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> SD card...initialization failed Adafruit MicroSD (<https://forum.arduino.cc/index.php?topic=354890.0>)

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Topic: SD card...initialization failed Adafruit MicroSD (Read 2969 times)

90.0;Prev_next=Prev#New) – Next Topic (https://forum.arduino.cc/index.php?Topic=354890.0;Prev_next=Next#New)

sidhabo
(<https://forum.arduino.cc/index.php?action=profile;u=418861>)



(<https://forum.arduino.cc/index.php?action=profile;u=418861>)



Newbie

Posts: 11

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(<https://forum.arduino.cc/index.php?action=karma;sa=applaud;uid=418861;b6d016336ba=c5379a080009cd0140bb649a8b9f0a13>)



SD card...initialization failed Adafruit MicroSD (<https://forum.arduino.cc/index.php?topic=354890.msg2446374#msg2446374>)

Oct 22, 2015, 05:59 pm (<https://forum.arduino.cc/index.php?topic=354890.msg2446374#msg2446374>)

[topic=354890.msg2446374#msg2446374](https://forum.arduino.cc/index.php?topic=354890.msg2446374#msg2446374))

Trying to get my new SD card going
No luck

I get fail using arduino SD/Cardinfo sketch at command
`card.init(SPI_HALF_SPEED, chipSelect)`

Browsing the forum only trick I found was this
Not sure if it's valid for my Arduino Uno ...
`pinMode(10, OUTPUT);`
`digitalWrite(10, HIGH);`

Also tried using `chipSelect = 10` or `4` as CS on SD card

Following instructions from Adafruit
<https://learn.adafruit.com/adafruit-micro-sd-breakout-board-card-tutorial>

The card is workin fine on my desktop SD box. FAT32 format but shouldn't be

format problem at all I reckon failing at card.init ??

Any idea how I can go forward with trouble shoot ?

Or is it a DOA I got ?

Not really so much code before fail

Code: [Select]

```
// since we're just testing if the card is working!
if (!card.init(SPI_HALF_SPEED, chipSelect)) {
  Serial.println("initialization failed. Things to check:");
  Serial.println("* is a card inserted?");
  Serial.println("* is your wiring correct?");
  Serial.println("* did you change the chipSelect pin to match you
return;
} else {
  Serial.println("Wiring is correct and a card is present.");
}
```

BR Bosse

I'm Using Arduino UNO

CrossRoads
(<https://forum.arduino.cc/index.php?action=profile;u=28339>)



(<https://forum.arduino.cc/index.php?action=profile;u=28339>)

action=profile;u=28339)



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Posts: 36,844

(<http://www.crossroadsfencing.com/BobuinoRev17/>)

Karma: 1331 [add]

(<https://forum.arduino.cc/index.php?topic=354890.0>)

Re: SD card...initialization failed Adafruit MicroSD

(<https://forum.arduino.cc/index.php?topic=354890.msg2446462#msg2446462>)

Oct 22, 2015, 07:10 pm (<https://forum.arduino.cc/index.php?topic=354890.msg2446462#msg2446462>)

#1

Code: [Select]

```
pinMode(10, OUTPUT);
digitalWrite(10, HIGH);
```

You need that on Uno/328P to make the SS pin an output for the SPI Master. If it's left as Input and it goes Low, the SPI goes into Slave mode, If you use 10 for chip select to the board vs 4, then the SS as Master is taken care of in one shot.

If you have a Mega, it's different, one of 50-51-52-53, have to look it up.

Designing & building electrical circuits for over 25 years. Screw Shield for Mega/Due/Uno, Bobuino with ATmega1284P, & other '328P & '1284P creations & offerings at my website.

dex.php?

action=karma;sa=applaud;ui
d=28339;b6d016336ba=c537
9a080009cd0140bb649a8b
9f0a13)

Author of "Arduino for Teens".
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339)



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Posts: 36,844

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Re: SD card...initialization failed Adafruit MicroSD
(https://forum.arduino.cc/index.php?topic=354890.msg2446464#msg2446464)

Oct 22, 2015, 07:14 pm (https://forum.arduino.cc/index.php?
topic=354890.msg2446464#msg2446464)

#2

Don't you need SPI.begin() in setup()?

You could also look SDFat.h library.

<https://github.com/greiman/SdFat> (https://github.com/greiman/SdFat)

Designing & building electrical circuits for over 25 years. Screw Shield for Mega/Due/Uno, Bobuino with ATmega1284P, & other '328P & '1284P creations & offerings at my website.

fat16lib
(<https://forum.arduino.cc/index.php?action=profile;u=8332>)



(<https://forum.arduino.cc/index.php?action=profile;u=8332>)



Edison Member

Posts: 2,142

Karma: 176 [add]

(<https://forum.arduino.cc/index.php?action=karma;sa=applaud;uid=8332;b6d016336ba=c5379a080009cd0140bb649a8b9f0a13>)

Arduino rocks

Re: SD card...initialization failed Adafruit MicroSD
(<https://forum.arduino.cc/index.php?topic=354890.msg2446483#msg2446483>)
Oct 22, 2015, 07:25 pm (<https://forum.arduino.cc/index.php?topic=354890.msg2446483#msg2446483>) Last Edit: Oct 22, 2015, 07:27 pm by fat16lib

#3

Wire the SD module to the Uno as shown [here](https://learn.adafruit.com/adafruit-micro-sd-breakout-board-card-tutorial/wiring). (<https://learn.adafruit.com/adafruit-micro-sd-breakout-board-card-tutorial/wiring>)

Quote

“The card is workin fine on my desktop SD box. FAT32 format but shouldn't be format problem at all I reckon failing at card.init ??”

