
Micro SD Card Memory Shield Module



MicroSD Card Adapter can read and write files of the Micro SD card through the SPI driver program and the microcontroller system.

Arduino users can format and read and write using the SD card program from Arduino IDE

Features:

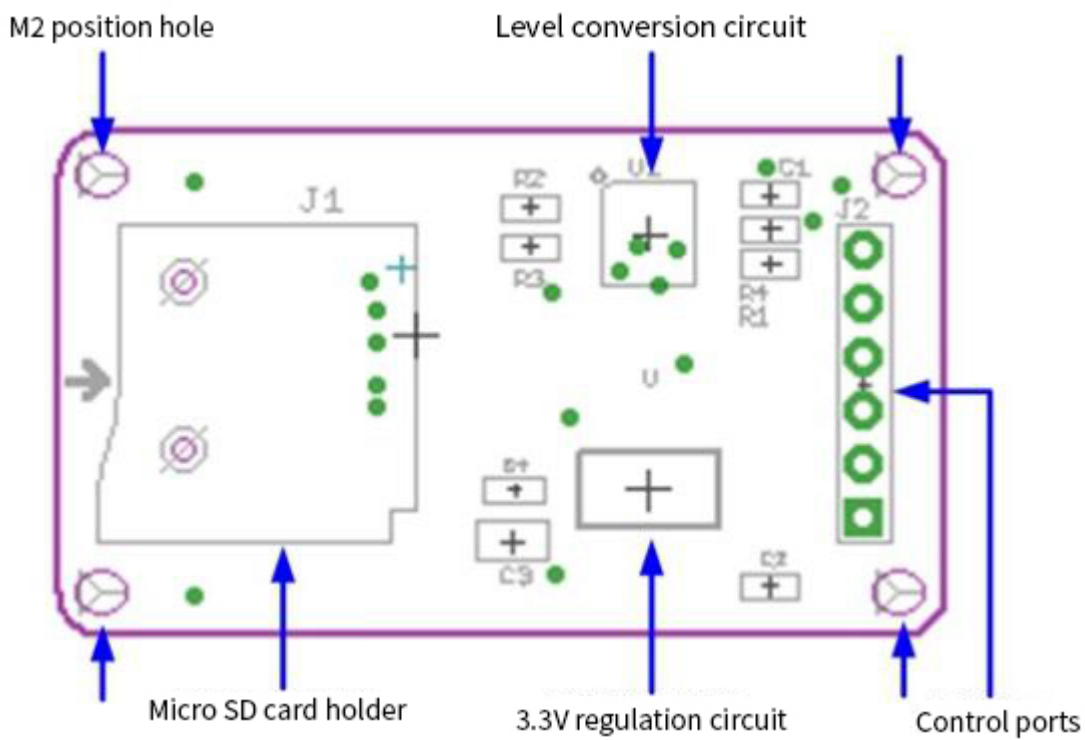
1. Support Micro SD card, Micro SDHC card (high speed card)
2. On-board level conversion circuit, that is, the interface level can be 5V or 3.3V
3. The power supply is 4.5V~5.5V, and the onboard 3.3V voltage regulator circuit
4. The communication interface is a standard SPI interface
- 5.4 M2 screw positioning holes for easy installation

Parameters

	Min value	Typical value	Max value	Unit
Power voltage VCC	4.5	5	5.5	v
Current	0.2	80	200	mA
Port levels	3.3 or 5			V
Card type	Micro SD card(<=2G), Mirco SDHC card (<=32G)			-----
Size	42X24X12			mm
Weight	5			g

Interfaces

Mirco SD card module



Control ports:

6 pins (GND, VCC, MISO, MOSI, SCK, CS), GND is the ground, VCC is the power supply, MISO, MOSI, SCK are the SPI bus, and CS is the chip select signal pin;

3.3V Regulator circuit :

The 3.3V output by the LDO voltage regulator supplies power for the level conversion chip and Micro SD card;

Level conversion circuit:

Signals to the Micro SD card converts into 3.3V, and MISO signal from Micro SD card to control ports also is changed into 3.3V. Typically, the AVR microcontroller system can read this signal.

