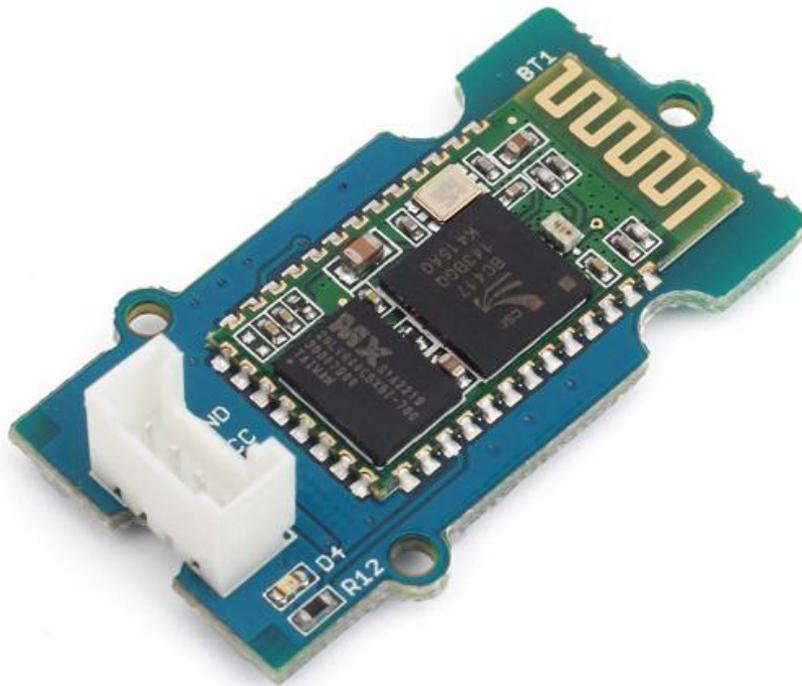


Grove - Serial Bluetooth v3.0



Grove - Serial Bluetooth is an easy to use module compatible with the existing Grove Base Shield, and designed for transparent wireless serial connection setup. The serial port Bluetooth module is fully qualified Bluetooth V2.0+EDR(Enhanced Data Rate) 2Mbps Modulation with complete 2.4GHz radio transceiver and baseband. It uses CSR Bluecore 04-External single chip Bluetooth system with

CMOS technology and with AFH(Adaptive Frequency Hopping Feature).It has the smallest footprint of 12.7mm x 27mm. Hope it will simplify your overall design/development cycle.

[Get One Now !\[\]\(99f58673407353e96a019fbca558fd72_img.jpg\)](#)

[<https://www.seeedstudio.com/Grove-Serial-Bluetooth-v3.0-p-2475.html>]

Specifications

- Operating Voltage: 5.0VDC
- Data Rate: 2Mbps
- RF Transmit Power (Max): +4dBm
- Sensitivity: -80dBm
- Fully Qualified Bluetooth V2.0+EDR 3Mbps Modulation
- Selectable baud rate
- Auto-reconnect in 30 min when disconnected as a result of beyond the range of connection



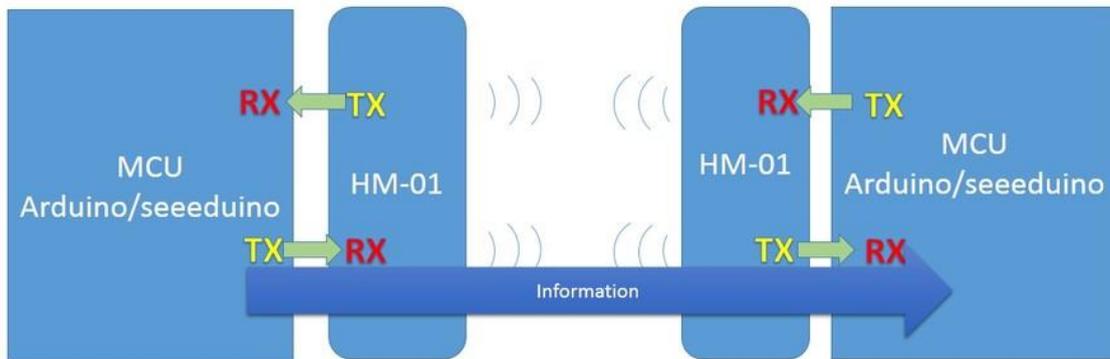
Tip

More details about Grove modules please refer to [Grove System](#)

[https://wiki.seeedstudio.com/Grove_System/]

