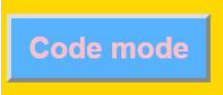
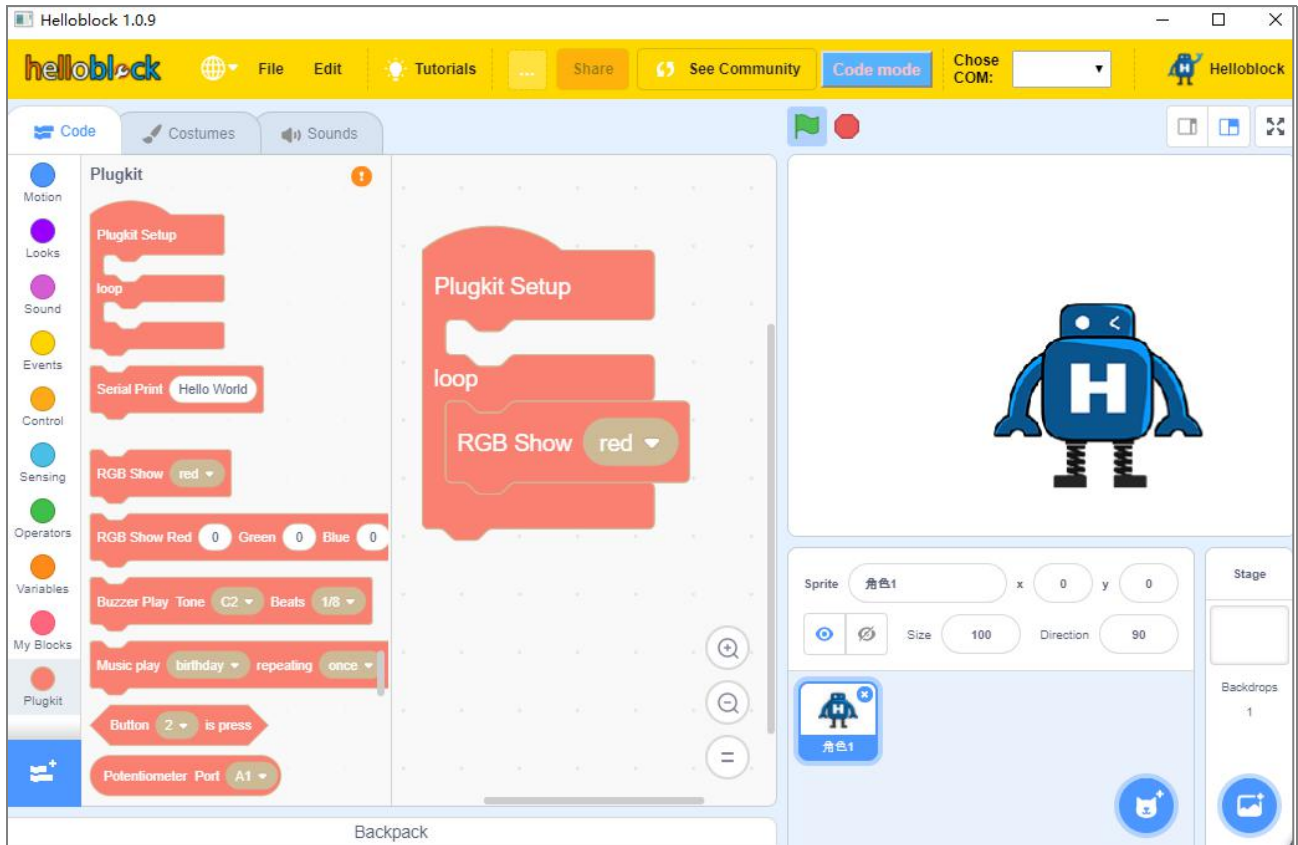


