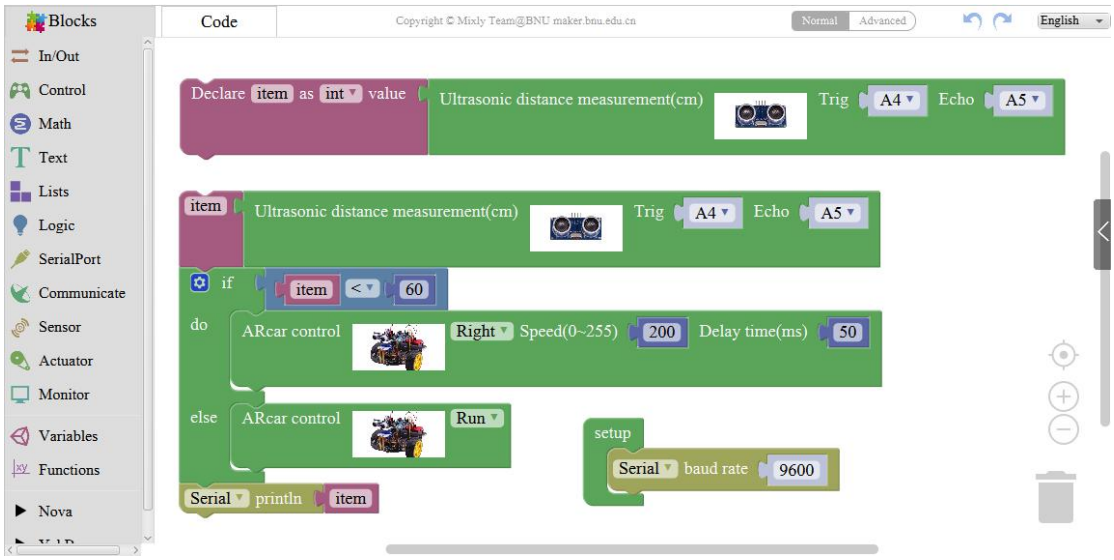
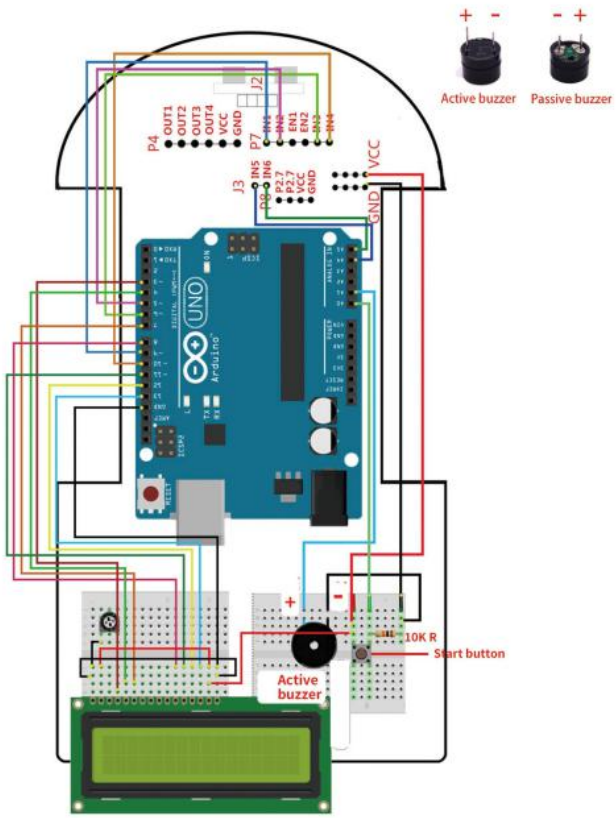
10、Intelligent car ultrasonic obstacle avoidance(no servo)

You need to follow the steps below to build blocks.



Material object wiring diagram:

4.4 Ultrasonic obstacle avoidance(no servo) wiring diagram

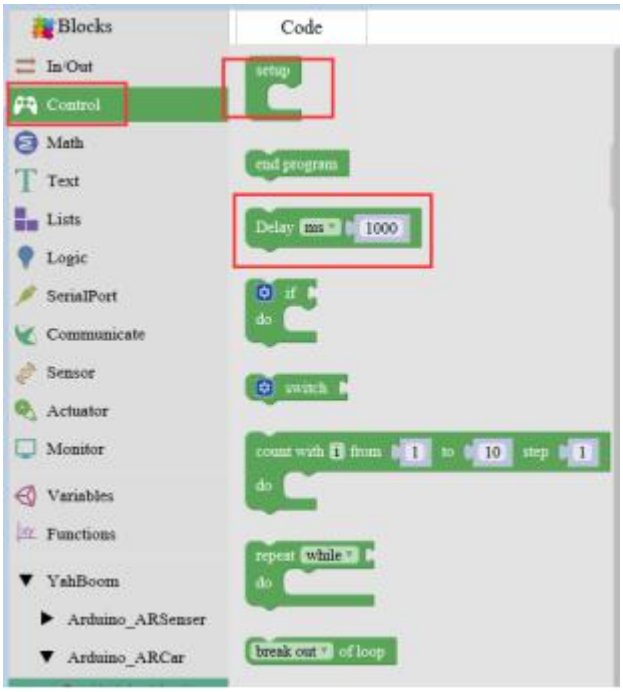


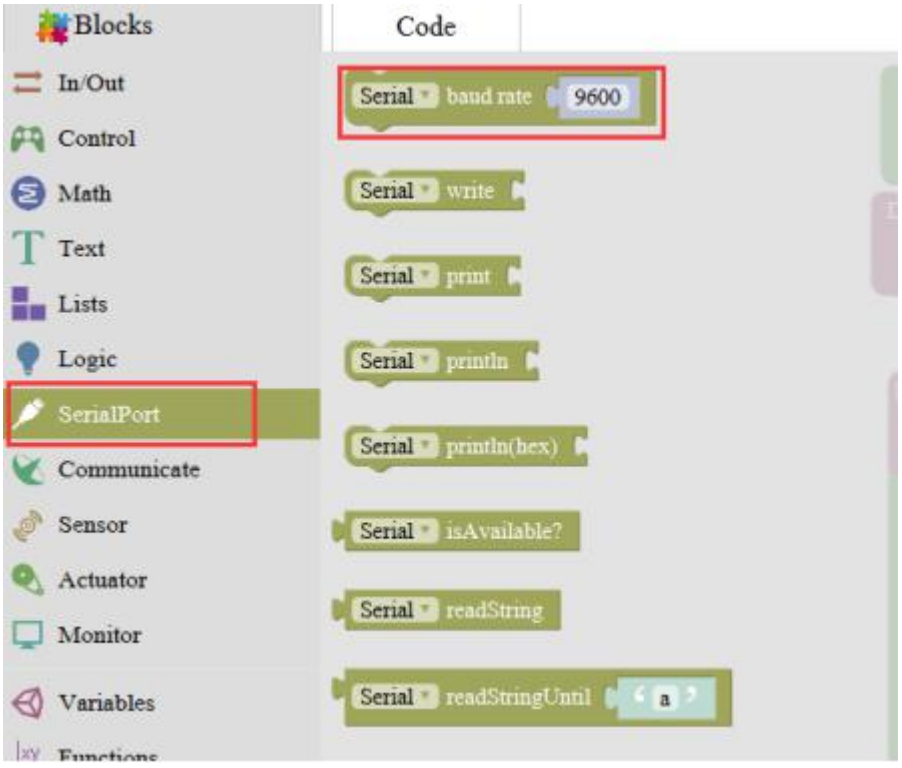
Note: At the J2 slot, insert the ultrasonic sensor as picture.

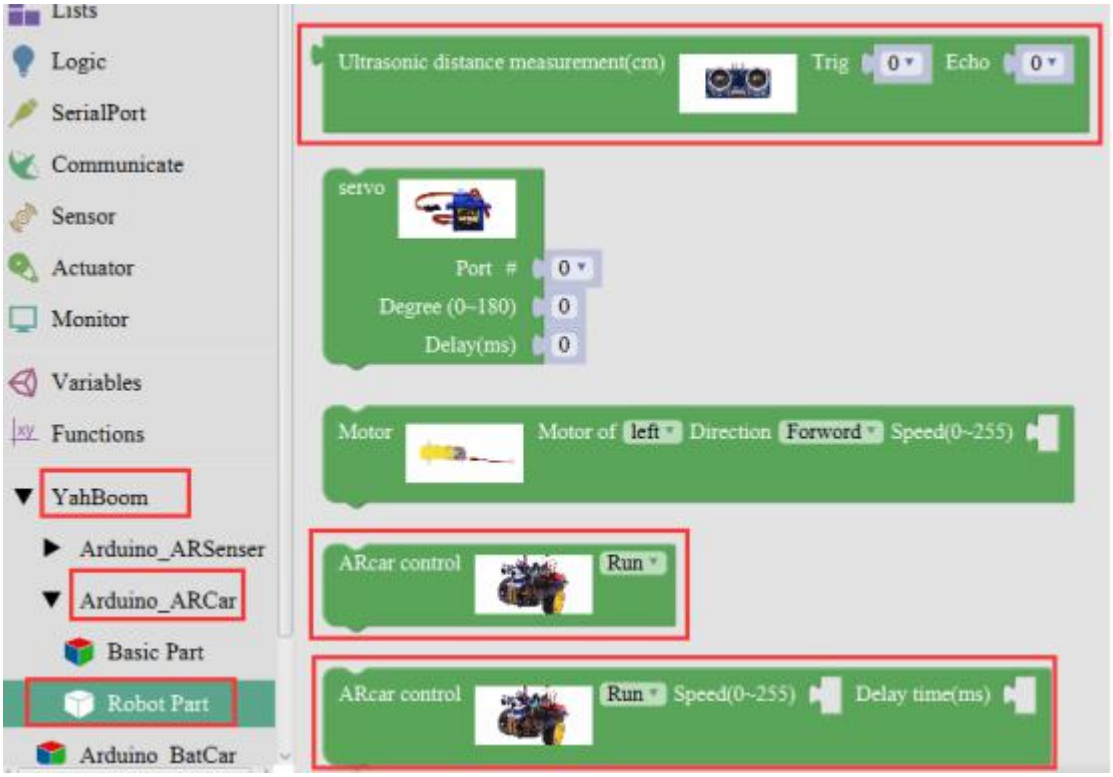
If you only use the ultrasonic obstacle avoidance function without displaying the distance, you can not install the 1602 sdisplay and yellow adjustable resistance.

