*** Programming the T692A-3.xC Controller Board ***

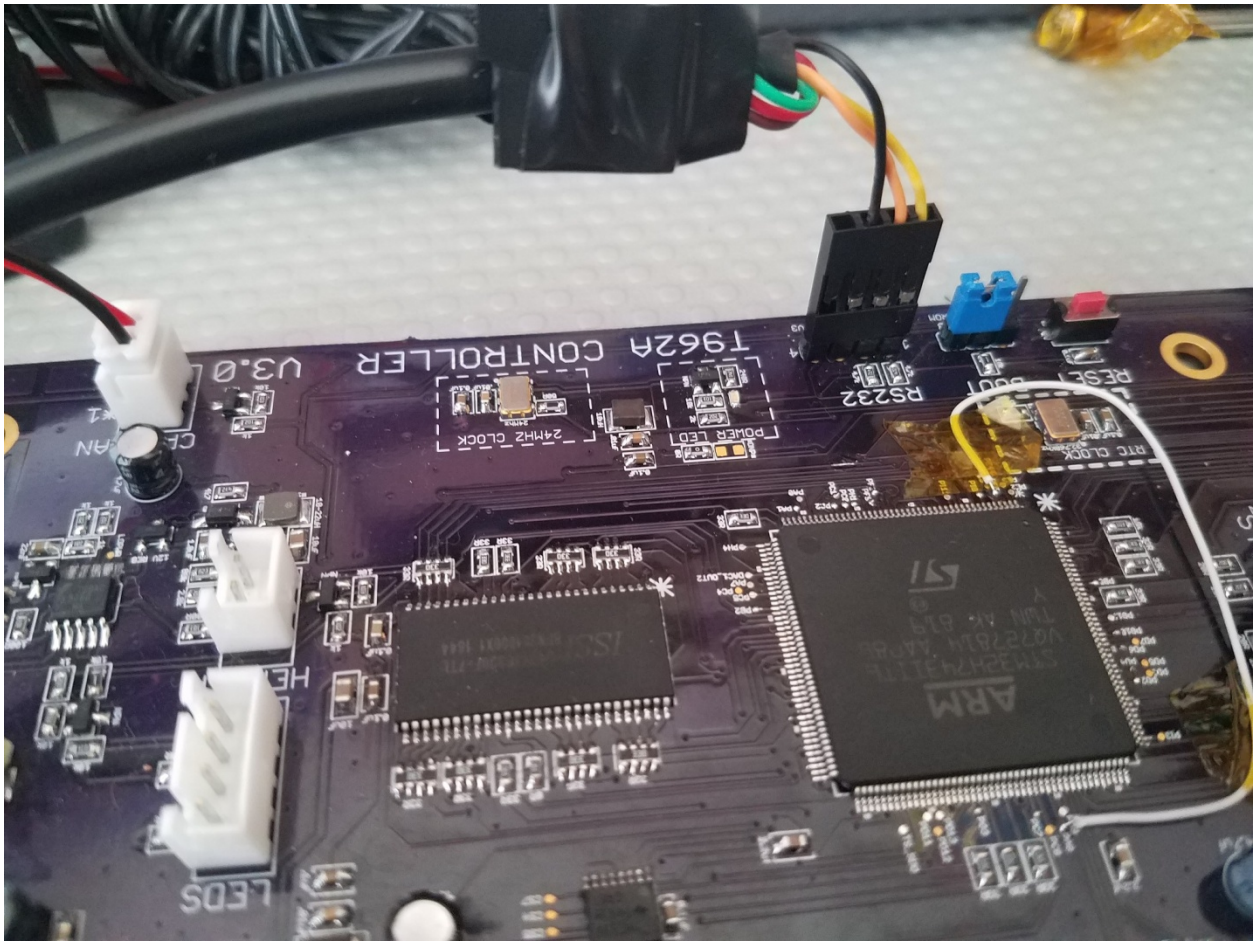
1) Connect up your FTDI->RS232 3.3V TTL cable to the board as shown in the picture below.

