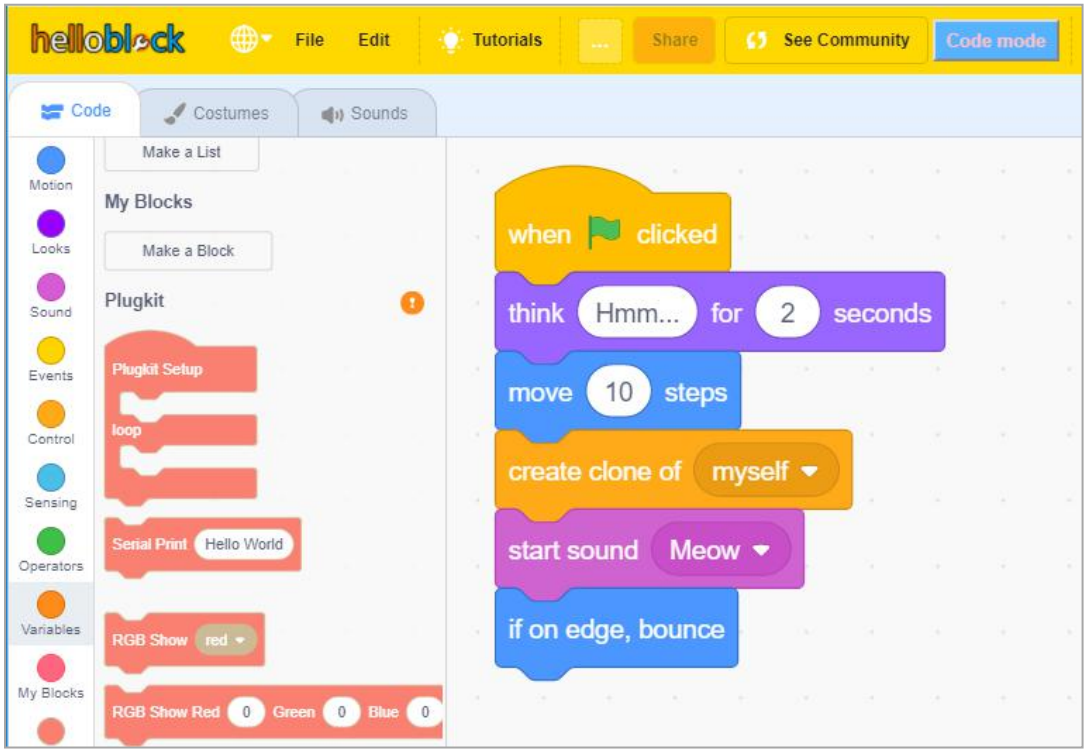
6.1 Classification of building blocks

Color Classification

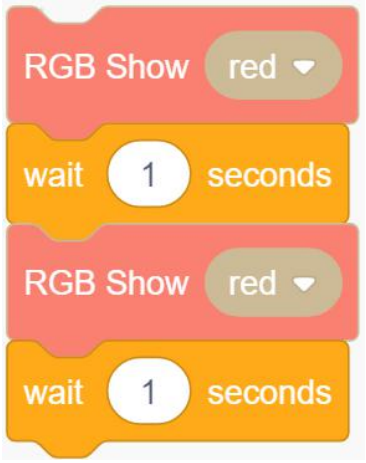
On the left side of the programming interface, we have distinguished functions by colors. The color of the corresponding function of the building blocks in the expansion pack is convenient for us to quickly identify the role of the current building blocks when writing programs.



Shape Classification

1. In the scratch programming, all the program blocks are also distinguished by their shapes, which are “bump shape”, “ellipse shape” and “diamond shape”.

2. Bump-shape blocks are the most basic blocks in scratch programming. They are generally the most commonly used functions. Execute from top to bottom in order.



Scratch will execute the spliced blocks in order from top to bottom

3. Ellipse-shape block are used to store content in scratch programming, which are variables usually and are used as parameters. The elliptical block we can directly find from the blocks library represent the specific attributes of a character and stores corresponding digital or text information.

