

SEED TECHNOLOGY INC (SEEEDUINO)

Bees Shield

Model: INT119B2P

Introduction

Bees Shield will make interfacing multiple Bee-style ([XBee](#), [GPRS Bee](#), [Bluetooth Bee](#) and etc) easier than ever before. Aside from dual Bee style 20p 2.0 pitch socket, it also has large proto area, customizable software serial port for easier prototyping.

Compatible with Seeeduino, Arduino Uno and Duemilanove



Features

- Dual Bee type socket
- 3 indicator [LED](#) (ON/Sleep, RSSI, ASSOC) for each [Xbee](#)
- Full size with free drills
- Reset button for each [Xbee](#)
- Reset button for base board
- Provide maximal 500mA under 3.3V
- Full break out for each Bee
- Switchable of communication with FTDI-USB /[Base board](#)
- Ability to insert small shield

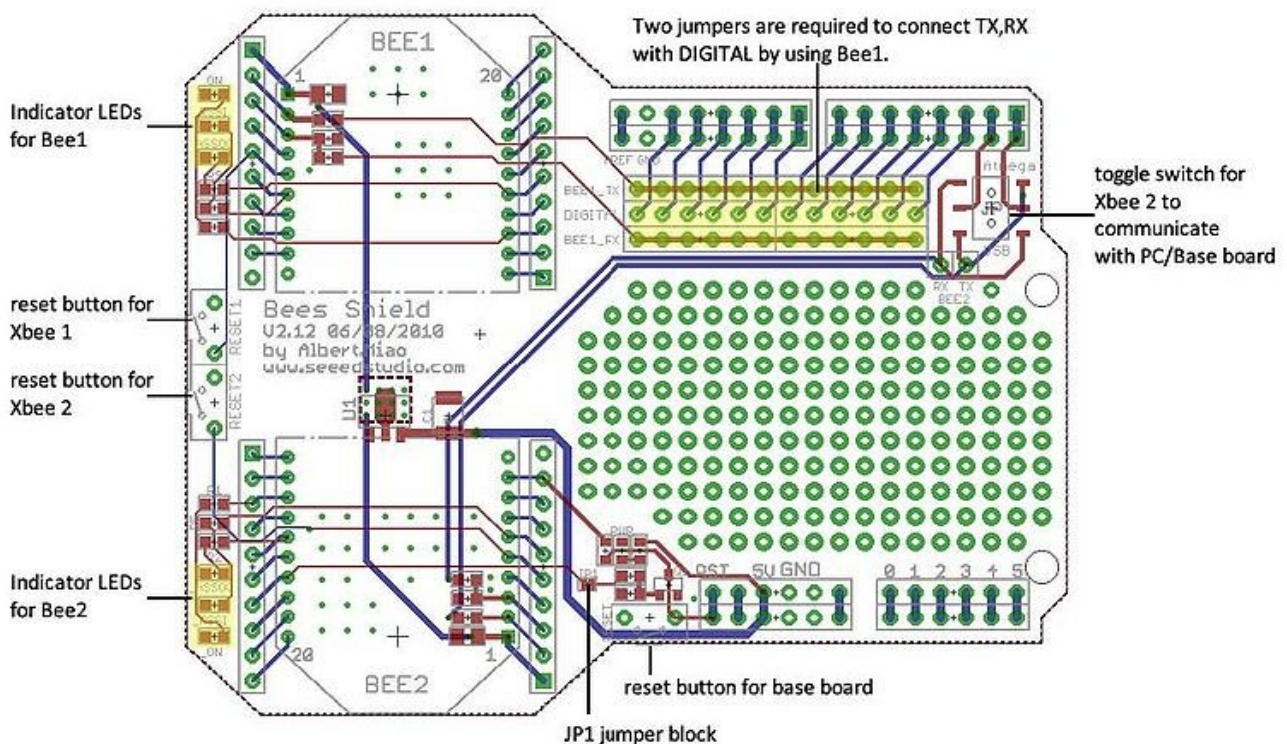
Application Ideas

Cautions

The warnings and wrong operations possible cause dangerous.

Specification

May include key specification and other specifications.