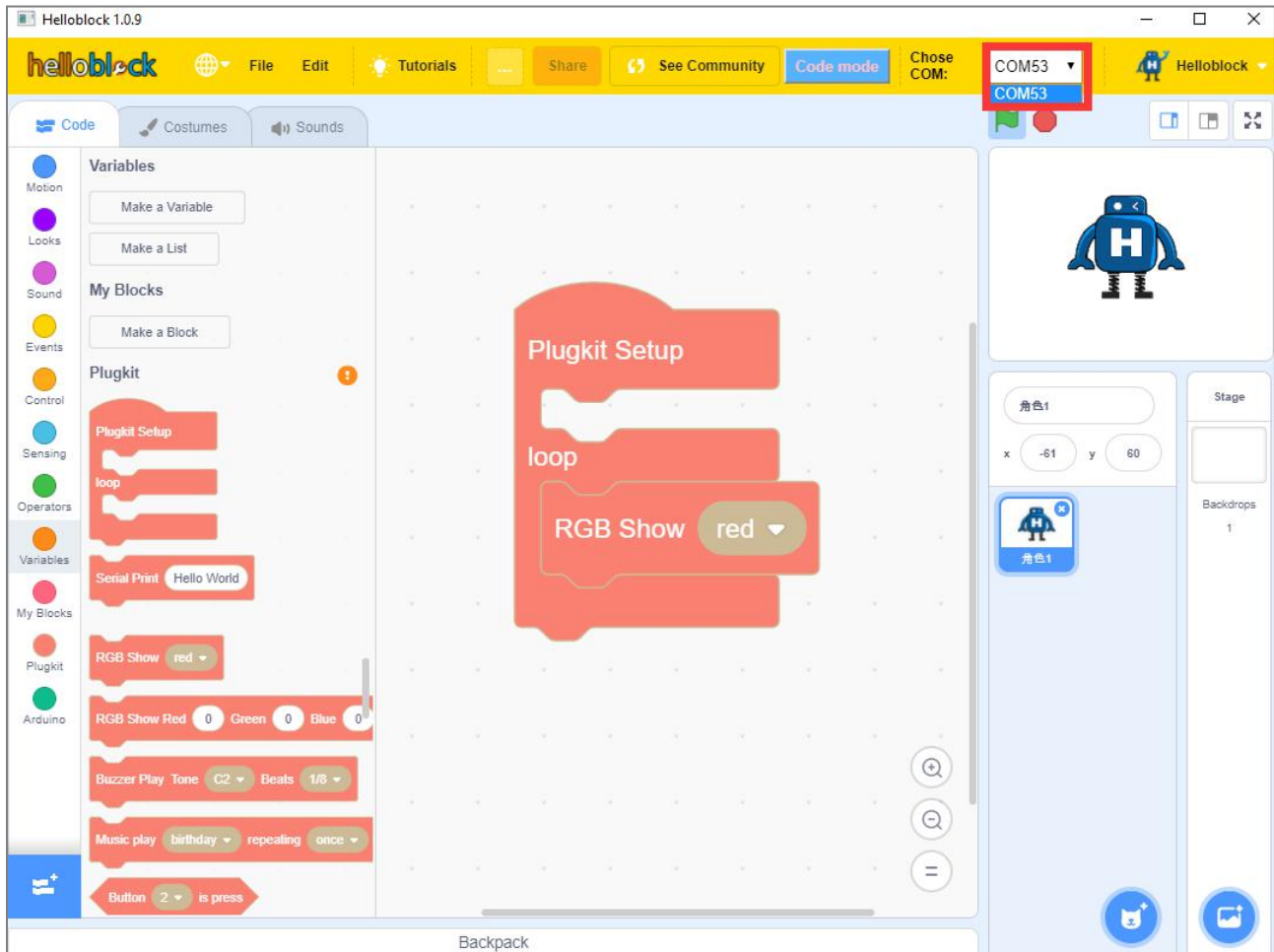
A blue rectangular button with the text "Code mode" in white, highlighted by a yellow border.

