Projects

Shaun the Sheep: Mission to Space

Create an animation with Shaun the Sheep and LU-LA

Step 1 Introduction

You are going to learn how to code your own animation about the global flock-star, Shaun the Sheep, and his new alien-friend Lu-La.

This project is part of the Code Club 'Shaun the Sheep: Mission to Space' Competition, which is open to all Code Clubs around the world.

To bring you this project, Code Club and the Raspberry Pi Foundation are partnering with Studiocanal and Aardman, to celebrate the launch of their new film A Shaun the Sheep Movie: Farmageddon!

Trailer (https://shaunthesheep.com/)

What you will make

Step 2 Help Lu-La into the spaceship

Get Lu-La into the spaceship, so that she can go home.

Open the 'Shaun the Sheep: Mission to Space' Scratch starter project.

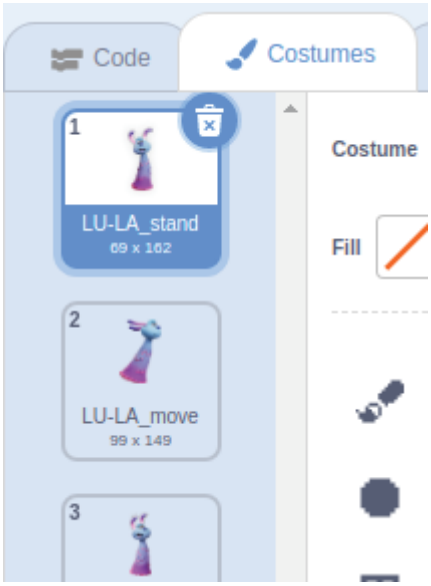
Online: open the starter project at rpf.io/shauns-space-mission-on [(https://rpf.io/shauns-space-mission-on)](https://rpf.io/shauns-space-mission-on).

If you have a Scratch account, you can make a copy of the starter project by clicking on Remix.

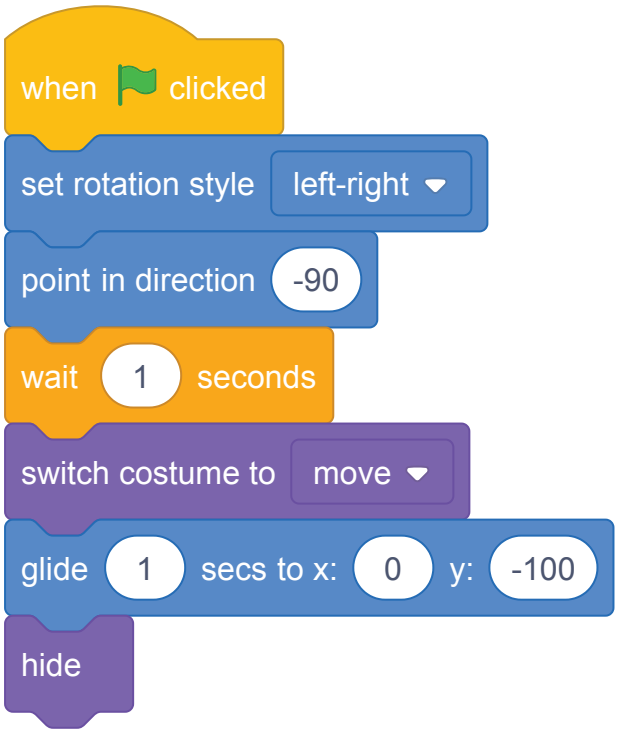
Offline: download the starter project from rpf.io/p/en/shauns-space-mission-go [(https://rpf.io/p/en/shauns-space-mission-go)](https://rpf.io/p/en/shauns-space-mission-go) and then open it using the offline Scratch editor.

The project contains backdrops and some sprites:

Costumes can be used to change how a sprite looks. Click on your Lu-La sprite and then click on Costumes to see them.

