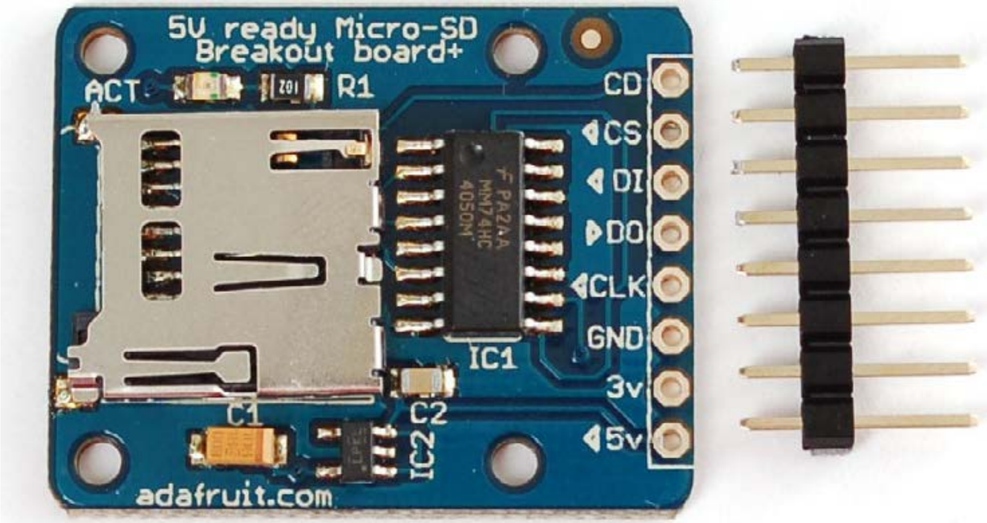
# SDCARD MODULE



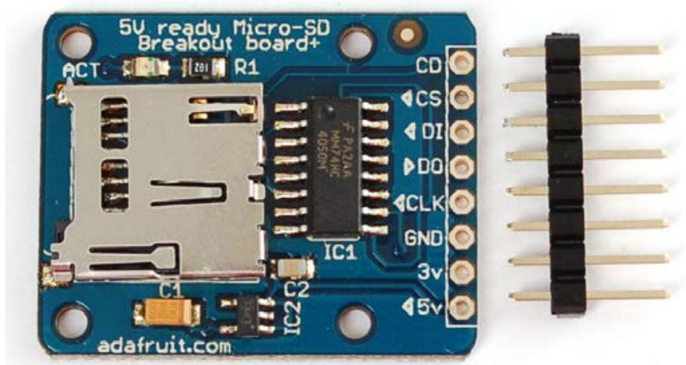
# DOCUMENTATION

## SD CARD MODULE

Most microcontrollers (such as the Arduino board) have extremely limited built-in storage. If your project involves any audio, video, graphics, data logging, etc., adding an SDCard module will be required.

The SD card module allows your microcontroller to communicate with an SD card via the SPI (Serial Peripheral Interface) protocol.

It can used to interact with a 3.3V or 5V microcontrollers.





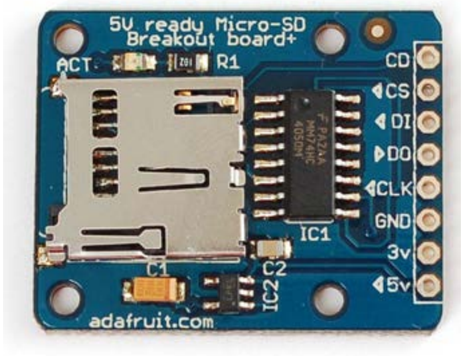
### MORE INFO:

[ADAFRUIT SD CARD MODULE TUTORIAL]