   YELLOW connects to “Tx” pin on RS232 header

   ORANGE connects to “Rx” pin on RS232 header

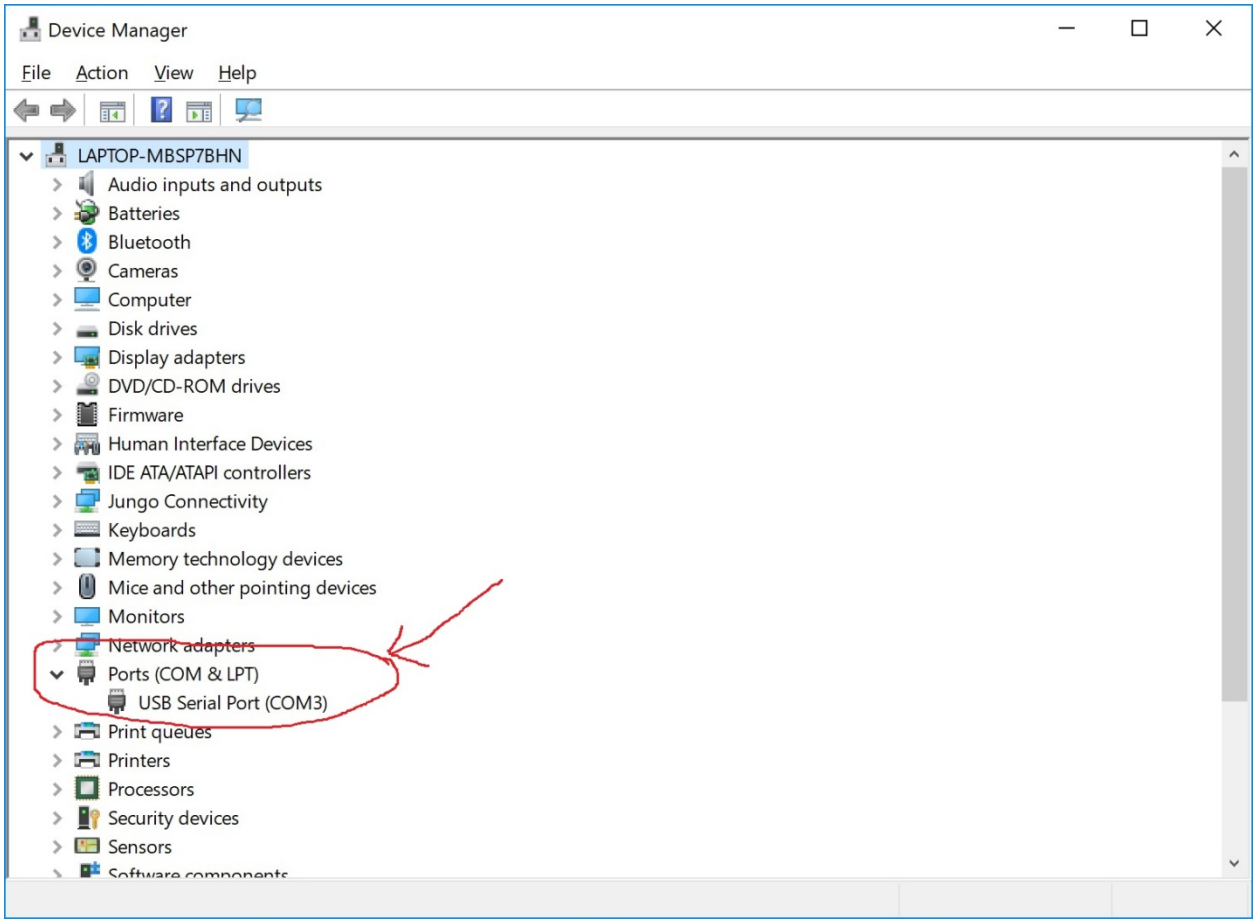
   BLACK connects to “GND” pin on RS232 header

2) Move the “BOOT” jumper to the ROM position (see in attached picture)



3) Connect the USB end of your FTDI cable to your PC. Determine what COM port your FTDI cable is assigned.