Record the results of the operation

Record analog value of potentiometer module

4. Diamond-shape building blocks are used to set conditions in the scratch. When we need a program that is more intelligent and able to distinguish different responses in different situations, then we need to use the diamond-shape conditional blocks to help the computer distinguish situation.

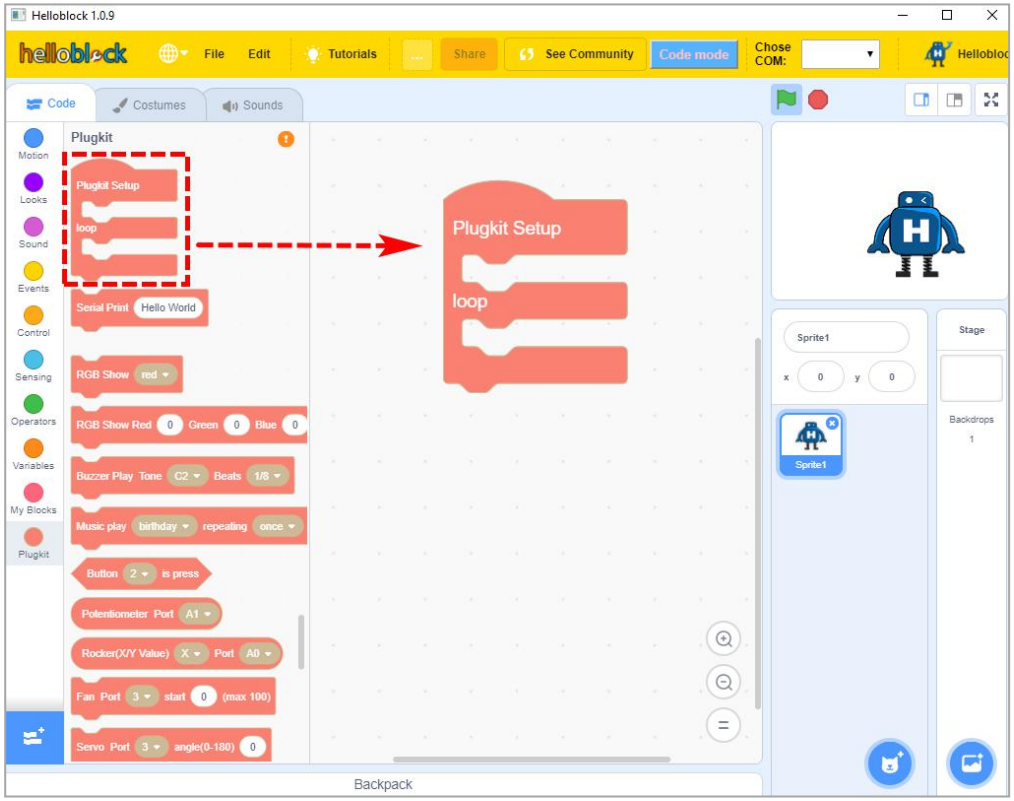
Whether both conditions are met at the same time

