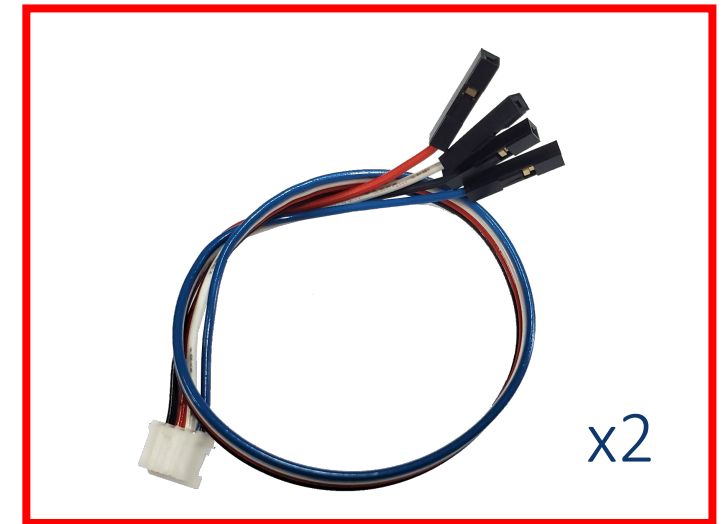
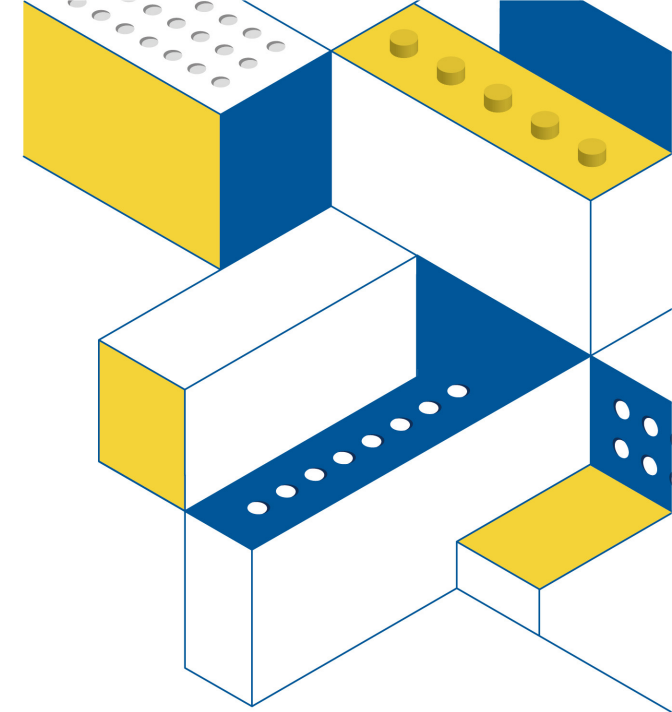
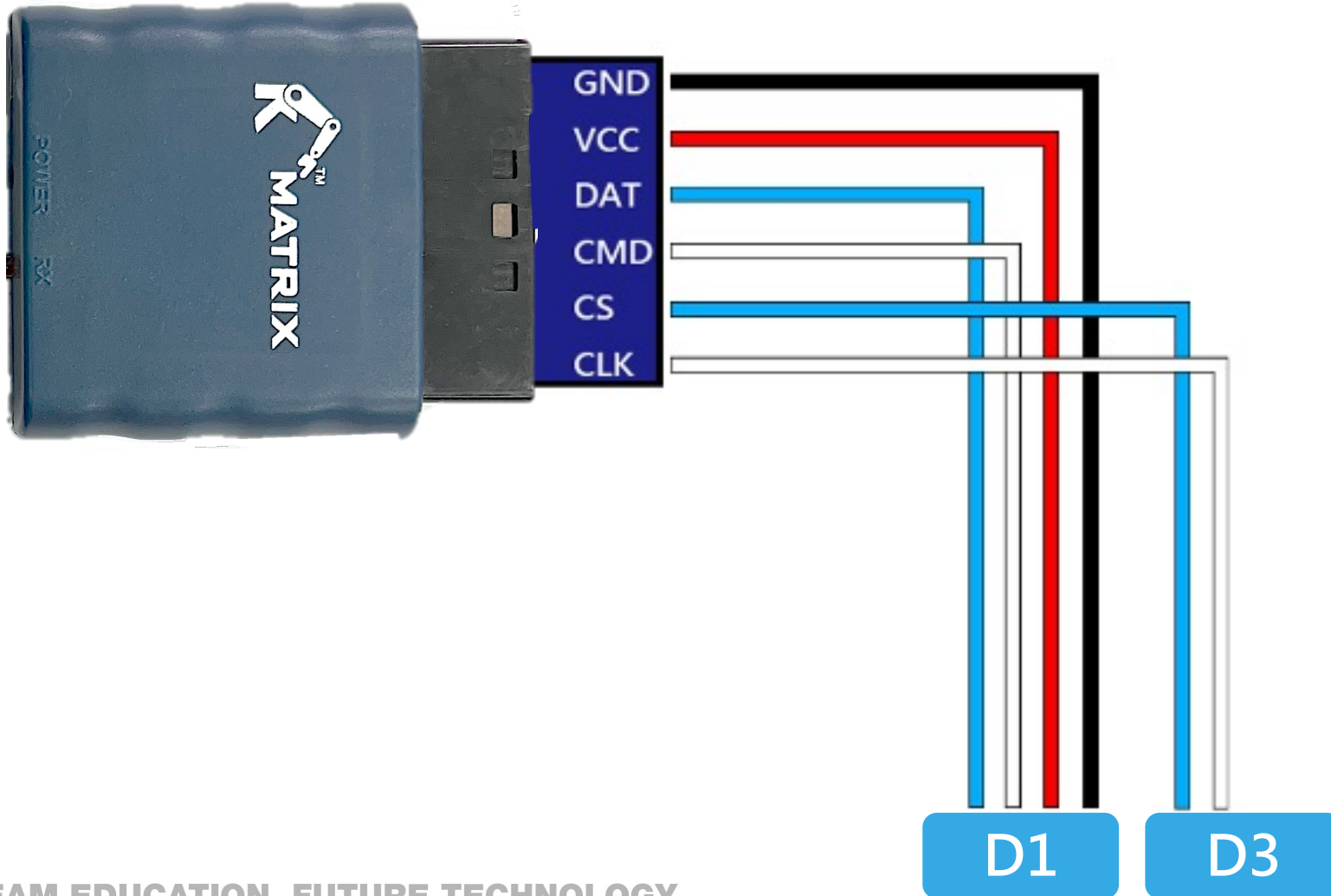
