

How to change Firmware on the Arduitaape/TZXDduino/CASDuino.

Before you start.

Before starting you will need to download and install the Arduino IDE from <https://www.arduino.cc/en/Main/Software>

You will also need to install the libraries that are required. You can download them from

<https://mega.nz/#!OU0QHbSB!g-LwaCPSBogsWWY-Rtq6-0W1DtJOe3wVFBZre28jIF8>

To install these you will need to unRAR the file and copy the folder “Libraries” to the following location on your PC.

C:\Users\[Username]\Documents\Arduino

Now plug your device into your PC using a Mini USB cable and your PC *should* install the drivers automatically. If it does not then go to the following website for a good howto guide for the correct drivers.

<http://www.instructables.com/id/Arduino-Nano-CH340/>

The latest firmware files for your device can be found on the following website.

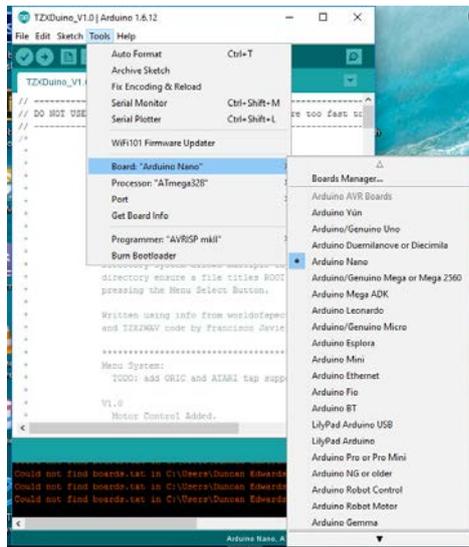
<http://arduitapemarkii.blogspot.co.uk/>

First time set up.

Once you have downloaded and unpacked your firmware you should double click on the .ino file to start the Arduino IDE.

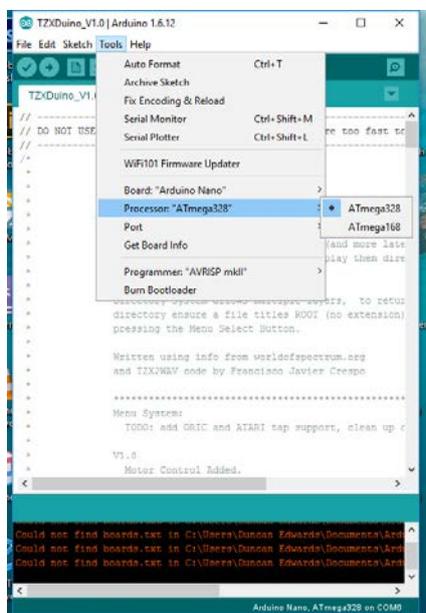
You will need to check that you have the correct board set up.

Go to Tools > Boards and select Arduino Nano.



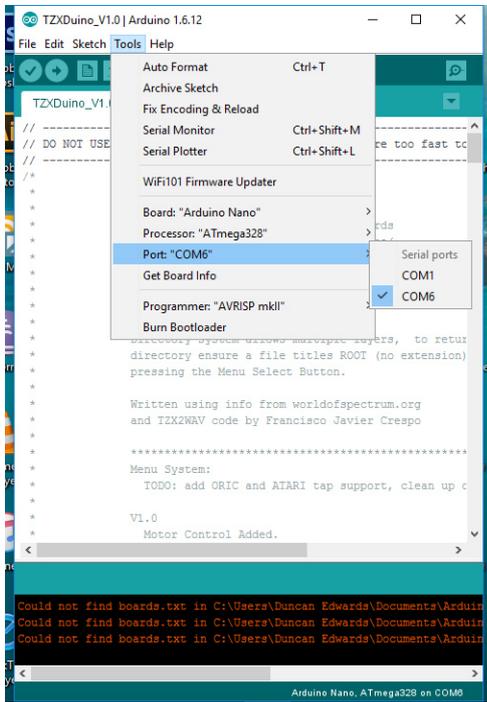
Next you need to Select the correct processor.

Go to Tools > Processor and select ATmega328

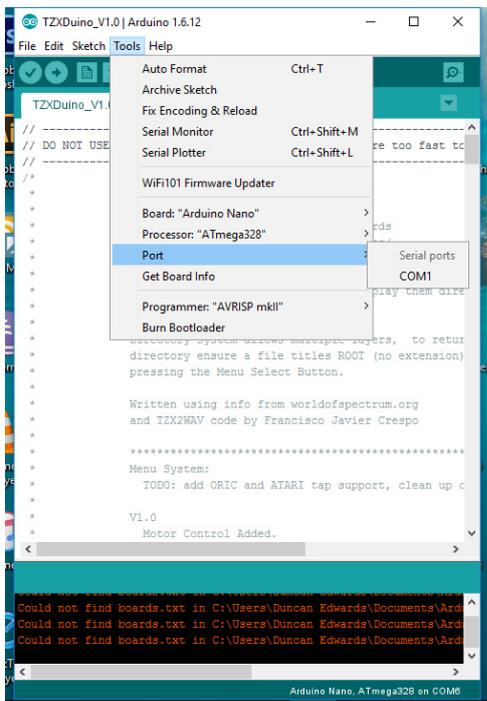


Now, with your device plugged in to the PC you need to select the correct port.

Go to Tools > Ports and select any Port other than Port 1.



If only COM1 shows then your drivers have not installed correctly.



Uploading Firmware

Before you upload the new firmware to your device you will need to check if the LCD settings are correct for your device. Not all I2C interfaces use the same address and for LCDs it's either 0x27 or 0x3f. For those devices have been manufactured by myself you will find a label on the rear of the LCD with the address written on. Instructions on how to find an I2c Address can be found here.

<http://playground.arduino.cc/Main/I2cScanner>

Find the line that says `LiquidCrystal_I2C lcd(0x3f,16,2);` and change it to the address you require for your device.



```
T2Dduino_V1.0
File Edit Sketch Tools Help

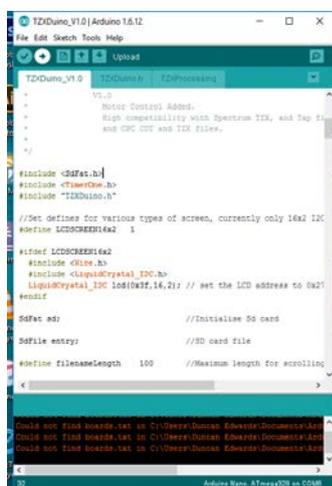
T2Dduino_V1.0 T2Dduino_V1.0 T2Dduino_V1.0

//Set defines for various types of screen, currently only 16x2 I2C
#define LCDSCREENSIZE 1

//Set LCDSCREENSIZE
#include <Wire.h>
#include <LiquidCrystal_I2C.h>
LiquidCrystal_I2C lcd(0x3f,16,2); // set the LCD address to 0x27
#endif

SDfat sd; //Initialize SD card
SDfile entry; //SD card file
#define fileNameLength 100 //Maximum length for scrolling
```

Once that has been done you need to click on the upload button.



```
T2Dduino_V1.0
File Edit Sketch Tools Help

T2Dduino_V1.0 T2Dduino_V1.0 T2Dduino_V1.0

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You should get a message “Done Uploading” and the new Firmware will be ready to go.