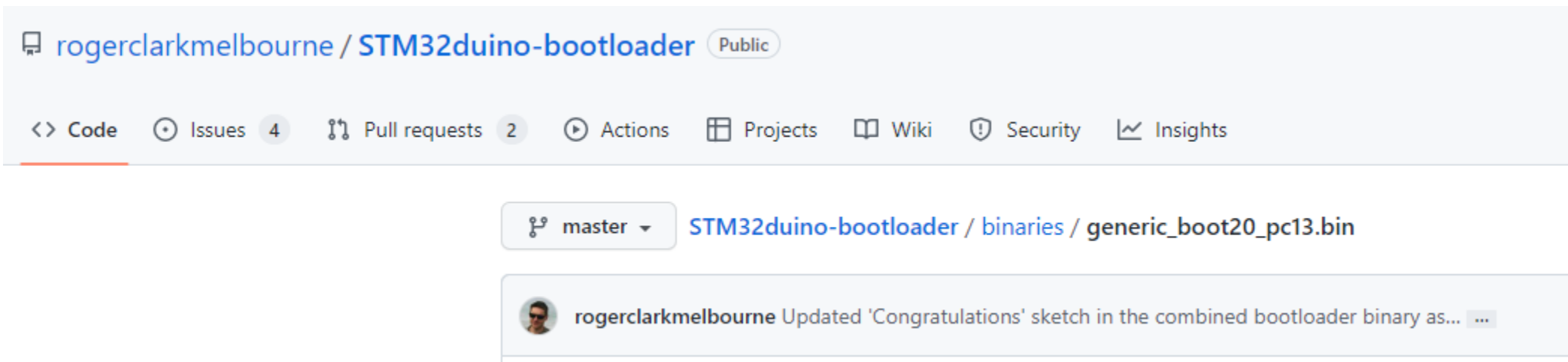


This is a **UPDATED** document is based on the following document:

<https://www.electronicshub.org/how-to-upload-stm32f103c8t6-usb-bootloader/>



The screenshot shows the GitHub interface for the repository 'rogerclarkmelbourne / STM32duino-bootloader'. The repository is marked as 'Public'. The navigation bar includes links for Code, Issues (4), Pull requests (2), Actions, Projects, Wiki, Security, and Insights. The current view is the file path 'master / STM32duino-bootloader / binaries / generic_boot20_pc13.bin'. A commit message is visible: 'rogerclarkmelbourne Updated 'Congratulations' sketch in the combined bootloader binary as...'