when key module is pressed, return True

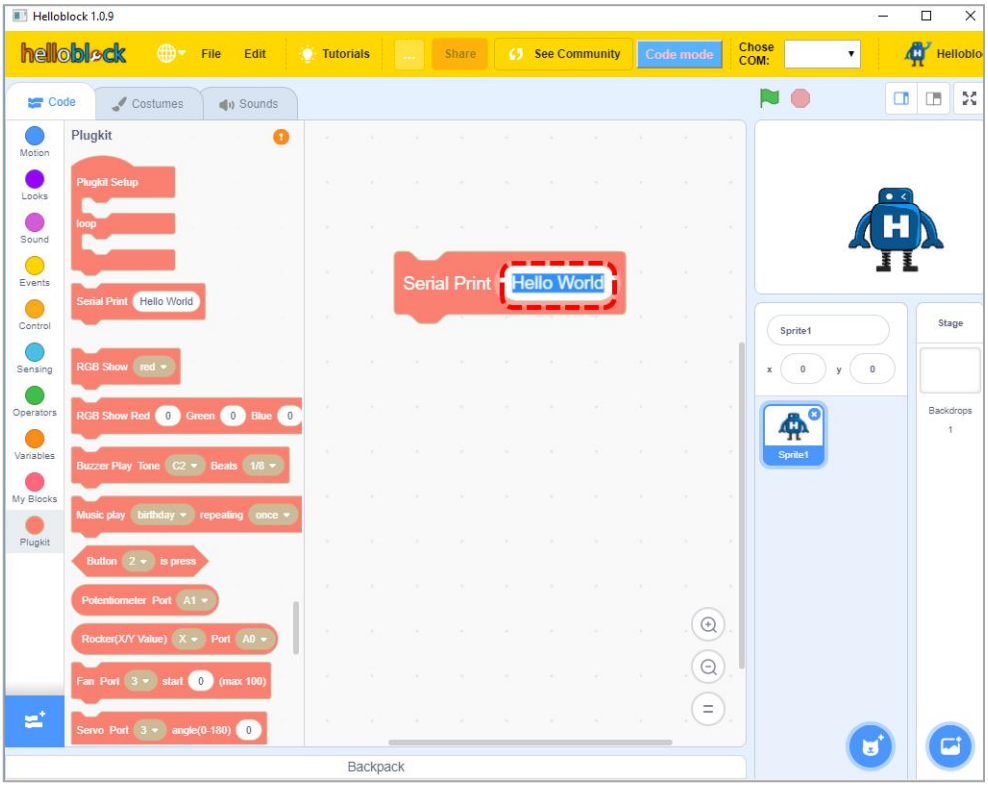
There are only two states of conditional building blocks, True and False. Return True, which means that the content of the condition is met. Return False is false, which means that the condition is not met.

6.2 Basic operations

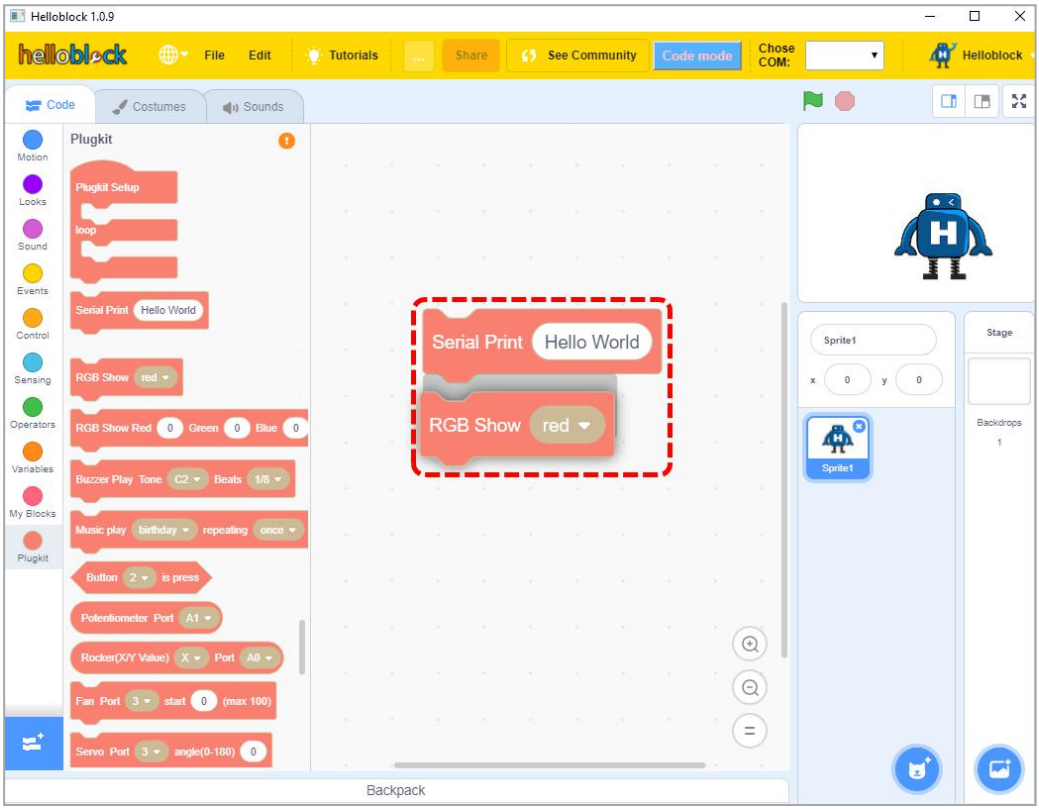
1. Drag the blocks to the script area (press the left button of mouse and drag out).



