Scratch Module 1

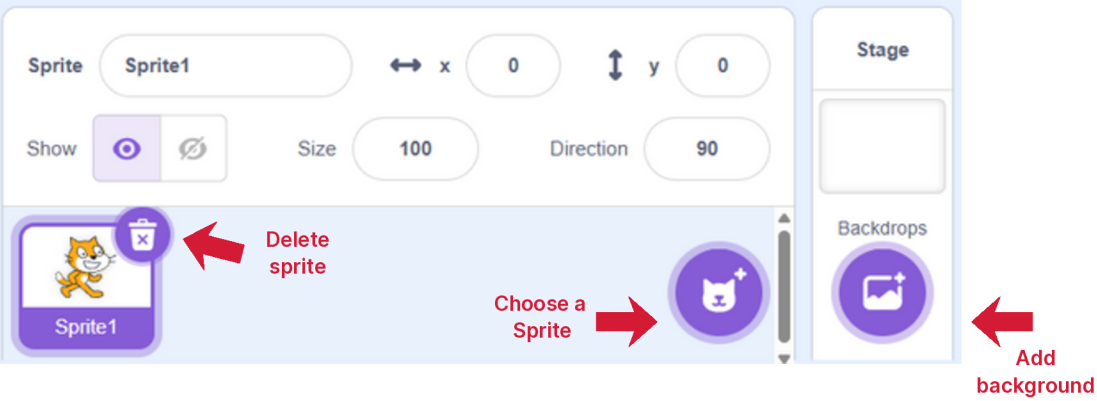
Lost in Space

Get started on your first project with Scratch!

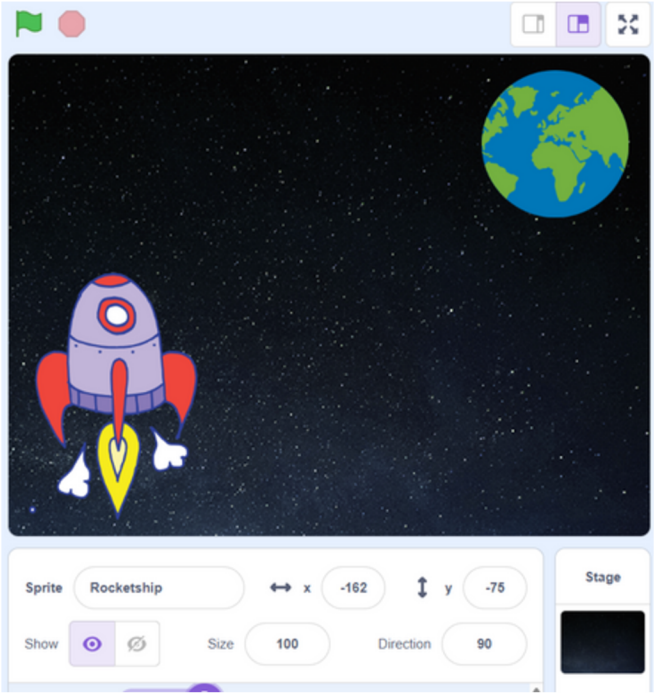
Step One — Animating a spaceship

Let's make a spaceship that flies towards the Earth—head to the Scratch website!

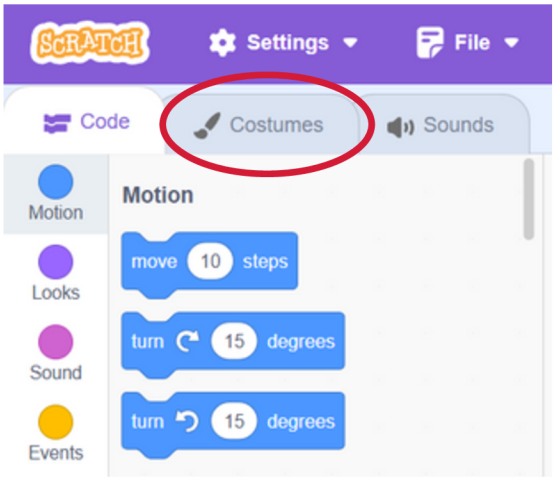
1. Create a new Scratch project by clicking "Create" from the front page
2. Delete the cat sprite by clicking the bin icon on the sprite thumbnail



