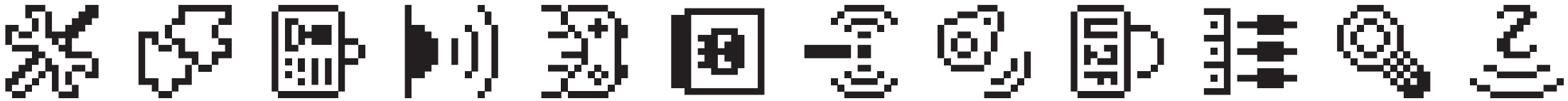


UNOFFICIAL

FLIPPER

Quickstart Guide

Renaming your Flipper (and compiling Firmware from source)

How to change your Flipper's name

Please note that this does not actually change your Flipper's name, just how it is displayed. Please keep your original name in a safe spot so you don't forget it as you will need it if you ever contact flipper support.

As usual, this guide assumes that you are currently on a Windows (10) System.
For MacOS and Linux, some steps may differ.

This Guide is more suited for advanced users, since we're basically building our own Custom Firmware!

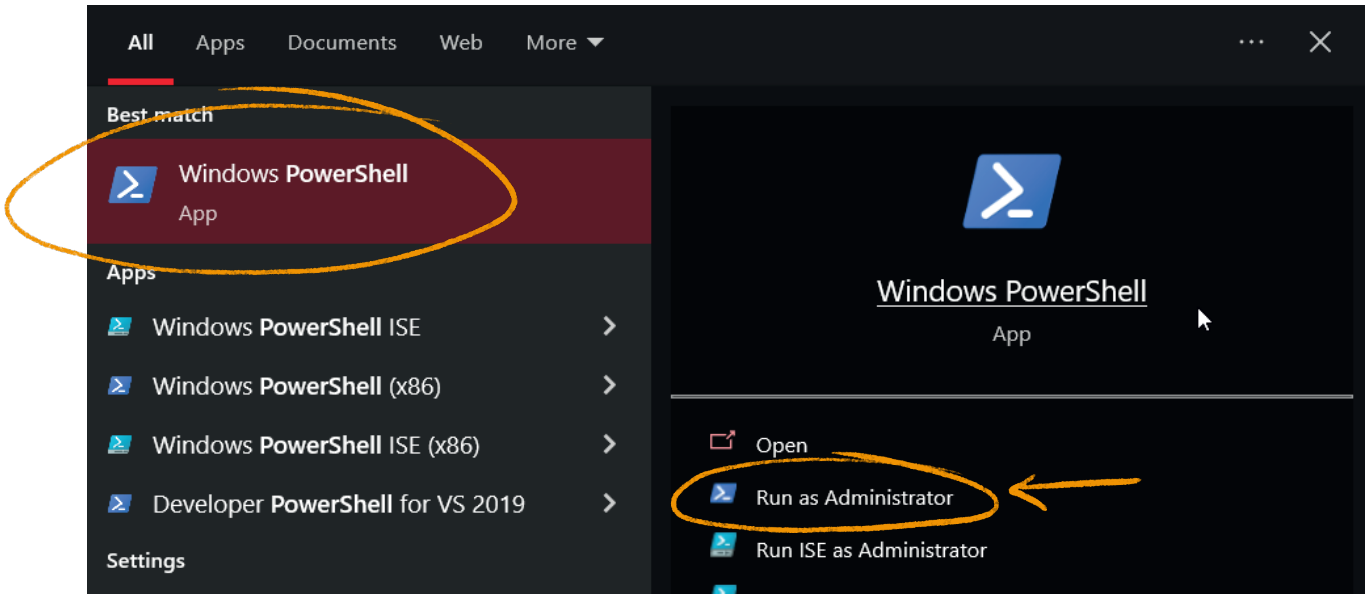
Setup

1. First thing. install git, which can found here: https://git-scm.com/downloads

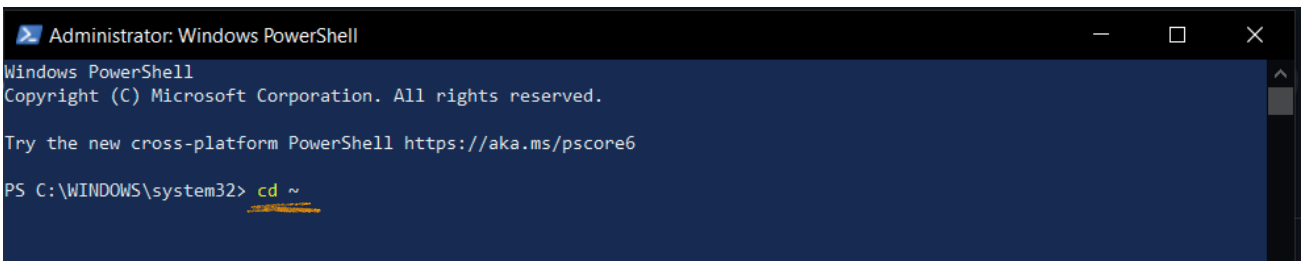
   Just download the .exe, run it to install Git on your system and preferably perform a reboot.

2. Open up "CMD" or "Powershell".
   Just press the windows key and type one of those into the search bar.

   For demonstration purposes we're gonna use Powershell, also to be safe, run it as Admin.



After the window opens, type in " cd ~ " (without the ") and hit return,
this will bring you to your user's home folder.



