

Variables and Loops in Scratch

Discover

Variables and loops begin to unlock the power of programming, saving you from doing repetitive tasks.

Learn

From the code section, “Variables”, make a new variable for Scratch and call it “clickCount”. Add the control for “When Sprite1 clicked”, then set the clickCount to itself + 1. The code section “Operators” have code lines that modify or compare variables.

Next add a control when a key is pressed, and a “repeat until” loop. Everything inside the loop will keep on happening until it's condition is true. In our example when the clickCount is 0. Inside the loop, reduce the clickCount by 1, turn, and wait.

Apply

Instead of turning 15 degrees, try changing the y variable (in “Motion” section).

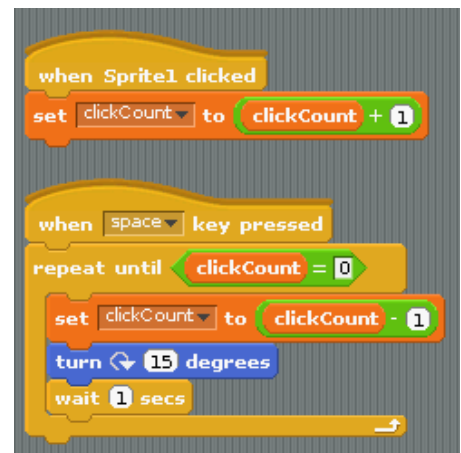
In the pen section, learn to use pen down/up and clear.

Find out what the following script does by reading, then trying it:

Set x to 0

repeat until x = 50

 change x by 10 (Inside the loop)



What if the above script was repeated for y, but put inside x's repeat loop?

Teach

Share your findings with others, and work together on combining them in new scripts. Prepare some interesting script to share with everyone.

Discover

Try some of the lines of code in the “Looks” section, for example “say”.

MC3-Python: Apply principles of variables and loops to Minecraft.