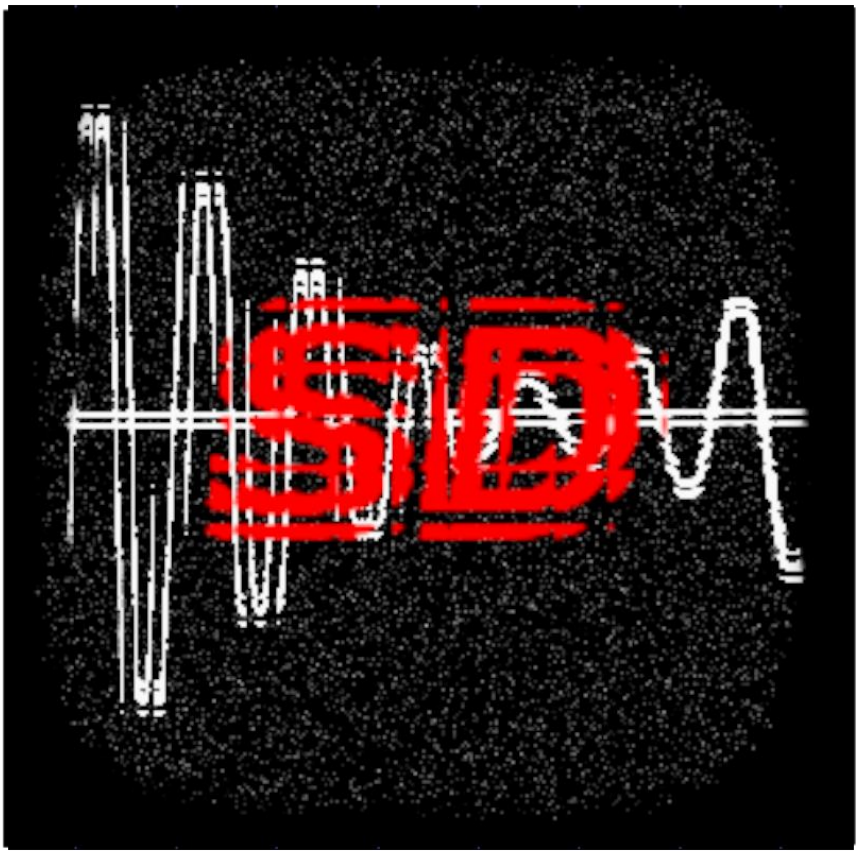
Quick Guide for Testing Connection Between Arduino Uno and SD Plotter 1.00

