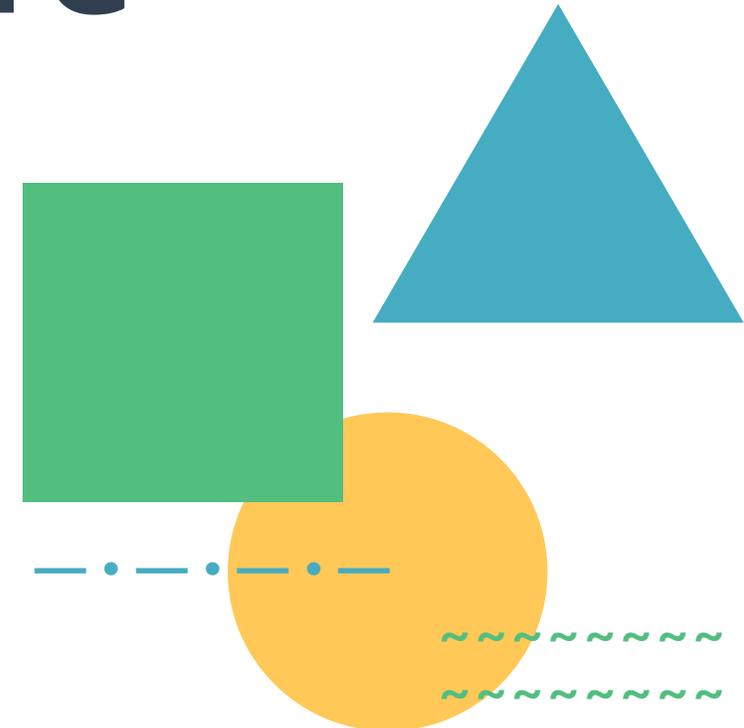


Robobloq Software

Robobloq Co., Ltd.



Coding: Integrated Skills

■ STEAM Education is an integrated educational methodology that integrates Science, Technology, Engineering, Art and Mathematics. Learning coding is a way of improving cross-subject abilities for kids.



S
Science

T
Technology

E
Engineering

A
Arts

M
Mathematics

The Unstoppable Trend



Former president Obama issued a budget of 4 billion dollars to provide complete and quality computer science education for schools from kindergarten to high school, as means to boost economy and narrow gap of wealth.



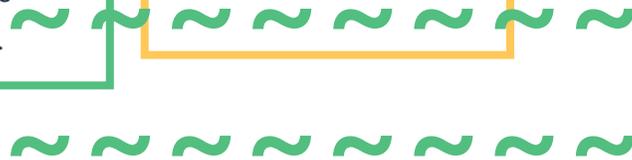
Former British Prime Minister David Cameron announced the reform of the national primary and secondary school syllabus and requested to start using it in 2014. The syllabus provides for the inclusion of "computational science" as a compulsory course. The UK education system currently ensures 100% coverage for children programming.



In June 2017, the Japan Ministry of Education advocate the teaching of STEAM concept in primary and secondary schools (the goal is targeted at children's programming). At the same time, the Ministry of Education will propose a programming course from elementary school in the newly revised "Learning Guidance Essentials" in 2020.

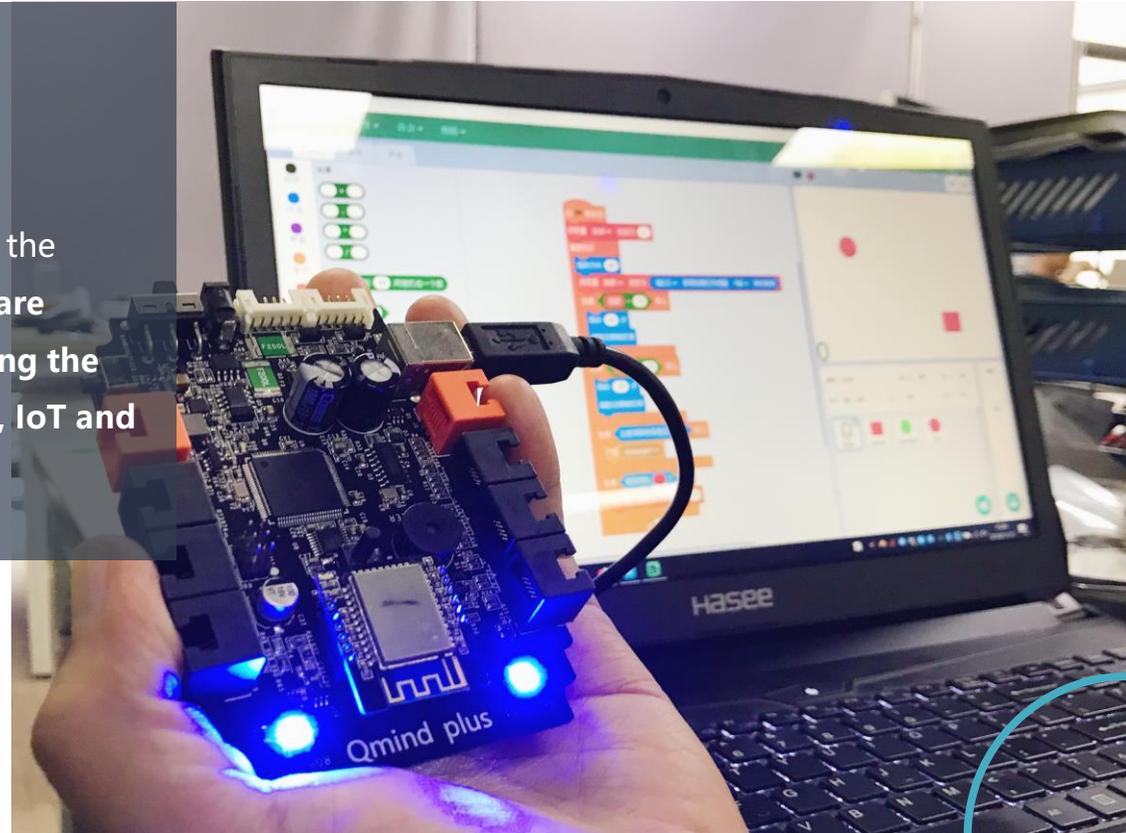


In 2017, the State Council issued the "New Generation Artificial Intelligence Development Plan", emphasizing the implementation of the National Intelligence Education Project, setting up artificial intelligence related topics in the primary and secondary schools, and gradually promoting programming education.



