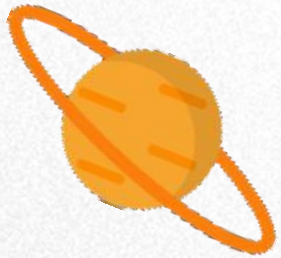


Robobloq

Qoopers series course

Section 15
《Finger-guessing Expert B》

Curriculum objectives

Knowledge and skill

1.Learn the use of random number and variable ；

2.Complete program of Finger-guessing expert with programming knowledge；

Process and methods

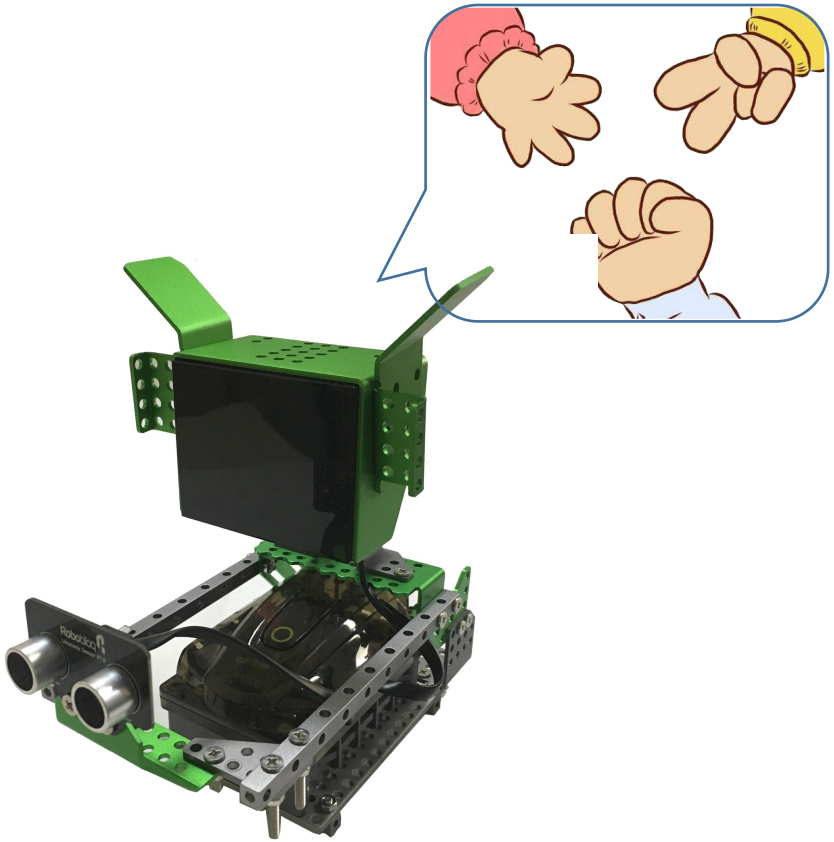
1.Exercise students' ability of analysing and solving problem in the programming process；

Emotional attitude and values

1.Train students to observe things, and know its essence by appearance through the way of understanding life randomness.

