

V1 Arduino firmware load 05/03/2024

If not already done so, download the code from the github page.

<https://github.com/billbill100/Camera-Shutter-Tester-Optical-Cheap-Easy-It-Works>

click on the green **<>Code** button, which will allow you to download all of the files as a zip file.

Un-zip the downloaded file.

Flashing firmware onto the Arduino Board.

A program called AVRDUDESS is required. This is included in this Github page, or can be downloaded from

<https://github.com/ZakKemble/AVRDUDESS/releases/download/v2.14/AVRDUDESS-2.14-setup.exe>

To view the web page (for those who want more details

[AVRDUDESS – A GUI for AVRDUDE | Zak's Electronics Blog \(zakkemble.net\)](#)

Watch this video, from 2.30 to 5.15

<https://youtu.be/Wcaql0jtlUg>

It explains how to load the .hex file onto your Arduino. Watch the video first, then read the below before trying to load the .hex file to your Arduino. *Ignore the first & last part of the video, it is not relevant. Watch between 2.30 and 5.15*

At 3.31, connect your Arduino to your computer using an appropriate USB cable. The drop-down menu in AVRDUDESS should find the correct com port, if not, go to Device Manager (press Windows Key + X then select Device Manager) on your computer to find which com port has been assigned to the Arduino board.

Note:- If the correct driver is not on your computer, you will need to download and install it. Most Chinese Nano clones use the CH340 driver. Drivers are included on the Github. This video shows how to install the drivers.

[How to Install CH340 Drivers - SparkFun Learn](#)

At 3.34 this is where you browse to your downloaded and un-zipped code download and select the .hex files, for example Shutter_Tester_LED_0_0_1.hex.

A4 4.18 'Arduino Uno (Atmega328P) is selected.

You will also notice, when selecting this, the com port changes to 1 and the file path disappears. **BE SURE** to select the correct COM port and file path again.

*** To complicate things, there are two different bootloaders which could be in your Nano.

Most Chinese Nano boards have the old bootloader.

For the old bootloader (described at 4.18), you will need to select the settings below.

Select 'Arduino' in the Programmer box.

Select 'ATmega328P' in the MCU box.

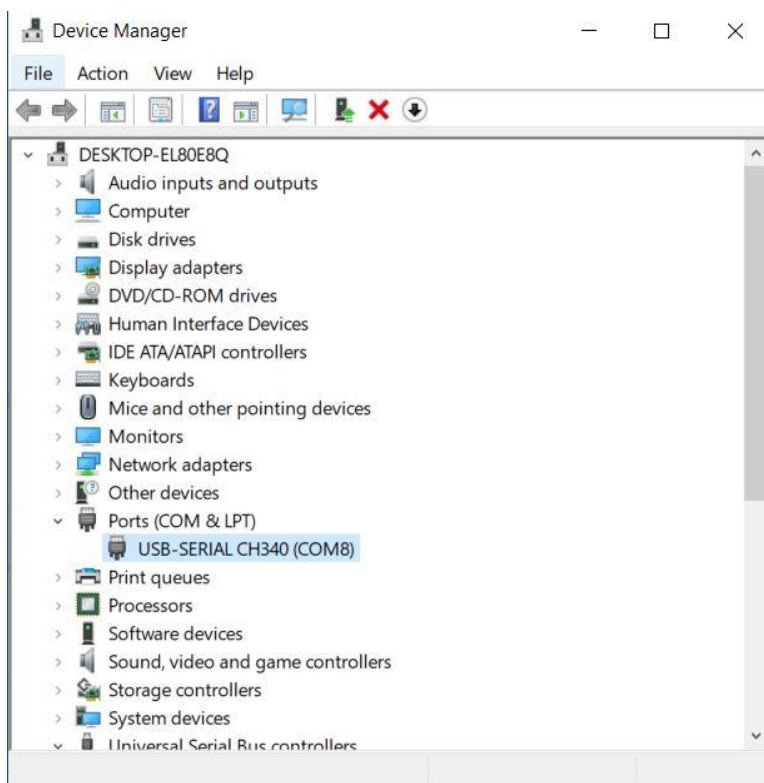
Select 'Arduino Nano (ATmega328P)' in the presets box.

