Installation

Open Vino

1. download OpenVino from here and extract

```
cd ~/Downloads
tar -xvzf l_openvino_toolkit_p_<version>.tgz
```

2. install OpenVino and Dependencies

```
cd l_openvino_toolkit_p_<version>
sudo ./isntall_GUI.sh
cd /opt/intel/openvino/install_dependencies
sudo -E ./install_openvino_dependencies.sh
```

3. set environment variables (for permanent in add in ~/.bashrc file)

```
source /opt/intel/openvino/bin/setupvars.sh
```

4. install model optimizers for all farmeworks

```
cd
/opt/intel/openvino/deployment_tools/model_optimizer/install_prerequisites
sudo ./install_prerequisites.sh
```

5. Set up NCS2

```
sudo usermod -a -G users "$(whoami)"
sudo cp /opt/intel/openvino/inference_engine/external/97-myriad-
usbboot.rules /etc/udev/rules.d/
sudo udevadm control --reload-rules
sudo udevadm trigger
sudo ldconfig
sudo reboot
```

6. run sample application

```

```

```
cd /opt/intel/openvino/deployment_tools/demo
./demo_squeezenet_download_convert_run.sh -d MYRIAD
```

and

```
./demo_security_barrier_camera.sh -d MYRIAD
```

Raspberry Os

1. Download

- Rasbian Os here
- BalenaEtcher here

2. Create Boot SD Card

insert sd cart to pc, start etcher, selct downloaded rasbian img and sdcard, flash sd card.
Than add an ssh file in the boot dir of the sd card:

```
cd media/<user>/boot
touch ssh
```

3. Create new Ethernet Connection

```
nm-connection-editor
```

new ethernet named link-local, IPv4Settings → Method: Shared to other computers

4. Connect Pi with Pc

insert sd card into the Raspberry
connect the Raspberry to Pc via Ethernet Cable

Connct to the Raspberry with:

```
ssh pi@raspberrypi.local
```

and enter password: raspberry

5. Use Mouse and Keyboard of Laptop

6. Save and restore Backup

Backup

```
sudo dd if=/dev/mmcblk0 of=~/sd_card_backup.img # ohne p1
```

Restore

```
sudo umount /dev/mmcblk0p1 # mit p1
sudo bb bs=4M if=~/ sd_card_backup.img of=~/mmcblk0
sudo sync
```

Open Vino on Raspberry

Install OpenVino and OpenCV

Realsense SDK on Raspberry

1. install cmake

```
sueo apt-get install cmake
```

2. install Realsense SDK as described here

Anmerkungen:

- Wenn in **Install packages** fehler wie *Unable to locate package libdrm-amdgpu1-dbg* auftreten ignorieren.
- Bei **install protobuf** anstatt *v3.5.1* Version *v3.10.1* verwenden.