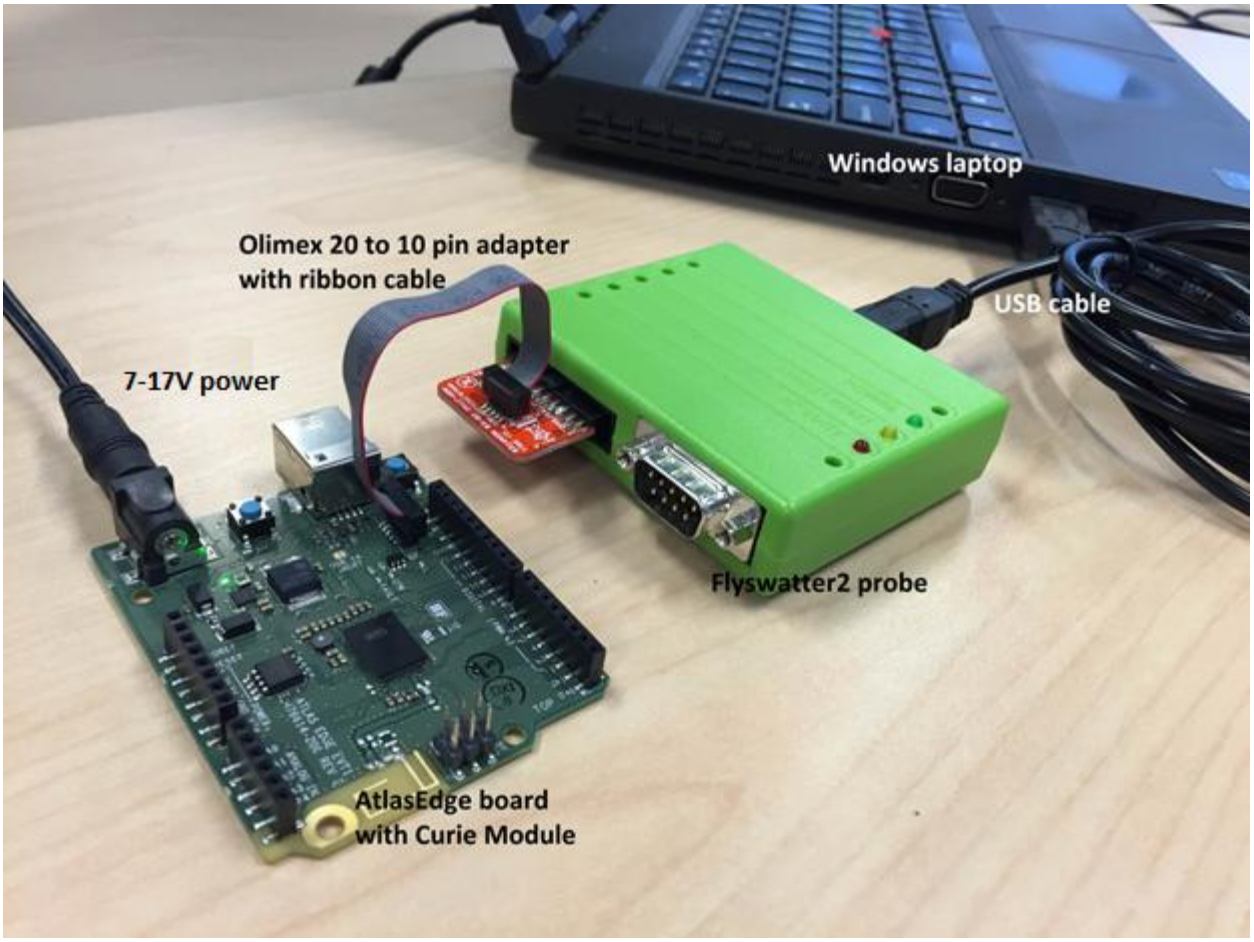
AtlasEdge Firmware Update

Tables of Contents

Firmware Update Using JTAG

