Creating your first program

When you click blocks in the Blocks Palette, the cat moves immediately, so this is good for testing what blocks do, but not useful for making a program. A program is a set of repeatable instructions that you can store up to carry out later. For our first Scratch program, let's make the cat walk down the hill:

1 We're going to write a program for the cat, so click the cat in the Sprite List

2 Next, check that the Code Area is open. If the middle pane shows costumes or sounds instead, click the **Code** tab above the Blocks Palette

3 Click the **Motion** button to the left of the Blocks Palette (see screenshot, right)

4 You make a program by dragging blocks into the Code Area from the Blocks Palette. To do this for your first block, click the **turn clockwise 15 degrees** block in the Blocks Palette, hold the mouse button down, move the mouse pointer into the Code Area and then release the mouse button. This first block will point our cat downhill, ready for its walk

5 Click the **move 10 steps** block in the Blocks Palette, drag it into the Code Area and drop it underneath the **turn clockwise 15 degrees** block. They will snap together. When blocks are joined like this they make what's known as a "script". A sprite can have more than one script, and a program might include lots of sprites with several scripts

Hot tip

If you click and drag a block that's joined to other blocks above it in the Code Area, it will break away from them, and carry all the blocks underneath it with it.

Beware

You can move blocks around the Code Area, but if you drag them into the Blocks Palette, they'll be deleted.

Don't forget

Make sure the blocks snap together, otherwise they won't work as one script. If they don't snap together, they're not close enough.

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6 Click the **Control** button beside the Blocks Palette. Control blocks are used to decide when things should happen. Drag the **wait 1 seconds** block into the Code Area and snap it underneath the other two blocks. This block adds a 1-second delay. Without it, our cat would move so fast, it would appear to just jump from the start of its walk to the end. Slowing it down enables us to see what's going on. You can make it walk a bit faster by changing the delay from 1 second to 0.5 seconds
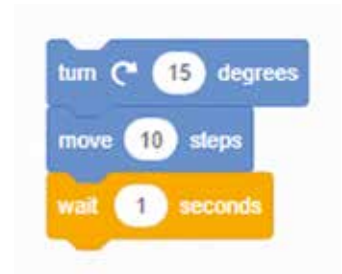
7 Right-click the **move 10 steps** block, and when the menu opens, choose **Duplicate**. This copies the block plus any blocks underneath it in your script. In our example, it copies the **move** and the **wait** blocks. Move the copy to the bottom of your program, and click to place the blocks there. You can repeat this step several times to make the cat walk further
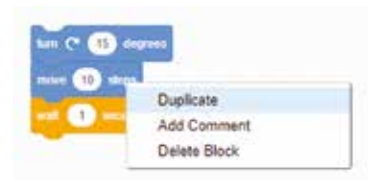
8 It's a long walk for a tiny cat, so let's make it finish its walk with a exclamation of "Phew!" in a speech bubble. Click the **Looks** button beside the Blocks Palette. Drag the **say Hello! for 2 seconds** block into the Code Area and join it to your program. Click Hello! to edit what the cat says to Phew!
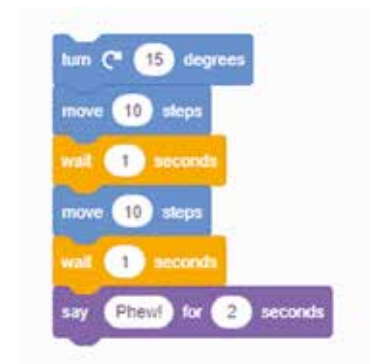
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9 When you start a script's commands, it's called "running" the script. To run your script, click any of the joined-up blocks in the Code Area. Scratch carries out all the joined-up instructions in order, starting at the top and working its way down the blocks

10 What happens if you click the script to run it again? The cat turns again and walks from where it finished last time. Eventually, it'll be walking on its head. Let's add some blocks to put it in the right starting position. Click the **Motion** button beside the Blocks Palette and drag in the **point in direction 90** block and the **go to x:0 y:0** block. If the

go to block has different numbers in it, edit them both to make them zero. Add these blocks to the top of your script. Can you make the cat's walk longer?
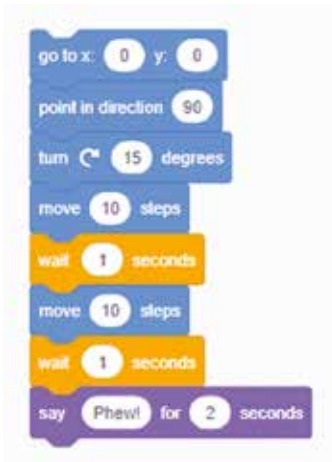
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Left: A few blocks and one exhausted cat later, here's your first program.