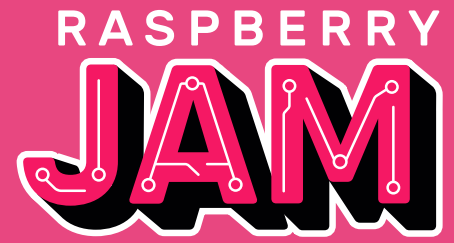


Sense HAT smile



Test the Sense HAT

- 1 Open **Mu** and open the **REPL**. Type the following commands directly into the **REPL**:

```
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.



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Faces



- 1 Now close the REPL and use the main window to type the following program into a file:

```
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!