Brug af SenseHat i Trinkit.io

Start Trinkit.io (https://trinket.io/sense-hat)

Single pixel light

Read Displaying images from Getting Started with the Sense HAT
Try the examples in the emulator and on the Raspberry Pi.
Your programming must be done in the emulator.

1. Fill a single pixel LED display with a pre-set color like (0,0,255)
2. Change to a random color
   From random import randint
   R = randint(0,255)
3. Introduce a while True: loop
4. Add a sleep(...) to the loop

Disco lights

Disco lights are about filling the entire 8x8 LED display with a *single* color - and make it change color quickly.

1. Fill the 8x8 LED display with a pre-set color like (0,0,255).
   Use the function clear(0,0,255)
2. Change to a random color.
3. Introduce a while True: loop
4. Add a sleep(...) to the loop.
   Decrease the sleep time slightly for each turn in the loop (disco light will flash faster and faster …)

Your programming must be done in the emulator.

Christmas lights (US style)

Christmas lights is about filling the 8x8 LED display with *different* colors - and make it change quickly.

1. Randomly choose a pixel
2. Randomly choose a color for this pixel
3. Loop + sleep

Your programming must be done in the emulator.

Measures with the Sense HAT

With the Sense HAT you can measure the temperature, pressure and humidity.
In this exercise you'll display measurements in different ways on the Sense HAT LED display.

Display color

Measure the temperature and show colors accordingly:
Temp < 20   blue
20 <= temp <=25   green
Temp > 25   red
The full display (all 8x8 pixels) must have the same color.
Hint: senseHat.clear(color)
The program should run "forever" changing the color according to the current temperature.
Hint: `while True:`

Display numbers

Measure and display the temperature as a number.
The number may need some rounding to get rid of the less significant decimals.

Extra: Display 3 colors

Measure temperature, humidity *and* pressure. Show the status of all three measurements using colors.

Extra: Display bar chart

Measure the temperature and display a bar chart.
The bar chart must move to show new measurements and discard older measurements.