

**Aim: To Learn And Use SenseHat**

What is SenseHat?

The Sense HAT is an add-on board for Raspberry Pi, made especially for the Astro Pi mission – it launched to the International Space Station in December 2015 – and is now available to buy.

The Sense HAT has an 8×8 RGB LED matrix, a five-button joystick and includes the following sensors:

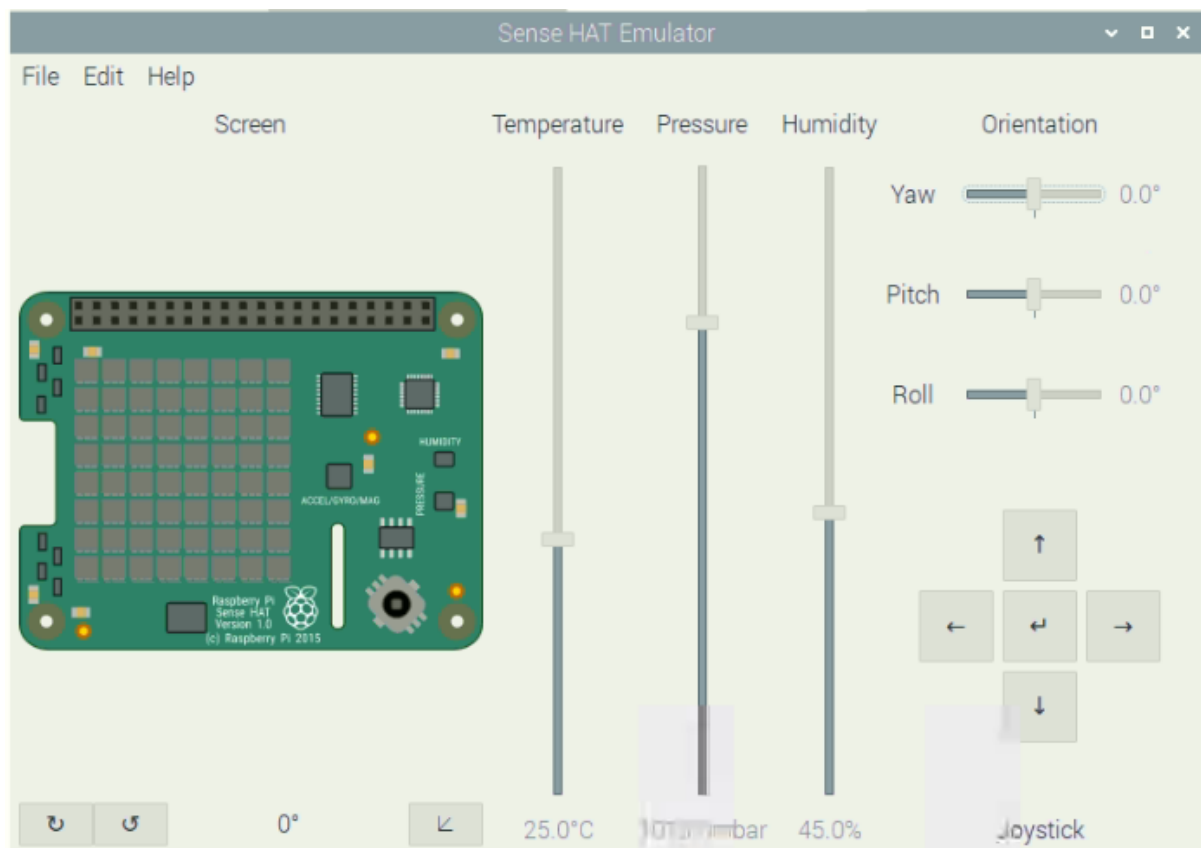
- Gyroscope
- Accelerometer
- Magnetometer
- Temperature
- Barometric pressure
- Humidity

**A sentence :**

Code:-

```
from sense_hat import SenseHat
import time
sense=SenseHat()
anycolor=(255,255,255)
sense.show_message("Hello ! I am nikhil")
```

OutPut:-



**Matrix**

Code:-

```
from sense_hat import SenseHat
import time
```

```
s = SenseHat()
s.low_light = True
```

```
green = (0, 255, 0)
yellow = (255, 255, 0)
blue = (0, 0, 255)
red = (255, 0, 0)
white = (255, 255, 255)
nothing = (0, 0, 0)
pink = (255, 105, 180)
```

```
defraspi_logo():
    G = green
    R = red
    O = nothing
    logo = [
        O, G, G, O, O, G, G, O,
        O, O, G, G, G, G, O, O,
        O, O, R, R, R, R, O, O,
        O, R, R, R, R, R, R, O,
        R, R, R, R, R, R, R, R,
        R, R, R, R, R, R, R, R,
        O, R, R, R, R, R, R, O,
        O, O, R, R, R, R, O, O,
    ]
    return logo
```

```
def heart():
    P = pink
    O = nothing
    logo = [
        O, O, O, O, O, O, O, O,
        O, P, P, O, P, P, O, O,
        P, P, P, P, P, P, P, O,
        P, P, P, P, P, P, P, O,
        O, P, P, P, P, P, O, O,
        O, O, P, P, P, O, O, O,
        O, O, O, P, O, O, O, O,
        O, O, O, O, O, O, O, O,
    ]
    return logo
```

```
images = [ raspi_logo, raspi_logo, heart, heart]  
count = 0
```

```
while True:  
    s.set_pixels(images[count % len(images)]())  
    time.sleep(.75)  
    count += 1
```

Output:-

