Part Number: 5603-20

Description: Inventor’s Kit for the BBC micro:bit, Pack of 20

Product Description:

Get more from the BBC micro:bit with Kitronik's incredible Inventor's kit! The simple way to learn about creating circuits and code. Pack of 20.

Please Note: BBC micro:bit is *NOT* included. You can buy the Kitronik Inventor's Kit with the BBC micro:bit already included here.
This is a pack of 20 Inventor's Kits for the BBC microbit.

The Kitronik Inventor's Kit for the BBC micro:bit is a great way to get started with programming and hardware interaction with the BBC micro:bit. This Inventor's Kit contains everything you need to complete 10 experiments including using LEDs, motors, LDRs and capacitors.

To get you off to a flying start, we have included an easy to follow tutorial book which guides you through everything you will need to know about programming the BBC micro:bit. You don't need any experience with programming as the tutorial book will guide you every step of the way. You'll be programming and creating circuits in no time!

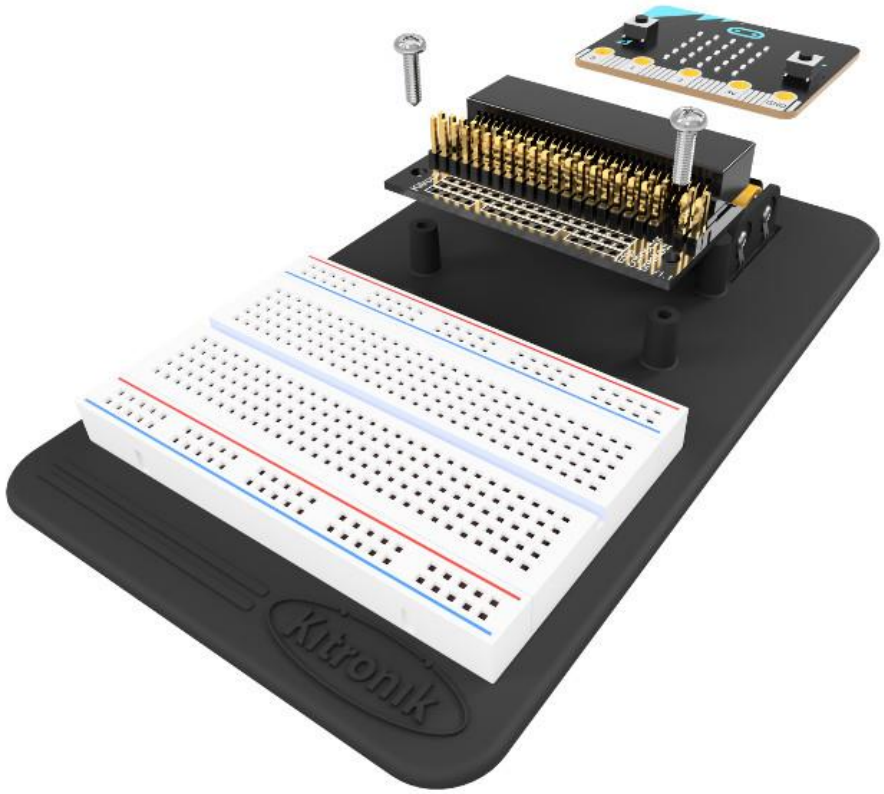
The Kitronik Inventor's Kit for the BBC micro:bit provides a fantastic way of learning how to construct and control electronic circuits. The BBC micro:bit has a selection of pins that are located on the bottom edge of its PCB (see datasheet below for details). By using our specially designed Edge Connector Board for the BBC micro:bit in conjunction with the breadboard (see below), it is easy to use these pins to connect additional components to the BBC micro:bit.

Inventors Kit Add-On Packs:
On its own, the Kitronik Inventors Kit offers a great introduction to the world of physical computing. Its 12 experiments showcase how code and electronics can combine to create real world every day practical solutions to situations and problems. Harnessing the power of the elements, using sensory input to make things happen, and using variable input amounts to effect a gradual change are just some of things you can learn as you progress through the experiments. But why stop there?

In our homes, schools and offices we are surrounded by consumer electronics that at their core, are physical computing devices. Coded electronic devices are everywhere. Many of these devices have been coded to communicate things to us, both visually and audibly. The two add-on packs for the inventors kit have been specifically devised to introduce you to these aspects of practical physical computing.

- **ZIP LEDs Add-On Pack for Kitronik Inventors Kit for micro:bit** - Most consumer electronics heavily rely on LEDs, as LEDs are a great way of providing instant visual feedback for the user. With this add-on pack you will learn how to write code to take control of ZIP LEDs and also learn how to make ZIP LEDs respond to input from components such as potentiometers and sensors.
- **Noise Pack for Kitronik Inventor's Kit for the BBC micro:bit** - Learn how to manipulate sound, build instruments, amplify your sounds, and how to shape your sounds with Filtering and EQ.

Note:
- No soldering is required and you can build your first circuit in minutes!
- This kit requires assembly.



Features:
- No soldering required - build your first circuit in minutes!
- Make 10 experiments included in the provided step-by-step tutorial book. (Plus an additional 2 online).
- All parts are included to conduct the 10 experiments (listed below).

- Breaks out 21 accessible pins from the BBC micro:bit using the Edge Connector Board for the BBC micro:bit (included).
- Small Prototype Breadboard included for fast prototyping.

Each individual Inventor's Kit contains:

- 1 x Mounting Plate.
- 1 x Potentiometer - Vertical Type (finger adjust) 100K.
- 1 x Finger Adjust Spindle.
- 2 x Plastic Spacer 10mm.
- 1 x Sticky Fixer for Battery Pack.
- 1 x Small Prototype Breadboard.
- 1 x Terminal Connector.
- 4 x Push Switch.
- 1 x Motor.
- 1 x Transistor.
- 2 x Red 5mm LED.
- 2 x Orange 5mm LED.
- 2 x Yellow 5mm LED.
- 2 x Green 5mm LED.
- 1 x RGB 5mm LED.
- 1 x Fan Blade.
- 5 x 2.2KΩ Resistor.
- 5 x 10KΩ Resistor.
- 5 x 47Ω Resistor.
- 1 x Edge Connector Breakout Board for BBC micro:bit.
- 10 x Male to Male Jumper Wires.
- 10 x Male to Female Jumper Wires.
- 1 x 470uF Electrolytic Capacitor.
- 1 x Piezo Element Buzzer.
- 4 x Pan Head M3 Machine Screw.
- Depending on which booklet version your Inventors Kit shipped with, you will have one of the two following components;
  - 1 x Miniature LDR. For booklet Versions pre V1.7.
  - 1 x Phototransistor. For booklet versions post V1.7.

Each individual Inventors Kit requires:

- 1 x BBC micro:bit.
- 1 x Phillips Screwdriver.
- 1 x Terminal Block Screwdriver.
- 1 x Micro USB Cable.

All of the experiments included in this booklet (listed below) are based on the Microsoft BlockEditor and Microsoft TouchDevelop editor software. We have also produced a MicroPython code example for each of the experiments and Video resources featuring a walk-through and hints and tips to help you complete the experiments.