Robobloq

Curriculum introduction



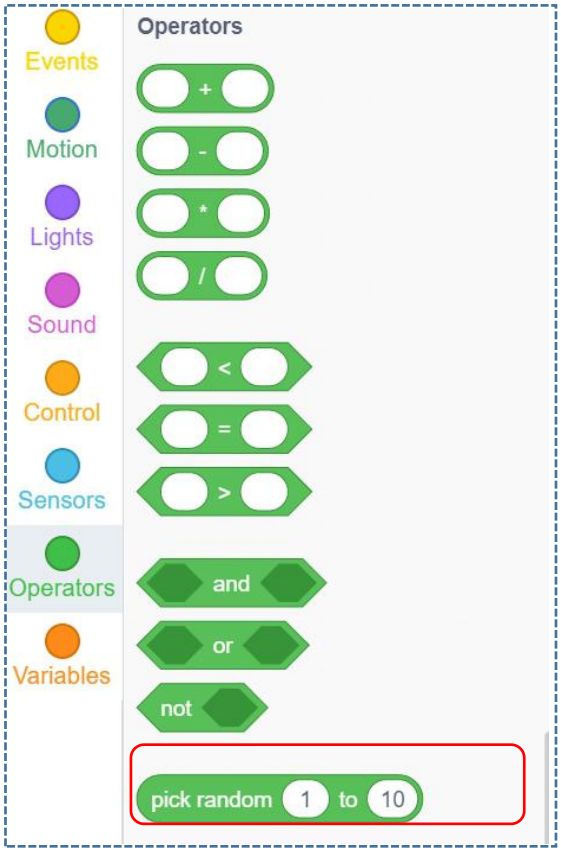
We have built the Finger-guessing expert in practice eventually, and it has LED matrix screen and ultrasonic sensor, so how does it achieve finger-guessing?

Knowledge explanation

Robobloq

There is a phenomenon. about figures that called random number in our life, which means, for example, when we toss coin or throw the dice, the positive or negative of coin and number of dice appeared randomly, and the percentage of every condition is same.

Programming



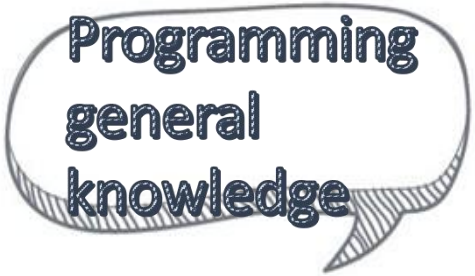
We can achieve randomness of stone, scissors, and paper by using random number icon in operators of programming.

That icon can set randomness of different numbers by yourself, we set 1-3 because finger-guessing only have three conditions.

Programming

Roboblog

When we throw the dice, every time number is changeable, so if we use a changeable number, we must conserve it in program process.

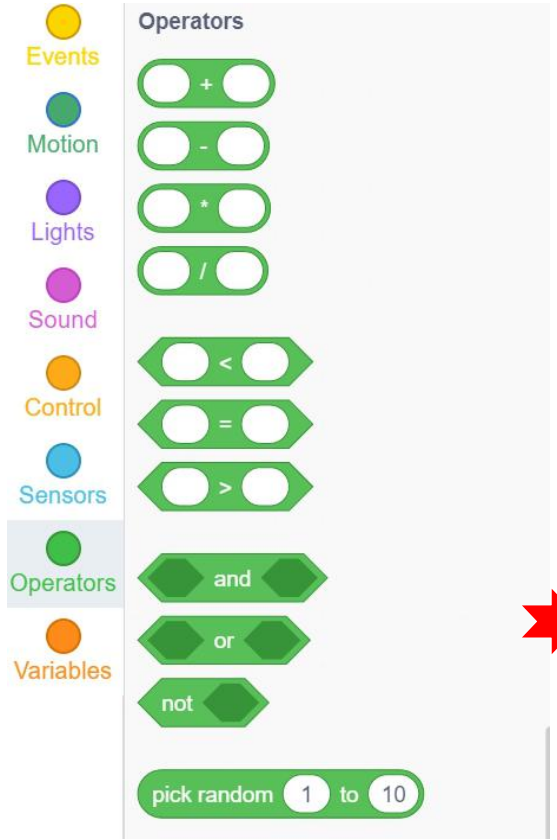


Know variable:

Variable is a constant storage space that have name. Using storage space through variable name, which is the only one in a program. Variable is a temporary storage space of data in program.