3.

Type (or easier, copy and paste) this following line into the cmd/powershell window:

git clone --recursive https://github.com/flipperdevices/flipperzero-firmware.git

and hit return.

```
PS C:\WINDOWS\system32> cd ~
PS C:\Users\[redacted]> git clone --recursive https://github.com/flipperdevices/flipperzero-firmware.git
Cloning into 'flipperzero-firmware'...
remote: Enumerating objects: 40723, done.
remote: Counting objects: 100% (134/134), done.
remote: Compressing objects: 100% (91/91), done.
Receiving objects:   3% (1222/40723)
```

This starts the download (cloning) process of the Flipper Zero Firmware source code.

Wait until the download is finished, and your Powershell window looks somewhat like this :
(and accepts you typing new commands)

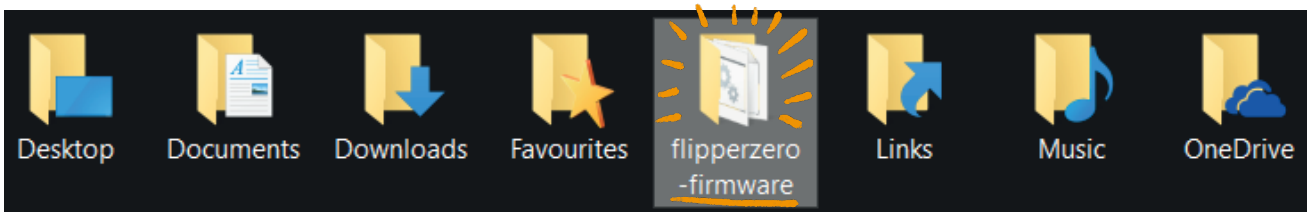
```
remote: Total 50 (delta 17), reused 40 (delta 13), pack-reused 0
Receiving objects: 100% (50/50), 32.49 KiB | 449.00 KiB/s, done.
Resolving deltas: 100% (17/17), done.
Submodule path 'lib/FreeRTOS-Kernel/portable/ThirdParty/Community-Supported-Ports': checked out 'f0618d9e2f4c5b0a3e472a2
673a090e8ef836258'
Submodule path 'lib/FreeRTOS-Kernel/portable/ThirdParty/Partner-Supported-Ports': checked out '3f9c99a682c5c796bb7eb89fd
9c4385688fce27a'
Submodule path 'lib/STM32CubeWB': checked out 'a9e29b431f6dac95b6fc860a717834f35b7f78e5'
Submodule path 'lib/cxxheaderparser': checked out 'ba4222560fc1040670b1a917d5d357198e8ec5d6'
Submodule path 'lib/libusb_stm32': checked out '9168e2a31db946326fb84016a74ea2ab5bf87f54'
Submodule path 'lib/littlefs': checked out '40dba4a556e0d81dfbe64301a6aa4e18ceca896c'
Submodule path 'lib/mbedtls': checked out 'd65aeb37349ad1a50e0f6c9b694d4b5290d60e49'
Submodule path 'lib/microtar': checked out '1e921369b2c92bb219fcef84a37d4d2347794c0f'
Submodule path 'lib/mlib': checked out '62c8ac3e5d4a7a4f8757328e7a80286fde2686b6'
Submodule path 'lib/nanopb': checked out 'afc499f9a410fc9bbf6c9c48cdd8d8b199d49eb4'
PS C:\Users\[redacted]>
```

4.

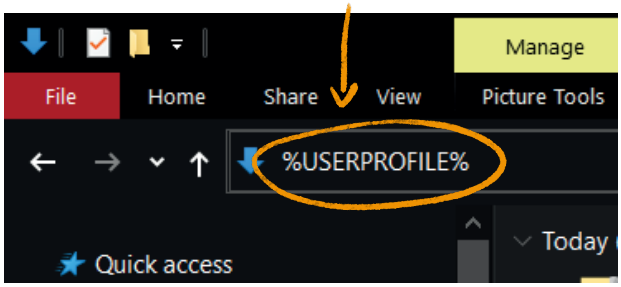
Open up the file explorer, and look for the "flipperzero-firmware" folder you just downloaded.

if you didn't 'cd' into another folder, it should be in your username's home folder
[the one where you can see Documents, Downloads, Pictures, Videos and such]

Also make sure to leave Powershell open in the background for now!

