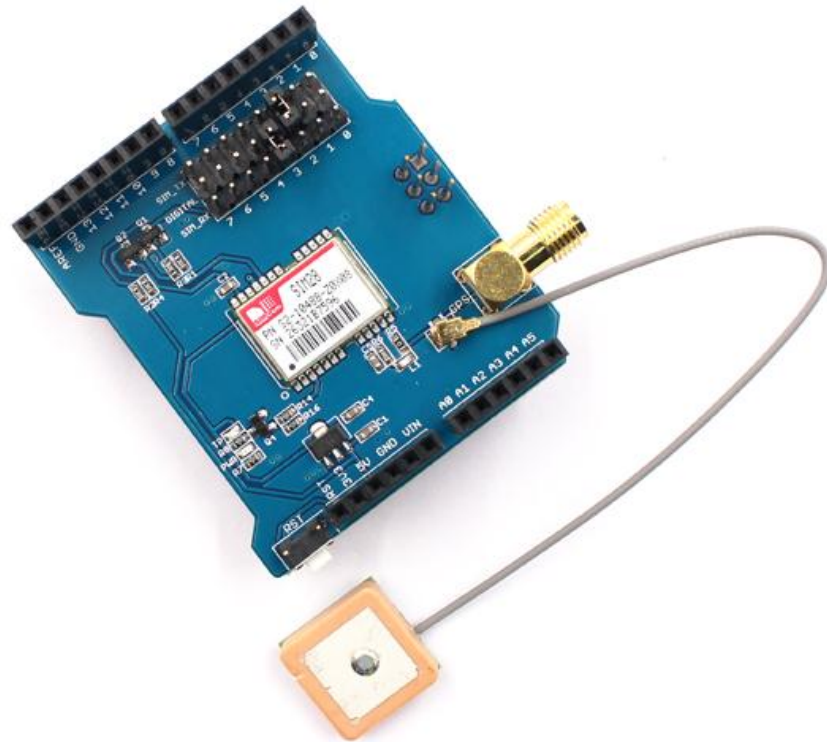




Usage of GPS Shield

The GPS Shield based on the SIM28 GPS module. It is a cost-efficient and field-programmable gadget. It features 22 tracking / 66 acquisition channel GPS receiver. The sensitivity of tracking and acquisition both reach up to -160dBm, making it a great choice for personal navigation projects and location services, as well as an outstanding one among products of the same price class.



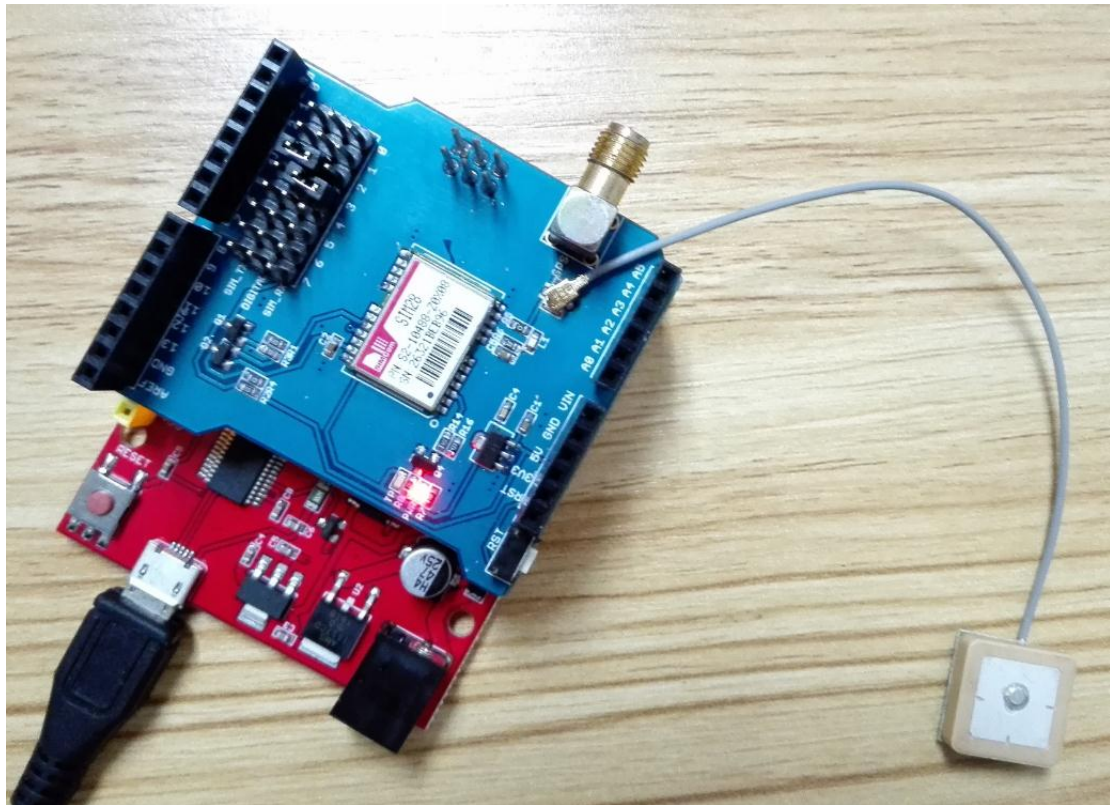
Features:

- Dimensions: 53mm*47mm*23mm
- Default BaudRate: 9600
- Supports NMEA and U-Blox 6 protocols

Usge:

Hardware connection:

Just plug it to your Arduino or Maduino, connect it to your PC.