SD PLOTTER

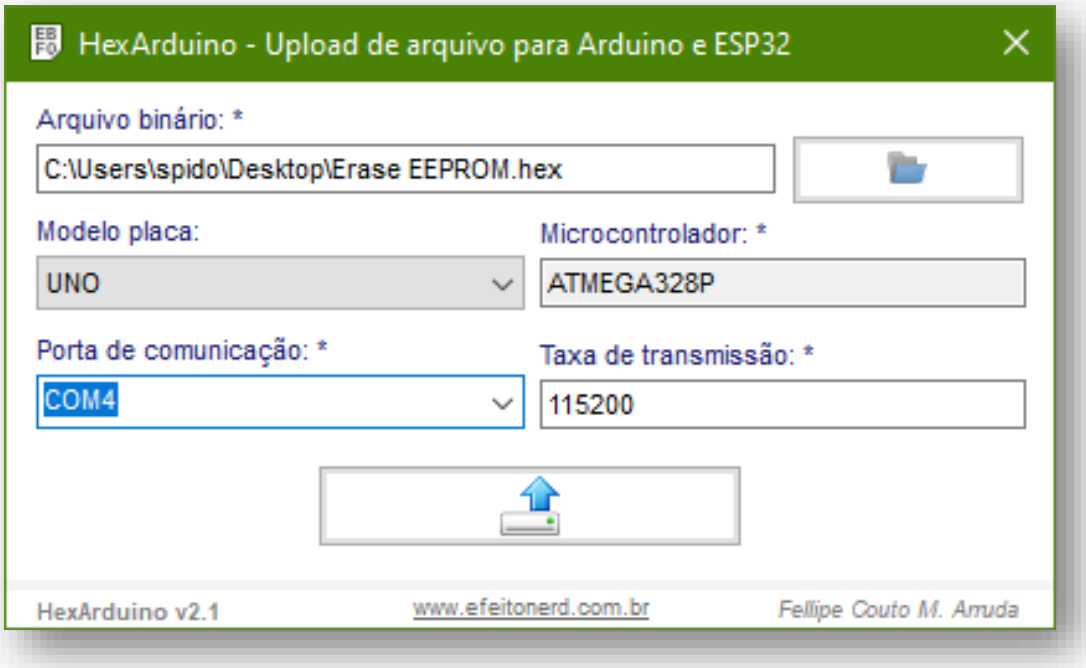
Version 1.00



This document aims to explain how to make the first connection between Arduino UNO and the SD Plotter.

Before we start configuring the Arduino UNO firmware, we need to confirm that its EEPROM is completely zeroed for the process.

Open the HexArduino.exe program inside the HexArduino.zip folder and with the Arduino UNO connected to the PC, configure the program as follows:

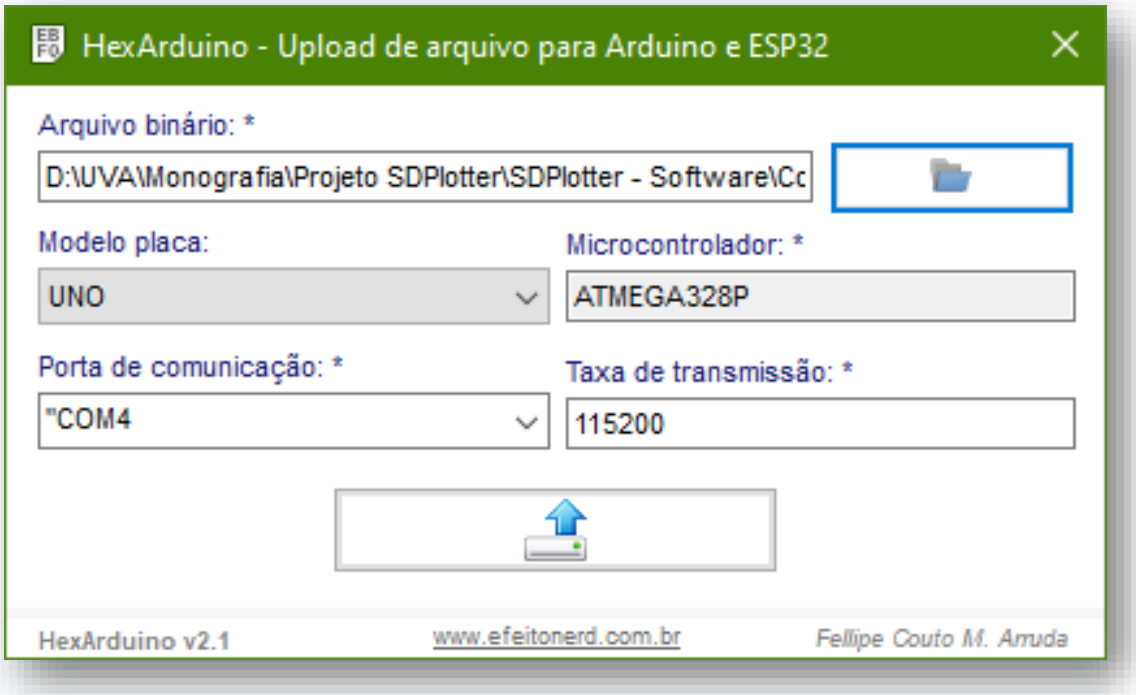


In the field defined as: "Arquivo binário" the file "Erase EEPROM" must be located.

Choose the COM port to which the Arduino UNO is connected and click on the button to start the process.

