

# gstreamer

debug

```
mkdir ./tmp
export GST_DEBUG_DUMP_DOT_DIR=./tmp/

# ... run pipeline

cd tmp
dot -Tpng x.xx.xx.xxxxxxxx-gst-launch.F00.dot > graph.png
```

show usb camera

```
gst-launch-1.0 v4l2src device=/dev/video0 ! xvimagesink
```

rtsp client

```
gst-launch-1.0 \
  rtspsrc location=rtsp://foscaml@192.168.2.14:554/videoMain !
  rtph264depay \
  ! h264parse ! avdec_h264 \
  ! videoconvert ! xvimagesink
```

hardware decode

```
F=videos/traffico01-1152x720-1610kb.mkv
gst-launch-1.0 filesrc location=$F ! matroskademux ! queue ! h264parse !
omxh264dec ! autovideoconvert ! xvimagesink
```

hardware encode

```
... ! videoconvert ! omxh264enc ! matroskamux ! filesink location=test.mkv
```

## ocam camera

identify

```
v4l2-ctl --list-devices

v4l2-ctl --list-formats-ext -d /dev/video0
[0] 1 ← [0]
ioctl: VIDIOC_ENUM_FMT
  Type: Video Capture

  [0]: 'GRBG' (8-bit Bayer GRGR/BGBG)
      Size: Discrete 1280x960
```

```
Interval: Discrete 0.033s (30.000 fps)
Interval: Discrete 0.040s (25.000 fps)
Interval: Discrete 0.067s (15.000 fps)
Size: Discrete 1280x720
Interval: Discrete 0.033s (30.000 fps)
Interval: Discrete 0.040s (25.000 fps)
Interval: Discrete 0.067s (15.000 fps)
Size: Discrete 640x480
Interval: Discrete 0.010s (100.000 fps)
Interval: Discrete 0.011s (90.000 fps)
Interval: Discrete 0.017s (60.000 fps)
Interval: Discrete 0.020s (50.000 fps)
Interval: Discrete 0.033s (30.000 fps)
Interval: Discrete 0.040s (25.000 fps)
Interval: Discrete 0.067s (15.000 fps)
Size: Discrete 320x240
Interval: Discrete 0.006s (180.000 fps)
Interval: Discrete 0.007s (150.000 fps)
Interval: Discrete 0.008s (120.000 fps)
Interval: Discrete 0.010s (100.000 fps)
Interval: Discrete 0.017s (60.000 fps)
Interval: Discrete 0.020s (50.000 fps)
```

```
ffplay -f video4linux2 -s 640x480 -i /dev/video0
```

```
Stream #0:0: Video: rawvideo ([186]GR[8] / 0x85247BA), bayer_grbg8, 640x480,
245760 kb/s, 100 fps, 100 tbr, 1000k tbn, 1000k tbc
```

```
gst-launch-1.0 -v v4l2src device=/dev/video0 ! 'video/x-
bayer,format=grbg,width=320,height=240,framerate=180/1,colorimetry=bt601' !
bayer2rgb ! videoconvert ! xvimagesink
```

```
# width=640,height=480,framerate=100/1
# width=1280,height=960,framerate=30/1
```

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