ACTIVITY

# WRITING FILES TO AN SD CARD USING ARDUINO

# HARDWARE COMPONENTS

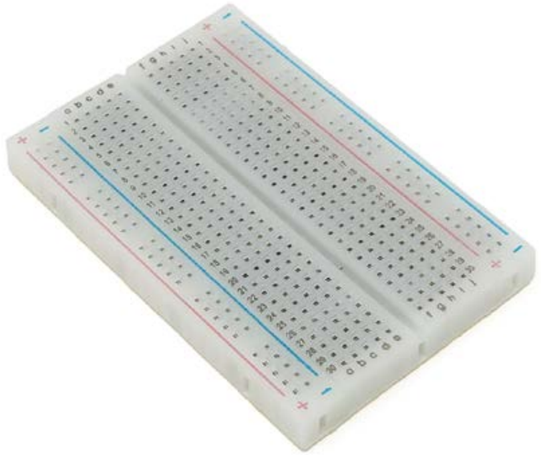



SD Card Module


Micro SD Card


Arduino UNO board

Jumpers



Breadboard

# WRITING FILES TO AN SD CARD USING ARDUINO

## WIRING

Connect the 5V pin to the 5V pin on the Arduino

Connect the GND pin to the GND pin on the Arduino

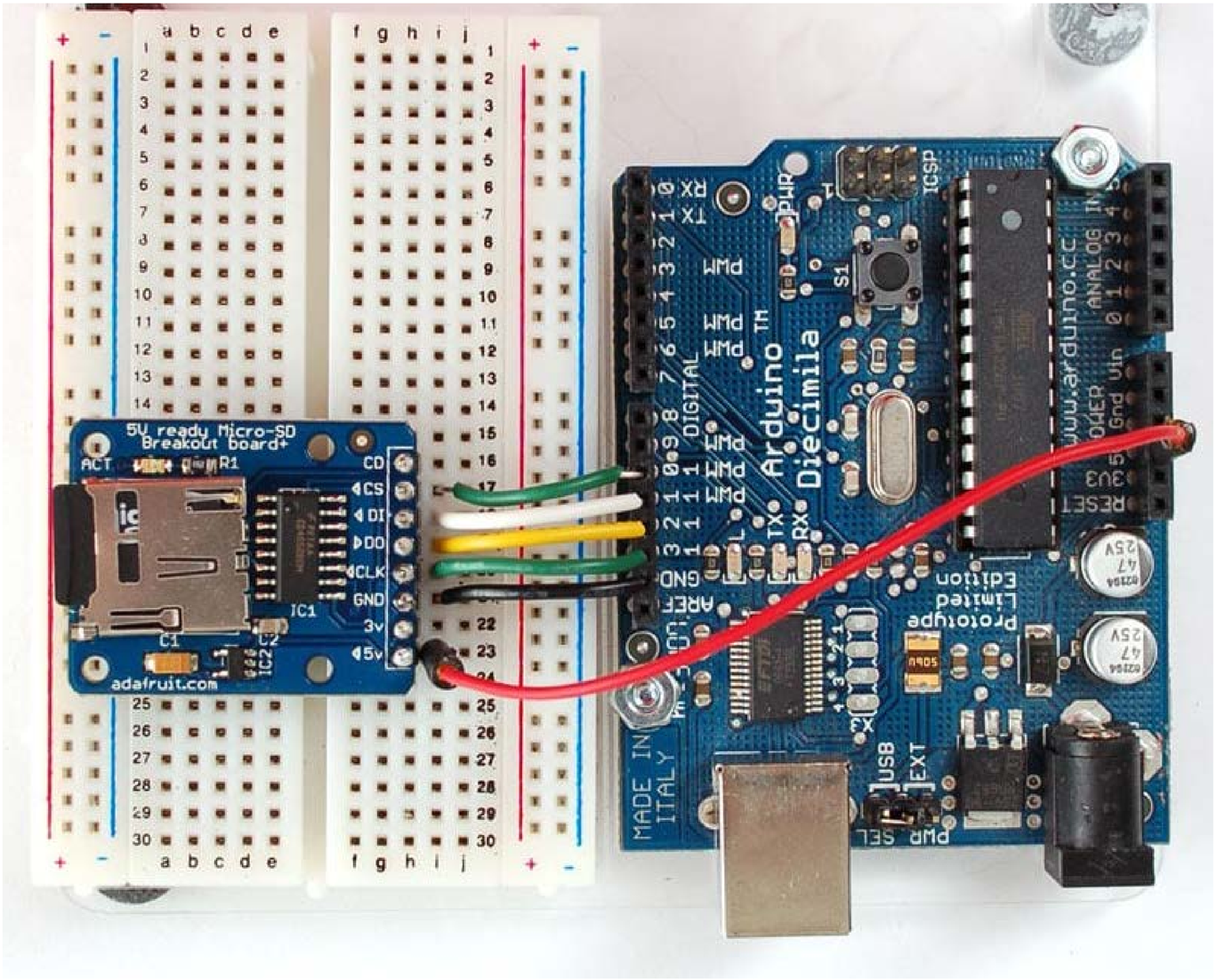
Connect CLK to pin 13 (pin 52 for Arduino MEGA)