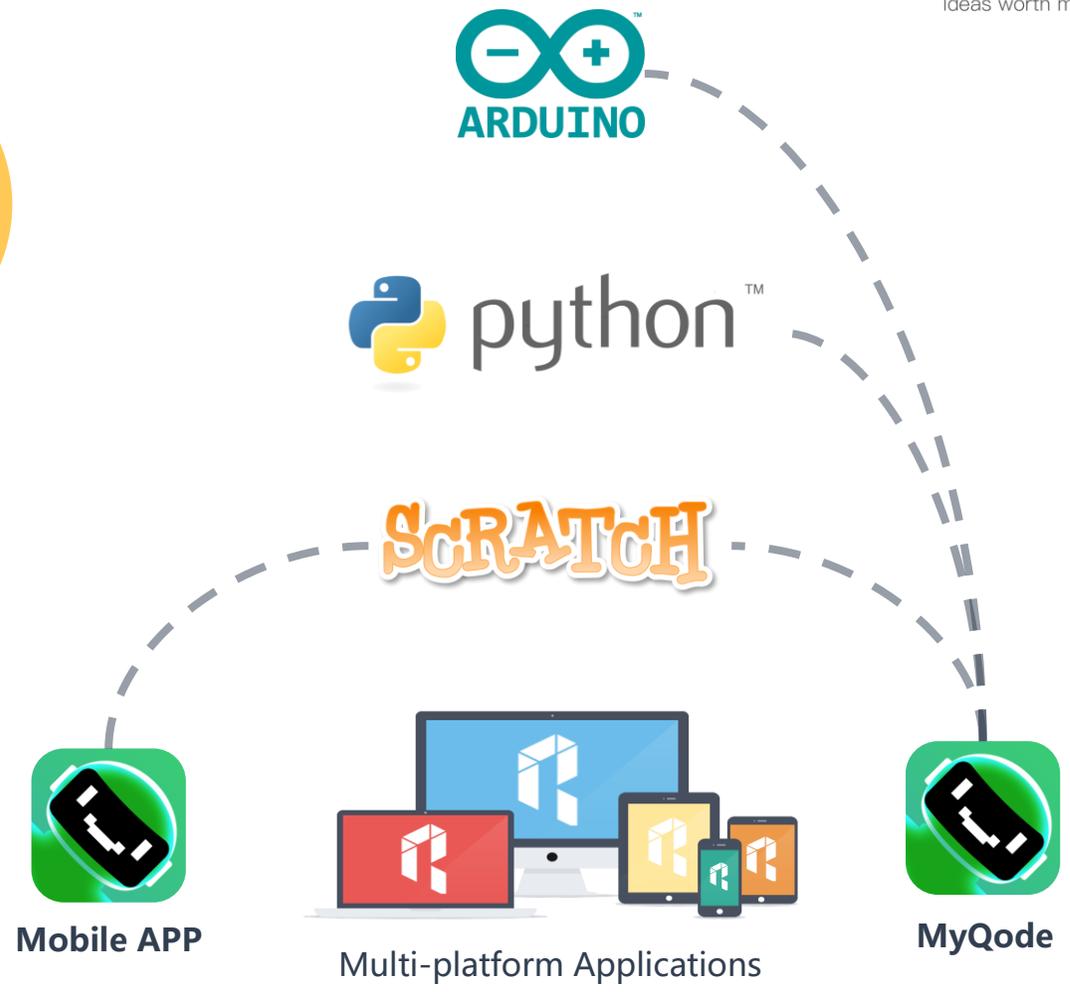
Robobloq Apps

The ever-surprising Robobloq robotics building platform is backed by the magic of software behind. Robobloq's solution of hardware-software integration has delivered true robotics experience while maintaining the freedom to code. Learn as you play, and get familiar with robotics, IoT and AI.



Facing Mainstream Demands

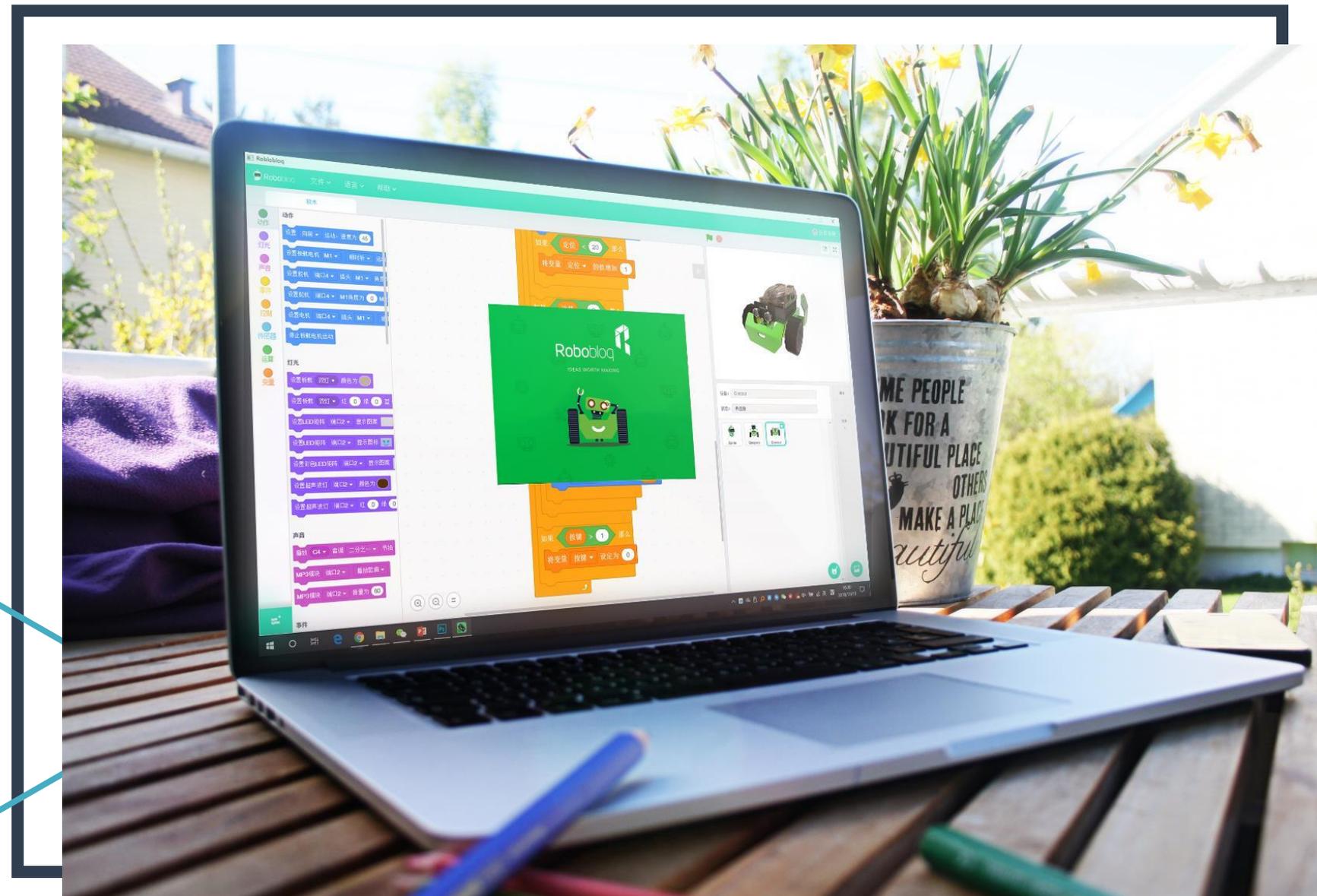
Robobloq's software ecosystem consists of MyQode and a mobile app, covering the most trending coding languages and hardware platforms. **It is an all-way learning platform for entry and professional levels.**