rogerclarkmelbourne / STM32duino-bootloader Public

<> Code Issues 4 Pull requests 2 Actions Projects Wiki Security Insights

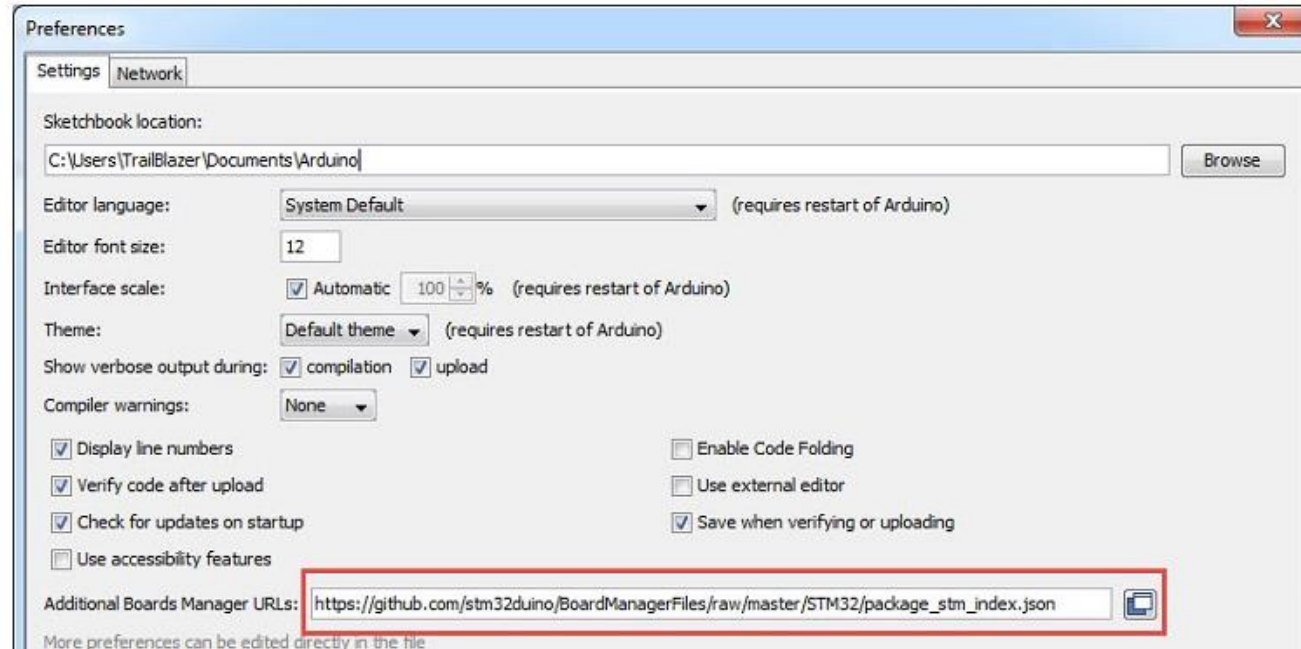
master STM32duino-bootloader / binaries / generic_boot20_pc13.bin

rogerclarkmelbourne Updated 'Congratulations' sketch in the combined bootloader binary as... ...

Configuring Arduino IDE to Program STM32F103C8T6 Blue Pill

I am sure you already have Arduino IDE installed on your PC (or Laptop). If not, then install it first. After than open your Arduino IDE and select File -> Preferences. You will find a tab called "Additional Boards Manager URLs". Copy the following link and paste it there.

" https://github.com/stm32duino/BoardManagerFiles/raw/master/STM32/package_stm_index.json "



