6.9 Coward

coward.hex

http://www.yahboom.net/xiazai/Tiny_bit/6.Playing%20with%20Tiny%20bit/coward.hex

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!Note: In order to reduce the interference of other sounds on the voice sensor, we need to carry out this experiment in a relatively quiet environment.
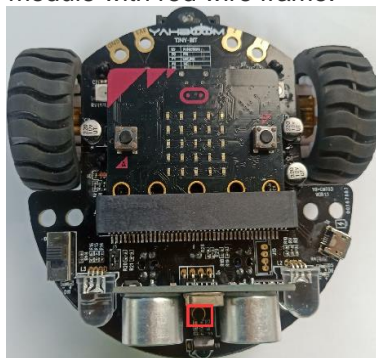
1.Preparation

1-1.The position of the Voice sensor module in the robot

！！！Note: In this experiment, we need to install the jumper cap in the position shown below.
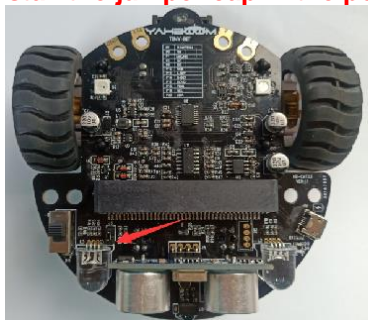
In the picture shown below, the voice sensor module with red wire frame.

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/Tiny-bit to program.

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/Tiny-bit, you can program.

In the picture shown below, the ultrasonic module with red wire frame.

2.Learning goal

2-1. Learn how to use voice sensor return graphically program building blocks and RGB searching lights graphically program building blocks

2-2. The function is realized by programming:when the voice sensor detects larger sound, micro:bit dot matrix will display cry, robot car will Trembling, then it will back.

3.Search for block

The following is the location of the building blocks required for this programming.

Sidebar menu (top section)

- Basic
- Input
- Music
- Led
- Radio
- Loops
- Logic
- Variables
- Math
- **Tinybit**
- Mbit_IR
- Neopixel
- Advanced
- Functions
- Arrays

Tinybit blocks

- RGB *Car* Program
- RGB *Car* Big value `OFF ▼`
- RGB *Car* Big2 value1 `0` value2 `0` value3 `0`
- Music_Car `dadadum ▼`
- CarCtrl `Run ▼`
- CarCtrlSpeed `Run ▼` speed `0`
- CarCtrlSpeed2 `Run ▼` speed1 `0` speed2 `0`
- Line_Sensor direct `LeftState ▼` value `White ▼`
- Voice Sensor return

Neopixel section

- Mbit_IR
- **Neopixel**
- more

Blocks:
- `strip ▼` show
- `strip ▼` clear

Basic section

Sidebar:
- **Basic**
- more
- Input
- Music
- Led
- Radio
- Loops
- Logic
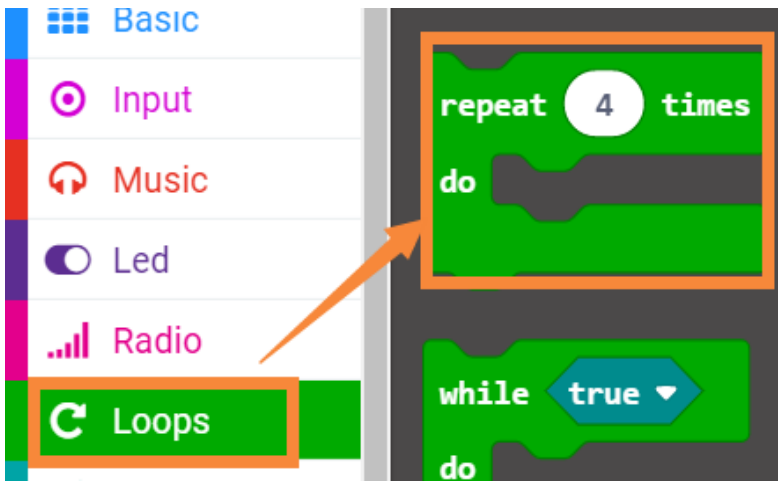- Variables
- Math
- Tinybit
- Mbit_IR

Blocks:
- show icon `▼`
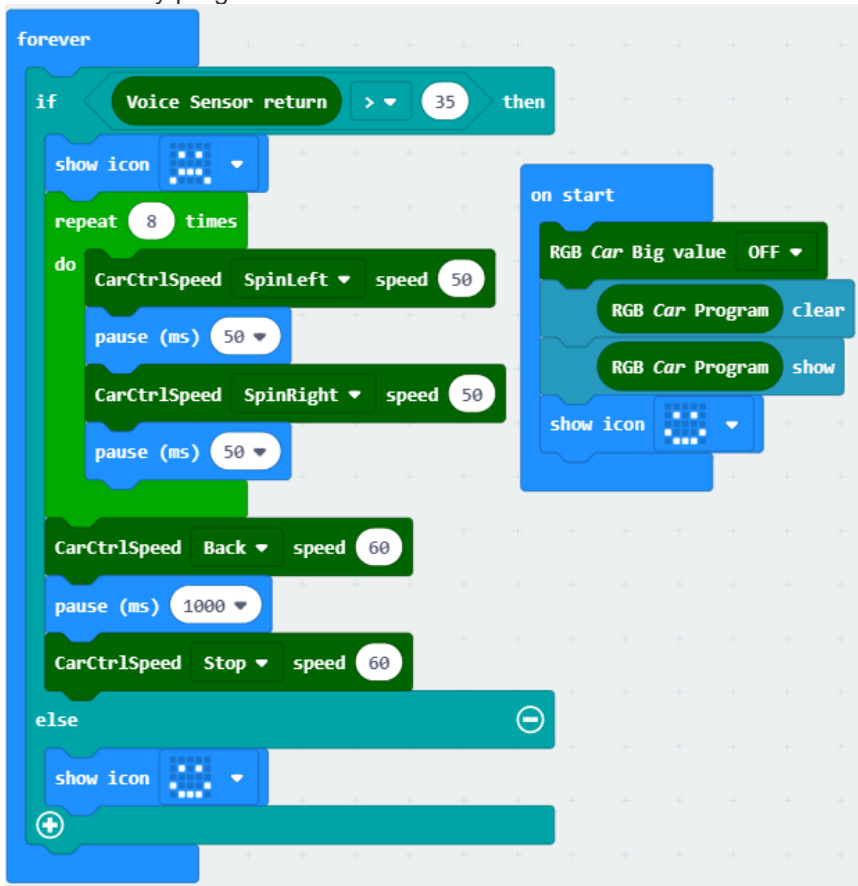- show string `"Hello!"`
- forever
- pause (ms) `100 ▼`

4.Combine block

The summary program is shown below:

5.Experimental phenomena

After the program is downloaded, we need to put robot car on the desk.Open the power of the robot car, it will keep still and micro:bit dot matrix will display smile.

When we Shooting table, micro:bit dot matrix will display cry and robot car will Trembling, then it will back 1s.