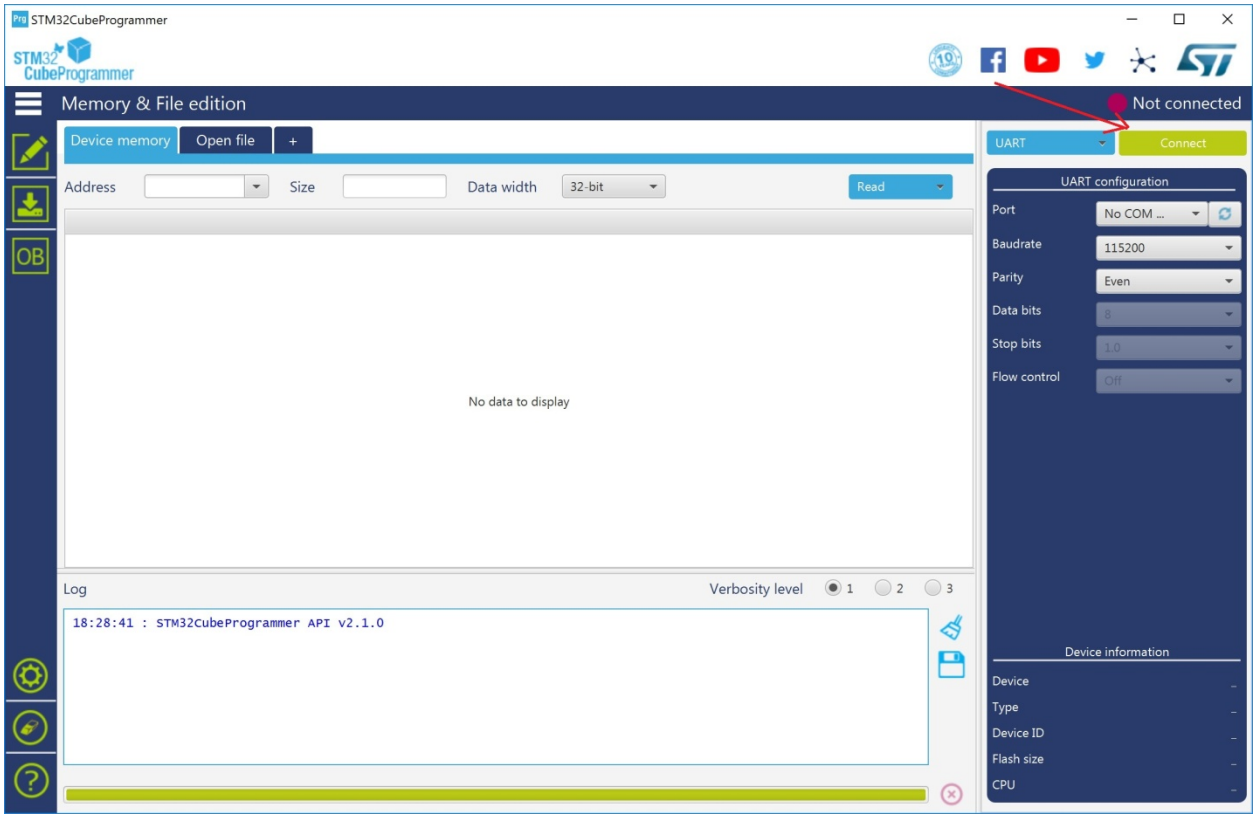
(see the example below)



4) Launch the “STM32 Cube Programmer” (or install It if you haven’t done so already:

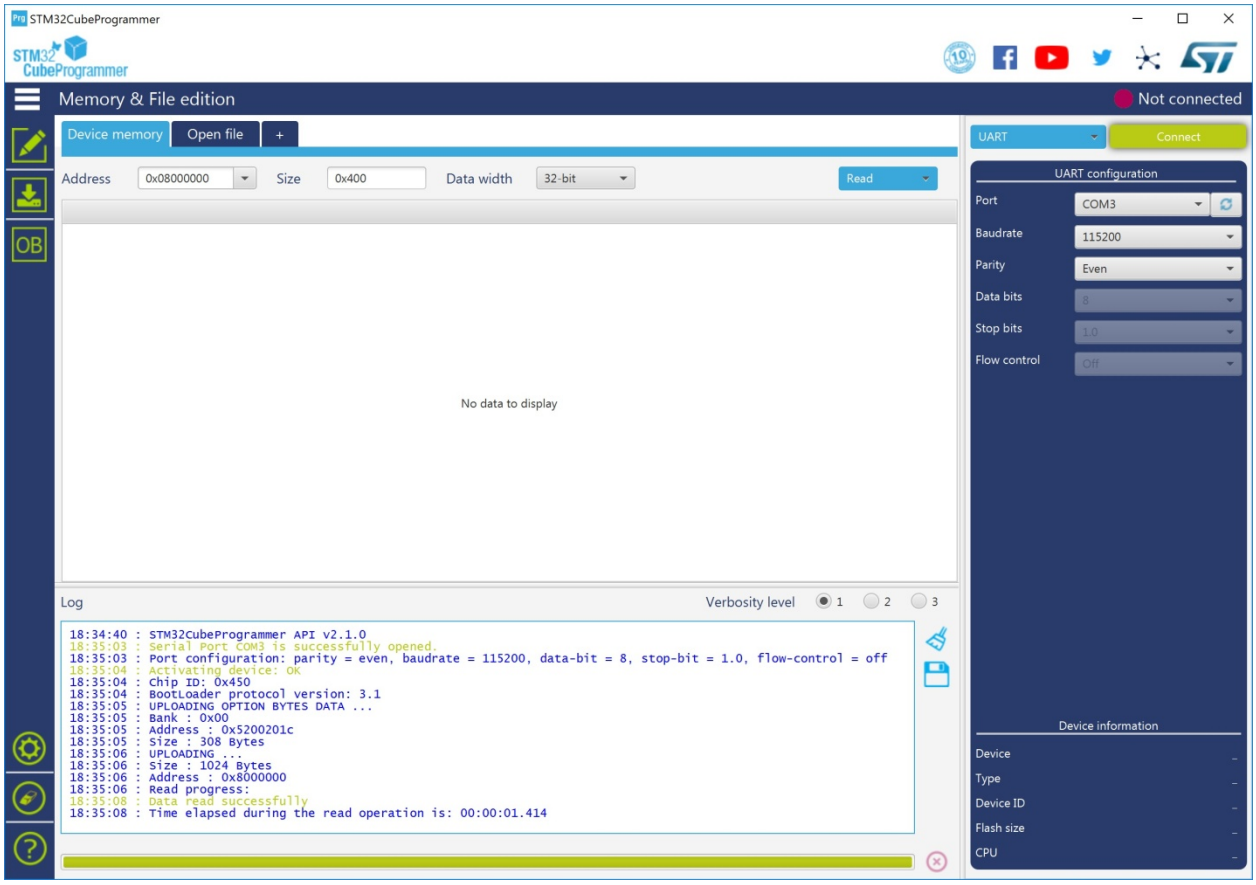
https://www.st.com/en/development-tools/stm32cubeprog.html

5) **Once the main screen comes up as shown below, click on the drop-down menu next to the 'CONNECT' button, and select 'UART'.**