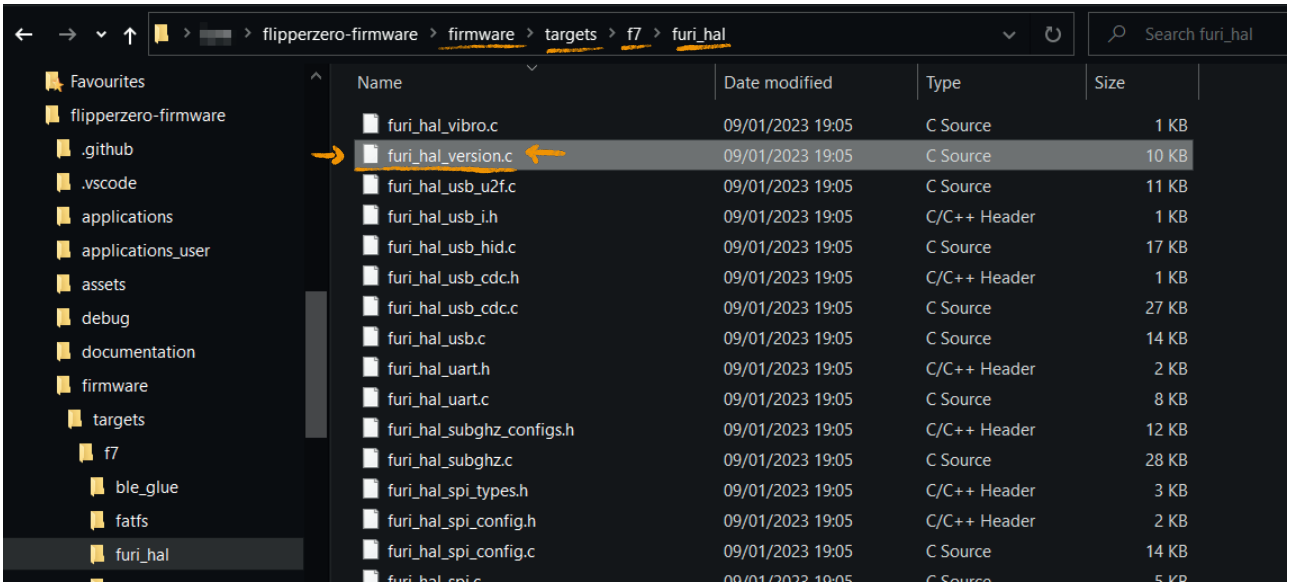


To quickly access the Home folder, type “%USERPROFILE%” (without the “) in the path box (and hit return).



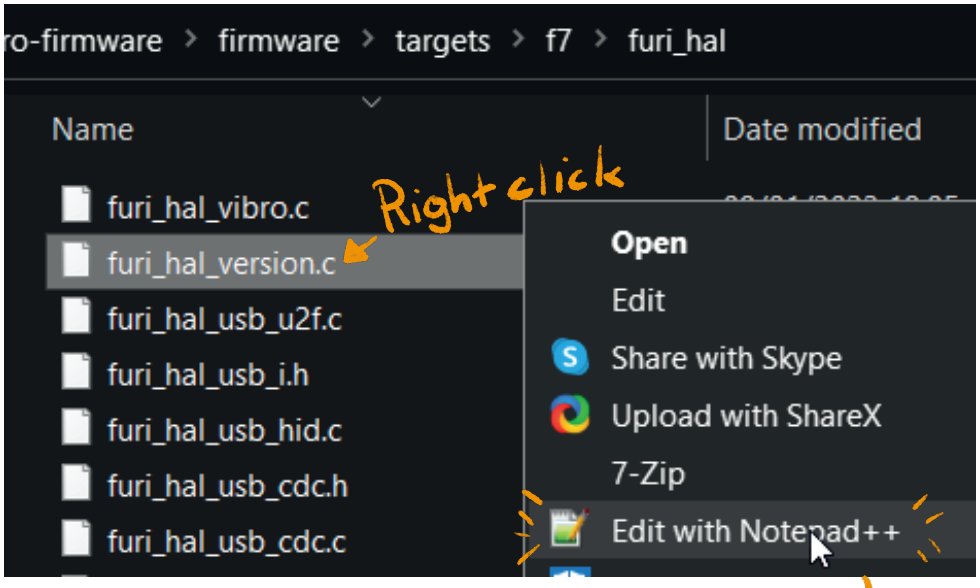
4.

Go to the "firmware" folder, then "targets" then "f7" then "furi_hal" and look for the "furi_hal_version.c" file.



5.

Open the furi_hal_version.c file in your favorite Text editor tool.
For demonstration purposes we're gonna use Notepad++.