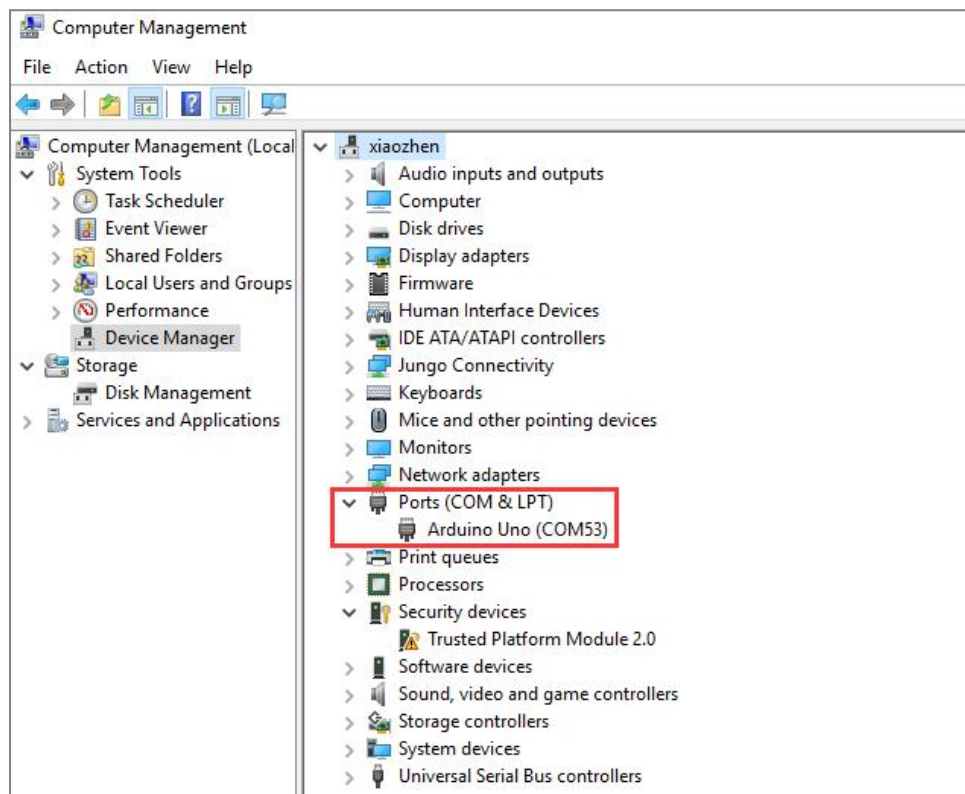
a. After writing the program in the Helloblock interface, click  in the upper right to switch to the code mode, which is currently the stage mode.

