

# Microbit configure camera

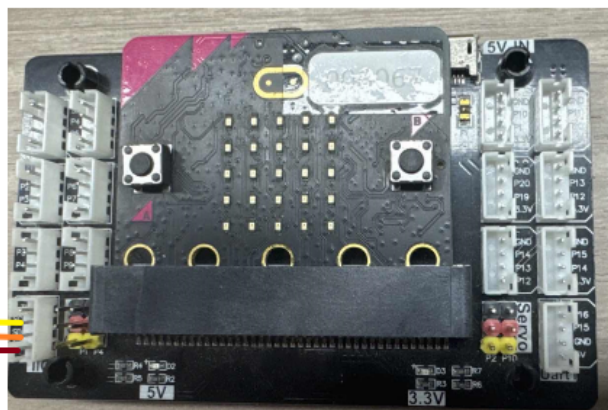
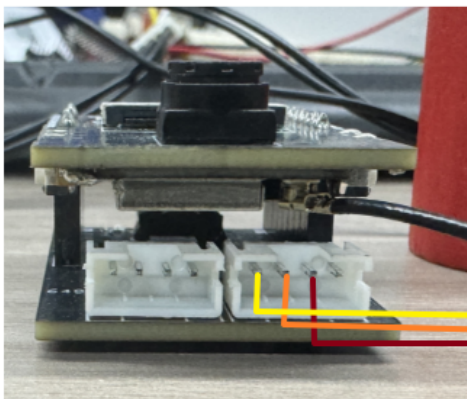
## 1. Experimental preparation

