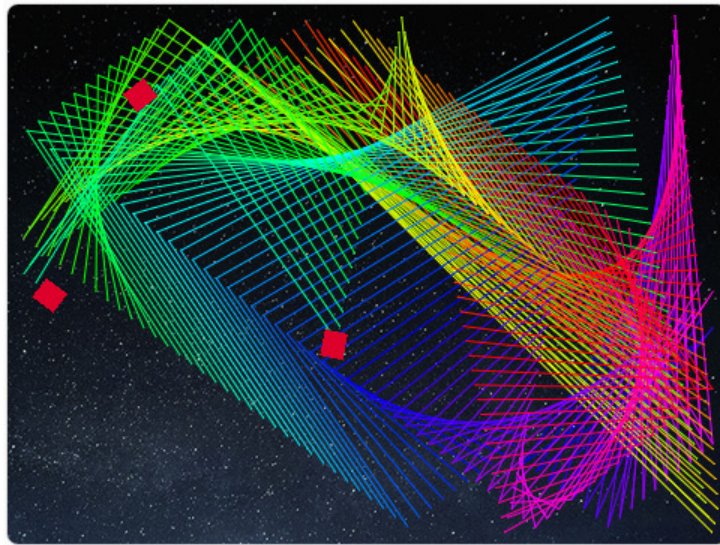


Rainbow pixel colour dots in space!

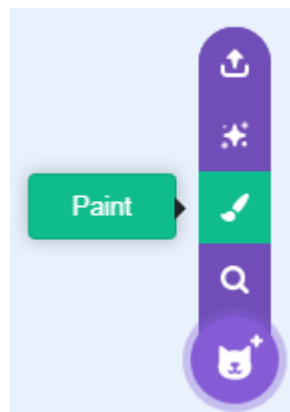
Make amazing colours and patterns with dots in space! Lots of ways to customise and make it your own.



See the finished project here: <https://scratch.mit.edu/projects/1123667145/>. Based on instructions at <https://nostarch.com/scratch3playground>.

Step 1: Setting up

- Open a new Scratch project, and delete the cat
- Choose the 'Stars' backdrop (or any other one you like)
- Create a new sprite with the 'Paint' tool, shown here:



- It should be a small dot, but it can be any colour or shape you like:



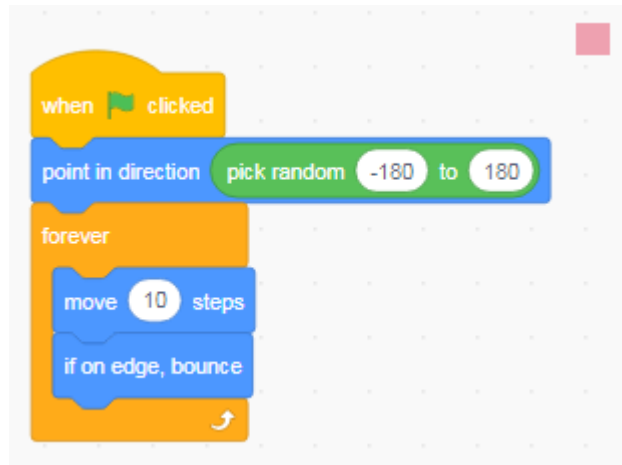
or



or



- Make sure it is in the very centre of the costume area!
- Now add the code below, and test it out:



Save your project

Step 2: More dots

- Rename your sprite to 'dot 1'
- If everything is working, right-click on the sprite and duplicate it
- Duplicate it again, so that you have 3 dot sprites:



- Run your code, do the dots bounce about the screen? Next we will tell them to draw the coloured lines.
- To do this we will create a fourth dot sprite, you can copy one of the others and delete all the code on this new dot.