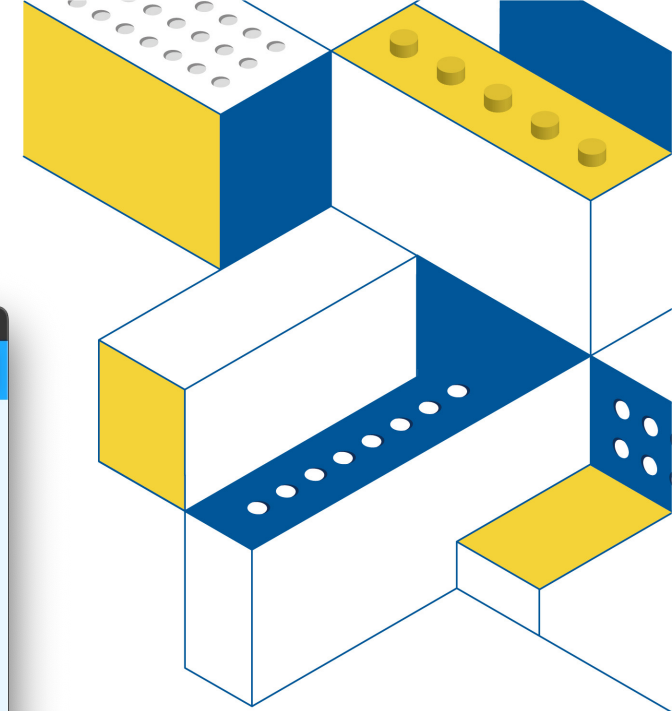
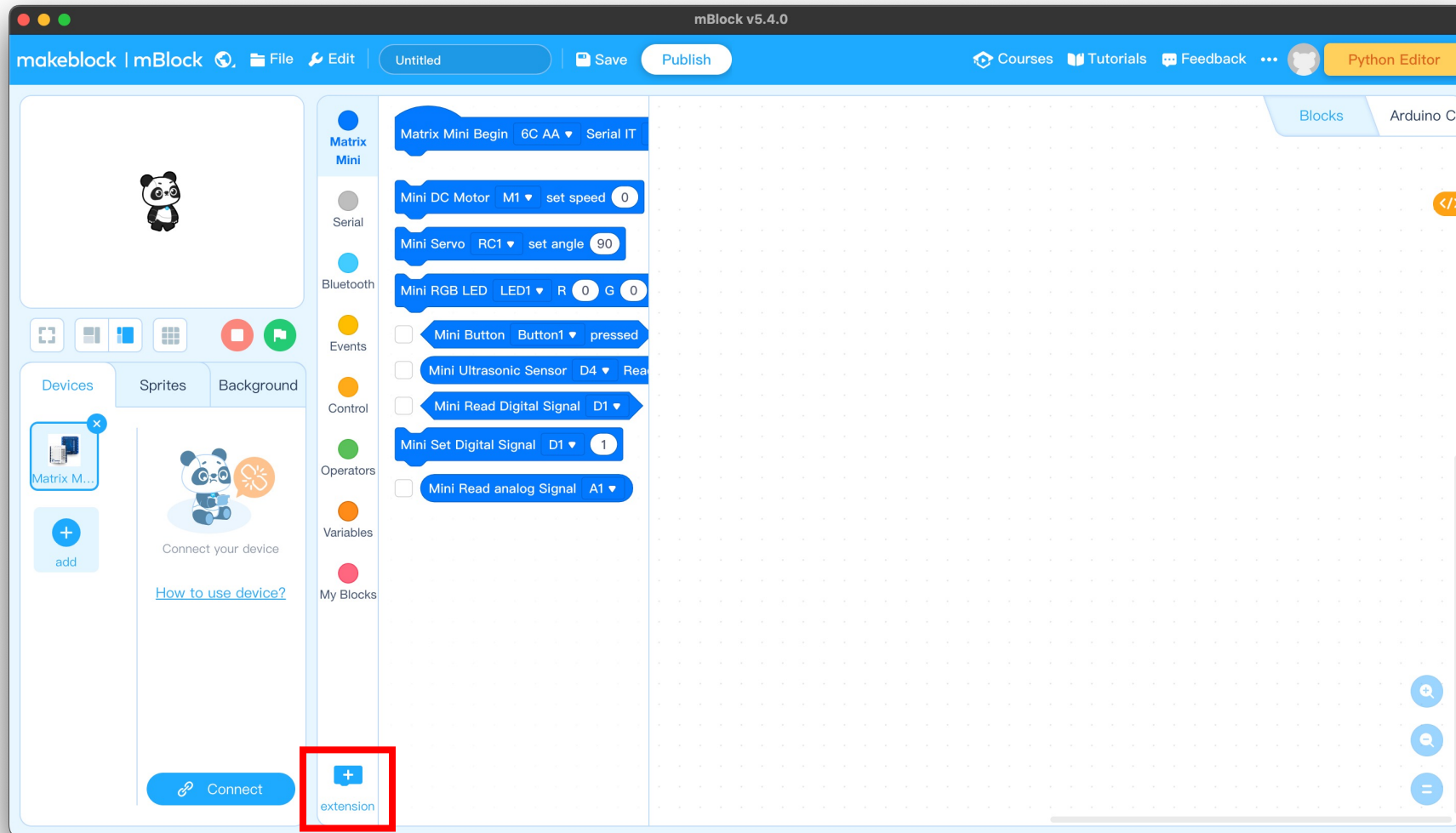