- Module World Extension Board
- Microbit
- WIFI camera

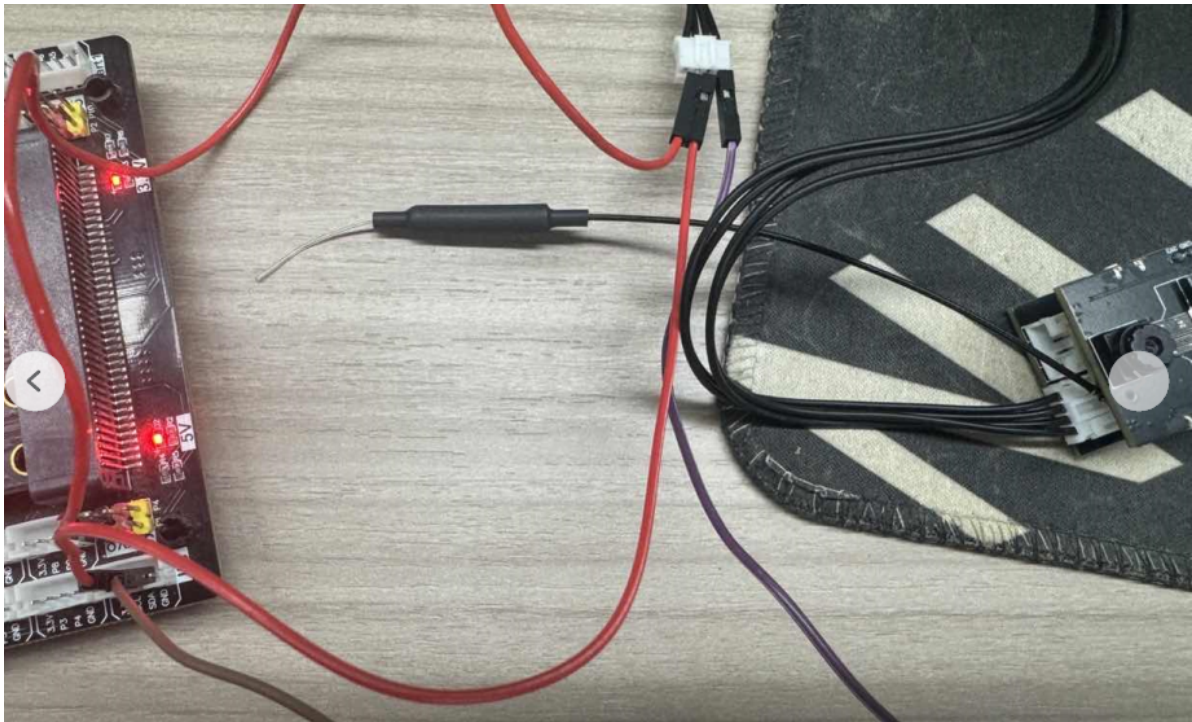
## 2. Experiment wiring

**Note:** Since the IIC interface does not provide 5V power supply, the ESP32 camera needs to use Type-C additional power supply

Extended Board	ESP32 Camera
SDA	SDA
SCL	SCL
GND	GND
5V	5V



Physical map:



### **3. Experimental steps and experimental effects**

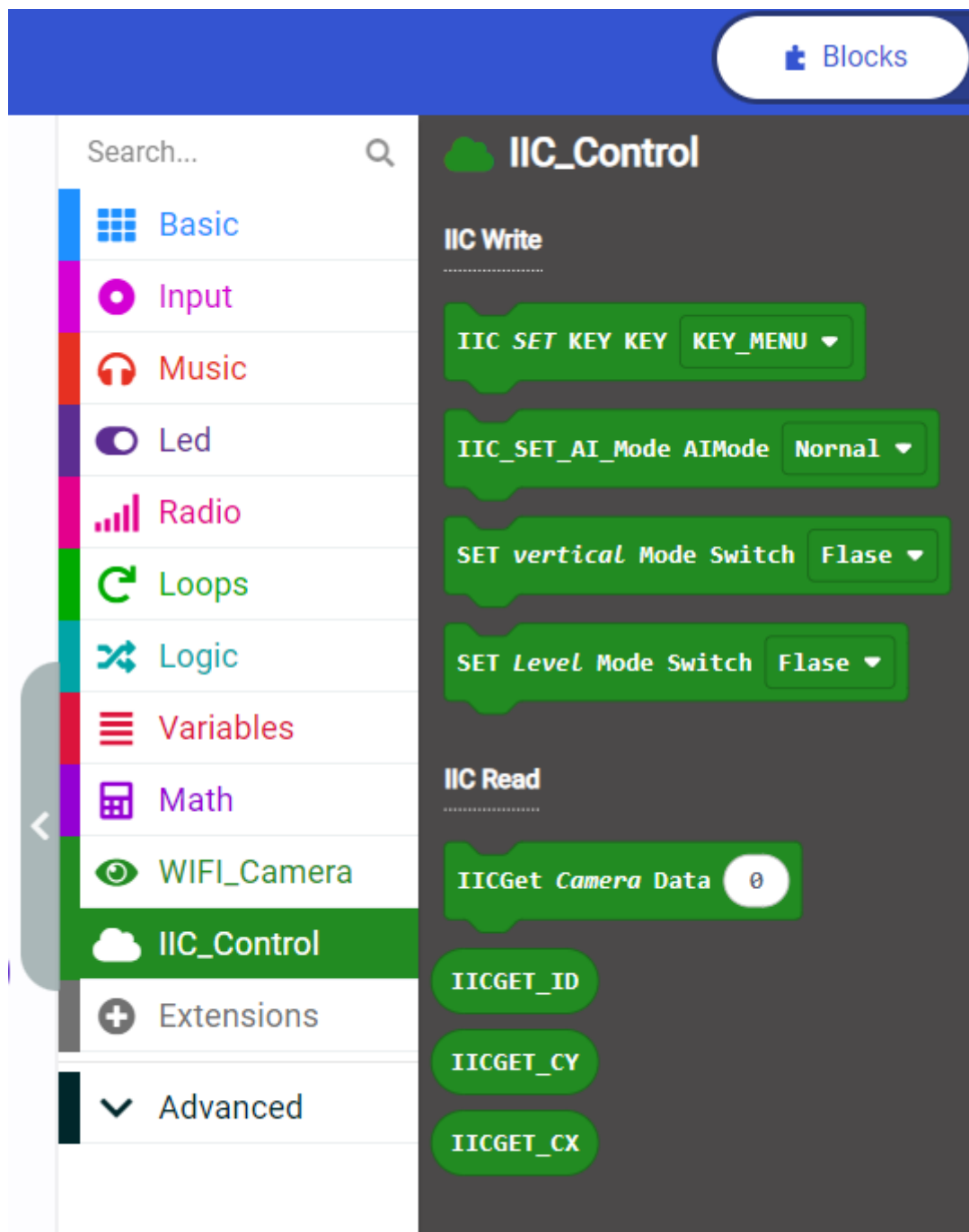
#### **3.1 Add the camera IIC building block**

