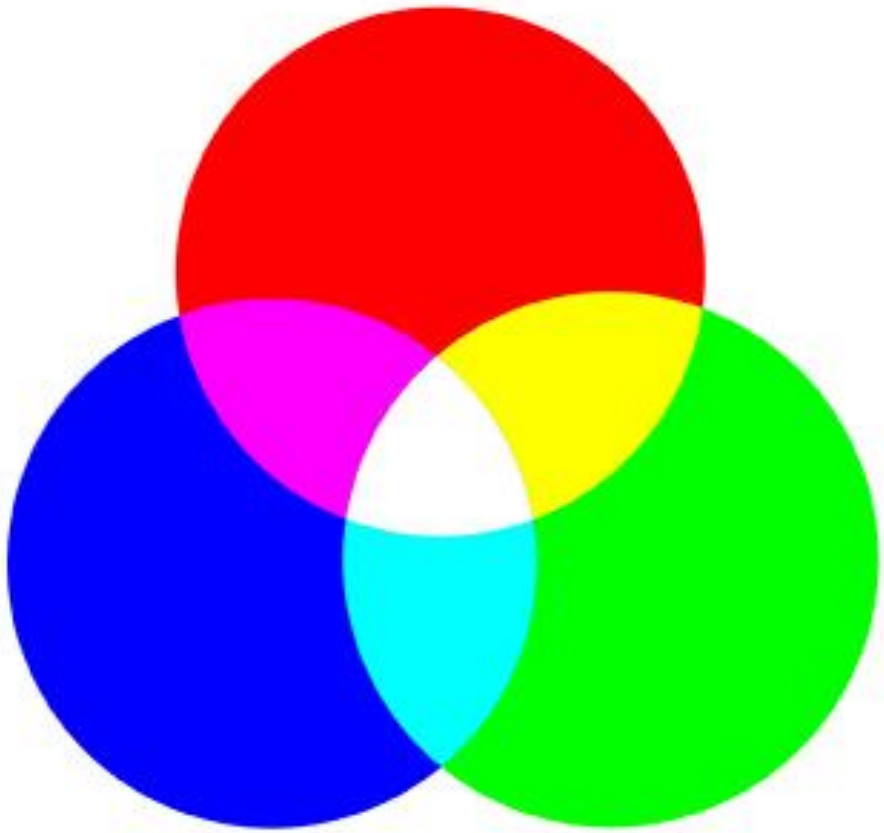
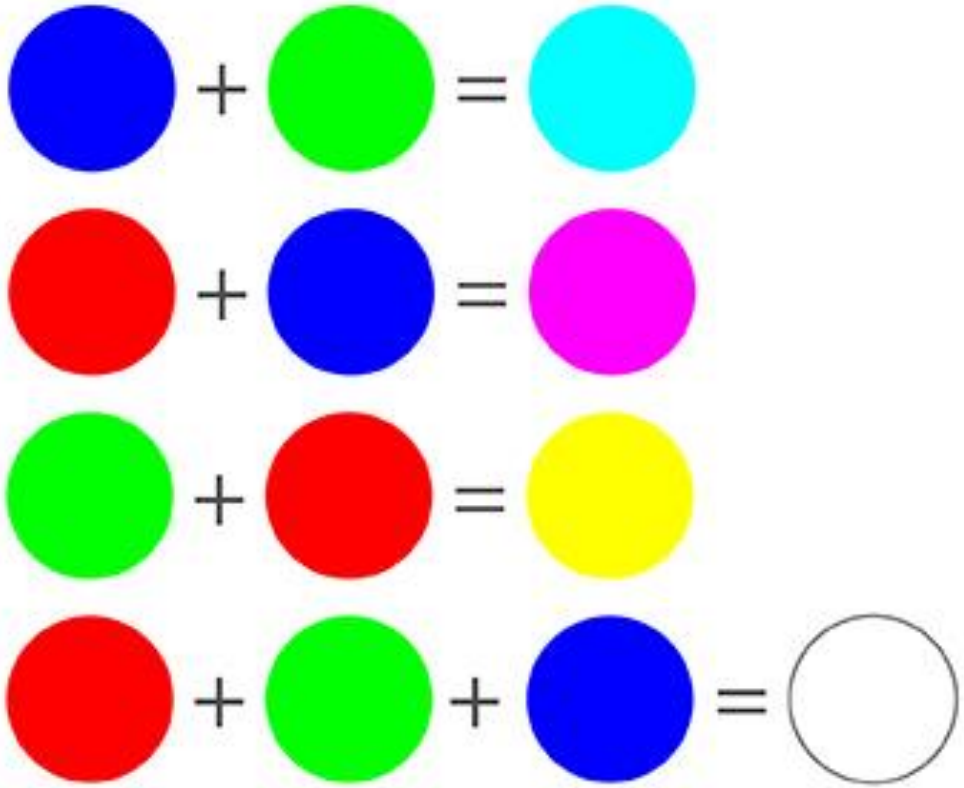
RGB Colours

