

3. Get Pixel Position

```
from sense_hat import SenseHat

sense = SenseHat()

pixel_list = sense.get_pixels()
```

4. Clear all Pixels

```
from sense_hat import SenseHat
from time import sleep

sense = SenseHat()

red = (255, 0, 0)

sense.clear() # no arguments defaults to off
sleep(1)
sense.clear(red) # passing in an RGB tuple
sleep(1)

sense.clear(255, 255, 255) # passing in r, g and
b values of a colour
```

5. Rotate the LEDs

```
from sense_hat import SenseHat

sense = SenseHat()

sense.set_rotation(180)
```

6. Flip the LED Horizontally

```
from sense_hat import SenseHat

sense = SenseHat()
sense.flip_h()
```

7. Flip the LED Verically

```
from sense_hat import SenseHat

sense = SenseHat()
sense.flip_v()
```

17. Get Gyroscope Reading

```
from sense_hat import SenseHat

sense = SenseHat()

gyro_only = sense.get_gyroscope()

print("p: {pitch}, r: {roll}, y:
{yaw}".format(**gyro_only))
```

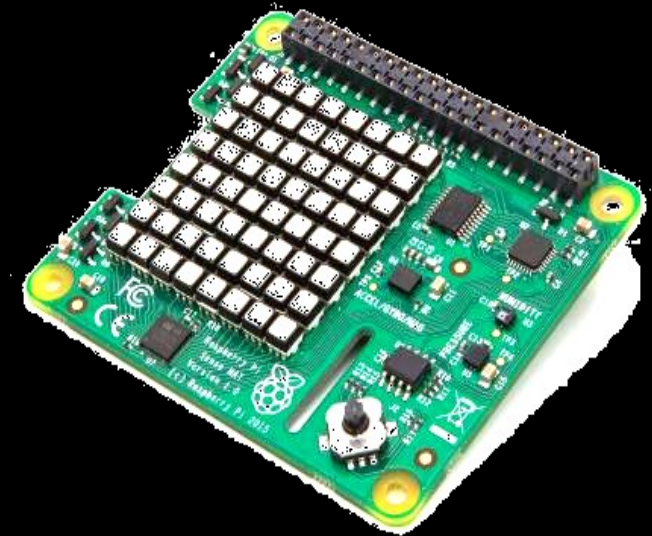
18. Get Acceleration

```
from sense_hat import SenseHat

sense = SenseHat()

accel_only = sense.get_accelerometer()

print("p: {pitch}, r: {roll}, y:
{yaw}".format(**accel_only))
```



FURTHER DETAILS

<https://pythonhosted.org/sense-hat/api/>

Produced by TeCoEd

SENSE HAT

CHEAT SHEET

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Usage: Code reference for the Sense HAT. Import the module and instantiate an object:

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



1. Set LED Pixels to Create an Image

```
from sense_hat import SenseHat

sense = SenseHat()
```

```
X = [255, 0, 0] # Red
O = [255, 255, 255] # White
```

```
question_mark = [
0, 0, 0, X, X, 0, 0, 0,
0, 0, X, 0, 0, X, 0, 0,
0, 0, 0, 0, 0, X, 0, 0,
0, 0, 0, 0, X, 0, 0, 0,
0, 0, 0, X, 0, 0, 0, 0,
0, 0, 0, X, 0, 0, 0, 0,
0, 0, 0, 0, 0, 0, 0, 0,
0, 0, 0, X, 0, 0, 0, 0
]
```

```
sense.set_pixels(question_mark)
```

2. Load an Image

Loads an image file, converts it to RGB format and displays it on the LED matrix. The image must be 8 x 8 pixels in size.

```
from sense_hat import SenseHat

sense = SenseHat()

sense.load_image("space_invader.png")
```

8. Scroll a Message

Scrolls a text message from right to left across the LED matrix and at a specified speed, colour and background colour. (*scroll_speed, back_colour*)

```
from sense_hat import SenseHat
sense = SenseHat()
sense.show_message("One small step for Pi!",
text colour=[255, 0, 0])
```

9. Show a Single Letter

Displays a single text character on the LED matrix.

```
import time
from sense_hat import SenseHat

sense = SenseHat()

for i in reversed(range(0,10)):
    sense.show_letter(str(i))
    time.sleep(1)
```

10. Get the Humidity Reading

```
from sense_hat import SenseHat

sense = SenseHat()
humidity = sense.get_humidity()

print("Humidity: %s %rH" % humidity)
```

11. Get the Current Temperature

```
from sense_hat import SenseHat

sense = SenseHat()
temp = sense.get_temperature()

print("Temperature: %s C" % temp)
```

12. Get the Current Pressure

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

pressure = sense.get_pressure()

print("Pressure: %s Millibars" % pressure)
```

13. Get Orientation in Radians

```
from sense_hat import SenseHat

sense = SenseHat()

orientation_rad = sense.get_orientation_radians()

print("p: {pitch}, r: {roll}, y:
{yaw}".format(**orientation_rad))
```

14. Get Orientation in Degrees

```
from sense_hat import SenseHat

sense = SenseHat()
orientation = sense.get_orientation_degrees()

print("p: {pitch}, r: {roll}, y:
{yaw}".format(**orientation))
```

15. Get Orientation

```
from sense_hat import SenseHat

sense = SenseHat()

orientation = sense.get_orientation()

print("p: {pitch}, r: {roll}, y:
{yaw}".format(**orientation))
```

16. Get Compass Reading

```
from sense_hat import SenseHat

sense = SenseHat()
north = sense.get_compass()

print("North: %s" % north)
```

Note:

Some of the above lines of code are underlined, this indicates that the code is written on one single line but has been edited to fit the publication.