Using with Raspberry Pi

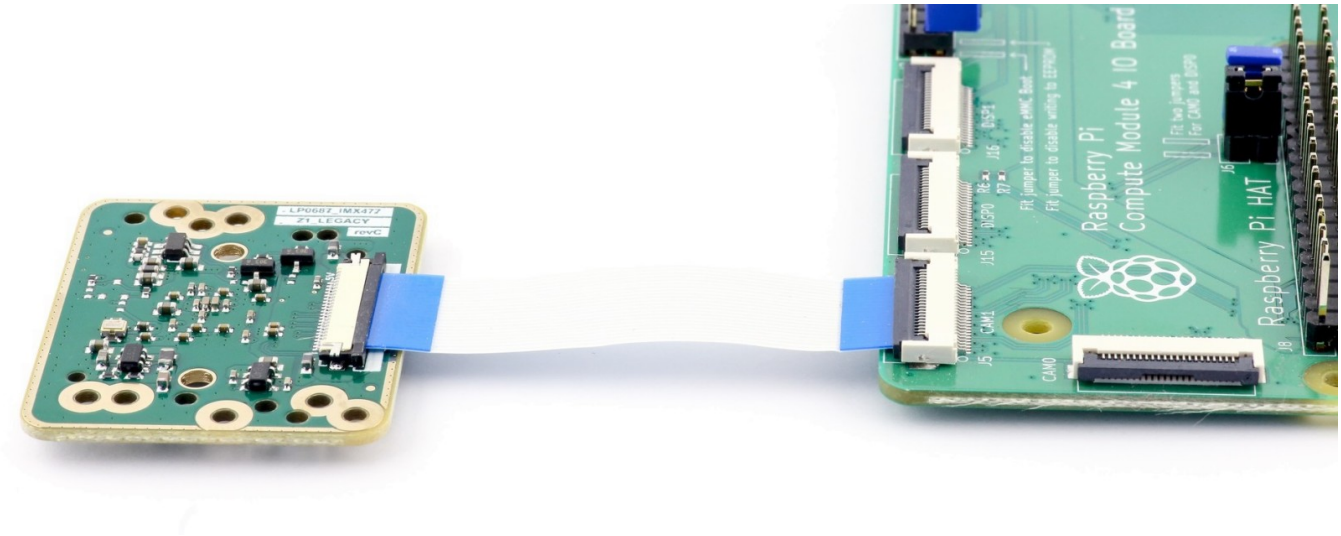
Raspberry Pi CM4 compute module

Quick guide how to use camera module with Raspberry Pi compute module and IO board. Raspberry Pi software is in active development thus changes fairly quickly. We will touch preparation procedure very briefly.

> Only compute modules support cameras without crypto chip.

Prepare board

- Fit jumpers J2 - disable EMMC boot
- Fit jumpers J6 - enable CAM0, DISP0
- Connect camera co CAM1 port



Install OS

- Install rpiboot
- Start rpiboot
- Use rpi-imager to flash OS

Boot

- Remove J2 jumper - disable EMMC boot
- Scan for IP on local network
- Connect monitor and keyboard, finish setup
- Expand system

Prepare camera

- Setup single camera mode

```
sudo wget https://datasheets.raspberrypi.org/cmio/dt-blob-cam1.bin -O /boot/dt-blob.bin
sudo reboot
```

- Check if camera is detected after reboot

```
vcgencmd get_camera
```

Recipe #1 - show video in console as ASCII text

```
raspivid -t 0 -o - | gst-launch-1.0 fdsrc ! h264parse ! rtph264pay config-interval=1 pt=96 !
decodebin ! videoconvert ! aasink
```

Recipe #2 - stream video over network

- Start streaming on Raspberry Pi

```
raspivid -o - -t 9999999 | cvlc -vvv stream:///dev/stdin --sout '#rtp{sdp=rtsp://:8554/}'
:demux=h264
```

- Start client on Windows computer (change Raspberry Pi IP address to match your setup)

```
set PATH=C:\gstreamer\1.0_1.18.3\bin\;C:\gstreamer\1.0_1.18.3\lib\gstreamer-
1.0\;C:\gstreamer\1.0_1.18.4\libexec\gstreamer-1.0\
gst-launch-1.0 rtspsrc location=rtsp://192.168.0.86:8554/ latency=10 ! decodebin !
timeoverlay ! videoscale ! videoscale ! video/x-raw,width=1280,height=720 ! autovideosink
```

Demo video with 40x motorized zoom lens

For more details check blog post



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