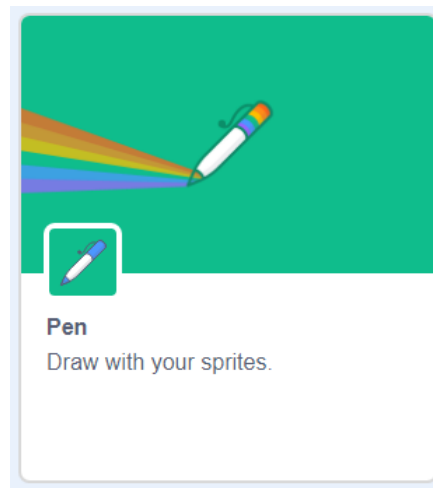
Save your project

Step 3: Drawing with the pen extension

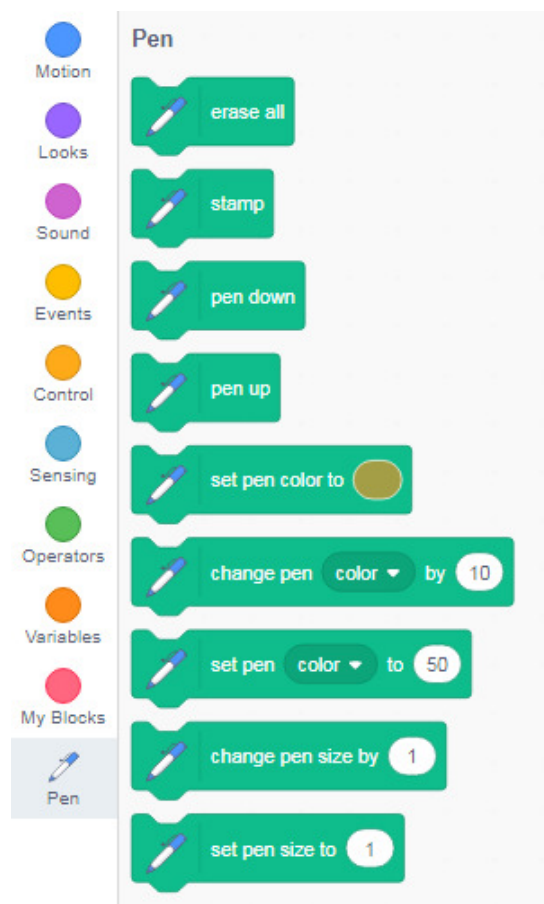
- To draw the lines between the dots, we need to add some extra code blocks. These are in an extension, and we can add them by clicking on the button at the bottom left of the screen:



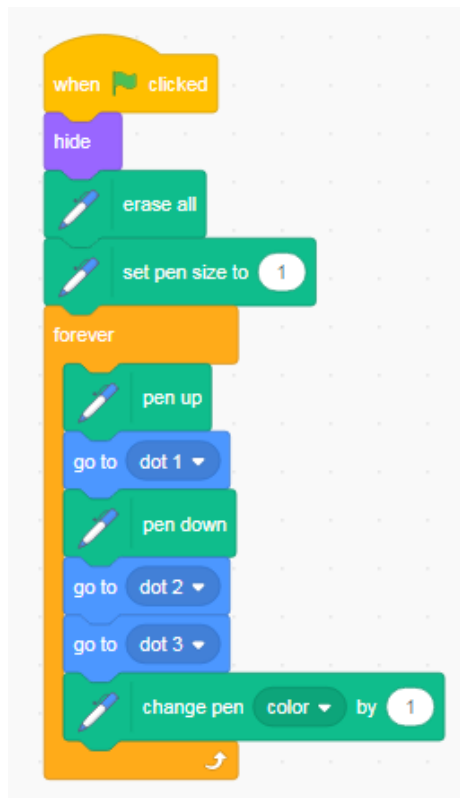
- Look for the extension called 'Pen' and click on it:



- You will see a whole new collection of blocks:



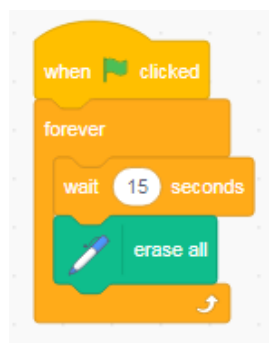
- Now you can use some of these blocks to add the following code to the fourth dot:



- Test it out!

Save your project

- To stop the screen getting too crowded, add the code below to clear it every 15 seconds:



Can you work out how to change...?

- how fast the colour changes
- how wide the lines are
- how quickly the dots move
- how long before the screen is cleared

Try this project in turbo mode (hold down the Shift key while you click the green flag), or you could add background music!

Save your project