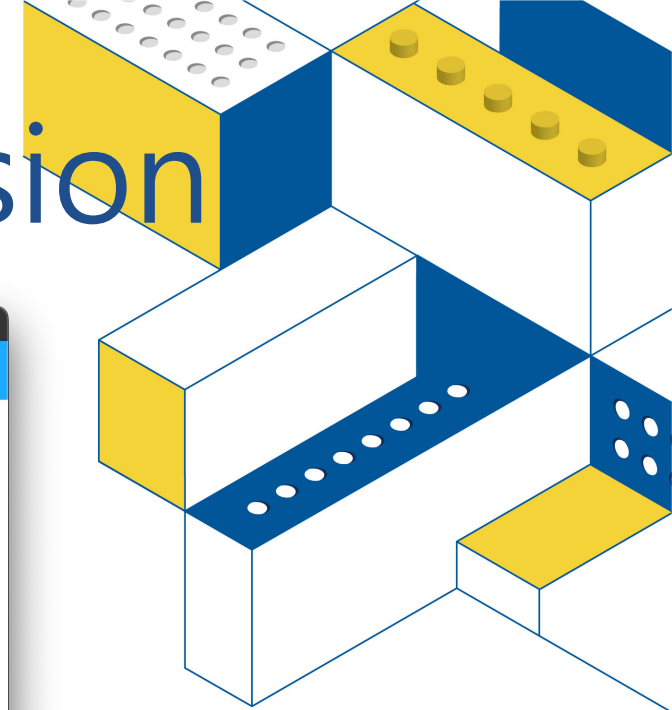
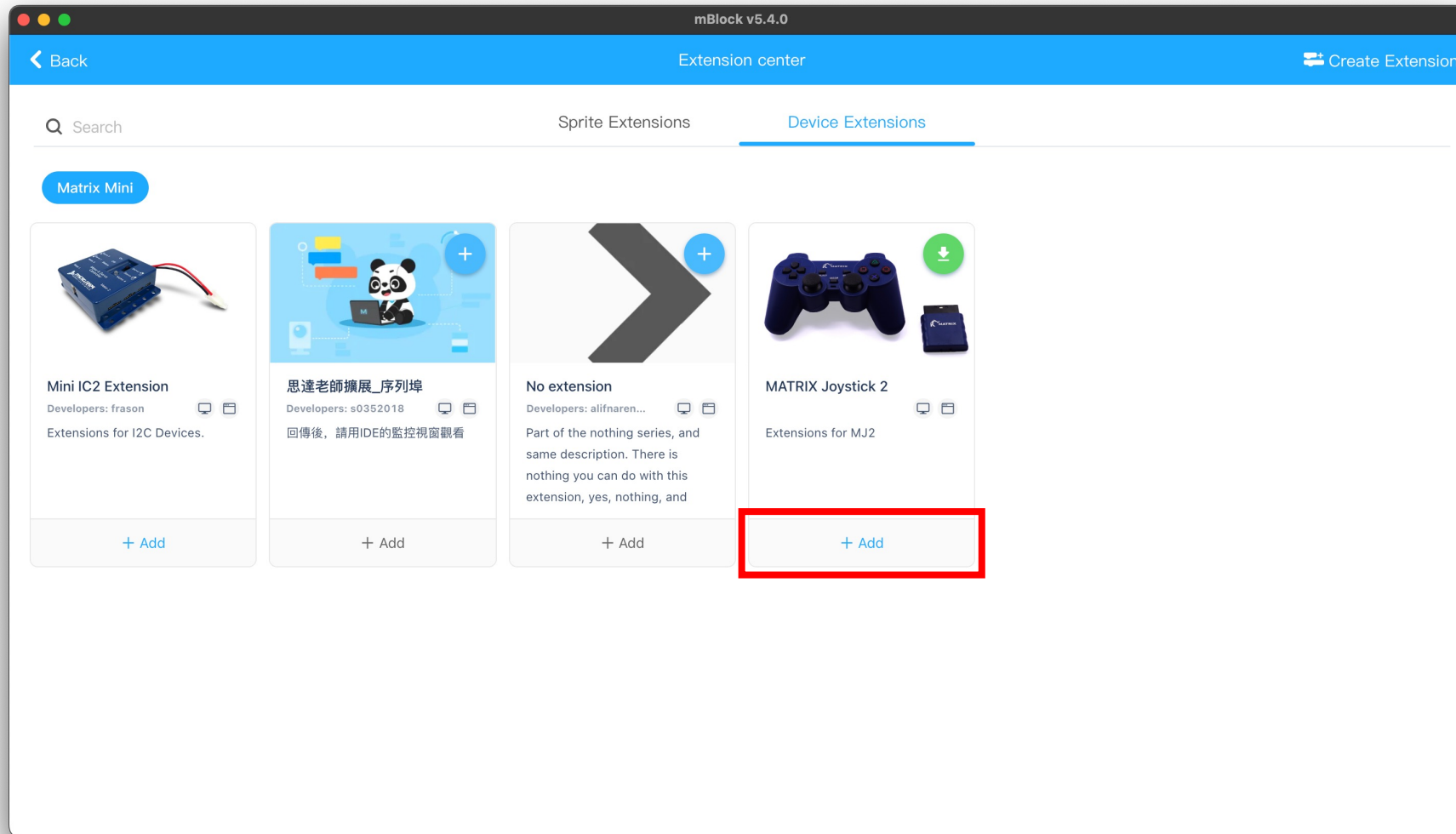
Wiring the receiver and Mini Controller