Pin definition and Rating**Mechanic Dimensions****Usage****Hardware Installation**

Two jumpers are required to connect Bee1_TX, Bee1_RX with Digital by using Bee1 like this:



Bee 1 uses a virtual serial port and we can set Digital 2 ~ 13 as virtual serial port signal. How to use Bee 1:

1. Download [NewSoftSerial](#) library;
2. Put it in [Arduino](#) IDE Libraries folder(arduino-0018\libraries);

Uploading Sketch to RFbee

Only Bee2 socket can upload software for Bees:

1. Toggle switch to USB side;
2. make sure you upload this blank sketch to your host [Arduino](#) first: (make Uart0 port of Atmega IC disable) :

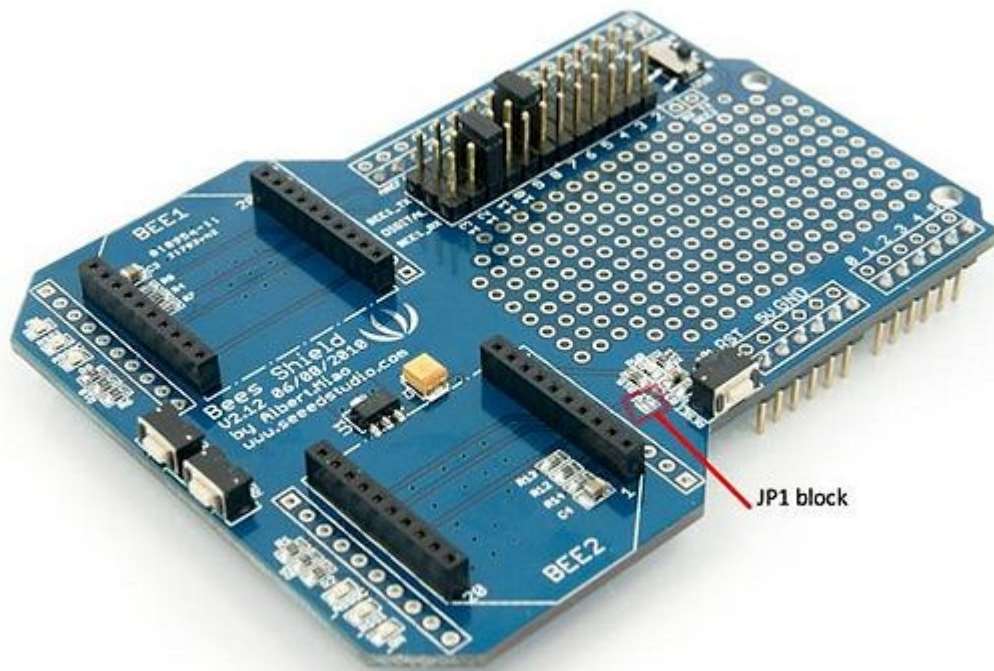
```
void setup()
{
  DDRD=0x00;
}
void loop()
{
}
```

Software uploading does NOT work if the base board is using ATmega168 – we need at least ATmega328 to pass serial communication through.

Set toggle switch to Atmega side if we are not uploading sketch to Bee2.

Wireless Arduino program upload using Bee 2

- 1) Solder the JP1 block on the board for wireless programming.



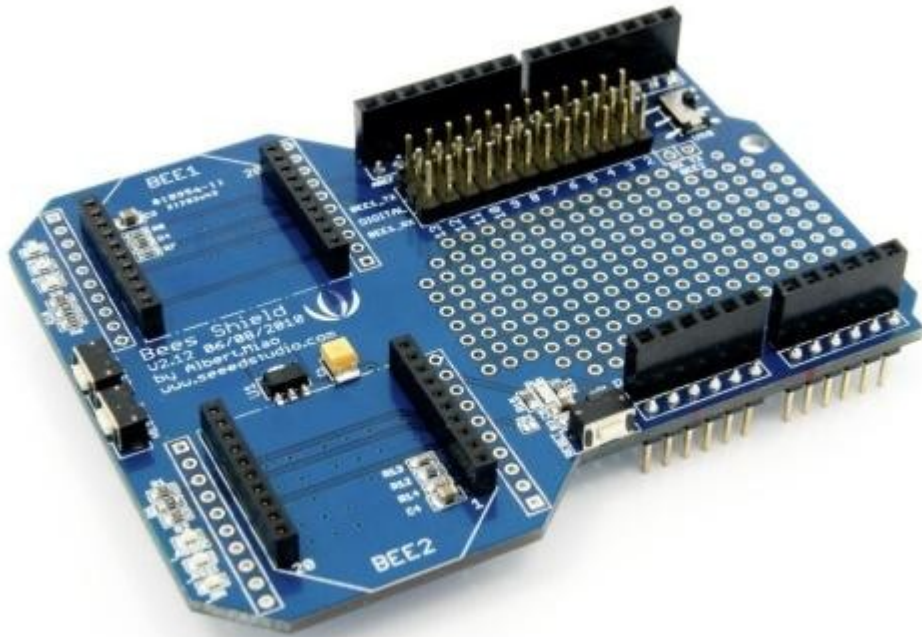
- 2) Configure the transmitter and the receiver as step 1 and step 2 of the ladyada website <http://ladyada.net/make/xbee/arduino.html>