URL of the blocks:

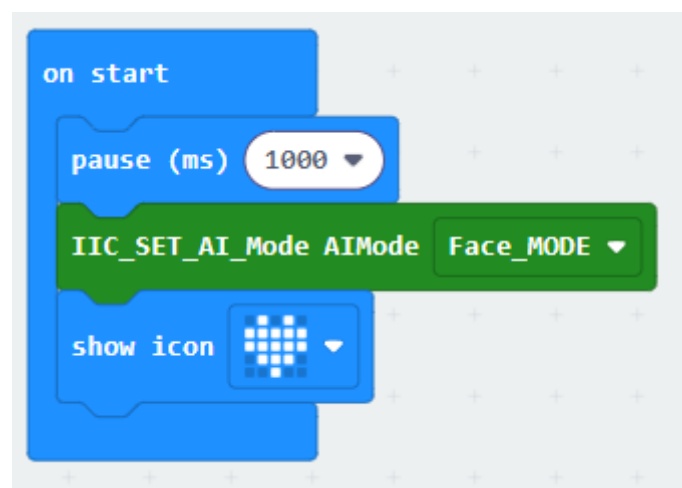
<https://github.com/LLY16888/ESP32-wifi-Microbit>

#### **3.2 Introduction to the main building block**

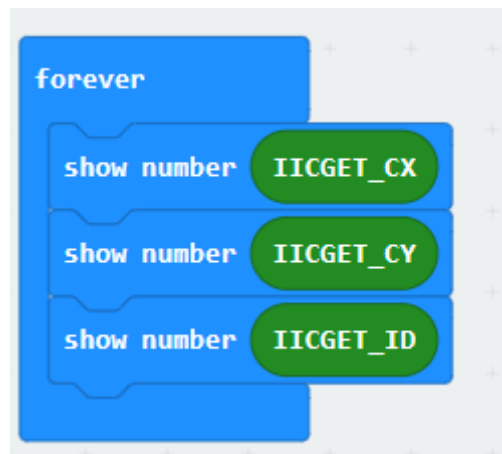
After successfully introducing the block block above, the result will be displayed as shown in the figure below



- IIC writing includes functions such as controlling virtual buttons, setting AI mode, and screen flipping.

