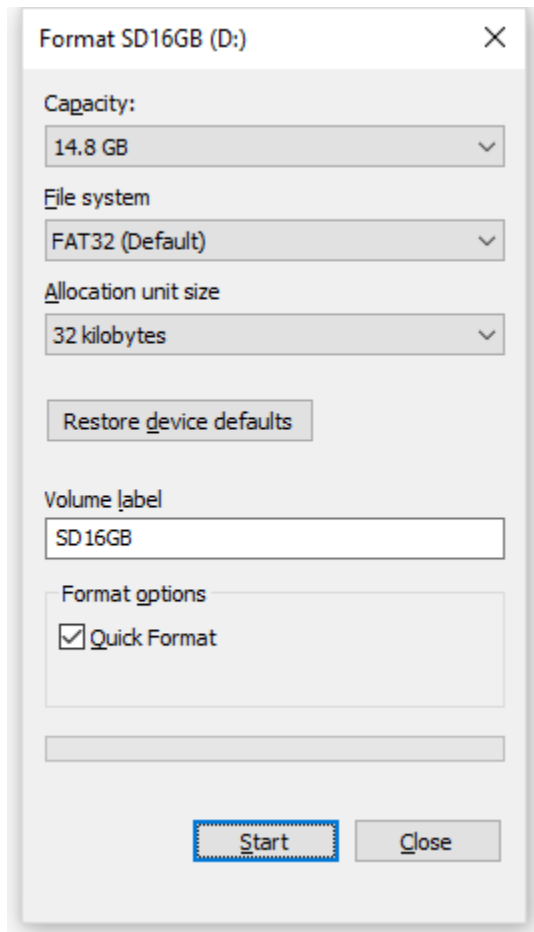
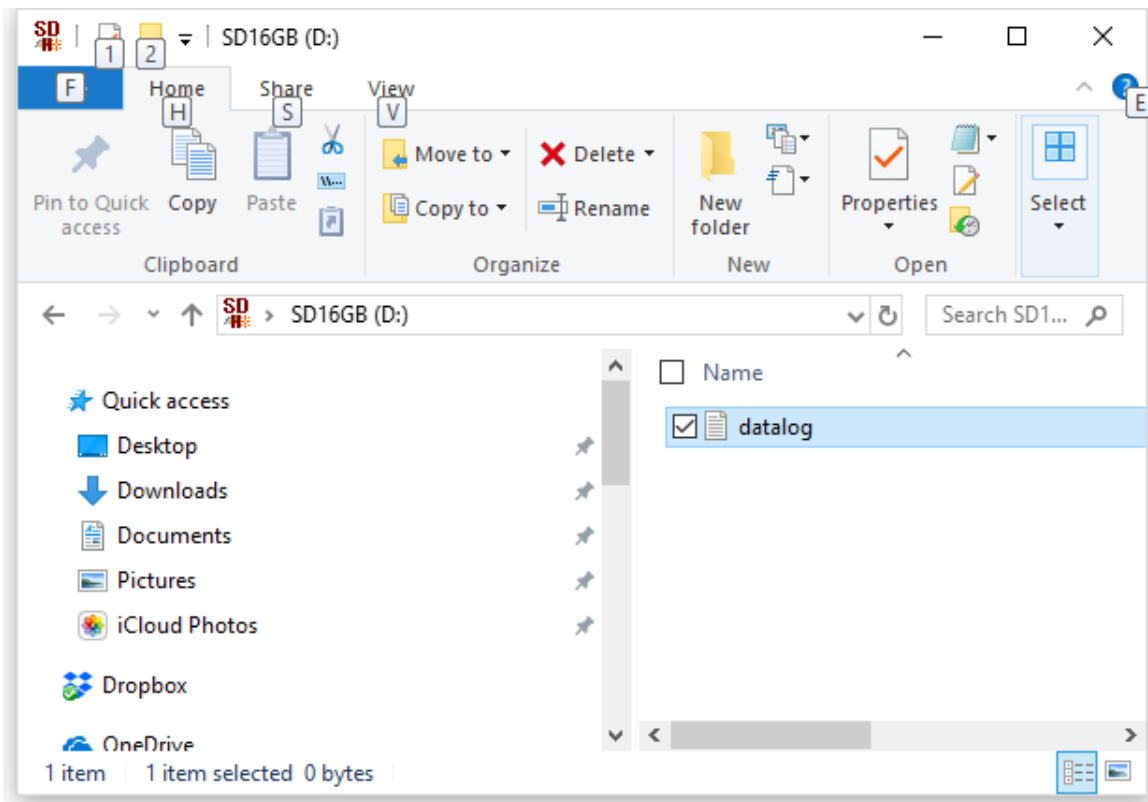