Boards Manager

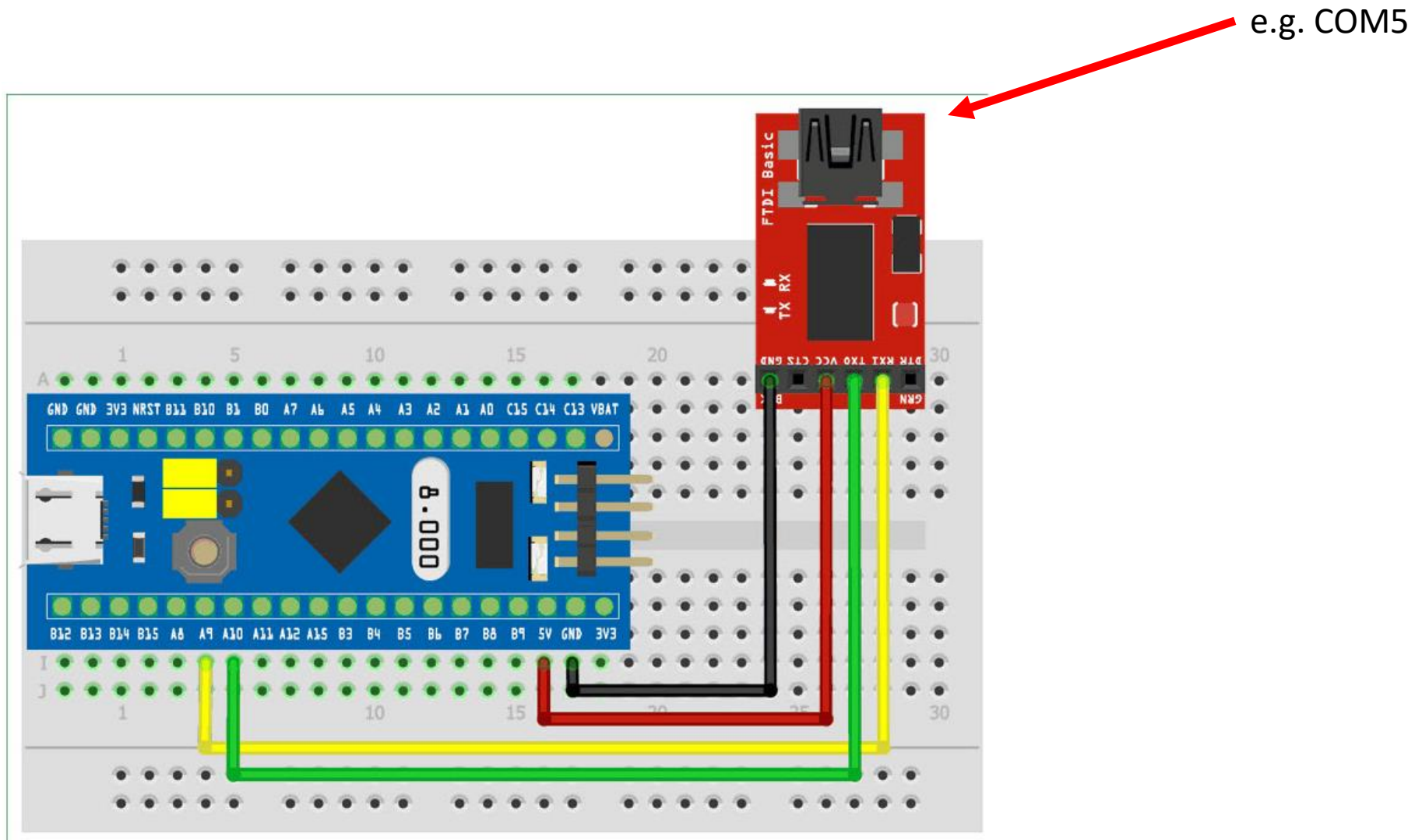
Type All STM32

[DEPRECATED - Please use new package index] STM32 Cores
by **STMicroelectronics** version **1.8.0** **INSTALLED DEPRECATED**
Boards included in this package:
DEPRECATED - Please use new package index:
https://github.com/stm32duino/BoardManagerFiles/raw/main/package_stmicroelectronics_index.json.
[Online Help](#)
[More Info](#)

