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Junior Code Club: Project Flying Cat!

Project Purpose:

- This is a two-stage project designed to introduce younger club members to multi-stage programming.
- Youngest programmers may only build the initial stage
- Slightly more advanced programmers can introduce a second sprite to make the cat fly
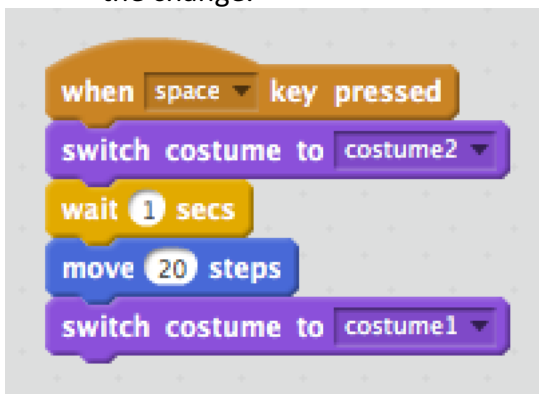
Basic Project:
1) Choose a background and a sprite.

2) Let's initialise the program by pressing the space bar and make our sprite move across the screen.

3) Now we can switch between sprite's costumes to give the appearance of walking as well as the movement. We need to add the wait 1 second command so we can see the change.

Note how we switch between two costumes, reverting to the original at the end. If we don't do this, the costume changes only once, instead of repeating.

Very young children may have exhausted their concentration at this point. They can make the sprite move by pressing the space bar continuously and simply dragging it back to whichever position they would like at the end.

Concentrate on achievement- they've told the computer what to do!
Very verbal kids may enjoy creating a story about their sprite. Where is it going? What is it doing?

Slightly More Advanced Project

- Note that pressing the space bar is a lot of work! We can make the computer do this for us.

4) Add a loop for ten repetitions. Kids should be encourage to experiment
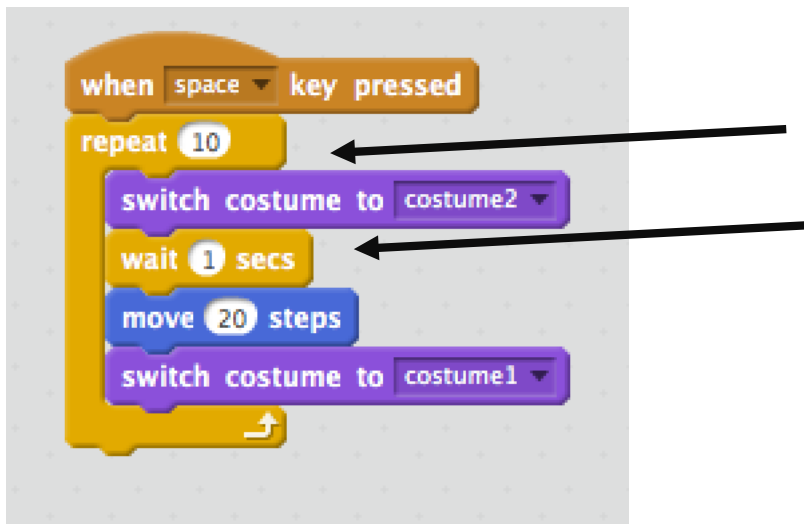
Now the kids only have to press the space bar once!
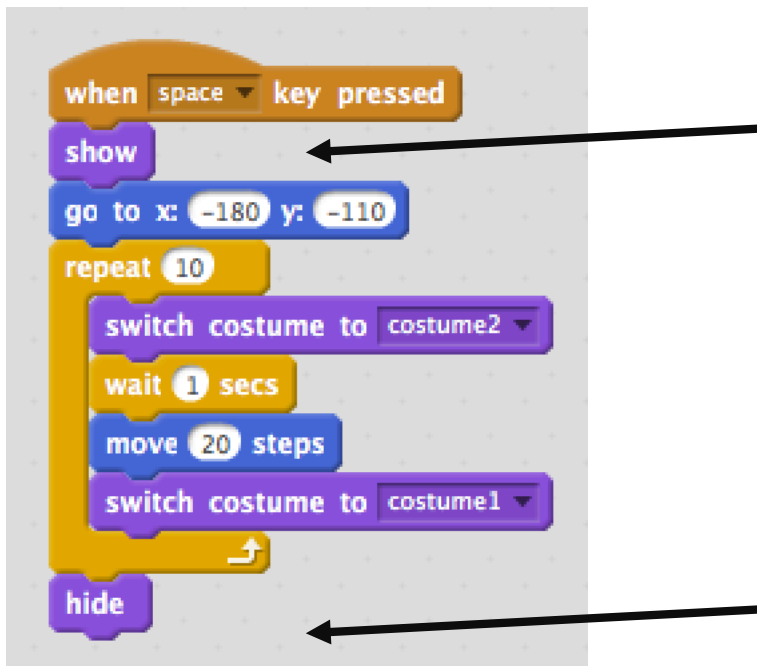
This is another optional end point.

