

Control pattern

1. Purpose

In this course, we mainly learn to use micro:bit boards and limit switch(collision detection) module to realize control pattern.

2. Programming method

Mode 1 online programming:

First, we need to connect the micro:bit to the computer by USB cable. The computer will pop up a USB flash drive and click on the URL in the USB flash drive:

<http://microbit.org/> to enter the programming interface. Add the Yahboom package: <https://github.com/lzty634158/Croco-Kit> to start programming.

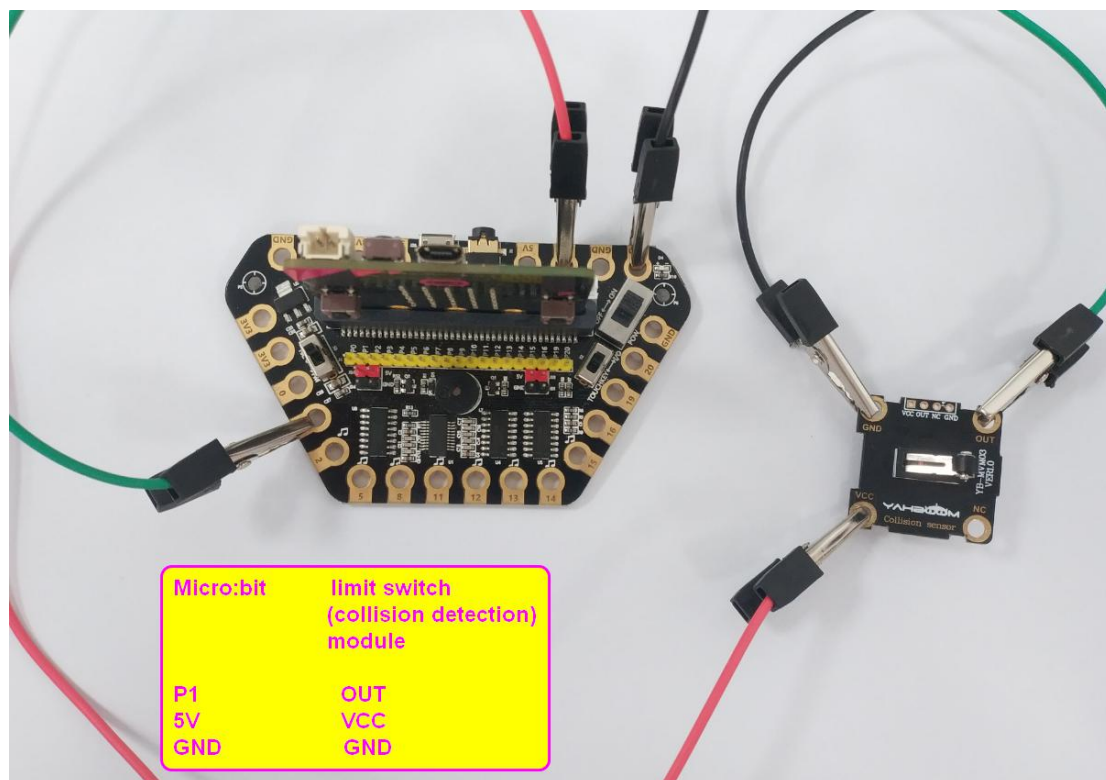
Mode 2 offline programming:

We need to open the offline programming software. After the installation is complete, enter the programming interface, click[New Project]. Add Yahboom package: <https://github.com/lzty634158/Croco-Kit>, you can start programming.

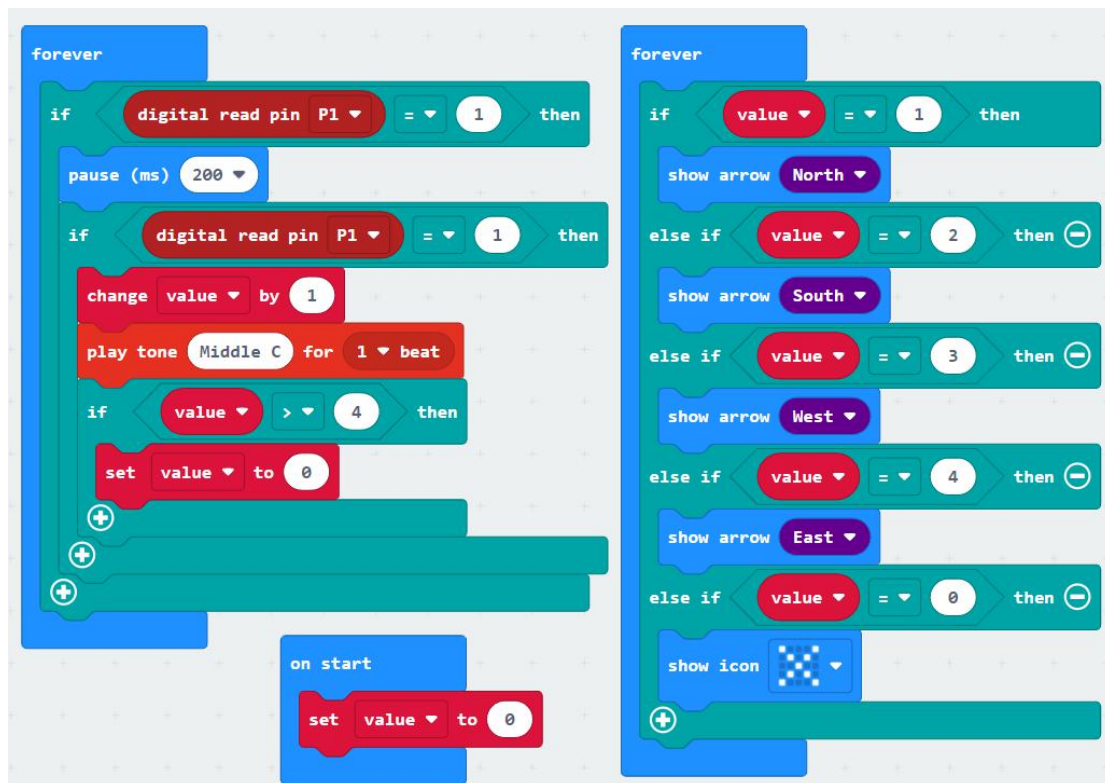
3. About wiring

limit switch(collision detection) module	Micro:bit
OUT	P1
VCC	5V
GND	GND

Note: Because the micro:bit cannot be directly connected to the module, we use the micro:bit alligator clip expansion board. As shown in the figure below.



4. Combine building blocks



5. Experimental phenomenon

After the program is downloaded successfully, the X pattern is displayed on the dot matrix.

Each collision changes one pattern and buzzer will play tone C 1 beat. A total of 5 patterns are displayed in a loop.