

# Testing RFID with Arduino

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It is easy for programmers to program Arduino with this RFID module, mainly because the communication is through UART interface. UART communication is really easy.

Well, let's begin.

## Connect Arduino with RFID module

You could use any Arduino board, UNO or Mega. It's ok. Connect it as the following way:

| Arduino |       | RFID module |
|---------|-------|-------------|
| GND     | ----- | GND         |
| 5V      | ----- | VCC         |
| Pin 2   | ----- | TXD         |
| Pin3    | ----- | RXD         |

Then connect your Arduino to PC with USB cable.

## Uploading the code

Basically we use SoftwareSerial lib and Arduino hardware serial. We test it in Arduino 1.0.

Here is the code:

```
#include <SoftwareSerial.h>

SoftwareSerial mySerial(2, 3); //pin2 Rx, pin3 Tx

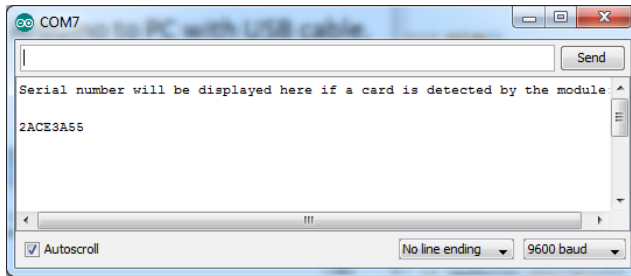
void setup()
{
  Serial.begin(9600);
  Serial.println("Serial number will be displayed here if a card is detected by the module:\n");

  // set the data rate for the SoftwareSerial port
  mySerial.begin(9600);
  mySerial.write(0x02); //Send the command to RFID, please refer to RFID manual
}

void loop() // run over and over
{
  if (mySerial.available())
    Serial.print(mySerial.read(),HEX); //Display the Serial Number in HEX
  if (Serial.available())
    mySerial.write(Serial.read());
}
```

## Result

While you put the card on the RFID module, you will get its serial number.



## Note

You can't enter and send command of RFID via Arduino Serial Monitor, because all the commands are in HEX. And Arduino Serial Monitor can only deal with ASCII character.

## Disclaimer and Revisions

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### Revision History

| Rev. | Date                         | Author      | Description     |
|------|------------------------------|-------------|-----------------|
| A    | Mar. 14 <sup>th</sup> , 2012 | Wilson Shen | Initial version |