5) But if we keep running this program, eventually our sprite will disappear. Let's put it at the right start point at the beginning of the program. Note the Cartesian coordinates (-180, -110).
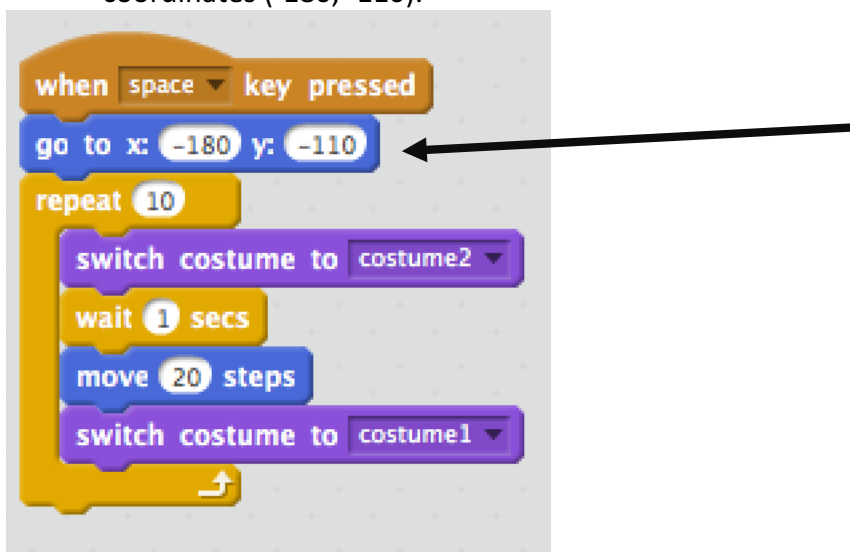

Another option to end here.

Time for take off!

6) Let's make our cat fly. Let's add two commands: show and hide to our original sprite. The show command is like the "go to" command at the beginning of the program, it resets our sprite. The hide command does exactly what it says! At the end of this code block we are done with this sprite and don't want to see it any more.

7) Add the second cat sprite. Make sure that for this next block of code, the sprite is highlighted in the sprite menu.
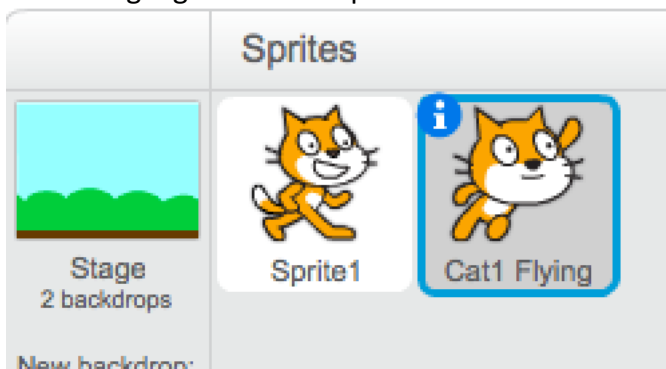
8) Now we need to add code for this sprite. Make sure you're clicked on this sprite in the menu bar.
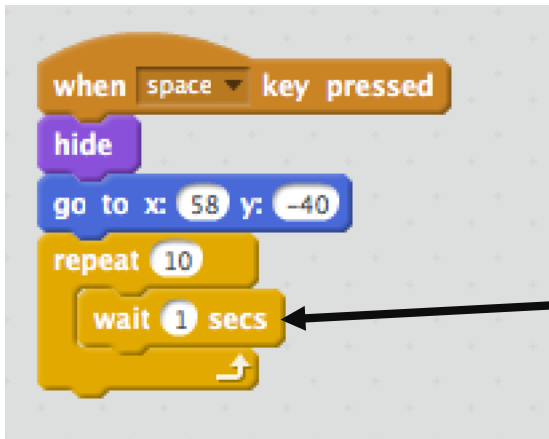
We will initialise this sprite with the same space bar command as the other sprite, but we need to hide this sprite until it's time to use it. Like before, we'll put the sprite at a beginning point to start with. Note the Cartesian coordinates in go to x: (58, -40)

9) We have a second sprite but we can't see it! We don't want to see it until the cat is done walking, so we will add the same loop and wait sequence as before and then show it.
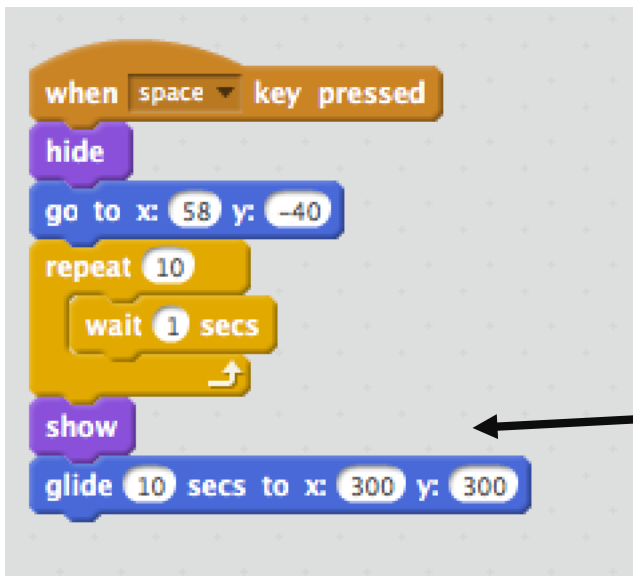

We could do this a number of ways, but if kids experiment with the repeat and wait parameters, it's easier for them to see which ones to change on the second sprite code.

10) Let's add the show command so our second sprite appears at the same time the first disappears. To give the impression of flying, this time the sprite will glide off the screen. Note the Cartesian coordinates here of (300, 300).

Off, off and away!

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