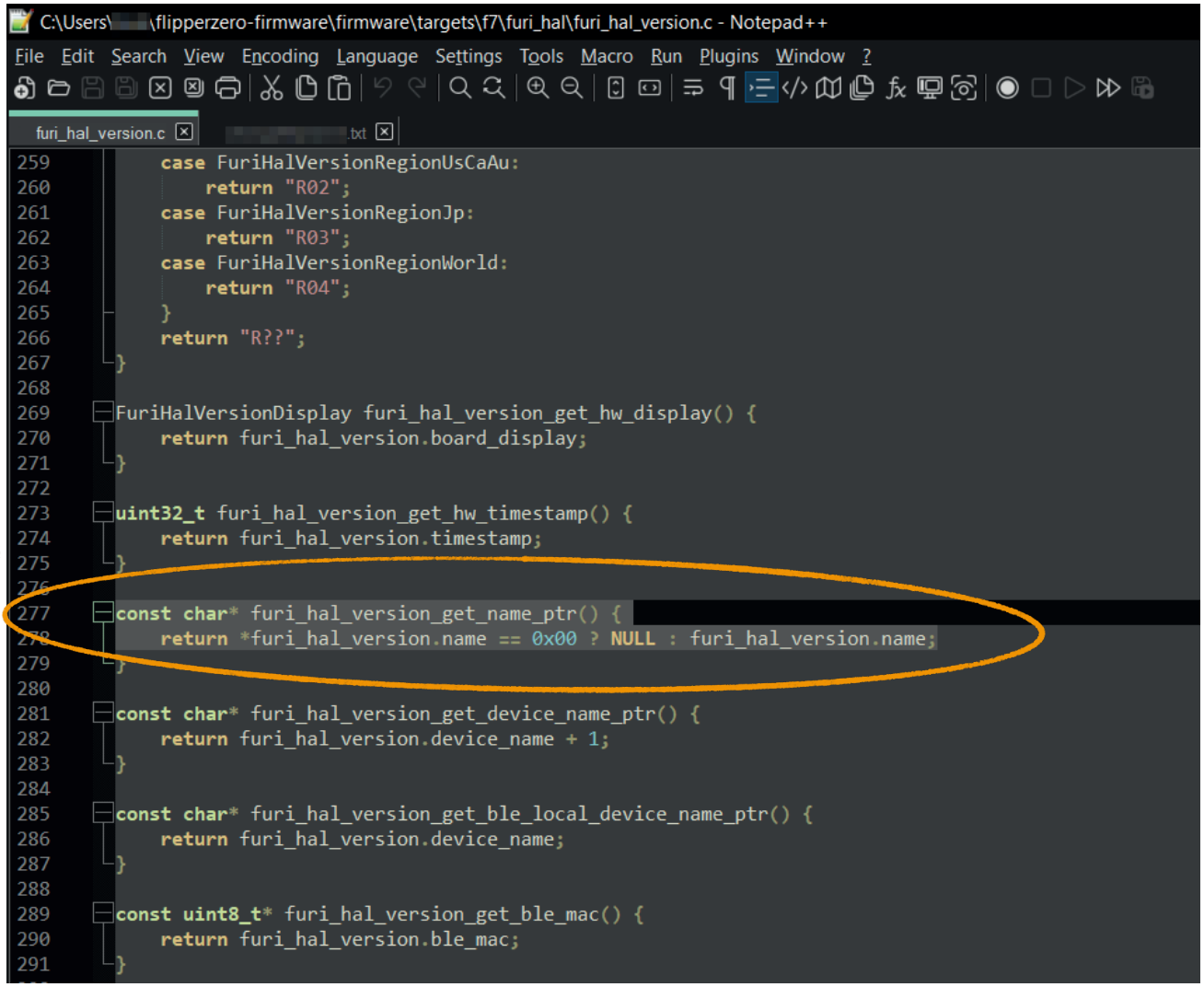


Changing the name in the Source Code

6.

Look for the following 2 lines, which should be around line 270-280:

```
const char* furi_hal_version_get_name_ptr() {
    return *furi_hal_version.name == 0x00 ? NULL : furi_hal_version.name;
```



7.

Replace the part after 'return' so it looks like this:

```
const char* furi_hal_version_get_name_ptr() {
    return "NEWNAME";
```

Don't forget the "" and the ; at the end!
Also replace NEWNAME with the name you want, iirc A-Z 0-9 and _ is allowed, just try to keep it to ≤8 characters long.

For our demonstration purposes, we'll rename our flipper to "Blob"
So, our code should look like that:

```
const char* furi_hal_version_get_name_ptr() {
    return "Blob";
```

C:\Users\ \flipperzero-firmware\firmware\targets\f7\furi_hal\furi_hal_version.c - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

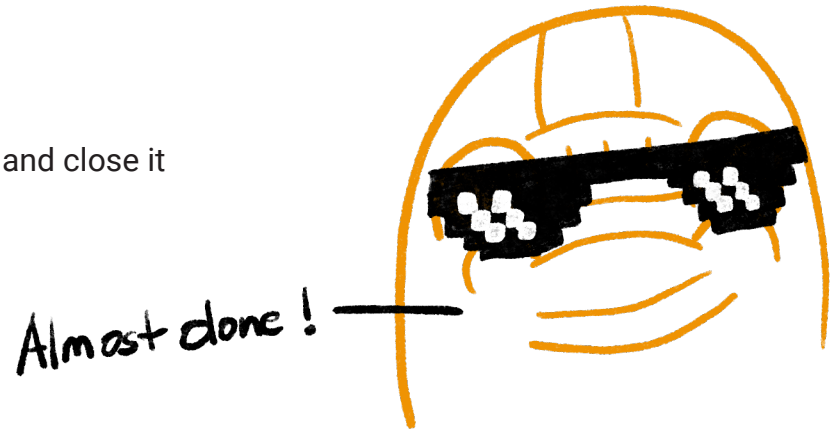
furi_hal_version.c

```
259         case FuriHalVersionRegionUsCaAu:
260             return "R02";
261         case FuriHalVersionRegionJp:
262             return "R03";
263         case FuriHalVersionRegionWorld:
264             return "R04";
265         }
266         return "R??";
267     }
268
269     FuriHalVersionDisplay furi_hal_version_get_hw_display() {
270         return furi_hal_version.board_display;
271     }
272
273     uint32_t furi_hal_version_get_hw_timestamp() {
274         return furi_hal_version.timestamp;
275     }
276
277     const char* furi_hal_version_get_name_ptr() {
278         return "Blob";
279     }
280
281     const char* furi_hal_version_get_device_name_ptr() {
282         return furi_hal_version.device_name + 1;
283     }
284
285     const char* furi_hal_version_get_ble_local_device_name_ptr() {
286         return furi_hal_version.device_name;
287     }
288
289     const uint8_t* furi_hal_version_get_ble_mac() {
290         return furi_hal_version.ble_mac;
291     }
```

This line stays the same!

8.

Save the file and close it



Compiling the changed FirmWare !