(If this does not work, or you have the new bootloader, select 'Arduino Uno (ATmega329P)' as shown in the video).

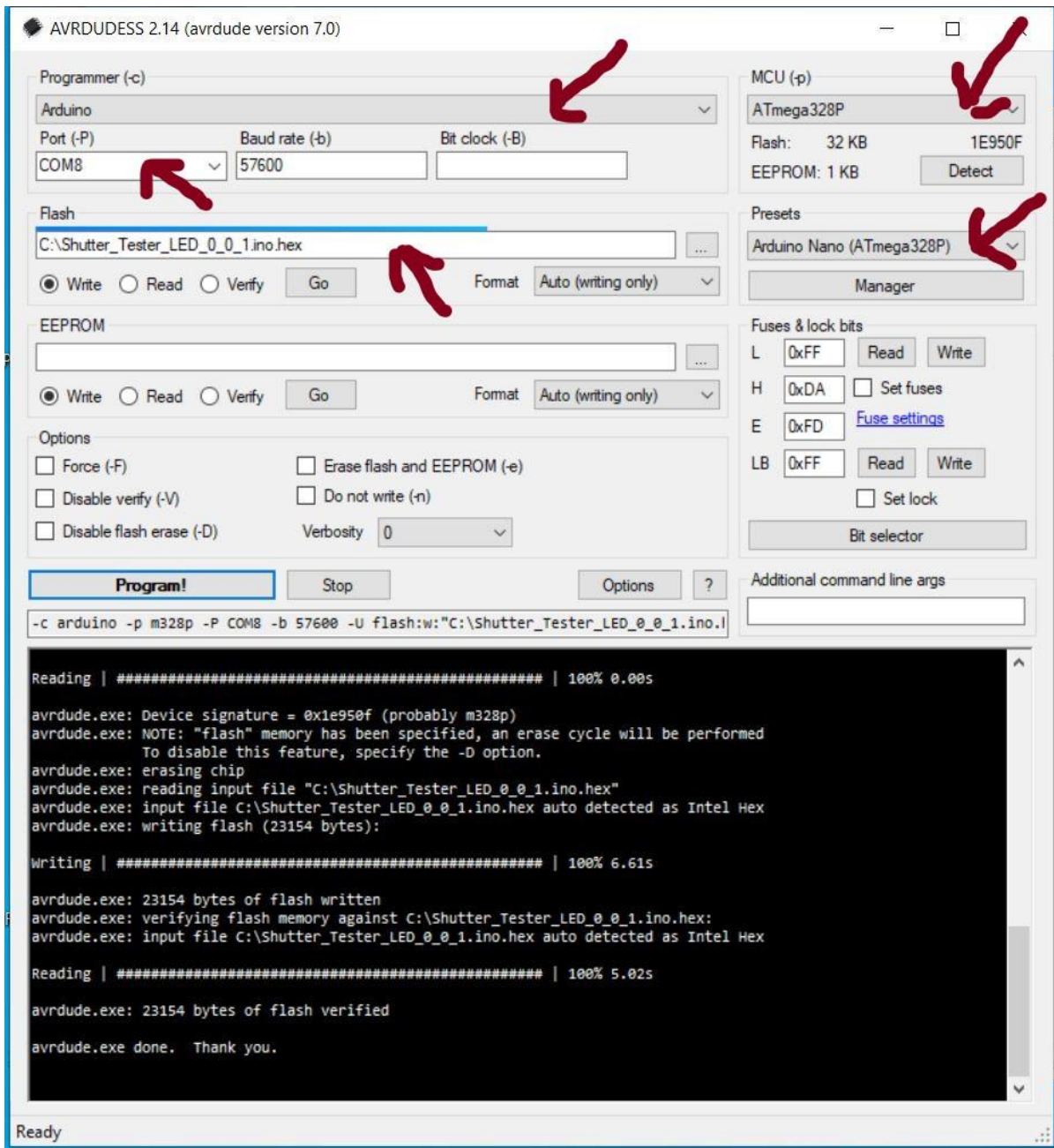
You will also notice the com port changes to 1 and the file path disappears. **BE SURE** to select the correct COM port and file path again.