Connect DO to pin 12 (pin 50 for Arduino MEGA)

Connect DI to pin 11 (pin 51 for Arduino MEGA)

Connect CS to pin 10 (pin 53 for Arduino MEGA)

WARNING!
The digital pins in use are SPI, allowing fast communication with the SDCARD module.
More info

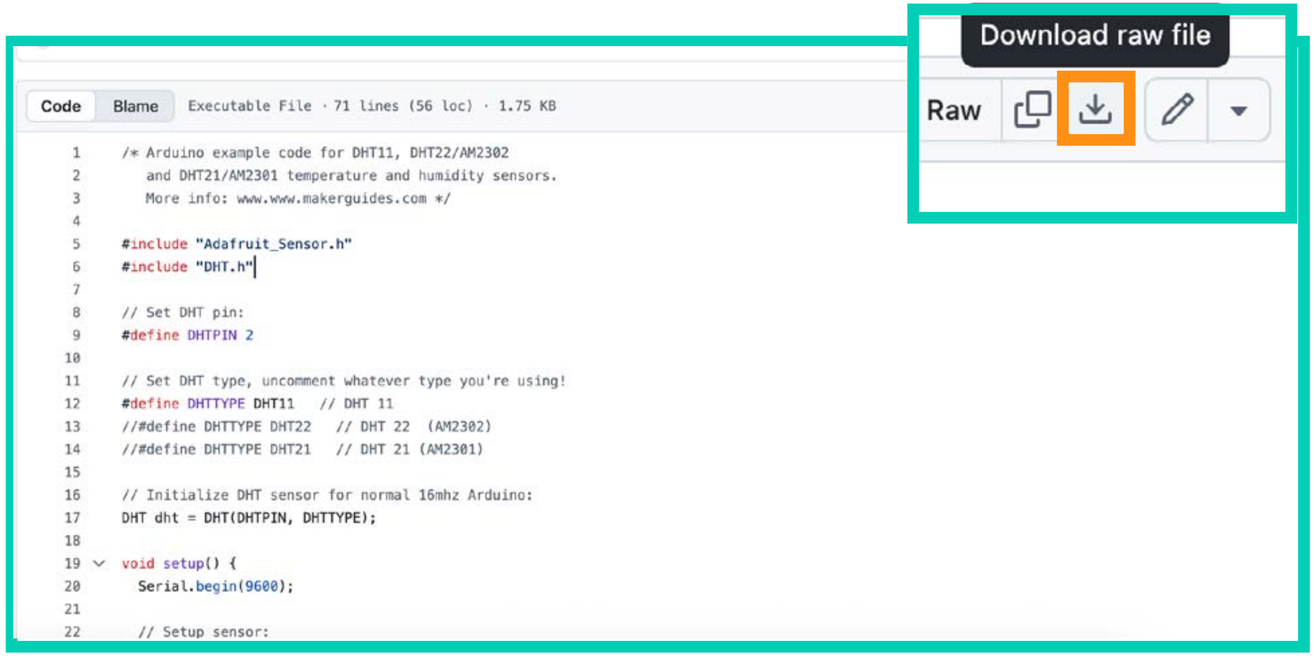


# WRITING FILES TO AN SD CARD USING ARDUINO

## CODING

The link below will direct you to a GitHub website.
Download the code from there.