MyQode

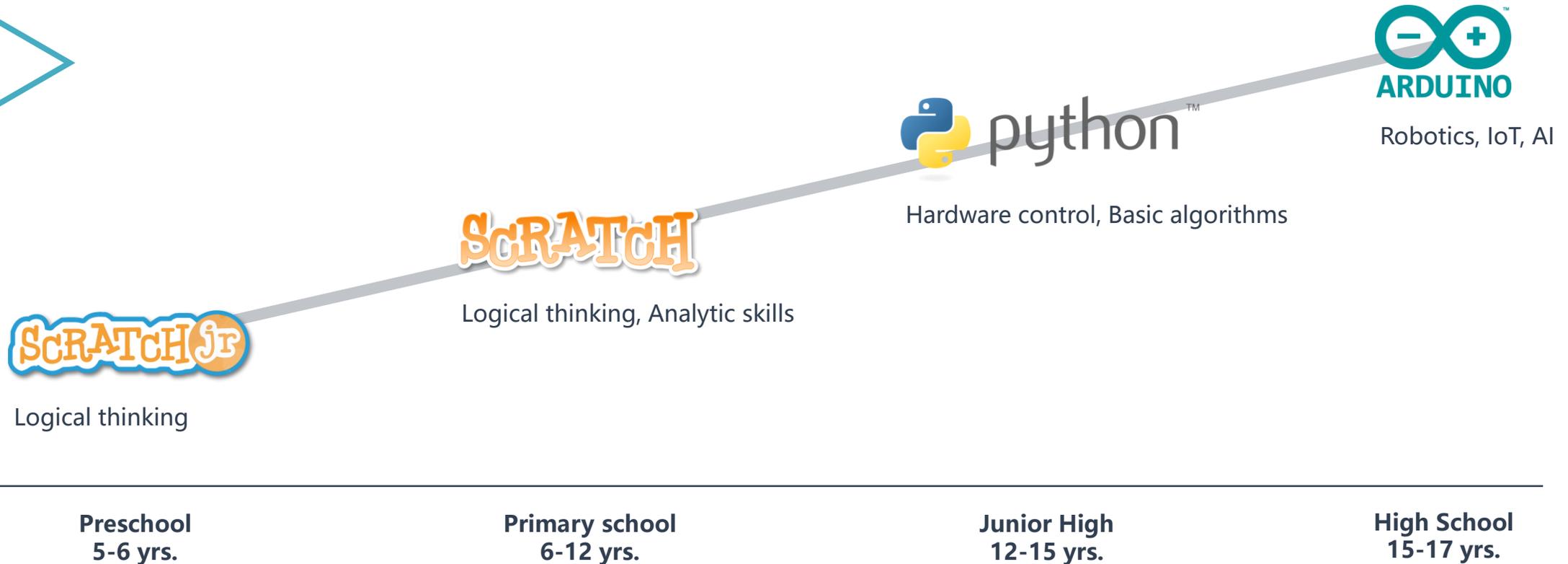
All in one coding platform for 6-17 year olds

Not just coding skills, MyQode enables tremendous possibilities. It comes with simplicity and innovation – an easy-to-use graphical coding that connects robotics, IoT and AI, bringing the values of Robobloq’s robotics building platform to a whole new level.



Covering All Ages

MyQode supports Scratch, Python and C (for Arduino), covering learning needs from primary school to high school.



Scratch 3.0 Block Coding

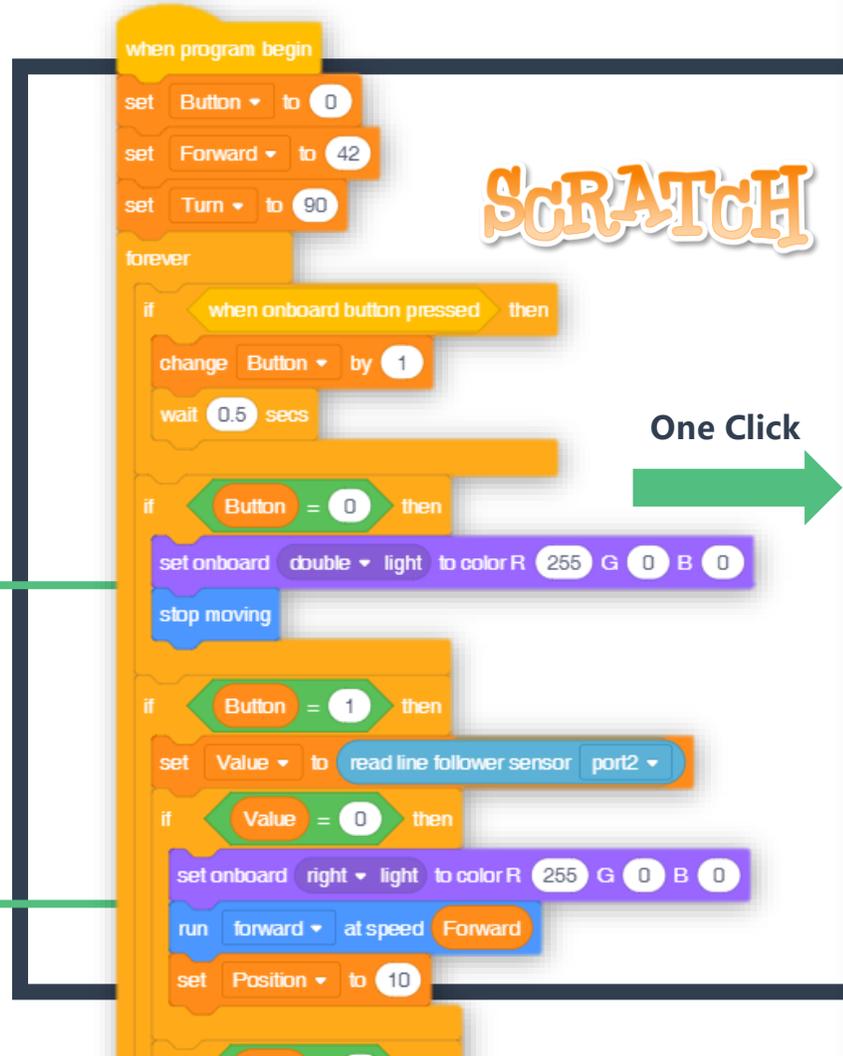
```
when program begin
  set Button to 0
  set Forward to 42
  set Turn to 90
  forever
    if when onboard button pressed then
      change Button by 1
      wait 0.5 secs
    if Button = 0 then
      set onboard double light to color R 255 G 0 B 0
      stop moving
    if Button = 1 then
      set Value to read line follower sensor port2
      if Value = 0 then
        set onboard right light to color R 255 G 0 B 0
        run forward at speed Forward
        set Position to 10
```

Code with drag-and-drop command blocks. MyCode's integrated Scratch 3.0 environment is designed for beginners. By controlling Robobloq's robotics hardware, codes can be run in real life. **By coding with Scratch 3.0, students can improve their logical thinking and learn basic algorithms.**

Switching to Python

In MyCode, you can switch between Scratch and Python. The introduction of Python makes it easier to learn this widely used language, and **moving from Scratch helps bring down the learning curve.**

