

# COLOURS



## DESCRIPTION

Each pixel in your display actually has 3 Light-Emitting Diodes (LEDs) inside. The Colours in our programs are lists of numbers. These describe the brightness of the Red, Green and Blue LEDs.

## MAKING COLOUR VALUES

There are many ways to generate colours for the `setPixel()` command. We can create a list of three numbers less than 256, use the named lists already available or use colour functions to calculate lists for us. Try varying these numbers. What happens?

```
setPixel(0, yellow)
setPixel(1, [255,255,0])
setPixel(2, hueToRgb(0.1666667))
```

```
red
[255, 0, 0]
>>>
```

Type **red** at the prompt, press *Enter*. This named value is a list of numbers **[255, 0, 0]**. After printing it, the REPL loops back to showing the **>>>** prompt. Try other colours. What do you notice?

```
darkenRgb(red)
[31, 0, 0]
>>>
```

Type **darkenRgb(red)** and press *Enter*. Note that capitalisation of `darkenRgb` matters. Can you send darker colours to your display?

```
hueToRgb(0.5)
[0, 255, 255]
>>>
```

Type **hueToRgb(0.5)** and press *Enter*. Note that capitalisation of `hueToRgb` matters. Try changing the number from 0.5? Can you send these colours to your display?



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