**Note:** The UNO board needs to be connected to USB interface of the computer through the USB data cable.

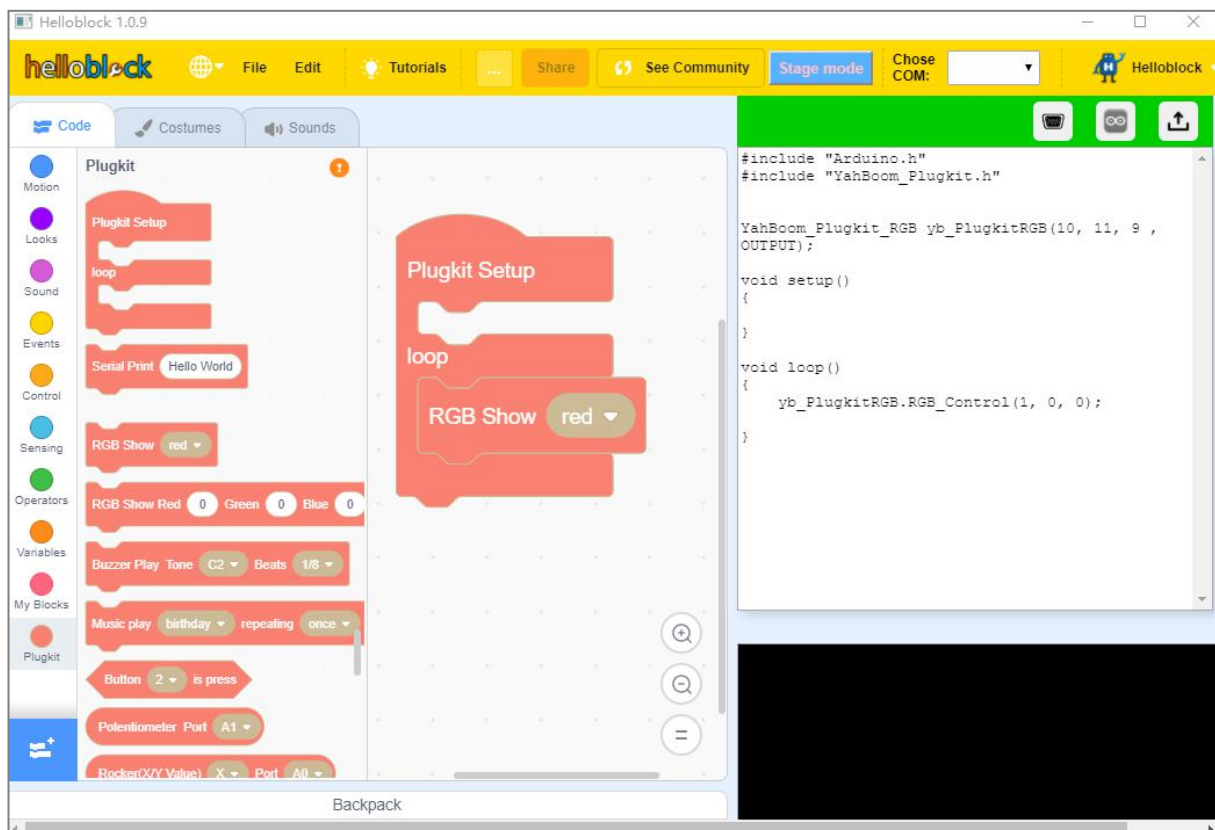


b. Select the serial port number. The default is COM1. If the driver can be used normally, another serial port number will appear after connecting the device. The serial port number other than COM1 is the serial port number of the current device. You can also right- click [My Computer] --- [Properties] --- [Device Manager] --- [Ports (COM and LPT)] to see the Arduino UNO serial number. The general COM number of the same UNO board will remain unchanged.