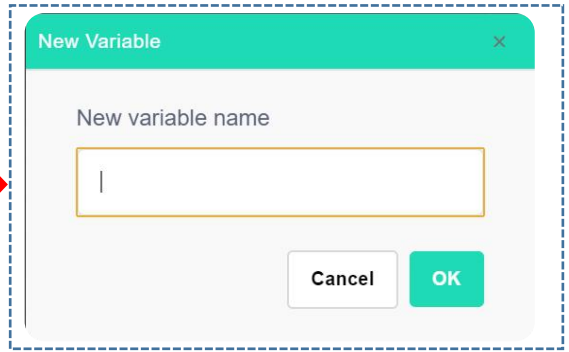
Programming

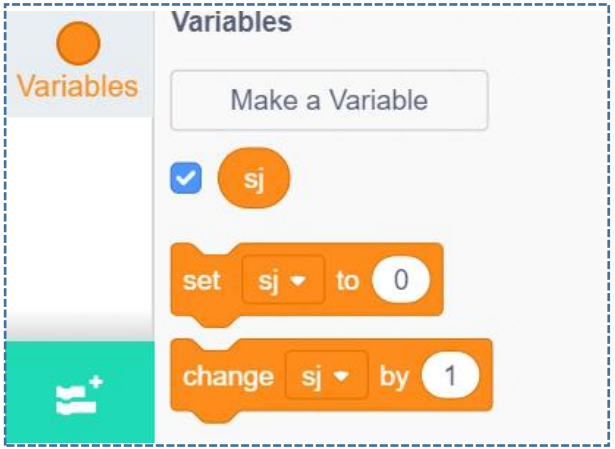
Roboblog



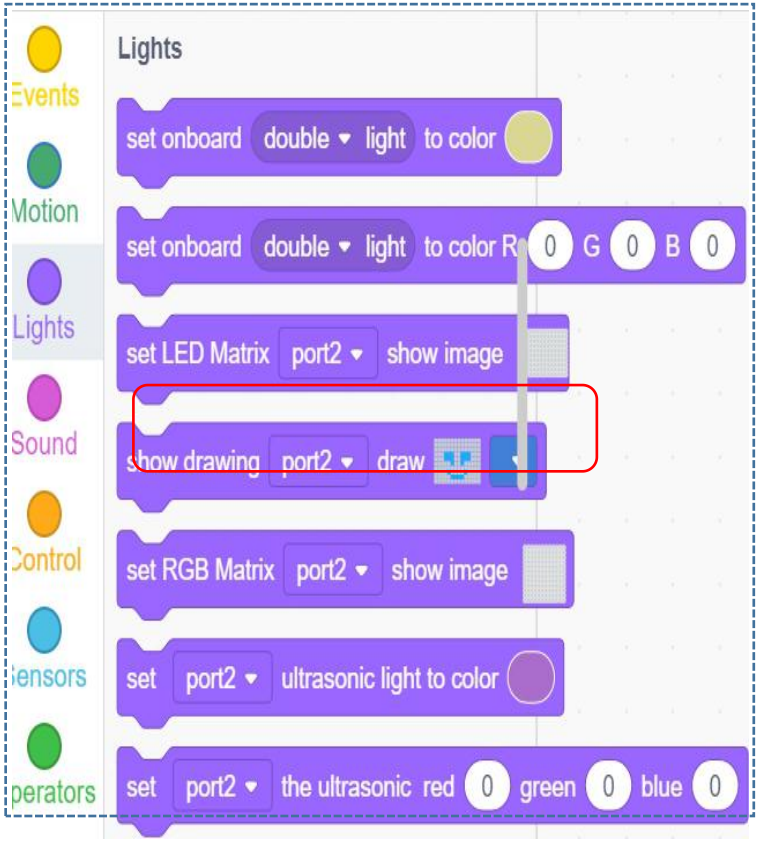
Create variable：

Click "make a variable" in variable module, and set variable name, for example, "sj".