[Link to download Arduino Code for SD Card Module - testing communication]



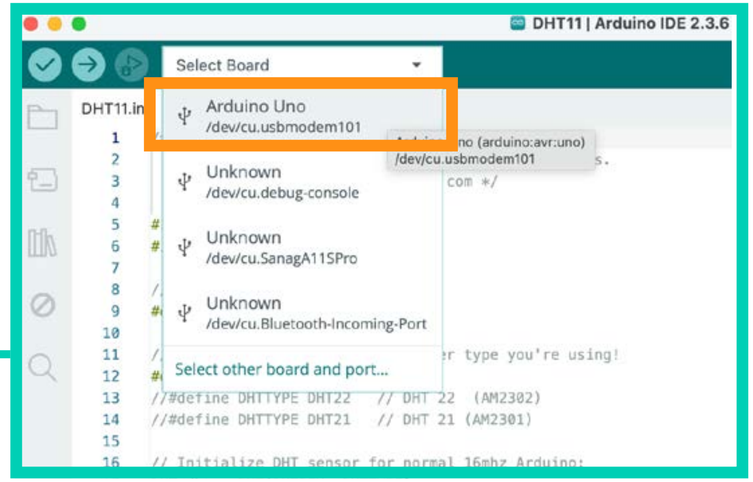
# CODING: TEST COMMUNICATION

- Insert the SD card into the SD card module (if you haven't done it already )