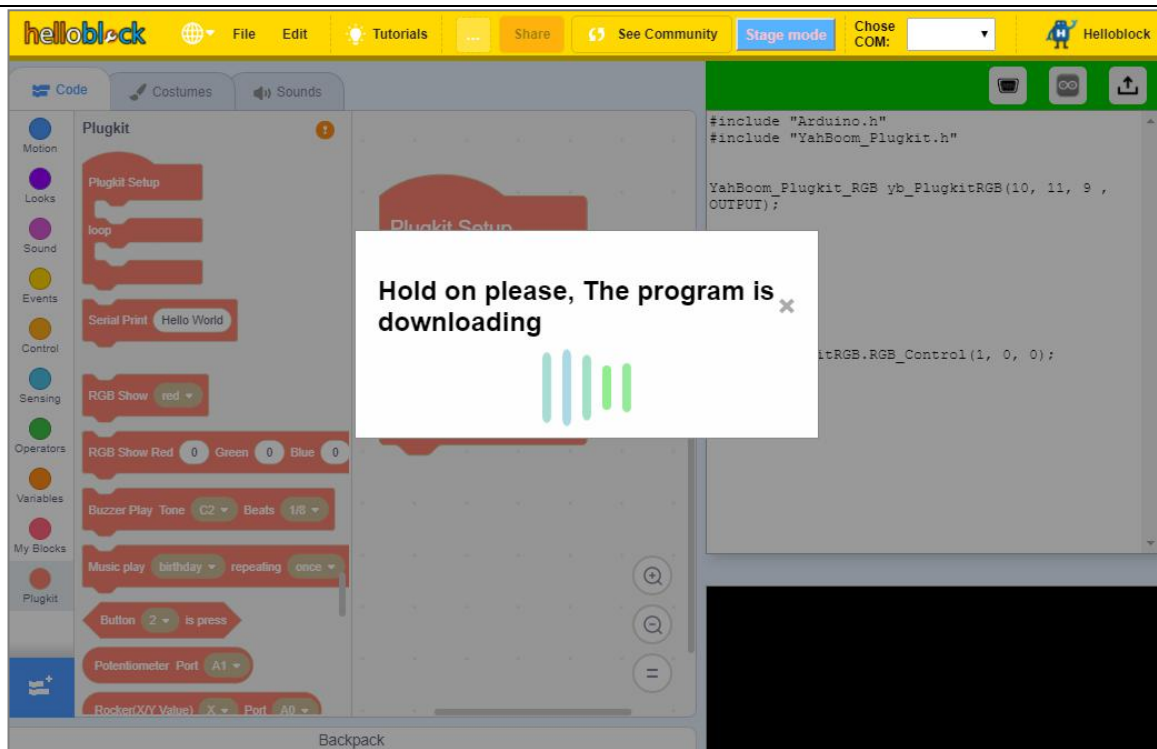




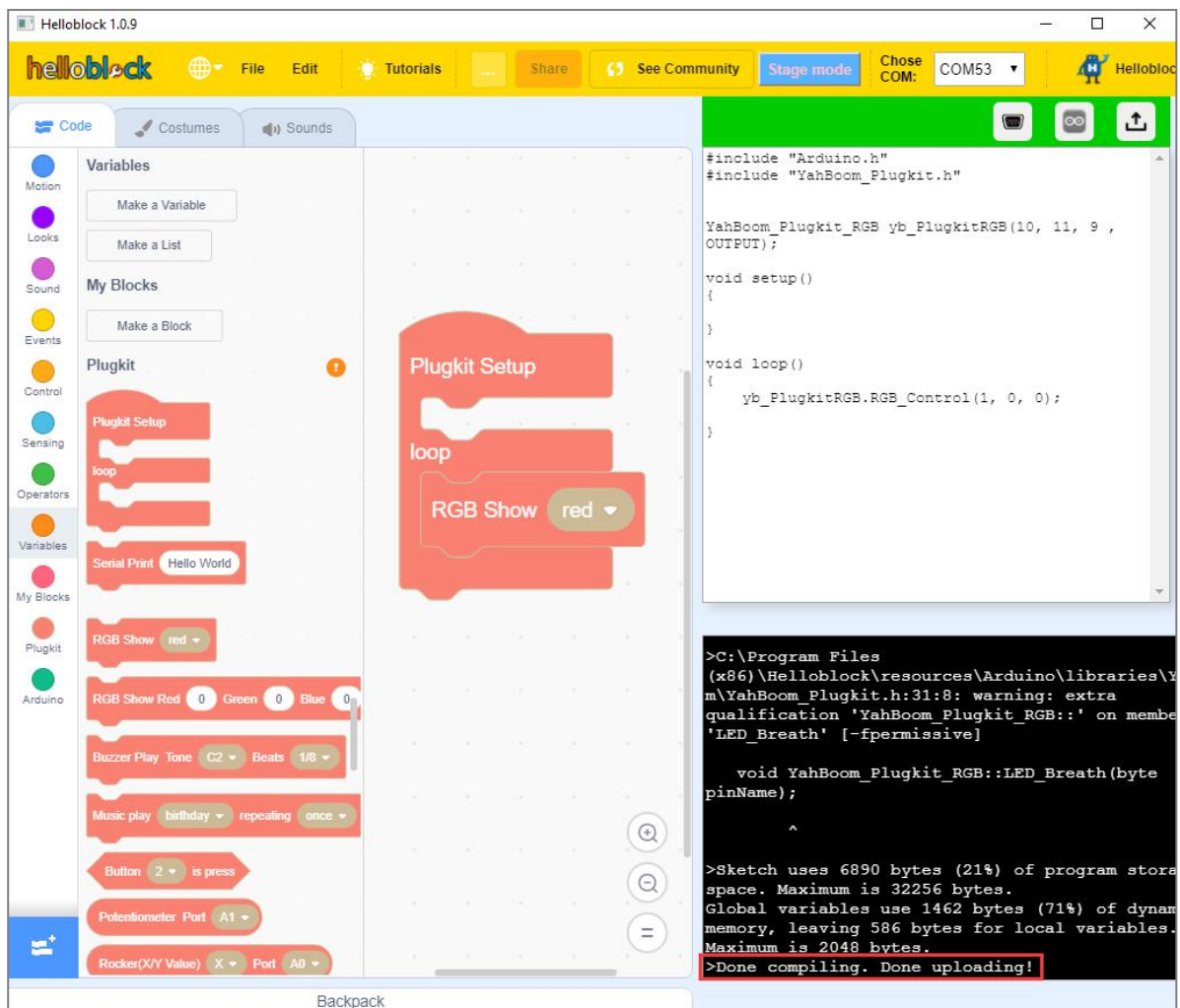
c. Click  in the upper right corner to compile and upload the program.



d. Because compiling and uploading are integrated here, it takes a long time and you need to wait patiently. During this period we can see the interface as shown in the figure below.



e. When the word "Done compiling, Done uploading!" appears in the information prompt in the lower right corner, it means that we have successfully uploaded the program to UNO board.