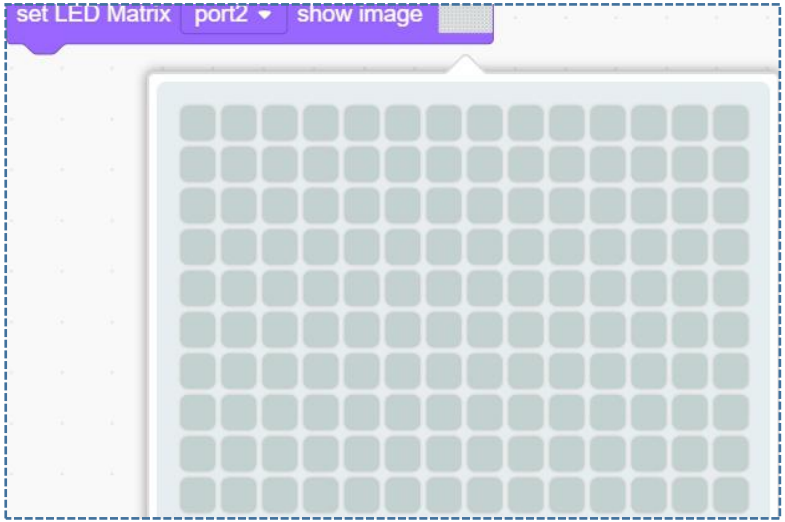




Programming

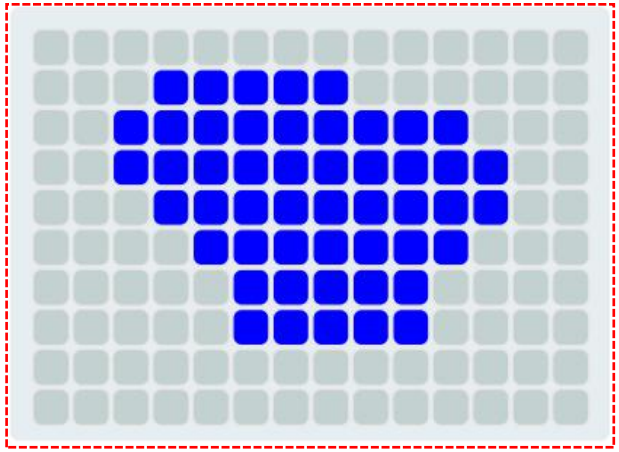


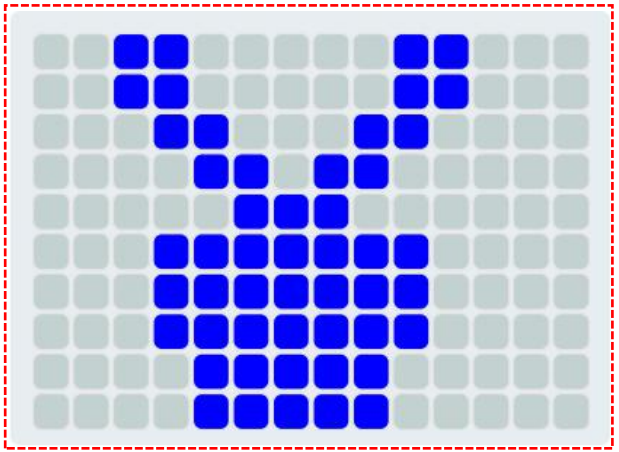
Setting LED matrix screen image by mouse to click different image in light module.

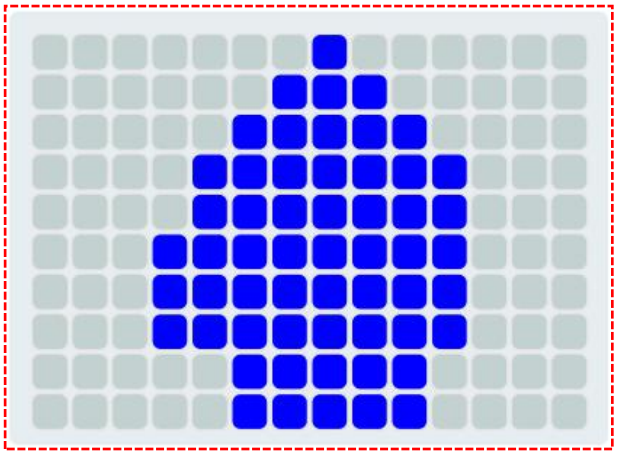


Programming

Using your creativity, set stone, scissors,paper images.