Note that step 3 setting is unnecessary.

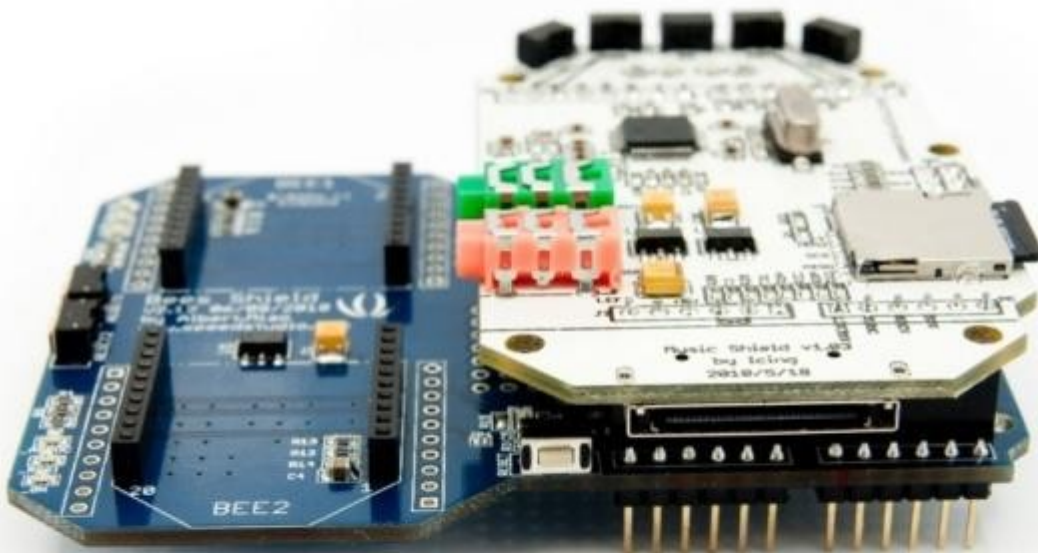
Or direct downloading setting profile from our website to Xbee using X-CTU.

- 3) Or direct downloading setting profile from our website to Xbee using X-CTU.

- 4) Upload the program to transmitter Xbee and the wireless programming will begin.



First we have to solder two 8-pin female headers and two 6-pin female headers on the Bees shield. After the expansion we can insert small shield like music shield on the Bees shield and wireless control it.



Programming

Includes important code snippet. Demo code like :

Demo code

Example

The projects and application examples.

Bill of Materials (BOM) /parts list

All the components used to produce the product.

FAQ

Please list your question here:

Support

If you have questions or other better design ideas, you can go to our [forum](#) or [wish](#) to discuss.

Version Tracker

Revision	Descriptions	Release Date
Bees Shield v1.0	Initial public release	Jul 02, 2010

Bug Tracker

Bug Tracker is the place you can publish any bugs you think you might have found during use. Please write down what you have to say, your answers will help us improve our products.

Additional Idea

The Additional Idea is the place to write your project ideas about this product, or other usages you've found. Or you can write them on Projects page.

Resources

- [Xbee setting profiles](#)
- [Bees_Shield_V2.12_source.zip](#)

How to buy

Here to buy Bees Shield: http://www.seeedstudio.com/depot/bees-shield-p-672.html?cPath=104_109

See Also

Other related products and resources.

Licensing

This documentation is licensed under the Creative Commons [Attribution-ShareAlike License 3.0](#) Source code and libraries are licensed under [GPL/LGPL](#), see source code files for details.

External Links

Links to external webpages which provide more application ideas, documents/datasheet or software libraries.