

? How do I make the pool camera work?

How to view AR tags in rviz with the new camera!

1: install flycapture

<https://www.ptgrey.com/blackfly-23-mp-color-gige-vision-poe-sony-imx136-camera>

Flycapture installation:

Public drive/ORS/flycapture2-2.9.3.43-amd64-pkg.tgz

Unzip tgz

README describes how to install dependencies and flycapture

2: install the camera driver

Camera driver:

http://wiki.ros.org/pointgrey_camera_driver

sudo apt-get install ros-indigo-pointgrey-camera-driver

FlyCap2

Open it from the ubuntu software center

Close FlyCap2 before running through ros

Calibration:

http://wiki.ros.org/camera_calibration

Get a calibration grid

roslaunch camera_calibration cameracalibrator.py (with settings for your calibration grid)

OR use the calibration file for the "lens"

Calibration file: P:\ORS\0.yaml

Copy it to ~/.ros/camera_info/

Ar_track_alvar:

sudo apt-get install ros-indigo-ar-track-alvar

Pool server:

Pull the latest oars repo from github

cd ~/catkin_ws

catkin_make

Finally, once all the prereqs are installed:

To set up rviz to see AR tags

roscore

roslaunch pool_server oars.launch

Troubleshooting:

`sudo sysctl -w net.core.rmem_max=1048576 net.core.rmem_default=1048576`

Power cycle the camera and try again...

The "lens" on the camera currently can be focused by unscrewing it. Oh well.

Roughly 50 degree FOV. Oh well.

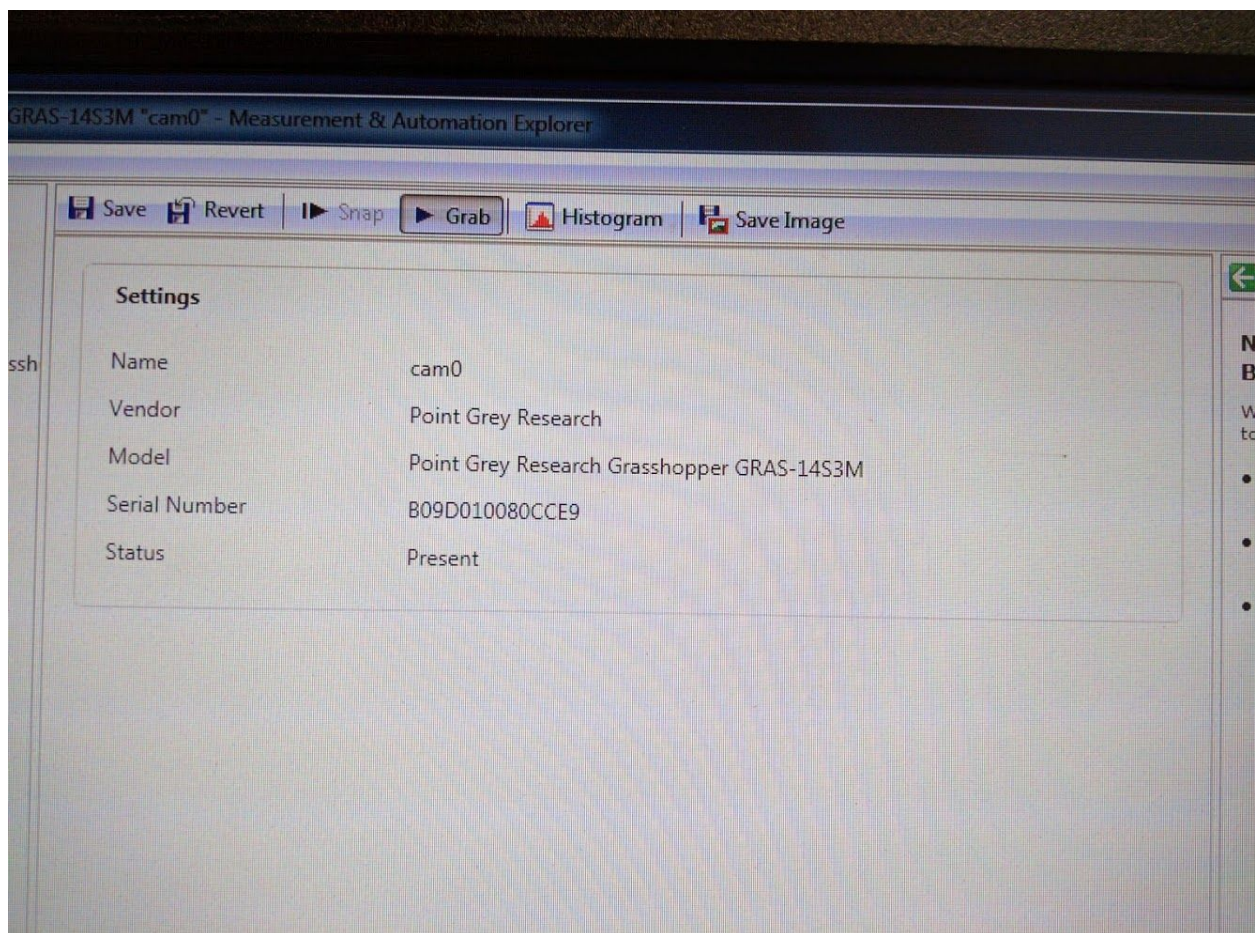
Add->By topic->/camera/camera_color->image(raw)

Add->By topic->visualization_marker->marker

Pool specs:

Pool diameter: 15'

Camera height above surface: ?



Things I tried

1. <https://help.ubuntu.com/community/FireWire/DigitalVideo>
2. `sudo apt install dvgrab kino`
3. Result: Nope, doesn't like to find camera.

Resources

- Our camera:
<https://www.ptgrey.com/grasshopper-1-4-mp-mono-firewire-1394b-sony-icx267-camera>
- <http://www.ptgrey.com/support/downloads>
- <http://wiki.ros.org/camera1394>
- <https://help.ubuntu.com/community/HowToCaptureDigitalVideo>
- Linux resource : <http://www.ptgrey.com/support/downloads/10385>