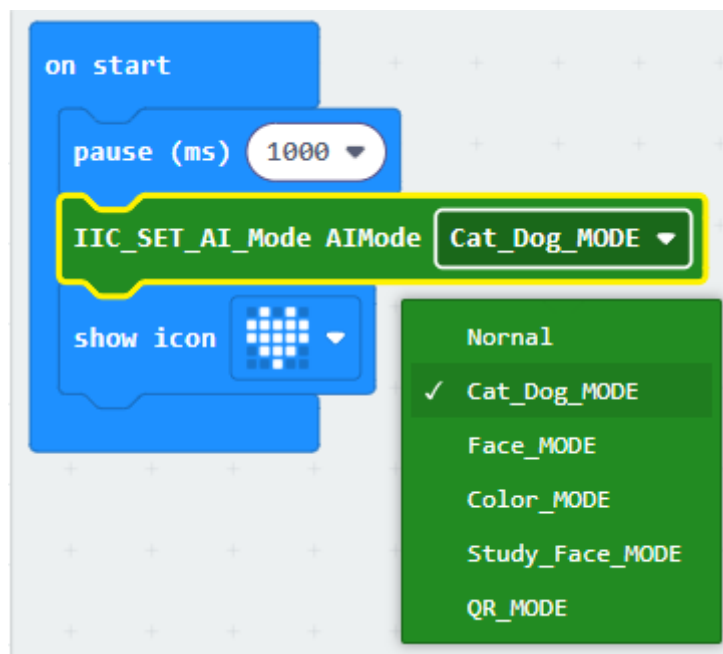


- IIC read, you can read the central coordinates selected by the frame and the current ID