There could still be a problem with the card or the format. The card is accessed in SDIO mode on the desktop box but in SPI mode on the Arduino.

Desktops are more forgiving of nonstandard SD card formats such as GPT based formats. The Arduino only accepts MBR based cards.

The only way to be sure an SD card has the standard format is to use the [SD formatter](https://www.sdcard.org/downloads/formatter_4/) (https://www.sdcard.org/downloads/formatter_4/).

This code will not help on Uno since Arduino SD libraries perform this initialization.

Code: [Select]

```
pinMode(10, OUTPUT);
digitalWrite(10, HIGH);
```

This code is required when there is a second SPI device with pin 10 as chip select on a non 328 board.

Run the SD.h CardInfo example or the SdFat SdInfo example and post the output. The SdFat SdInfo example prints a useful error code.

(<http://www.arduino.cc>)

sidhabo
(<https://forum.arduino.cc/index.php?action=profile;u=418861>)

Download (<http://www.arduino.cc/en/Main/Software>)



(<https://forum.arduino.cc/index.php?action=profile;u=418861>)

Learning

Re: SD card...initialization failed Adafruit MicroSD
(<https://forum.arduino.cc/index.php?topic=354890.msg2468404#msg2468404>)
Nov 07, 2015, 04:40 pm (<https://forum.arduino.cc/index.php?topic=354890.msg2468404#msg2468404>)

#4

Thanks for info

Turned out my problem was semibad +5 V like I could see when attaching my scope

So work fine now 😊

I tried both pin 4 and pin 10 both works

Ha det gött
Bosse

Forum (//forum.arduino.cc)

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dex.php?

Support
action=karma;sa=applaud;ui

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no.cc/index.php?

action=profile;u=42
7924)



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dex.php?

action=profile;u=427924)



Newbie

Posts: 1

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action=karma;sa=applaud;ui

d=427924;b6d016336ba=c5

379a080009cd0140bb649a

8b9f0a13)

Re: SD card...initialization failed Adafruit MicroSD

(https://forum.arduino.cc/index.php?topic=354890.msg2479926#msg2479926)

Nov 18, 2015, 01:00 pm (https://forum.arduino.cc/index.php?

topic=354890.msg2479926#msg2479926) Last Edit: Nov 18, 2015, 10:10 pm by gutisie

#5

hi all,

i am new to this and the forum, so a bit thank you for all your help in advance.

i had same problem as the author and after following all your solutions proposed, i still dont get it right.

i have tried the sample scketch cardinfo to check if it is working but always shows same screen with same thing:

```
{
```

Initializing SD card...initialization failed. Things to check:

* is a card inserted?

* is your wiring correct?

* did you change the chipSelect pin to match your shield or module?

```
}
```

i did change the pin for the ss pin10, and set it as an output, i have 4.95 on spi pins apart from the csk which is 0v. is it normal?

i have checked for continuity and every bit is ok, not sure what i am doing wrong, even i bought another sd card reader, but same thing happens.

i have tried with the nano and uno boards, and nothing....

i am really frustrated..., does any body have any idea what i can do?

thanks.

//UPDATE//

managed to use Sdfat sdinfo example and got the below:

cardBegin failed

SD errorCode: 0X2

SD errorData: 0XFF

Stress test example test:

BUF_SIZE 512

Type any character to start

error: sd.begin

SD errorCode: 0X2,0X57

Sdformat results:

SD initialization failure!

Is the SD card inserted correctly?

Is chip select correct at the top of this program?

error: card.begin failed

SD error: 2,ff

it turns out i had 2 faulty sd card readers, but i dont understand, anyway i got another type mini sd card reader, and that one works fine.

ameyvs
(<https://forum.arduino.cc/index.php?action=profile;u=489227>)



(<https://forum.arduino.cc/index.php?action=profile;u=489227>)



Newbie

Posts: 1

Karma: 0 [add]

(<https://forum.arduino.cc/index.php?action=karma;sa=applaud;uid=489227;b6d016336ba=c5379a080009cd0140bb649a8b9f0a13>)

Re: SD card...initialization failed Adafruit MicroSD
(<https://forum.arduino.cc/index.php?topic=354890.msg2724157#msg2724157>)

Apr 23, 2016, 05:16 am (<https://forum.arduino.cc/index.php?topic=354890.msg2724157#msg2724157>)

#6

Last Edit: Apr 23, 2016, 05:38 am by ameyvs Reason: more details

hey guys,

I am using the the attached TFT Screen 3.5 inch with Arduino Mega.The LCD is working fine.

