# SEED TECHNOLOGY INC (SEEEDUINO)
# SD Card Shield v3.0
# Model: INT106D1P

## *Introduction*

The SD Card Shield v3.0 is a Break out board for standard SD card. With the flash memory card price drop,it is the time to add mass storage for data logging to your project! Arduino cannot hold lots of data by itself: That's why the SD card shield is a great addon to your Arduino project that involves logging data, or simply reading or writing (lots of) data. Another great thing is that SD cards are unexpensive, widely available, and very small - a micro SD card is smaller than a coin!


Microsdcard2gb.jpg

The SD card is the end of the data storage problem for the Arduino, making it a must have if your project is running away from a computer. Let's say you want to make some kind of data logging in the woods, you certainly can't attach your Arduino to a computer just to store data, but with the SD card shield, you can. In this case, the Arduino will write on the SD card, no need for a computer! And all of that running off a small power supply! Neat, huh?

Features

- Arduino/Seeeduino compatible
- Grove compatible(with Twig connectors for Uart Serial Port and I2C brought from the mainboard)
- Massive storage space to your Arduino - perfect for data logging or reading/writing big files that the Arduino itself can't handle.
- SD Card and Micro SD Card are both supported.

## *Application Ideas*

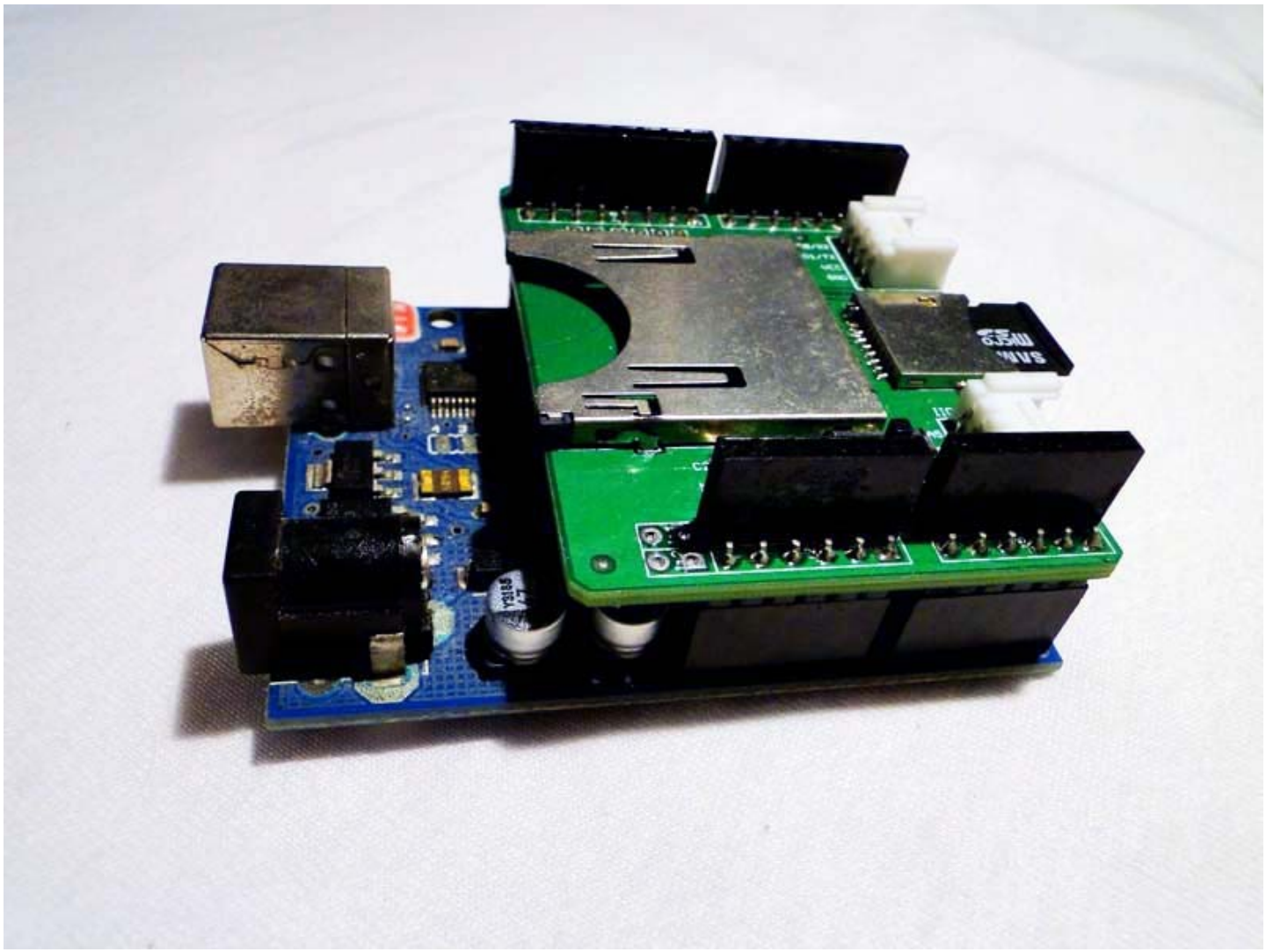
- Data logging on remote areas, without the need for a computer
- Reading and writing big files