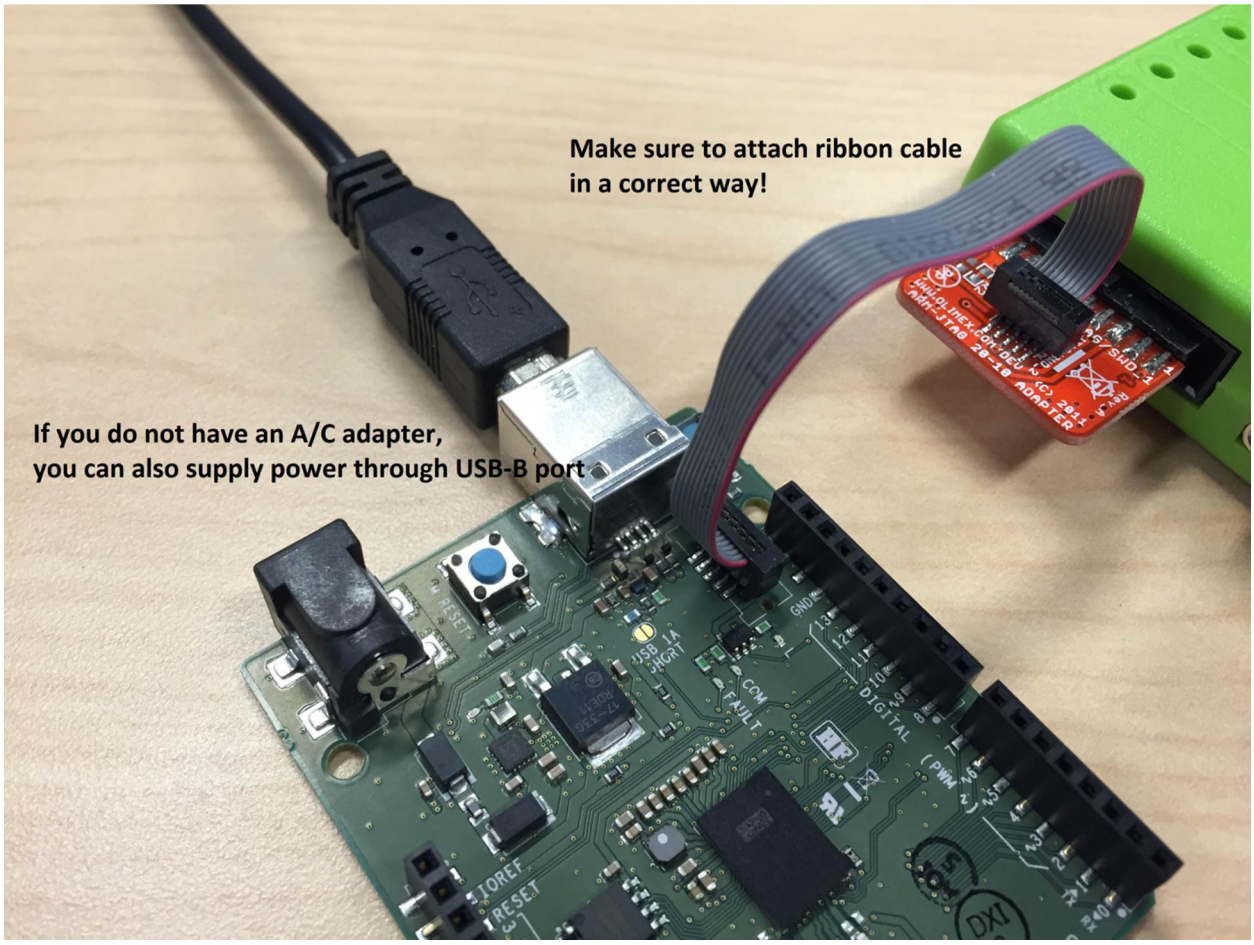
1. Connect all wires as shown on the picture



Components listing:

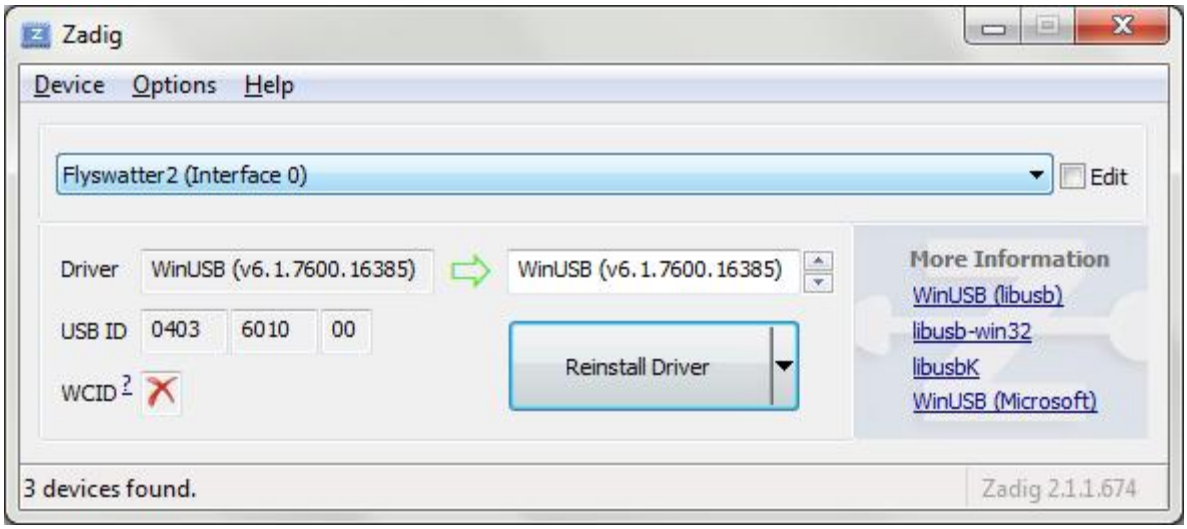
a. Windows laptop
b. Flyswatter2 JTAG probe with USB cable
c. Olimex 20 to 10 pin adapter with ribbon cable
d. AtlasEdge board with 7-17V DC power supply (or USB-B cable)

Make sure to attach ribbon cable in a correct way, as shown on the photo!



2. Install Flyswatter2 probe drivers:

2.1. Windows



a. Plug in Flyswatter2 probe to the host

b. Go to bin\ directory, run "zadig_2.1.1.exe".
c. Options > List all devices.
d. Select your probe (Flyswatter2), pick WinUSB and hit Reinstall Driver; do it for Interface 0 and Interface 1.
e. Close zadig and **REPLUG YOUR PROBE!**

2.2. Linux

By default, non-root users won't have access to the JTAG pods connected via USB. You must grant write access to the proper /dev/bus/usb entry every time a device is connected to be able to run OpenOCD using a non-root account. The process can be automated by adding an udev rule. Simply create a text file in the rules directory:

```
$ sudo vim /etc/udev/rules.d/99-openocd.rules
```

The IDs depend on the JTAG device. For example, for the Flyswatter2* and the Olimex-ARM-USB-OCD-H, the rules file must have the following content:

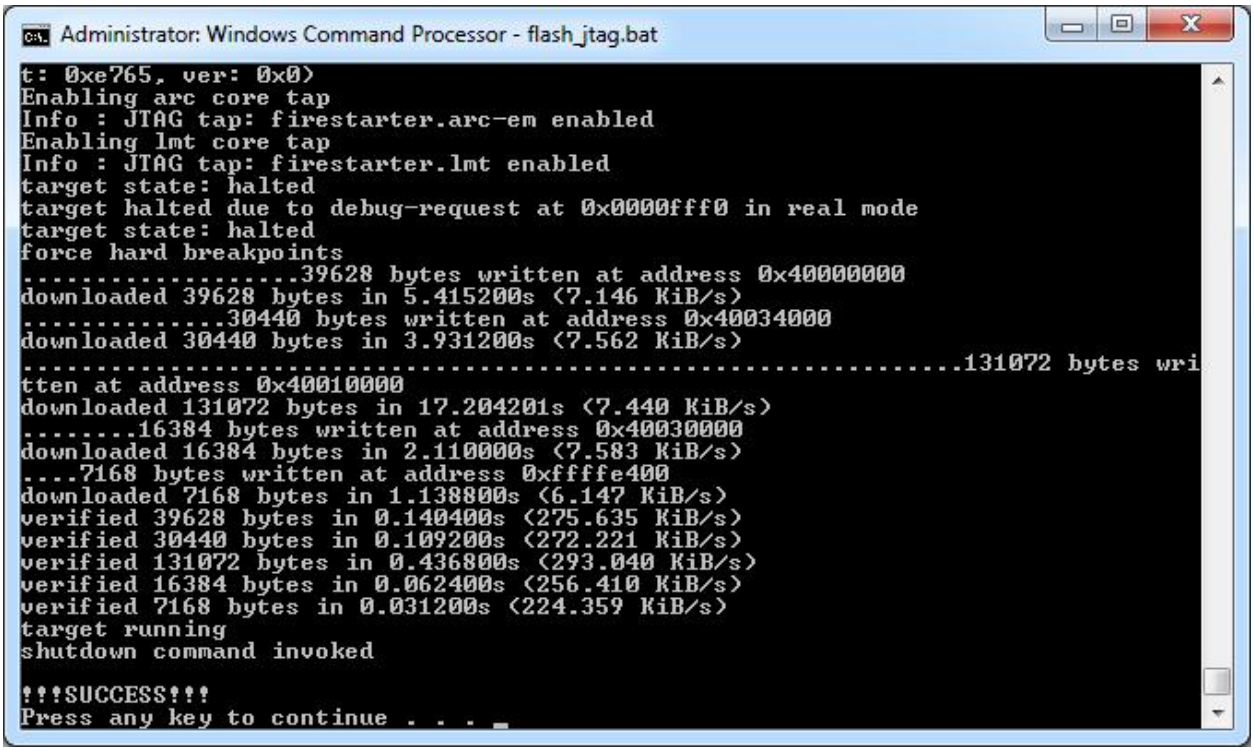
```
SUBSYSTEM=="usb", ATTR{idVendor}=="0403",
ATTR{idProduct}=="6010", MODE="0666"
SUBSYSTEM=="usb", ATTR{idVendor}=="15ba",
ATTR{idProduct}=="002b", MODE="0666"
```