3. Click the "Sprite" icon to add the "Rocketship" and "Earth" sprites to your stage
4. Click the "Backdrops" icon and select "Stars"

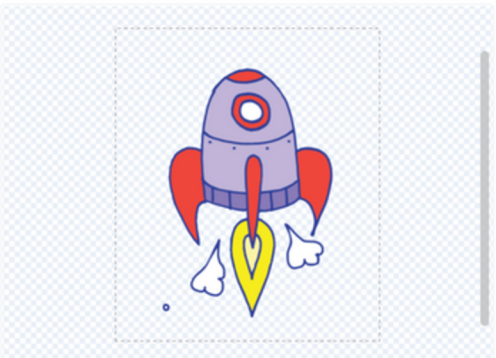


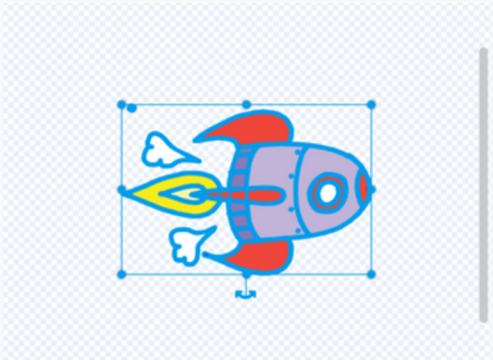
5. Click on your rocketship sprite and select the "Costumes" tab in the top-left of the screen



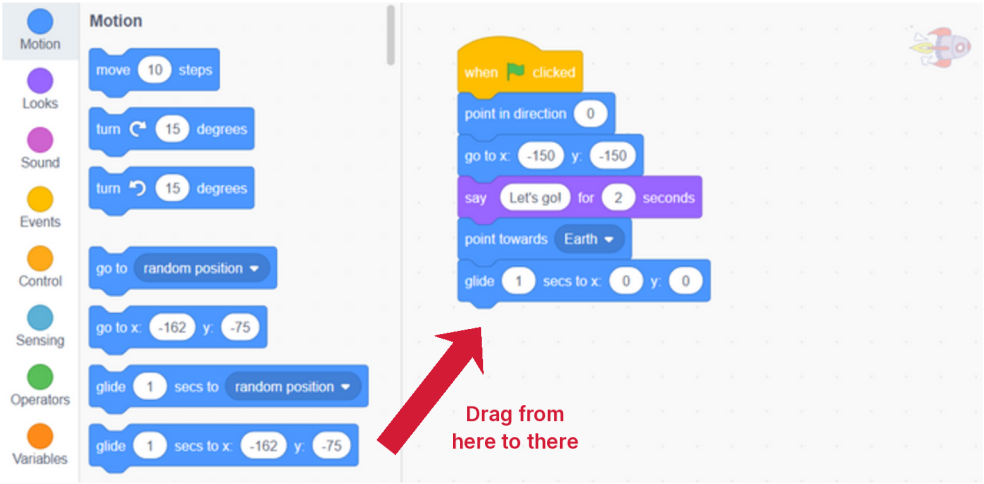
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6. Use the arrow tool to click and drag a box around the whole rocketship image
7. Then click on the circular rotate handle, and rotate the image until it is on its side

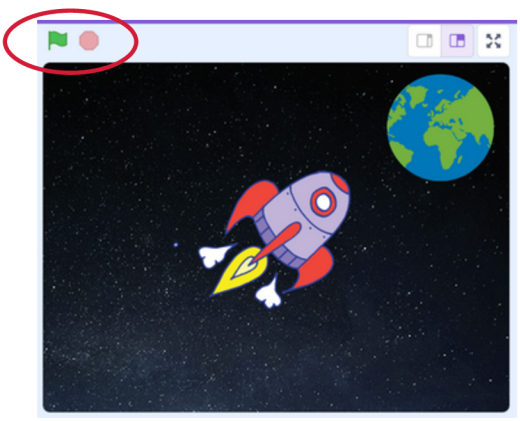




8. Add the code in the image below to your rocketship sprite by dragging and dropping the blocks from the panel on the left of the screen
9. Change the numbers so they look exactly the same as the below