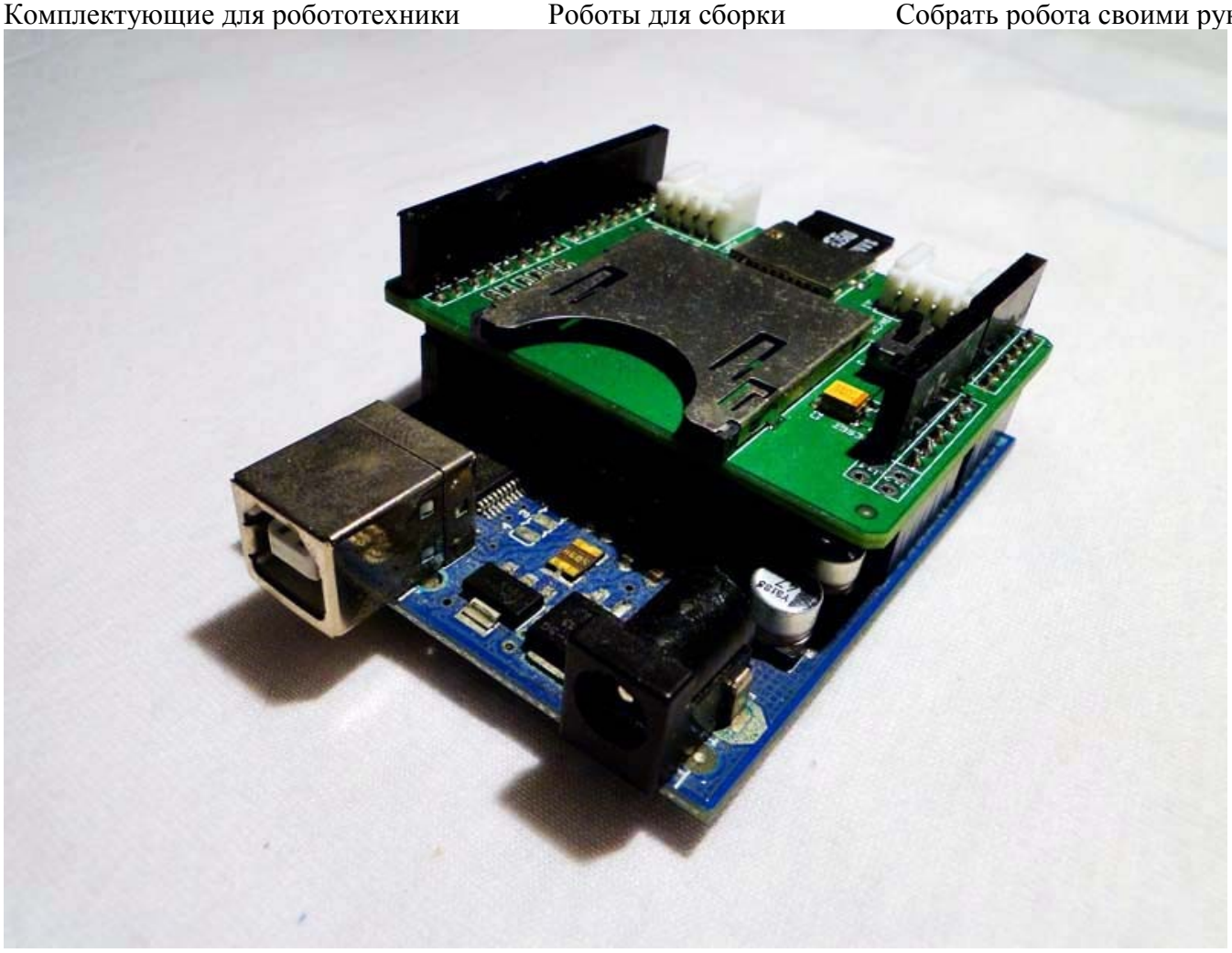
## *Precautions*

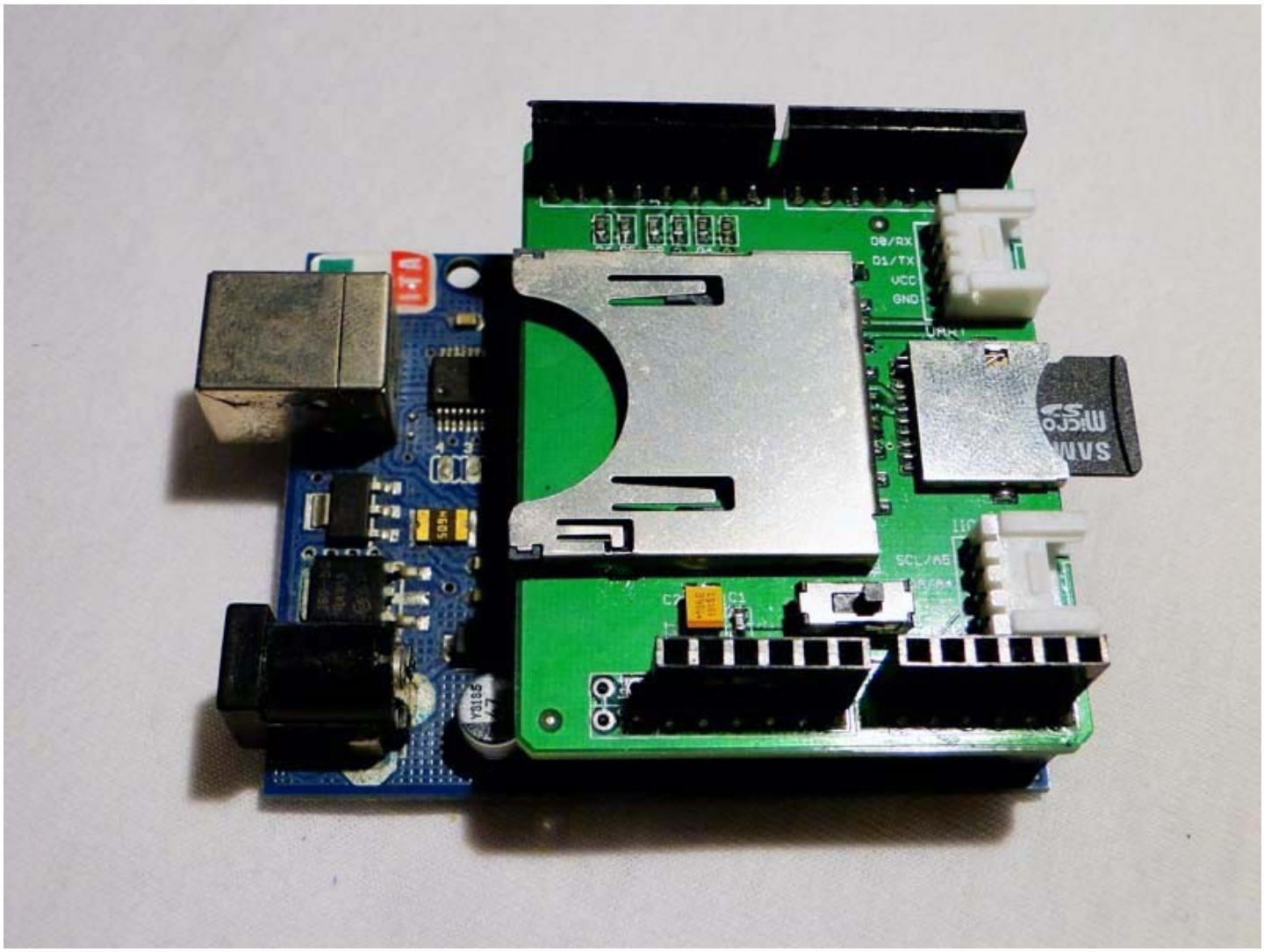
**SDHC cards are not supported.** SDHC's are 4Gb+ SD cards that can be formatted with the FAT32 filesystem.