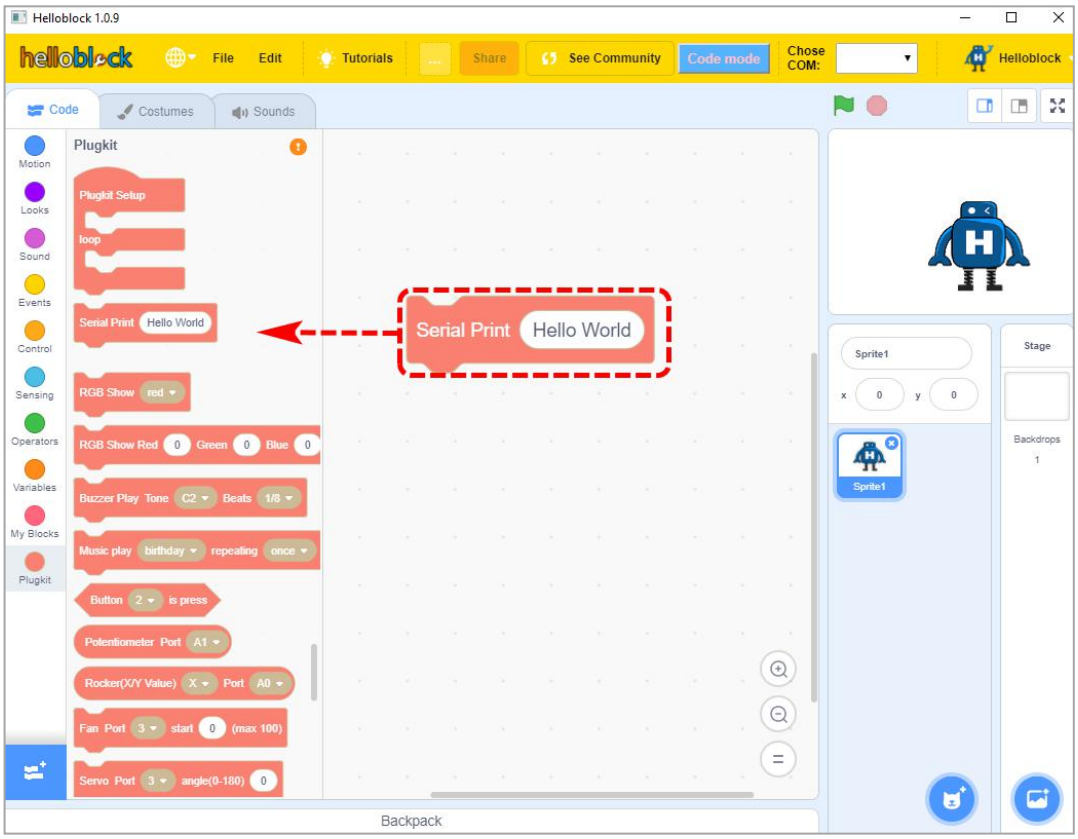
2. Change the parameters (click the command parameter with the left button of mouse, and enter new data with the keyboard)

