Arduino Giga Recovery Guide

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Background

This document outlines the procedure to recover a bricked Arduino Giga R1 board.

> ! Important
>
> This guide does **NOT** return the Arduino Giga to its factory state *(ie the ability to flash via USB with the Arduino IDE)*. However it can be applicable as a first step to a factory restore to Arduino defaults.

After having does a few tests with code generated by STM32CubeMX, I once found one of my Arduinos in a seemingly dead state, no signs of life other than the power LED and a daunting error when trying to flash: `Error: Failed to initialize DAP`. After many hours of trying things, I finally managed to figure out how to recover the mcu when it has been flashed with firmware that rendered it lifeless.

> i Note
>
> Once the board is recovered, **CHECK** your RCC configuration in STM32CubeMX, it is likely a power configuration issue where RCC tries to power from an external SMPS when it should be set to LDO_INTERNAL

Recovery

Prerequisites

In order to recover the board, you will need the following:

- STM32CubeProgrammer
- A USB-C cable

Process

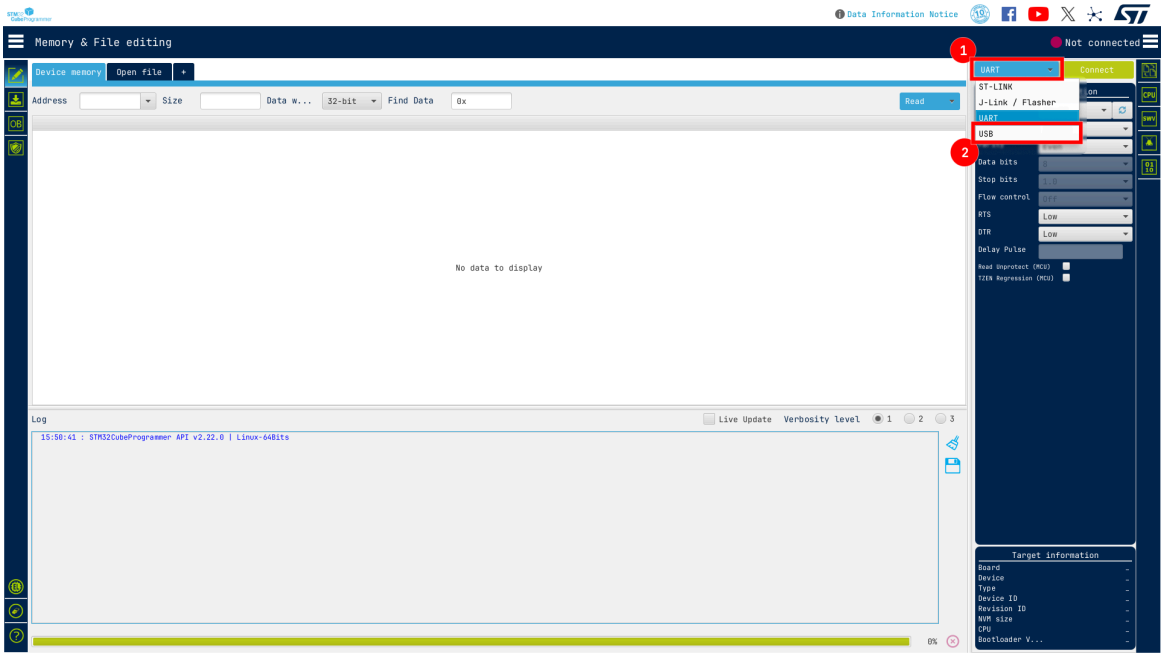

Figure 1: Connection Mode Selection

Open up STM32CubeProgrammer and set the connection mode to USB

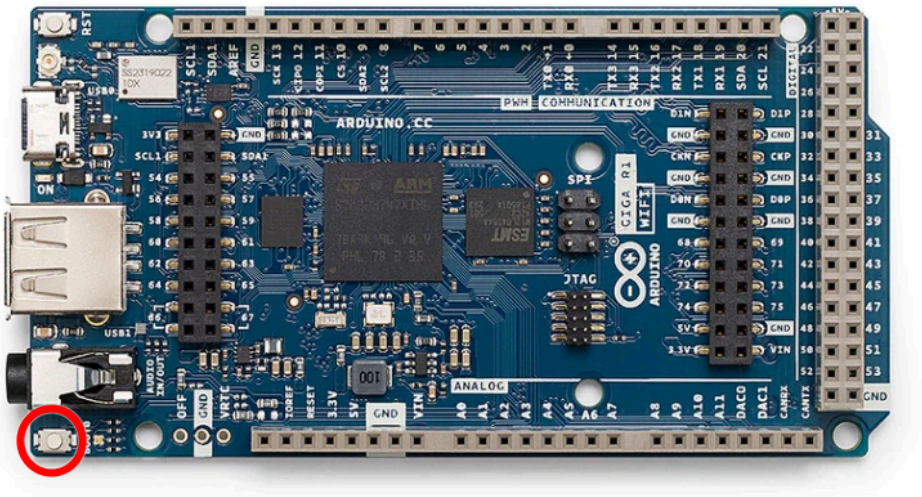

Figure 2: Arduino Giga BOOT Button

Then while holding down the `BOOT` button on the Arduino Giga, plug it in. Keep holding the button down for about 5 seconds then release.