The Shield supports Standard SD cards ranging from 64Mb (hard to find nowadays) to 2Gb in size, that's more than enough for most data logging projects. Micro SD cards are also supported. You can buy a card here.

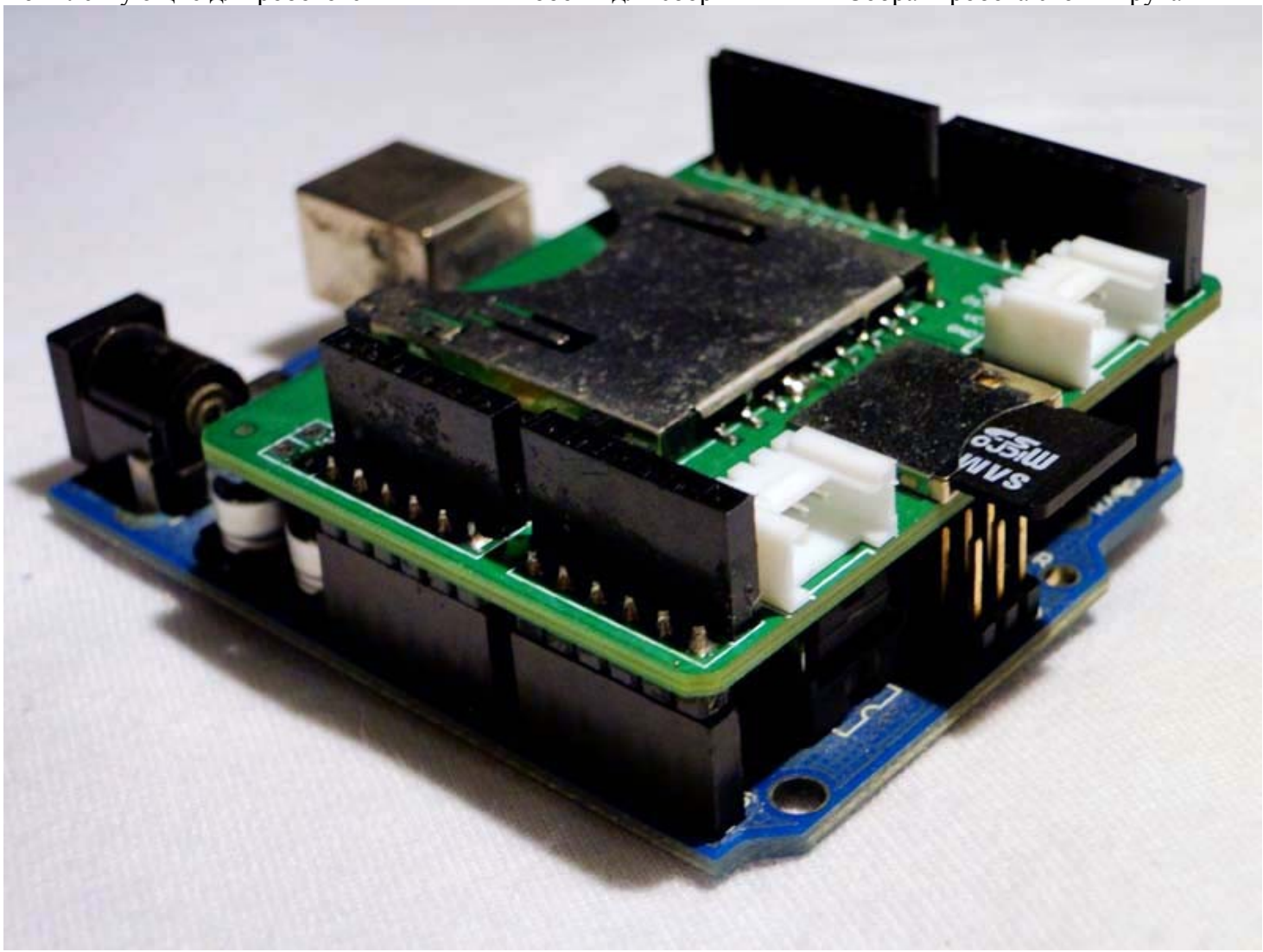
## *Picture Gallery*






D0/RX
D1/TX
VCC
GND


Switch between SD or Micro SD cards

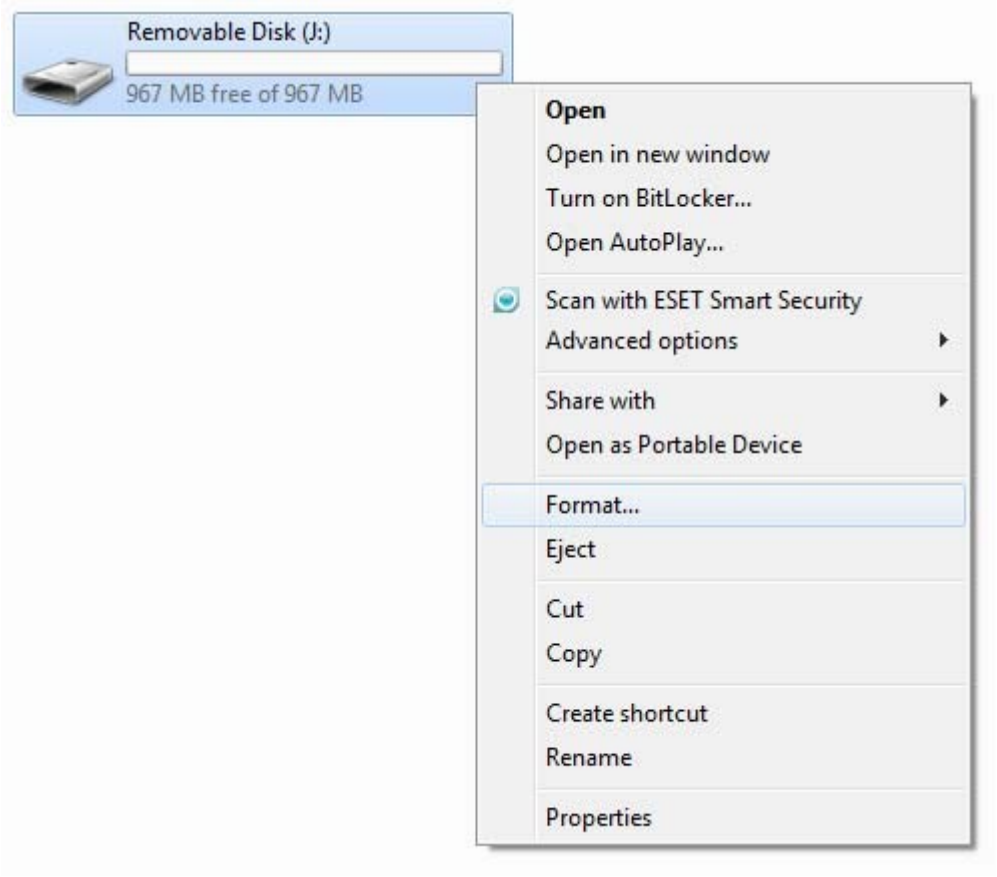