10. Test your code by clicking the green flag on the top-left corner of your stage
11. Stop code by pressing the red button

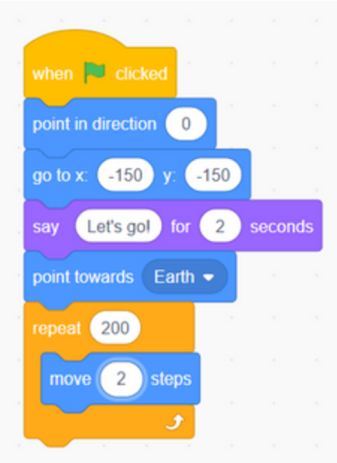


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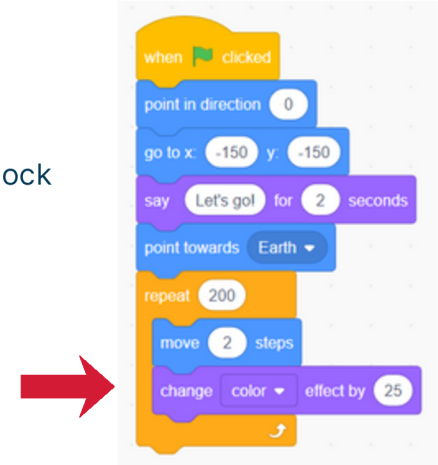
Step Two — Animation using loops

Another way to animate the rocketship is to tell it to move a small amount, many times!

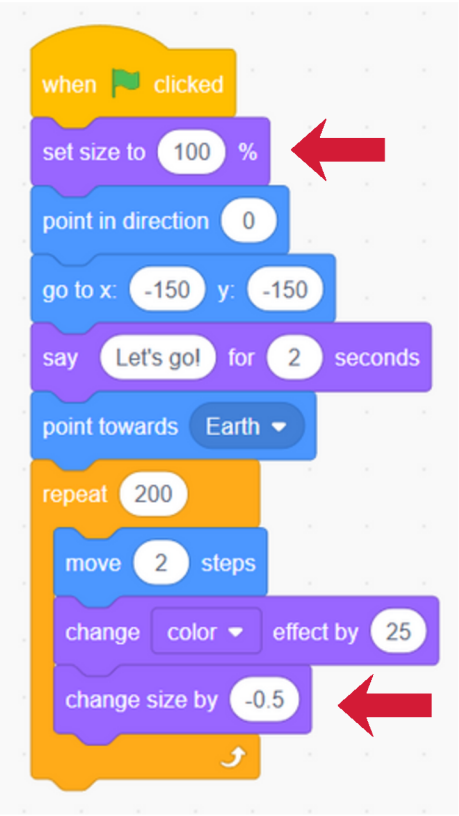
1. Remove the “Glide” block form your code by dragging the block back to the code panel or right-clicking and selecting “Delete Block”
2. Use the “Repeat” block and a “Move” block to move your rocketship towards Earth



3. Test and save your code
4. Add the following code block to your rocketship so that it changes colour as it moves towards Earth



5. Add the following code block so that your rocketship starts at 100% size every time you click the green flag and then gets smaller each time it moves



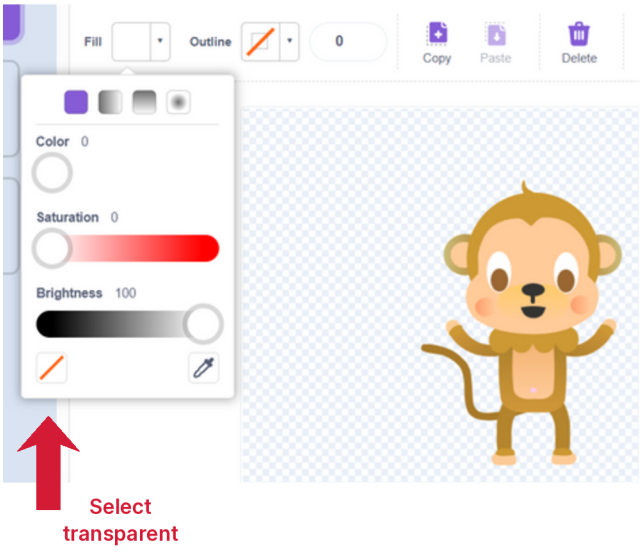
6. Test and save your code — your rocketship should now get smaller and change colour as it moves closer to Earth

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Step Three — Floating monkey

Let's add an astronaut monkey to your animation!