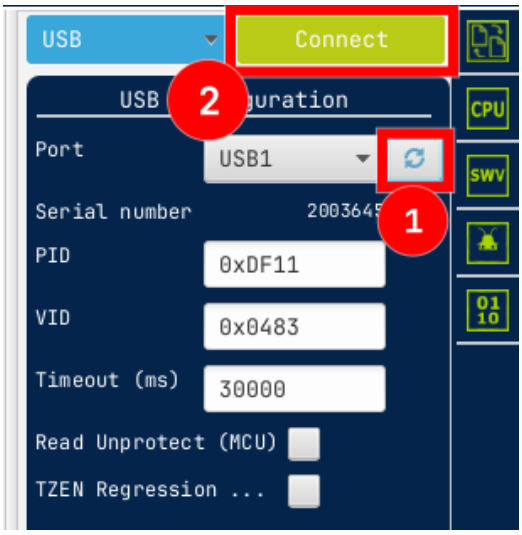

Figure 3: Refresh and Connect Sequence

Then (1) click the refresh button in STM32CubeProgrammer, you should see a USB device appear, if it doesnt, unplug your board and try the previous step again.

Once the device is recognized, (2) click on connect to establish a connection to the board.

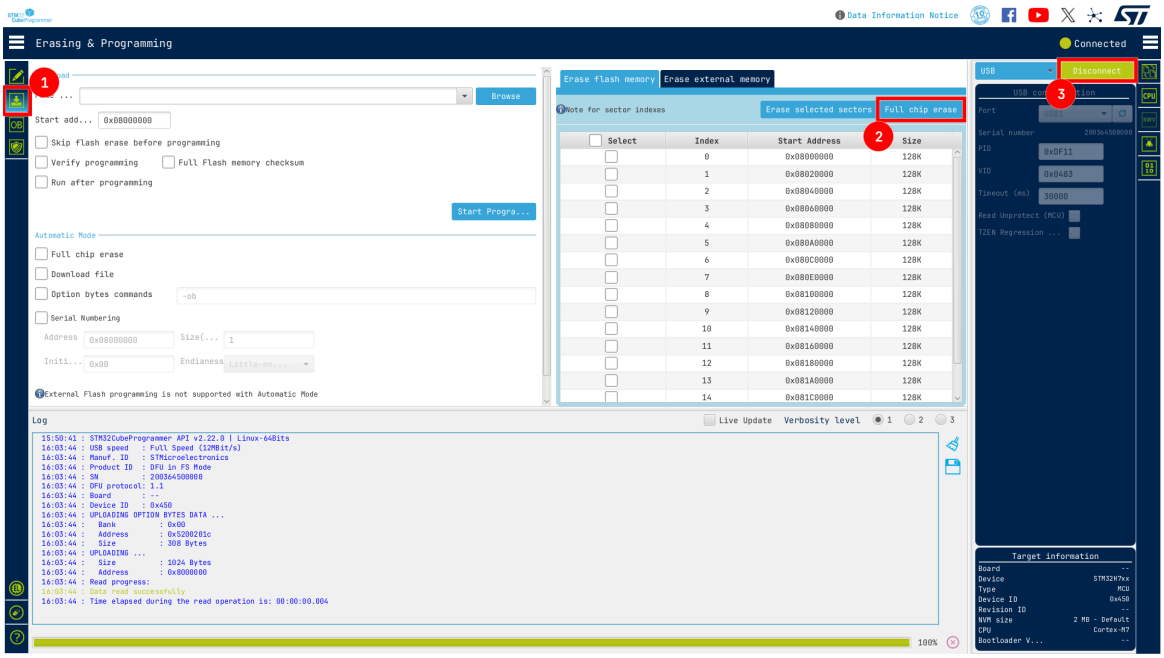

Figure 4: Full Chip Erase Sequence

You can now proceed to a chip erase: 1. Open the “Erasing and Programming” window 2. Click the “Full chip erase” button, acknowledge any warnings etc 3. Once the chip erase is complete, click disconnect

Congrats, you have successfully unbricked your board, you should now be able to connect to it via JLink. Now good luck finding the config fluke that bricked it.