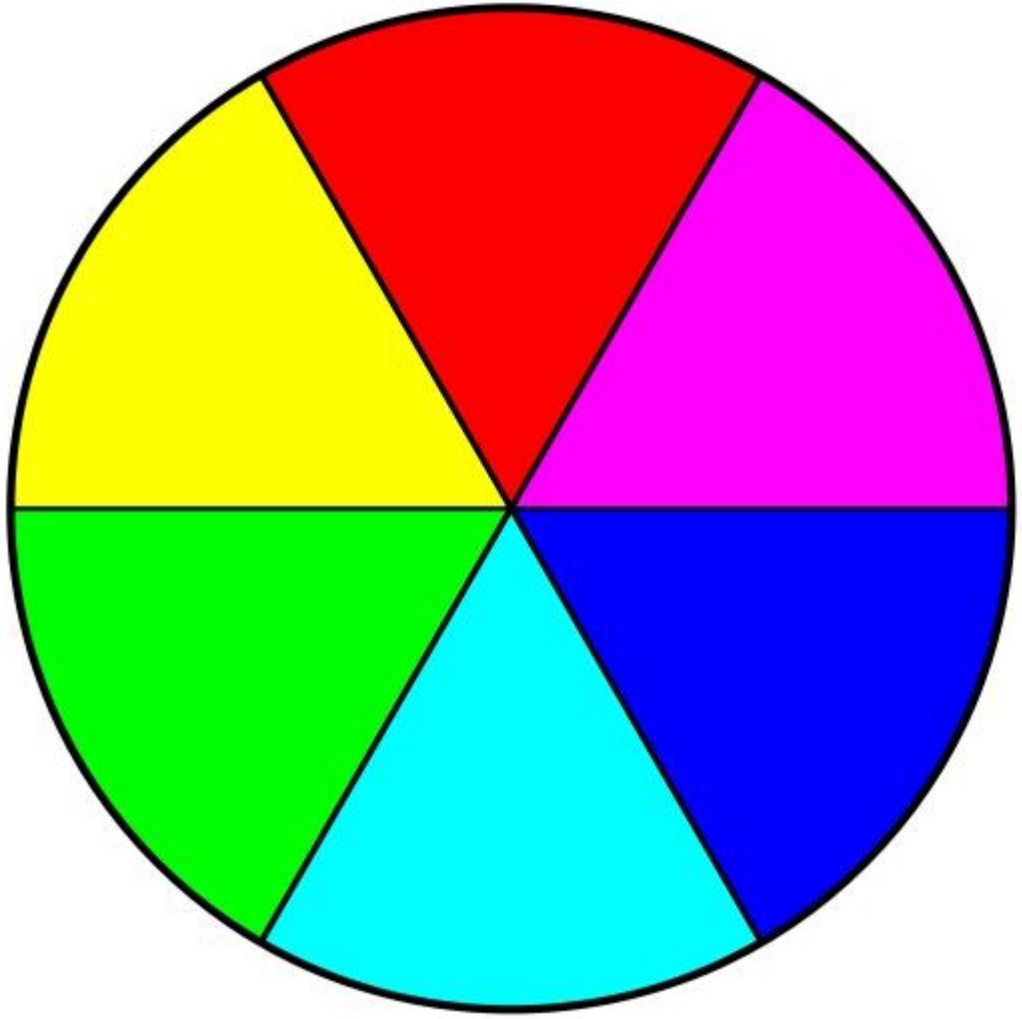
Microbits and Lights



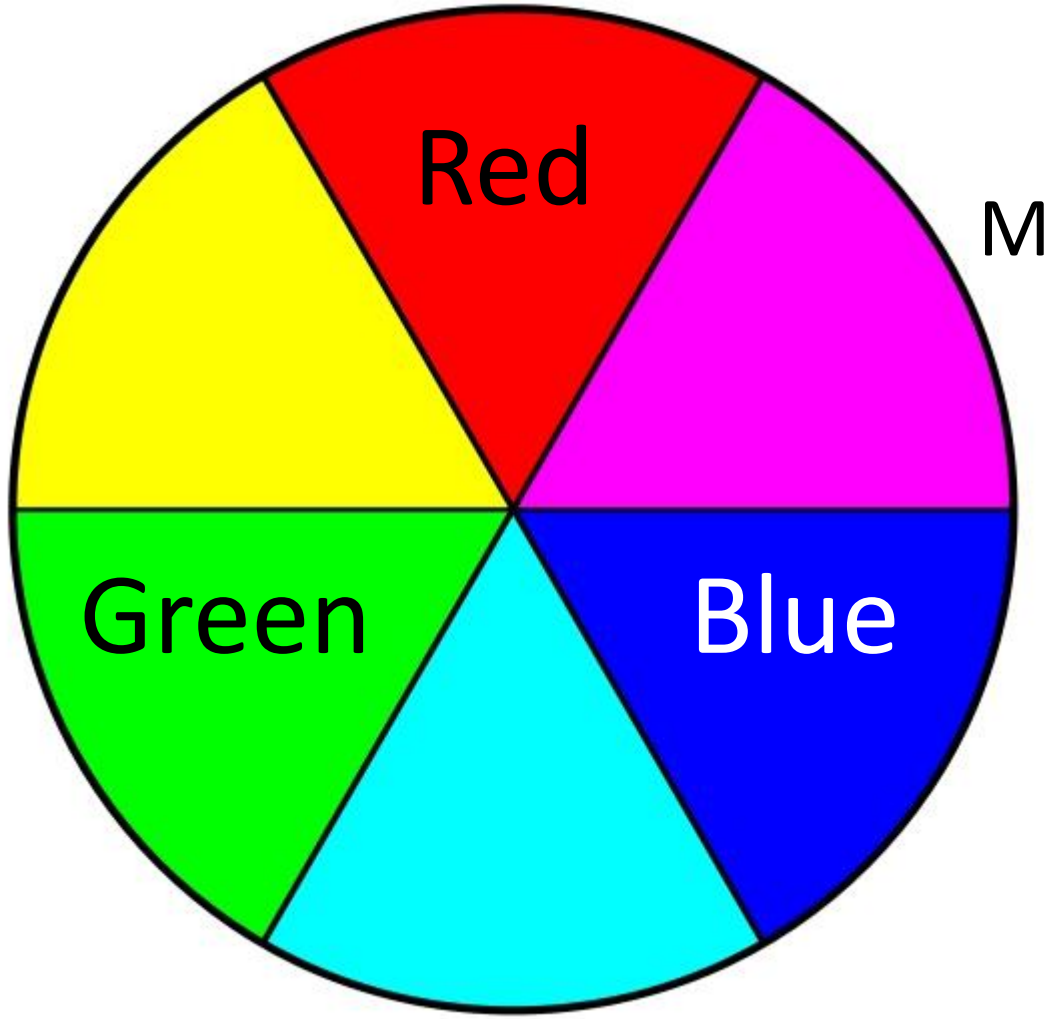


With paint, colours work like this:

With light, colours work like this:



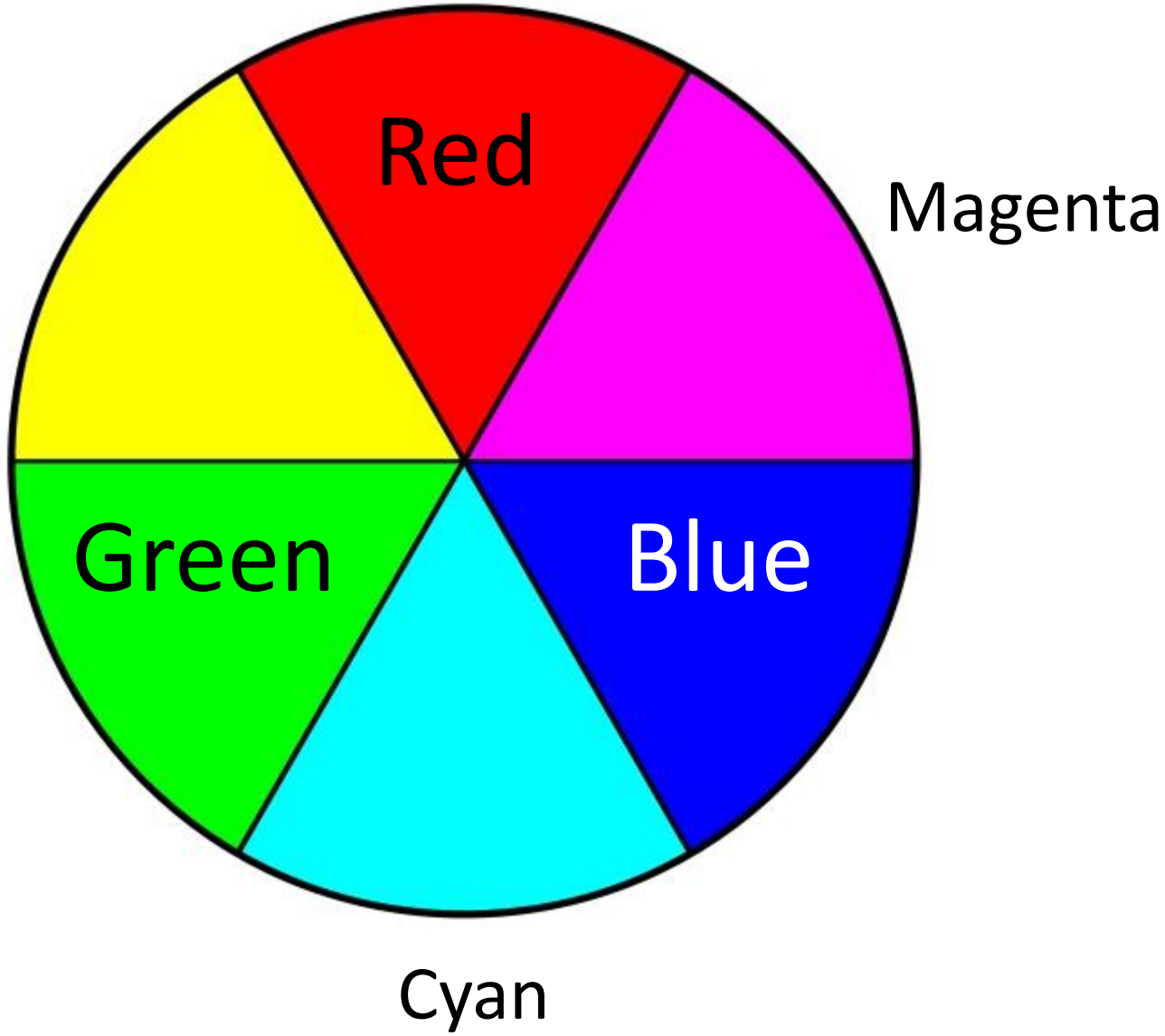
RGB Colours



RGB stands for:
Red
Green
Blue

Those are the primary colours with light-based colour.