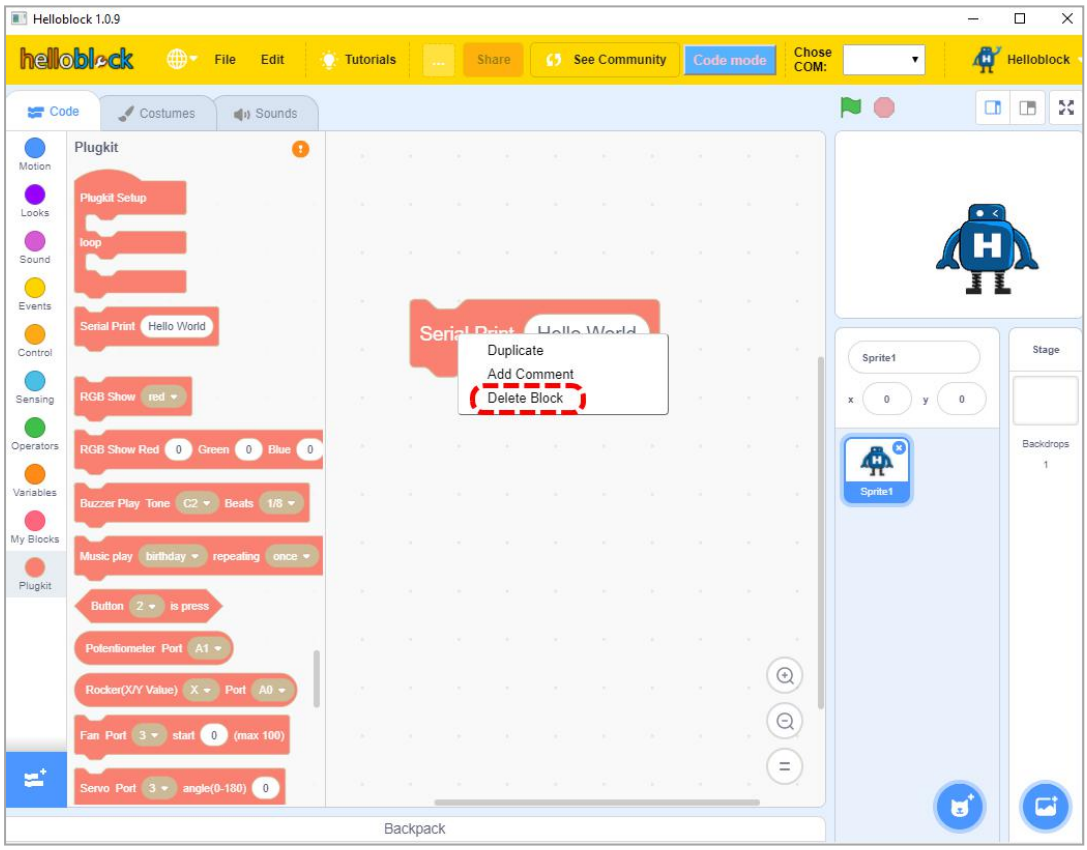


3. Stacking blocks (Drag below the previous block, two blocks will be automatically absorbed)

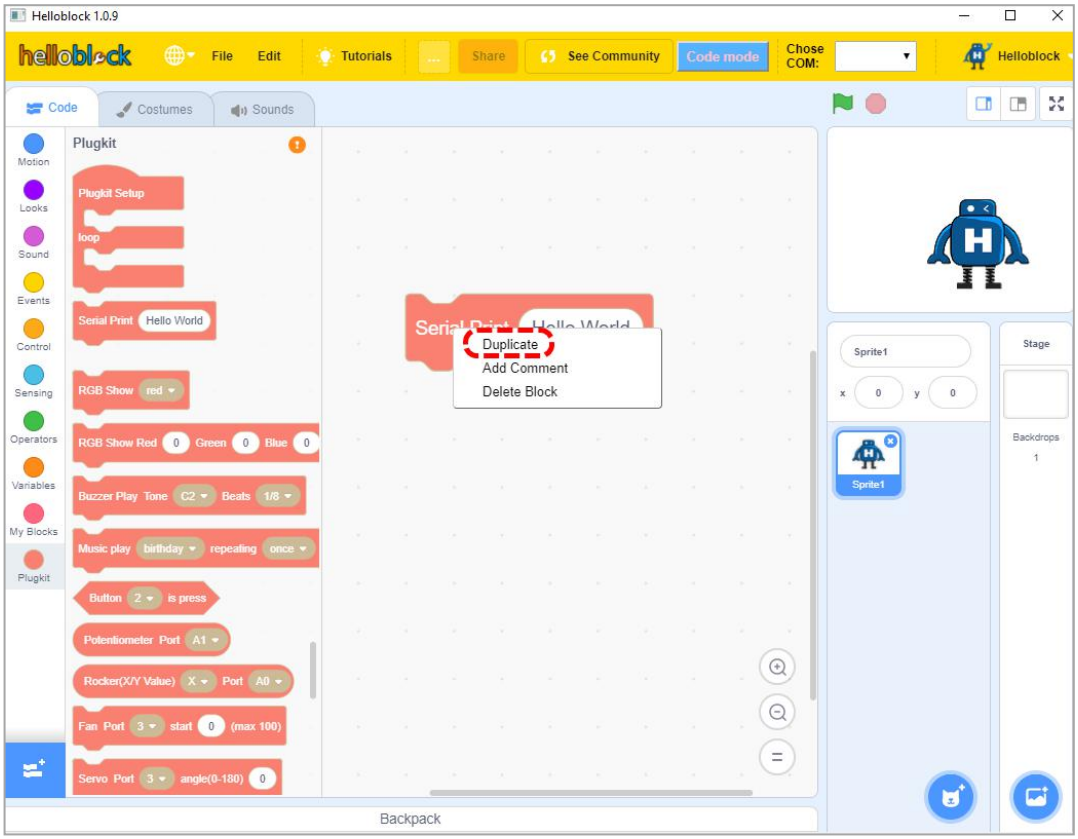


4. Delete blocks (Press left button of mouse and drag the entire block to the block area or click right button of mouse and select “Delete”)

