Skip car APP control

1.Learning goals

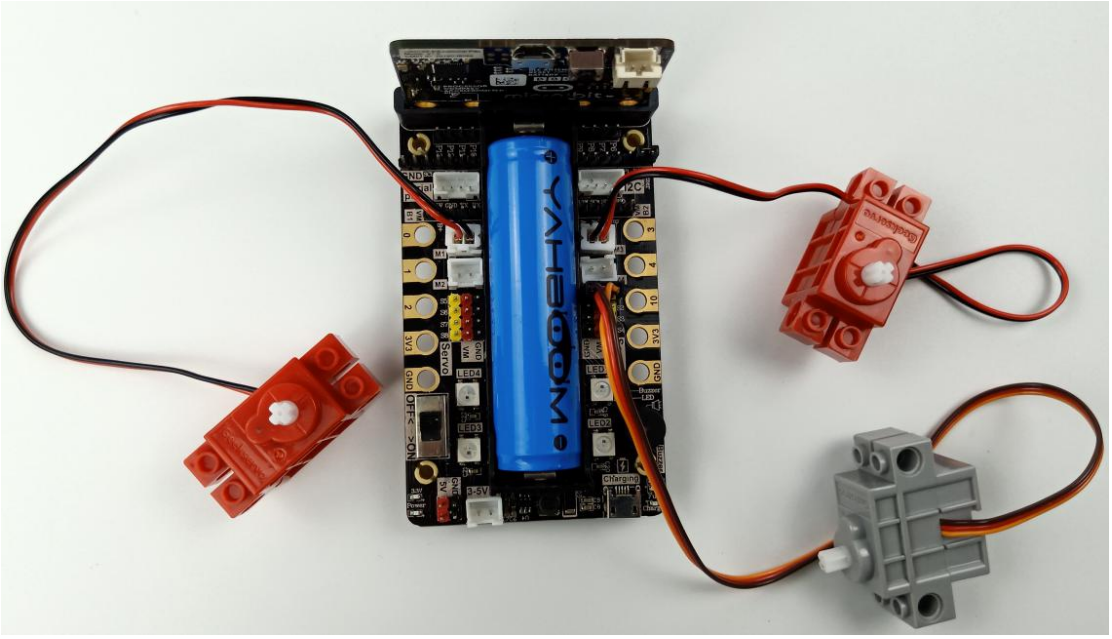
In this course, we mainly learn how to use APP control Skip car.

2.Building block assembly steps

For the building block construction steps, please refer to the installation manual or building block installation picture of [Assembly course]-[Skip car].

3.Wiring of motor and servo

The motor wiring on the left side of the car is inserted into the M1 interface of the Super:bit expansion board, and the black wire is close to the battery side;
The motor wiring on the right side of the car is inserted into the M3 interface of the Super:bit expansion board, and the black wire is close to the battery side;
Building block servo insert into the Super: bit expansion board S1 interface, and the orange wiring connect the yellow pin of S1.
As shown below:



Note:

For the first course related to building block servo, we need to remove the gear on the servo and upload the program of this course to micro: bit. Then, turn on the power switch of the Super:bit expansion board and wait for the building block servo turn to the initial position. Next, we can turn off the power, and adjust the loading platform of the car to keep it parallel to the ground. Finally, install the servo. (If you have used programs related to mobile shooter before, you can skip this step)

4.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/SuperBit** and **https://github.com/lzty634158/GHBit** 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/SuperBit** and **https://github.com/lzty634158/GHBit** , you can program.

5.About code

The summary program of this course can be viewed by opening the hex we provided on the MakeCode programming interface.

6.Download APP

Android users scan the following QR code by browser or search "Mbit" in Play Store to download APP;

iOS users scan the following QR code by camera or search "Mbit" in App Store to download APP.