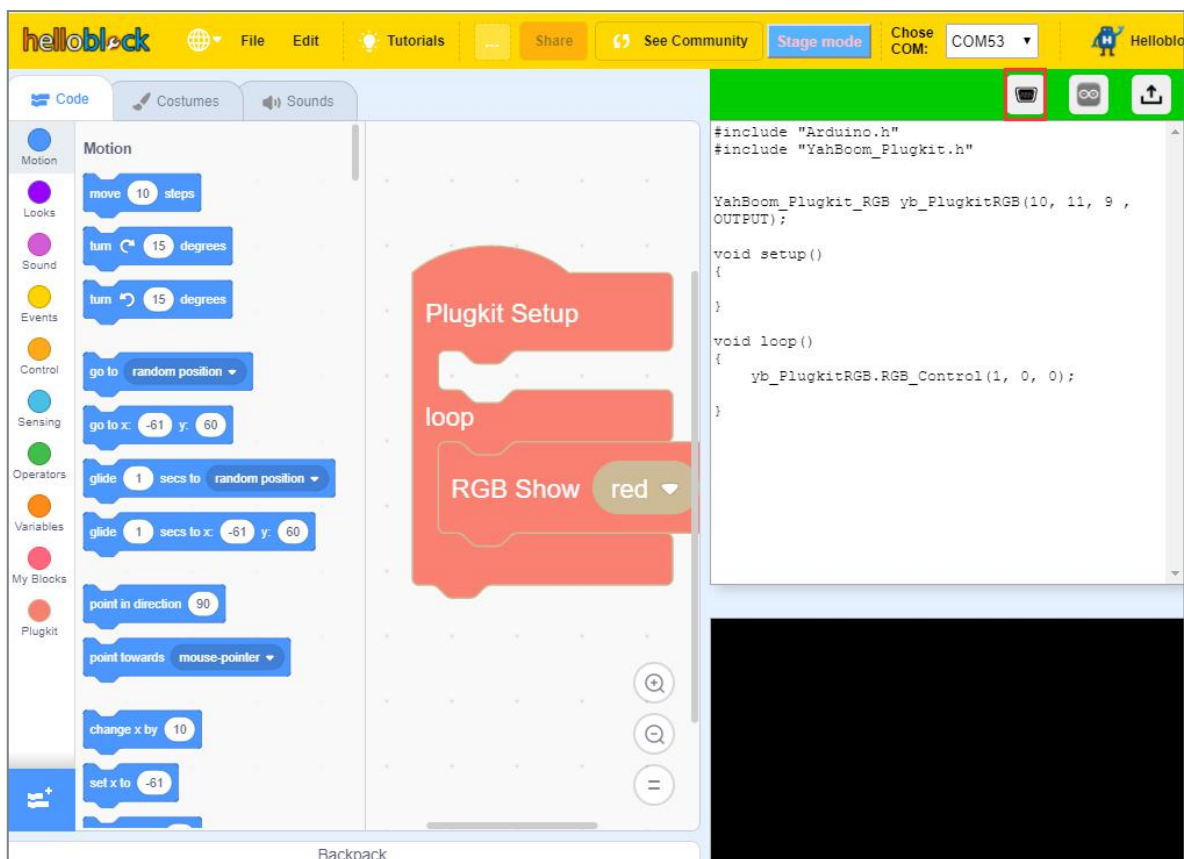
f. At this point, we can see the experimental phenomenon. For example, the experimental phenomenon here is that the RGB light module lights up red.

### Tip:

1. If you think that the compile and upload speed is slow, you can also open the Arduino IDE in Helloblock and use the Arduino IDE to compile and upload directly. The speed may be slightly faster.
2. After opening the Arduino IDE, if you change the building block program, you need to continue to compile and upload on the Arduino IDE. You can copy and paste the code to the Arduino IDE directly in code mode without reopening the Arduino IDE. Then compile and upload it.