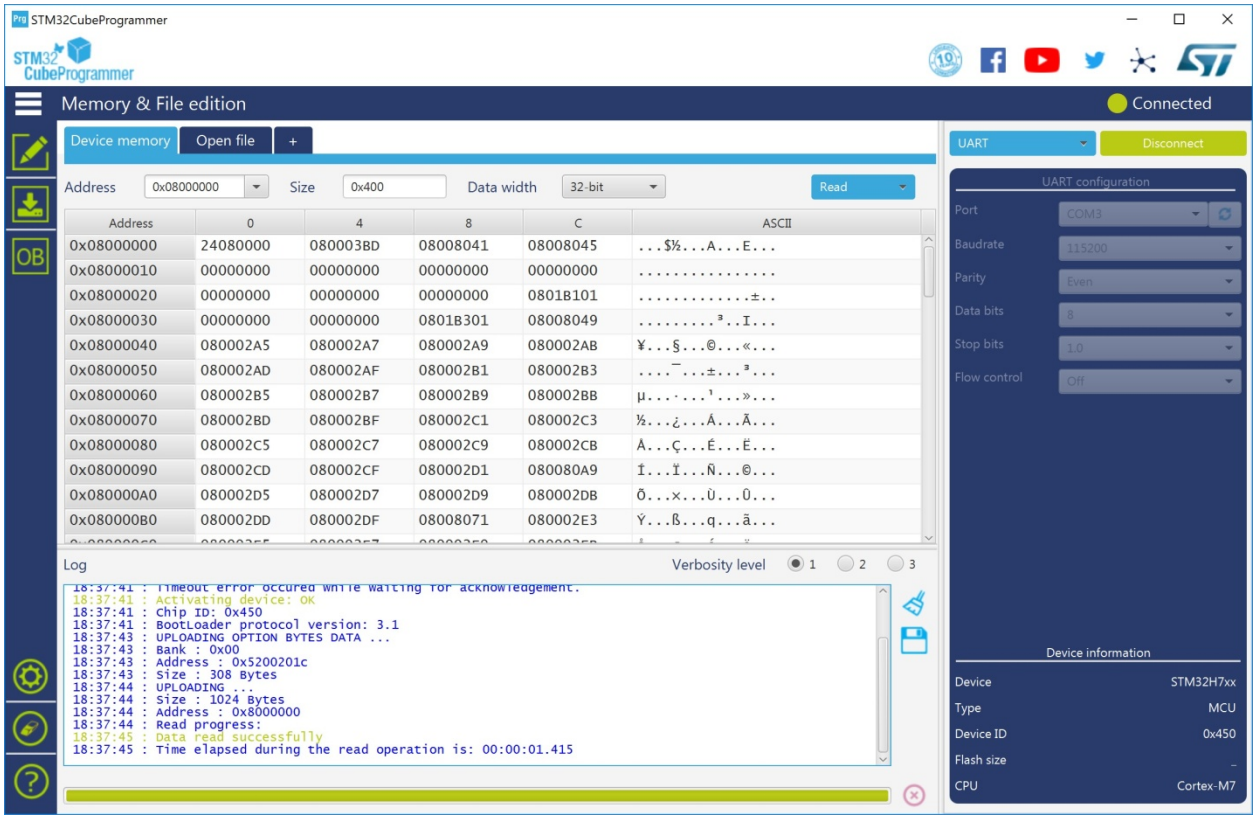


6) In the ‘UART Configuration’, select the drop-down and pick the COM PORT your FTDI cable was assigned.

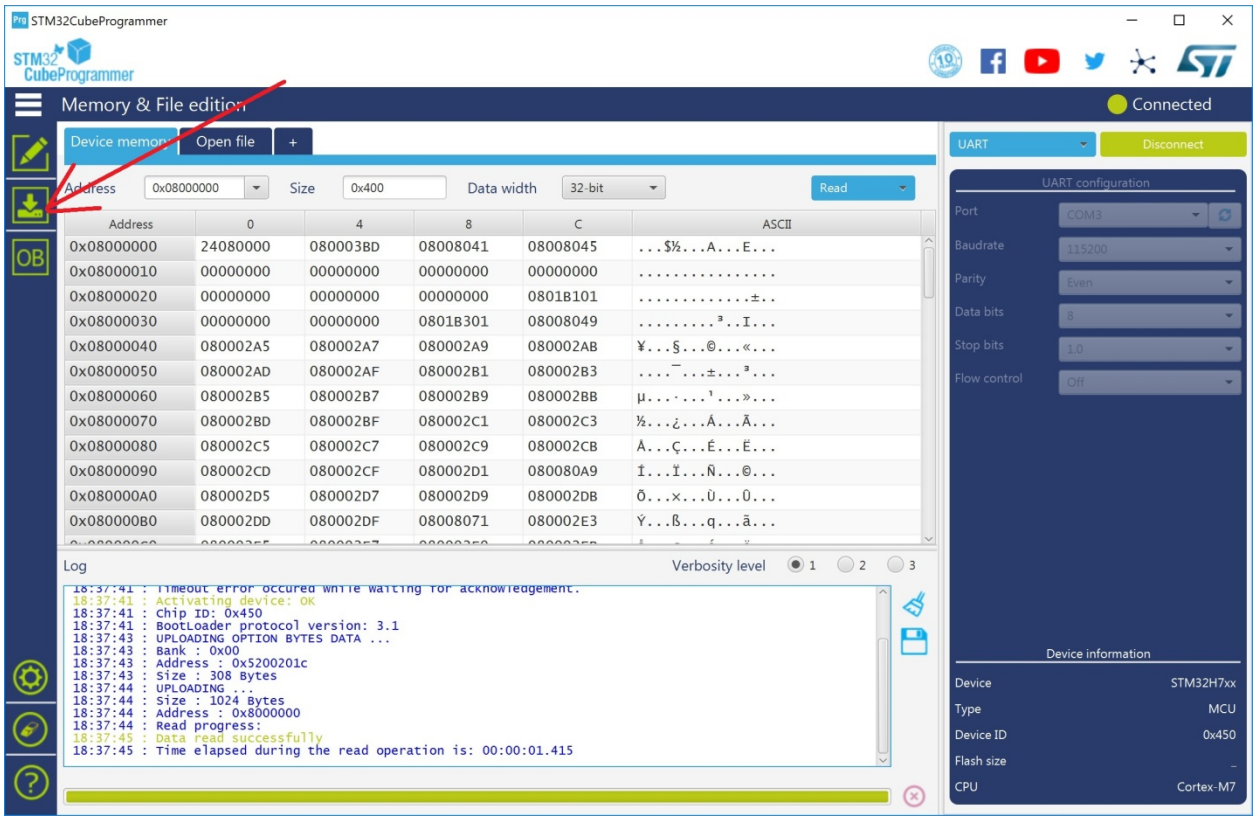
7) Power on your board, and click the ‘CONNECT’ button as shown in the above picture.



