3.Print Hello World

Learning goals: RGB matrix display text, set font and background color, set flip direction and scroll speed.

Experimental phenomena: Scrolling 'Hello World!' on the RGB matrix , the font color is blue, flipped 180 degrees display.

1.Create python file

nano helloWorld.py

We need to input content as shown below:

```
#!/usr/bin/python
from sense_hat import SenseHat
sense = SenseHat()

#Set the direction of rotation (0,90,180,270 for choice),default is 0
sense.set_rotation(180)

#Set color R G B value
color_text = (0, 0, 255)
color_back = (0, 0, 0)

#sense.show_message("Hello World!")
#The parameter scroll_speed changes the scrolling speed, the default is 0.1,
text_colour is the font color of the display, and back_colour is the background
color.
sense.show_message("Hello World!", scroll_speed=0.05,
text_colour=color_text, back_colour=color_back)
```

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

sense = SenseHat()

#Set the direction of rotation (0,90,180,270 for choice),default is 0
sense.set_rotation(180)

#Set color R G B value
color_text = (0, 0, 255)
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#sense.show_message("Hello World!")

#The parameter scroll_speed changes the scrolling speed, the default is 0.1,
#text_colour is the font color of the display,
#and back_colour is the background color.
sense.show_message("Hello World!", scroll_speed=0.05, text_colour=color_text, back_colour=color_back)
```

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

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

2.Commonly function

① Set the direction of the RGB matrix display. By default, the direction to the 40pin pin is 0.

```
#Set the direction of rotation (0,90,180,270 for choice),default is 0
sense.set_rotation(180)
```

② Scroll display string

```
#sense.show_message("Hello World!")
```

③ Modify the parameters of the display string, scroll_speed changes the scrolling speed, the default is 0.1, text_colour is the font color of the display, back_colour is the background color

```
#The parameter scroll_speed changes the scrolling speed, the default is 0.1,
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#and back_colour is the background color.
sense.show_message("Hello World!", scroll_speed=0.05, text_colour=color_text, back_colour=color_back)
```

3.Running program

Input the following command to running:

python helloWorld.py

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

After running the program, you will see that scroll to display “Hello World!” on the RGB matrix.