

# 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.