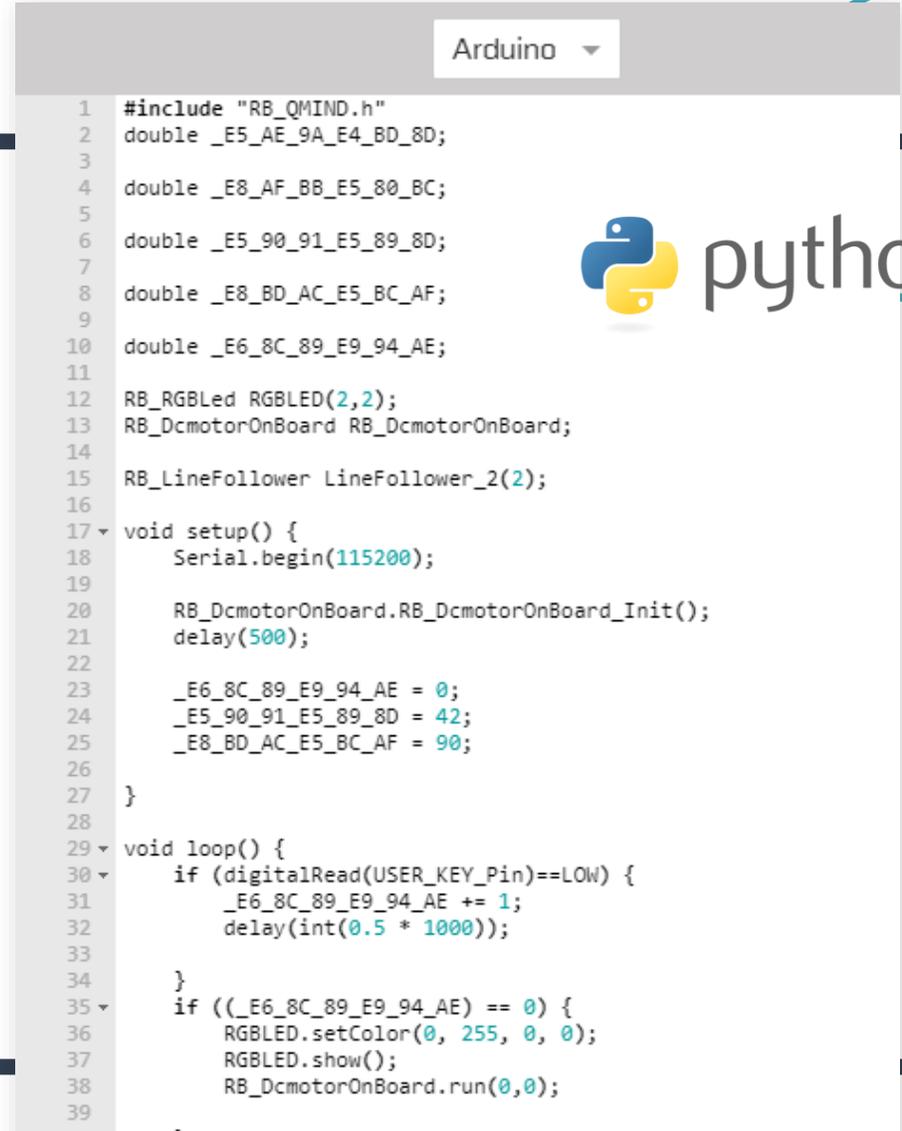
By learning Python, students can practice trending fields such as data analytics and AI.



The Scratch code blocks are as follows:

- when program begin
- set Button to 0
- set Forward to 42
- set Turn to 90
- forever loop:
 - if when onboard button pressed then:
 - change Button by 1
 - wait 0.5 secs
 - if Button = 0 then:
 - set onboard double light to color R 255 G 0 B 0
 - stop moving
 - if Button = 1 then:
 - set Value to read line follower sensor port2
 - if Value = 0 then:
 - set onboard right light to color R 255 G 0 B 0
 - run forward at speed Forward
 - set Position to 10

SCRATCH

The Arduino IDE shows the following Python code:

```

1  #include "RB_QMIND.h"
2  double _E5_AE_9A_E4_BD_8D;
3
4  double _E8_AF_BB_E5_80_BC;
5
6  double _E5_90_91_E5_89_8D;
7
8  double _E8_BD_AC_E5_BC_AF;
9
10 double _E6_8C_89_E9_94_AE;
11
12 RB_RGBLed RGBLED(2,2);
13 RB_DcmotorOnBoard RB_DcmotorOnBoard;
14 RB_LineFollower LineFollower_2(2);
15
16
17 void setup() {
18     Serial.begin(115200);
19
20     RB_DcmotorOnBoard.RB_DcmotorOnBoard_Init();
21     delay(500);
22
23     _E6_8C_89_E9_94_AE = 0;
24     _E5_90_91_E5_89_8D = 42;
25     _E8_BD_AC_E5_BC_AF = 90;
26 }
27
28
29 void loop() {
30     if (digitalRead(USER_KEY_Pin)==LOW) {
31         _E6_8C_89_E9_94_AE += 1;
32         delay(int(0.5 * 1000));
33     }
34
35     if ((_E6_8C_89_E9_94_AE) == 0) {
36         RGBLED.setColor(0, 255, 0, 0);
37         RGBLED.show();
38         RB_DcmotorOnBoard.run(0,0);
39     }

```

python™

Coding with Python

This exclusive feature on MyCode allows you to program Robobloq robots with Python.

In a standalone tap, you can access Robobloq's API with Python. The customized programming environment can help you speed up by showing quick hints.



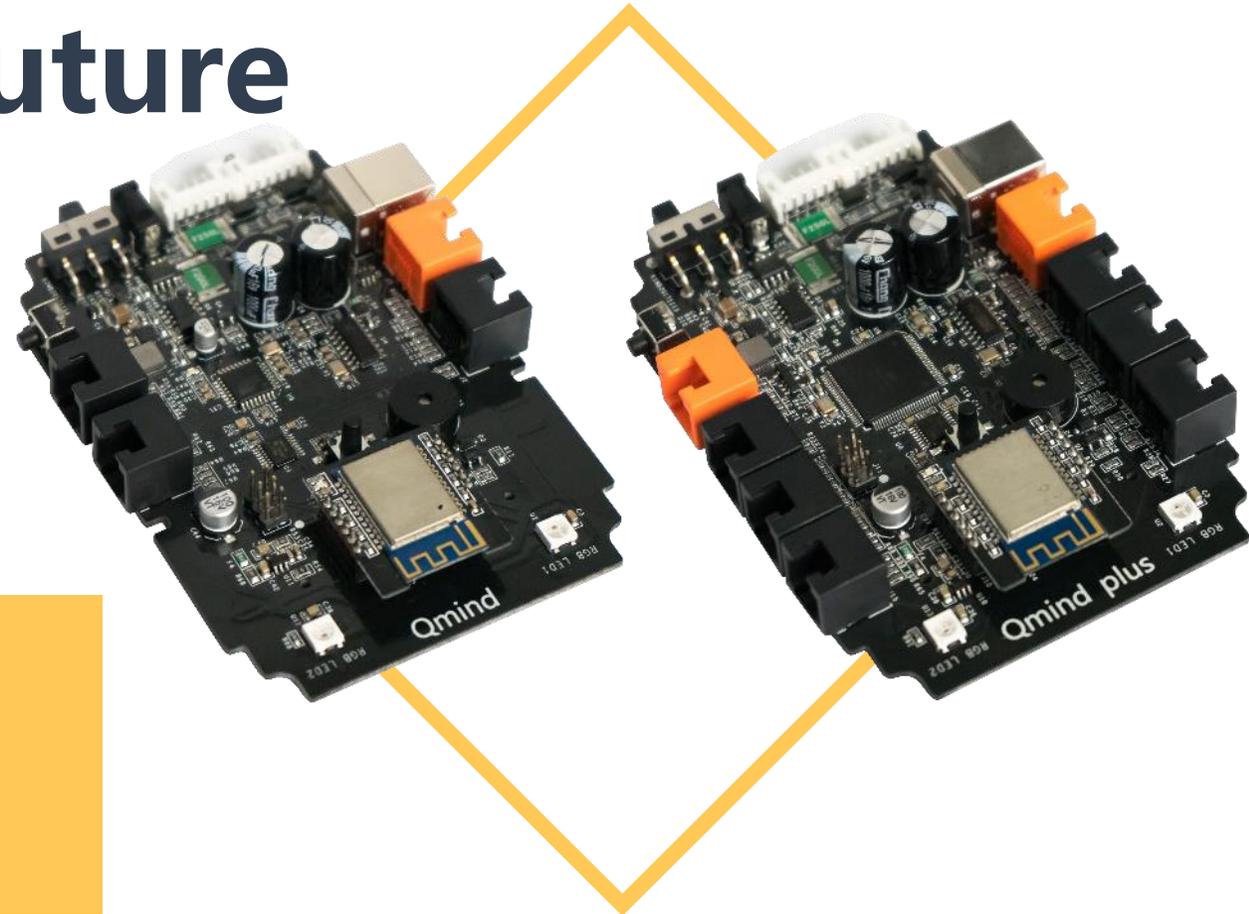
```
Robobloq File Language Help
Python
1 from qmind import Qmind
2 import time
3
4 robot = Qmind('robot')
5
6 robot.set_motor_type(1, 45)
7 robot.set_led(0, 220, 115, 220)
8 robot.set_ultrasonic(0, 47, 144, 44)
9
10 def light():
11     count = 1
12     robot.set_led(0, 0, 0, 50)
13     time.sleep(1)
14     robot.set_led(0, 50, 0, 50)
15     robot.s
16
17 light()
18
19
```

