

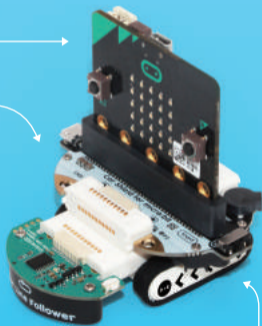
Get Started

A micro:car for micro:bit

micro:bit
「Not included」

Car Shield for
micro:bit

Color Line
Follower

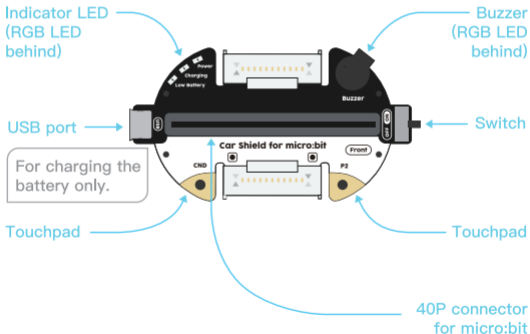


Chassis

Grove Zero

Module Introduction

Car Shield for micro:bit

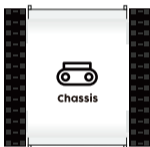


Facing "Front"
when insert micro:bit

Module Introduction

Chassis

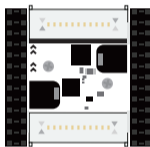
Bottom



Dual motors



Top



Forward



Forward



Module Introduction

Color Line Follower

5 Optical Sensors



LED Indicator

Calibration Button



Assembly

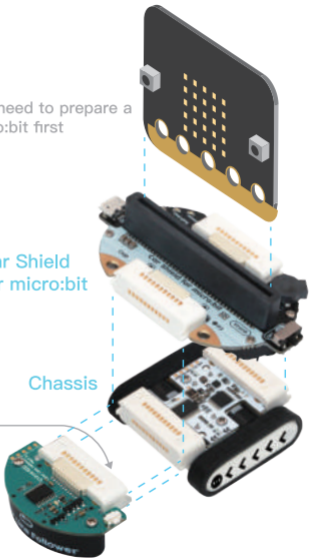
You need to prepare a micro:bit first

Car Shield
for micro:bit

Chassis

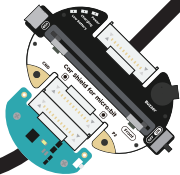
Make sure the Color Line Follower is connected to the front of Chassis.

Color Line
Follower



Get Started Playing

The map is included
in the kit



Download the line
following program to
your micro:bit and start
playing

Go to chmakered.com/grovezero/bitkit

Get Started Playing

Draw lines with markers to make your track

Draw lines and color codes with markers, make sure the lines and color codes you drew are wide enough to be detected

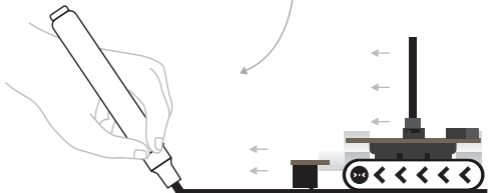


 Line following

 Turn left

 Turn right

 Stop

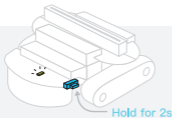


Calibration

Calibration of Color Line Follower

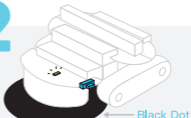
Use this for consistent behaviour at different line following conditions

1



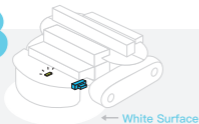
Take out the micro:bit, keep the power on, hold down the button for 2s, until the LED turns ON then enters the Calibration Mode, then release the button.

2



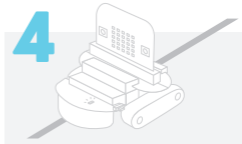
Set the sensor in the middle of the black line, single-click the button, then the LED blinks rapidly and the sensor starts calibrating. Once finished, the LED will go back to normal.

3



Now set the sensor in the white surface that the car will be running on. Double-click the button, then the LED blinks slowly and the sensor starts calibrating. Once finished, the LED will go back to normal.

4



The Color Line Follower is now calibrated. Reconnect the module and start playing.

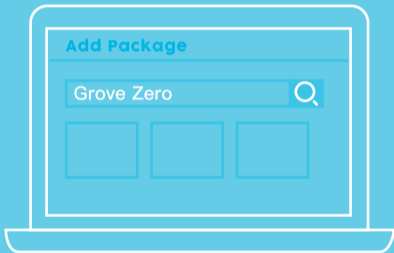
Program your micro:car

Go to makecode.microbit.org



1

2



Go to [Add Package](#) and search for “Grove Zero”, select the package to add it, you can also add the “neopixel” package for RGB LED control (at pin P1)



Creating your script in the coding editor, once finished, download the code as a .hex file

3

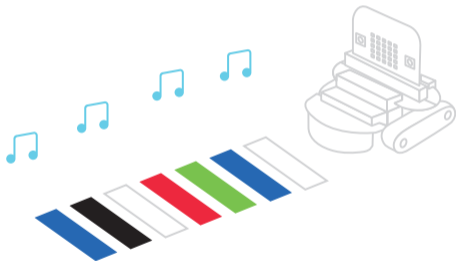
4



Connect your micro:bit to your computer with a micro USB cable, and drag the .hex file to the MICROBIT drive

IDEA 1

Rainbow Singer

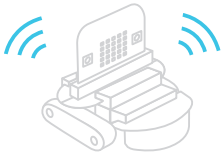
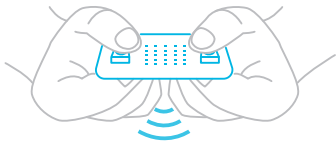


Download the code at
chmaked.com/grovezero/bitkit

IDEA 2

RC micro:car

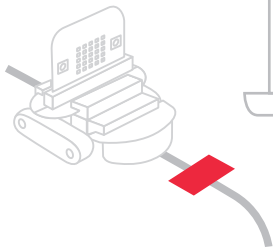
Use a second micro:bit as remote controller



Download the code at
chmakered.com/grovezero/bitkit

IDEA 3

Customized Color Codes

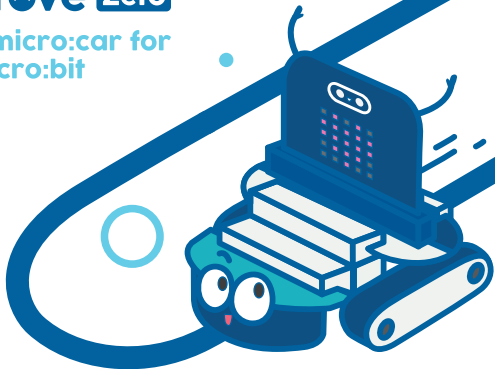


When detects red

dance for 2 seconds

Grove Zero

A micro:car for
micro:bit



Find more cool ideas at
chmaked.com/grovezero/bitkit