

# OpenPilot Custom Fork Setup Guide

Cloning and compiling the repository is only necessary for custom forks.  
If you are using an official OpenPilot release, you should not perform these steps.

## PC

```
1st git clone --recursive "https://gitlab.com/xxxxx/xxxxx.git"

2nd tar -cvf openpilot.tar openpilot/ ← compresses the downloaded repo

3rd copy the compressed file to USB
```

## Comma

```
1st Connect the USB to the auxiliary USB 3.1 port

2nd Run: lshw ← to identify the connected USB and its path (e.g. /dev/sdg1)

3rd mkdir usb ← create a folder named 'usb'

4th mount /dev/sdg1 usb

5th cd usb

6th mv openpilot.tar /data/

7th umount usb

8th cd /data/

9th tar -xvf openpilot.tar

* If the system reboots during file extraction, repeat steps 8 and 9

10th sudo reboot
```

## Skoda Vehicle Setup

To perform the following steps in a Skoda vehicle, first go to **Settings** → **Developer** → **Longitudinal Maneuver Mode (Enable)**, always in an open area with no traffic. Once calibration is complete, the **Longitudinal Mode (Experimental)** option will be automatically enabled and must be manually activated.

## Connect-Car-Joystick-Mode

**⚠ Warning: The position of the USB-C connection matters. If car errors occur, clear OBD errors!**

- 1º With the car turned off, connect the USB-C to the comma device.
- 2º Start the car.
- 3º Activate: tether configuration → network → advanced → enable tethering.
- 4º The tethering password is in the Tethering Password menu.
- 5º Connect your PC to the tethered Wi-Fi and get the IP address using the command:  
ifconfig

## PC - Joystick Control Setup

- 1º Connect via SSH to the comma device:  
ssh comma@192.168.43.1 -i "your public key"
- 2º Run: export ZMQ=1
- 3º Run: ./tools/joystick/joystick\_control.py
- 4º Stop with: Ctrl + C

5º Run: `./cereal/messaging/bridge "your PC IP connected to tether"`

## PC - In Another Terminal (With Repo Compiled)

1º Run: `export ZMQ=1`

2º Run: `./tools/joystick/joystick_control.py`

## In the Car

1º Drive the car up to 20 km/h, turn on cruise control, and you can now control it with the joystick.

## Extra Step

To compile the official repo on PC, clone it and run:  
`./tools/op.sh setup`