8) **You should eventually see the screen below once the device is ‘CONNECTED’, it will display the device memory information, etc as shown below…**

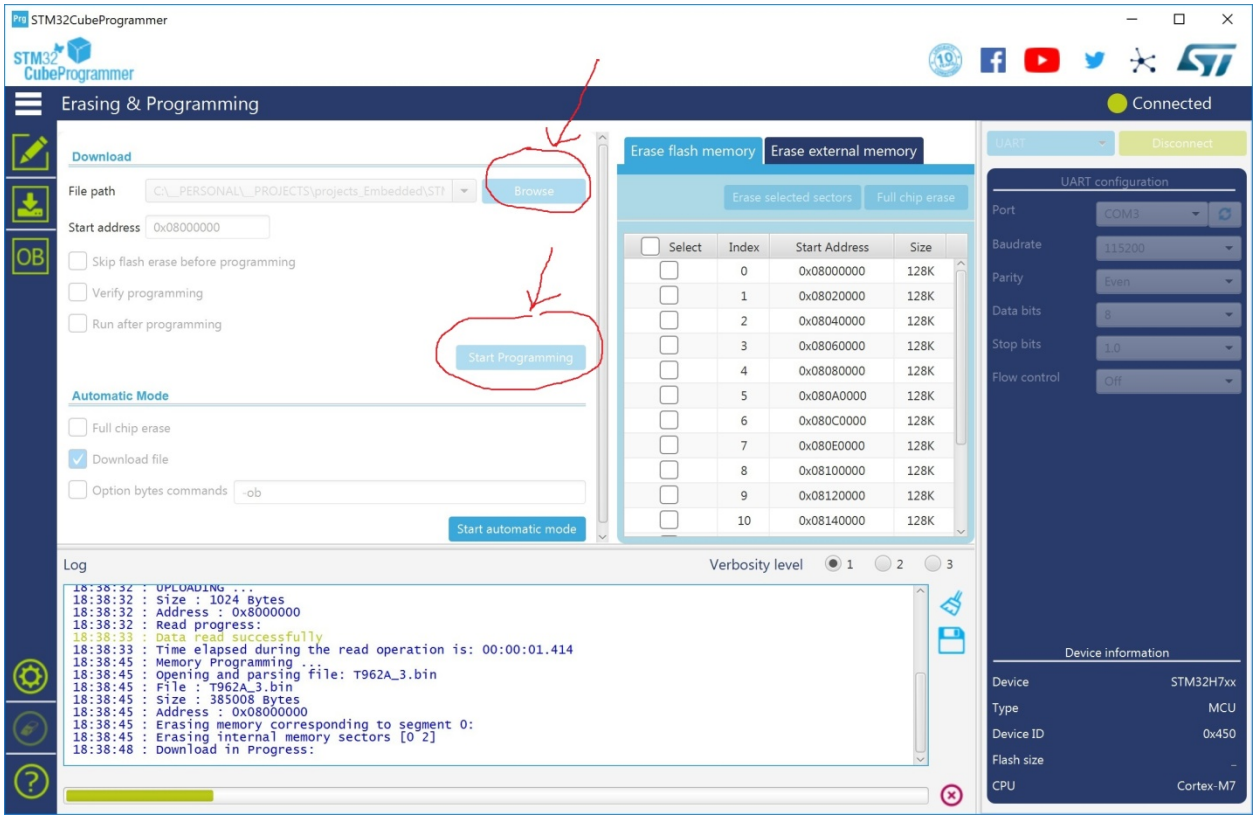


9) Click on the button to go to the ‘device programming’ page:



10) Click on the BROWSE button to select the “T962A_xxxxx.bin” (or whatever the compiled binary is named).

11) Click on the “Start Programming” button the begin the flash writing process. ** This will take a few minutes to complete **



12) Once programming has completed you can power down the board, remove the FTDI cable, and restore the jumper back to ‘FLASH’.

13) Format your MICROSD card to “FAT32”, copy the contents of the \MICROSD\ folder from the GITHUB repo to your SD card, and lock the microsd card into the socket on your board.

** At this point the board should power on and BOOT. You should hear ONE immediate BEEP, and then after 5-10 secs. a DOUBLE BEEP which means successful boot.

**

(any other long continuous beeps mean there was an error loading the MicroSD card… check your card’s format and contents)