinect v1 (or Asus Xtion Pro Live) calibration tutorial with code provided by Tao Chen

47 commits **1** branch **0** releases **1** contributor

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taochenshh committed on **GitHub** Stereo calibration Latest commit `6cf076d` on Apr 12

kinect_calibration	Add files via upload	9 months ago
README.md	Update README.md	9 months ago
calibration_coordinate_blocks.png	Add files via upload	10 months ago
calibration_radial_distortion.png	Add files via upload	10 months ago
camera_calibration_focal_point.png	Add files via upload	10 months ago
get_extrinsics.py	Add files via upload	10 months ago
grasp_pos.py	Add files via upload	9 months ago
grasp_pos_rgbd_cluster.py	Add files via upload	9 months ago
image_to_world.py	Add files via upload	9 months ago
kienct calibration.mdown	Add files via upload	9 months ago
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pose_estimation.py	Add files via upload	10 months ago
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stereo_cameras.mdown	Stereo calibration	3 months ago

README.md

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<script type="text/javascript" src="http://cdn.mathjax.org/mathjax/latest/MathJax.js?config=default"></script>

Preparation

Installation

- Enter the following codes in your terminal

```
sudo apt-get install ros-indigo-openni-camera
sudo apt-get install ros-indigo-openni-launch
```

If you are using Asus Xtion Pro Live:

Modify `GlobalDefaults.ini`

```
sudo gedit /etc/openni/GlobalDefaults.ini
```

then uncomment the line: `;UsbInterface=2` (just delete the `;` symbol)

If you are using kinect v1.0:

```
mkdir ~/kinectdriver
cd ~/kinectdriver
git clone https://github.com/avin2/SensorKinect
cd SensorKinect/Bin/
tar xvjf SensorKinect093-Bin-Linux-x64-v5.1.2.1.tar.bz2
cd Sensor-Bin-Linux-x64-v5.1.2.1/
sudo ./install.sh
```

Test your Kinect(Asus Xtion Pro Live) with ROS

- To view the rgb image:

```
roslaunch openni_launch openni.launch
rosrun image_view image_view image:=/camera/rgb/image_raw
```

- To visualize the depth_registered point clouds:

```
roslaunch openni_launch openni.launch depth_registration:=true
rosrun rviz rviz
```

See kienct calibration.pdf to view the tutorial of how to calibrate kinect. And note that these codes have been tested on OpenCV 2.4.