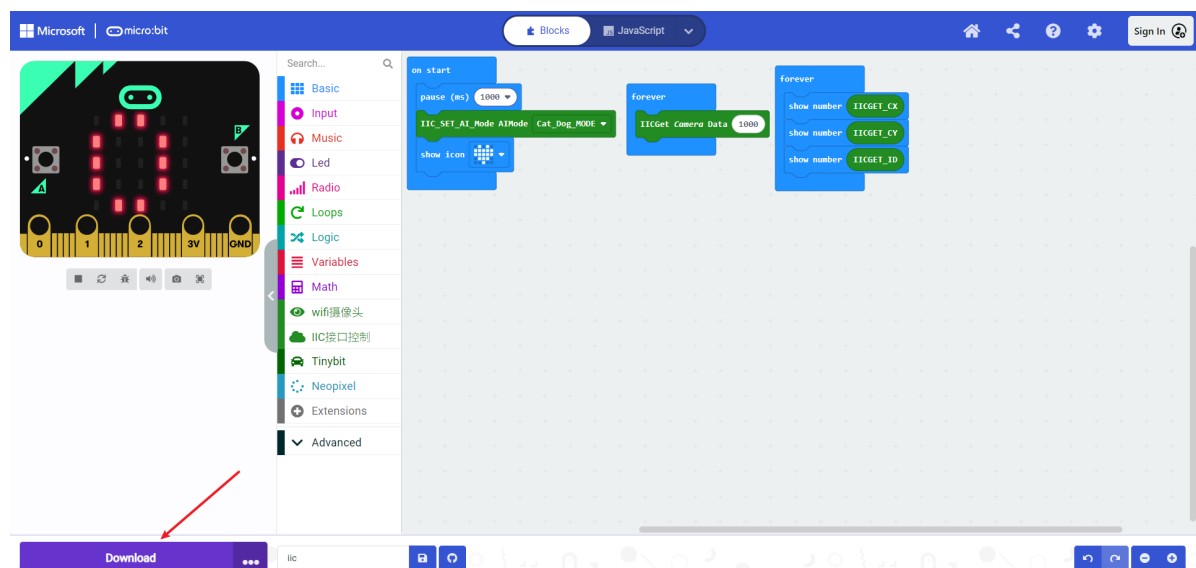


### 3.3 Experimental operation

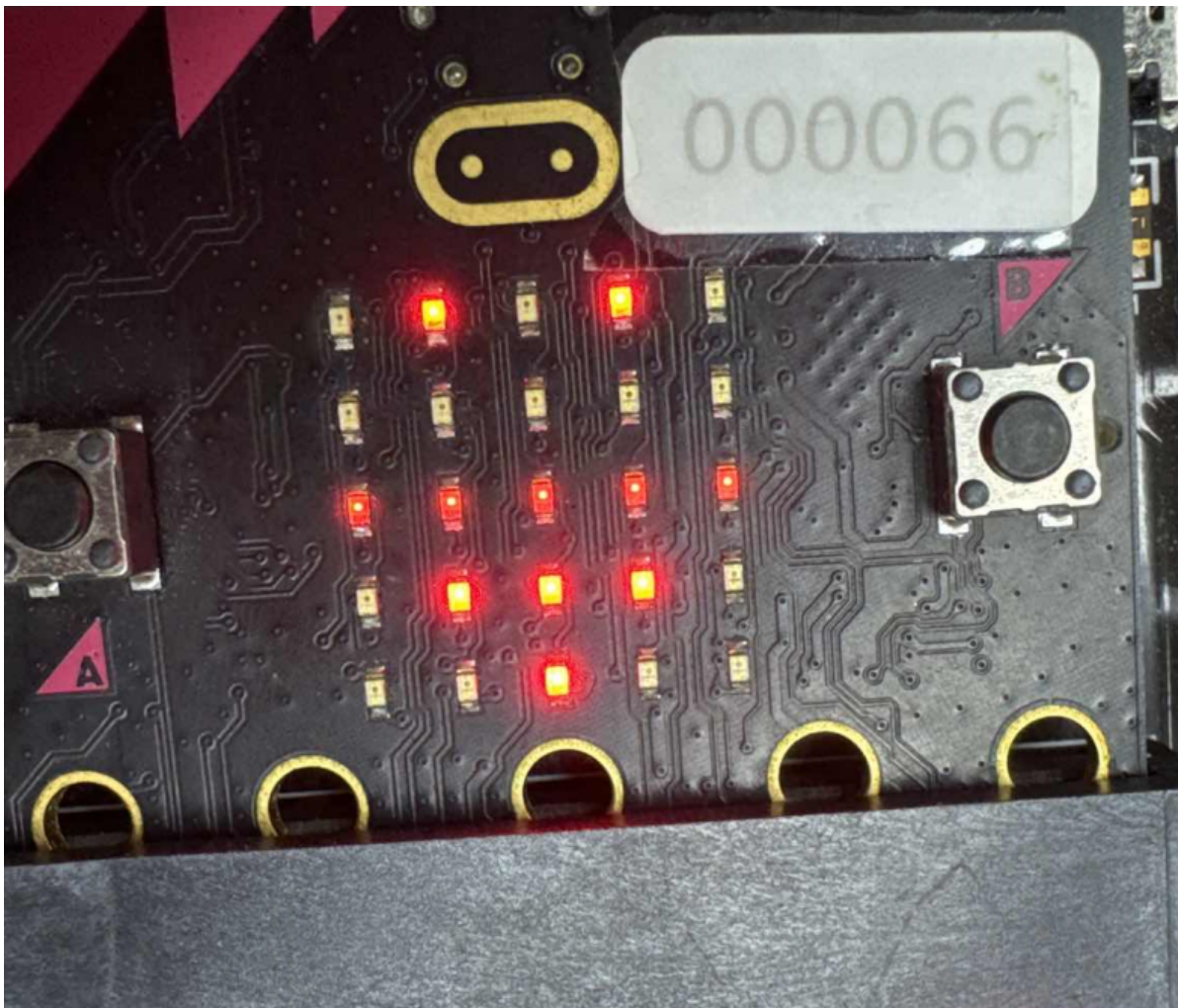
Set AI mode, there are 5 AI modes, here are set as cat and dog mode. If you want to use that mode to set up that mode



