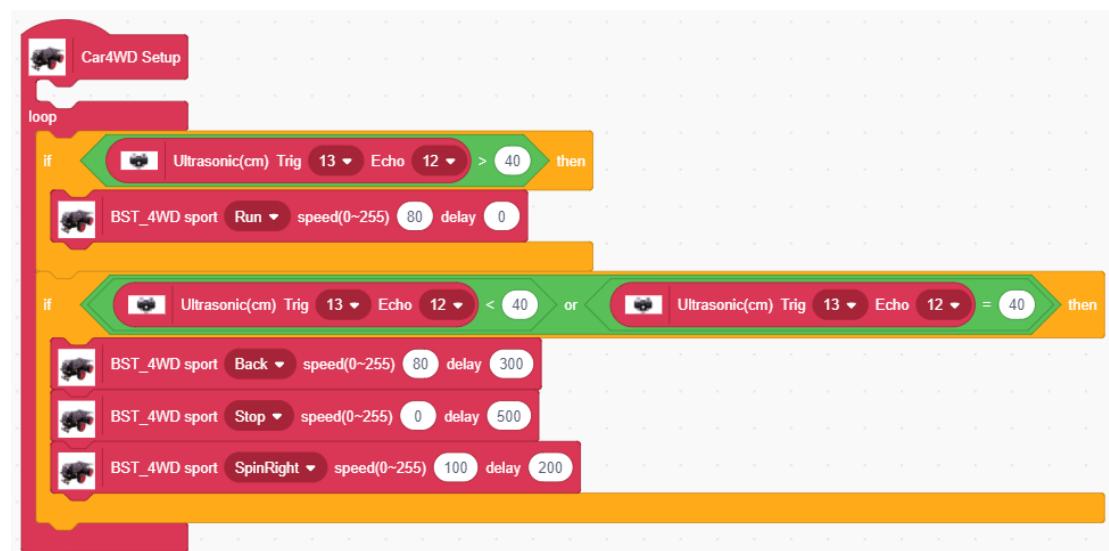


15.Ultrasonic obstacle avoidance

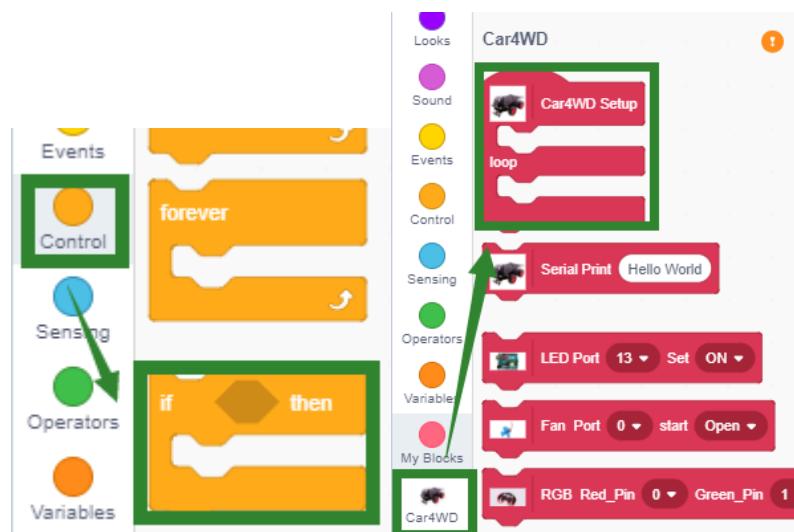
!!! Note: It is normal for the ultrasonic module to measure the distance with a certain error.

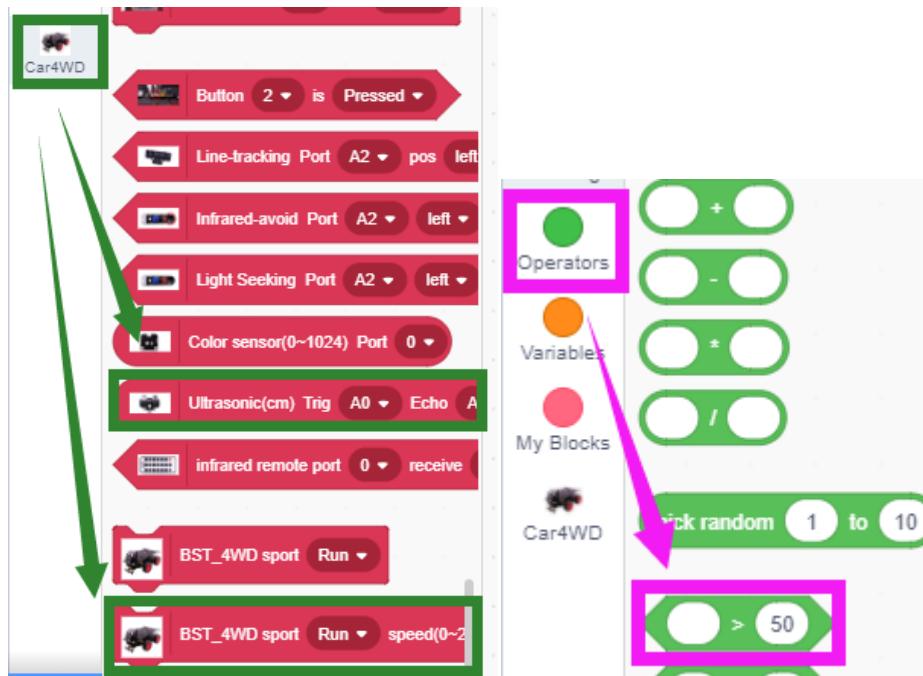
You can modify the time or speed parameter in the program according to your actual situation.