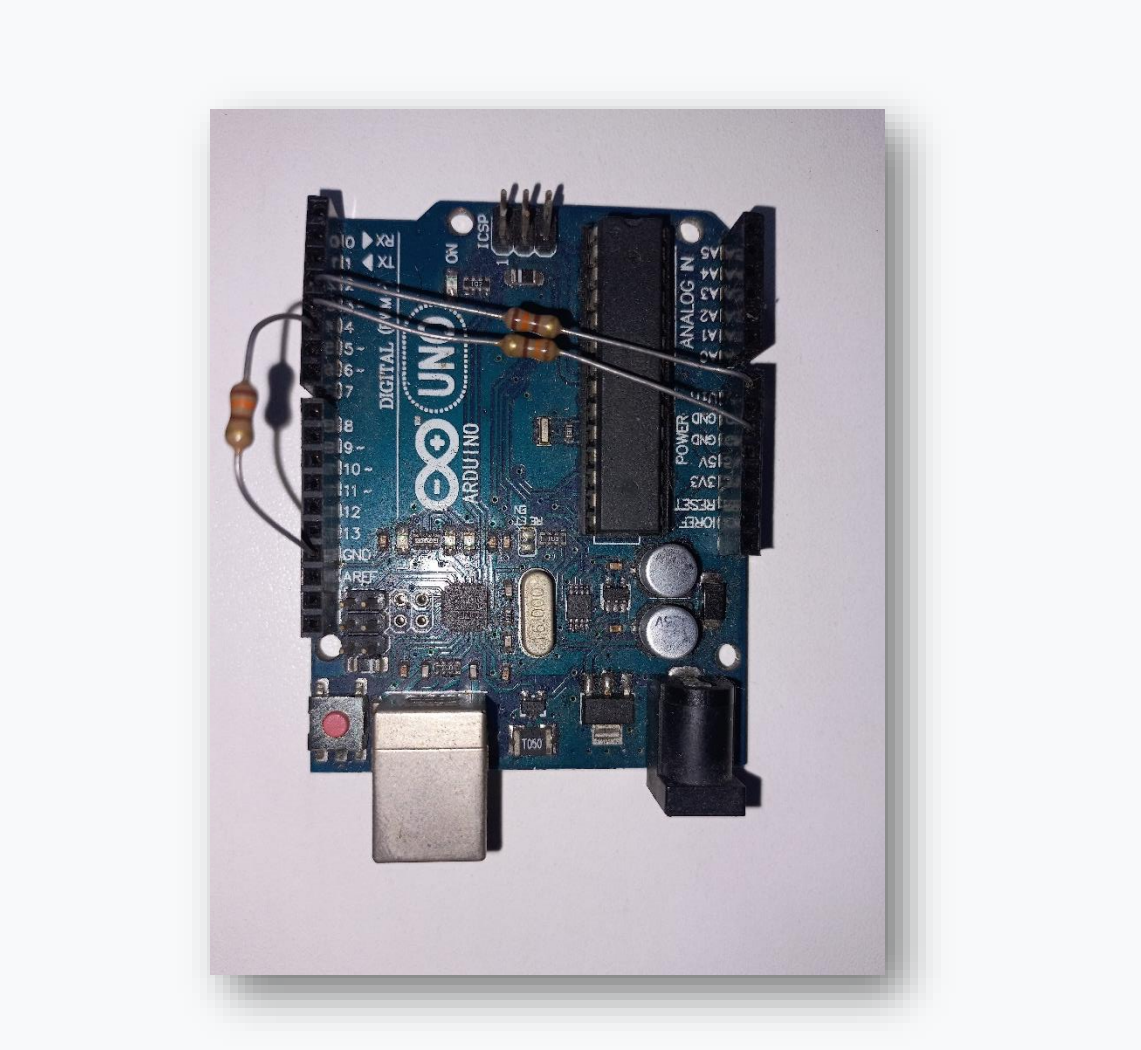
Once completed, the EEPROM will be clean and the Arduino ready for the process.

With the program still open, choose the "FIRMWARE_SDPLOTTERV100.hex" file in the "Arquivo binário" and click on the button to record the firmware on the Arduino UNO.



After the completion of writing the firmware, we will need to configure some settings on the Arduino UNO.