(See drivers/rules.d/99-openocd.rules)

3. Flash the firmware

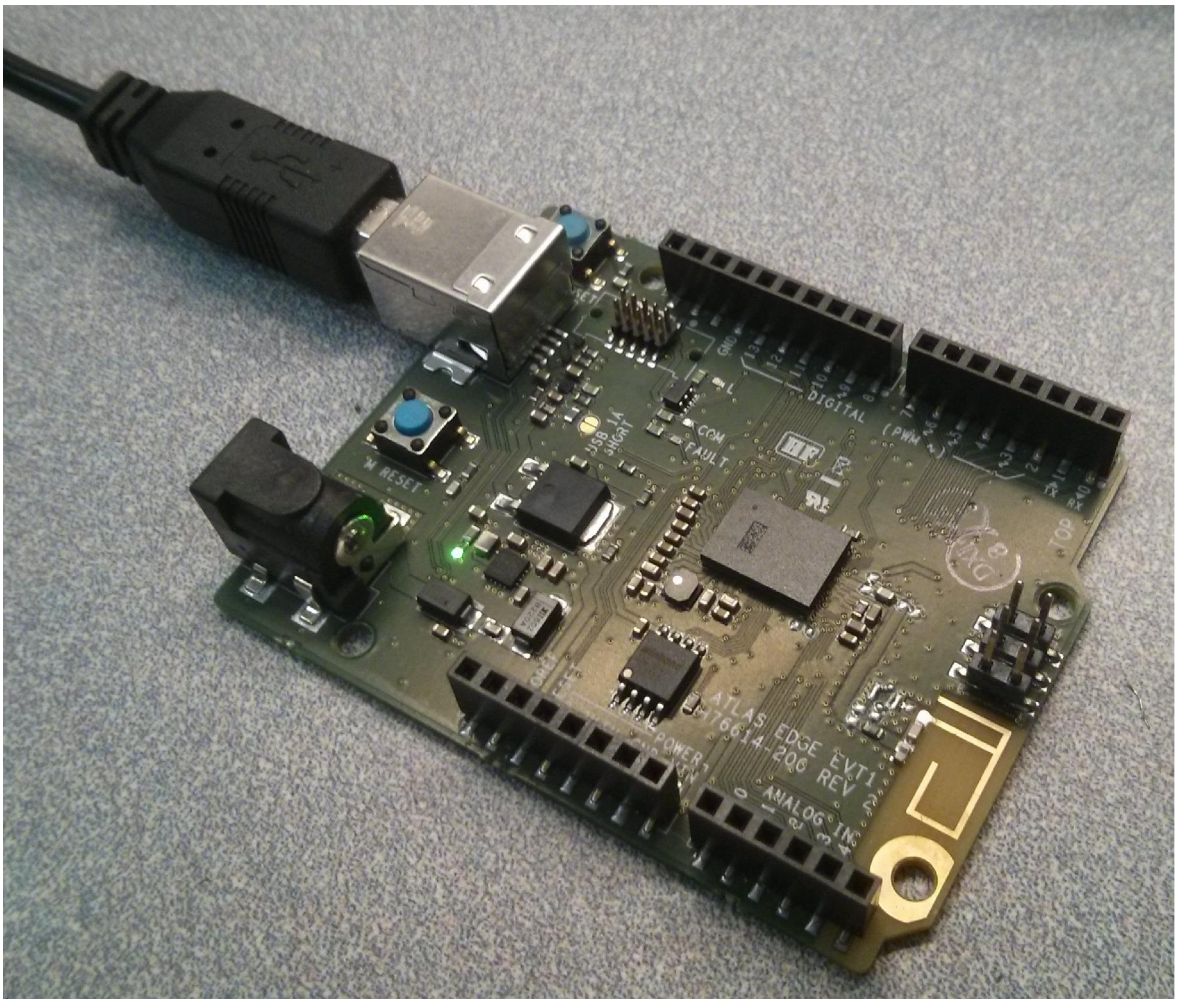
a. Download and extract the latest firmware release and extract it
b. In the extracted atlasedge_flasher directory, run the flashing script:
    - **Windows:** Execute (double-click) **flash-jtag.bat** in order to flash production image.
    - **Linux:** Run **flash-jtag.sh** in order to flash production image
    - **OSX:** Not supported