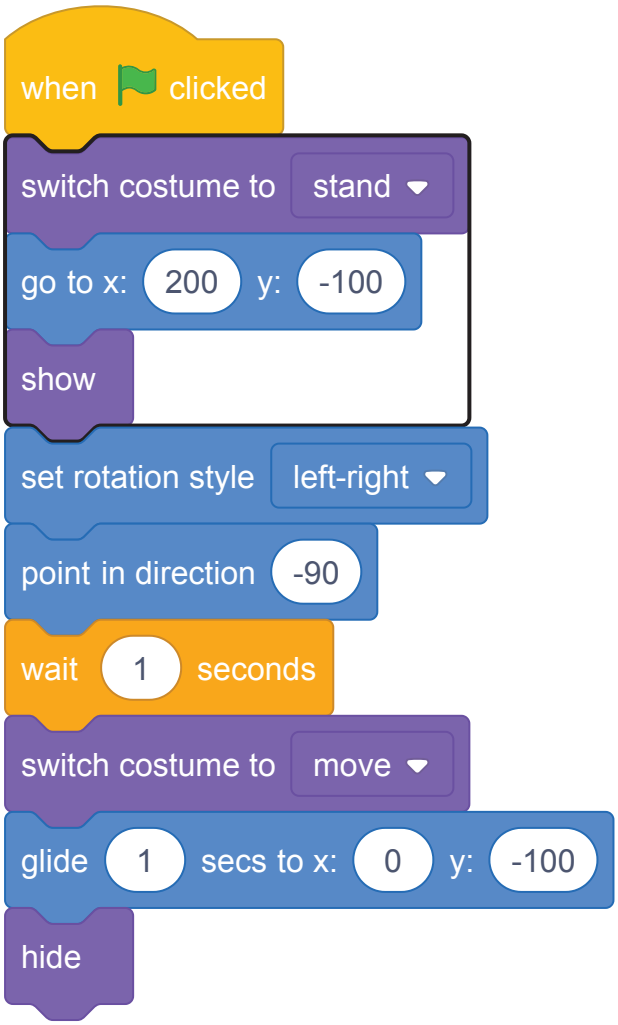


Add this code to Lu-La to move her towards the spaceship:



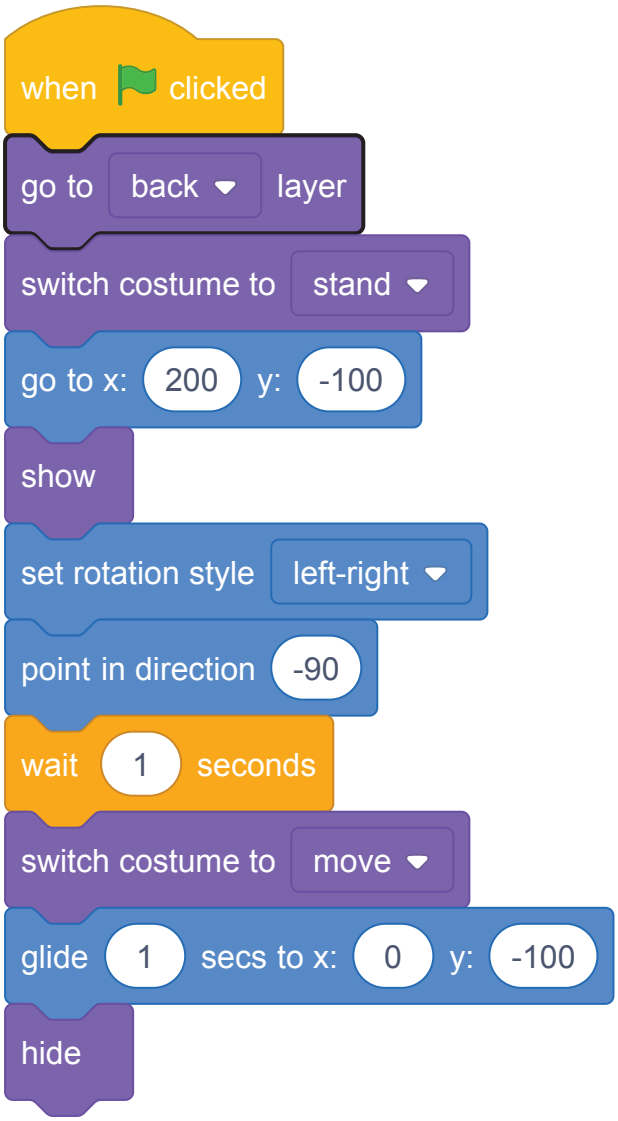
Click the green flag to test your code. You should see Lu-La move towards the spaceship in the middle of the stage, and then Lu-La should disappear.

Test and save your code again by clicking the green flag again. You should see that Lu-La is still hidden. Add this code to reset Lu-La's starting position every time you click the green flag:



Test and save your code a few times by clicking the green flag. You should see Lu-La appear back at the starting position each time you test your code.