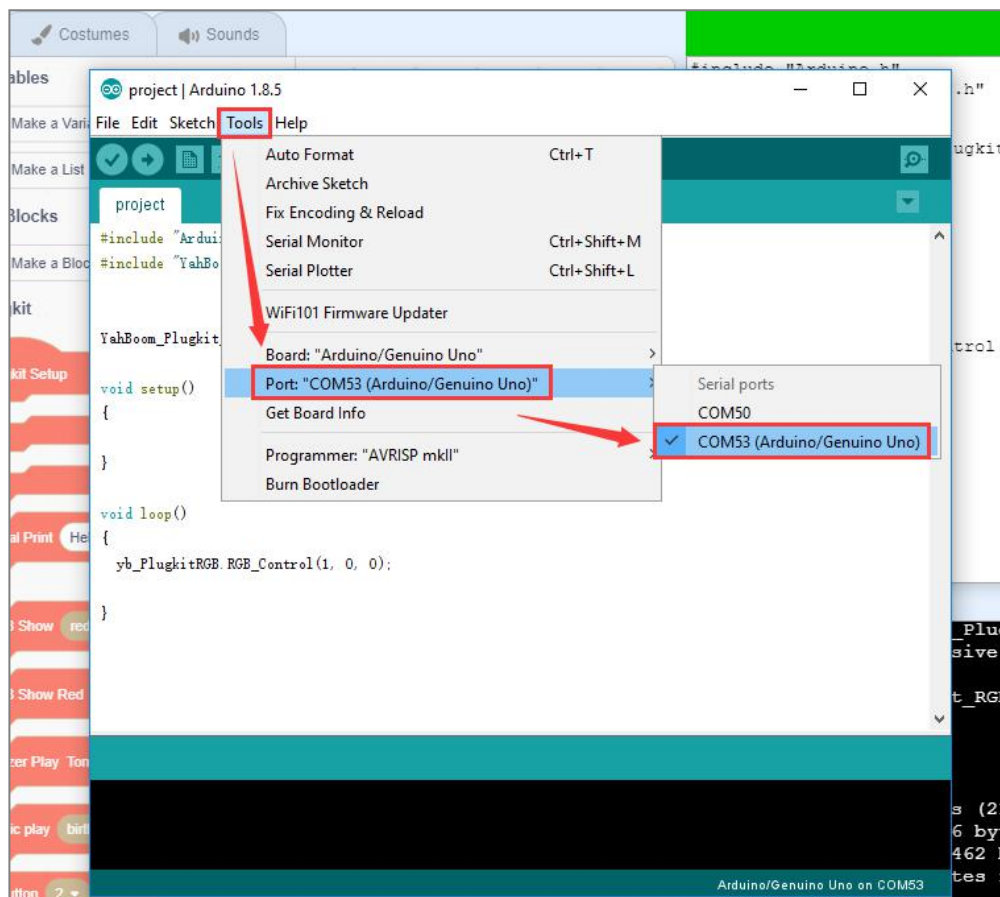


Click  in the upper right corner to open the Arduino IDE.