Select version Install Update Remove

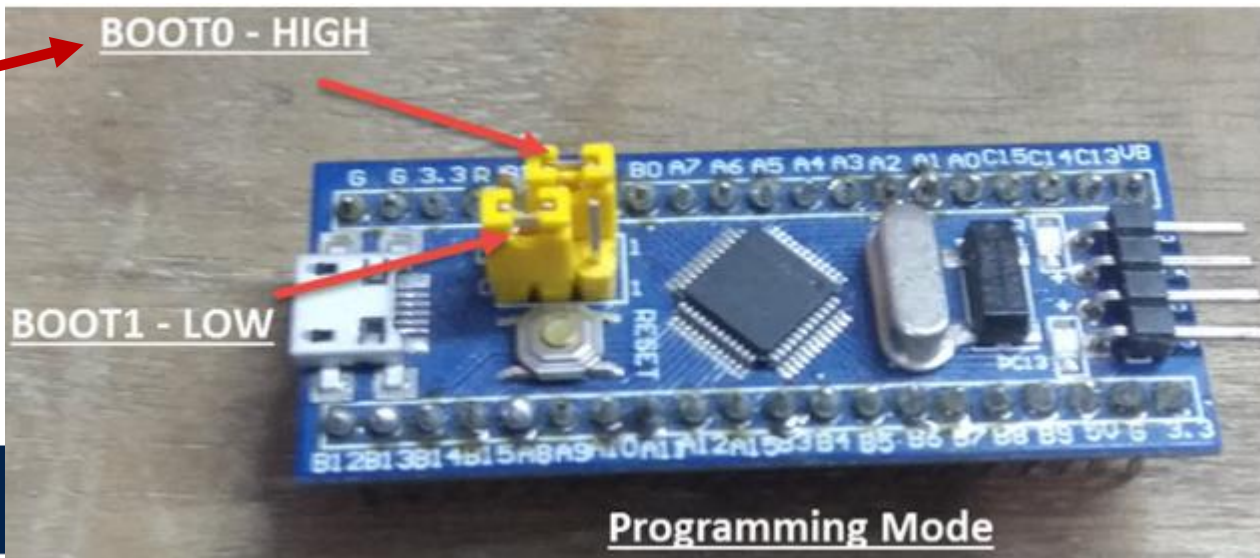


Install this !!!



<https://www.electronicshub.org/how-to-upload-stm32f103c8t6-usb-bootloader/>

Change Jumper to this position !!



STM32 CubeProgrammer

Erasing & Programming

Download

File path: C:\Users\theun\Downloads\generic_boot20_pc

Start addr...: 0x08000000

Skip flash erase before programming

Verify programming

Run after programming

Start Programm...

Automatic Mode

Full chip erase

Programming Mode

Erase flash memory | Erase external memory

Erase selected sectors | Full chip erase

Select	Index	Start Address	Size
<input type="checkbox"/>	0	0x08000000	1K
<input type="checkbox"/>	1	0x08000400	1K
<input type="checkbox"/>	2	0x08000800	1K
<input type="checkbox"/>	3	0x08000C00	1K
<input type="checkbox"/>	4	0x08001000	1K
<input type="checkbox"/>	5	0x08001400	1K
<input type="checkbox"/>	6	0x08001800	1K

UART configuration

Port: COM5

Baudrate: 115200

Parity: Even

Data bits: 8

Stop bits: 1.0

Flow control: Off

RTS: 0

DTR: 0

e.g. COM5

Blink | Arduino 1.8.19

File Edit Sketch Tools Help

Blink \$

```
modified by Arturo
modified by Colby

This example
https://www.arduino.cc/en/tutorial/blink
*/

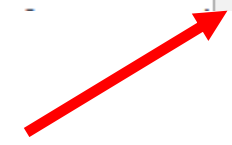
// the setup routine runs once when you press reset
#define LED_BUILTIN 13
void setup() {
  // initialize digital pin LED_BUILTIN as an output.
  pinMode(LED_BUILTIN, OUTPUT);
}

// the loop routine runs over and over again forever
void loop() {
  digitalWrite(LED_BUILTIN, HIGH); // turn the LED on (HIGH is the voltage level)
  delay(100); // wait for a second
  digitalWrite(LED_BUILTIN, LOW); // turn the LED off by making the voltage LOW
  delay(2000); // wait for a second
}
```