Example 1:

Print the GPS data with serial port

Download the Demo code from our website:

http://www.makerfabs.com/fabs/index.php?route=product/product&path=90_91&product_id=133

open it and upload it to your Arduino or Maduino.



The screenshot shows the Arduino IDE interface. The main window displays the sketch 'gps_shield' with the following code:

```
// link between the computer and the SoftSerial Shield
//at 9600 bps 8-N-1
//Computer is connected to Hardware UART
//SoftSerial Shield is connected to the Software UART:D2&D3

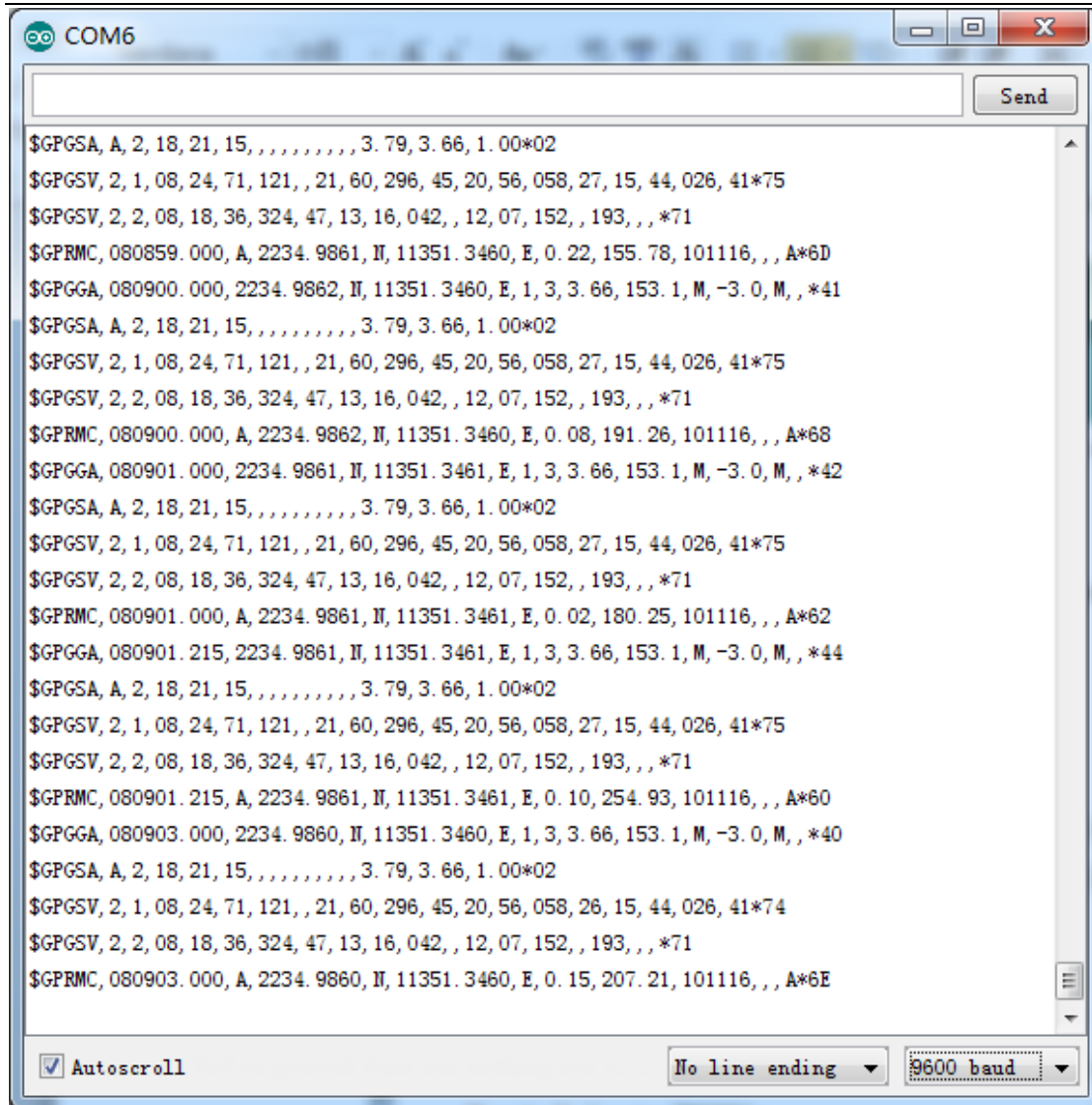
#include <SoftwareSerial.h>

SoftwareSerial SoftSerial(2,3);
unsigned char buffer[64];           // buffer array for data receive over serial port
int count=0;                        // counter for buffer array
void clearBufferArray();
void setup()
{
  SoftSerial.begin(9600);           // the SoftSerial baud rate
  Serial.begin(9600);              // the Serial port of Arduino baud rate.
}

void loop()
{
  if (SoftSerial.available())       // if data is coming from software serial
  {
    while (SoftSerial.available())  // reading data into char array
    {
      buffer[count++]=SoftSerial.read(); // writing data into array
    }
  }
}
```

Below the code editor, the serial monitor shows the message: "Done uploading." and a memory usage report: "Global variables use 363 bytes (17%) of dynamic memory, leaving 1,685 bytes for local variables. Maximum is 2,048 bytes." The status bar at the bottom indicates "12" and "Arduino Uno on COM8".

Open the monitor then you can see the GPS information.



Example 2:

Use the u-center software to Located your place

1. Download the u-center from here and install it:
<https://www.u-blox.com/en/product/u-center-windows>
2. Upload the demo code in Example 1.
3. Open the U-center, choose the baud rate at 9600. After a while, you will get the location of the GPS Shield.