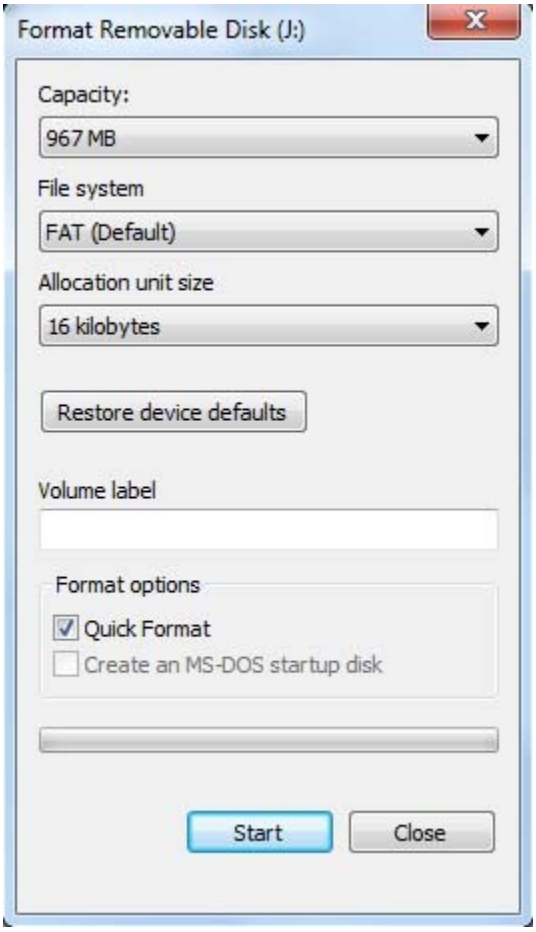
## *Usage*

This tutorial will teach you how to get started with the shield.

The first thing you have to do is get an SD card or micro SD card. Most computers have an SD card reader available, we will use that to format the card.

The card must be formatted as FAT16. The process of formatting the card is pretty straightforward, take a look at the screenshots below:



