



Introduction:

By now you know that programs in scratch are like movies with characters called sprites. In the last lesson, we used the built-in sprite cat, and we named it Billi. In this lesson, you have been introduced to several types of Conditional, Control and Sensing blocks in Scratch. You also learned how to make Billi walk from one end of the screen to the other, stop or turnaround when it hits an edge.

Now it is your turn to experiment and write a few programs with Billi.

Try the following:

1. Open up the last program we wrote in the class.
2. Change the key pressed to be something different from Space.
3. Change what the cat says, her color and size when she stops.
4. Make the cat wait 5 sec before stopping
5. Change what Billi does when she hits the edge.
6. Make her jump up and down. Hint: A jump could be up 50 steps and come down 50 steps and then stop.
7. Make her say jump up and down and say "Yeah, I made it" and then stop.
8. Try experimenting with ideas of your own! Remember, there are no wrong answers here!
9. In the class, we used a repeat 10 block. Change it to a forever block. Do you see that the program never stops running? (You can make it stop by pressing the red octagonal stop sign)
10. Instead of a forever block, use a repeat until block. For condition, try <key ? pressed> condition, or <mouse down> condition.
11. Challenge 1: Starting at the bottom left corner of the screen, make the cat climb up a ladder until it reaches the top right corner. Hint: a ladder going up is like going right, then up, then again right, then up. When it reaches the top or right edge, have the cat say "Yeah, I'm at the top".
12. Challenge 2: Continuing from challenge 1, once it reaches the top, make the cat climb down and say "Yeah, I'm at the bottom".
13. Hint: Think of the going up and going down the ladder as two separate sections of your program, running one after the other. The first one will repeat until cat reaches top edge, then the second one will run until cat reaches the bottom edge.
14. Don't worry if you don't get this challenge right! We will work on it in the next class.
15. Save your work.