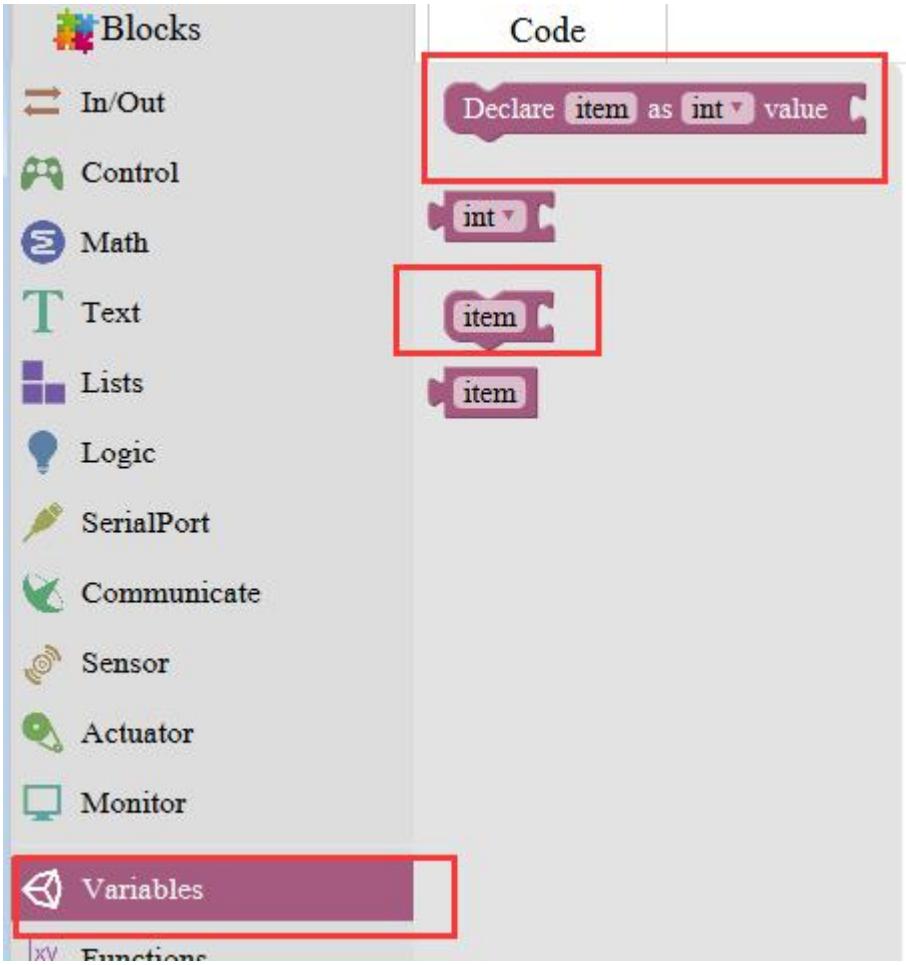
Steps of experiment:

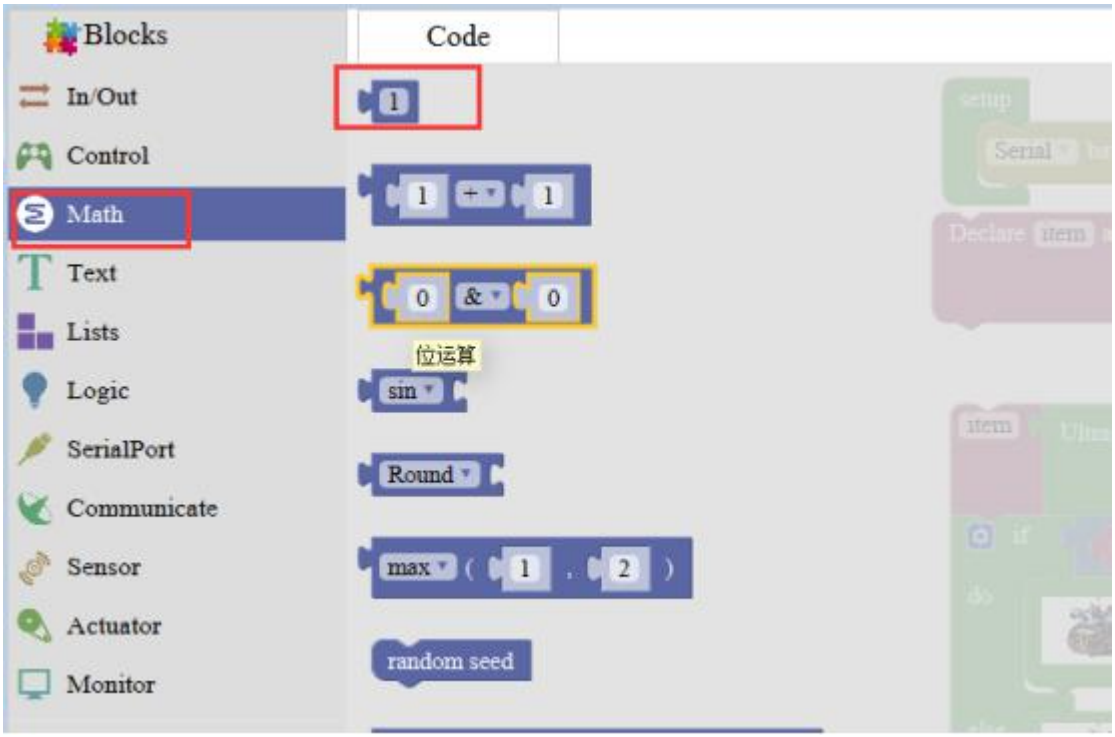
1.You need to choose the building blocks which you need for this experiment, as shown in the figure below.



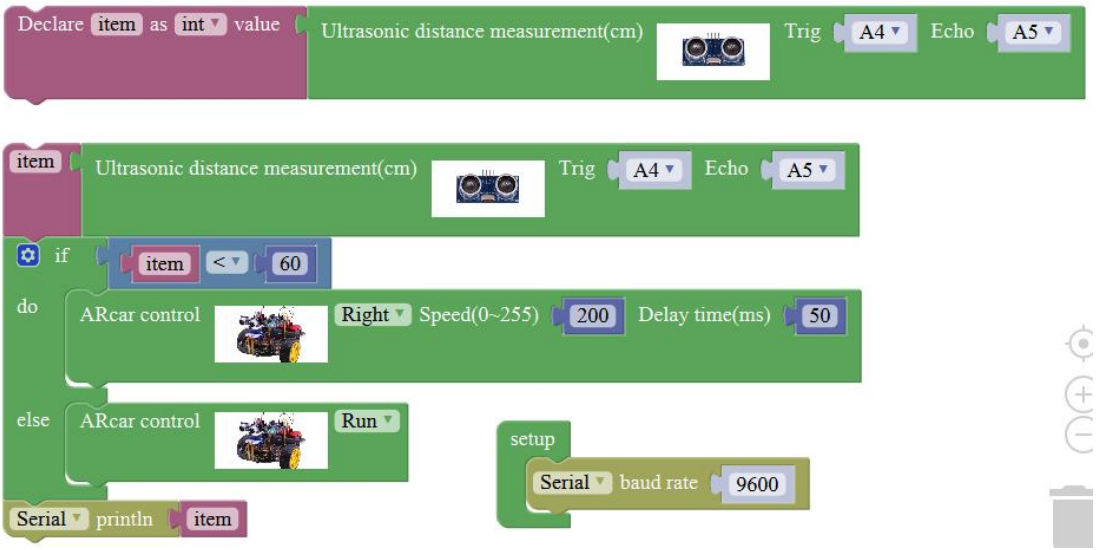



Lists
Logic
SerialPort
Communicate
Sensor
Actuator
Monitor
Variables
Functions
YahBoom
Arduino_ARSenser
Arduino_ARCar
Basic Part
Robot Part
Arduino_BatCar
Ultrasonic distance measurement(cm)
Trig 0 Echo 0
servo
Port # 0
Degree (0~180) 0
Delay(ms) 0
Motor
Motor of left Direction Forword Speed(0~255)
ARcar control
Run
ARcar control
Run Speed(0~255) Delay time(ms)