Import MJ2 extension



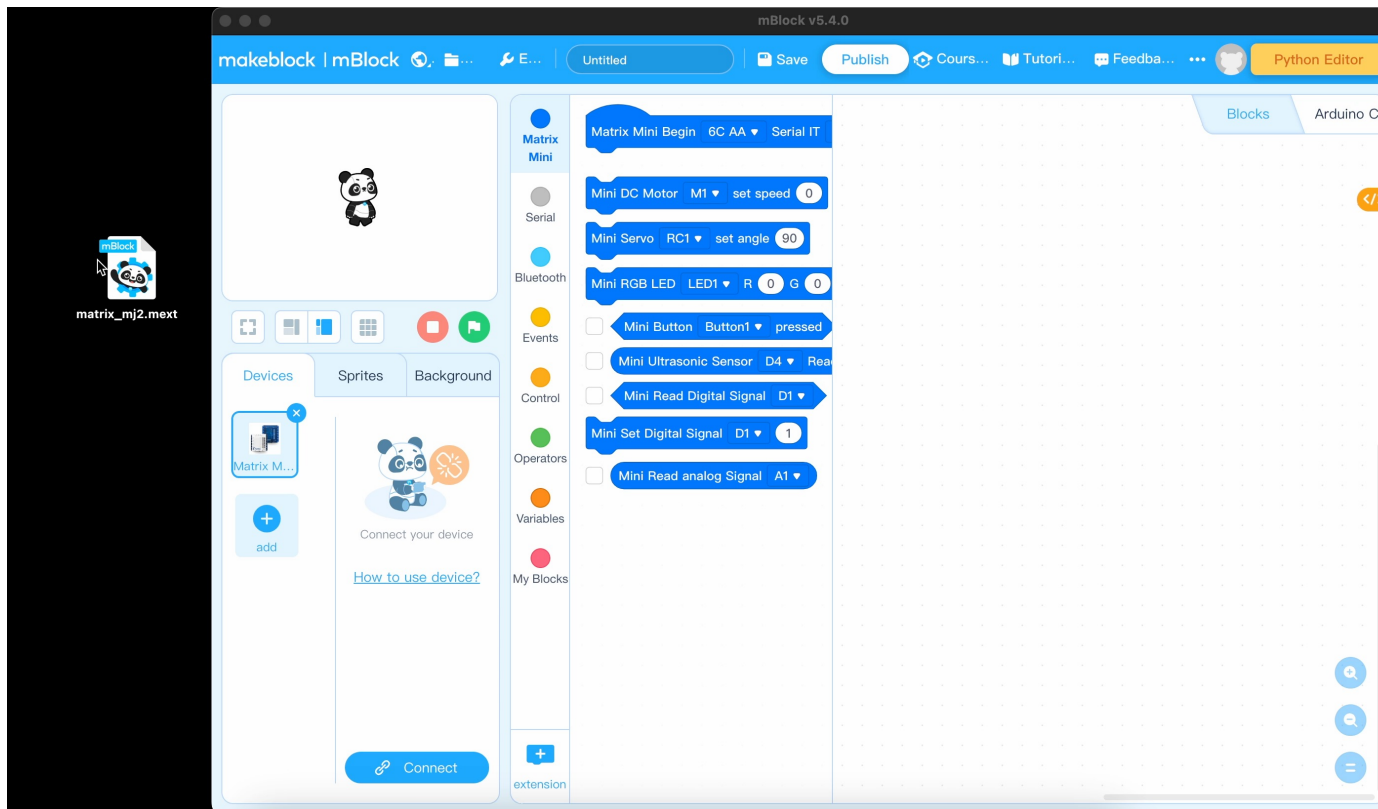
Add MATRIX Joystick 2 extension



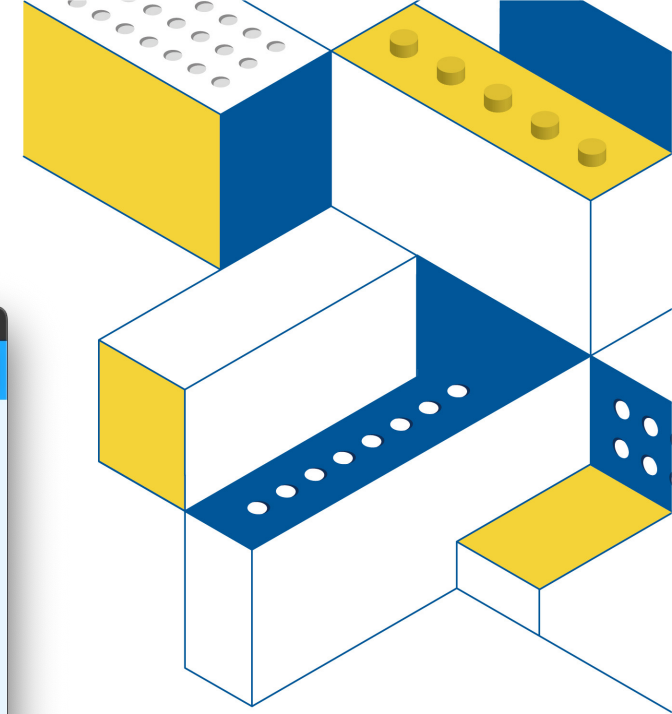
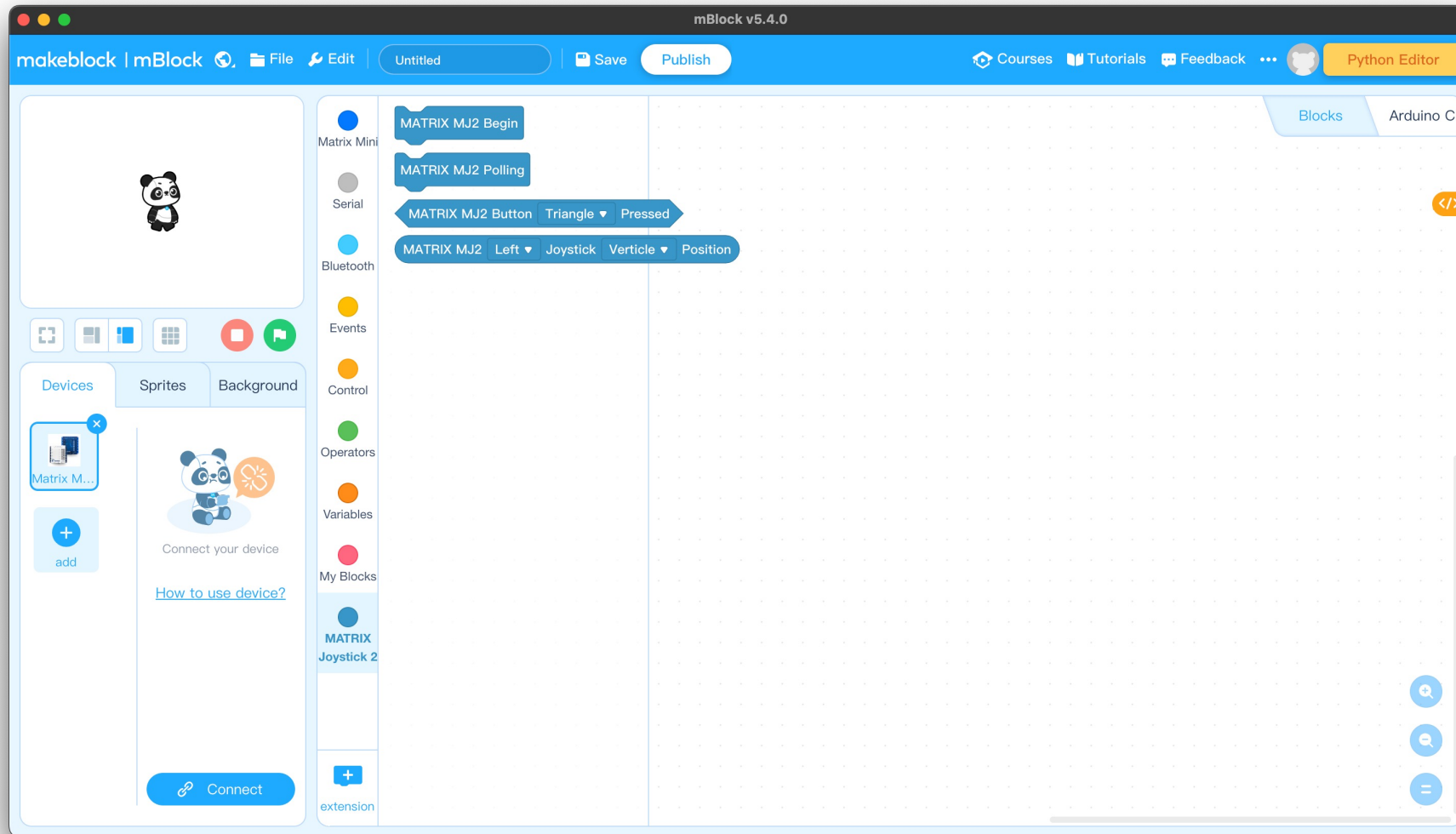
Add MATRIX Joystick 2 extension