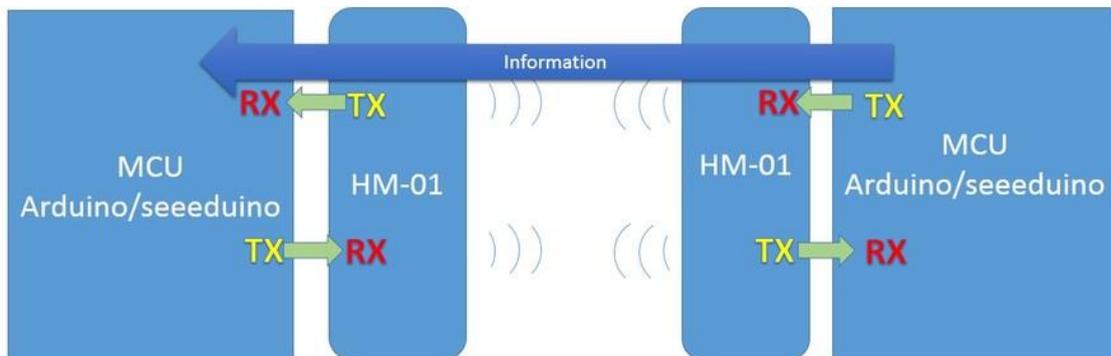
Demonstration

Two Bluetooth modules work as shown below:

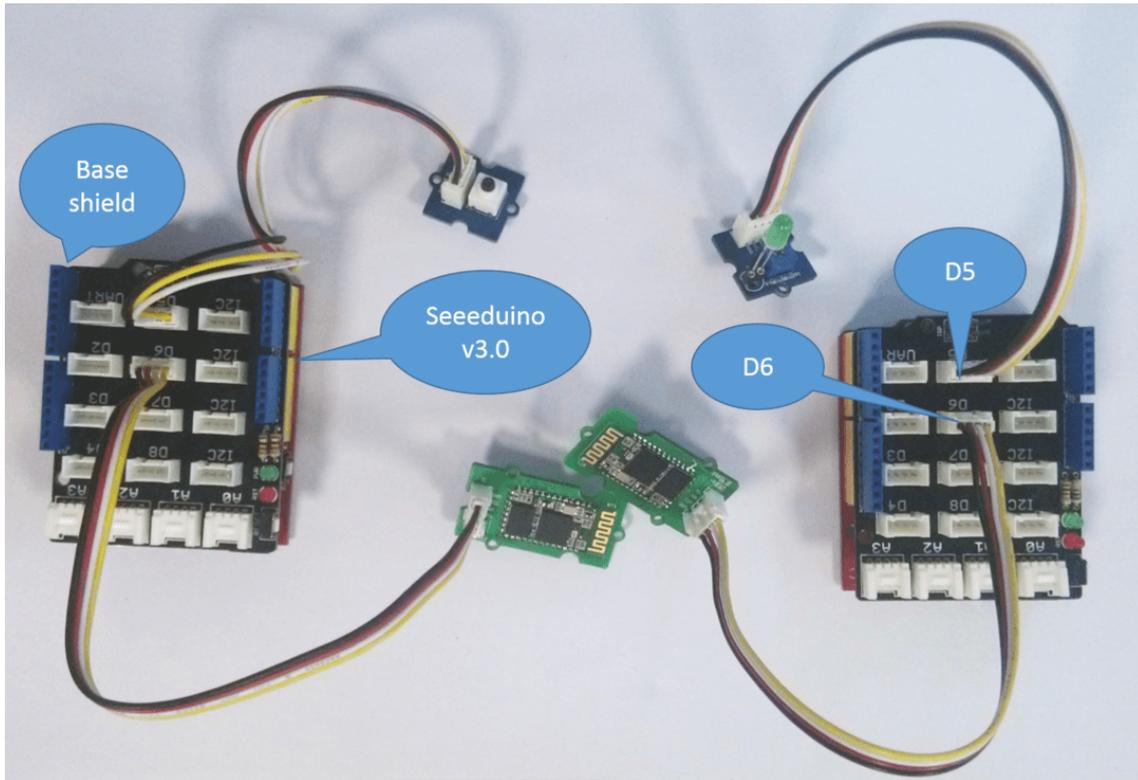


After successful pairing ,any information arrive at TX port of the left MCU will be transmitted immediately through bluetooth to the the right TX port,and finally arrive at the right MCU.

Similarly ,any information arrive at TX port of the right MCU will be transmitted immediately through bluetooth to the left TX port,and finally arrive at the left MCU.

