1.Light up RGB

Learning goals: Use the sense_hat library to illuminate one of the lights in the RGB matrix.

Experimental phenomena: The light in the upper left corner (0,0) position become red

1.Create python file

nano led.py

We need to input content as shown below:

```
#!/usr/bin/python
from sense_hat import SenseHat
sense = SenseHat()
#Set RGB color value
color = (255, 0, 0)
#Display a RGB light
sense.set_pixel(0,0,color)
#Another way of lighting (x,y,r,g,b)
#sense.set_pixel(0,0,255,0,0)
```

As shown below:

```
1  #!/usr/bin/python
2  from sense_hat import SenseHat
3
4  sense = SenseHat()
5
6  #Set RGB color value
7  color = (255, 0, 0)
8  #Display a RGB light
9  sense.set_pixel(0,0,color)
10
11 #Another way of lighting(x,y,r,g,b)
12 #sense.set_pixel(0,0,255,0,0)
```

Please press Ctrl+O to save, press Ctrl+X to quit.

The code of the experiment, please refer to **led.py** in the Python sample program folder.

2.Commonly function

① Import sense_hat library, initialize the sense object

```
#!/usr/bin/python
from sense_hat import SenseHat

sense = SenseHat()
```

② Create variable to save RGB color values

③ Drive display a RGB light

```
#Set RGB color value
color = (255, 0, 0)
#Display a RGB light
sense.set_pixel(0,0,color)
```

④ Another type of lighting: (x, y, r, g, b), where x, y are all in the range of 0 to 7, representing a lamp on the RGB matrix, r, g, b are all in the range of values 0~255, which indicates the color value of the RGB lamp.

```
#Another way of lighting(x,y,r,g,b)
#sense.set_pixel(0,0,255,0,0)
```

3.Running program

Input the following command to running:

python led.py

```
pi@raspberrypi:~/sense_hat $ nano led.py
pi@raspberrypi:~/sense_hat $ python led.py
pi@raspberrypi:~/sense_hat $
```

After running the program, you will see the RGB light in the upper left corner light red.