

MAKE A SENSE HAT SMILE WITH SENSORS



Test the Sense HAT

- 1 Open Python 3 and enter the following commands directly into the shell:

(do not type the chevrons >>>)

```
>>> from sense_hat import SenseHat
>>> sense = SenseHat()
>>> sense.show_message("Hello world")
```

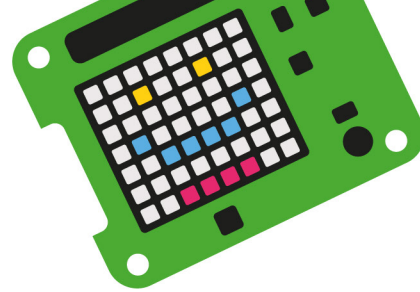
Press Enter after each line, and after the third line, the message should appear on the Sense HAT's display.

- 2 Now try retrieving the sensor values:

```
>>> sense.temperature
>>> sense.humidity
>>> sense.pressure
>>> sense.accelerometer
>>> sense.gyroscope
>>> sense.orientation
```

When you press Enter, you will see the sensor's value.

Faces



- 1 Open a new window and type:

```
from sense_hat import SenseHat
from faces import normal, happy, sad
from time import sleep

sense = SenseHat()

sense.set_pixels(sad)
sleep(1)
sense.set_pixels(normal)
sleep(1)
sense.set_pixels(happy)
```

- 2 Run the code with F5 and you should see a sad face, a normal face and a happy face appear.

And breathe...

- 1 Replace the last 5 lines with:

```
start_humidity = sense.humidity

while True:
    print(sense.humidity)
    if sense.humidity > start_humidity + 10:
        sense.set_pixels(happy)
    elif sense.humidity > start_humidity + 5:
        sense.set_pixels(normal)
    else:
        sense.set_pixels(sad)
    sleep(1)
```

- 2 Run the code again. Now breathe on the Sense HAT and see if you can make it smile!