To make Lu-La disappear behind the spaceship, add another block:



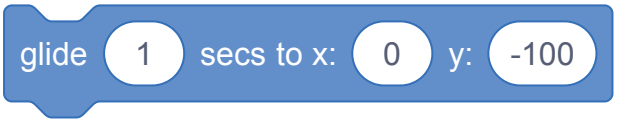
Test and save your code. You should now see Lu-La move behind the spaceship.

Challenge!

Challenge: improve your animation

Can you change the numbers in your code, so that Lu-La moves more slowly towards the spaceship?

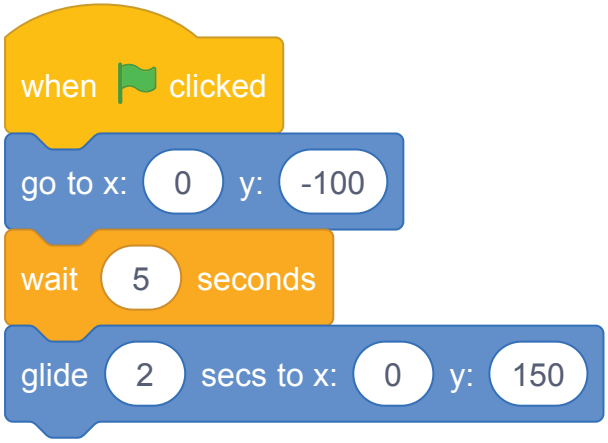
You need to change the numbers in this block:



Step 3 How to animate the spaceship

Next, animate the spaceship and fly Lu-La home!

Click on your Spaceship sprite and add this code:



Change the numbers in the code blocks so that the spaceship's code is exactly the same as shown above.

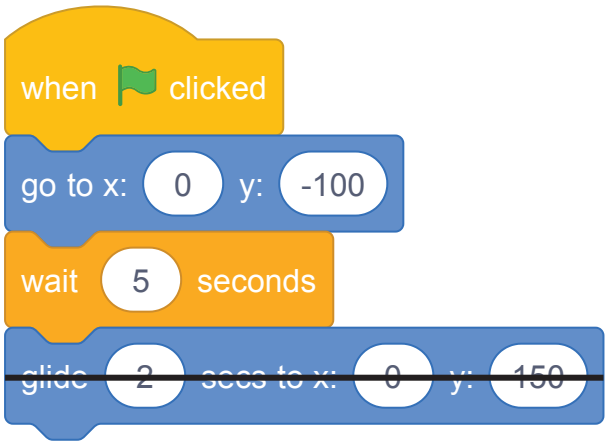
Test and save your code. When you click the green flag, after 5 seconds you should see the spaceship glide upwards.

If your spaceship takes off before Lu-La reaches it, change the number in the `wait` block.

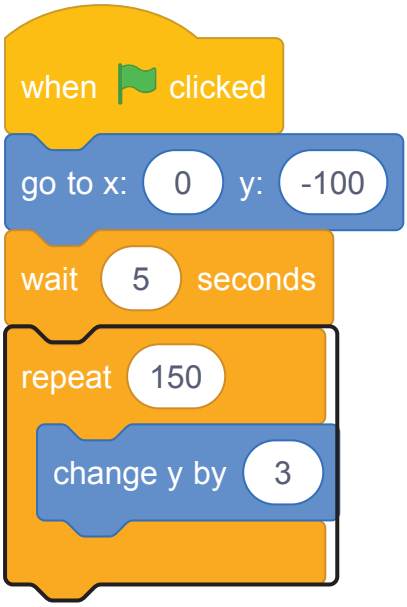
Step 4 How to use loops for animation

Another way to animate the spaceship is to tell it to move a small amount lots of times.

Delete the `glide` block from your code. To do this, click and drag the block off the Code area and drop it where the other single code blocks are.