Below are four screenshots,

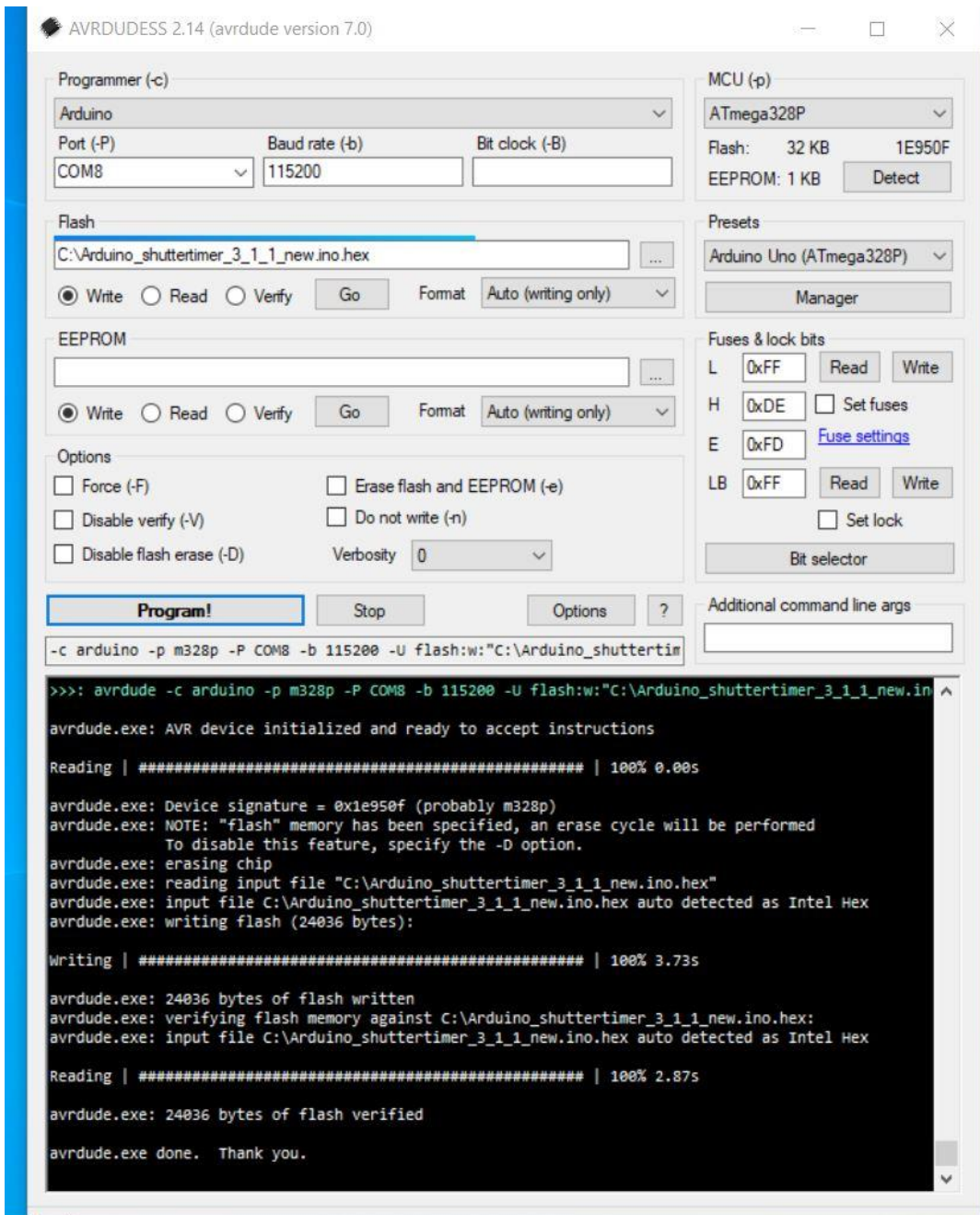
- 1) showing the com port in Device Manger (your com port number will be different),
- 2) Loading software as Nano (old bootloader)
- 3) Loading software as Uno (new bootloader)
- 4) Loading with wrong bootloader selected, showing errors.