set_led	local
sleep	local
set_ultrasonic	local
set_motor_type	local
str	keyword
super	keyword
staticmethod	keyword
sorted	keyword

Arduino: Doorway to the Future

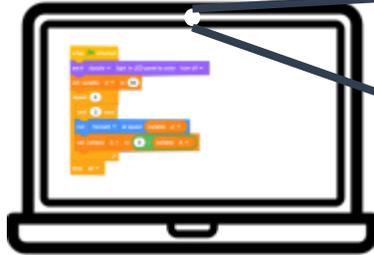
■ Arduino is the most popular hardware developing platform worldwide. Its rich extensibility makes it suitable for promising fields such as robotics and IoT.

Arduino is the core to Roboblog' s robots. With Roboblog' s long list of sensors and electronic modules, you can engage in the hottest hardware projects.



AI Cognitive Abilities

MyCode + Microsoft Cognitive Services



Computer Vision API

"Face"

Emotion API

"Happy"

Face Recognition API

"John"

MyCode is integrated with various AI abilities and can be easily accessed anytime.

MyCode + Amazon Alexa



Play music

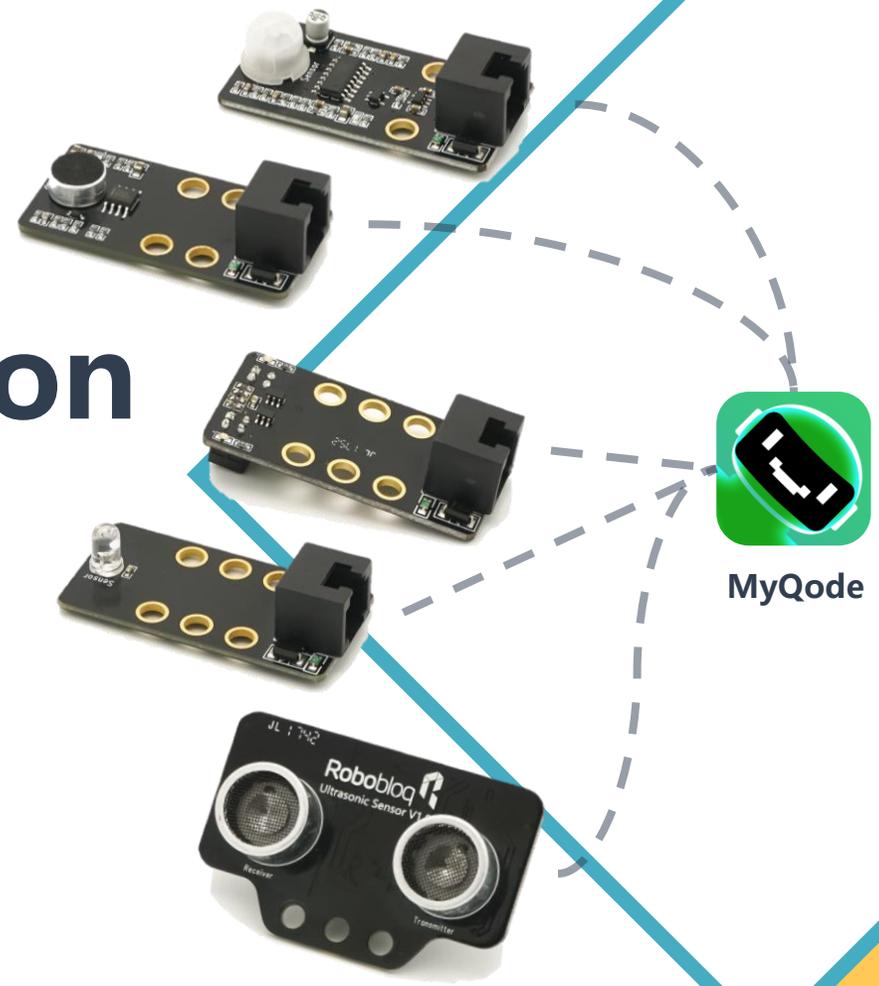
Turn on LED.

Turn around.



Auto Detection

■ An exclusive feature for MyQCode to be able to recognize any electronic modules inserted into mainboard.



Status

- Color sensor inserted to port 2
- Color sensor pulled out of port 2
- MP3 module pulled out of port 5

Port list

Port	Type
1	无
2	Color sensor
3	无
4	无
5	MP3 module
6	无
7	无
8	无



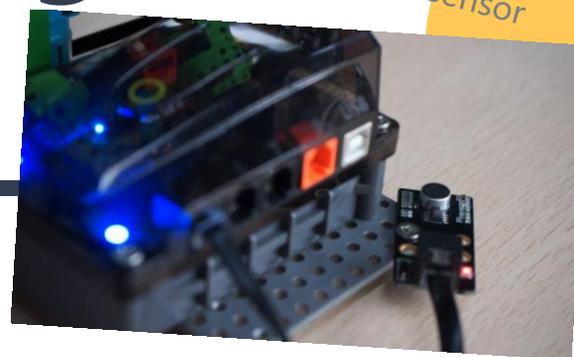
Internet of Things

Coding experience across hardware and software

With a Bluetooth dongle you can get rid of the trouble with cables and send commands to Robobloq robots wirelessly. When combined with sensors, you can develop IoT projects or create fun games!



