BitStarter Kit - Grove Extension Kit for Micro:bit

PRODUCT DETAILS

Description

BitStarter Kit is mainly designed for users who are beginning to learn and use the micro:bit. It has 3 connection ports for Grove modules, allowing beginners to explore many different micro:bit's projects with diverse functions. If you haven't heard of Grove before, Grove is a Seeed Studio series which you can read more about here.

You can easily slide the micro:bit into the BitMaker Lite. The included buzzer, means the BitMaker Lite enables a

lot of interesting audio projects, e.g. a fruit piano. If you want to purchase a BitMaker Lite separately, click here.

This kit also consists of a slide potentiometer, an ultrasonic sensor and a servo to implement various kinds of creative and fun ideas or designs.One project that comes to mind is using the sliding potentiometer to gradually control the speed of your servo, only allowing the servo to turn if the ultrasonic sensor does not detect a potential collision. You'll quickly and easily implement your projects with the micro:bit, BitMaker Lite and the Grove modules as all of these components are plug and play. You can use Microsoft MakeCode to program your custom code. Your projects will become both cool and easy to play with!

About BitMaker Lite

BitMaker Lite is a smaller and more compact version of BitMaker. Even thought it only has 3 Grove ports, it is sufficient for many projects. If you want to access more GPIOs, BitMaker Lite also provides component holes for all available pins of micro:bit, you can solder header connectors to use them.

Read further for more details about the product as well as the Additional Resources tab just below the scrollable images, and if you still can't find the information you need, contact us via our social media which can be found at the bottom of the page.

Feature

- Plug and play: Three useful grove modules included! Apart from the extension board Bitmaker Lite's own buzzer, you'll have a slide potentiometer, ultrasonic sensor and servo to build projects with. You could create an adjustable light, ultrasonic automated door and so on.
- Microsoft MakeCode Compatible ~ A Powerful Programming Platform: MakeCode is a widely-used graphical programming software which allows you to program the micro:bit. You can easily use it through a web browser.

Educational Focus

With the BitStarter Kit, students will develop open source electronics understanding as well as programming skills. Students must exercise creative thinking and use their hands as they design their own projects, customising functions through graphical programming. Not only can kids build knowledge of the modules and graphical programming, but they can also learn how to create their own DIY projects.

This product is suitable for:

Maker teachers / DIY hobbyists / upper-primary, lower-high school students / micro:bit users/ homeschooling educators

Projects

Music Player

Make a simple music player with the onboard buzzer of the BitMaker Lite.

Ultrasonic Distance Sensor

Using the Ultrasonic sensor, set a specific distance to determine when something is near or far, and show a loveheart when an object is nearby, and a sleepy face when the object is far away.

Steering Servo Control

Buttons A and B on the micro:bit are pressed, to represent turn left or turn right. The LED display will show left and right arrows correspondingly, while the servo will rotate left, and right. Can be used for a DIY car gate project.

Sliding melody controller

Change the broadcasted music depending on the position of the slide control, LED display animates correspondingly to show different patterns.

Sliding servo control
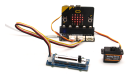
Use the slide potentiometer to control the servo rotation, this configuration is commonly used in robotic arm projects.
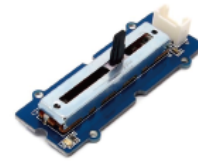
Part List

BitMaker Lite
x1

Ultrasonic Sensor
x1

slide potentiometer
x1

Analog Servo (180˚)
x1

Grove Cable
x2

1x	BitMaker Lite	Ultrasonic sensor	Slide Potentiometer	Analog Servo (180°)
2x	Grove 4-wire Connection Cables			

Technical Specifications

Power Supply:via micro USB cable

Working Voltage: 5V

Working Current: 1.5A (Max) built in overcurrent protection

Breakouts component holes from micro:bit edge connector

Reserves touchable pins P1 and P2 from micro:bit

Up to 3 Grove ports (of which one is an I2C port)

Built-in speaker for playing melody

Plug and play

Compatible with Microsoft Makecode and MicroPython

Package Dimensions:	(L) 225* (W) 175* (H) 60(mm)
Weight	165 (g)
Age for Use:	8+

ECCN/HTS

HSCODE	9023009000
USHSCODE	9023000000
UPC	