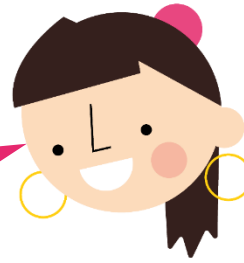
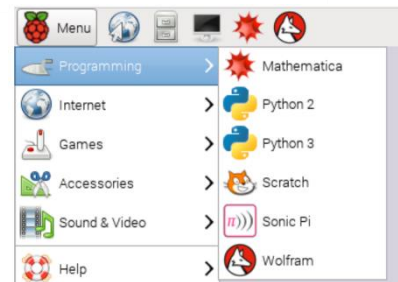


MAKE RANDOM SPARKLES USING SCRATCH



Getting started

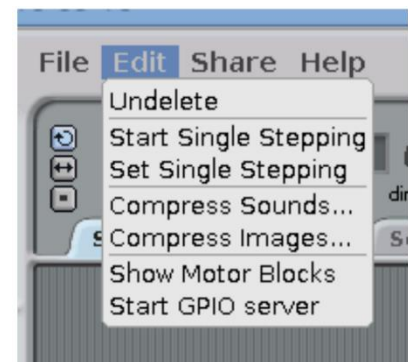
- 1 Start Scratch 1.4 from the Menu



- 2 Create necessary variables:
AddOn, command, r, g, b, x, y



- 3 Tell Scratch you want to use the GPIO pins. To do this, click on edit and select "Start GPIO server"

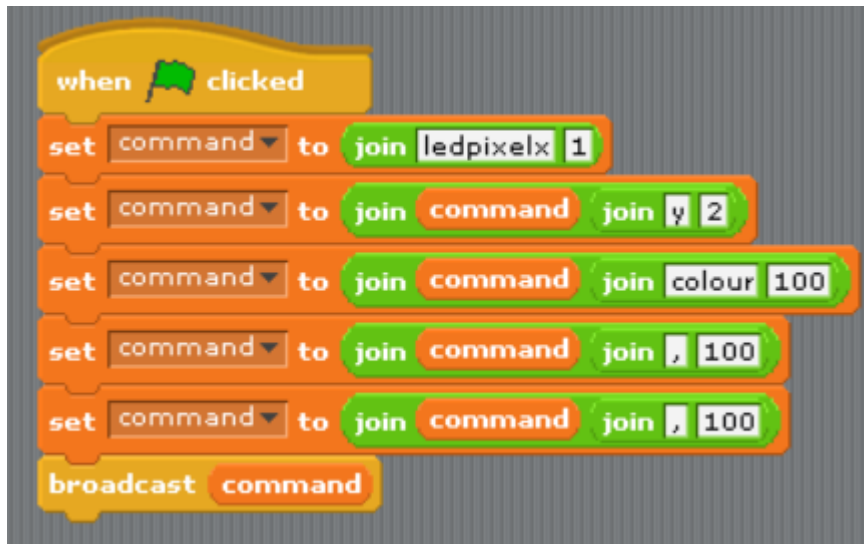


- 4 Start program to tell Scratch you are using the gpio server, SenseHat and then clear all the dots



Code to draw the Sparkles

- 1 Start with the code to draw one sparkle. This is a second block of code.



This creates a command that uses the values x , y to pick a dot and the values r , g , b to select a colour. **Be careful with all the green join blocks.**

Click the green flag

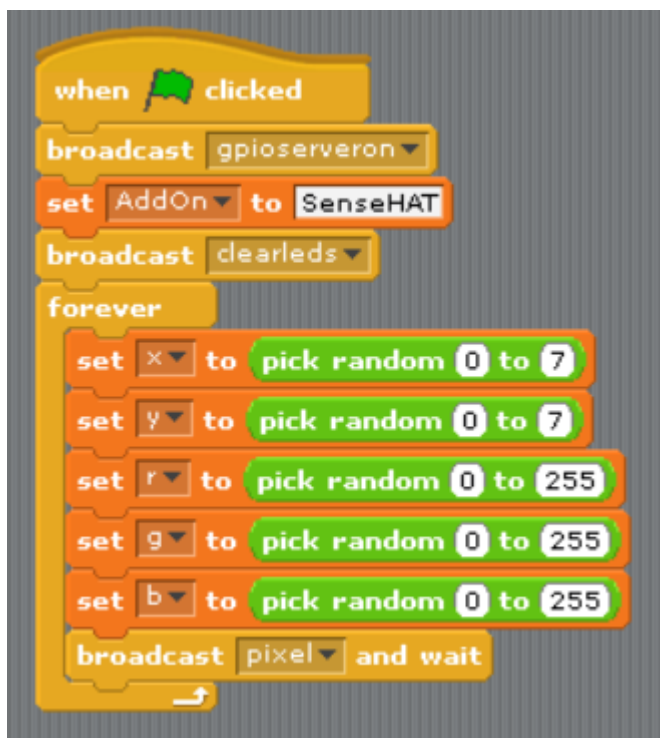


- 2 Have a play and try different x , y , r , g , b values. Then click the green flag to see the change



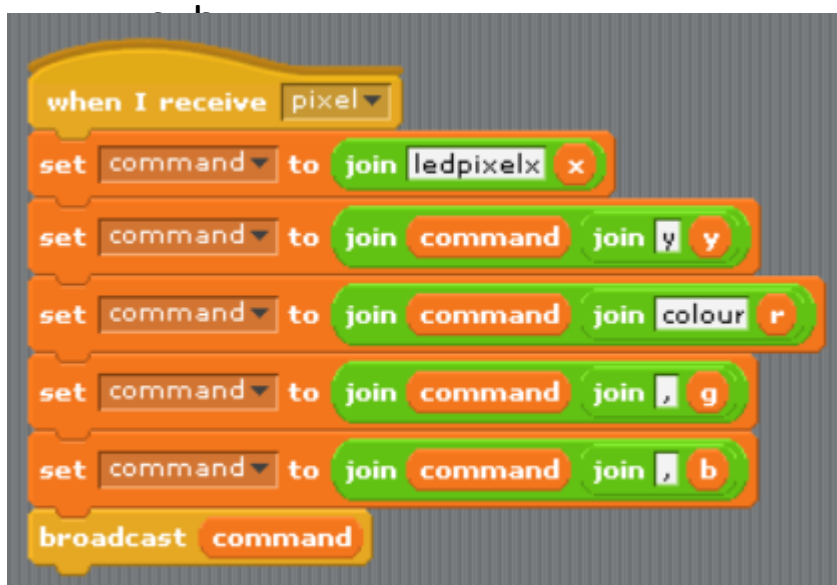
You have now created the code to colour one dot. Fun, but wouldn't it be better if you could colour ALL the dots. That is what you will do next.

- 3 Add the code to the first block to pick random locations (x, y) and colours (r, g, b). Then send the command to draw the pixel



- 4 The last command is `[broadcast [pixel] and wait]`

This is the command that tells the other block to draw the dot, so we need to change the first line in the other block to receive [pixel] of code and include all the variables for



Additional

- 1 It's all starting to look a bit busy. Wouldn't it be great if you could clear the SenseHat with a press of the [spacebar]

**Challenges**

- 1 Make it so there is always more red in the dots.
- 2 Make it take more time between drawing the dots?