Micro SD card holder: It is a self-elastic card holder, which is convenient for card insertion and removal.

Positioning holes: 4 M2 screw positioning holes with a diameter of 2.2mm, easy to install and realize the combination between modules;

How to use

Arduino compatible board: Catduino *1 (Atmega328P microcontroller development board) and a mini USB cable;

Micro SD card module *1;

Samsung 2G Micro SD card*1;



Base shield*1;

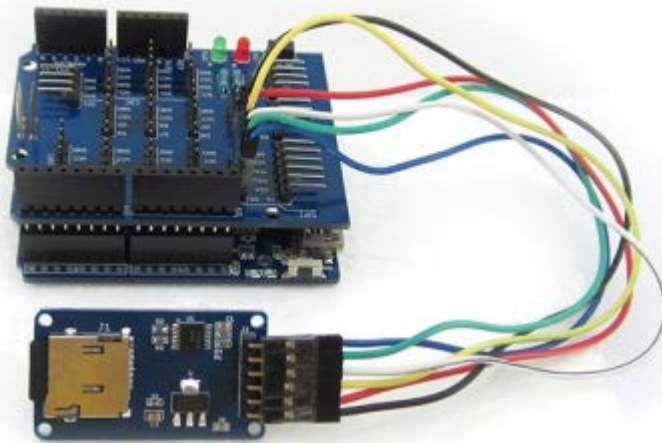
6 F-F Dupont wires, used to connect ports and SPI ports of Base Shield.

STEPS:

1. Insert the Base Shield directly onto the Catduino motherboard to make sure the Micro SD card formatted as FAT16 or FAT32, then plug it into the Micro SD card module.
2. Connect the Micro SD card module and SPI ports of the base shield using six F-F Dupont wires

Base Shield	Connection Wires	Micro SD Card Module
GND	Black Wire	GND
VCC	Red Wire	VCC
MISO	Yellow Wire	MISO

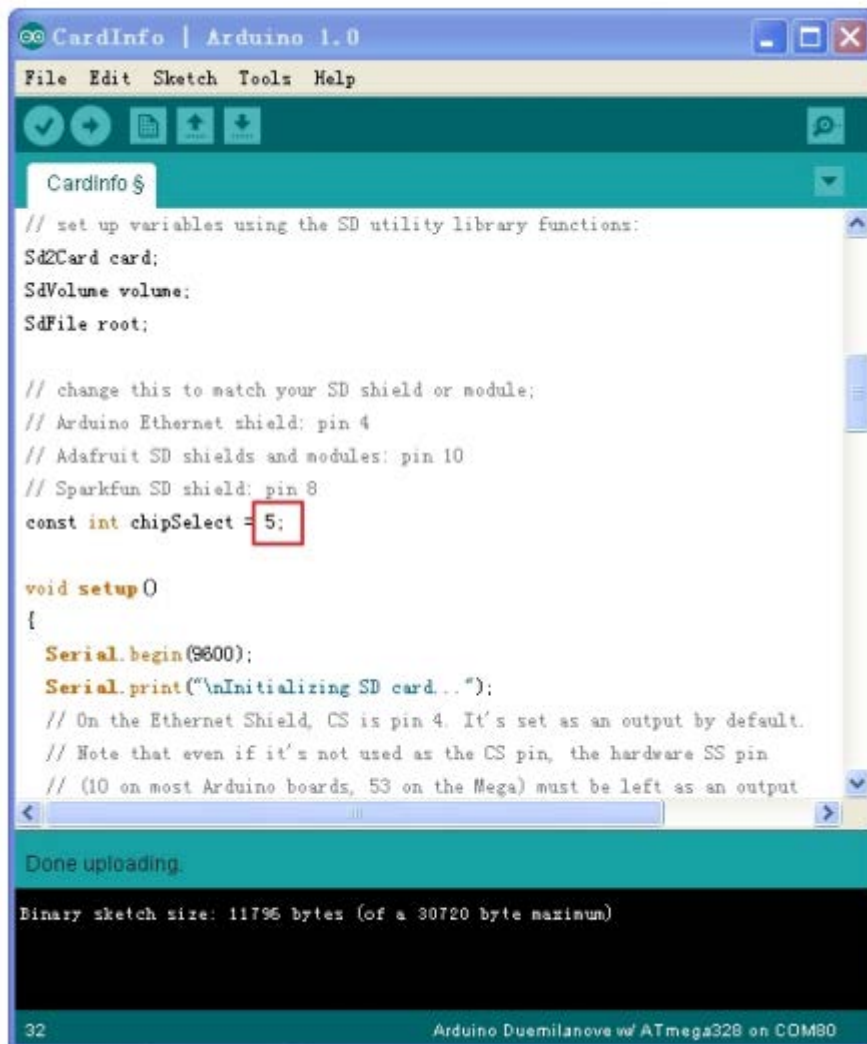
MOSI	White Wire	MOSI
SCK	Green Wire	SCK
DS	Blue Wire	CS