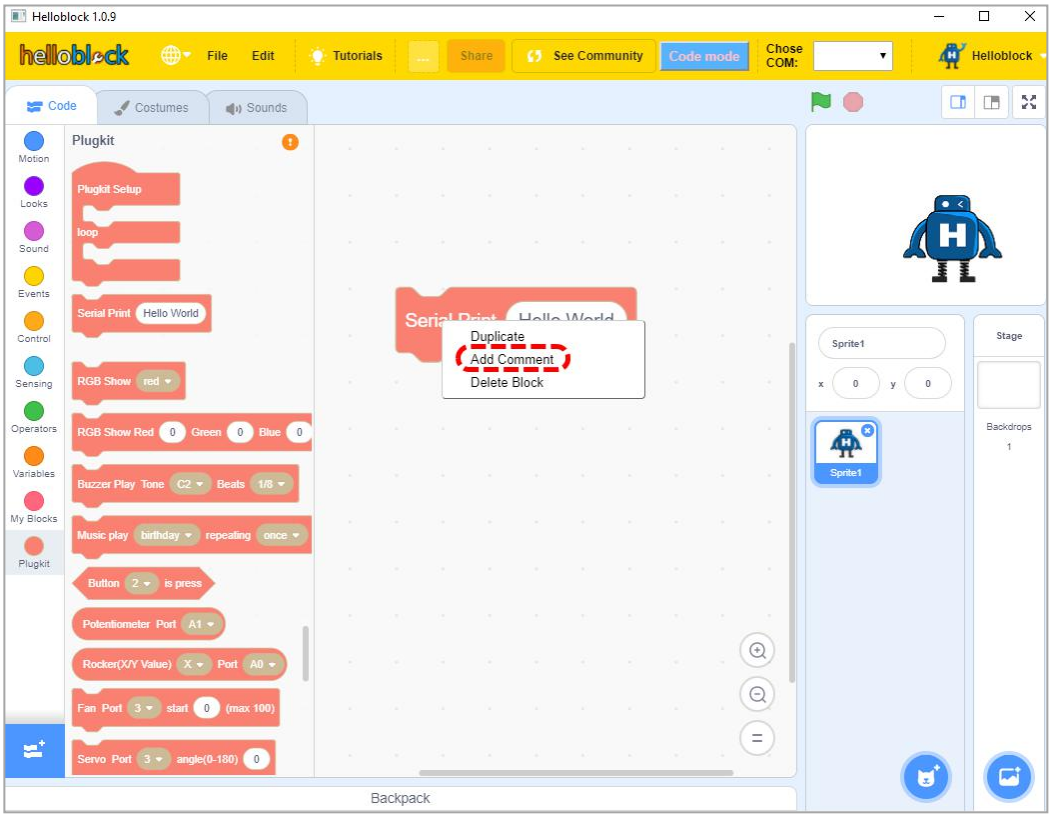




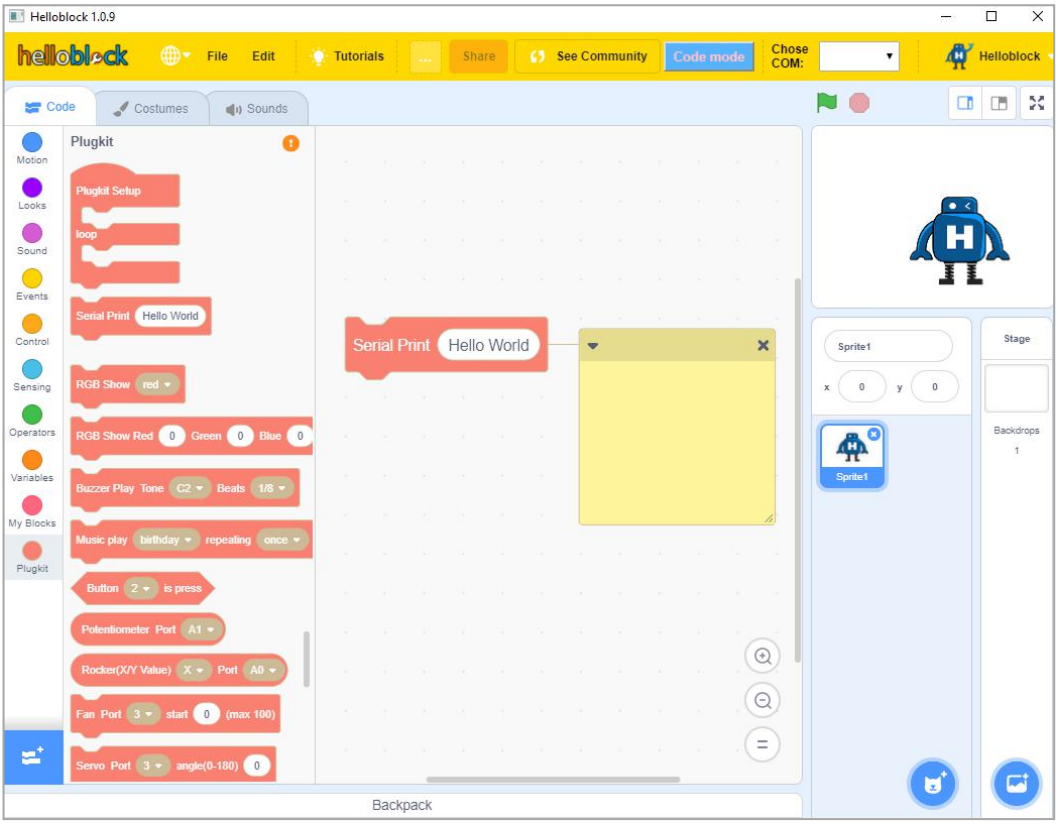
5. Copy blocks (Left button of mouse click on the building block and copy it with the Ctrl + C, Ctrl + V of keyboard, or right button of mouse click on the building block and select “Duplicate”)