Now I am trying to load image from a 8 GB micro SD card (FAT 32) connecting all 4 pins of SD which are CS, MISO, MOSI, SCK to 50,51,52,53 respectively.I am getting initialization error and it is getting failed.

I have even tried this with Arduino Uno by connecting CS, MISO, MOSI, SCK to 10,11,12,13 respectively but still I am facing the same issue.

i have also tried using a different 4 GB FAT32 micro SD card just testing,bt still it failed

My code is as follows:

```
// include the necessary libraries
#include <SPI.h>
#include <SD.h>
#include <TFT.h> // Arduino LCD library
```

```
// pin definition for the Uno
#define sd_cs 10
#define lcd_cs 7
#define dc 9
#define rst 8
```

```
// pin definition for the Mega
// #define sd_cs 10
// #define lcd_cs 40
// #define dc 27
```

```
//#define rst 41

// pin definition for the Leonardo
//#define sd_cs 8
//#define lcd_cs 7
//#define dc 0
//#define rst 1

TFT TFTscreen = TFT(lcd_cs, dc, rst);

// this variable represents the image to be drawn on screen
PImage logo;

void setup() {
  // initialize the GLCD and show a message
  // asking the user to open the serial line
  TFTscreen.begin();
  TFTscreen.background(255, 255, 255);

  TFTscreen.stroke(0, 0, 255);
  TFTscreen.println();
  TFTscreen.println(F("Arduino TFT Bitmap Example"));
  TFTscreen.stroke(0, 0, 0);
  TFTscreen.println(F("Open serial monitor"));
  TFTscreen.println(F("to run the sketch"));

  //Online fix
  // http://embedjournal.com/arduino-sd-card-initialization-failed/
  pinMode(sd_cs, OUTPUT); // change this to 53 on a mega // don't follow this!!
  digitalWrite(sd_cs, HIGH);

  // initialize the serial port: it will be used to
  // print some diagnostic info
  Serial.begin(9600);
  while (!Serial) {
    // wait for serial line to be ready
  }

  // clear the GLCD screen before starting
  TFTscreen.background(255, 255, 255);

  // try to access the SD card. If that fails (e.g.
  // no card present), the setup process will stop.
  Serial.print(F("Initializing SD card..."));
  if (!SD.begin(sd_cs, 11, 12, 13)) {
    Serial.println(F("failed!"));
    return;
  }
}
```

```
Serial.println(F("OK!"));

// initialize and clear the GLCD screen
TFTscreen.begin();
TFTscreen.background(255, 255, 255);

// now that the SD card can be access, try to load the
// image file.
logo = TFTscreen.loadImage("arduino.bmp");
if (!logo.isValid()) {
  Serial.println(F("error while loading arduino.bmp"));
}
}

void loop() {
  // don't do anything if the image wasn't loaded correctly.
  if (logo.isValid() == false) {
    return;
  }

  Serial.println(F("drawing image"));


  // get a random location where to draw the image.
  // To avoid the image to be draw outside the screen,
  // take into account the image size.
  int x = random(TFTscreen.width() - logo.width());
  int y = random(TFTscreen.height() - logo.height());

  // draw the image to the screen
  TFTscreen.image(logo, x, y);

  // wait a little bit before drawing again
  delay(1500);
}
```

Can anyone help me or give any tips for the same?

Thanks in advance

 Pin Config.jpg (<https://forum.arduino.cc/index.php?action=dlattach;topic=354890.0;attach=164384>)
121.12 KB
downloaded 83 times

alw1746
(<https://forum.arduino.cc/index.php?action=profile;u=489274>)

 **Re: SD card...initialization failed Adafruit MicroSD**
(<https://forum.arduino.cc/index.php?topic=354890.msg2724362#msg2724362>)
Apr 23, 2016, 10:58 am (<https://forum.arduino.cc/index.php?topic=354890.msg2724362#msg2724362>)

#7



(<https://forum.arduino.cc/index.php?action=profile;u=489274>)



Newbie

Posts: 1

Karma: 0 [add]

(<https://forum.arduino.cc/index.php?action=karma;sa=applaud;uid=489274;b6d016336ba=c5379a080009cd0140bb649a8b9f0a13>)

Not sure if this will help but here's my bitter experience with microsd boards.

I had similar issues and tried everything advised by the entire planet - level shifting, SDFormatter, check wiring, reduce spi speed, output CS pin high, strong language, etc. Even went down the retail-debugging route but that only helped Adafruit, Sparkfun, Catalex and countless ebay vendors.

Finally I realised I always tested my boards by running SDFormatter on the card first. So just for the hell of it, I created a dummy 0-byte file on a freshly-wiped card. Every single microsd board that I tossed away as junk worked after that without a hitch. Has anyone else come across this as well?

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