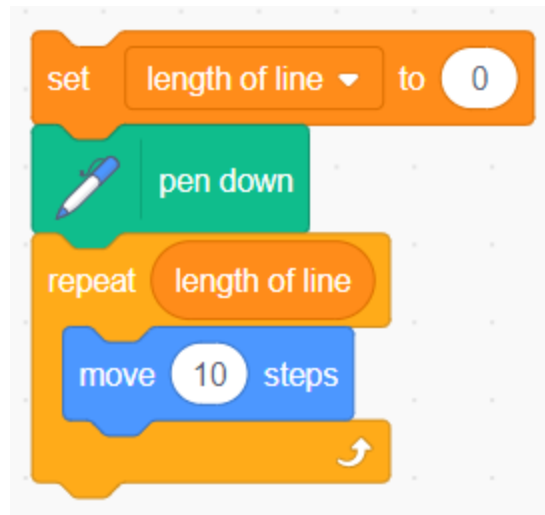


## LO: To use a variable to increase programming possibilities

1. What is a variable? What do you understand by the word variable? What could a variable be?
  - a. A variable is something that can change
  - b. When we have a variable in programming, we need to set a value for it
2. What do you think this code will make happen? In the code, what do you think the variable is? What value has been given to the variable?

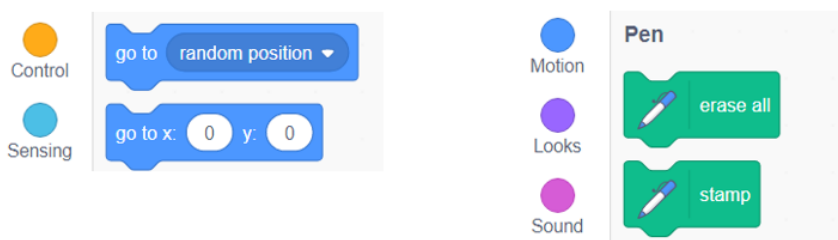


- a. The variable is 'length of line'
- b. The value of the variable is '0'

3. Follow this link. What happens when we change the value of the 'length of line' variable?

<https://scratch.mit.edu/projects/323465474/editor/>

After each go, use click the blocks below to start again

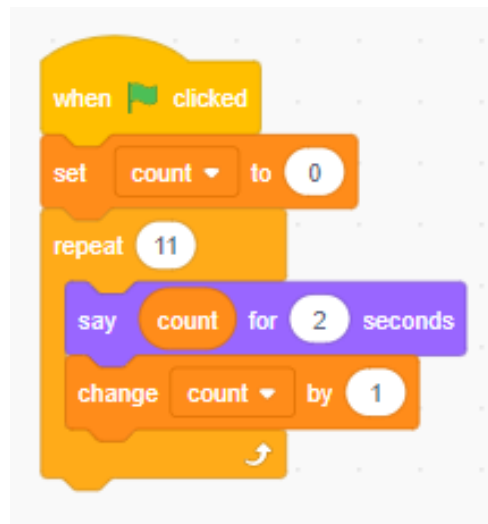


Click these blocks to

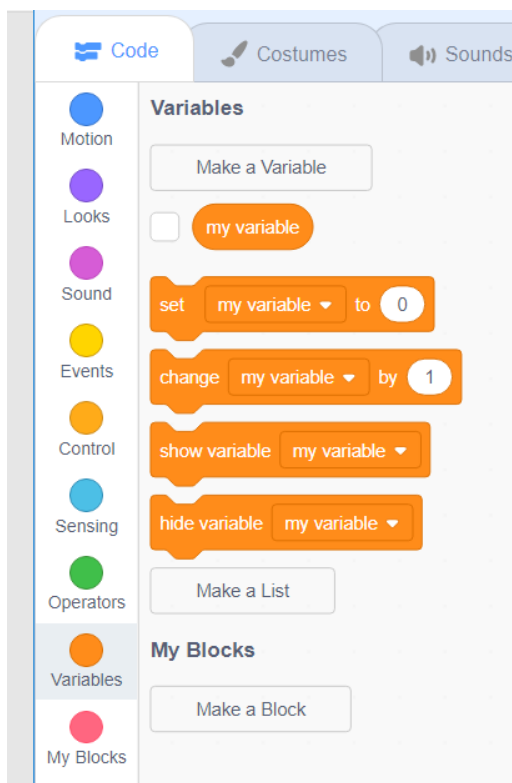
- return to (0,0)
- Clear screen

- a. It changes how far the cat moves. It changes how long the line is.

4. What do you think this code will make happen? What is the variable? What is the value(s) of the variable?

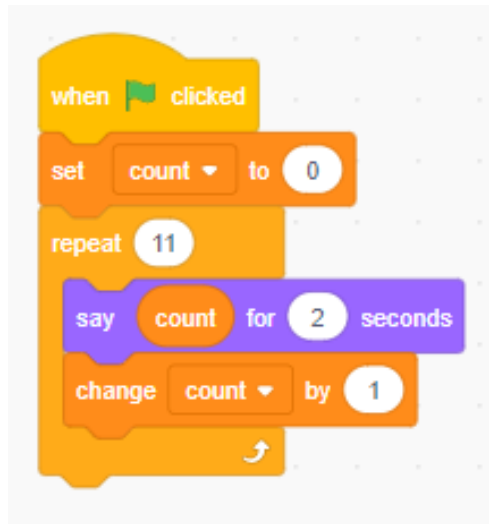


- a. The variable is count
  - b. The value of 'set count' is '0'
  - c. The value of 'change count' is '1'
5. Open Scratch 2 in your web browser. Click 'Create'.  
First, click 'Variables'



Then click 'Make a variable'. Type in 'Count'. Click OK.

6. Create the code below. What does it do?



7. Change the 'set count to' variable. How does that change what happens?
8. Change the 'repeat' variable. How does that change what happens?
9. Change the 'say count for ... seconds' variable. How does that change what happens?
10. Change the 'change count by' variable. How does that change what happens?

Experiment with the code and the variable values. Can you create it to start at 100 and count on in 7s, ten more time with 1 second intervals?