

micro:bit

BBC micro:bit functionality

Button A / B

- `function onPressA() {`
- `function onPressB() {`
- `function onPressAandB() {`

Runs when one or both buttons are pressed

- `function onReleaseA() {`
- `function onReleaseB() {`

Runs when one or both buttons are released

Compass

- `microbit.bearing;`

Gets a value from the compass between 0-7, where 0 is North, 1 is North East, 2 is East, etc...

- `microbit.calibrateCompass();`

Does something when the device starts

Accelerometer

- `microbit.accelerationX;`
- `microbit.accelerationY;`
- `microbit.accelerationZ;`

Gets values for the acceleration detected in 3 dimensions

- `microbit.tiltX;`
- `microbit.tiltY;`

Gets the current tilt value in 2 dimensions

LED Matrix

- `microbit.on(x, y);`
- `microbit.off(x, y);`

Turns a particular LED on or off at the position specified

- `microbit.isOn(x, y);`

Checks if a particular LED is on

- `microbit.draw(Pattern);`

Selects LEDs to turn on in a visual grid

- `microbit.say(value);`

Scrolls some text or a number across the microbit LED display

- `microbit.fadeIn(milliseconds);`
- `microbit.fadeOut(milliseconds);`

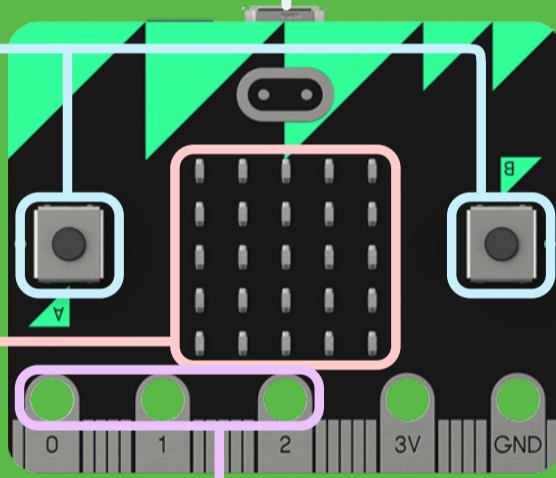
Slowly turns on or off the display

- `microbit.fadeTo(value);`

Slowly changes the brightness of the display to a particular value between 0 and 255

- `microbit.clear();`

Clears the LED display



System

- `function onShake() {`

Does something when the device is shaken

- `function onStart() {`

Does something when the device starts

- `microbit.runningTime;`

The number of milliseconds since the program started

Pins 1-3

- `microbit.writePinDigital(pin, value);`
- `microbit.writePinAnalogue(pin, value);`

Writes to a digital or analogue pin by indicating the pin and the value you wish to write

- `microbit.readPinAnalogue(pin);`
- `microbit.readPinDigital(pin);`

Reads the value of a digital or analogue pin.

What is Javascript?

Learning Javascript with the BBC micro:bit makes for a very engaging introduction to practical computing.

Javascript is not a pretend language used for teaching, it's a commercial programming language used by real developers. In fact, it is one of the most widely used, valued web technologies in the world.

Who are Code Kingdoms?

Code Kingdoms build applications that engage the next generation with computing.

Our code editor was researched, designed and tested in consultation with young people and experienced teachers, giving us what we think is the best environment for learning real code.

Where can I find out more?

microbit.co.uk/ck