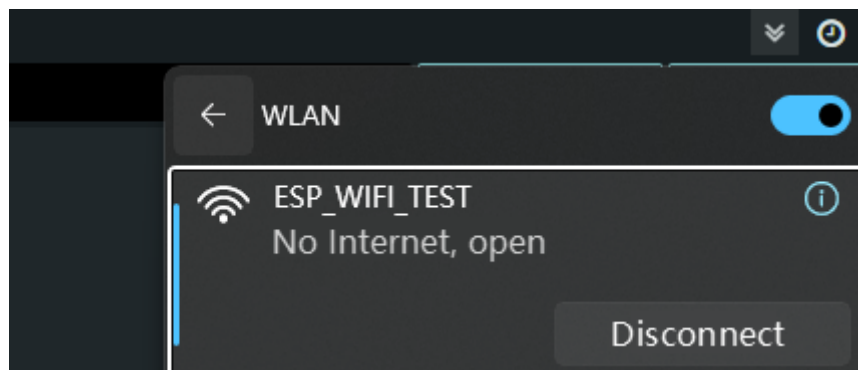
Download the program, you can directly pull the source code to the hex file into the identified Microbit disk. You can also click to download the webpage



After downloading, Microbit displays the sta\_ip address and AP\_IP address. Finally, the following symbols are successful downloads.