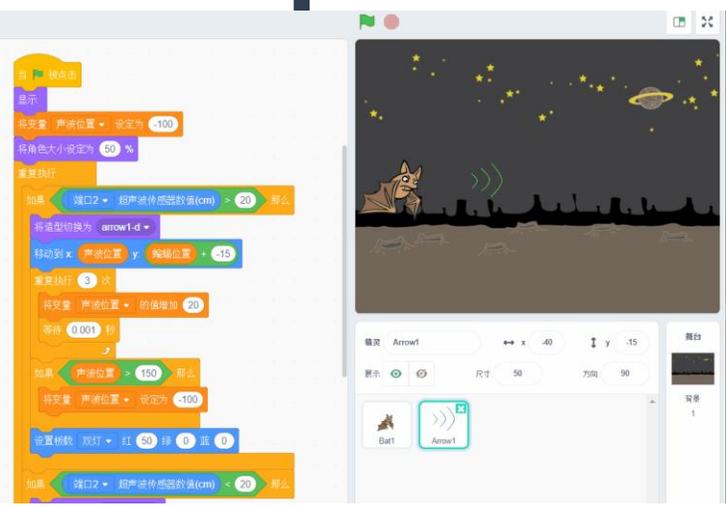
Sound sensor



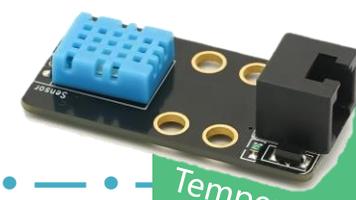
Case 2: a robot that claps back to your claps.



Ultrasonic Sensor



Case 1: help the bat find food using a physical ultrasonic sensor.



Temperature & Humidity Sensor



Case 3: a fan that spins when it gets humid.

Robobloq Mobile App

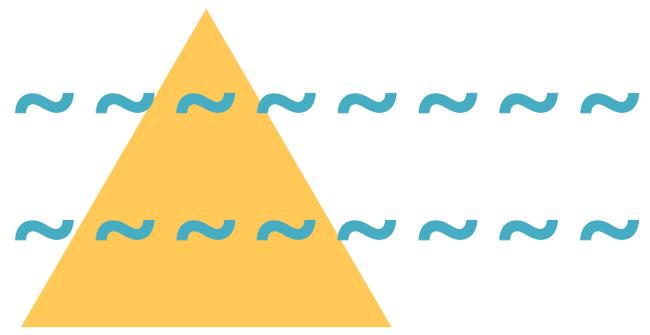
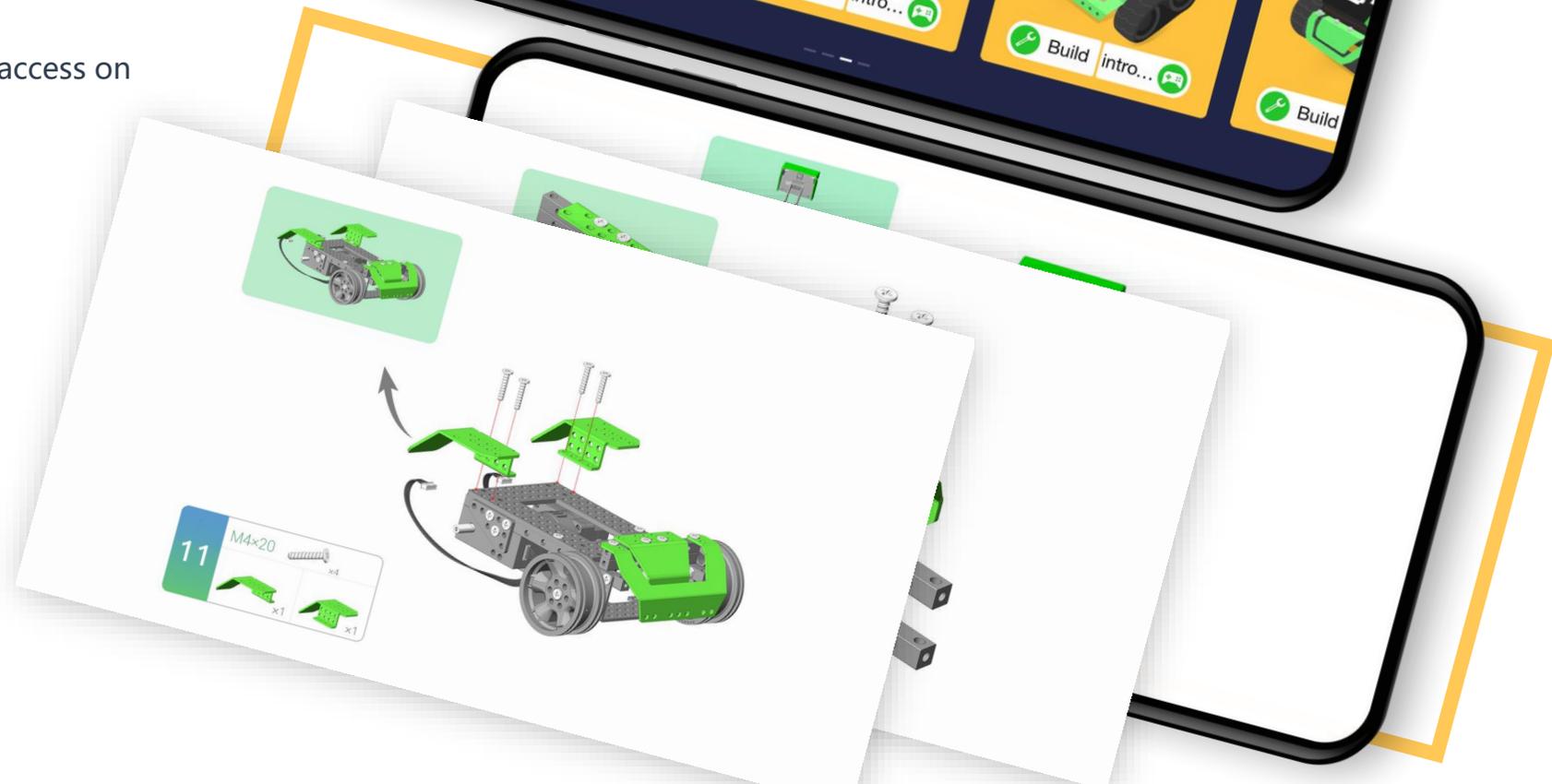
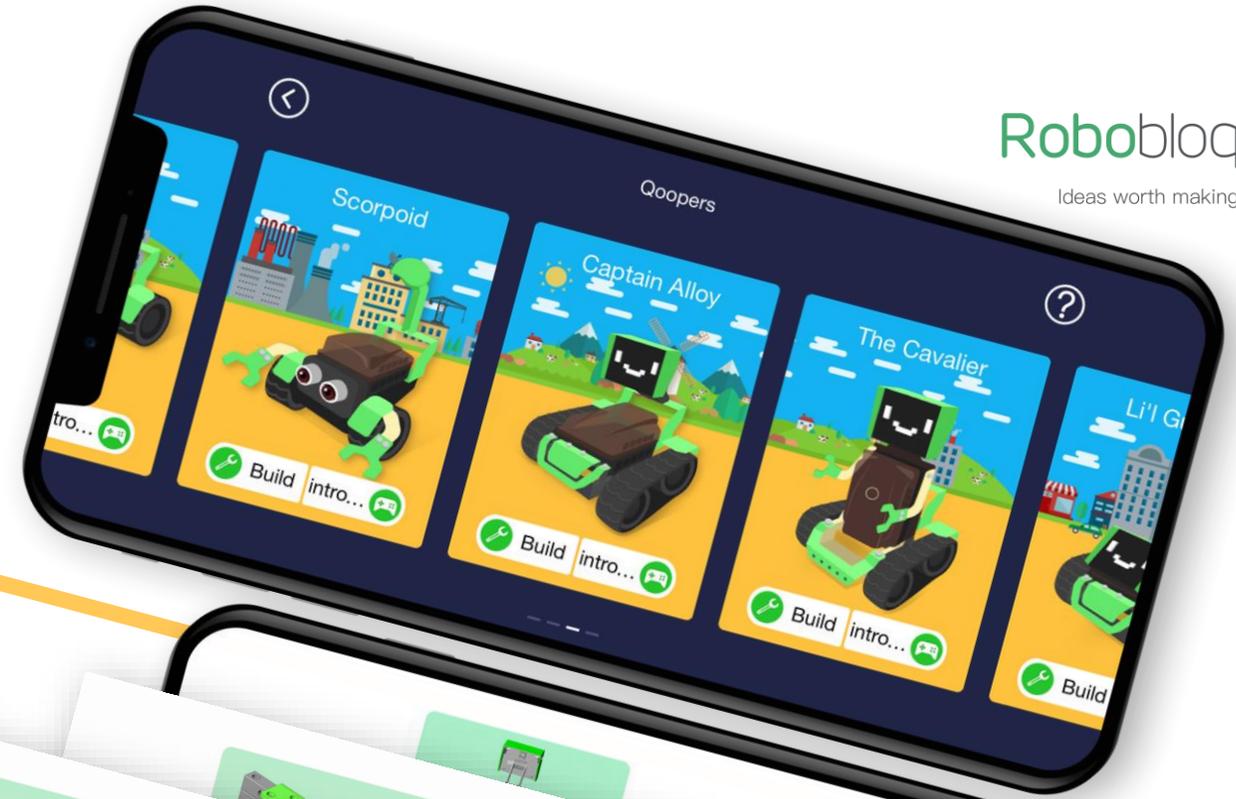
Coding on the go