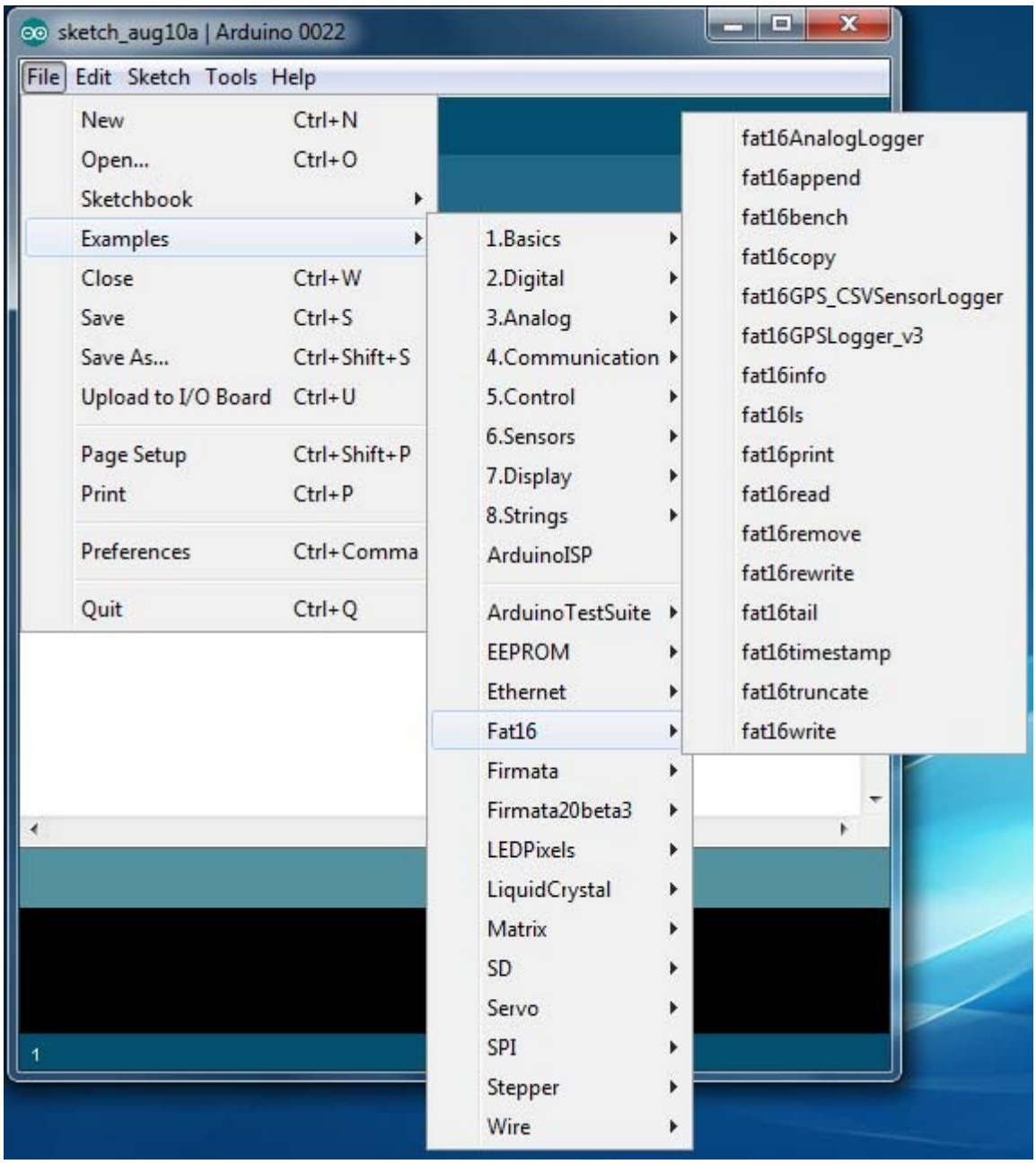




After formatting you can attach the SD card shield to your Arduino and then insert the SD card to the appropriate slot on it. Make sure the card selector is pointing the right way (Standard card or micro).