Blocks
Code
In/Out
Control
Math
Text
Lists
Logic
SerialPort
Communicate
Sensor
Actuator
Monitor
Variables
Functions
Declare item as int value
int
item
item



2. You need to combine the selected blocks, as shown in the figure below.

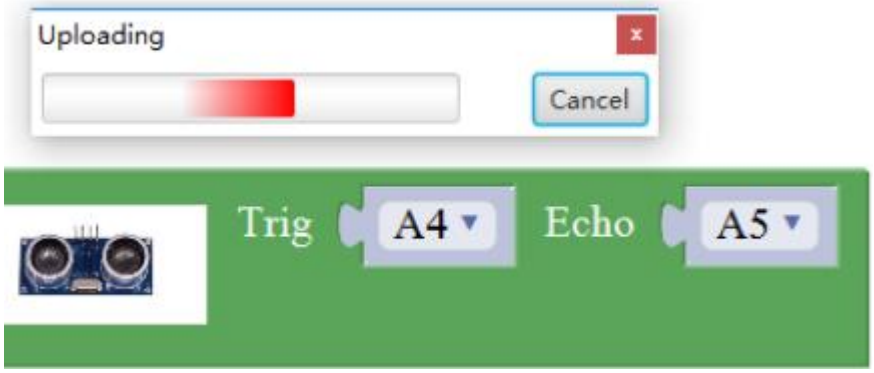


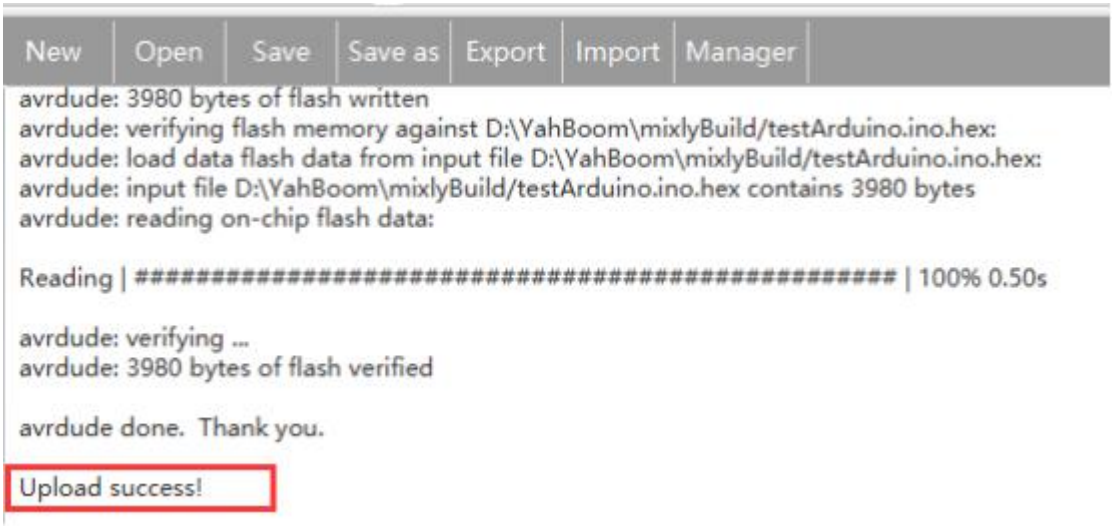
3.You need to you need to click “**Compile**”. and wait for the completion of the compiler, the following box will prompt the compiler successfully, if prompt the compile failure is the problem of building block splicing.

4. After the compilation is completed, the word "**Compile success!**" will appear in the lower left corner, indicating that you have successfully compiled the program.

5. In the menu bar of Mixly, we need to select the port that the serial number displayed by the device manager (for exmaple:COM6) and **Arduino/Genuino Uno.** As shown in the figure below.

6.After the selection is completed, you need to click “**Upload**” to upload the code to the Arduino UNO board. When the word “**Upload success**” appears in the lower left corner, the code has been successfully uploaded to the Arduino UNO board, as shown in the figure below.





7.After the code is uploaded,we can see the changes in the data measured by the ultrasonic wave through the serial monitor. The car will complete the ultrasonic obstacle avoidance experiment.