3. Wire up the Catduino with a mini USB. If it is the first time to use this board, the driver can be found under the Drivers of the Arduino IDE.

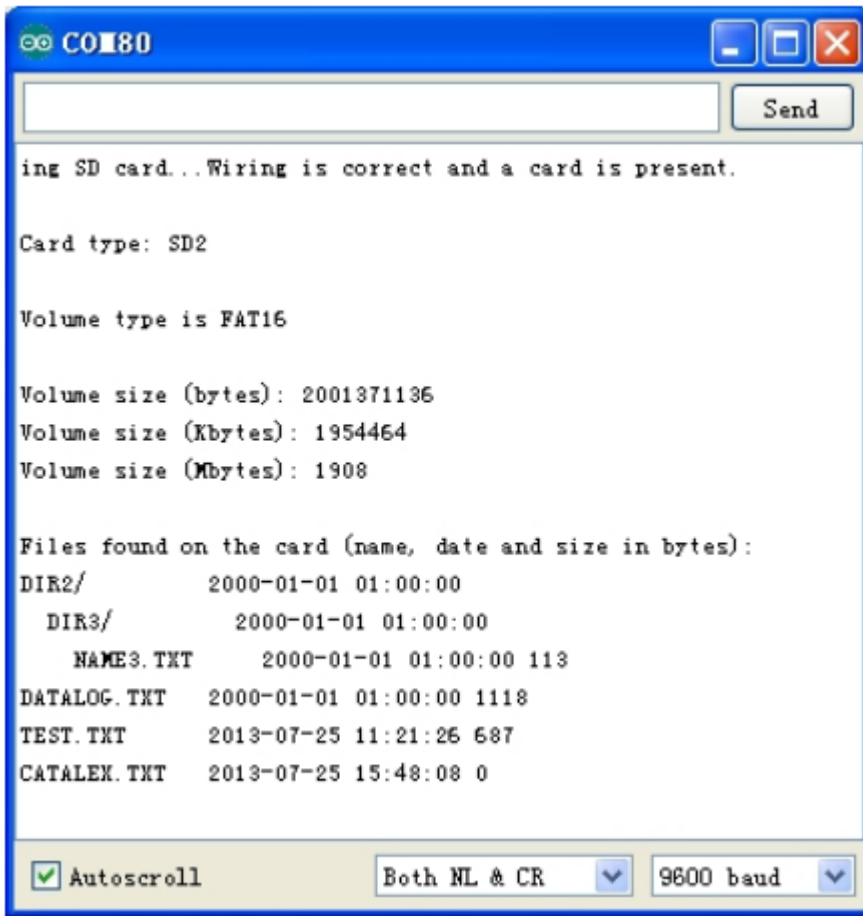
4. You can use the program of Arduino IDE, go to `..\Arduino-1.0\libraries\SD`. Reboost Arduino IDE, click Open to open the CardInfo example, as shown below;

Signal pins should be changed into pins which are connected to the module. In this experiment, D5 is the connected pin.



Select serial ports, board name and click upload. This program indicates how to read the Micro SD card including about the card type, file systems, storage and file names.

Click the serial monitor to check them.



You can try other programs in SD program.

Package List:

Micro SD card read/writer module*1

PDF document for modules