Step 1. Download MJ2 extension : <https://reurl.cc/KXZqje>

Step 2. Pull “matrix_mj2.mext” into mBlock







New blocks appear

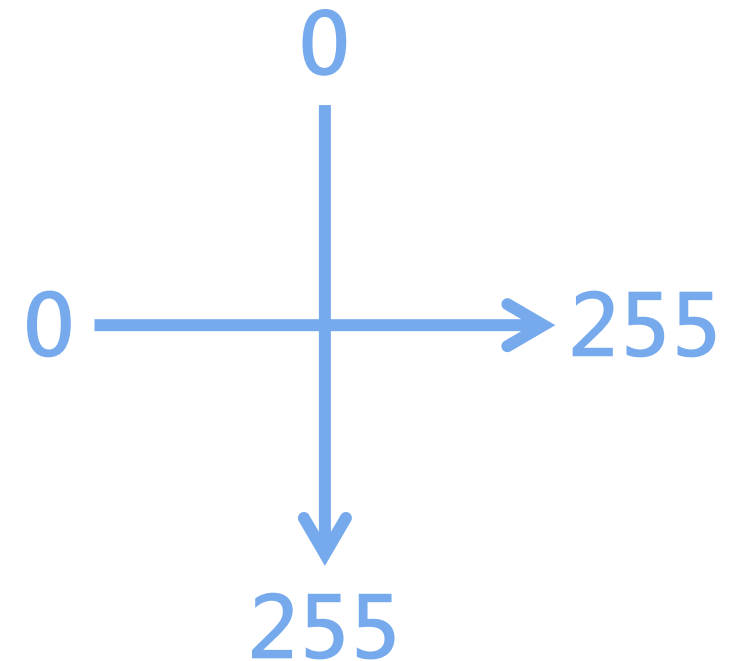
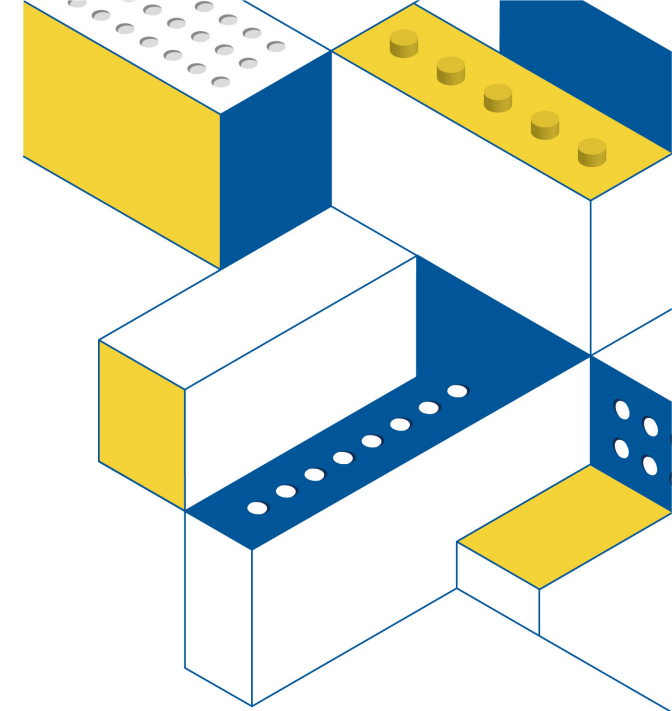


