

Random sparkles

Create amazing random sparkles with your Sense HAT

1 Set a single pixel

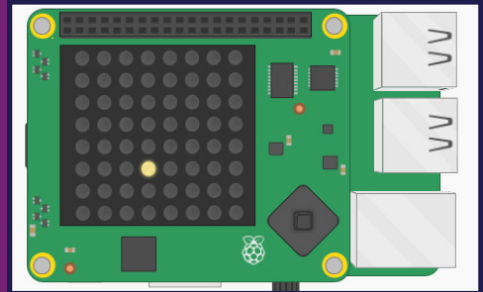
Open the Python file provided, or get it from rpf.io/sparklesgo. Add code to set a single pixel at position (x=3, y=5) on the Sense HAT to orange (r=255, g=165, b=0).

```
from sense_hat import SenseHat
sense = SenseHat()

from random import randint
from time import sleep

x = 3
y = 5
r = 255
g = 165
b = 0

sense.set_pixel(x, y, r, g, b)
```



2 Random pixel and colour

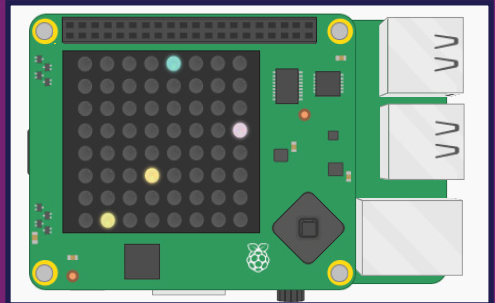
Modify the code you have written to set a random pixel to a random colour, rather than setting a specific pixel to a specific colour. **Run your code** a few times — you should see more of the grid fill up with random pixels.

```
from sense_hat import SenseHat
sense = SenseHat()

from random import randint
from time import sleep

x = randint(0,7)
y = randint(0,7)
r = randint(0,255)
g = randint(0,255)
b = randint(0,255)

sense.set_pixel(x, y, r, g, b)
```



3 Creating sparkles!

Add a `while True:` loop and a `sleep()` to repeatedly set random pixels on the Sense HAT.

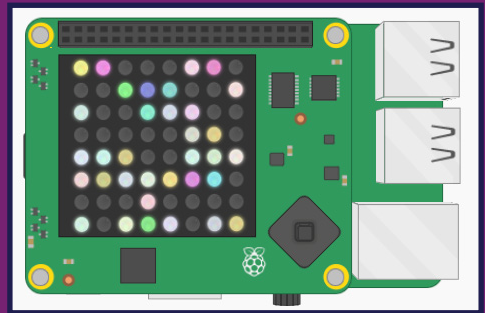
Make sure to indent the code inside the loop by pressing the tab key.

```
from sense_hat import SenseHat
sense = SenseHat()

from random import randint
from time import sleep

while True:
    x = randint(0,7)
    y = randint(0,7)
    r = randint(0,255)
    g = randint(0,255)
    b = randint(0,255)

    sense.set_pixel(x, y, r, g, b)
    sleep(0.1)
```



Challenge: timings

Can you edit your code to make the sparkles appear faster or slower?



Want to learn more? Find the whole project at rpf.io/sparkles
Check out many other fun projects at rpf.io/projects