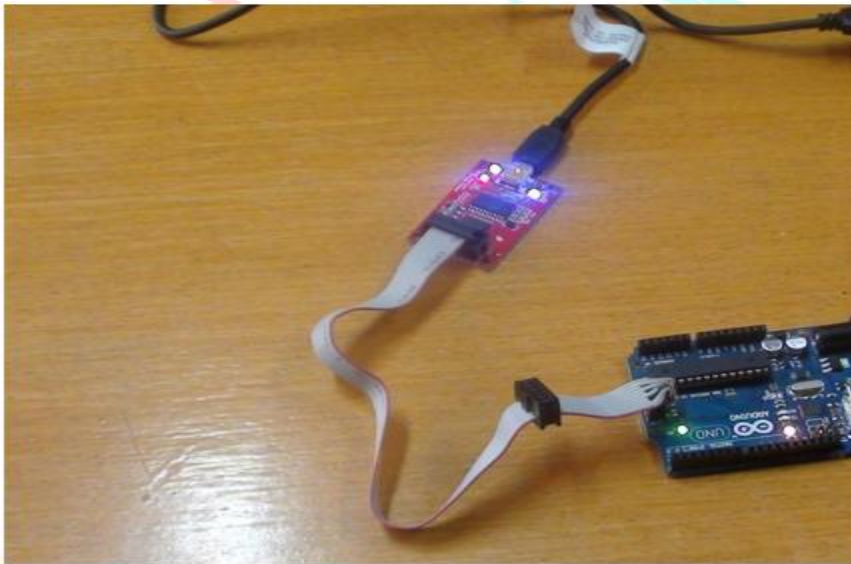




2014

Uploading Bootloader on ATMEGA328



Author: Irappa

What this means is that we can easily boot load the ATmega328P, but not the ATmega328. Unfortunately i bought Atmega328 chips for my Arduino board. We recently ran into a couple of issues, when we were uploading the boot loader to the new Atmega 328 IC using AVR pocket programmer. First we kept getting an error “avrdude: Expected signature for ATMEGA328P is 1E 95 0F. Double check chip, or use -F to override this check”.



```
Error while burning bootloader:
avrdude: Expected signature for ATMEGA328P is 1E 95 0F.
Double check chip, or use -F to override this check.
```

To solve this problem, first we tested our AVR pocket programmer with the Atmega328P-PU which by default comes with the Arduino board. It was working fine and uploaded the boot loader software.

Then we started to resolve this problem, after a lot of research we found one more difference between both the IC's. The chip signature's for 328P and 328 are different. Every Atmel micro-controller has a unique identification code, or signature, built in which can be read by an external device such as a programmer.

- Atmega328-P signature = hexadecimal 1E 95 14
- Atmega328P signature = hexadecimal 1E 95 0F

How to solve:

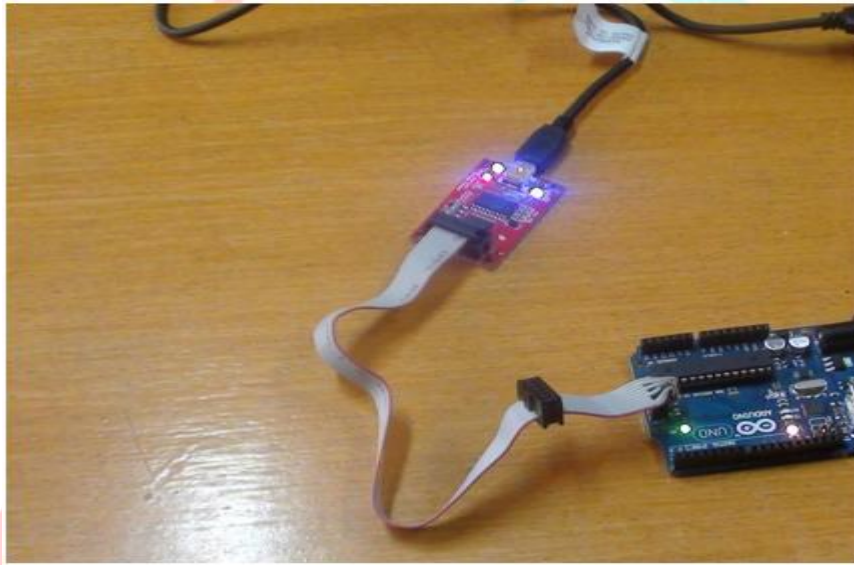
- In your Arduino folder, find the subfolder: ..\hardware\tools\avr\etc
- Make a backup copy of the file: avrdude.conf
- Open the file avrdude.conf in a text editor
- Search for: “0x1e 0x95 0x0F” (this is the ATmega328P signature)
- Replace it with: “0x1e 0x95 0x14” (this is the ATmega328 signature)
- Save the file
- Restart the Arduino IDE