Blocks



 A blue rectangular block with rounded corners and a notch on the left side. The text "MATRIX MJ2 Begin" is written in white.	<p>Initializing. Must put the block at the beginning.</p>
 A blue rectangular block with rounded corners and a notch on the left side. The text "MATRIX MJ2 Polling" is written in white.	<p>Update the status of all buttons and joysticks on the controller. You should put the block in the beginning of the loop.</p>
 A blue arrow-shaped block pointing to the right. It contains the text "MATRIX MJ2 Button" followed by a dropdown menu showing "Triangle" with a downward arrow, and the word "Pressed".	<p>The block represents the status of the button. If the button you choose in the dropdown menu is pressed, the block returns true, vice versa.</p>
 A blue rounded rectangular block containing the text "MATRIX MJ2" followed by a dropdown menu showing "Left" with a downward arrow, the word "Joystick", another dropdown menu showing "Verticle" with a downward arrow, and the word "Position".	<p>The block represents the position of two joysticks in two directions.</p>

Value of two Joysticks



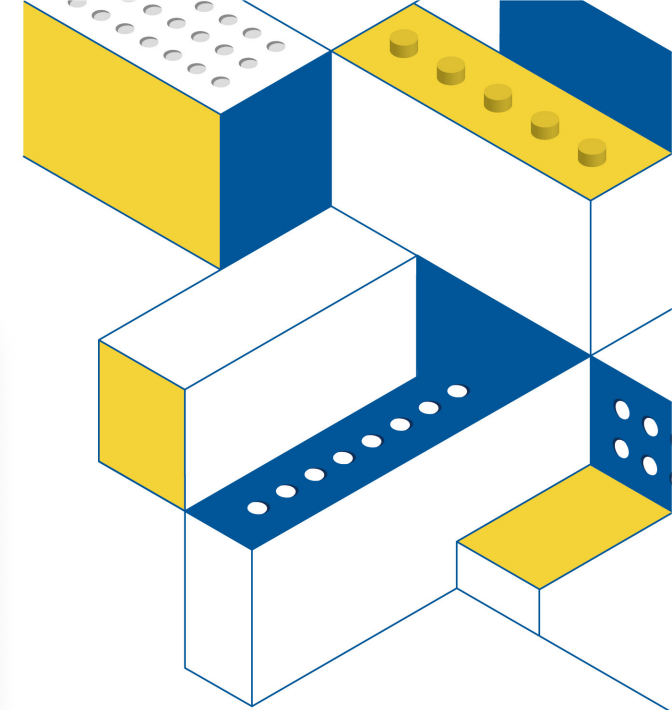
Button Testing

```
Matrix Mini Begin 6C AA Serial IT Disable Baud 115200
MATRIX MJ2 Begin
forever
  MATRIX MJ2 Polling
  if MATRIX MJ2 Button Triangle Pressed then
    set Green to 255
  else
    set Green to 0
  if MATRIX MJ2 Button Cross Pressed then
    set Blue to 255
  else
    set Blue to 0
  if MATRIX MJ2 Button Circle Pressed then
    set Red to 255
  else
    set Red to 0
  Mini RGB LED LED1 R Red G Green B Blue
```

Must put the block at the beginning.

Must put the block at the beginning of Forever loop

Connecting the Mini Controller



makeblock | mBlock v5.4.0

MJ2-button test Save Publish Local file Courses Tutorials Feedback Python Editor

Green Blue Red

Matrix Mini

Serial

Bluetooth

Events

Control

Operators

Variables

My Blocks

MATRIX Joystick 2

Devices Sprites Background

Matrix M...

add

Connect your device

[How to use device?](#)

Connect

extension

Matrix Mini Begin 6C AA Serial I/O

Mini DC Motor M1 set

Mini Servo RC1 set and

Mini RGB LED LED1 R

Mini Button Button1

Mini Ultrasonic Sensor

Mini Read Digital Sign

Mini Set Digital Signal D1

Mini Read analog Sign

USB

Show all connectable devices

/dev/tty.usbserial-D307TEN7

Connect

1. Show all connectable devices
2. Choose COM port
3. Connect

Must put the block at the beginning.

set Blue to 0

if MATRIX MJ2 Button Circle Pressed then

set Red to 255

else

set Red to 0

Mini RGB LED LED1 R Red G Green B Blue

Uploading

makeblock | mBlock v5.4.0

File Edit MJ2-button test Save Publish Local file Courses Tutorials Feedback Python Editor

Matrix Mini

Serial

Bluetooth

Events

Control

Operators

Variables

My Blocks

MATRIX Joystick 2

Matrix Mini Begin 6C AA Serial IT

Mini DC Motor M1 set speed 0

Mini Servo RC1 set angle 90

Mini RGB LED LED1 R 0 G 0

Mini Button Button1 pressed

Mini Ultrasonic Sensor D4 Read

Mini Read Digital Signal D1

Mini Set Digital Signal D1 1

Mini Read analog Signal A1

Matrix Mini Begin 6C AA Serial IT Disable Baud 115200

MATRIX MJ2 Begin

forever

MATRIX MJ2 Polling

if MATRIX MJ2 Button Triangle Pressed then

set Green to 255

else

set Green to 0

if MATRIX MJ2 Button Cross Pressed then

set Blue to 255

else

set Blue to 0

if MATRIX MJ2 Button Circle Pressed then

set Red to 255

else

set Red to 0

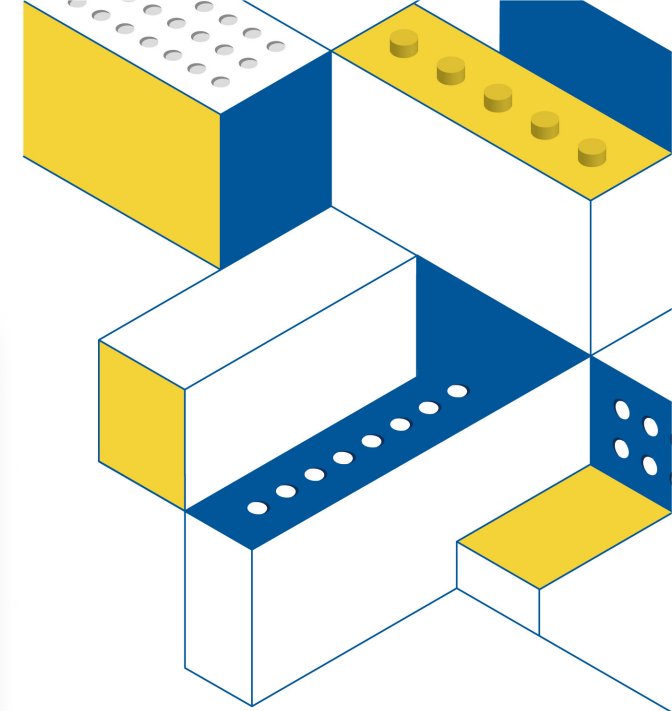
Mini RGB LED LED1 R Red G Green B Blue

Must put the block at the beginning.

