TRU COMPONENTS

CE

BN 2268249

Joystick Extension Board for micro:bit

GB Operating instructions

Latest operating instructions

Download the latest operating instructions at www.conrad.com/downloads or scan the QR code shown. Follow the instructions on the website.

Delivery contents

- Joystick Extension Board for micro:bit

Description

The micro:bit is a powerful, low-cost, fully programmable single board computer developed by the BBC. It was designed to encourage children to actively engage in technical activities such as programming and electronics.

It features a 5x5 LED matrix, two integrated buttons, a compass, an accelerometer and Bluetooth®.

It supports the graphical programming interface PXT (MakeCode). This can be used on Microsoft Windows®, MacOS, iOS, Android™ and many other operating systems without downloading an additional compiler.

If you want to do more with your micro:bit, you can use this additional board to extend it with a joypad with an analogue joystick and four buttons, e.g. to program small games or to control a robot.

The board also has a voltage regulator, which you can use to connect an external voltage supply of 4.75 to 12 V/DC to the joystick board in order to supply the micro:bit.

Bluetooth® is a registered trademark of Bluetooth SIG, Inc.

Product features

- 8 buttons: Up, Down, Left, Right, Select, Mode, A, B
- 1x slot for micro:bit single board computer
- 4x contacts: 3V, G, P0, P1
- 1x analogue joystick
- 1x Socket for external voltage supply

Requirements

The following components are required to use the board:

- 1 micro:bit, e.g. Conrad item no.: 2253828

Hardware

The following overview shows how the components are connected to the micro:bit.

UP button	micro:bit P10
DOWN button	micro:bit P8
LEFT button	micro:bit P11
RIGHT button	micro:bit P9
Select button	micro:bit P7
Mode button	micro:bit P6
Pin 3V	3 V/DC output
Pin G	GND (ground)
Pin P0	micro:bit Pin P0
Pin P1	micro:bit Pin P1
Analogue joystick X	micro:bit P4
Analogue joystick Y	micro:bit P3
Analogue joystick Z	micro:bit P5

Power supply socket: 4.75 - 12 V/DC

Operation

Insert the micro:bit into the slot provided on the circuit board. The 5x5 LED matrix must point towards you.

Connect the micro:bit to your computer.

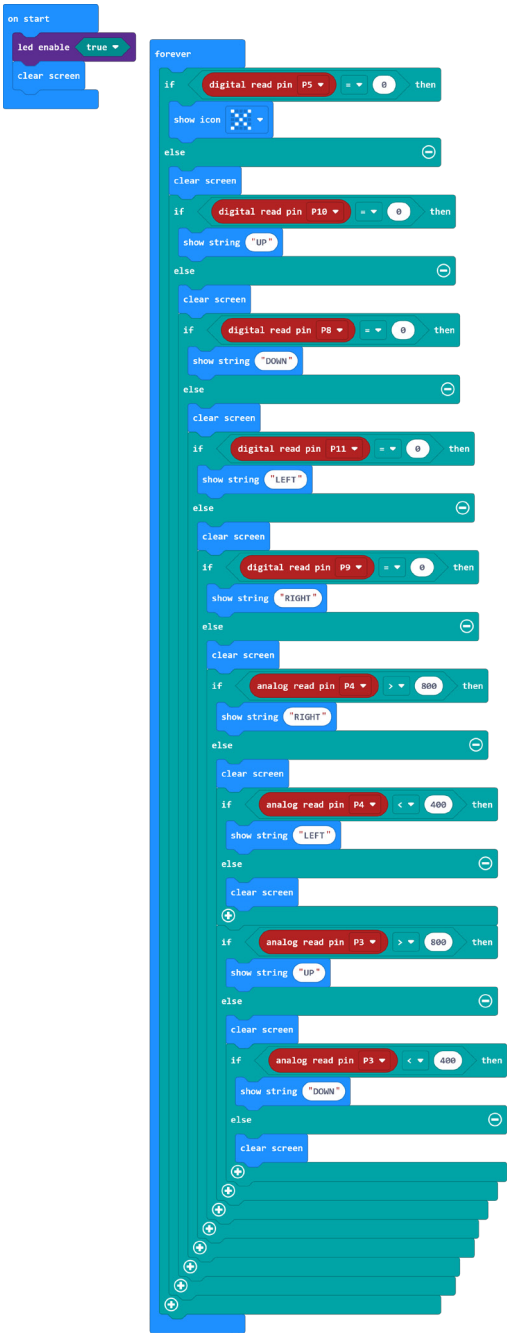
Test program

You can graphically program the code below using the micro:bit MakeCode Editor:

» https://makecode.microbit.org/#editor

Then download the code and transfer it to the micro:bit. The exact procedure for programming and transferring the program to the micro:bit can be found in the micro:bit manual or online at:

» https://microbit.org



Test

After starting the program, you can test the following:

1. No button is pressed, the joystick is not moved
   5x5 matrix is switched off

2. Press UP button	5x5 matrix shows UP
3. Press DOWN button	5x5 matrix shows DOWN
4. Press LEFT button	5x5 matrix shows LEFT
5. Press RIGHT button	5x5 matrix shows RIGHT
6. Push joystick up	5x5 matrix shows UP
7. Push joystick down	5x5 matrix shows DOWN
8. Push joystick left	5x5 matrix shows LEFT
9. Push joystick right	5x5 Matrix shows RIGHT

Disposal

Electronic devices are recyclable waste and must not be placed in household waste. At the end of its service life, dispose of the product in accordance with the applicable regulatory guidelines.

You thus fulfil your statutory obligations and contribute to protection of the environment.

Specifications

Operating voltage ..... 4.75 - 12 V/DC
Dimensions (W x H x D) ..... 46 x 30 x 150 mm
Weight ..... 49 g

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