9.

Now it's time to go back to our Powershell window

Since it should still be open in our Home directory, all we gotta do is go into the Flipperzero-firmware folder. to do this, type (without the "):

"cd flipperzero-firmware"

Your Powershell window should now look like this:

```
Submodule path 'lib/nanopb': checked out 'afc499f9a410fc9bbf6c9c48cdd8d8b199d49eb4'
PS C:\Users\[redacted]>
PS C:\Users\[redacted]> cd flipperzero-firmware
PS C:\Users\[redacted]\flipperzero-firmware>
```

9.

To compile the source code into a usable firmware update file, we need to use the FBT tool to create an "Updater Package" file, which is basically just a .tgz file our Flipper Zero can use to update itself.

Type the following in your Powershell window (again, without ") and wait for it to finish:

"./fbt updater_package"

```
PS C:\Users\[redacted]> cd flipperzero-firmware
PS C:\Users\[redacted]\flipperzero-firmware> ./fbt updater_package
Downloading Windows toolchain..
```

Since it's the first time we compile the firmware, FBT needs to download and set up "Windows Toolchain", which can take a few minutes. So don't worry if your Powershell window does not seem like it's doing anything!

After a few minutes it should be done and start the compilation process:

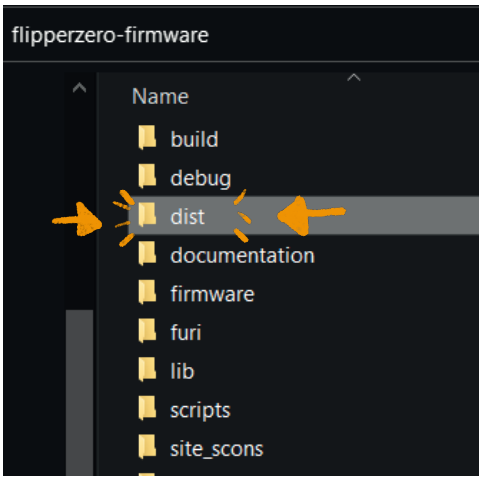
```
Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----         1/9/2023   7:[redacted] PM              toolchain
Extracting Windows toolchain..oving..done!
Cleaning up temporary files..done!


       ICONS   build\f7-firmware-D\assets\compiled\assets_icons.c
       PROTO   assets\protobuf\application.proto
       DOLPHIN blocking
       DOLPHIN internal
       APPS    build\f7-firmware-D\applications\applications.c
2023-01-09 19:55:33,913 [INFO] Processing Dolphin sources
2023-01-09 19:55:33,913 [INFO] Processing Dolphin sources
2023-01-09 19:55:33,914 [INFO] Loading data
2023-01-09 19:55:33,915 [INFO] Loading data
2023-01-09 19:55:33,915 [INFO] Loading directory assets\dolphin\internal
2023-01-09 19:55:33,916 [INFO] Loading directory assets\dolphin\blocking
2023-01-09 19:55:33,917 [INFO] Loading meta from assets\dolphin\internal\L1_Tv_128x47\meta.txt
2023-01-09 19:55:33,919 [INFO] Loading meta from assets\dolphin\blocking\L0_NoDb_128x51\meta.txt
2023-01-09 19:55:33,920 [INFO] Loading meta from assets\dolphin\blocking\L0_SdBad_128x51\meta.txt
2023-01-09 19:55:33,920 [INFO] Loading meta from assets\dolphin\internal\L1_BadBattery_128x47\meta.txt
2023-01-09 19:55:33,921 [INFO] Loading meta from assets\dolphin\blocking\L0_SdOk_128x51\meta.txt
2023-01-09 19:55:33,922 [INFO] Loading meta from assets\dolphin\internal\L1_NoSd_128x49\meta.txt
2023-01-09 19:55:33,922 [INFO] Loading meta from assets\dolphin\blocking\L0_Url_128x51\meta.txt
2023-01-09 19:55:33,923 [INFO] Packing
2023-01-09 19:55:33,924 [INFO] Loading meta from assets\dolphin\blocking\L0_NewMail_128x51\meta.txt
2023-01-09 19:55:33,927 [INFO] Packing
       CC      applications\main\archive\helpers\archive_apps.c
       CC      applications\main\archive\helpers\archive_browser.c
       CC      applications\main\archive\helpers\archive_favorites.c
       CC      applications\main\archive\helpers\archive_files.c
2023-01-09 19:55:34,421 [INFO] Complete
2023-01-09 19:55:34,438 [INFO] Complete
```