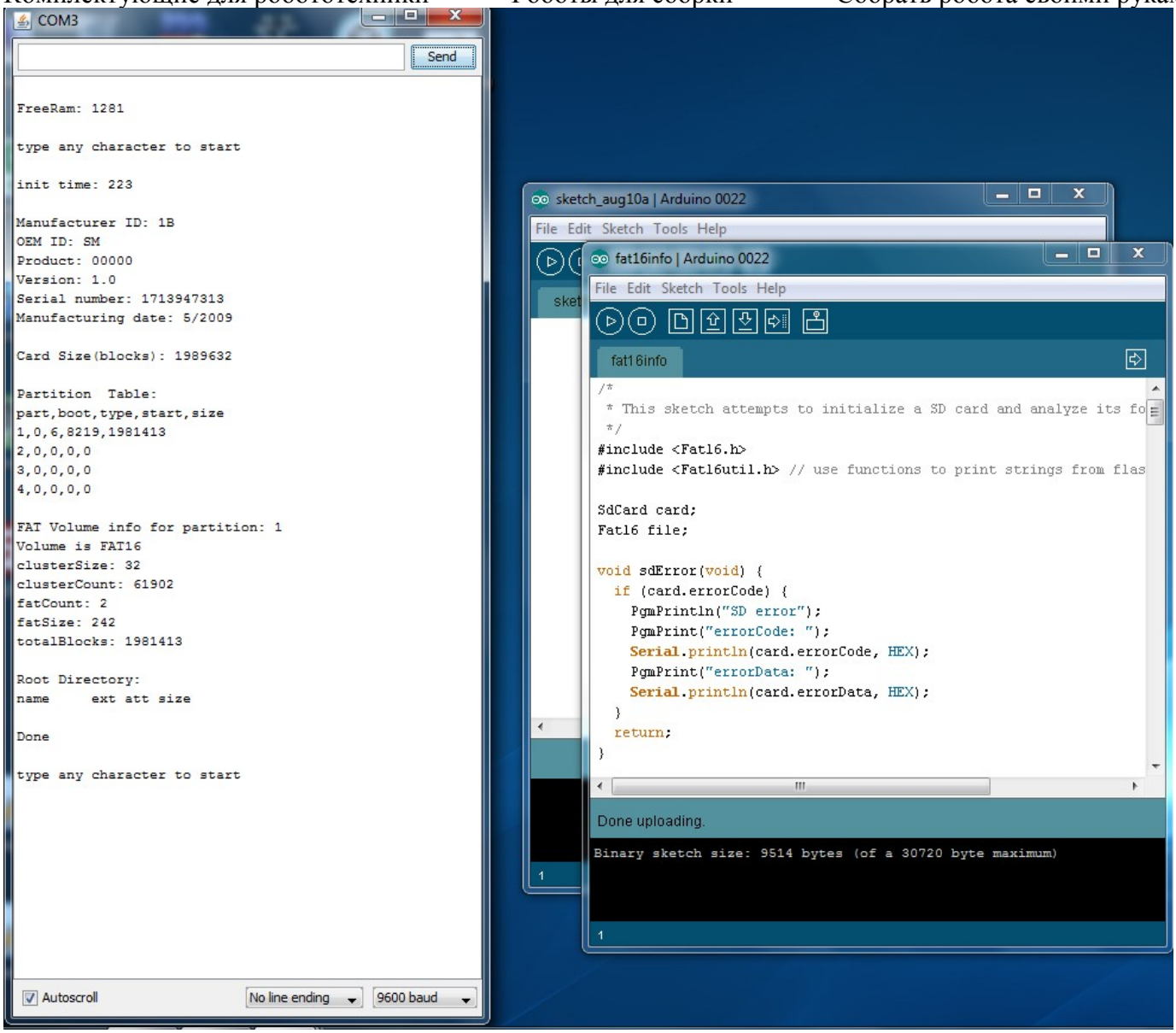
Next step is to copy the library to your Arduino library folder.

After that, run Arduino IDE. Make sure the correct Arduino board and port are selected on the Tools menu.

Lets see if Arduino can see the SD card and display some info about it. For that, go to 'File', 'Examples', 'Fat16', and click 'fat16info'.




This will load a sketch that attempts to initialize the SD card and analyze its format. After uploading the sketch, open the Serial Monitor. After sending a character the SD card information will be displayed. You should see something like this:




If an error occurs, please recheck all the steps, and make sure the SD card is working. If none of that fixes the problem, try replacing the SD card.

With that done, you can take a look at the other library examples for reading, writing, and sample logging with a GPS or real time clock. Enjoy!

## Support

Ask questions on Seeed Forum.

## Version Tracker

| Revision | Descriptions | Release |
|---|---|---|
| v0.9b | Initial public release | date |

## Resources

- Eagle file of SD Card Shield v3.0.
- DemoCode(Fat16 Library)

## *Licensing*