

AD2 (/u/AD2)

(/t/reflashing-the-pocketchip-without-the-online-flasher-on-linux/20614)

## Introduction

This is a tutorial post on how to reflash the pocketchip now that the online flasher is down. It largely builds upon the awesome work from yoursunny (<https://yoursunny.com/t/2018/CHIP-flash-offline/>) and joedemo42 (<https://bbs.nextthing.co/t/c-h-i-p-firmware-flash-archive/20482>). The goal is to present the method in a simple, step-by-step way so that anyone can follow.

## Requirements

To follow this guide, you will need a:

- PocketCHIP
- MicroUSB to USB cable
- Linux computer
- 12GB storage space

## Hardware Setup

Start by completely powering down the device. A jumper cable needs to be inserted between the FEL and GROUND pins found above the screen. If you don't have a jumper cable, you can bend out a paperclip, then bend it into a U shape and insert it into the pin on the far left and the pin on the far right.

You can then plug the microUSB cable into the pocketchip and the computer and power on the pocketchip. If it has worked, the screen will be blank but the LED light will be on.

## Software Setup

You will need to download an archive of files found here (<https://archive.org/details/C.h.i.p.FlashCollection>). To do this, click the link, click 'ZIP' under 'DOWNLOAD OPTIONS' and click to download all 3 .zip files. These take up a total of about 5GB so you may have to wait a while depending on your internet speeds. Once they have downloaded, move the archive to a folder where you have space and do:

```
mkdir CHIP
unzip C.h.i.p.FlashCollection.zip -d CHIP
cd CHIP/
unzip CHIP-SDK.zip
unzip CHIP-tools.zip
unzip flash-collection.zip
cd CHIP-tools/
```

The second part of the software setup is to download the software used by these scripts to flash the pocketchip. The packages are:

- android-tools-fastboot
- sunxi-tools
- u-boot-tools

If you use ubuntu, you can install the packages using:

```
sudo apt-get install android-tools-fastboot sunxi-tools u-boot-tools
```

If you use Arch Linux, you can install the packages using:

```
sudo pacman -S android-tools sunxi-tools uboot-tools
```

The packages are available for other distributions, but you may have to do some searching to work out what they are called and how to install them.

## Process

First, we set up some environment variables using:

```
FEL='sudo sunxi-fel'  
FASTBOOT='sudo fastboot'  
SNIB=false
```

Then we run the script which actually performs the flashing. Once this completes, all data on the pocketchip will be lost, so make sure it is definitely something you want to do first.

```
sudo ./chip-update-firmware.sh -L ../flash-collection/stable-pocketchip-b126
```

If the pocketchip is already plugged in, it should start with the process. If it isn't plugged in yet, plug it in when you see `waiting for fel.....`. If the pocketchip is plugged in and it continues to show `waiting for fel.....`, there may be an issue with the connection which needs troubleshooting.

If it is successful, you should see:

```
FLASH VERIFICATION COMPLETE.
```

This means it is safe to unplug the pocketchip, power it down by holding down the power button for 8 seconds, then power it on as usual. The boot process will be verbose, meaning that all of the setup output is shown. This is normal. After the boot finishes, you should see the pocketchip logo and then the pocket home.

## Finishing Up

The software on this newly installed image will be out of date, so it is a good idea to connect the pocketchip to the internet, open up the terminal and perform the usual system update commands:

```
sudo apt-get update  
sudo apt-get upgrade
```

You can also remove the C.h.i.p.FlashCollection.zip file and the CHIP folder now, although I recommend keeping a copy of the CHIP folder in case the online mirror goes down.