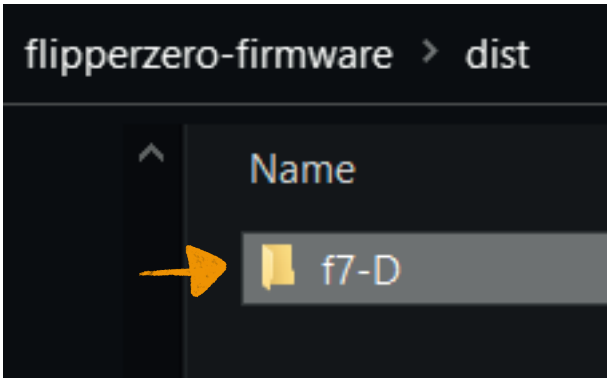
After the compilation is done, your Powershell window should look like this:
(and tell you that the firmware binaries/files are in “dist\f7-D”)

```
2023-01-09 19:58:35,276 [INFO] Only in new: dolphin/L1_Furippa1_128x64/frame_17.bm
2023-01-09 19:58:35,278 [INFO] Only in new: dolphin/L2_Wake_up_128x64/frame_12.bm
2023-01-09 19:58:35,279 [INFO] Only in new: dolphin/L1_Sleigh_ride_128x64/frame_30.bm
2023-01-09 19:58:35,279 [INFO] Only in new: badusb/demo_windows.txt
2023-01-09 19:58:35,280 [INFO] Only in new: apps
2023-01-09 19:58:35,281 [WARNING] Manifests are different, updating
2023-01-09 19:58:35,283 [INFO] Complete
2023-01-09 19:58:40,543 [INFO] Firmware binaries can be found at:
       dist\f7-D
2023-01-09 19:58:40,564 [INFO] Using guessed radio address 0x080D7000, verify with Release_Notes or specify --radioaddr
2023-01-09 19:58:40,838 [INFO] Use this directory to self-update your Flipper:
       dist\f7-D\f7-update-local
PS C:\Users\[redacted]\flipperzero-firmware>
```

10.

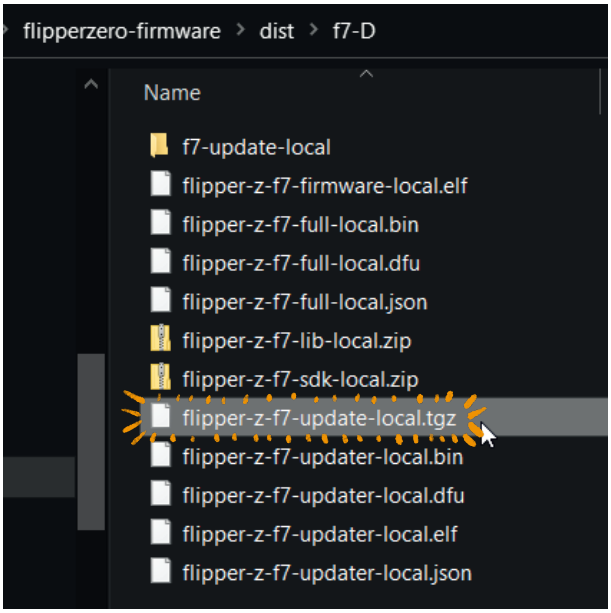
To find the compiled firmware, go back to the File Explorer, inside into the flipperzero-firmware folder and go into the “dist” and inside the “f7-D” folder.





11.

You should see a flipper-z-f7-update-local.tgz file inside that folder

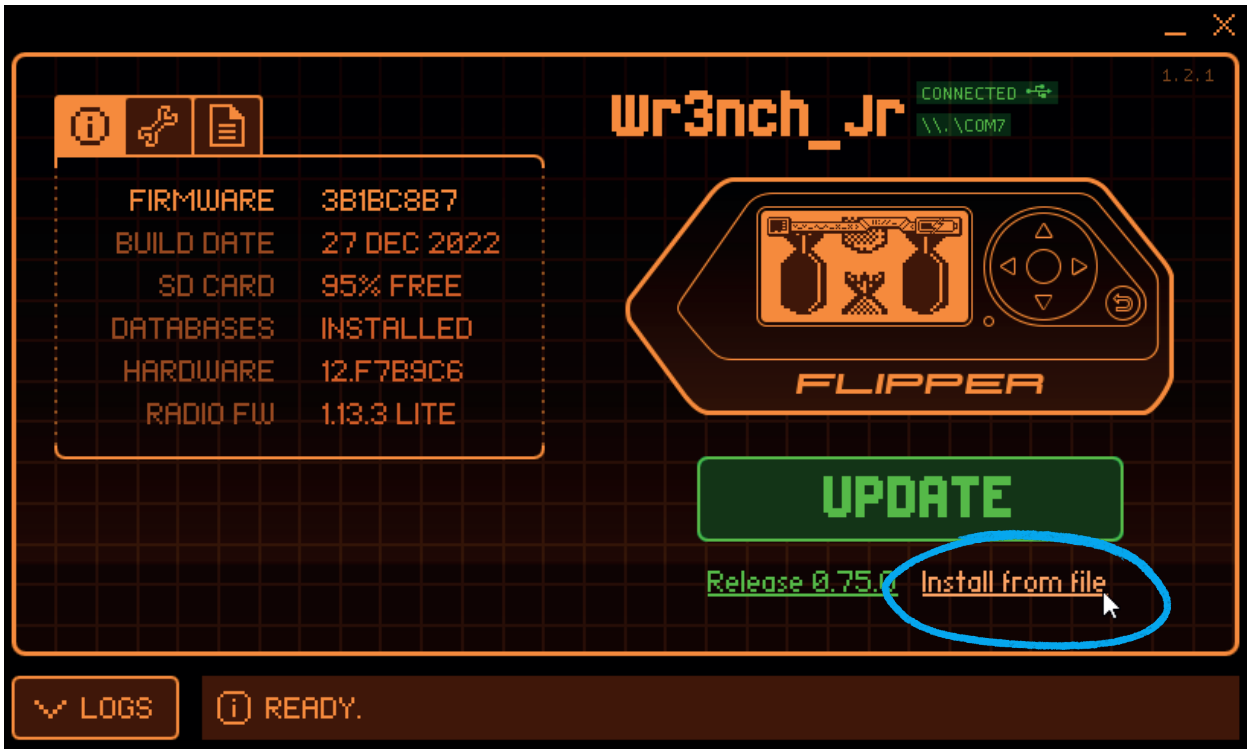


Installing the newly created FirmWare

12.

