DCAM IIDC camera

```
[ 1161.810809] usb 10-2: new SuperSpeed Gen 1 USB device number 5 using
xhci_hcd
[ 1161.874950] usb 10-2: New USB device found, idVendor=1e10,
idProduct=3300, bcdDevice= 0.00
[ 1161.874953] usb 10-2: New USB device strings: Mfr=1, Product=2,
SerialNumber=3
[ 1161.874955] usb 10-2: Product: Chameleon3 CM3-U3-31S4C
[ 1161.874957] usb 10-2: Manufacturer: Point Grey Research
[ 1161.874959] usb 10-2: SerialNumber: 01232DBD
```

basler

```
[1293873.210971] usb 3-1.4.4: Product: acA2040-55uc
[1293873.210972] usb 3-1.4.4: Manufacturer: Basler
[1293873.210973] usb 3-1.4.4: SerialNumber: 23255275
```

/etc/udev/rules.d/50-flir.rules (arch)

```
# Point grey
SUBSYSTEM=="usb", ATTR{idVendor}=="1e10", MODE:="0666", TAG+="uaccess"
# Basler
SUBSYSTEM=="usb", ATTR{idVendor}=="2676", MODE:="0666", TAG+="uaccess",
TAG+="udev-acl"
```

/etc/default/grub

```
... usbcore.usbfs_memory_mb=1000
```

or temporary

```
sudo sh -c 'echo 1000 > /sys/module/usbcore/parameters/usbfs_memory_mb'
```

disable autosuspend

```
sudo bash -c 'echo -1 > /sys/module/usbcore/parameters/autosuspend'
```

setup

```
yay libdc1394
```

basler

download pylon

```
tar zxvf pylon-5.2.0.13457-x86_64.tar.gz
cd pylon-5.2.0.13457-x86_64
sudo tar -C /opt -xzvf pylonSDK*.tar.gz
```

test

```
/opt/pylon5/bin/PylonViewerApp
```

python

```
pip install
https://github.com/basler/pypylon/releases/download/1.5.1/pypylon-1.5.1-cp37
-cp37m-linux_x86_64.whl
```

focal length

focal length = (known pixel Width * knownDistance) / known width

Distance (cm/inches/etc.) =(known Width * focal length) / pixel Width