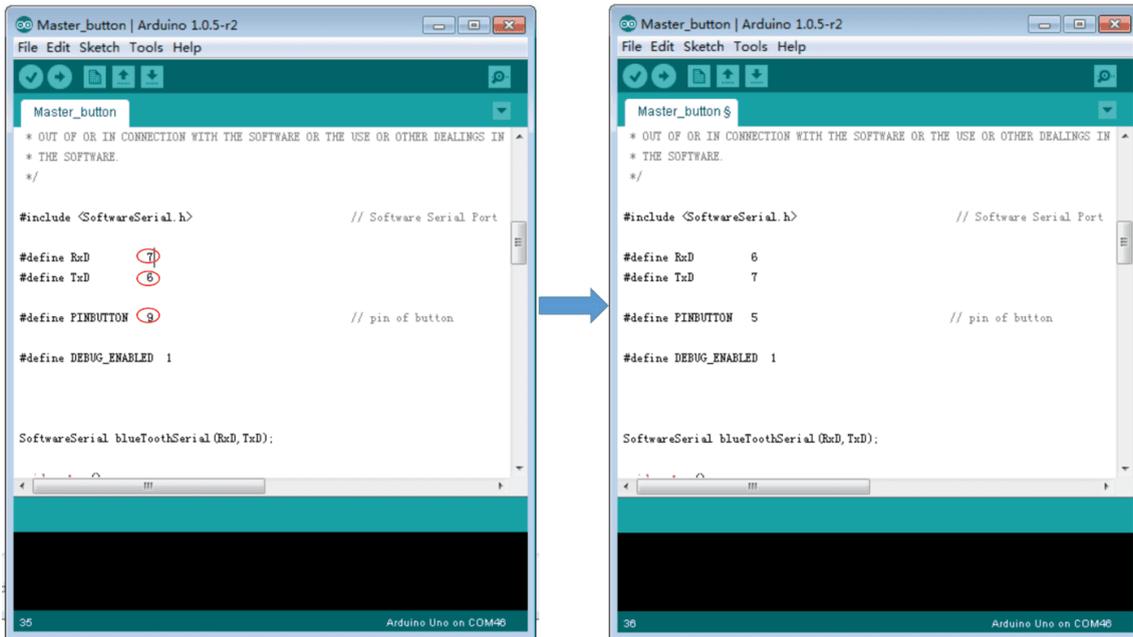


Hardware Installation



Download Code and Upload

1. You can download the code in github, click [here](https://github.com/Seeed-Studio/Bluetooth_Shield_V2_Demo_Code/archive/master.zip) [https://github.com/Seeed-Studio/Bluetooth_Shield_V2_Demo_Code/archive/master.zip],then extract it to libraries folder of Arduino.
2. Open Arduino IDE, open File -> Examples -> Bluetooth_Shield_V2_Demo_Code -> Master_Button, then you open the code of Master,modify the code as follows:



1. Open Arduino IDE, open File -> Examples -> Bluetooth_Shield_V2_Demo_Code -> Slave_led, then you open the code of Slave and modify the code as well like above.
2. Save the modification and click Upload to Upload the code, if you have any problem about how to start Arduino, please click [here](#) [/Getting_Started_with_Seeduino] for some help.

Check The Result

1. After finish Uploading the code to both Master and Slave, reset the two devices meanwhile
2. You can see the led blink, indicate that devices was initializing and connecting.
3. After about servel seconds, led on, indicate that Master and Slave had connected.



Note

If the phenomenon is not observed above, try unplugging the power and re-plug in again.

Reference

Commands to change default configuration

1. Set working MODE

Command	Description
AT+ROLES	Set device working mode as client (slave).
AT+ROLEM	Set device working mode as server (master).

2. Set BAUDRATE

Command	Description
AT+BAUD4	Set baudrate 9600. Save and Reset.
AT+BAUD5	Set baudrate 19200. Save and Reset.
AT+BAUD6	Set baudrate 38400. Save and Reset.
AT+BAUD7	Set baudrate 57600. Save and Reset.
AT+BAUD8	Set baudrate 115200. Save and Reset.
AT+BAUD9	Set baudrate 230400. Save and Reset.
AT+BAUDA	Set baudrate 460800. Save and Reset.

3. Set Device NAME

Command	Description
AT+NMAEabcdefg	Set device name as "abcdefg".Max length is 12.

4. Set PINCODE

Command	Description
AT+PIN2222	Set pincode "2222",Max length is 12.

5.Restore all setup value to factory setup

Command	Description
AT+DEFAULT	Restore all setup value to factory setup

6. Query module address

Command	Description
AT+ADDR	Query module address

7. Query Last Connected Device Address

Command	Description
AT+RADD	Query module address

Schematic Online Viewer



Resources

- [Serial Bluetooth Eagle File](https://files.seeedstudio.com/wiki/Grove-Serial_Bluetooth_v3.0/res/Grove-Serial_Bluetooth_eagle_file.zip)
[https://files.seeedstudio.com/wiki/Grove-Serial_Bluetooth_v3.0/res/Grove-Serial_Bluetooth_eagle_file.zip]
- [Bluetooth Software Instruction](https://files.seeedstudio.com/wiki/Bluetooth_Shield_V2/res/BI)
[https://files.seeedstudio.com/wiki/Bluetooth_Shield_V2/res/BI]

uetooth_en.pdf]

- [Bluetooth - Module Datasheet](#)

[https://files.seeedstudio.com/wiki/Grove-Serial_Bluetooth_v3.0/res/Bluetooth_module.pdf]

Tech Support

Please submit any technical issue into our [forum](#)

[<https://forum.seeedstudio.com/>].



[https://www.seeedstudio.com/act-4.html?utm_source=wiki&utm_medium=wikibanner&utm_campaign=newproducts]