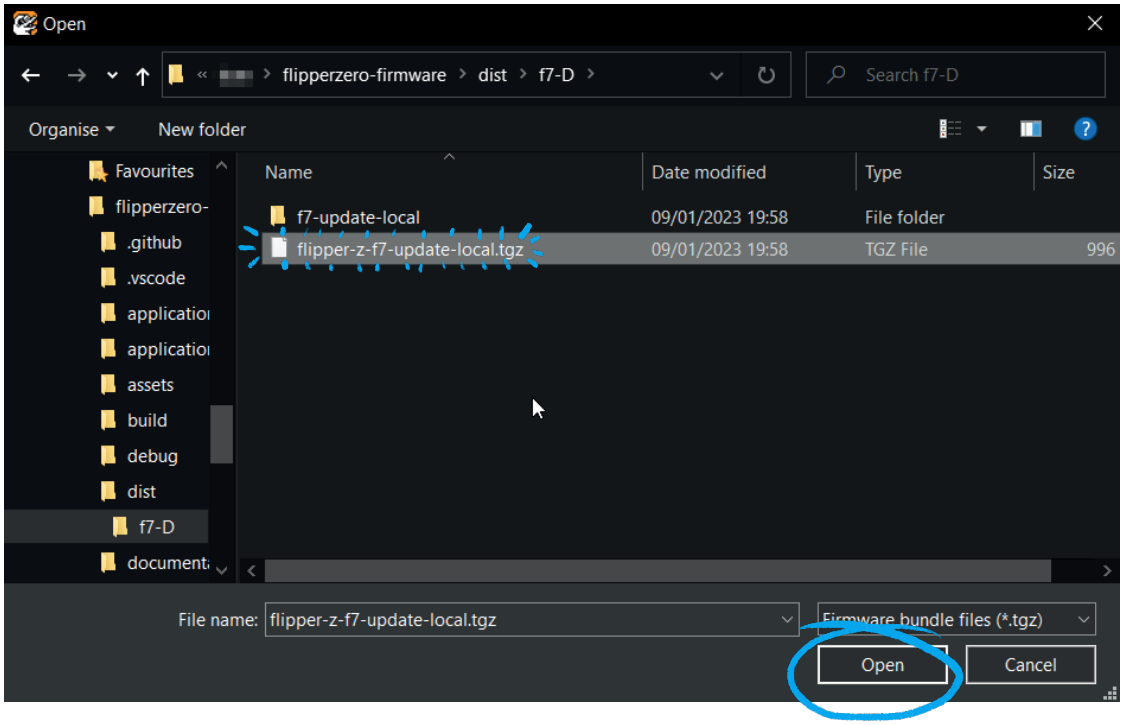
To install the new Firmware, start the qFlipper Desktop Application, and plug in your Flipper