Below is how a successful flash looks like



Firmware Update Using USB

1. Connect USB cable to board as shown



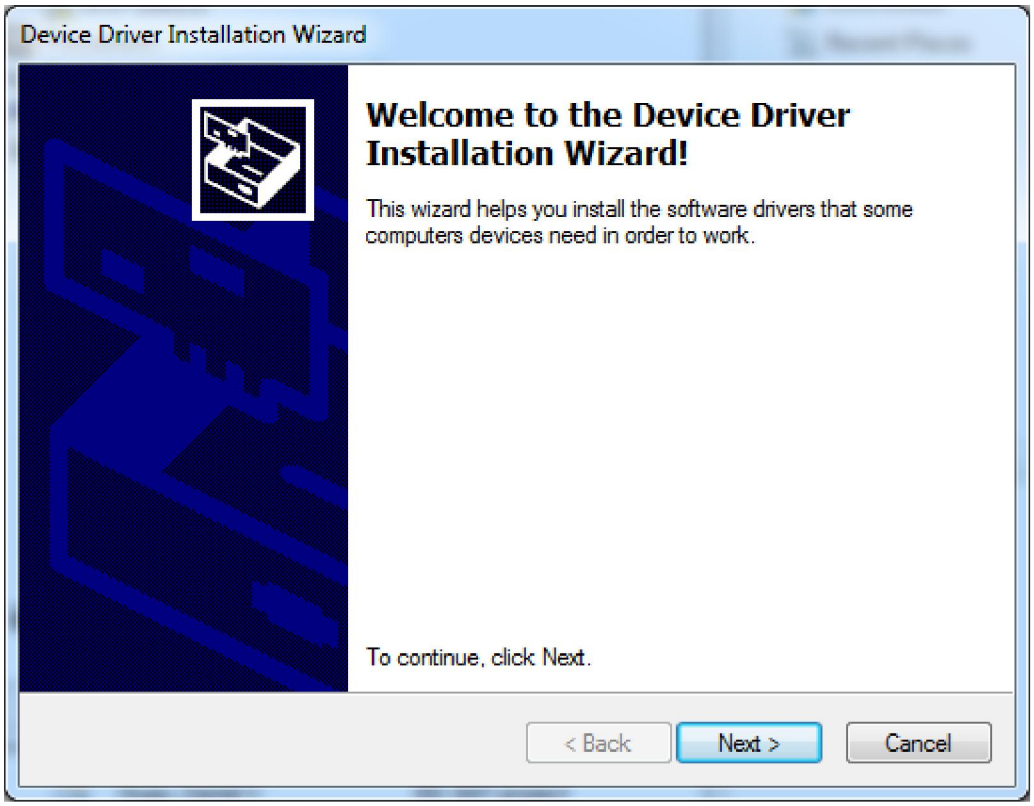
Components listing:

a. PC with installed operating system: Mac OSX/Linux/Windows
b. USB cable
c. AtlasEdge board
d. 7-17V **DC** power supply (or USB-B cable)