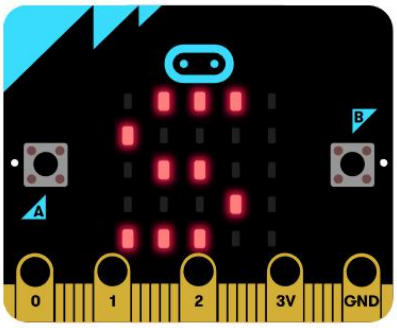
IOS

Android

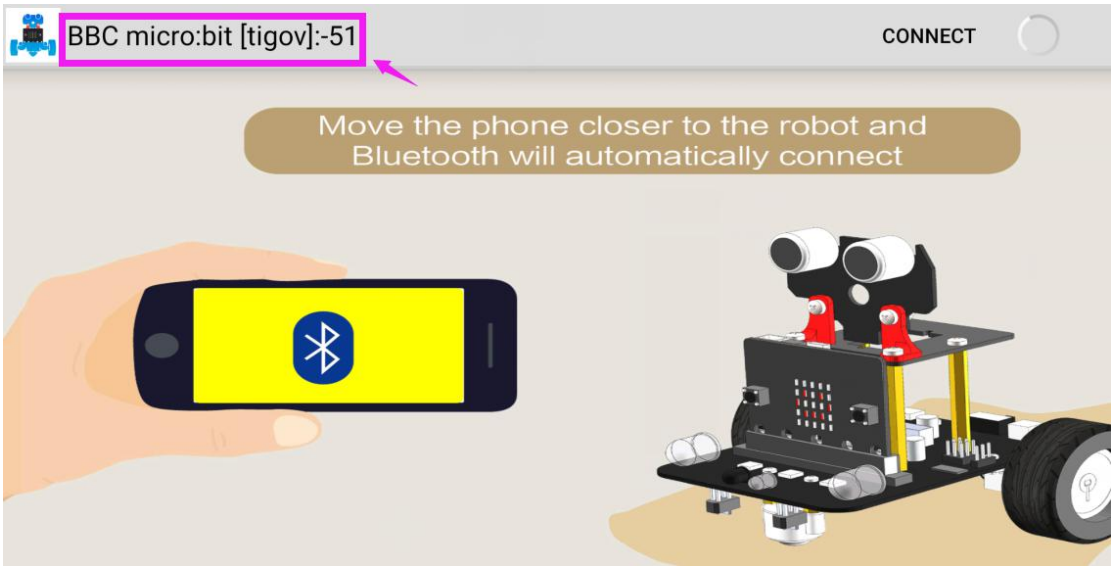
Note: If there are any prompts on the phone during installation, please select "Allow".

7.APP remote control

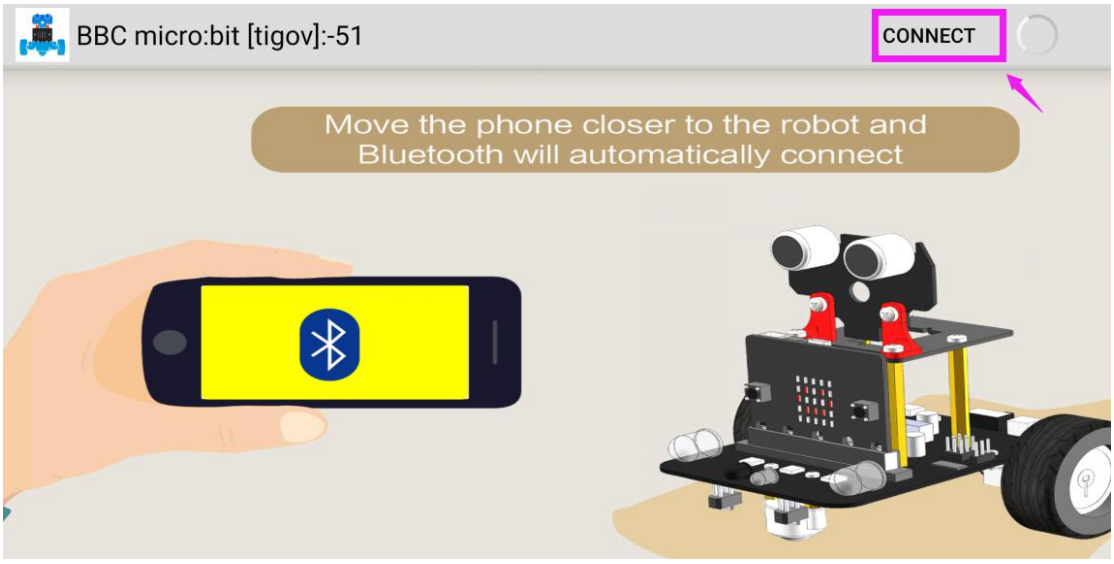
1) After the program is downloaded successfully, turn on the power switch of the car, the micro: bit dot matrix will display the "S" pattern, as shown below, this is the state of Bluetooth not connected.



2)Open the Bluetooth of your mobile phone, and open the Bluetooth APP. You can see the interface as shown below. At the same time, you can see the Bluetooth signal in the upper left corner.