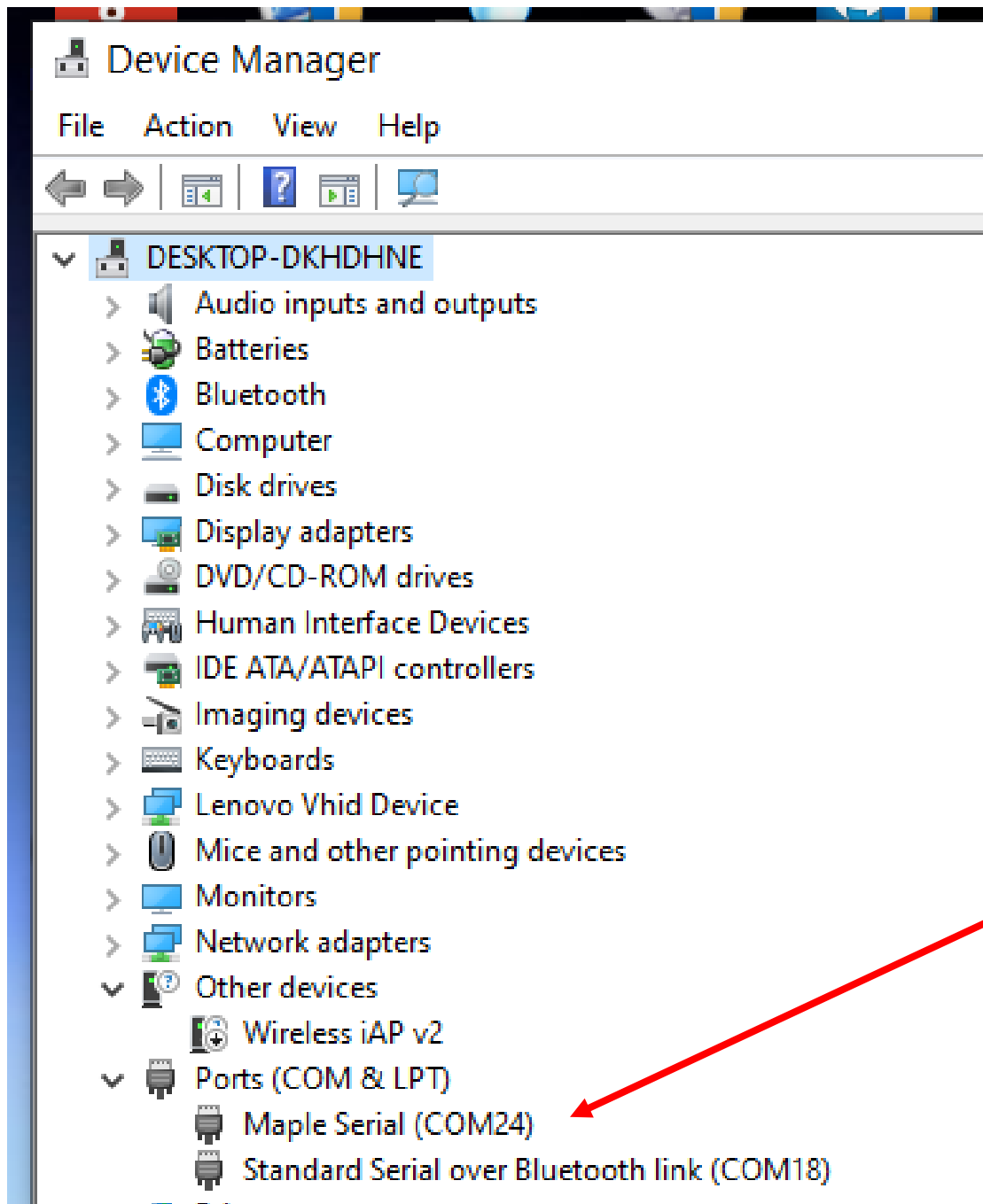
Auto Format	Ctrl+T
Archive Sketch	
Fix Encoding & Reload	
Manage Libraries...	Ctrl+Shift+I
Serial Monitor	Ctrl+Shift+M
Serial Plotter	Ctrl+Shift+L
WiFi101 / Wi-Fi NINA Firmware Updater	
Board: "Generic STM32F1 series"	>
Board part number: "BluePill F103C8"	>
U(S)ART support: "Enabled (generic 'Serial')"	>
USB support (if available): "None"	>
USB speed (if available): "Low/Full Speed"	>
Optimize: "Smallest (-Os default)"	>
C Runtime Library: "Newlib Nano (default)"	>
Upload method: "Maple DFU Bootloader 2.0"	>
Port: "COM24"	>
Get Board Info	>
Programmer	>
Burn Bootloader	>

Auto Format	Ctrl+T
Archive Sketch	
Fix Encoding & Reload	
Manage Libraries...	Ctrl+Shift+I
Serial Monitor	Ctrl+Shift+M
Serial Plotter	Ctrl+Shift+L
WiFi101 / Wi-Fi NINA Firmware Updater	
Board: "Generic STM32F1 series"	>
Board part number: "BluePill F103C8"	>
U(S)ART support: "Enabled (generic 'Serial')"	>
USB support (if available): "None"	>
USB speed (if available): "Low/Full Speed"	>
Optimize: "Smallest (-Os default)"	>
C Runtime Library: "Newlib Nano (default)"	>
Upload method: "Maple DFU Bootloader 2.0"	>
Port: "COM24"	>
Get Board Info	>
Programmer	>
Burn Bootloader	>

