

Block Editor Documentation

hint

Spotty internet? No problem! (1) When online, go to <https://www.microbit.co.uk/app/> (<https://www.microbit.co.uk/app/>) and bookmark this URL; (2) use the bookmark to reload the web app, even without the internet.

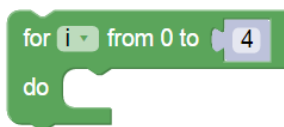
Find the list of programming and BBC micro:bit blocks below. If you want to understand the difference between Block Editor and Touch Develop programs, [read more... \(https://www.microbit.co.uk/blocks/to-td\)](https://www.microbit.co.uk/blocks/to-td)

- [Block Editor lessons \(https://www.microbit.co.uk/blocks/lessons\)](https://www.microbit.co.uk/blocks/lessons)
- [Block Editor book \(https://www.microbit.co.uk/blocks/book\)](https://www.microbit.co.uk/blocks/book)
- [offline support \(https://www.microbit.co.uk/offline\)](https://www.microbit.co.uk/offline)

Programming blocks

Loops

for
(<https://www.microbit.co.uk/blocks/for>)



repeat
(<https://www.microbit.co.uk/blocks/repeat>)

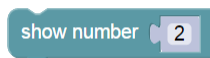


while
(<https://www.microbit.co.uk/blocks/while>)

BBC micro:bit blocks

Basic

show number
(<https://www.microbit.co.uk/functions/show-number>)



show string
(<https://www.microbit.co.uk/functions/show-string>)



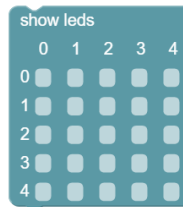
show LEDs
(<https://www.microbit.co.uk/functions/show-leds>)

Authoring

- [the Block Editor \(https://www.microbit.co.uk/blocks/editor\)](https://www.microbit.co.uk/blocks/editor)
- [convert a Block script to TouchDevelop \(https://www.microbit.co.uk/blocks/convert\)](https://www.microbit.co.uk/blocks/convert)
- [publish a script \(https://www.microbit.co.uk/td/publishing\)](https://www.microbit.co.uk/td/publishing)

Running

- [run scripts in the browser \(https://www.microbit.co.uk/td/simulator\)](https://www.microbit.co.uk/td/simulator)
- [run scripts on your BBC micro:bit \(https://www.microbit.co.uk/device/usb\)](https://www.microbit.co.uk/device/usb)



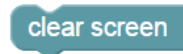
forever

(<https://www.microbit.co.uk/functions/forever>)



clear screen

(<https://www.microbit.co.uk/functions/clear-screen>)



Logic

if

(<https://www.microbit.co.uk/blocks/if>)



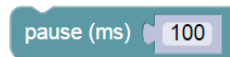
forever

(<https://www.microbit.co.uk/functions/forever>)



pause

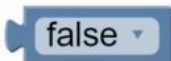
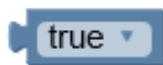
(<https://www.microbit.co.uk/functions/pause>)



Boolean

(<https://www.microbit.co.uk/blocks/boolean>)

values: *true*; *false*



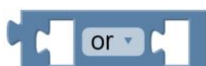
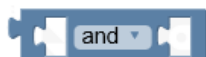
LED

plot

(<https://www.microbit.co.uk/functions/plot>)



Boolean binary operators:
and (conjunction); *or*
(disjunction)



unplot

(<https://www.microbit.co.uk/functions/unplot>)



point

(<https://www.microbit.co.uk/functions/point>)

Boolean negation operator



Comparison operators (=, !=, <, >, <=, >=)



Maths

Numeric

(<https://www.microbit.co.uk/blocks/number>)

values: 0, 1, 2, ...



Arithmetic binary operation (+, -, *, /)



Absolute value



Minimum/maximum of two values



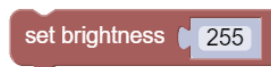
brightness

(<https://www.microbit.co.uk/functions/brightness>)



set brightness

(<https://www.microbit.co.uk/functions/set-brightness>)



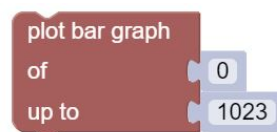
stop animation

(<https://www.microbit.co.uk/functions/stop-animation>)



plot bar graph

(<https://www.microbit.co.uk/functions/plot-bar-graph>)



Images

show image

(<https://www.microbit.co.uk/functions/show-image>)





Random value



Variables

Assign

(<https://www.microbit.co.uk/blocks/assign>) (set) a variable's value



Get a variable's value



Change

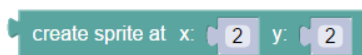
(<https://www.microbit.co.uk/blocks/change-value>) a variable's value



Game

create sprite

(<https://www.microbit.co.uk/functions/create-sprite>)



move

(<https://www.microbit.co.uk/functions/move>)



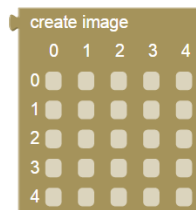
scroll image

(<https://www.microbit.co.uk/functions/scroll-image>)



create image

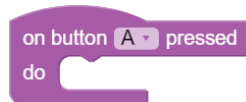
(<https://www.microbit.co.uk/functions/create-image>)



Input

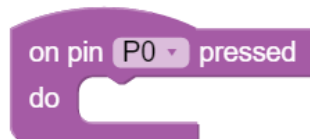
on button pressed

(<https://www.microbit.co.uk/functions/on-button-pressed>)