- Plug The Arduino Board to your computer

- Open the Arduino file (.ino) that you previously downloaded

- Select the Arduino UNO Board

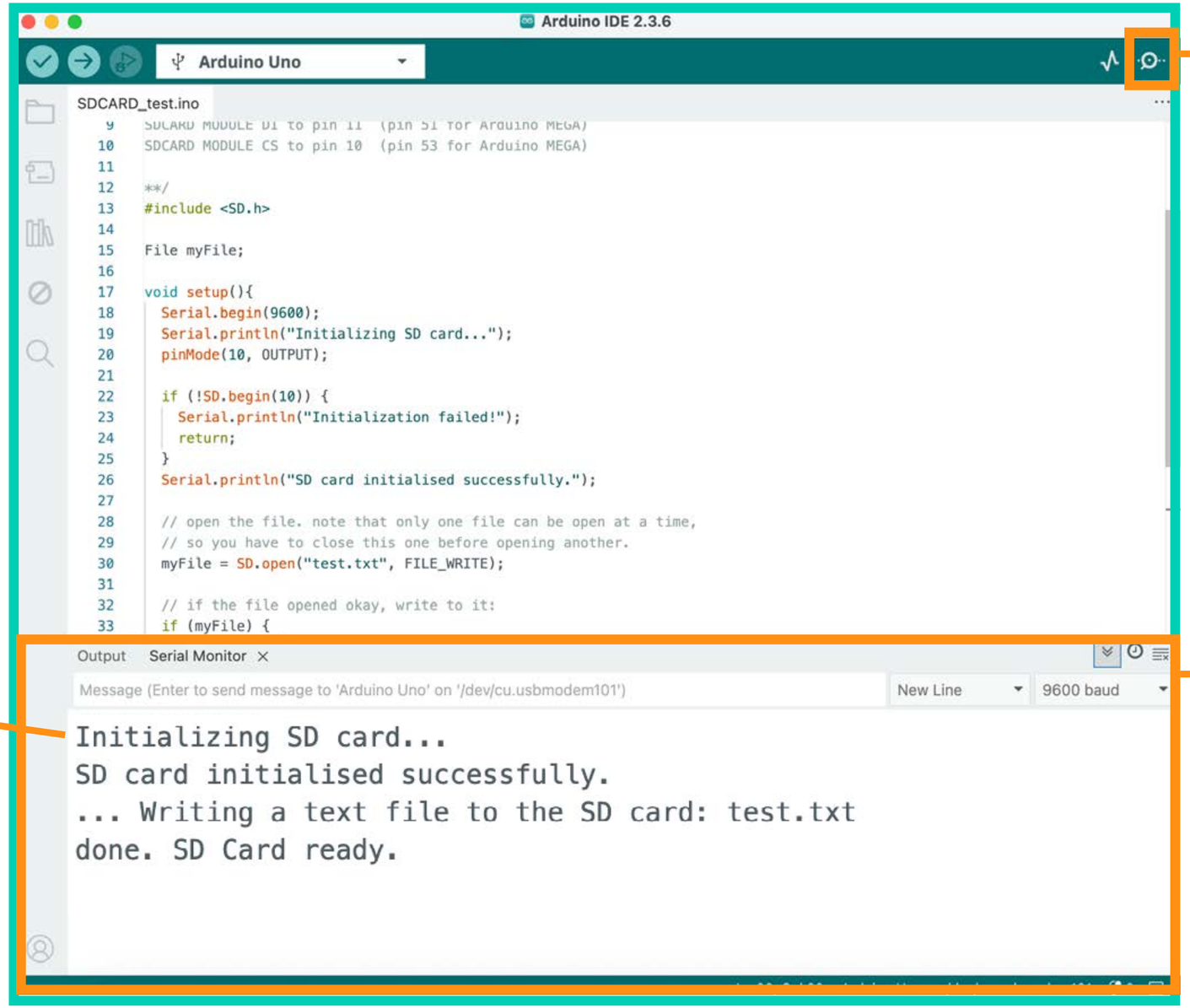



- Upload the code to the board

# WRITING FILES TO AN SD CARD USING ARDUINO

Open the Serial Monitor to check if the communication between Arduino and the SD Card Module is working properly.

Your Serial Monitor should print the following message:




Click to open Serial Monitor.

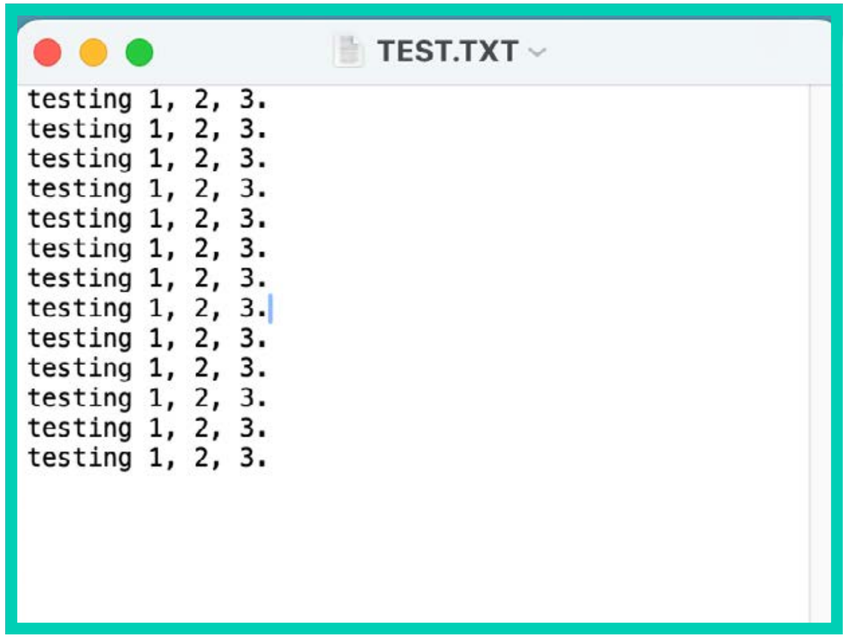
Serial Monitor

# WRITING FILES TO AN SD CARD USING ARDUINO

Done!

You have created a file titled ‘TEXT.txt’ written on your SD Card!

Now, remove the SD card from the module and insert it in your computer to check that your .txt file has been created properly. Let’s open it and see what was written in it. It should look something like this:



# WRITING FILES TO AN SD CARD USING ARDUINO

## PLAY AND TEST

Insert the SD card back to the module.

