LightBlue Bean+

SKU 105990031

It is an Arduino-compatible board that you program wirelessly using Bluetooth Low Energy. With Bean+, you can program wirelessly from any of your devices. Bean+ also comes with a built-in accelerometer, temperature sensor and RGB LED.

Description

The LightBlue Bean+ is an Arduino-compatible board that you program wirelessly using Bluetooth Low Energy. With Bean+, you can program wirelessly from any of your devices. Bean+ also comes with a built-in accelerometer, temperature sensor and RGB LED.

Bluetooth Low Energy Capabilities

Wireless programming

The Bean+ can be programmed from most iOS, OS X, Windows and Android devices with BLE capabilities. Write code on-the-fly using our iOSand Android Bean Loader apps, or at the comfort of your computer using the standard Arduino IDE (Mac or PC). All programming can done wirelessly and you can even program multiple Beans at once. No wires; no worries.

Interacts with your iPhone

The Bean+ is perfect for any smartphone-controlled project. Use our app LightBlue to quickly interact with the Bean+ without having to make your own app. Make a smartphone-controlled hovercraft or use your iPhone to turn the lights on and off in your roommate's bedroom.
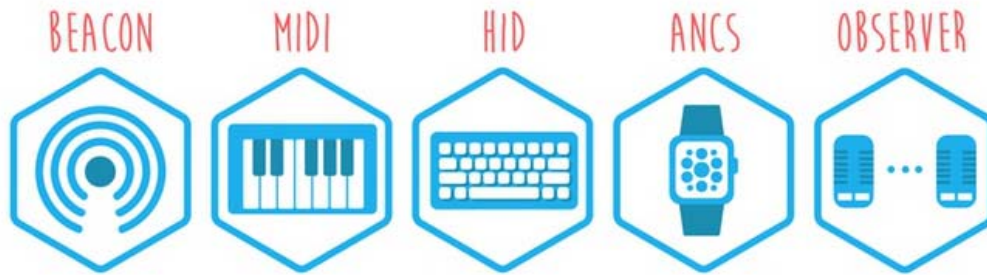
iOS and Android SDKs

We provide official iOS, OS X and Android SDKs that help you develop smartphone apps that interact with the Bean+. These have been been put to the test by our own apps, as well as many built by our community.

Bean to Bean communication

Your Bean+ can talk to other Beans! This feature uses BLE advertisement packets and the observer role to send simple messages between Beans.
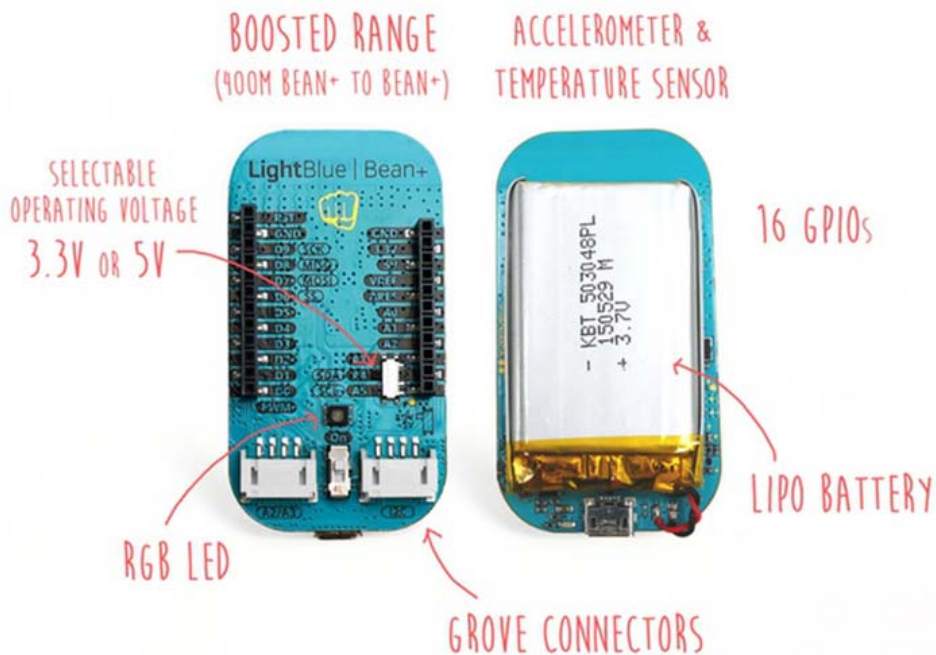
Talented Bean+

The Bean+ comes equipped with five new Bluetooth Low Energy capabilities: beacon, MIDI, HID, ANCS and observer role.

BEACON   MIDI   HID   ANCS   OBSERVER

Have the Bean+ receive your Apple notifications during the weekdays, be a MIDI instrument by Friday and work the weekends as a keyboard or a mouse. Then let it spend its holidays socializing with other Beans.

Hardware Features

BOOSTED RANGE
(400M BEAN+ TO BEAN+)

ACCELEROMETER &
TEMPERATURE SENSOR

SELECTABLE
OPERATING VOLTAGE
3.3V OR 5V

LightBlue | Bean+

KBT 503048PL
150529 M
3.7U

16 GPIOs

RGB LED

LIPO BATTERY

GROVE CONNECTORS

Rechargeable LiPo

Bean+ comes with a LiPo battery and charges just like any other micro-USB device. If you need more capacity, simply solder on your own LiPo as a replacement.

Grove Connectors

Grove is a system of components designed for makers. The Grove ports on Bean+ make it easy to add parts without soldering.

Built-in accelerometer, temperature sensor and RGB LED

Addon Boards

The built-in headers on Bean+ make it easier than ever to build your own addon boards. Just spin a PCB, add headers and plug it in!

3.3V and 5V Operation

Bean+ operates at either 3.3 or 5 volts, so it can talk to all your favorite peripherals. You won't have to limit which parts you can use because of incompatible operating voltages.

Boosted range

With a new RF amplifier, the Bean+ can communicate with other Bean+'s from up to 400 meters (1,300 ft) under ideal conditions, or 250 meters (820 ft) to your smartphone. Upload a new

sketch to your tree house Bean+ without having to leave your bed, or turn on epic welcoming music in your house before you even pull into to your driveway.

Specification

- ATmega328p microcontroller @ 8 MHz
- 32KB Flash memory, 2KB SRAM
- 16 accessible I/O pins
- 6 analog input pins on a 10-bit ADC
- 4 pins with PWM support
- 1 SPI port
- 1 I²C port

Battery Specifications

- 3.7V 600maH LiPo Rechargeable Battery
- Operating Voltage Range (USB): 5V +/- 10%
- Maximum Current @ 5V: .6A
- Maximum Current @ 3.3V: 1A
- Operating Temperature Range: -40°C to 85°C

RF Specifications

- Maximum Output Power: 8dBm
- Maximum Range(Bean+ to Bean+): 400 m
- Maximum Range(Bean+ to smartphone): 250 m

Part List

- 1 x LightBlue Bean+
- 1 x LiPo Rechargeable Battery