Must put the block at the beginning of Forever loop

Upload

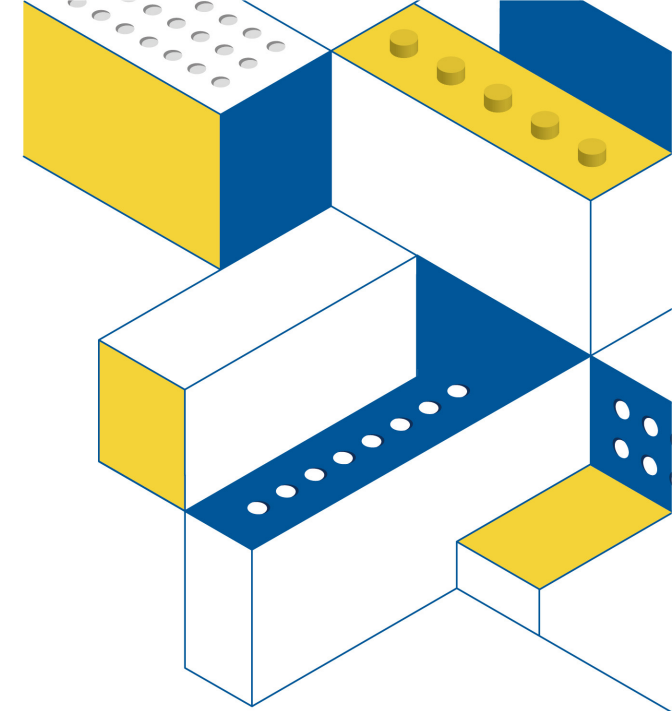
上傳



Connecting MJ2

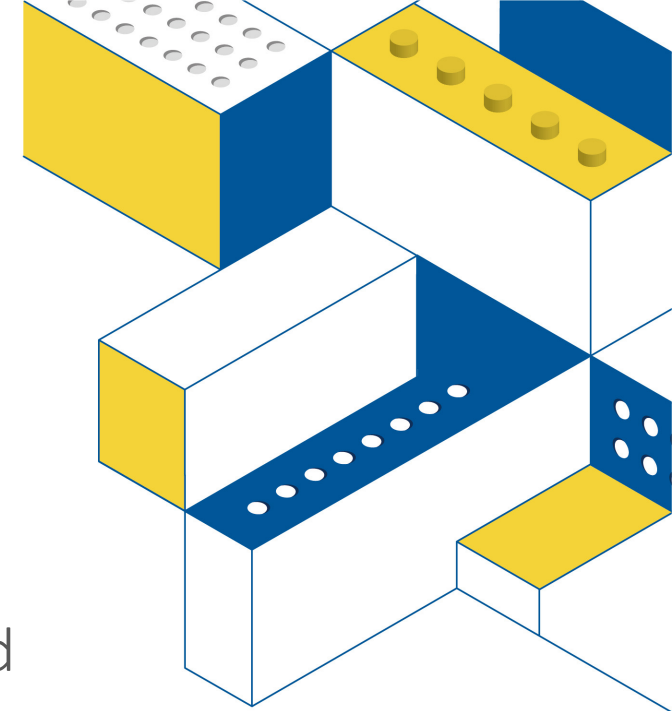
Step1. Install the Battery.

Step2. Press START button until the Red light on.