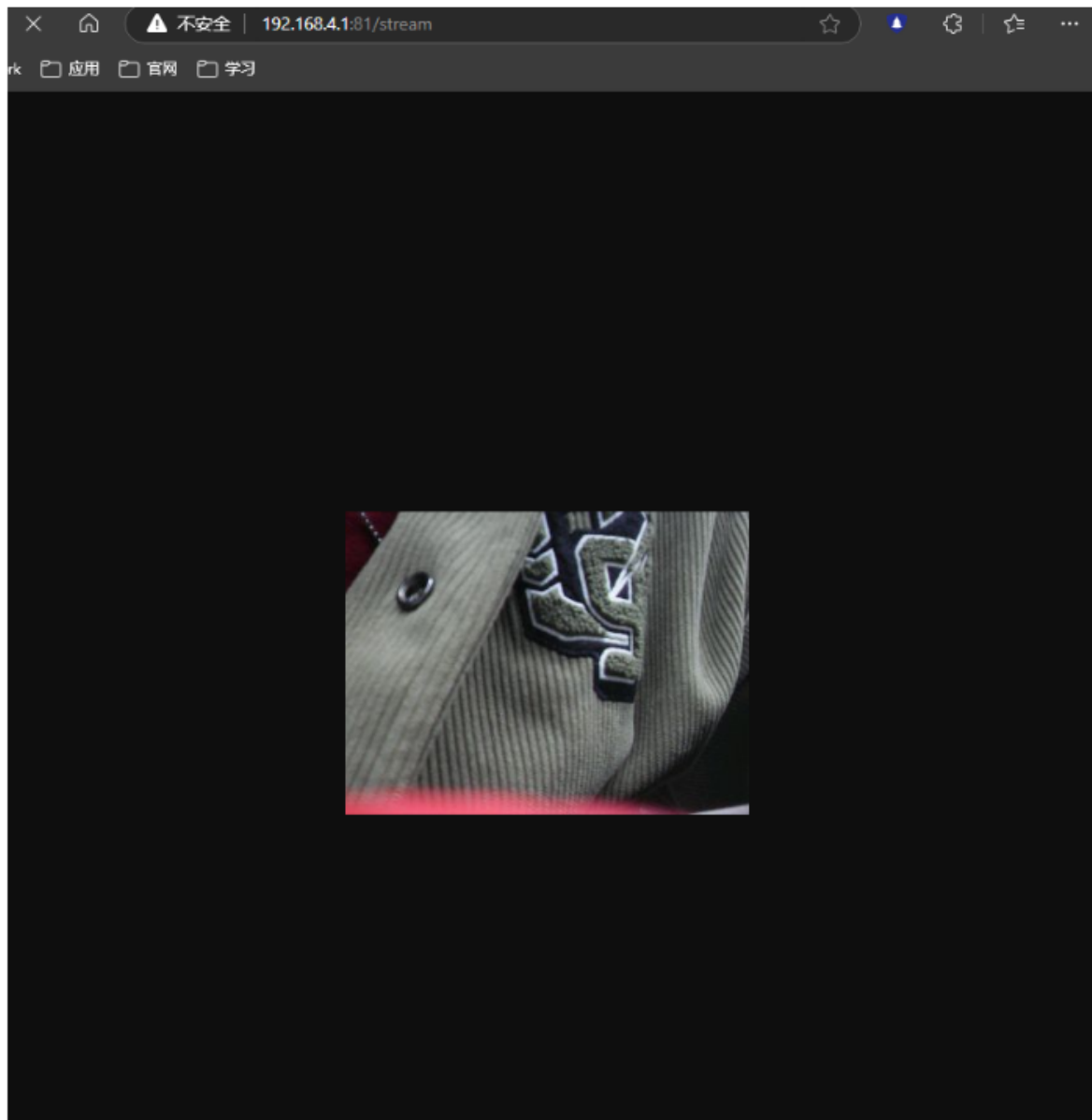


Open the camera and connect the hotspot published on ESP32 (you can also use the STA\_IP address to log in)

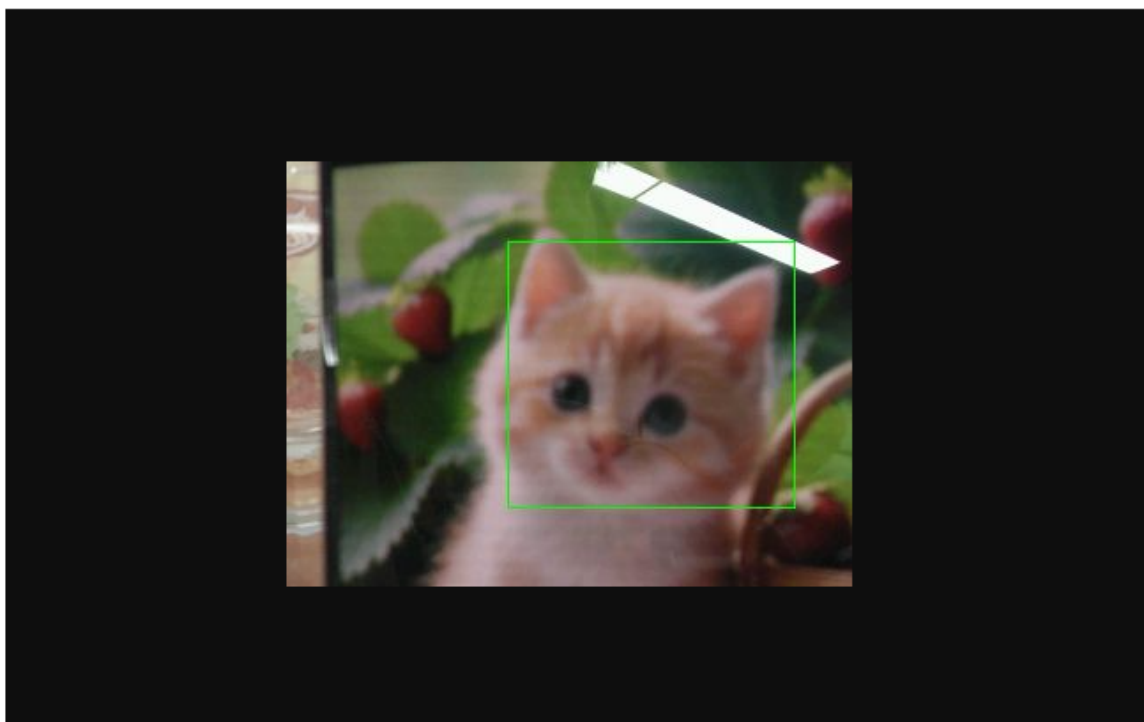


Then enter <http://192.168.4.1:81/stream> this access camera screen





Recognize cats and dogs. The successful recognition will print out the current central coordinates and put the cat's picture in front of the screen just now.



Microbit dot matrix will circulate the X coordinates and Y coordinates selected by the box