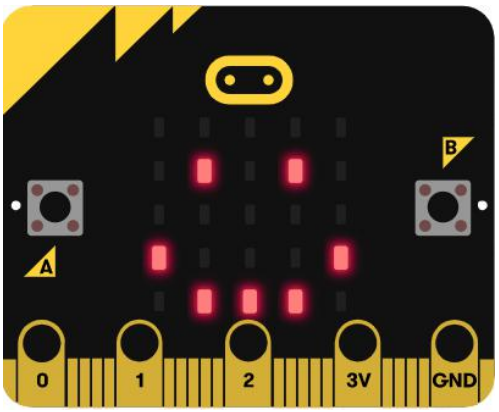


3)Mobile phone close to robot Bluetooth automatic connection. If Bluetooth can't connect automatically, you need to click 【CONNECT】to connect the Bluetooth between the phone and the robot.

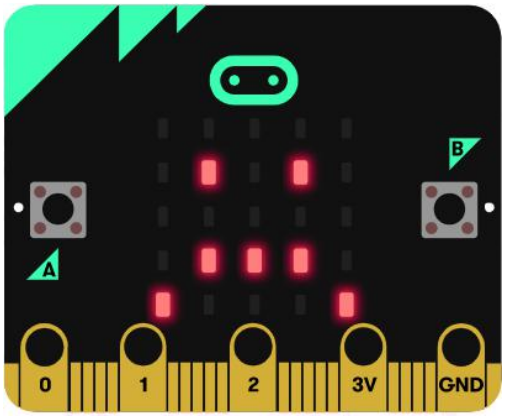


After Bluetooth connection successfully, micro:bit dot matrix will display a smile

pattern. If Bluetooth disconnect, it will display a cry pattern.