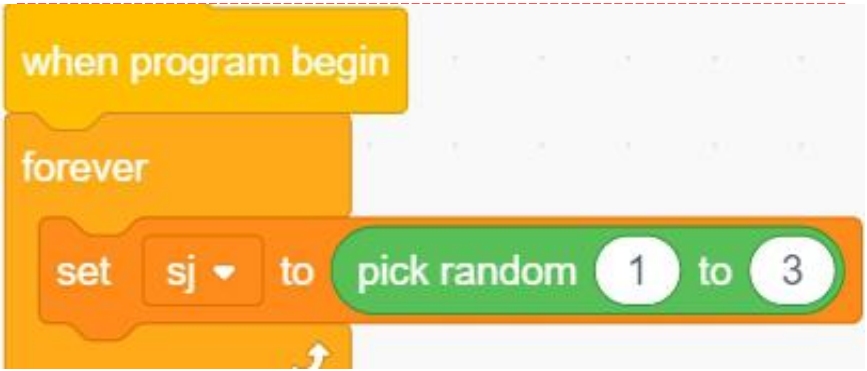


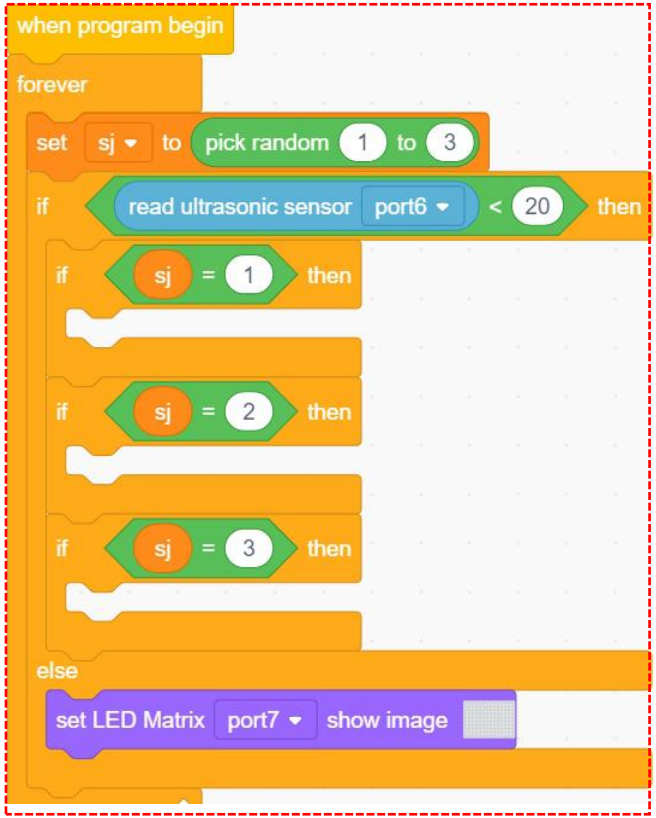


Programming

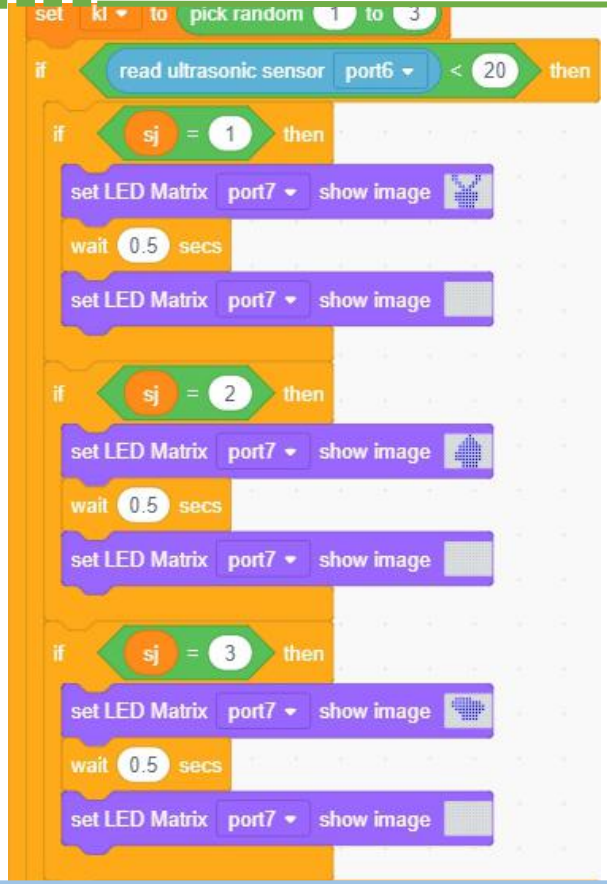
1.Setting variable "sj" are random number among 1-3 ;

2.Set the first condition that ultrasonic sensor detect the other person to show hand shape, after that set three random conditions.





Programming



3.Set random numbers 1, 2, 3 correspond stone, scissors, paper,.and added time length that showed, after show return origin condition; no image was showed in LED matrix screen if ultrasonic sensor didn't detect the other person's hand.

Extends

Roboblog

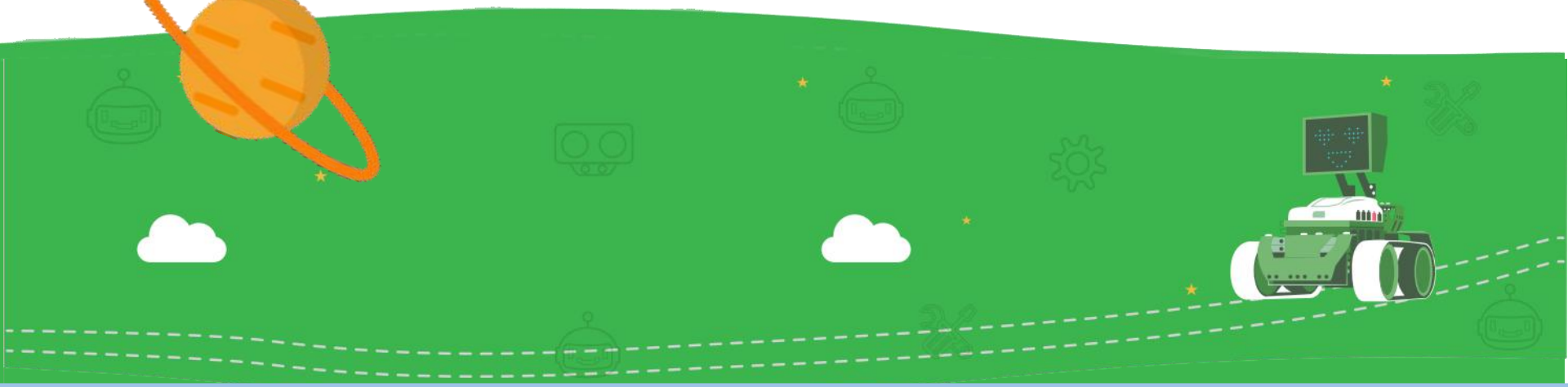
Does Finger-guessing expert show image accurately after write program successfully?
And battle with it , are you win it?

Summary and rethink

Robobloq

1.What phenomenon have randomness in our life?

2.What is you winning rate when battle with Finger-guessing expert?Think about that what ideas can improve winning rate of Finger-guessing expert?



Copyright information

Company: Robobloq Co., Ltd
Address: Room 208, Building B53, Zhongchuang IndustrialPark, Liuxian Avenue, Taoyuan Street, Nanshan District ofShenzhen
E-mail: hello@robobloq.com
Telephone: + 86-0755 -26926929
Website: http://www.robobloq.com