0) Install EdgeTPU environment using the supplied instructions (download a python-tflite-source directory and run install. Make sure the demos in that package work, as advertised)

1. Install additional dependencies for teachable machine:

sudo apt-get install libgstreamer1.0-0 gstreamer1.0-tools gstreamer1.0-plugins-base gstreamer1.0-plugins-good gstreamer1.0-plugins-bad gstreamer1.0-plugins-ugly gstreamer1.0-tools python3-gst-1.0 python3-gi

sudo modprobe bcm2835-v4l2

(or better, add “bcm2835-v4l2” to the end of /etc/modules and reboot.)

sudo python3 -m pip install python-periphery

tar xvzf teachable\_rpi3.tgz

2) Test the button UI (ensure cabling is correct)

cd $HOME/teachable/

sudo python3 teachable.py --testui

If the wiring is correct you should see the 4 LEDs wiggle/flash and then it will run an infinite loop displaying which buttons are pressed. If you press a button the respective LED should light up.

3) Run the teachable machine

cd $HOME/teachable/

sh run.sh

At first the code will have no examples so no LED shoul dlight up. When you press a single button the code takes a snapshot of the image and it’s embedding (run through the accelerator) and saves it labeling it with that button. THus you have 4 classes you can “teach” tough i usually reserve “red” for background (just press it with nothing held up). THe other three can be used to learn finger shapes, faces, objects etc.

The white button will wipe the memory and reset the state to the beginning.