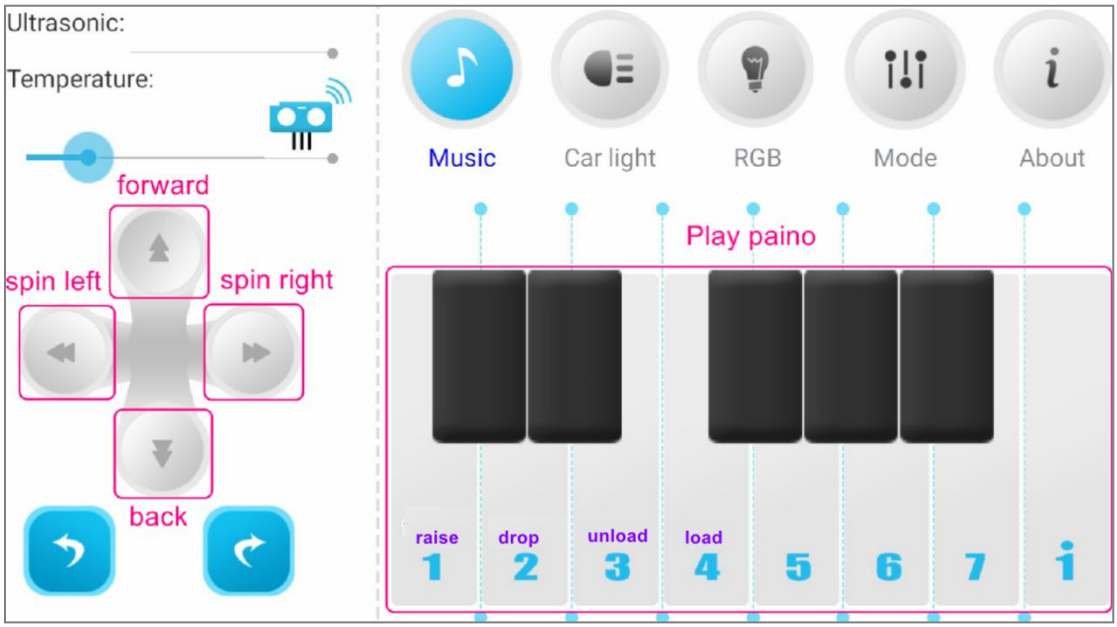
【Bluetooth be connected】



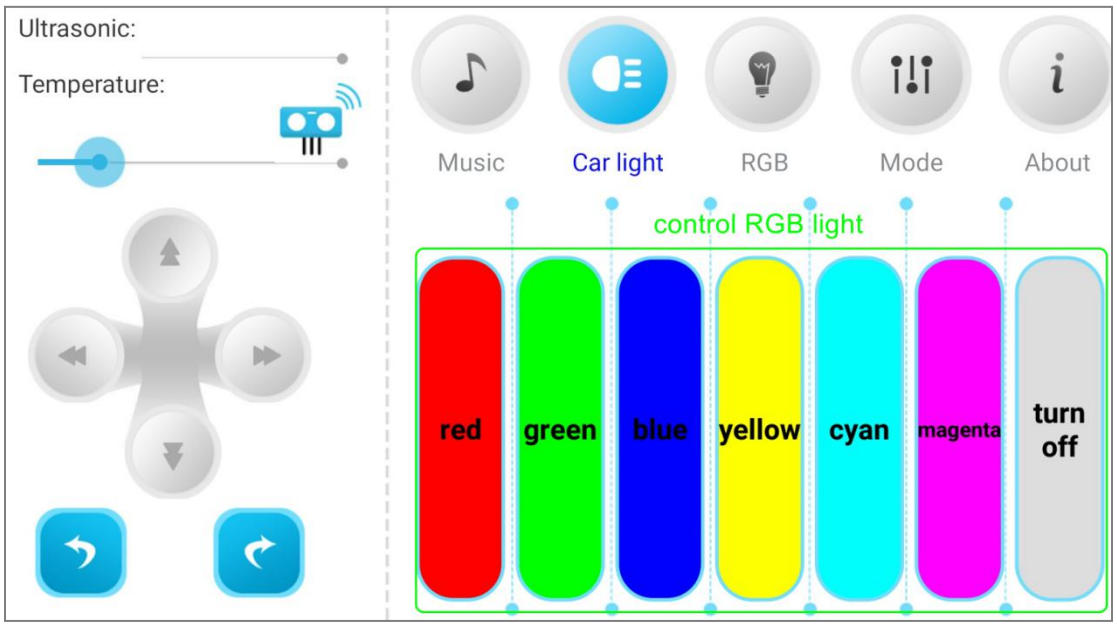
【Bluetooth disconnect】

Main control interface:

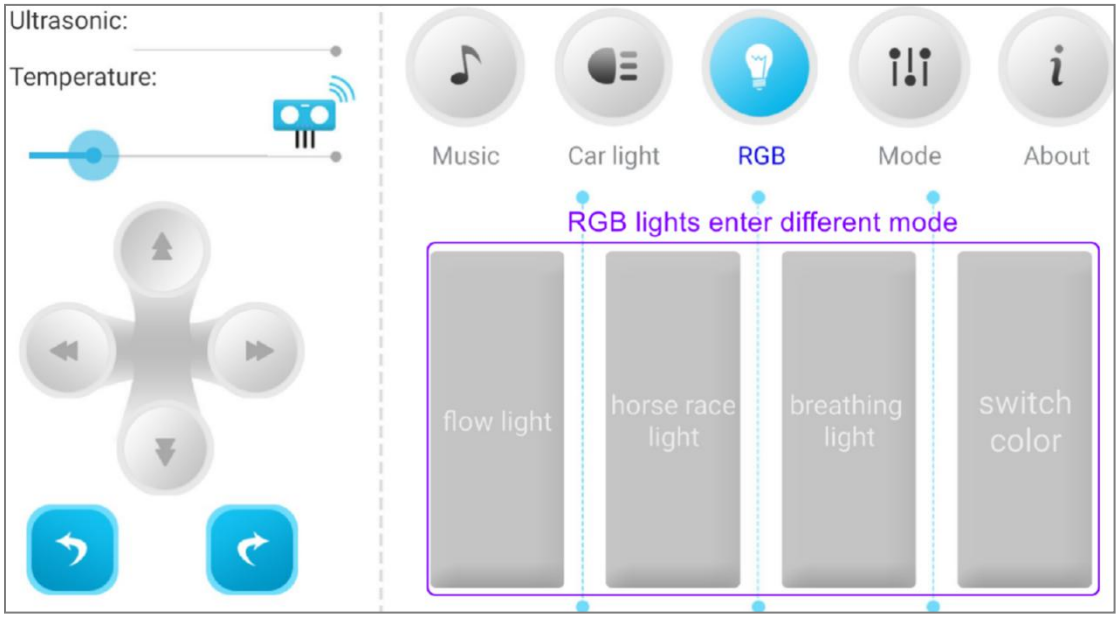
- Forward button controls the car move forward;
- Back button controls the car go back;
- Left button to control the car spin left;
- Right button to control the car to spin right;
- Piano key 1 controls the loading platform raise;
- Piano key 2 controls the loading platform drop;
- Piano key 3 controls the loading platform unload;
- Piano key 4 controls the loading platform load;
- Press the piano keys to make buzzer play different tones.



Car light interface



RGB interface



!Note: Mode option is unavailable.