Step 1:

9/3, 2nd floor, SreeLaksmi Complex, opp, to Vivekananda Park, Girinagar, Bangalore - 560085,

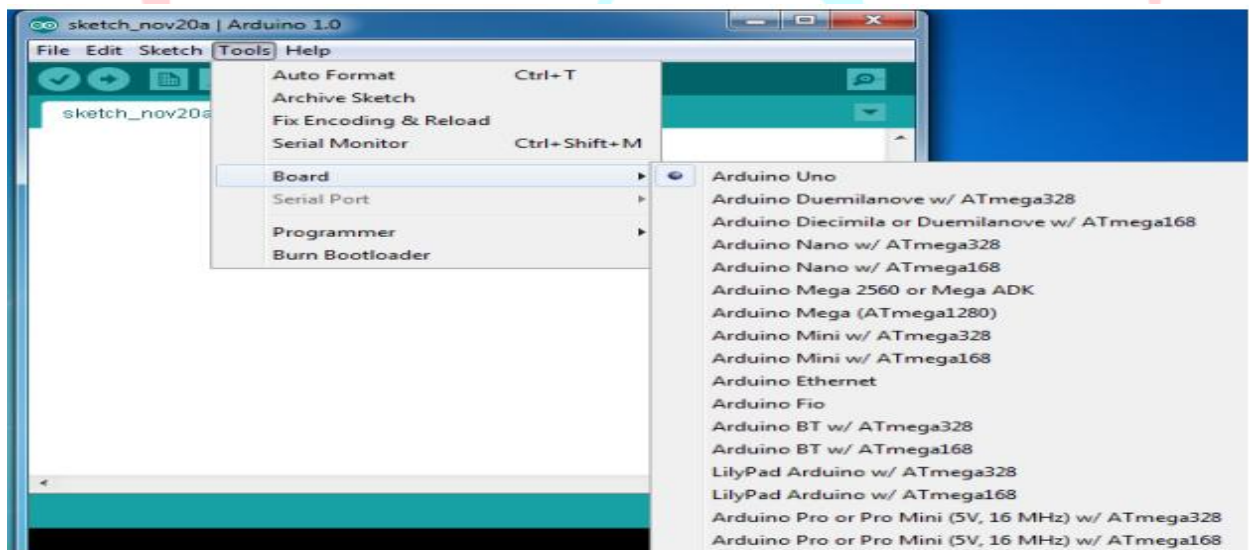
Email: info@tenettech.com, Phone: 080 - 26722726

Connect the avr pocket programmer to your computer.



Step 2:

Go to Arduino IDE and select Tools->Board->ArduinoUNO

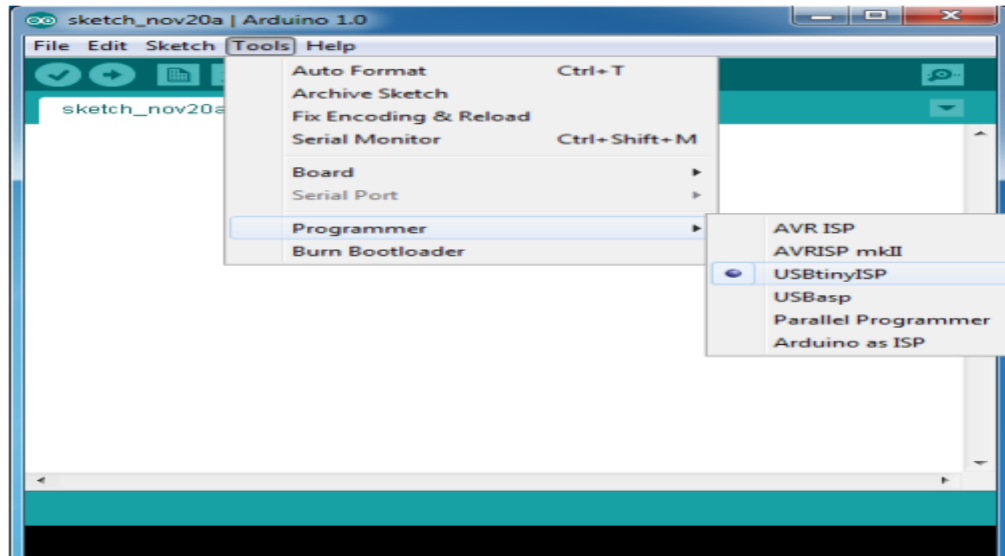


Step 3:

