

# LED



## Introduction

LED is an industry acronym for **Light Emitting Diode**. These are usually small little “bulbs” that glow in different colors when they are “turned on” (most common colors are red, green, yellow, blue or white)

That's also a generic term used for the lighted display on calculators and other numeric displays; they are made up of 7 distinct straight line “bar” diodes that when turned on display light in a “portion of a line” (instead of a dot) pattern. The pattern combinations can be turned on or off (does not conduct current) to form numbers or in some cases, alphanumeric characters. Some of these had an 8th “light” which was a decimal.

LCDs emulate this pattern style, though they are NOT diodes. The first to use the style was the “nixie” tube from the early 50's. The pattern is still in use today, though nixies have gone to the vacuum tube graveyard.

## White / Blue LEDs issue

It has been proven recently that the use of **high brightness White and Blue LEDs are not good to human sight**. The output light spectrum for these LEDs is some harsh for the eye. You should prefer using other colors LEDs or not using them too much.

## RGB LEDs

RGB (Red Green Blue) or multicolor LEDs can be serial driven by a core32. Some tests have already been made with **WS2812 ( APA106 )** LEDs and a core STM32 through J4B Pin.

Original Forum Thread here: [RGB LEDs](#)

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