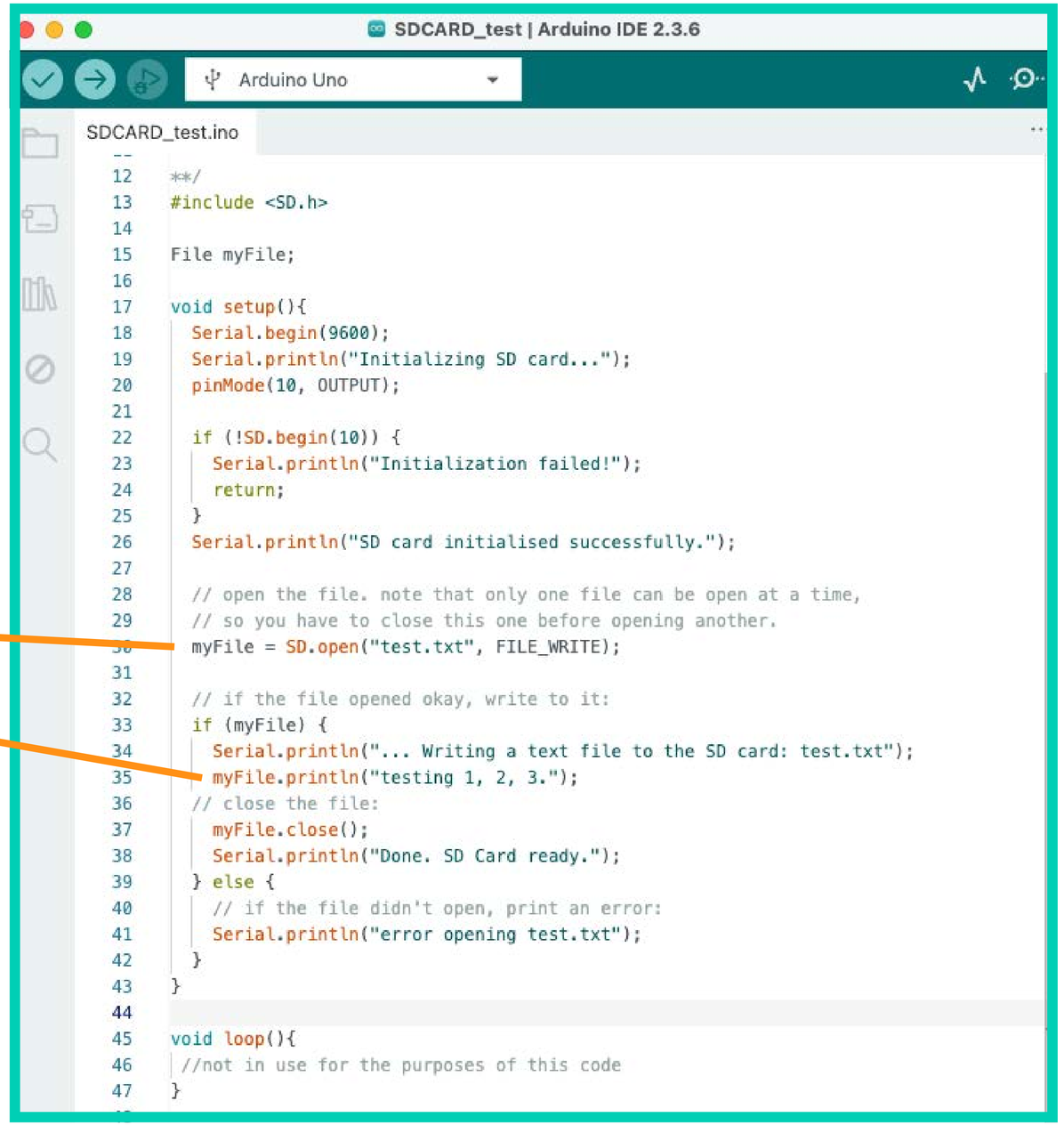
Observe your code and :

- try changing the name of the .txt file.

- try changing the content written in the .txt file

- upload the new code to the Arduino Board.
Has it worked?

*If you need help:
- research in internet
- approach a hackSpace technician



# REFERENCE / SD CARD LIBRARY

ARDUINO DOCUMENTATION
SD CARD LIBRARY
https://docs.arduino.cc/libraries/sd/