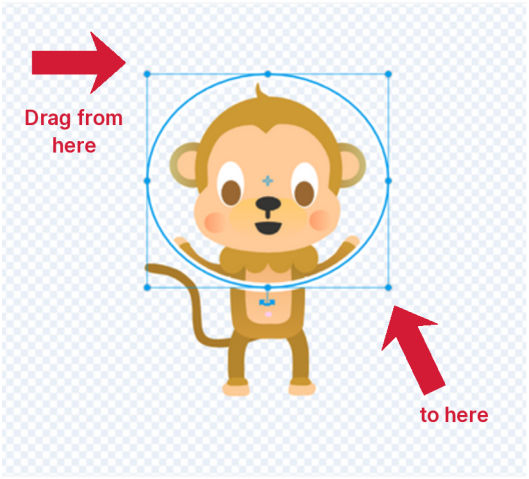
1. Start by adding a monkey sprite from the library
2. Click on the monkey sprite and click on the Costumes tab so we can edit how it looks

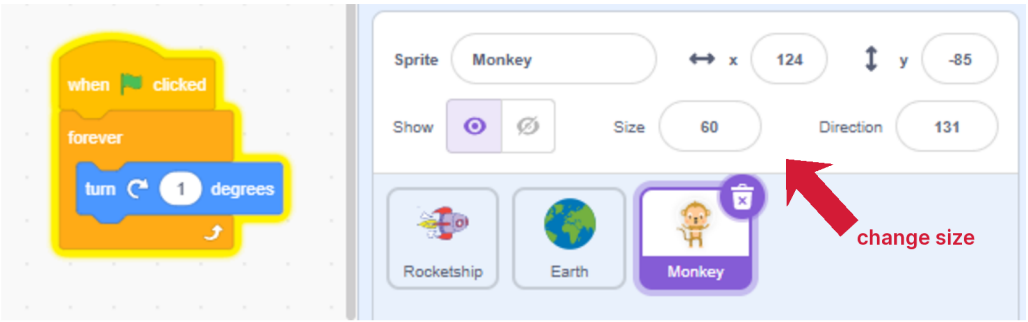


3. Select "Fill" and click the "Transparent" button
4. Select the "Outline" box and drag the "Saturation" bar to the left until 0 comes up
5. Next to the "Outline" box, change the number from 1 to 10



6. Click the circle "Ellipses" option in the toolbar and make a circle by dragging from one end to another
7. Now add the below code to this sprite so that your monkey spins in a circle forever
8. Change the size by clicking the "Size" above the sprites box from 100 to a smaller number





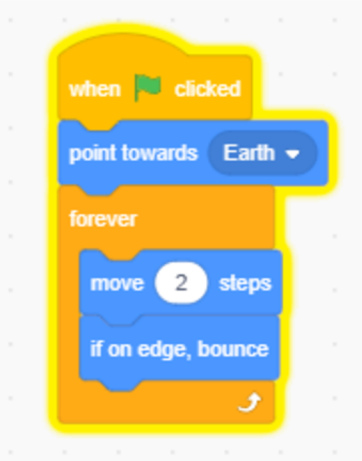
9. Test your code — your monkey should now spin while your rocket travels to Earth!

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Step Four — Bouncing asteroids

Let's add some floating space-rock to your animation.

1. Start by adding a rock sprite
2. Add the following code to your rock to make it bounce around the stage
3. Change the size to make the rock smaller
4. Can you make multiple different sizes? Or add another type of bouncing sprite?



Step Five — Twinkling star

Let's combine loops to make a shining star

1. Add a star sprite to your stage
2. Change the size to a smaller number so that it fits your stage
3. Press the green flag to see your code in action!



Congratulations, you've finished your first project!

You've completed your first Scratch project. If you're completing this for **Children's University** let one of our librarians know and we'll sign you off for 1 hour of coding activity.

Now, take what you've learnt here and make your own mini animation!