RGB Colours



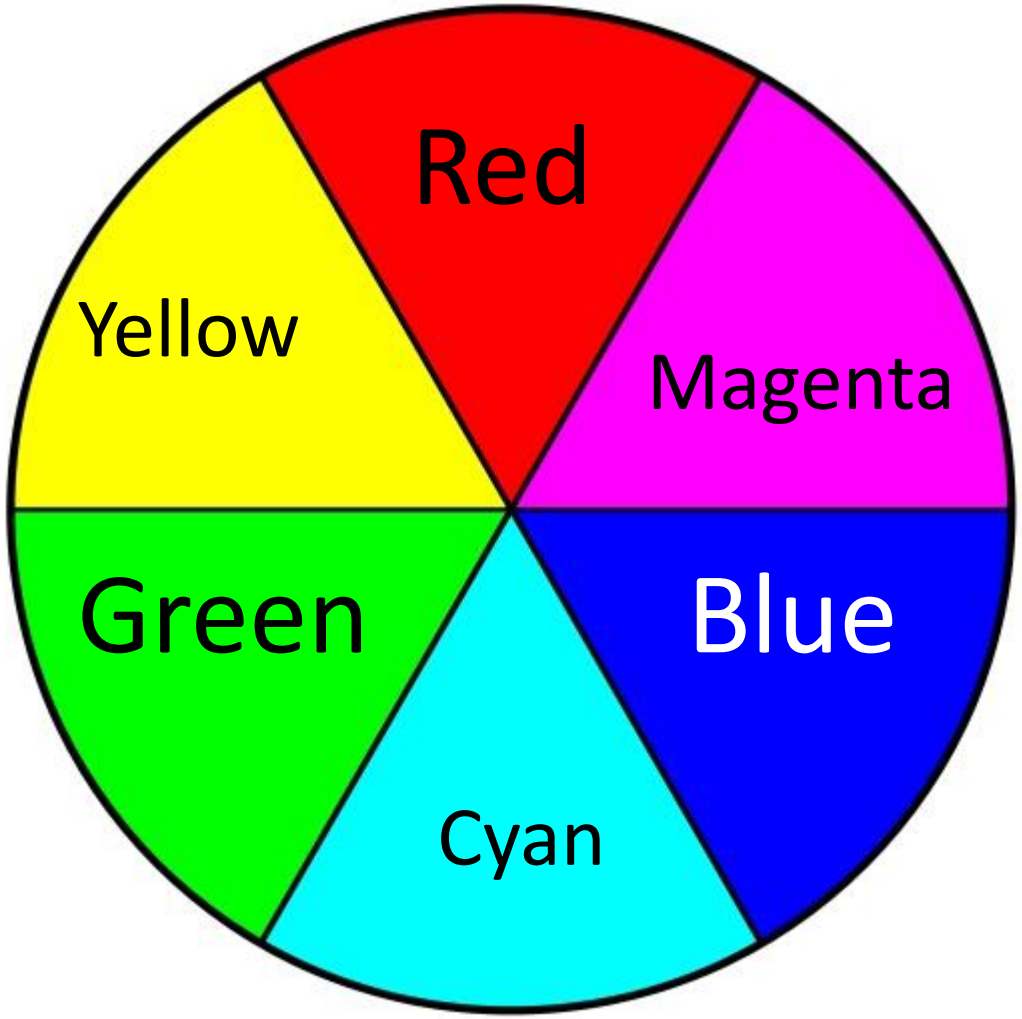
The secondary RGB colours are:

Magenta

Yellow

Cyan

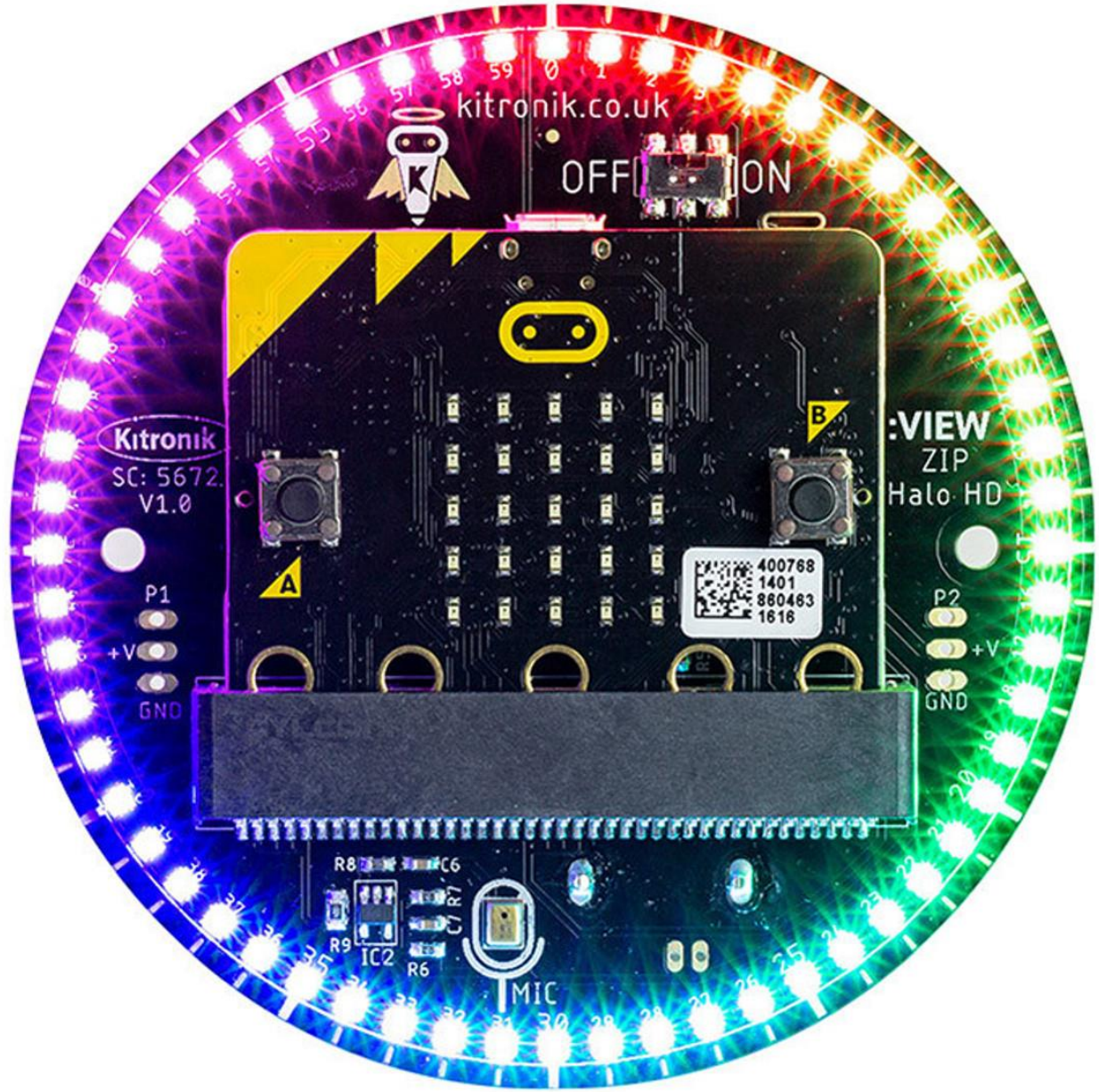
RGB Colours



R + G = Yellow

G + B = Cyan

R + B = Magenta


kitronik.co.uk
OFF ON
Kitronik
SC: 5672
V1.0
P1
+V
GND
A
B
:VIEW
ZIP
Halo HD
400768
1401
860463
1616
P2
+V
GND
R8
C6
R7
C7
R9
IC2
R6
MIC

Set LED #2 to be red.

Max value is 255

Min value is 0

```
set haloDisplay to to Halo HD with 60 ZIP LEDs
haloDisplay set ZIP LED  to red  green  blue
```

Set LED #2 to be red.

Max value is 255

Min value is 0

```
set haloDisplay to to Halo HD with 60 ZIP LEDs
haloDisplay set ZIP LED 2 to red  green  blue
```

Set LED #2 to be red.

Max value is 255

Min value is 0

```
set haloDisplay to to Halo HD with 60 ZIP LEDs
haloDisplay set ZIP LED 2 to red 255 green 0 blue 0
```

Set LED #53 to be cyan.

Max value is 255

Min value is 0

```
set haloDisplay to to Halo HD with 60 ZIP LEDs
haloDisplay set ZIP LED  to red  green  blue
```

Set LED #53 to be cyan.

Max value is 255

Min value is 0

```
set haloDisplay to to Halo HD with 60 ZIP LEDs
haloDisplay set ZIP LED 53 to red 0 green 255 blue 255
```

What colour is this?

Max value is 255

Min value is 0

```
set haloDisplay to to Halo HD with 60 ZIP LEDs
haloDisplay set ZIP LED 57 to red 0 green 255 blue 0
```

What colour is this?