Initially, it will be necessary to connect 3 resistors from ~ 100 ohms to 1k ohms between some terminals. The terminals can be identified through the figure below:



Pin 3 -> +5V

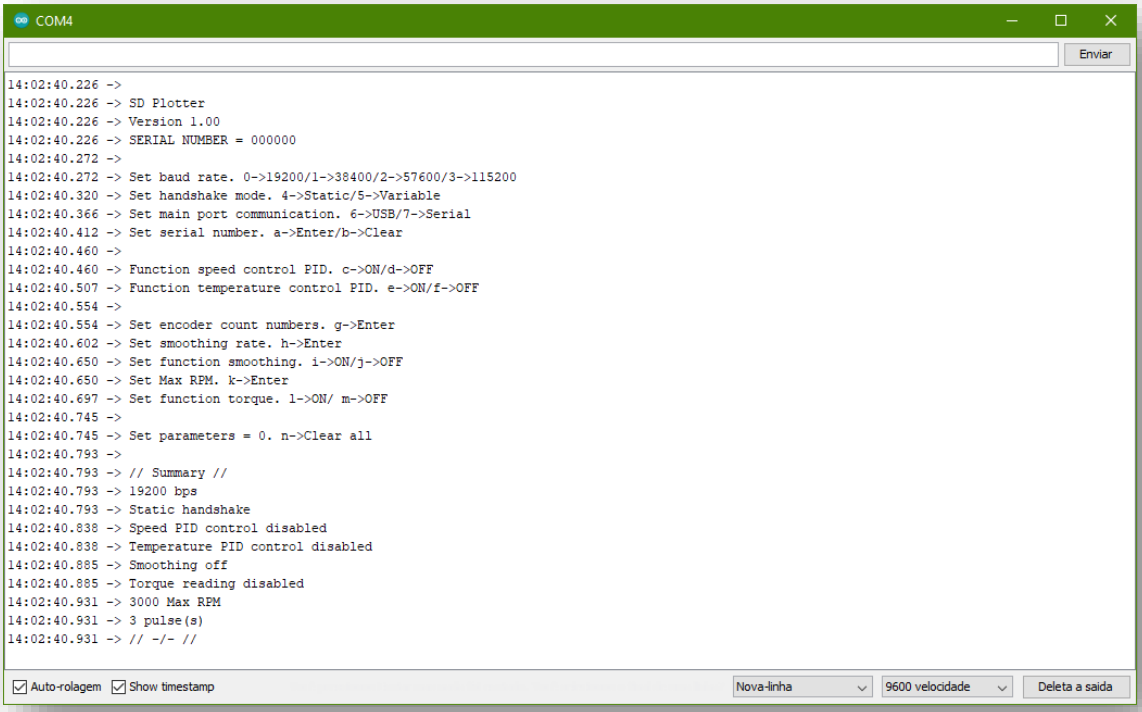
Pin 4 -> GND

Pin 5 -> GND

After this procedure, the Arduino must be connected via the USB cable to a computer with the Arduino IDE installed.

Open the Arduino IDE and set it to the COM port corresponding to what was detected by the system.

Open the serial monitor. If all goes well, this will be the displayed window:

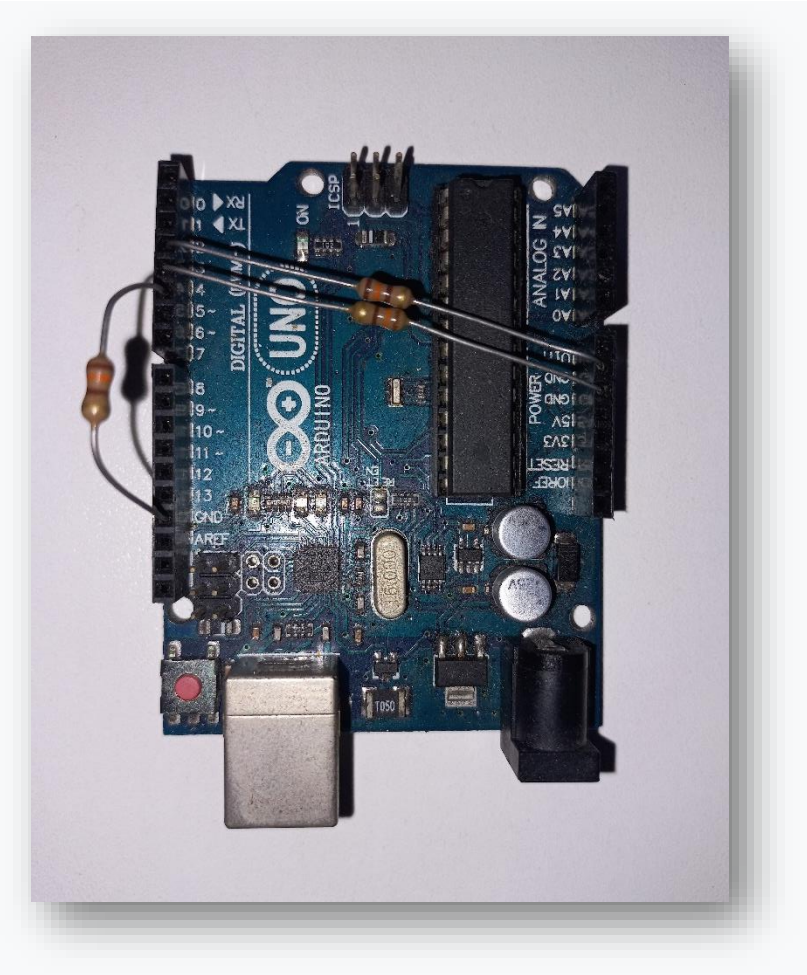


We can see that the default Baut Rate is set to 19200. If you want, you can change it by choosing the numbers: 0, 1, 2, 3.

It is important to remember that the same chosen Baud Rate must be inserted in the SD Plotter, for full communication.

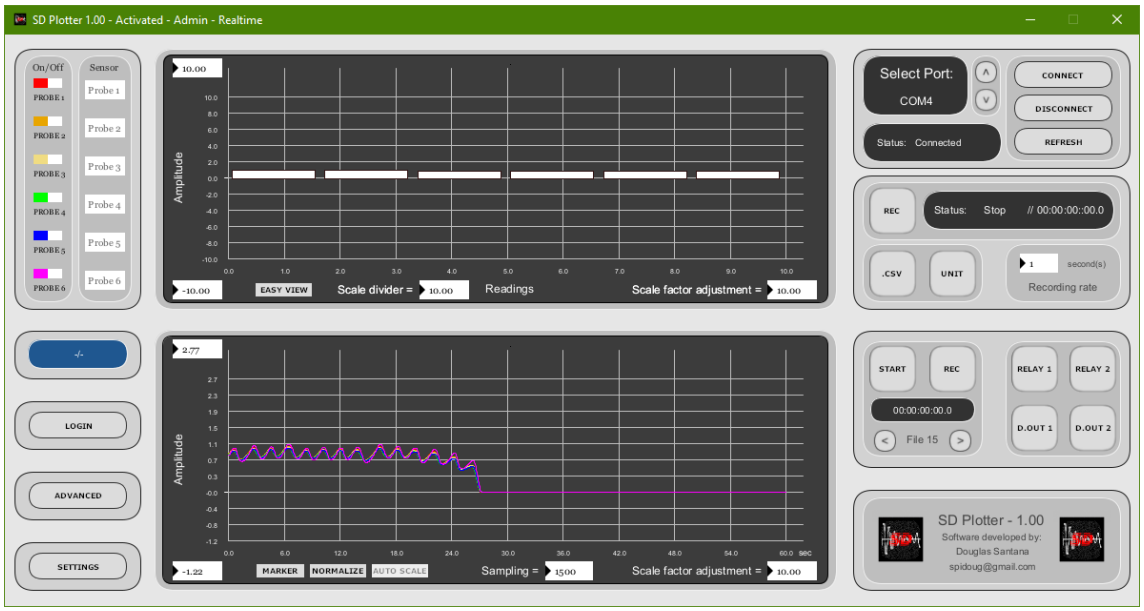
After that, function 6 should be chosen - It will define the Arduino UNO USB communication port as the data traffic port for the SD Plotter software.

After this procedure, we must disconnect the Arduino from the PC, and change the polarity of pin 3 to GND.



Pin 3 -> GND

We can reconnect the Arduino UNO to the PC. At that time, we can open the SD Plotter software. Once the Baud Rate configuration in the SD Plotter is the same as specified in the firmware configuration and the chosen COM port is correct, communication will be complete.



From that moment on, reading the SD Plotter software operation manual is recommended.

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