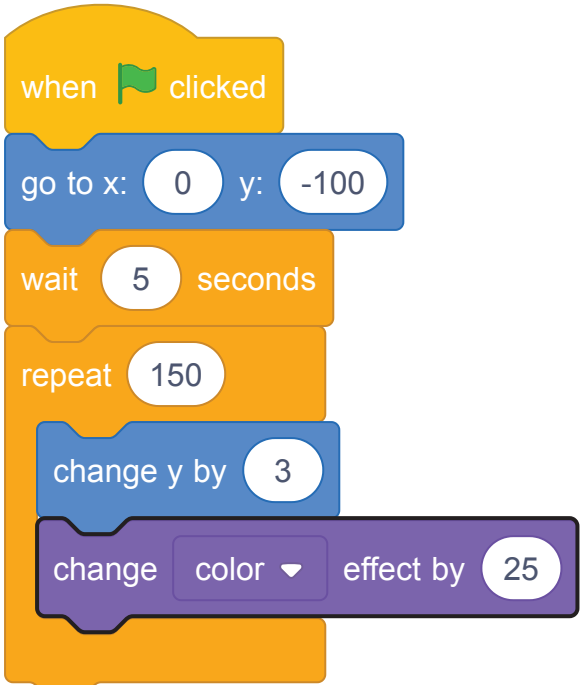


Now use a `repeat` block to move the spaceship upwards.



Test and save your code. The spaceship should move upwards exactly as before, but this time it is controlled by a `repeat` block.

Next, add code to your spaceship sprite so that it changes colour as it moves towards the top of the stage:

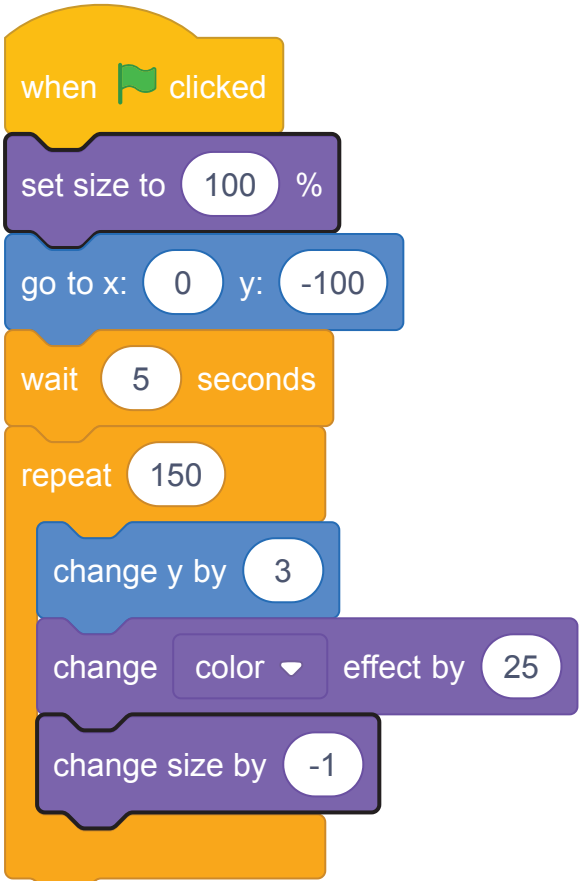


Test and save your code. Your spaceship should now change colour as it moves.

Can you make your spaceship get smaller as it moves towards the top of the stage?

I need a hint

Your code should look like this:



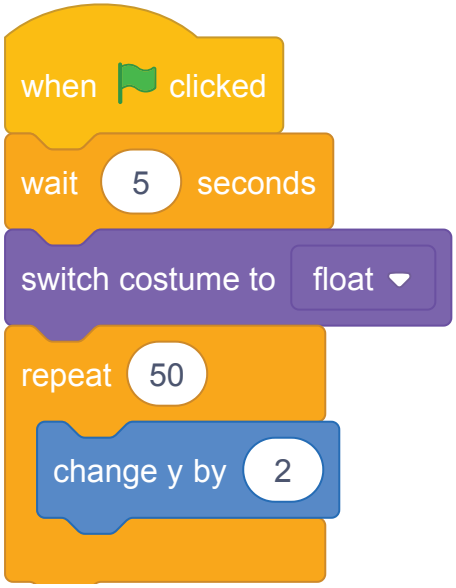
Test and save your code. Your spaceship should now get smaller as it moves upwards.

Test your code a second time. Is the spaceship the right size when the animation starts?

Step 5 How to make Shaun float

Now make Shaun float and spin in the air!