Max value is 255

Min value is 0

```
set haloDisplay to to Halo HD with 60 ZIP LEDs
haloDisplay set ZIP LED 0 to red 0 green 255 blue 255
```

White = Max in each


```
set haloDisplay to to Halo HD with 60 ZIP LEDs
    haloDisplay set ZIP LED 0 to red 255 green 255 blue 255
```

Black = Min in each


```
set haloDisplay to to Halo HD with 60 ZIP LEDs
    haloDisplay set ZIP LED 1 to red 0 green 0 blue 0
```

White = Max in each


```
set haloDisplay to to Halo HD with 60 ZIP LEDs
    haloDisplay set ZIP LED 0 to red 255 green 255 blue 255
```

Black = Min in each


```
set haloDisplay to to Halo HD with 60 ZIP LEDs
    haloDisplay set ZIP LED 1 to red 0 green 0 blue 0
```

Light Green isn’t uses some of each of three colours.

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```
set haloDisplay ▾ to to Halo HD with 60 ZIP LEDs
haloDisplay ▾ set ZIP LED 1 to red  green  blue
```

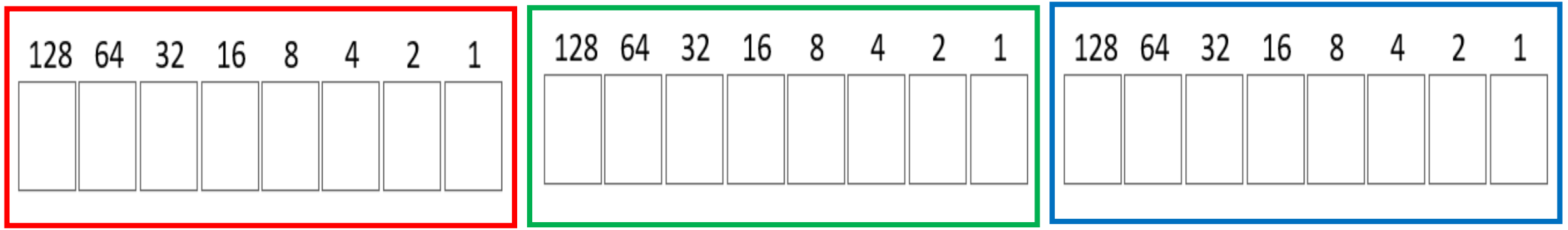
Light Green isn't uses some of each of three colours.


```
set haloDisplay to to Halo HD with 60 ZIP LEDs
haloDisplay set ZIP LED 1 to red 128 green 255 blue 128
```

Light Green isn't uses some of each of three colours.


```
set haloDisplay to to Halo HD with 60 ZIP LEDs
haloDisplay set ZIP LED 1 to red 128 green 255 blue 128
```

On the computer, RGB values are stored in 24 bits (3 x 8 bits each)



Light Green isn't uses some of each of three colours.


```
set haloDisplay to to Halo HD with 60 ZIP LEDs
haloDisplay set ZIP LED 1 to red 128 green 255 blue 128
```

On the computer, RGB values are stored in 24 bits (3 x 8 bits each)

128	64	32	16	8	4	2	1
1	0	0	0	0	0	0	0

128	64	32	16	8	4	2	1

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Light Green isn't uses some of each of three colours.


```
set haloDisplay to to Halo HD with 60 ZIP LEDs
haloDisplay set ZIP LED 1 to red 128 green 255 blue 128
```

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128	64	32	16	8	4	2	1
1	0	0	0	0	0	0	0

128	64	32	16	8	4	2	1
1	1	1	1	1	1	1	1

128	64	32	16	8	4	2	1

Light Green isn't uses some of each of three colours.


```
set haloDisplay to to Halo HD with 60 ZIP LEDs
haloDisplay set ZIP LED 1 to red 128 green 255 blue 128
```

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128	64	32	16	8	4	2	1
1	0	0	0	0	0	0	0

128	64	32	16	8	4	2	1
1	1	1	1	1	1	1	1

128	64	32	16	8	4	2	1
1	0	0	0	0	0	0	0