AI Hat + RPi5 environment construction

1. Instructions before use

This tutorial is suitable for building a Raspberry Pi 5 image by yourself. If you directly use the YAHBOOM version of the image, you can ignore the tutorial.

2. Start building

2.1 Download relevant source code

```
git clone https://github.com/hailo-ai/hailo-rpi5-examples.git
```

Enter the source directory:

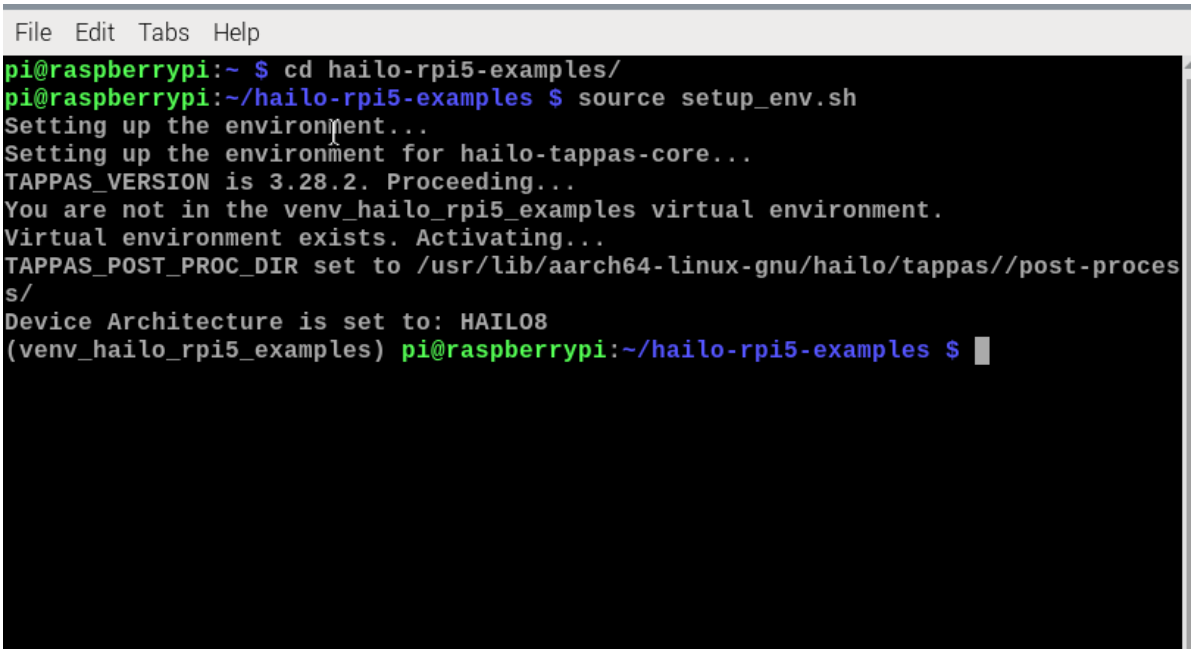
```
cd hailo-rpi5-examples
```

2.2 Environment Configuration

To run these examples, you should make sure your environment is setup correctly. We use the hailo-tappas-core pkgconfig file to get the Hailo dependencies.

You can set everything up by sourcing the following script. This script will set the required environment variables and activate the Hailo virtual environment (it will create it if it doesn't exist).

```
source setup_env.sh
```