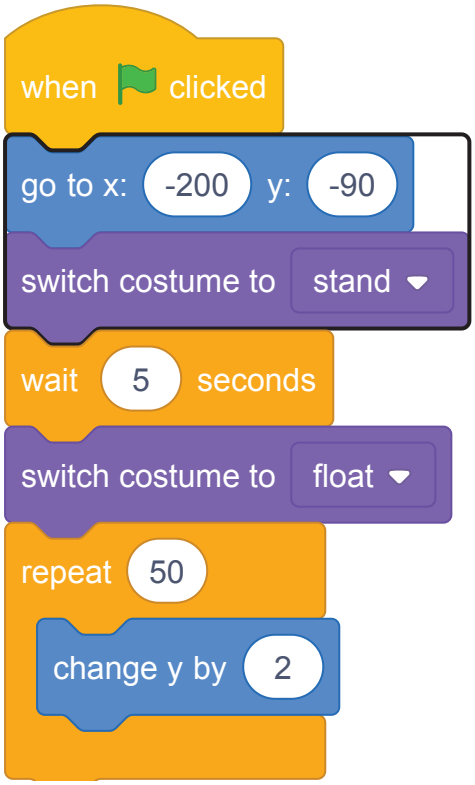
Add code to switch Shaun's costume and make him float:



Click the green flag to test your code. You should see Shaun float into the air.

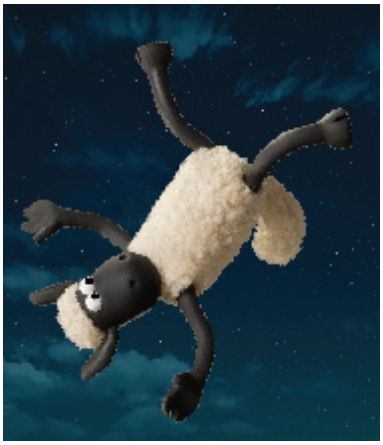
What happens if you click the green flag again?

Add code to reset Shaun at the start of the animation:



Finally, use a `forever` block to spin Shaun around in a circle:

Test your code again. Does Shaun spin in a circle after he floats up? What happens if you click the green flag a second time?



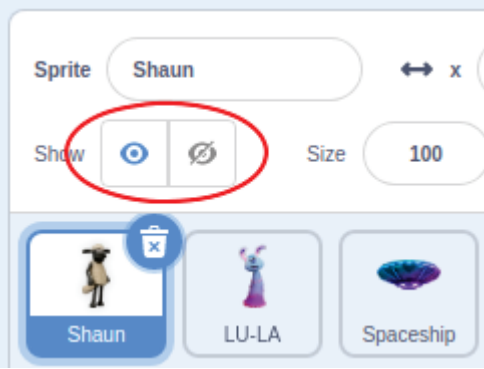
Because Shaun spins in a circle `forever`, you have to click the stop button next to the green flag when you want to stop your animation.

Challenge!

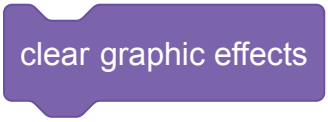
Challenge: make your own animation

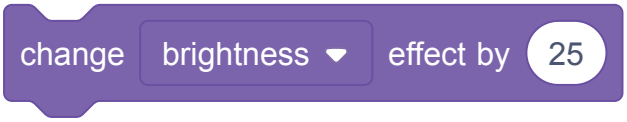
Use your new coding knowledge from this project to make your own animation featuring Shaun the Sheep and his new alien-friend Lu-La!

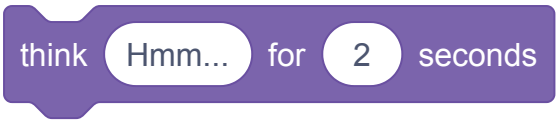
There are some other sprites in the project that you can use too. Click the show and hide buttons to add or remove sprites from the stage.

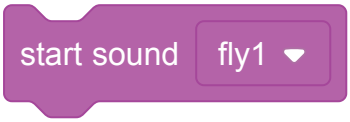


You can also use any of the other Scratch backdrops, sprites, and blocks! Here are some ideas to get you started:



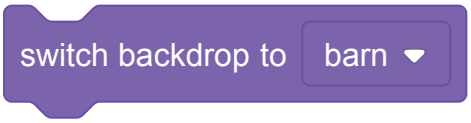






As well as changing sprite costumes, you can also change the stage backdrop.


Code
Backdrops
1
farmhouse-day
480 x 360
2
farmhouse-n...
480 x 360
3
barn
480 x 360
4
Costume
Fill


switch backdrop to
barn

Step 6 What next?

Congratulations on telling your story about Shaun the Sheep and his new alien-friend Lu-La!

If you're a member of a Code Club and want to take part in the global Code Club 'Shaun the Sheep: Mission to Space' Competition, make sure you get your Code Club leader to submit your animation by Friday 1st November 2019.