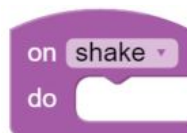
on pin pressed

(<https://www.microbit.co.uk/functions/on-pin-pressed>)



on shake

(<https://www.microbit.co.uk/functions/on-shake>)



turn

<https://www.microbit.co.uk/functions/turn>

**change**

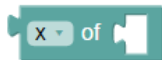
<https://www.microbit.co.uk/functions/change>

**set**

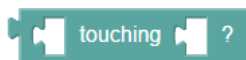
<https://www.microbit.co.uk/functions/set>

**reports**

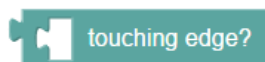
<https://www.microbit.co.uk/functions/reports>

**touching**

<https://www.microbit.co.uk/functions/touching>

**touching edge**

<https://www.microbit.co.uk/functions/touching-edge>

**if on edge, bounce**

<https://www.microbit.co.uk/functions/if-on-edge-bounce>

on logo up

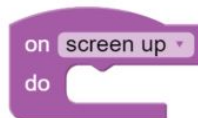
<https://www.microbit.co.uk/functions/on-logo-up>

**on logo down**

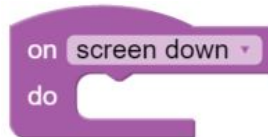
<https://www.microbit.co.uk/functions/on-logo-down>

**on screen up**

<https://www.microbit.co.uk/functions/on-screen-up>

**on screen down**

<https://www.microbit.co.uk/functions/on-screen-down>

**button is pressed**

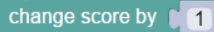
<https://www.microbit.co.uk/functions/button-is-pressed>

**compass heading**

<https://www.microbit.co.uk/functions/compass-heading>



change score by
<https://www.microbit.co.uk/functions/change-score-by>



score
<https://www.microbit.co.uk/functions/score>



start countdown
<https://www.microbit.co.uk/functions/start-countdown>



game over
<https://www.microbit.co.uk/functions/game-over>



Music

play tone
<https://www.microbit.co.uk/functions/play-tone>



ring tone
<https://www.microbit.co.uk/functions/ring-tone>



compass heading



temperature
<https://www.microbit.co.uk/functions/temperature>



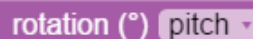
acceleration
<https://www.microbit.co.uk/functions/acceleration>



light level
<https://www.microbit.co.uk/functions/light-level>



rotation
<https://www.microbit.co.uk/functions/rotation>



magnetic force
<https://www.microbit.co.uk/functions/magnetic-force>



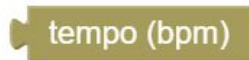
running time
<https://www.microbit.co.uk/functions/running-time>

rest

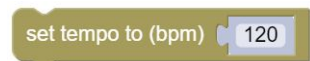
<https://www.microbit.co.uk/functions/rest>

**tempo**

<https://www.microbit.co.uk/functions/tempo>

**set tempo**

<https://www.microbit.co.uk/functions/set-tempo>

**change tempo**

<https://www.microbit.co.uk/functions/set-tempo>

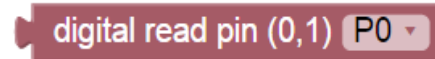
**Comments****comment**

<https://www.microbit.co.uk/blocks/comment>

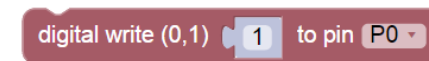
running time (ms)

Pins**digital read pin**

<https://www.microbit.co.uk/functions/digital-read-pin>

**digital write pin**

<https://www.microbit.co.uk/functions/digital-write-pin>

**analog read pin**

<https://www.microbit.co.uk/functions/analog-read-pin>

**analog write pin**

<https://www.microbit.co.uk/functions/analog-write-pin>

**analog set period**

<https://www.microbit.co.uk/functions/analog-set-period>

**servo write pin**

<https://www.microbit.co.uk/functions/servo-write-pin>

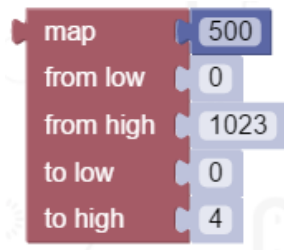
uk/functions/servo-write-pin)



servo set pulse (https://www.microbit.co.uk/functions/servo-set-pulse)



map (https://www.microbit.co.uk/functions/map)



Devices

Functions in this category require to be connected to a remote device.

tell camera to (https://www.microbit.co.uk/functions/tell-camera-to)



tell remote control to (https://www.microbit.co.uk/functions/tell-remote-control-to)



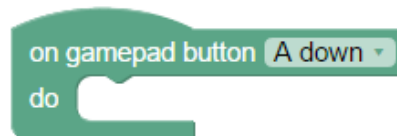
raise alert to
(<https://www.microbit.co.uk/functions/raise-alert-to>)



on notified
(<https://www.microbit.co.uk/functions/on-notified>)



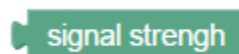
on gamepad button
(<https://www.microbit.co.uk/functions/on-gamepad-button>)



on notified
(<https://www.microbit.co.uk/functions/on-notified>)

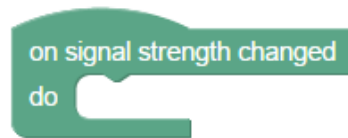


signal strength
(<https://www.microbit.co.uk/functions/signal-strength>)



on signal strength
changed
(<https://www.microbit.co.uk/functions/on-signal-strength-changed>)

uk/functions/on-signal-strength-changed)



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