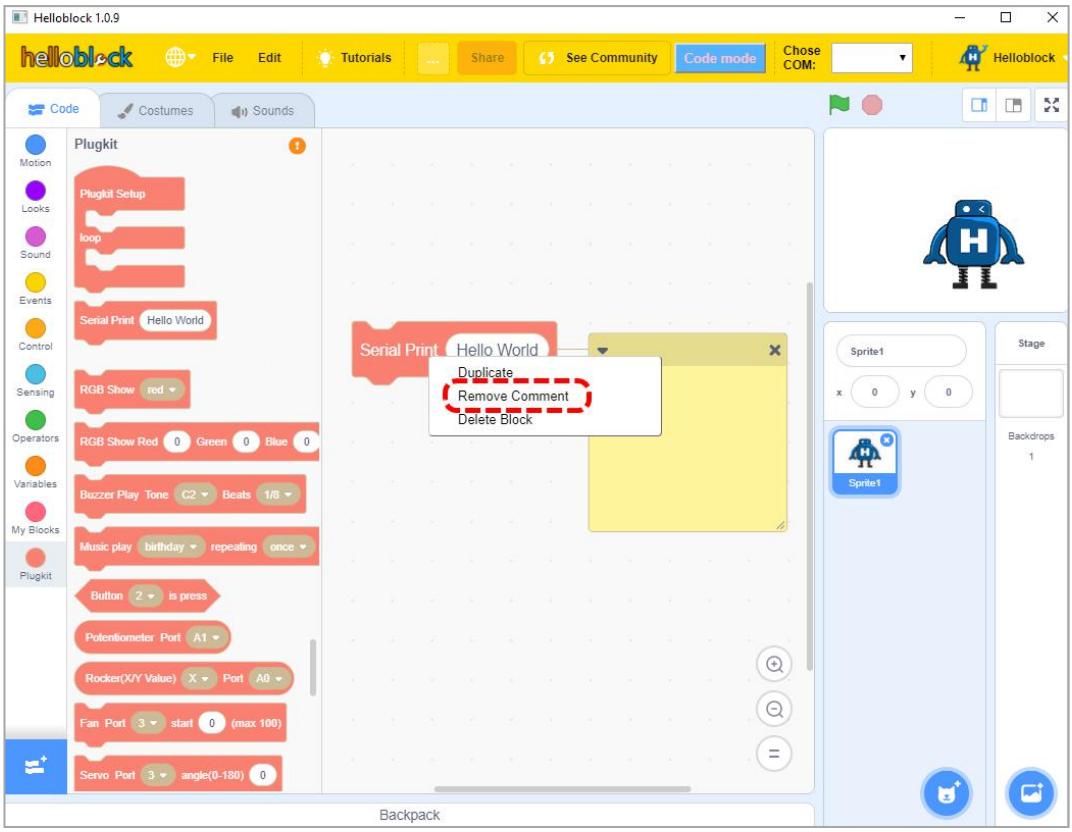
6. Add comments (Right button of mouse click on the building block and select “Add comment”)



A text box will appears to the right side of the block, and the size of text box is adjustable.



Right button of mouse click on the block where the comment has been added, and you can select “Remove comment”.



Tips

1. If there are multiple building blocks superimposed at the same time, clicking the top building block to move will move the entire building block combination, and clicking the bottom building block to move only moves the bottom building block. In generally, modify or delete the building block, you can drag the building block from bottom to top. Or first drag out the combination of the blocks below the blocks that need to be modified to modify or delete them individually.

2. If you need to use building blocks with the same parameters multiple times, you can modify the parameters in the building block area before using them, instead of modifying the parameters each time.