Robobloq mobile app is where you enjoy all the robotic fun! Multiple programming modes make the best of the sensors and electronic modules; With integrated Scratch 3.0 coding environment you can program robots on the phone! Enjoy the coolest robotics experience from now on!



Building Instructions

■ Paperless and environmental friendly, access on the go.



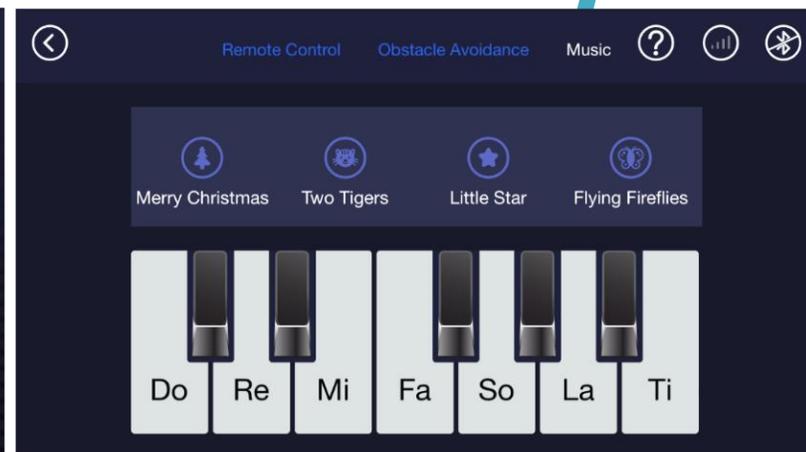
Multiple Modes

Moving, music, emotions and obstacle avoiding...these modes utilize and demonstrate sensors and electronic modules. Fun on the fingertips!

