

CODE OF ORIGIN



Victoria Pop Art

Use clones to create your own pop art, using the Melbourne Cup horses as inspiration.

INTRODUCTION



What you will need

HARDWARE

A computer capable of running Scratch 3

SOFTWARE

Scratch 3:
either online
[rpf.io/scratchon](https://scratch.mit.edu/projects/802939823/)
or offline
[rpf.io/scratchoff](https://scratch.mit.edu/projects/802939823/)

What you will learn

- How to create clones
- How to use broadcast
- How to use colour effect

Starter Project

<https://scratch.mit.edu/projects/802942480/>

Additional notes for educators

Here is a link to the completed project
<https://scratch.mit.edu/projects/802939823/>

Read this [blog post](#) for information about the Code of Origin project by Code Club Australia.

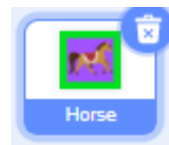


STEP 1 - CLONING THE SPRITE

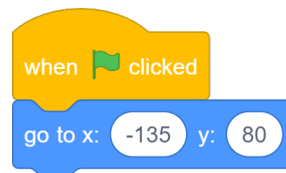
Open the starter project -<https://scratch.mit.edu/projects/802942480/>



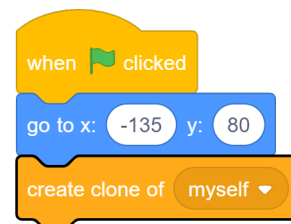
Select the horse sprite



Start with the event **when the flag is clicked**. Set the **x** and **y** co-ordinates for the sprites starting position.



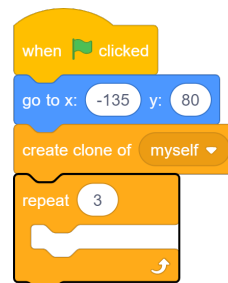
Now add a block to **create a clone of myself**.



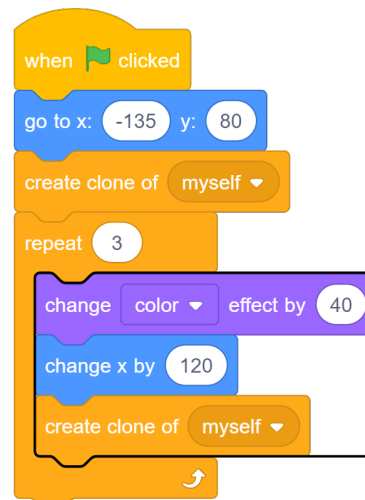
STEP 2 - MORE CLONING



The next part of the algorithm will create a row of horses along the top of the backdrop. Add a **repeat** block.



Inside the repeat block add a block to **change the colour effect**. This means each horse sprite will be different. Then add a block to **change the x axis**. This will place the clones across the page. Finally add a **create clone of myself** block, so we finish with 4 horses on the screen.





We need to repeat this process to create a row of horses across the middle. Add a **go to** block that will place a horse in the middle row and then add a block to **create a clone**.



```
when green flag clicked
go to x: -135 y: 80
create clone of myself
repeat (3)
  change color effect by 40
  change x by 120
  create clone of myself
go to x: -135 y: -40
create clone of myself
```



Next we will add the same code as before by adding a **repeat block**, and inside that a **change colour** block, **change x** block and **create clone** block. You can drag each block separately or you can choose to duplicate the section of code and change the details.



```
when green flag clicked
go to x: -135 y: 80
create clone of myself
repeat (3)
  change color effect by 40
  change x by 120
  create clone of myself
go to x: -135 y: -40
create clone of myself
repeat (3)
  change color effect by 40
  change x by 120
  create clone of myself
```



Test your code. You should end up with 8 horses on your screen - a row on the top and a row in the middle.





Time to code the third row of horses.
You can duplicate the code from above
or recreate the blocks.



```
change x by 120
create clone of myself
go to x: -135 y: -40
create clone of myself
repeat 3
  change color effect by 40
  change x by 120
  create clone of myself
go to x: -135 y: -160
create clone of myself
repeat 3
  change color effect by 40
  change x by 120
  create clone of myself
```



Test your code. Your screen should be full of horses.

STEP 3 - CREATING ART



The last step is to create a colour
change effect when the user clicks on
a horse.

Start a new algorithm **when this sprite
is clicked**. Add a new **broadcast**
called party.

Tip - to create the new broadcast,
drag across the broadcast block. Use
the drop down arrow and select New
Message. Call it party.



```
when this sprite clicked
  broadcast party
```

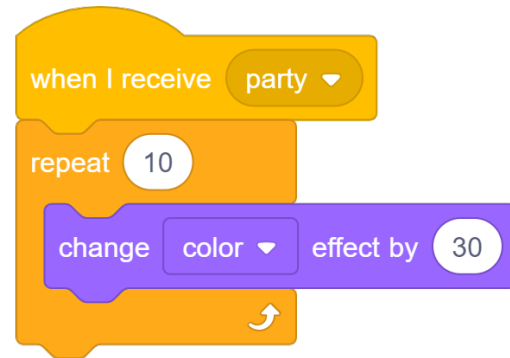




Start a new algorithm with **when I receive party.**



Add a **repeat** block and inside place a **change colour effect** block.



Test your code. When you click the green flag you should have 12 Melbourne Cup horses appear on the screen, each with varied colours. When you then click one of the horses you should see them change colours, creating your own pop art.

Congratulations!

You have created pop art inspired by the Melbourne Cup!

Will you print and frame your art?

Don't forget to [place your vote](#) for the winning state.

