Kitronik micro:bit Inventors Kit - Python version - Dutch

Stock code: 5669-NL

Description

A quick and fun way to get started with programming the BBC micro:bit and building electrical circuits. You can with the Python version of Kitronik's inventor's kit. This BBC micro:bit inventor's kit contains everything you need for ten experiments, including LEDs, a motor, a phototransistor and a capacitor.

The kit includes an easy-to-follow instruction booklet that explains step-by-step everything about programming the BBC micro:bit and the individual electronic components used. You don't necessarily have to have programming experience. Even without programming experience you can make fun things in no time with this booklet. This kit contains a Dutch instruction booklet and is otherwise completely the same as the kits with a booklet in another language.

The booklet contains ten clearly described experiments in which you control and/or read individual electronic components with the micro:bit. For experiments one through six you program with MakeCode's code blocks, for experiments seven through ten you use MakeCode's Python editor. The

Python part of the assignment booklet was written especially for this new version of the inventor's kit. In the original kit, the last four experiments were coded with JavaScript.

This Kitronik Inventor's Kit is a great way to learn how to build and control electrical circuits. The BBC micro:bit contains a number of pins on the bottom and these can be used to connect electronic components. This is easily done with our breakout board specially designed for the BBC micro:bit in combination with a breadboard. This is a plate with holes that is useful for connecting separate electronic components with each other and the micro:bit.

This kit is available as a single kit or as a bundle of twenty classroom kits.

Expansions for the Inventor's Kit:

Kitronik's inventor's kit experiments show how to combine code and electronics for everyday applications and problem solving. For example, you experience the power of electronic components, use input from sensors to make things happen, and use variable input to gradually change something. All in all a nice introduction to the world of programming and electronics. But why stop here and learn new things?

In our homes, schools and offices, we are surrounded by consumer electronics that respond to what is happening in the environment. Equipment with programmed electronics in it is everywhere. Many of those devices are programmed to give us feedback, both visually and through sounds. The three Inventor Kit Expansion Sets are specially designed to help you learn more about this. Please note: the assignment booklets with these sets are in English.

- Expansion set with ZIP LEDs for the micro:bit inventor's kit from Kitronik - LEDs play an important role in many consumer electronics, because LEDs are good for giving direct feedback to the user of a product. With this extension set you will learn how to write code to control the ZIP LEDs. You will also learn how to make ZIP LEDs respond to input from potentiometers and sensors, among other things.
- Sound expansion kit for Kitronik's micro:bit inventor's kit – Learn how to modify sound, build instruments, amplify sound and how to filter out, attenuate or boost specific frequencies.
- Digital Logic Expansion Kit for Kitronik's Micro:bit Inventor's Kit - Learn how logic gates work and how to use them with the micro:bit.

Comments:

- You have to assemble some parts of this kit yourself.
- Included with this kit is a booklet with detailed instructions, code samples and circuit diagrams for ten experiments.
- Programming is done with the MakeCode editor.

- o Experiments 1 - 6 with MakeCode's code blocks
- o Experiments 7 - 10 with MakeCode's Python editor.
- You don't have to solder anything and build your first circuit in a few minutes!
- This kit does not contain a BBC microbit !
- If you buy a separate micro:bit, note that you also have to purchase a battery box and a USB cable if these are not already included as standard.
- This kit is available as a single kit or as a bundle of twenty kits.

Characteristics:

- No soldering required – build your first circuit in minutes!
- Get started with ten experiments based on a Dutch assignment booklet with step-by-step explanation.
- As you learn more about programming, you move from code blocks to Python. You do this in the MakeCode environment.
  - o Experiments 1 - 6 use colored code blocks
  - o Experiments 7 - 10 are programmed with Python.
- The kit contains all the parts you need for ten experiments (see list below).
- The kit makes all 21 available pins of the BBC micro:bit easily accessible via the breakout board for the BBC micro:bit . (This board is part of the kit.)
- A small breadboard is also part of this kit, for quick prototyping.

Content:

Each individual kit includes the following;

- 1 x Mounting plate.
- 1 x Potentiometer 100K.
- 1 x Rotary knob for potentiometer .
- 1 x Battery Box Confirmation Sticker.
- 1 x Breadboard.
- 1 x Crown Stone .
- 4 x Push button .
- 1 x Motor.
- 1 x Transistor.
- 2 x 5 mm LED rood.
- 2 x 5 mm LED plowing .
- 2 x 5 mm LED geel.
- 2 x 5 mm LED groen.
- 1 x 5 mm LED RGB.
- 1 x Ventilatorblad.
- 5 x 2,2 kΩ weerstand.
- 5 x 10 kΩ weerstand.
- 5 x 47 resistor .

- 1 x Breakout board for the BBC micro:bit .
- 10 x Male to Male Cable .
- 10 x Male-to-Female Cable .
- 1 x 470uF electrolytic capacitor .
- 1 x Piezo buzzer .
- 2 x M3 screws .
- 1 x Phototransistor .