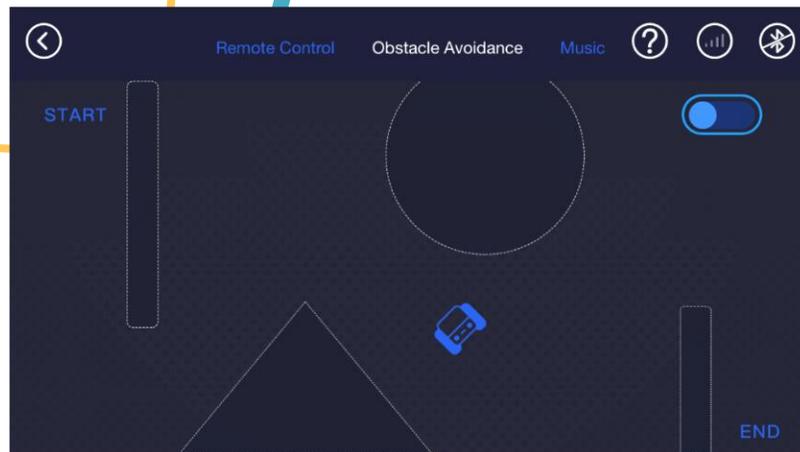
Remote control mode



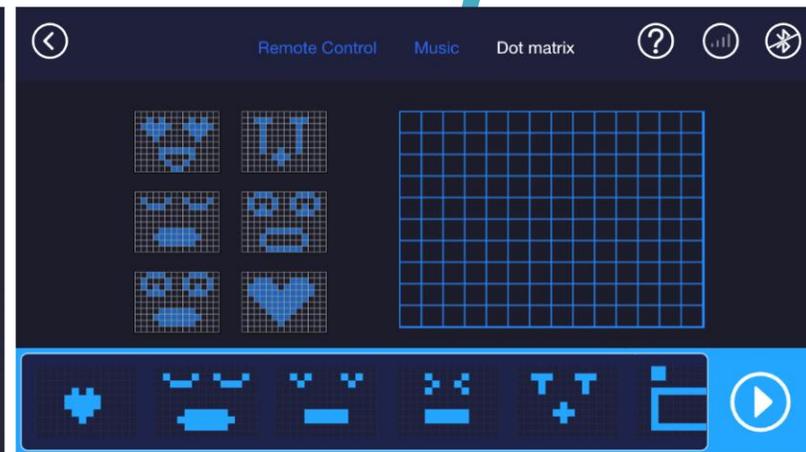
Music mode



Obstacle avoiding mode

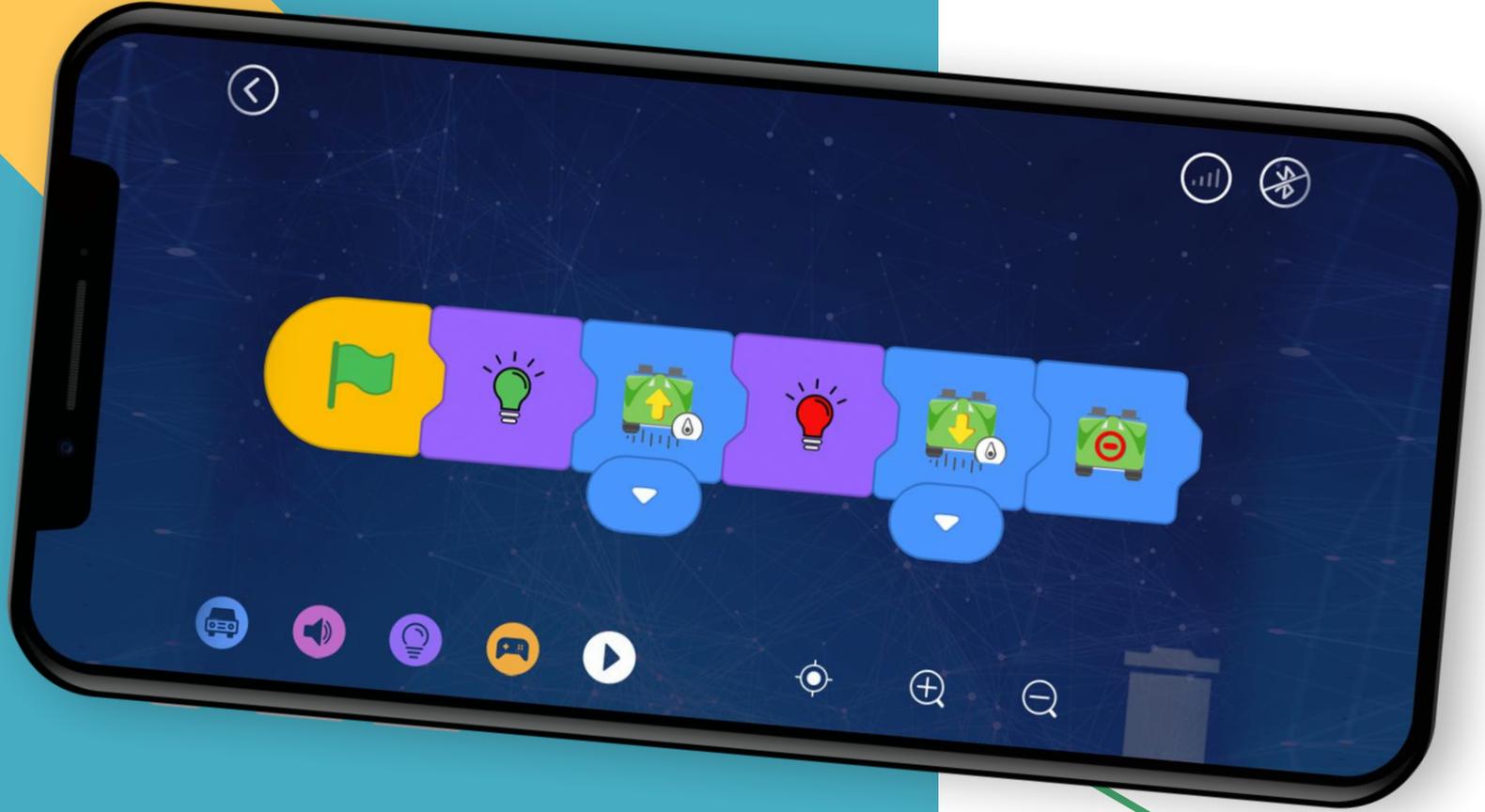


Emotion mode



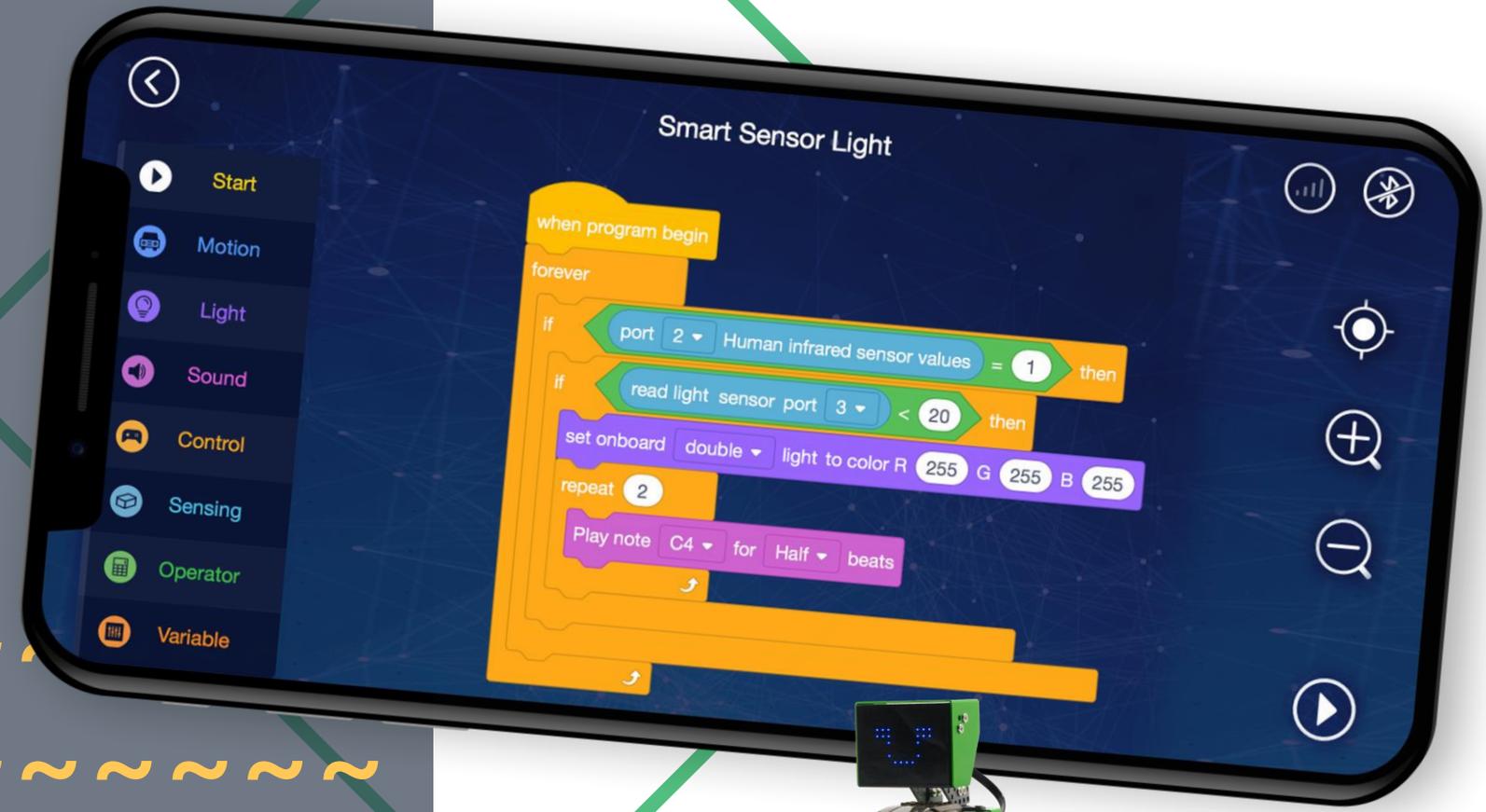
Scratch Jr

Stepping up simplicity, and bringing down the age for coding, Scratch Jr is the answer, which makes coding possible to kids of 4 to 6.



Scratch 3.0 Coding

The block coding environment helps you learn the essentials of coding in an easy way. By controlling sensors accurately, you can go creative and make your own robot!





Coding on the Go

■ Use Robobloq mobile app, connect via Bluetooth, you can code anywhere anytime, even outdoor!