The summary program of this experiment is shown below:



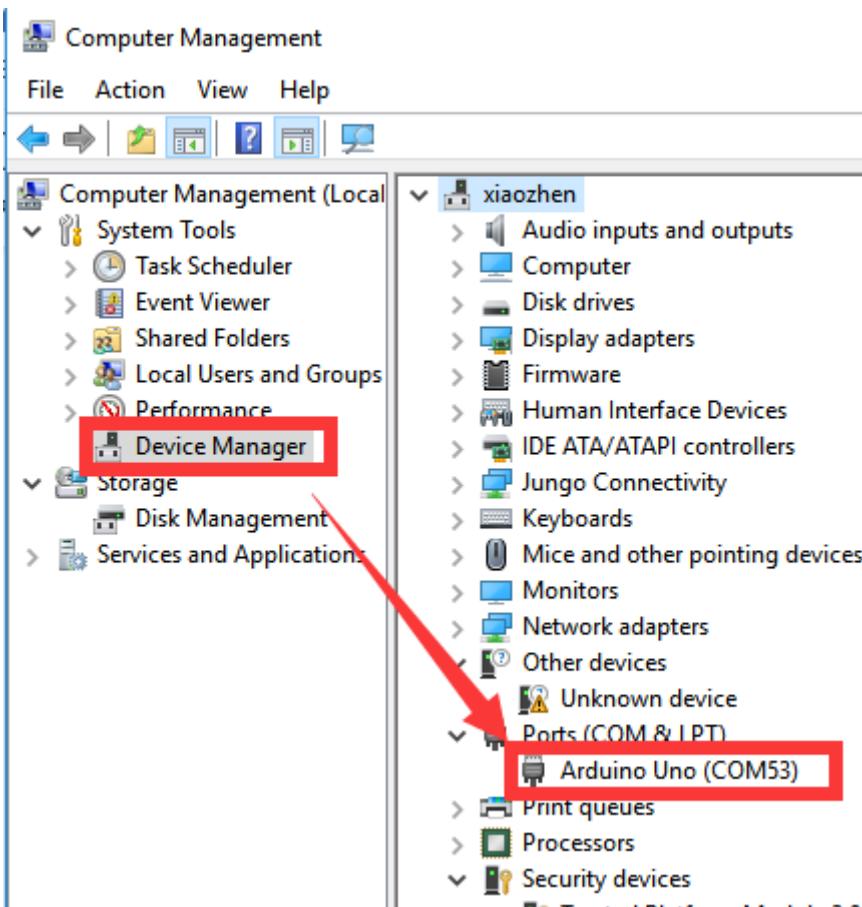
1. Search for blocks

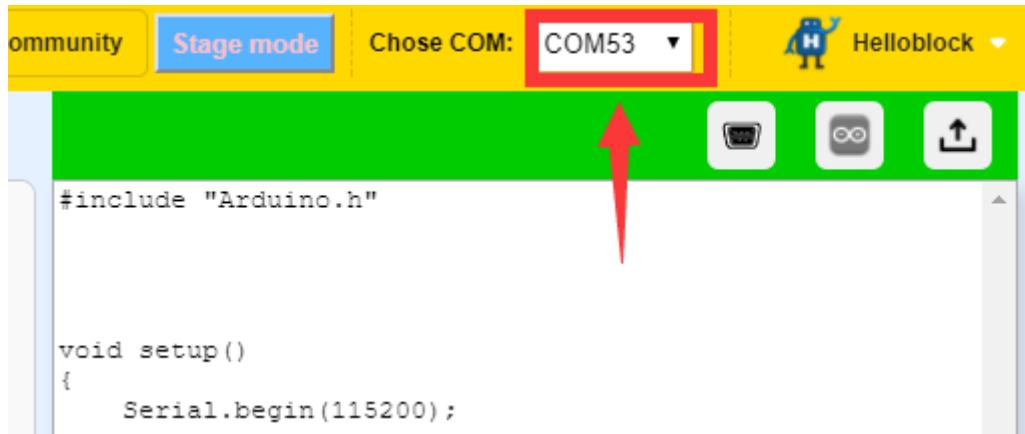




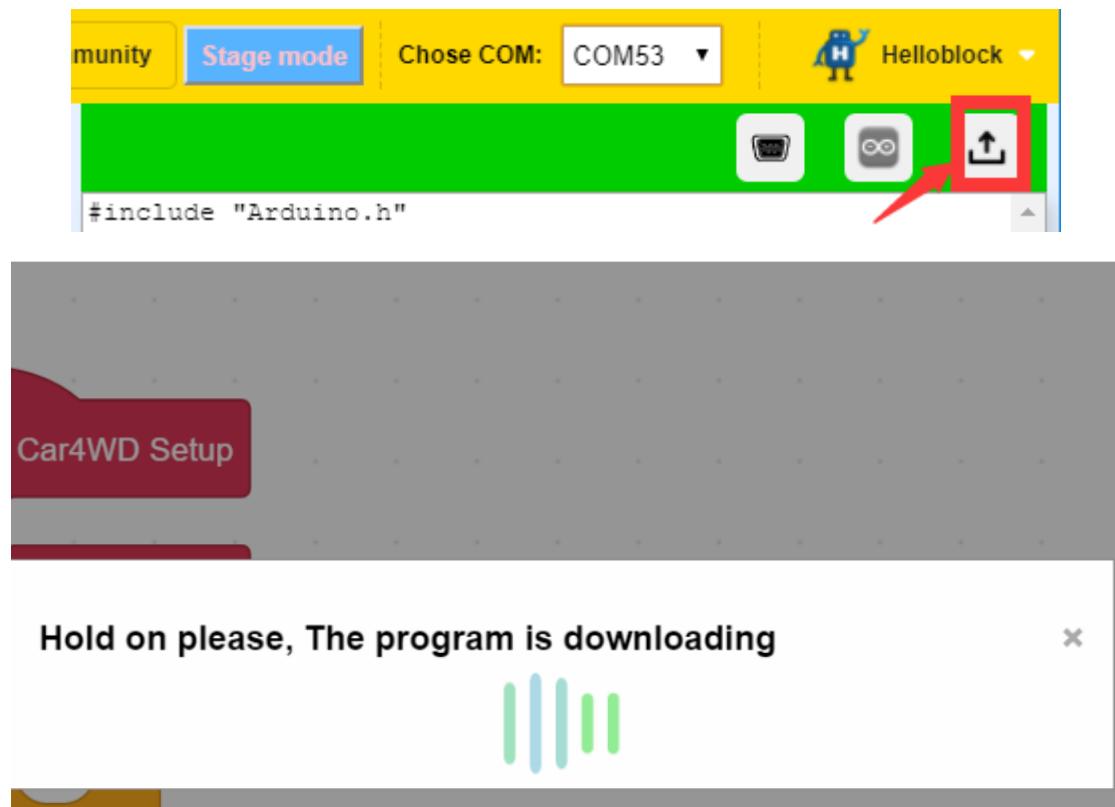
2. Download program

2.1 In the upper right corner of Helloblock, we need to select the port that the serial number displayed by the device manager (for example:COM54). As shown in the figure below.





2.2 Click the up arrow to start compiling and uploading the program. It will take a certain amount of time, we need to wait patiently.



It takes a certain amount of time to compile the program, and everyone needs to wait patiently.

2.3 When the words "Done compiling" "Done uploading" appear in the lower right corner of the programming interface, as shown in the following figure, the program has been uploaded.

```
>C:\Program Files  
(x86)\Helloblock\resources\Arduino\libraries\YahBoo  
m\YahBoom_OMIBOX.cpp:381:6: note: initializing  
argument 1 of 'void  
YahBoom_OMIBOX_Matrix::YahBoom_OMIBOX_Matrix_ShowIc  
on(byte*)'  
  
    void  
YahBoom_OMIBOX_Matrix::YahBoom_OMIBOX_Matrix_ShowIc  
on(byte *character)  
  
>Sketch uses 3292 bytes (10%) of program storage  
space. Maximum is 32256 bytes.  
>Global variables use 842 bytes (41%) of dynamic  
memory, leaving 1206 bytes for local variables.  
Maximum is 2048 bytes.  
Done compiling. Done uploading!  
Status for device: success.  
-----  
Baud:          115200  
Parity:        None
```



3.Experimental phenomena

After the program is downloaded, we need to turn on the power, the car will keep moving forward. When the distance of the obstacle is less than or equal to 40cm, the car will rotate right to avoid the obstacle, next, the car will advance.