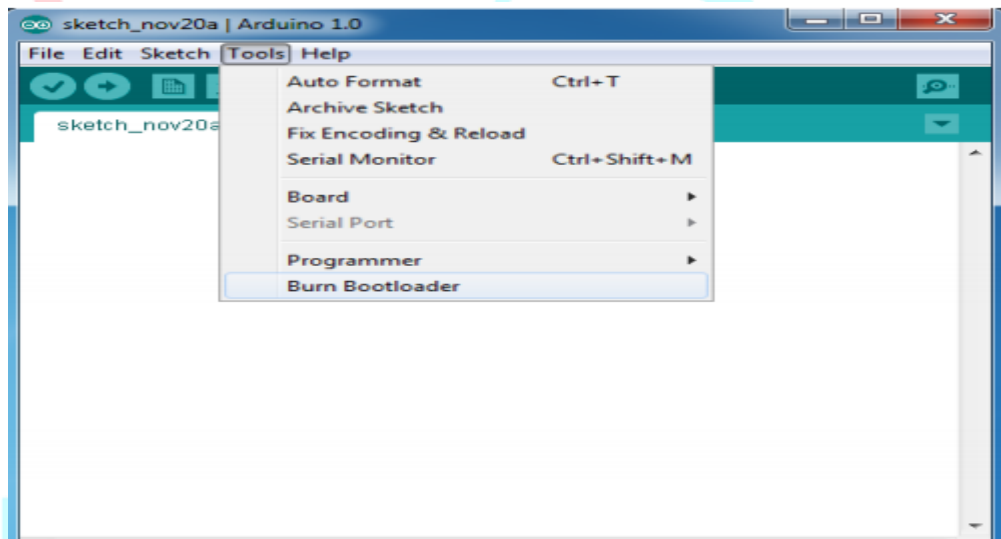
9/3, 2nd floor, SreeLaksmi Complex, opp, to Vivekananda Park, Girinagar, Bangalore - 560085,

Email: info@tenettech.com, Phone: 080 - 26722726

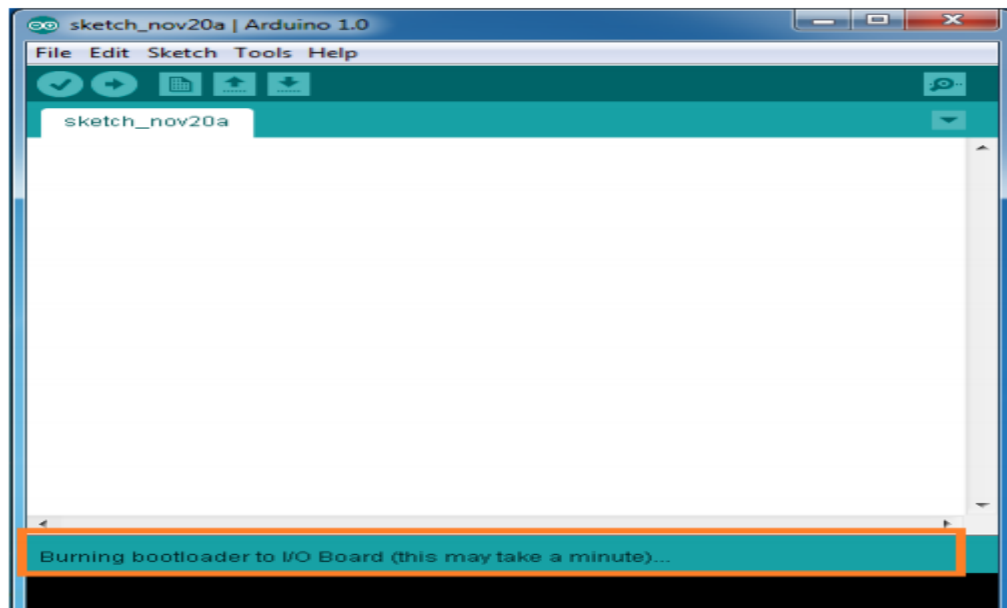
Go to Tools Menu->Programmer->USBtinyISP



Step 4:
Go to Tools Menu->Burn bootloader



It will take few minutes for uploading boot loader.



Step 5:

Once bootloading is complete restore the backup copy you made.

Product link: <http://www.tenettech.com/product/2716/pocket-avr-programmer>

For more information please visit: www.tenettech.com

For technical query please send an e-mail: info@tenettech.com

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