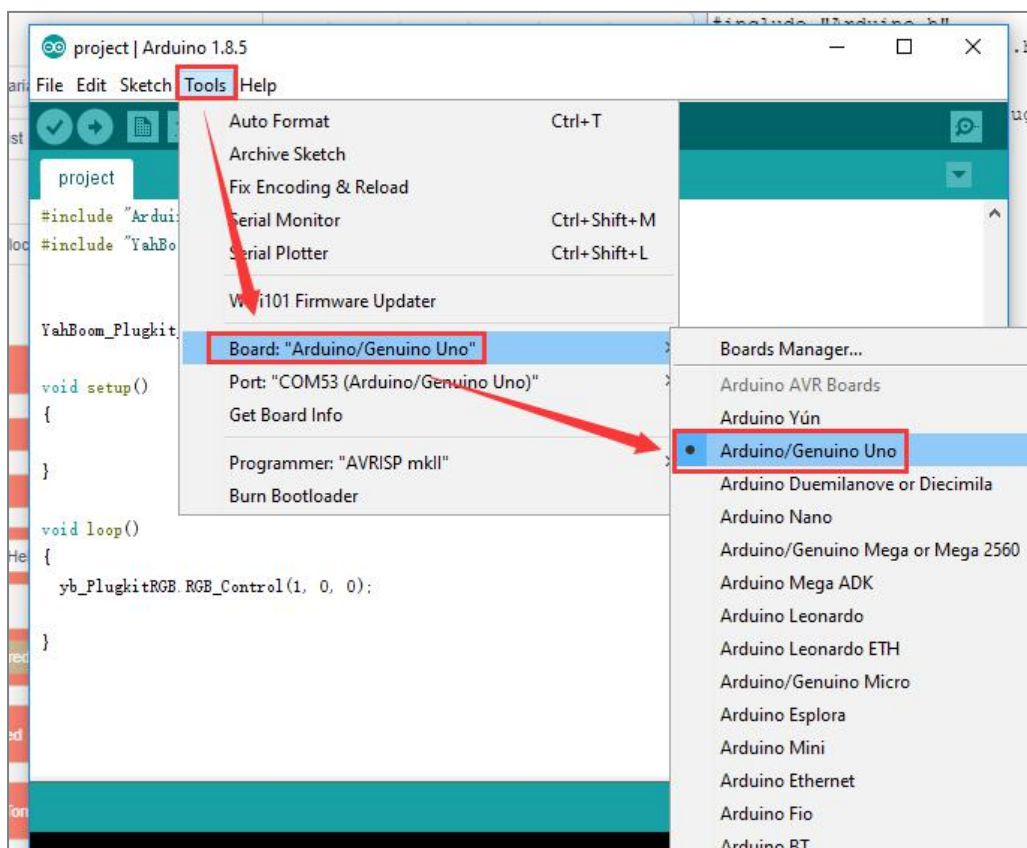


In the menu bar of the Arduino IDE, select [Tools] --- [Port] and select a serial port number other than COM1.

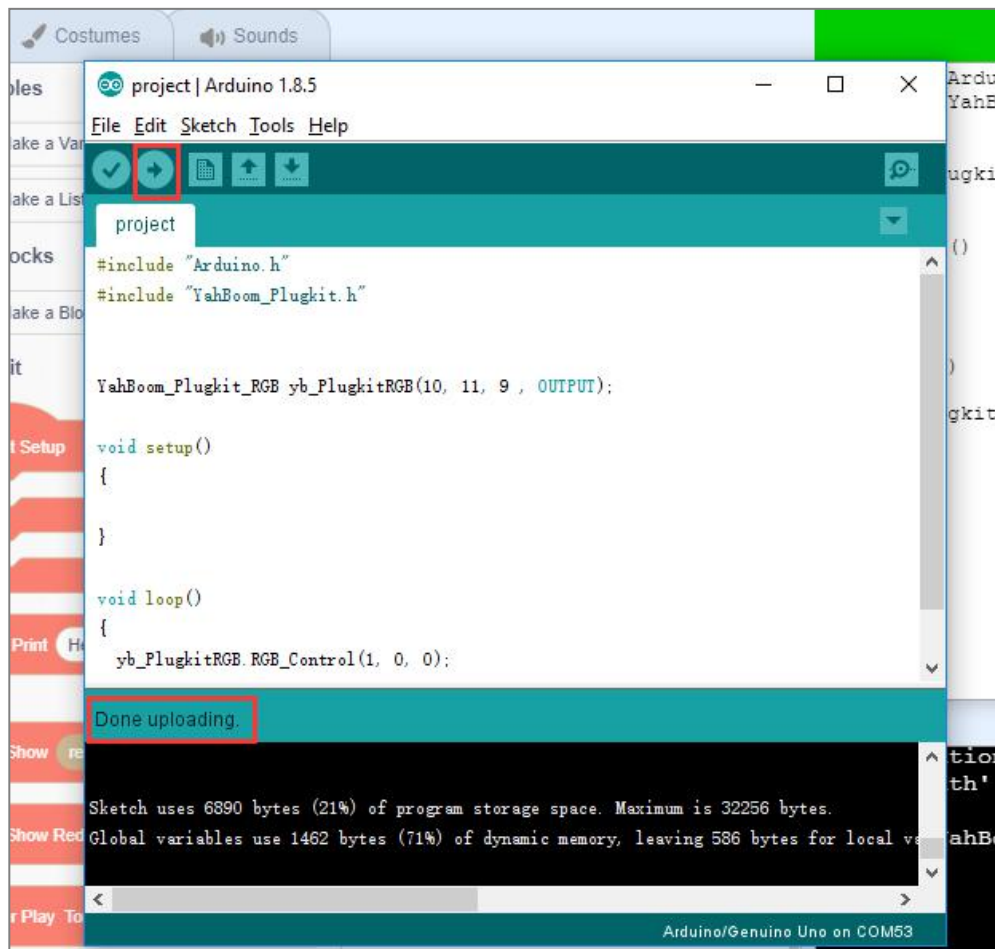




In the menu bar of the Arduino IDE, select [Tools] --- [Board], and select the board we use. (we need to select "Arduino / Genuino UNO".)



After selecting the correct port number and board model, click the upload button to upload the program to the UNO board. When the “Done uploading” in the lower left corner, it means that the program has been uploaded to the board.



Click in the upper right corner to open the serial port debugging assistant.