Then select the “Install from file” option

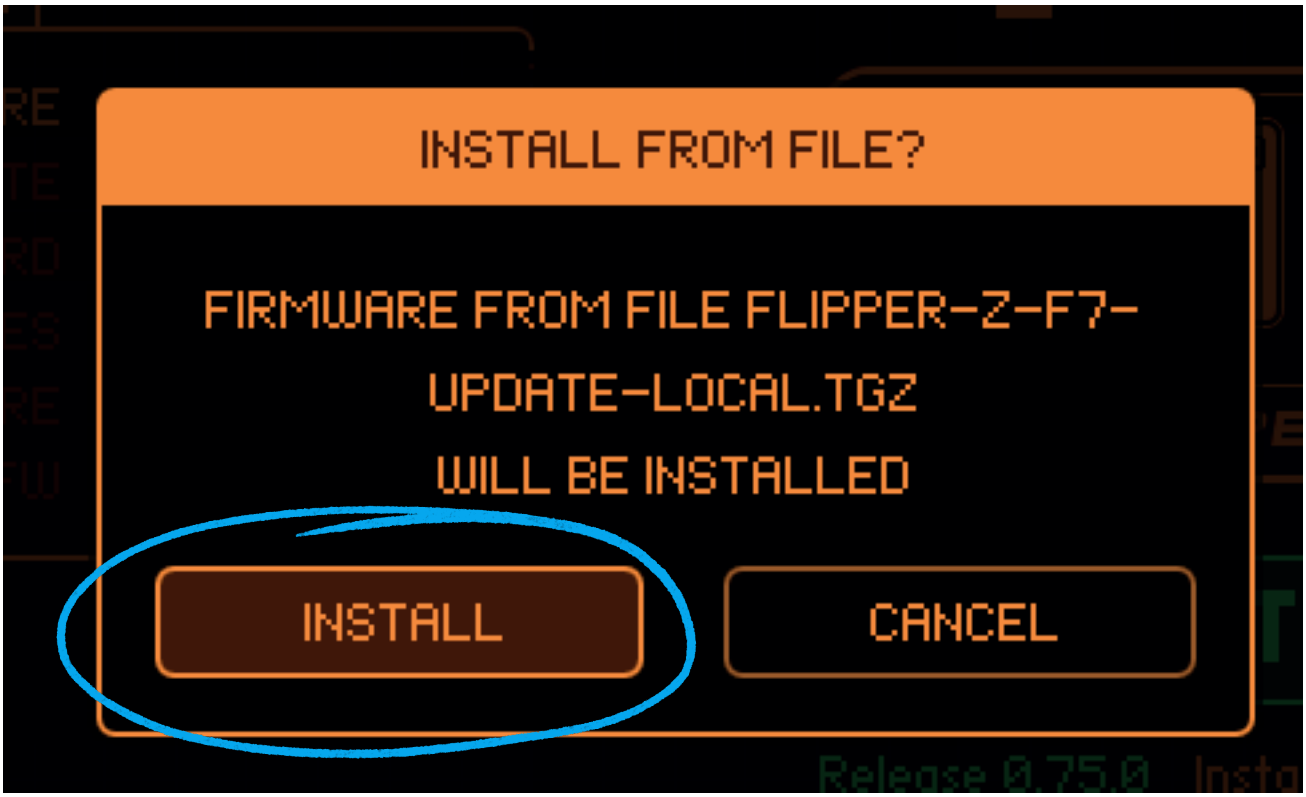


13.

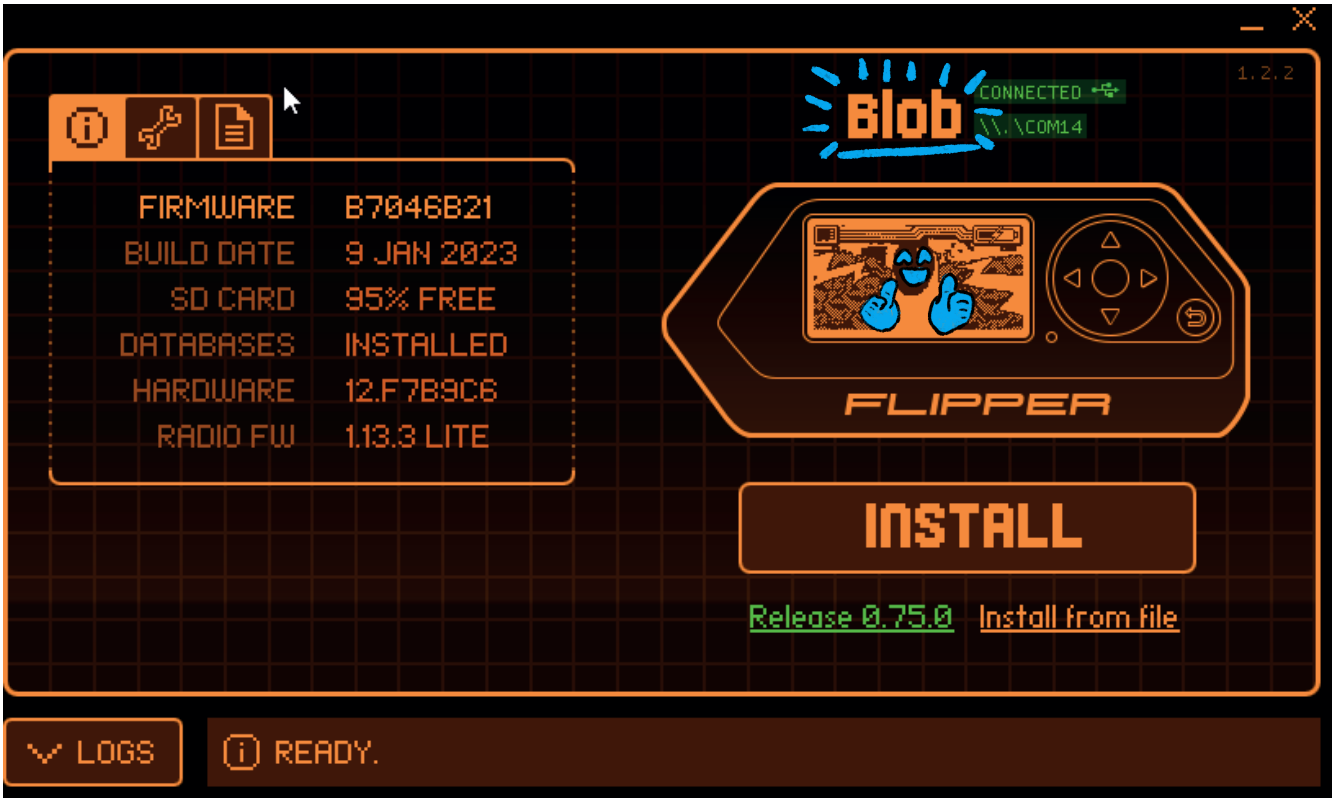
Now go the the flipperzero-firmware/dist/f7-D folder where the .tgz file is and select “Open”



This window should appear, just click on Install to start the installation process



And after the update, you should see the new name in qFlipper and the Passport page!



Troubleshooting !?

Should you have Issues installing the .tgz file, you can always use the .dfu file instead.
To do so, you have to go into the DFU mode:

• either by Holding the Center button + Back for 30 seconds

• or select the “Firmware upgrade” option in Settings > Power > Reboot on your Flipper

FYI: This will reset your Flipper level!

Your qFlipper will change its option from Update to Repair.
Click on “install from file” again and select the .dfu file instead of the .tgz one.