

Introduction

Electronic Brick – Serial Bluetooth 4.0 is a wireless communication module. It exchanges data over short distances from fixed and mobile devices, builds personal area networks.

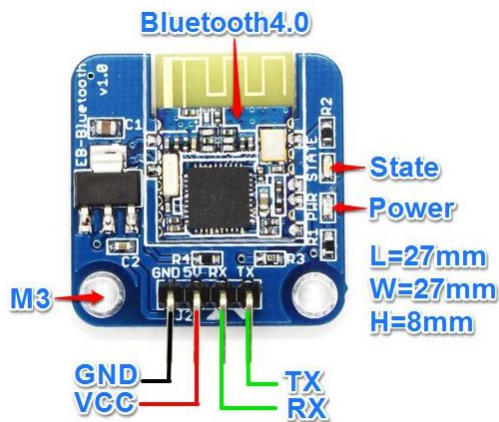
Features

- Rated Voltage: 5V
- Data rate:24Mbit/s
- High speed
- Low energy
- With Arduino Demo Code
- Weight:5g

Applications

- Wireless control

Details



Use with Arduino

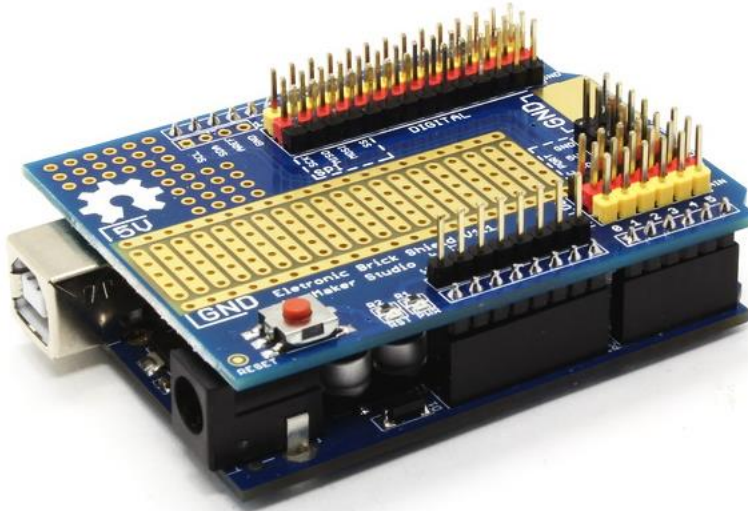
The following steps show how to use **EB – Serial Bluetooth 4.0** with Arduino.

Materials

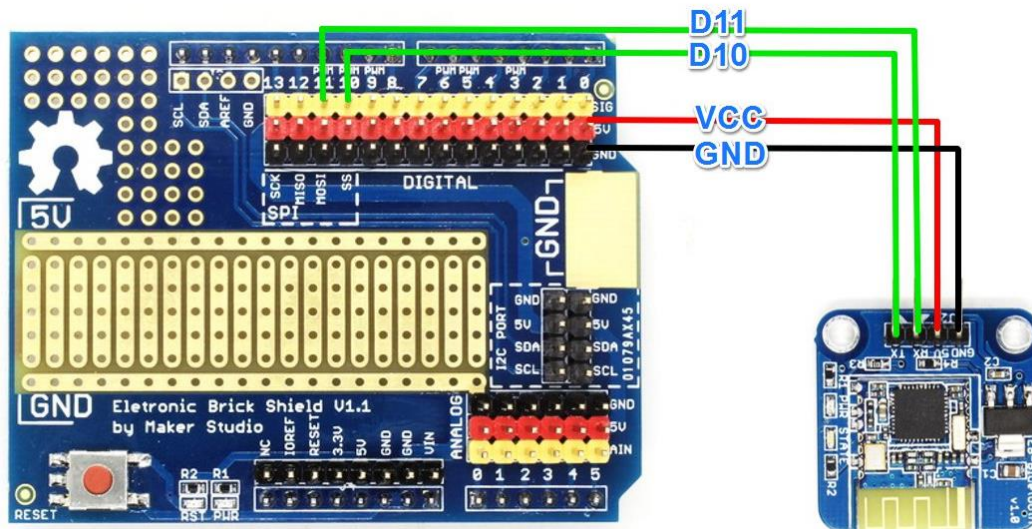
- Makerduino(Arduino compatible)
- Electronic Brick Shield
- **EB – Serial Bluetooth 4.0**
- A/B type USB cable
- Female DuPont wires

Steps

1. Connect Electronic Brick Shield onto Makerduino to bring out all the Makerduino Pins.



2. Connect **EB – Serial Bluetooth 4.0** to Makerduino as following:



3. Connect the Makerduino to Computer by the USB cable.
4. Download the Arduino demo code **EB – Serial Bluetooth 4.0.zip**. Unzip the code directly into the Arduino Library path: `xxx\arduino-1.0.x\libraries`.
5. Open Arduino IDE, choose the right **Board** and **Serial Port**. Open the sketch **EB_SerialBluetooth_4_0.ino** and upload it to the Makerduino.

The following is the demo code for **EB – Serial Bluetooth 4.0**. (Note: It could be a little different from the code file downloaded. Please follow the downloaded file.)

```
/*
  Demo code of BE - Serial Bluetooth 4.0
  by Maker Studio
*/
#include "EB_Bluetooth_4_0.h"
#include <SoftwareSerial.h>

//EB_Bluetooth4.0(RX, TX)
EB_Bluetooth_4_0 myBluetooth(11,10);

void setup()
{
  Serial.begin(9600);
  myBluetooth.begin();
  Serial.println("Waiting to be connected");
}

void loop()
{
  char dat;
  if(myBluetooth.available()){
    dat = myBluetooth.read();
    Serial.print(dat);
  }
  if(Serial.available()){
    dat = Serial.read();
    myBluetooth.print(dat);
  }
}
```

6. Check the Results. After the sketch is successfully uploaded, open the Serial Monitor. Use you mobile phone transmit messages to **EB – Serial Bluetooth 4.0**. The monitor displays received information from **EB – Serial Bluetooth 4.0** module.

More information

Codes:

<https://drive.google.com/folderview?id=0BzxrU4QvH7jEd3ZJTvdnNUpXNVE&usp=sharing#list>

Documents:

<https://drive.google.com/folderview?id=0BzxrU4QvH7jEbnlM Vm94R2RoeW8&usp=sharing#list>