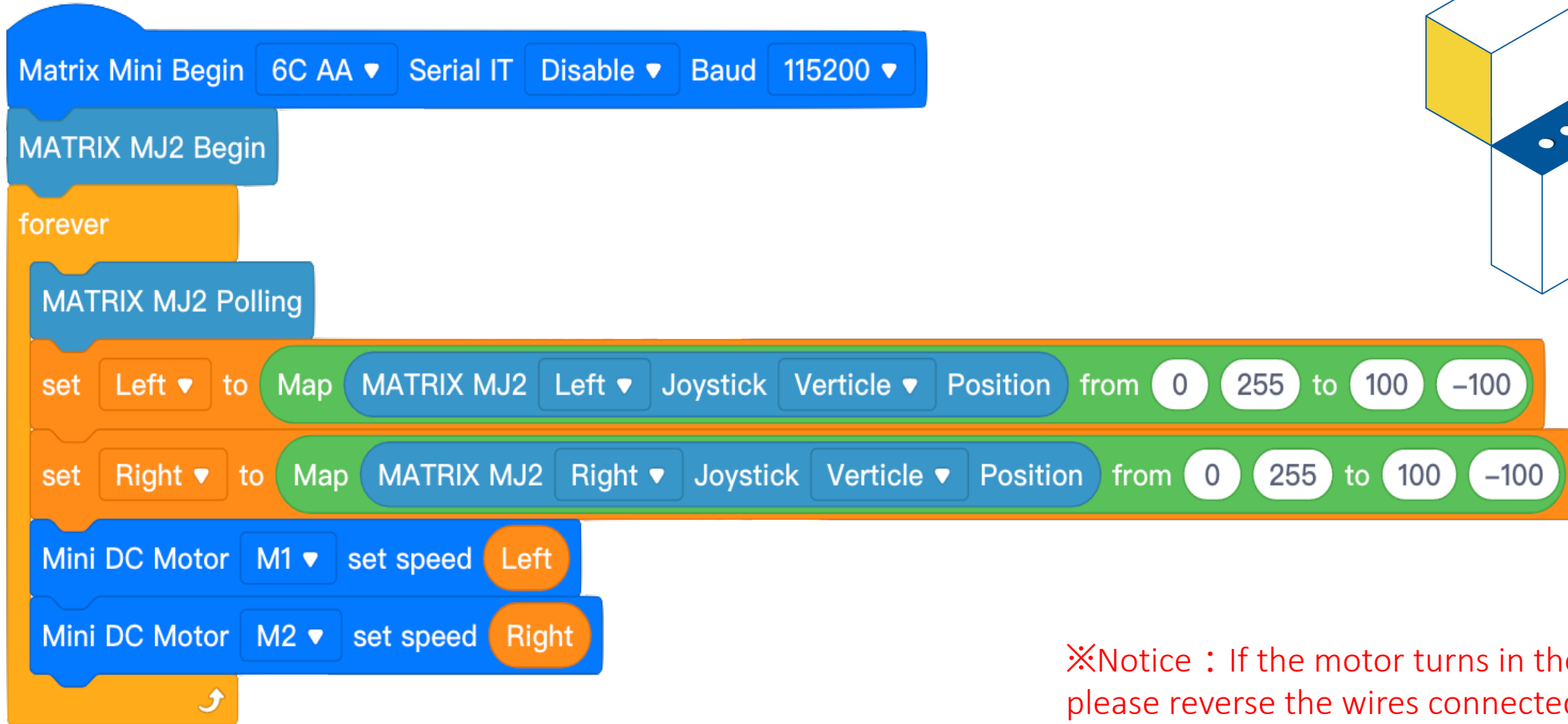


Notice

- Connect the wires of the receiver correctly before turning on the power of the Mini Controller.
- MATRIX Joystick 2 has been paired and set up.
- Press the Bind button of the receiver for more than 2 seconds, and press L3 (left joystick) for 3 seconds to enter the pairing.



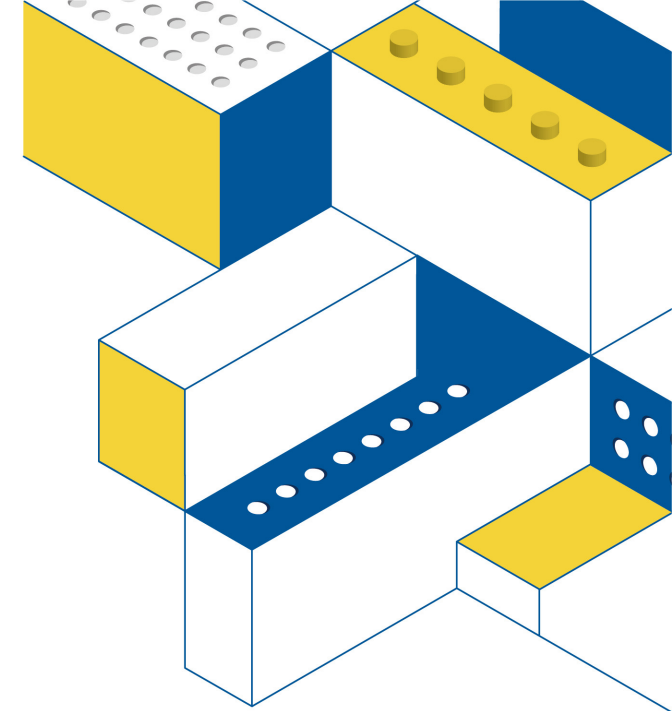
Motor Control-1



The image shows a Scratch script for controlling two DC motors. The script starts with a 'Matrix Mini Begin' block, followed by 'MATRIX MJ2 Begin'. A 'forever' loop contains the following blocks:

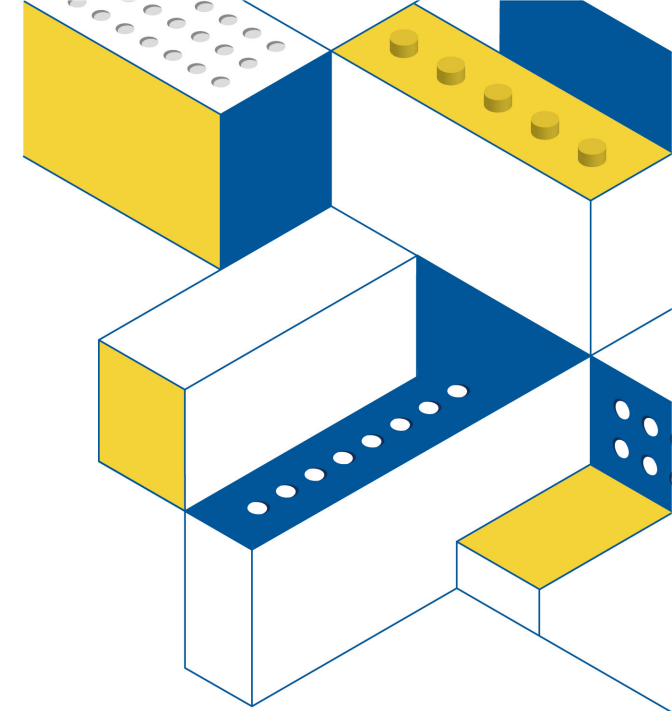
- 'MATRIX MJ2 Polling'
- 'set Left to Map MATRIX MJ2 Left Joystick Verticle Position from 0 255 to 100 -100'
- 'set Right to Map MATRIX MJ2 Right Joystick Verticle Position from 0 255 to 100 -100'
- 'Mini DC Motor M1 set speed Left'
- 'Mini DC Motor M2 set speed Right'

The script ends with a 'return to start' arrow block.



✘Notice : If the motor turns in the wrong direction, please reverse the wires connected to the controller.

Motor Control-2



```
Matrix Mini Begin 2C Li Serial IT Disable Baud 115200
MATRIX MJ2 Begin
forever
  MATRIX MJ2 Polling
  set Throttle to Map MATRIX MJ2 Left Joystick Verticle Position from 0 255 to 50 -50
  set Steering to Map MATRIX MJ2 Right Joystick Horizontal Position from 0 255 to -50 50
  Mini DC Motor M1 set speed Throttle + Steering
  Mini DC Motor M2 set speed Throttle - Steering
```