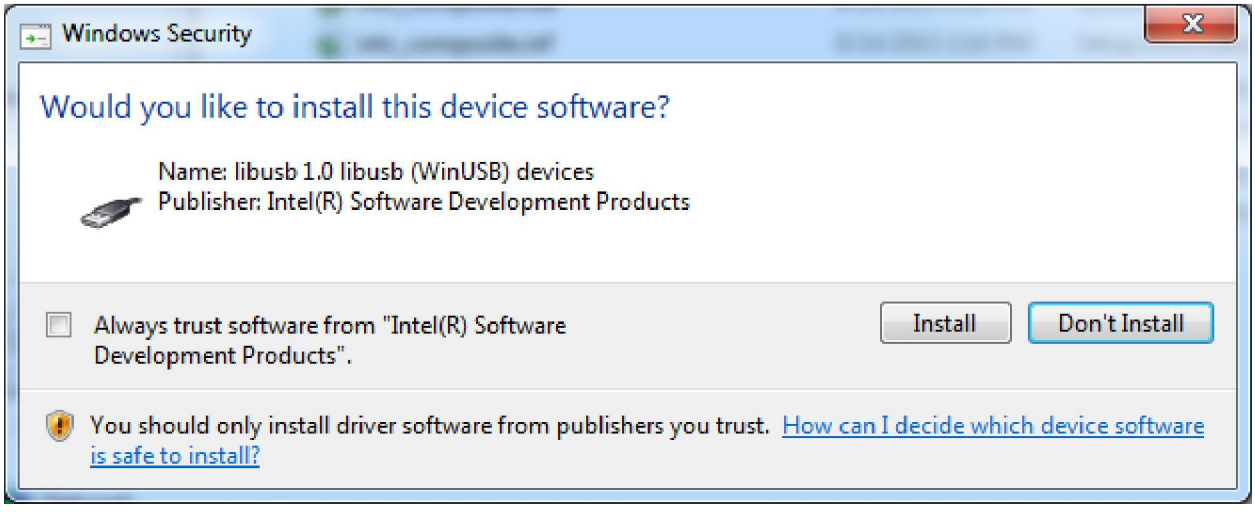
2. Install drivers

2.1. Windows

a. Run:
- drivers\Windows\dpinst-amd64.exe (on 64-bit Windows systems)
- drivers\Windows\dpinst-x86.exe (on 32-bit Windows systems)



b. Click Next



c. Click **Install**

d. Click **Finish**

2.2. Linux

The DFU device can be set up for use by regular users by editing a text file in the rules directory:

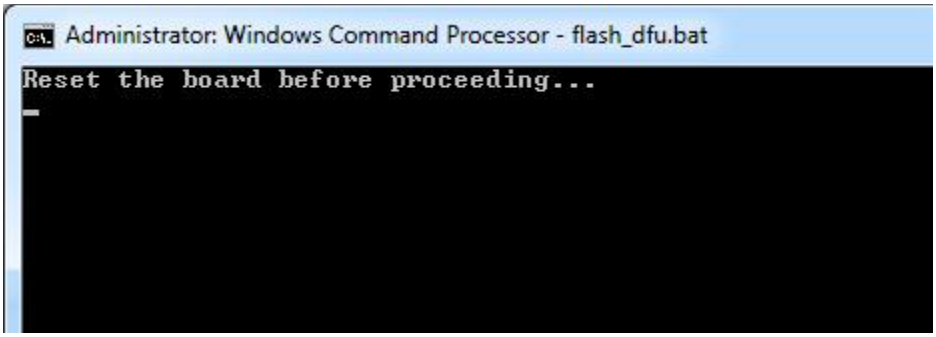
$ sudo vi /etc/udev/rules.d/99-dfu.rules

```
SUBSYSTEMS=="usb", ATTRS{idProduct}=="0a??",
ATTRS{idVendor}=="8087", MODE="666", GROUP="plugdev"
```

(See drivers/rules.d/99-dfu.rules)

3. Flash firmware

a. In the extracted "atlasedge_flasher_…" directory, run the flashing script:
   - **Windows:** Execute (double-click) **flash-dfu.bat**
   - **Linux or OSX:** Run **flash-dfu.sh**



b. Press the **reset** button on the board to start the flash process

b. Below is how a successful **DFU** flash looks like