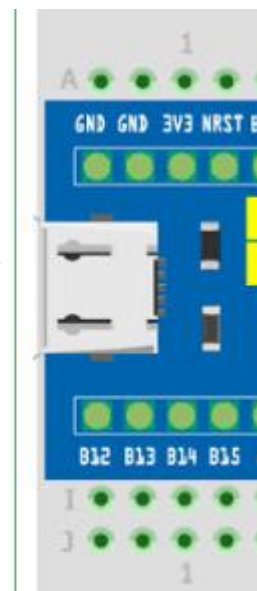
STM32CubeProgrammer (SWD)
STM32CubeProgrammer (Serial)
STM32CubeProgrammer (DFU)
BMP (Black Magic Probe)
HID Bootloader 2.2
• Maple DFU Bootloader 2.0



Select the Maple DFU Bootloader 2.0.

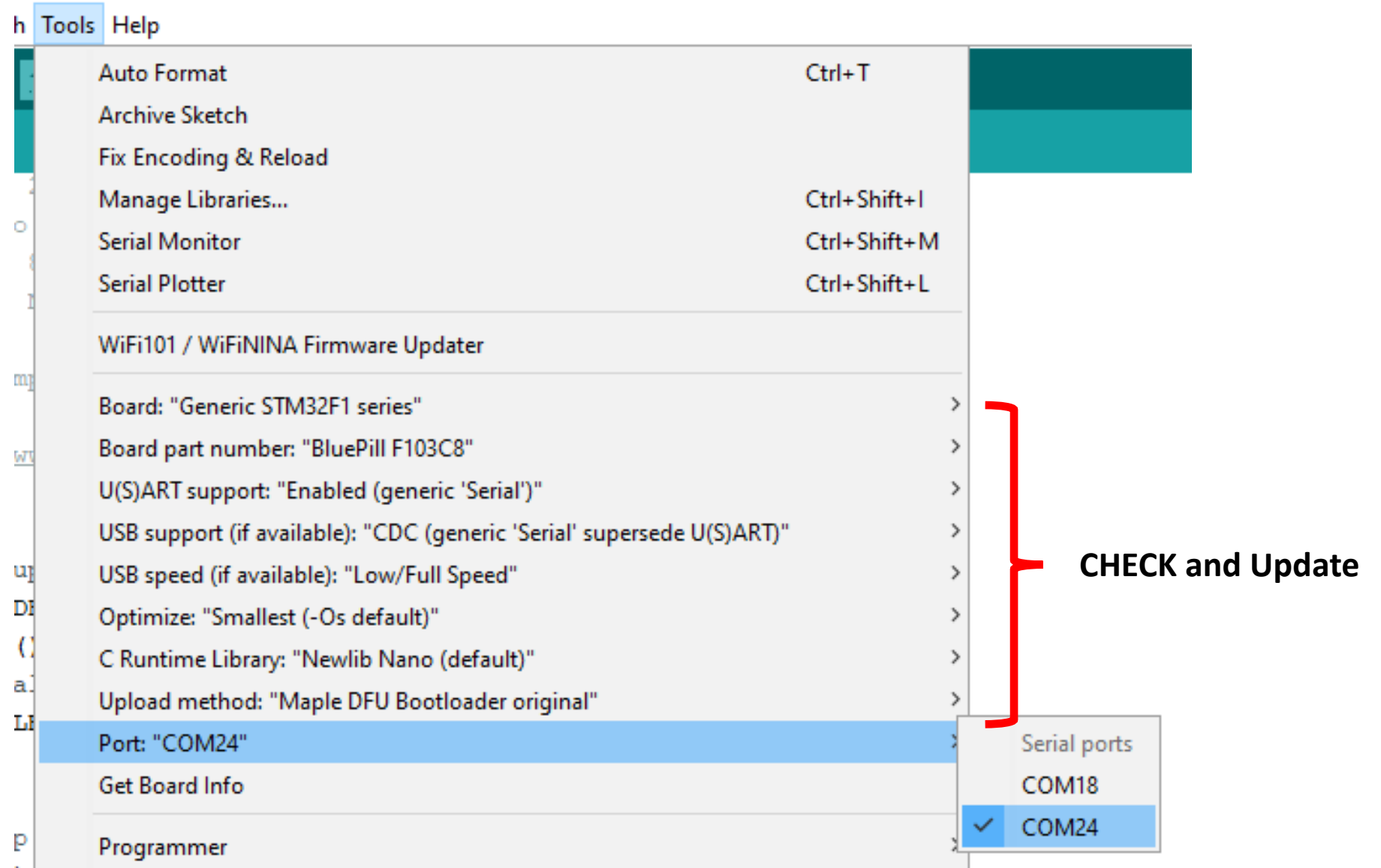


Computer
USB



STM32F103C8T6 Board

NB: the First Time when the Board is connected to the computer it shows:
e.g: Maple Serial (COM 24)



NB: the first time with IDE use the MAPLE Port,
e.g: COM 24 -- Ref to device manager for port

1. Use the Blink example and Update it as shown here:



```
Blink | Arduino 1.8.19
File Edit Sketch Tools Help

Blink $
modified 2 Sep 2016
by Arturo Guadalupi
modified 8 Sep 2016
by Colby Newman

This example code is in the public domain.

https://www.arduino.cc/en/Tutorial/BuiltInExamples/Blink
*/

// the setup function runs once when you press reset or power the board
#define LEDBUILTIN PC13
void setup() {
  // initialize digital pin LED_BUILTIN as an output.
  pinMode(LEDBUILTIN, OUTPUT);
}

// the loop function runs over and over again forever
void loop() {
  digitalWrite(LEDBUILTIN, HIGH); // turn the LED on (HIGH is the voltage level)
  delay(1000); // wait for a second
  digitalWrite(LEDBUILTIN, LOW); // turn the LED off by making the voltage LOW
  delay(1000); // wait for a second
}
```