2.3 Dependency Installation

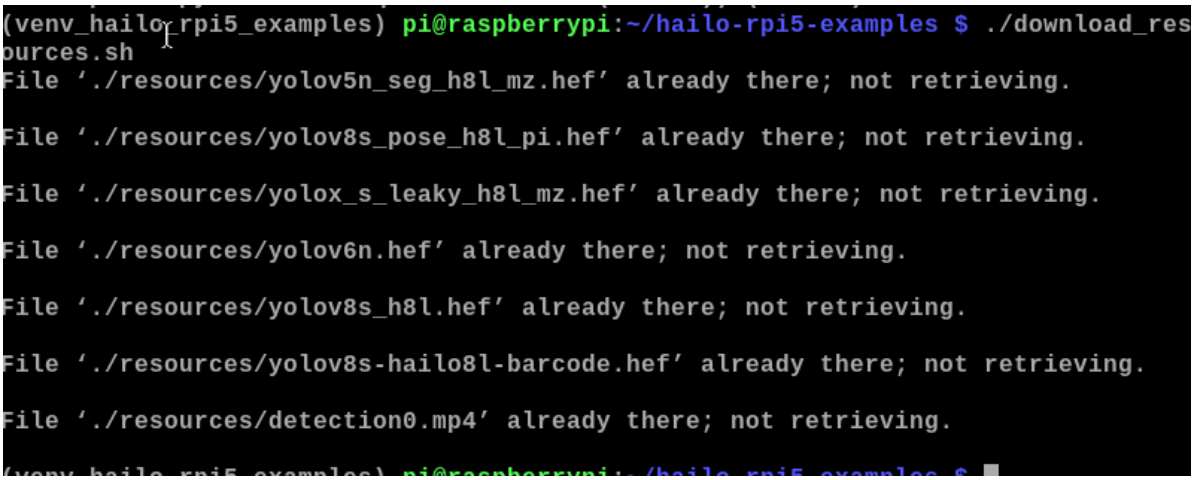
Make sure you are in a virtual environment and run the following command:

```
pip install -r requirements.txt
sudo apt-get install python3 python3-pip ninja-build
pip3 install --user meson
```

2.4 Resource Download

```
./download_resources.sh
```

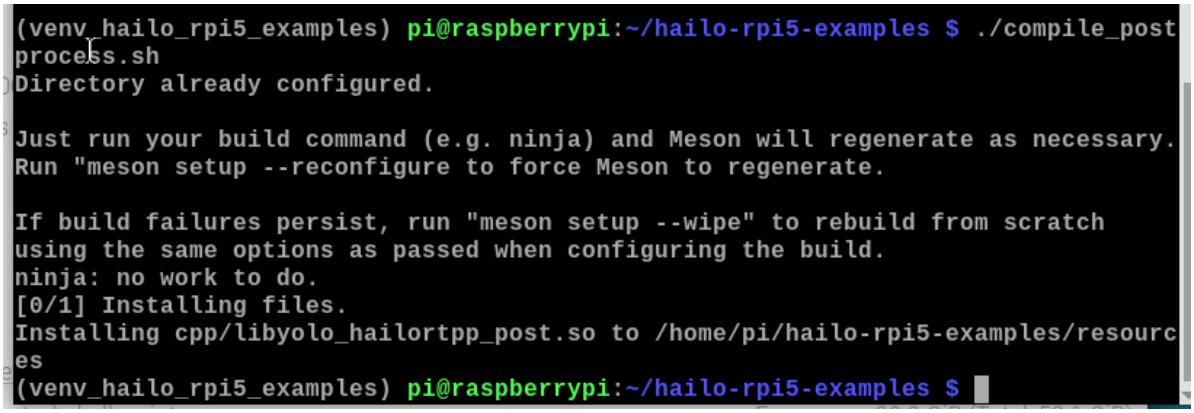
The picture below is because I have successfully downloaded it before.



2.5 Postprocessing Compilation

To support using retrained models, you need to compile postprocessing locally. This postprocessing will be merged into Hailo TAPPAS in the next release. To compile postprocessing, run the following script:

```
./compile_postprocess.sh
```


(venv_hailo_rpi5_examples) pi@raspberrypi:~/hailo-rpi5-examples $ ./compile_post
process.sh
Directory already configured.
Just run your build command (e.g. ninja) and Meson will regenerate as necessary.
Run "meson setup --reconfigure to force Meson to regenerate.
If build failures persist, run "meson setup --wipe" to rebuild from scratch
using the same options as passed when configuring the build.
ninja: no work to do.
[0/1] Installing files.
Installing cpp/libyolo_hailortpp_post.so to /home/pi/hailo-rpi5-examples/resourc
es
(venv_hailo_rpi5_examples) pi@raspberrypi:~/hailo-rpi5-examples $