# MAR3513 SD Datalog example

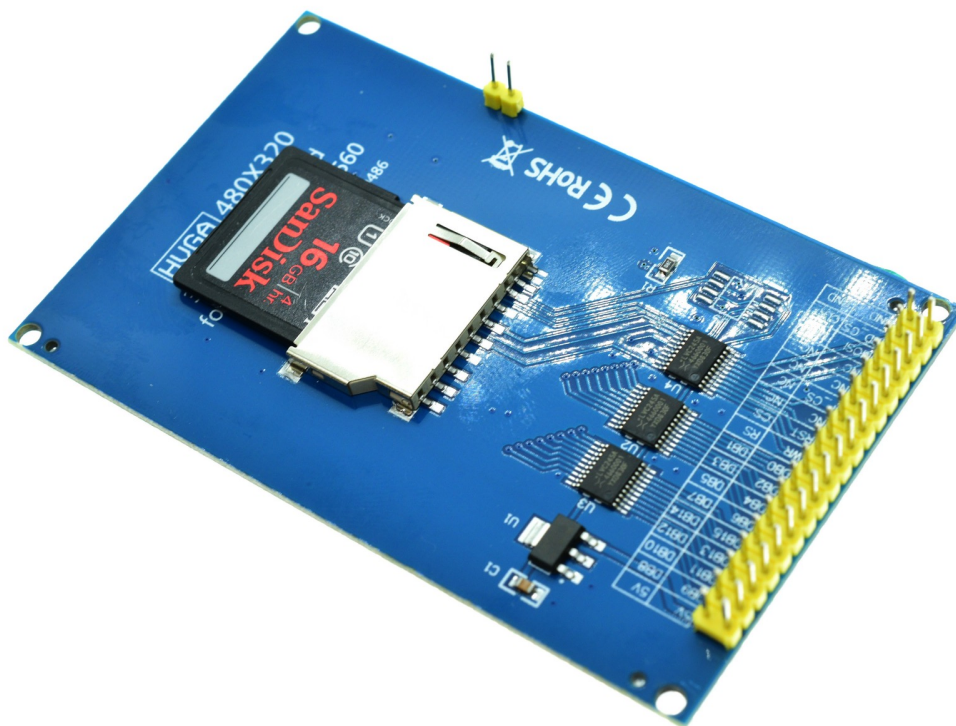
## Format SD



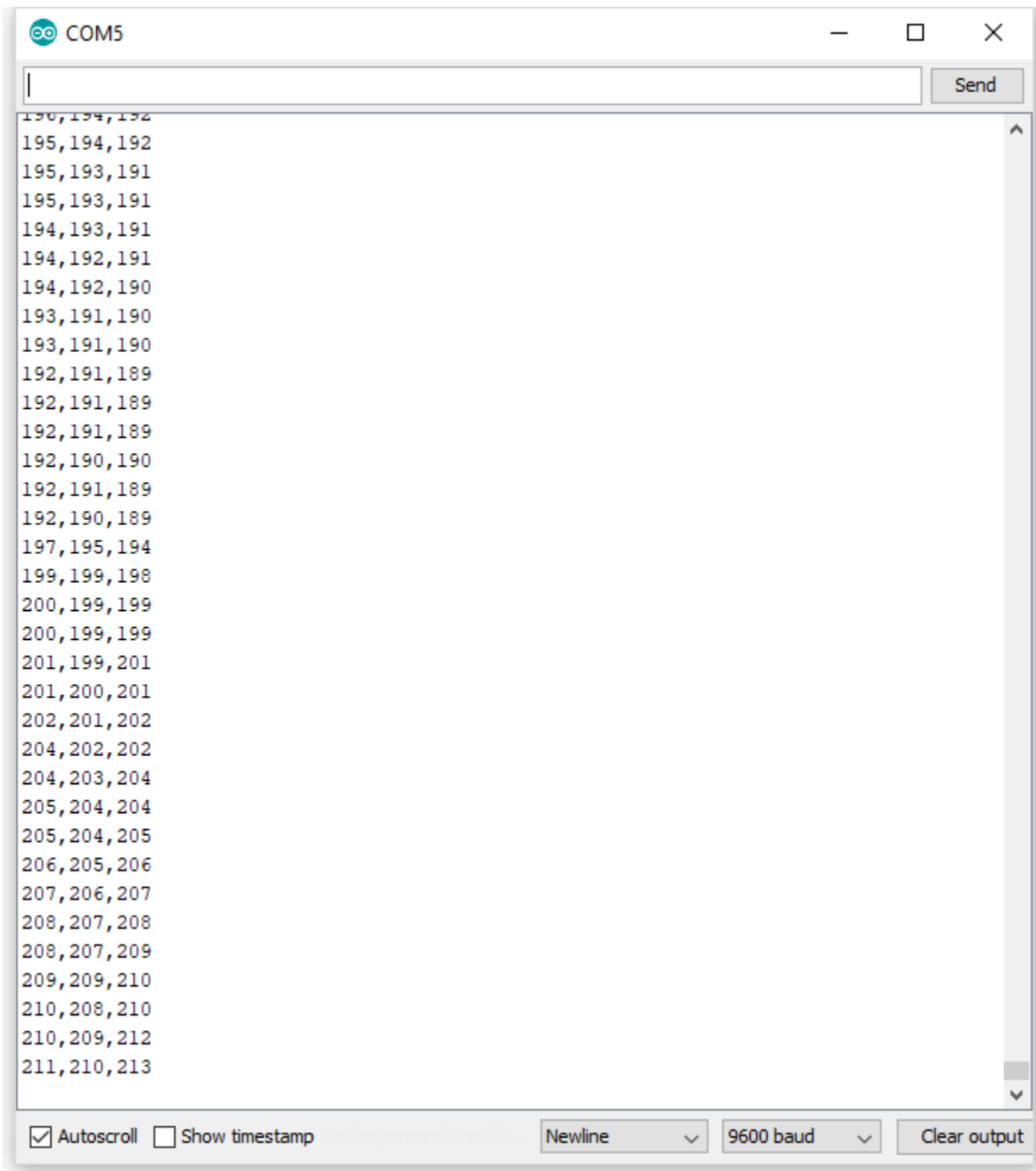
Create textfile datalog.txt



Insert SD



## Start example



## Example code

```
/*
  SD card datalogger

  This example shows how to log data from three analog sensors
  to an SD card using the SD library.

  The circuit:
  * analog sensors on analog ins 0, 1, and 2
```

```

* SD card attached to SPI bus as follows:
** MOSI - pin 11
** MISO - pin 12
** CLK - pin 13
** CS - pin 4

created 24 Nov 2010
modified 9 Apr 2012
by Tom Igoe

This example code is in the public domain.

*/

#include <SPI.h>
#include <SD.h>

// On the Ethernet Shield, CS is pin 4. Note that even if it's not
// used as the CS pin, the hardware CS pin (10 on most Arduino boards,
// 53 on the Mega) must be left as an output or the SD library
// functions will not work.
const int chipSelect = 53;

void setup()
{
  // Open serial communications and wait for port to open:
  Serial.begin(9600);
  while (!Serial) {
    ; // wait for serial port to connect. Needed for Leonardo only
  }

  Serial.print("Initializing SD card...");
  // make sure that the default chip select pin is set to
  // output, even if you don't use it:
  pinMode(53, OUTPUT);

  // see if the card is present and can be initialized:
  if (!SD.begin(chipSelect)) {
    Serial.println("Card failed, or not present");
    // don't do anything more:
    return;
  }
  Serial.println("card initialized.");
}

void loop()
{
  // make a string for assembling the data to log:
  String dataString = "";

  // read three sensors and append to the string:
  for (int analogPin = 0; analogPin < 3; analogPin++) {
    int sensor = analogRead(analogPin);
    dataString += String(sensor);
    if (analogPin < 2) {
      dataString += ",";
    }
  }

  // open the file. note that only one file can be open at a time,
  // so you have to close this one before opening another.
  File dataFile = SD.open("datalog.txt", FILE_WRITE);

  // if the file is available, write to it:
  if (dataFile) {
    dataFile.println(dataString);
    dataFile.close();
    // print to the serial port too:
    Serial.println(dataString);
  }
}

```

```
// if the file isn't open, pop up an error:  
else {  
    Serial.println("error opening datalog.txt");  
}  
}
```