Bluno Beetle SKU:DFR0339

From Robot Wiki

Contents

Bluno Beetle (SKU:DFR0339)

Introduction

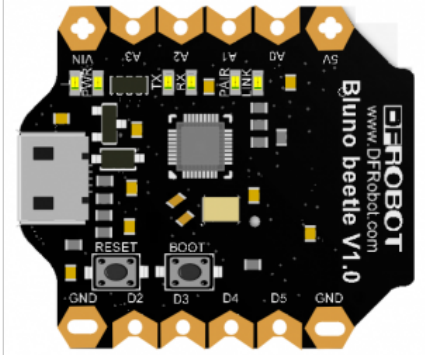
Bluno Beetle is another milestone in wearable electronics device area, which makes DIY users have more options in the project design. It is fully compatible with Bluno in instructions and procedures, supporting Bluetooth HID and ibeacon modes.
And it not only supports USB programming, but also wireless programming method. With the V shaped gilded I/O interface, it is convenient to screw conductor wire on it, which could a good choice in the wearable market.

More instruction about Bluno Beetle can refer to **DFRobot Bluno** (https://www.dfrobot.com/wiki/index.php?title=Bluno_SKU:DFR0267)。

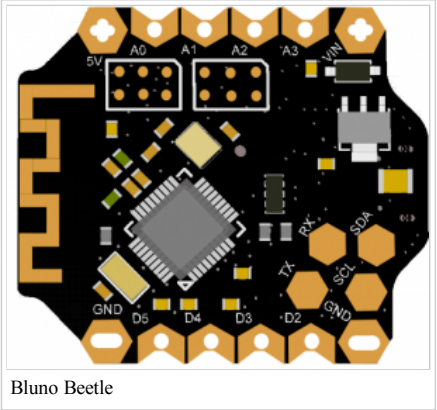
Specification

Bluetooth Chip	CC2540
Sensitivity	(-93dBm)
Working Temperature：	(-10 ℃ ~ +85 ℃)
Maximun Distance	50m(Open field)
Microcontroller:	ATmega328
Clock frequency:	16 MHz
Working voltage:	5V DC
Digital Pin	x6
Analog Pin	x6
PWM Output	x2
UART interface	x1
I2C interface	x1
Micro USB interface	x1
Power port	x2

Pinout Diagram



Bluno Beetle



Bluno Beetle

- Pin Mapping

Silkscreen	Digital Pin	PWM Channel	Analog Channel	UART	I2C
RX	0			Serial1	
TX	1				
SDA	A4				SDA
SCL	A5				SCL
D2	2				
D3	3	3			
D4	4				
D5	5	5			
A0	A0		A0		
A1	A1		A1		
A2	A2		A2		
A3	A3		A3		

- Power interface description：

Silkscreen	Description
VIN	external power supply<8V
5V	5V positive supply
GND	GND

Power Supply

- USB cable or external power supply: 5V
- External power supply <8V

Bluno Beetle Basic Demo

In this section, you can use the BLUNO Beetle to connect with the Android phone or iPhone .The Step by Step tutorial of the BLUNO Beetle is almost the same with the Bluno.

Bluno Basic Demo (http://www.dfrobot.com/wiki/index.php/Bluno_SKU:DFR0267#Bluno_Basic_Demo)

Wireless Programming via BLE

In this section, we will learn how to Upload the sketch on air via BLE. It is really amazing that you can do uploading process without a line.The Step by Step tutorial of

the Bluno Beetle is almost the same with the Bluno.How to Wireless Programming through BLE (http://www.dfrobot.com/wiki/index.php/Bluno_SKU:DFR0267#Wireless_Programming_via_BLE).

Configure the BLE through AT command

There are three revolutionary BLE firmware versions now, maybe it will be more. For the reason of unified management, we will put all BLE AT command on the BLUNO wiki page Configure the BLE through AT command (http://www.dfrobot.com/wiki/index.php/Bluno_SKU:DFR0267#Configure_the_BLE_through_AT_command).

Update BLE Firmware

It is better to update the newest firmware for the better experience. As Bluno Beetle is using CC2540 chip, the method of the updating is very close to BLUNO. Please choose "Bluno" firmware. Or it won't work.

How to update the BLE firmware (http://www.dfrobot.com/wiki/index.php/Bluno_SKU:DFR0267#Update_BLE_Firmware_on_Bluno.EF.BC.88AT.2BVERSION_to_check_the_version.EF.BC.89).

ICSP interface

- ICSP1: Atmega 328P
- ICSP2: CC2540

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