2. Upload the sketch to the STM32 Board and Check to see that the LED blink above pattern.

PS: You will now get a notification sound and will loose COM 24

1. Use the Blink example
and Update it **again** as shown here:



```
Blink | Arduino 1.8.19
File Edit Sketch Tools Help

Blink §
modified 2 Sep 2016
by Arturo Guadalupi
modified 8 Sep 2016
by Colby Newman

This example code is in the public domain.

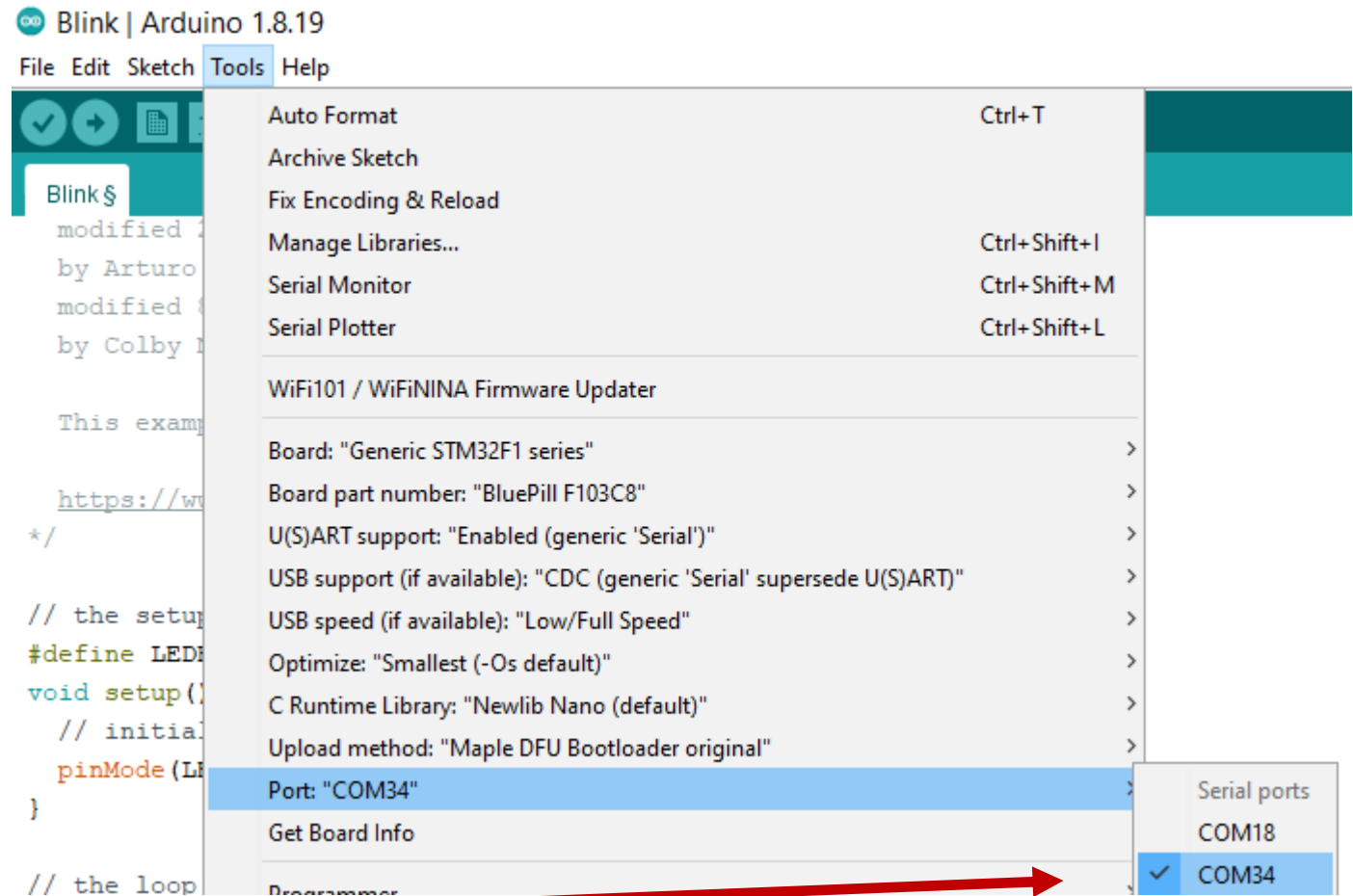
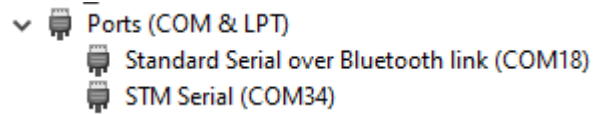
https://www.arduino.cc/en/Tutorial/BuiltInExamples/Blink
*/

// the setup function runs once when you press reset or power the board
#define LEDBUILTIN PC13
void setup() {
  // initialize digital pin LED_BUILTIN as an output.
  pinMode(LEDBUILTIN, OUTPUT);
}

// the loop function runs over and over again forever
void loop() {
  digitalWrite(LEDBUILTIN, HIGH); // turn the LED on (HIGH is the voltage level)
  delay(2000); // wait for a second
  digitalWrite(LEDBUILTIN, LOW); // turn the LED off by making the voltage LOW
  delay(100); // wait for a second
}
```

1. Check with Device Manager which New Port is available, it should named STM Serial (Com xx):
e.g: STM Serial (Com34)

Device Manager



2. Select the new Com Port

3. Upload the newly modified sketch and all other sketches to the STM32 Board in the future using this Port.