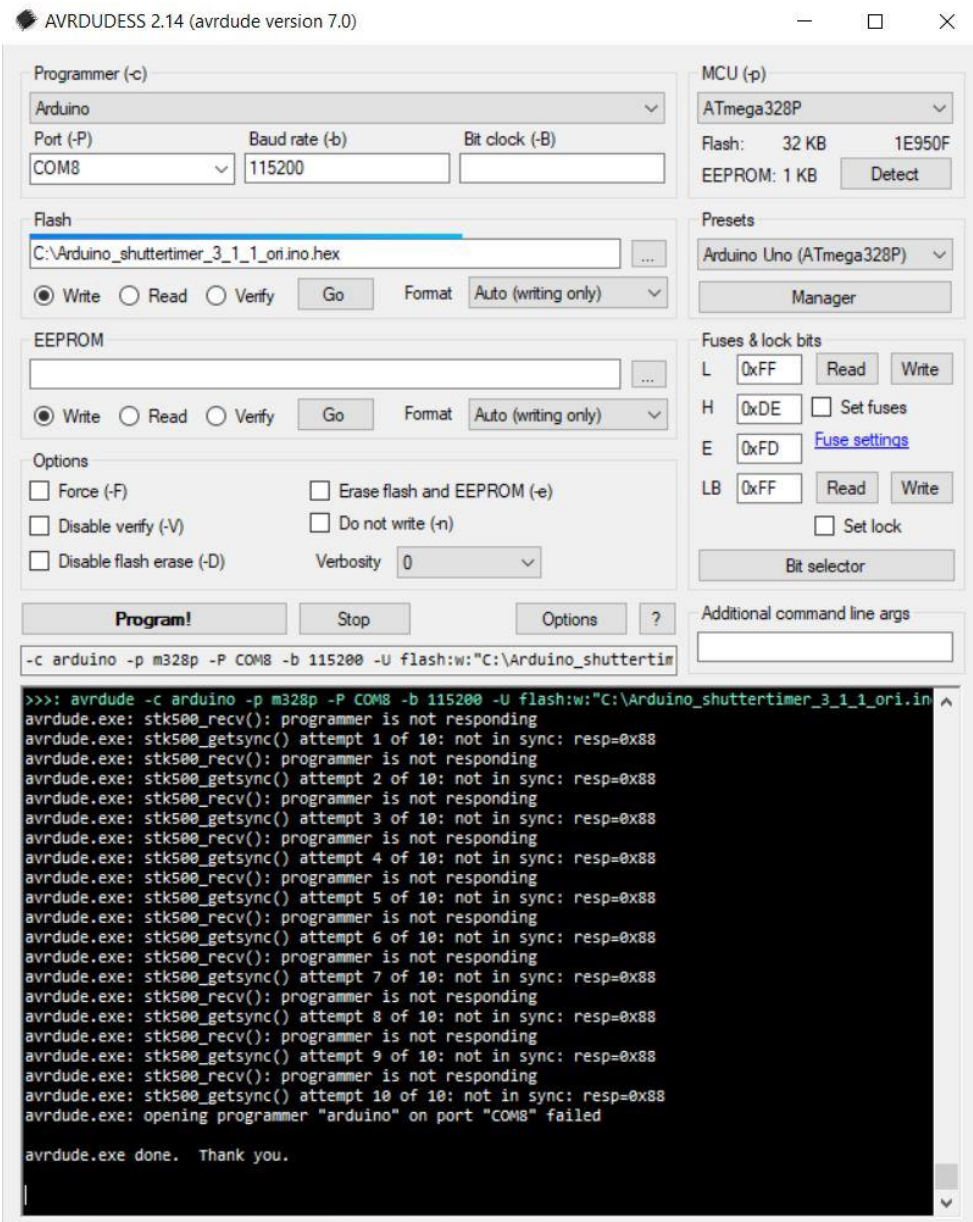
Device Manger



Loading firmware as Nano (old bootloader)



Loading firmware as Uno (new bootloader)



Loading with wrong bootloader selected, showing errors.