

Original page: http://nut-bolt.nl/2012/rgb-led-strips/

1 of 3 14/3/2012 10:40 AM

ABOUT (/ABOUT/) PROJECTS (/PROJECTS/)

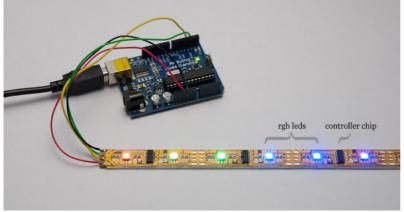
BLOG (/BLOG/)

CONTACT (/CONTACT/)

RGB LED strips: an overview

By David (http://nut-bolt.nl/author/david/) 1 month and 3 weeks ago

An addressable RGB LED strip is like a one pixel high color screen. You can do awesome things with them: crazy lighting effects, information displays and even low resolution video. There are many different types of RGB LED strips on the market. Here is an overview of addressable led strips I evaluated for Stripe (/2012/stripe). I'll tell you a bit about different controller chips, electrical specifications and software libraries to help you make a choice.



(http://nut-bolt.nl/2012/rgb-led-strip/)

LPD8806 addressable RGB LED strip hooked up to an Arduino

What is an addressable RGB LED strip?

An addressable RGB LED strip is a long flexible strand of LEDs each of which can be individually set to a certain color (hence: addressable). By varying the level of red, green and blue (RGB) per LED many color combinations can be made. The chips between the LEDs listen to commands from a controller. This can be an Arduino or other microcontroller or a controller specifically designed for LED strips.

The strips come in various configurations. Some run on 12V, others on 5V. Some are splittable every two LEDs, others every three. There are different levels of waterproofing (for outdoor or underwater use) and a varying number of LEDs per meter. The list below is grouped by controller chip.

HL1606

Most addressable LED strips you find in stores will be based on the HL-1606 chip. They are cheap and ubiquitous. Every HL1606 chip controls two RGB LEDs, so most of these strips will run on 5V and be splittable every 2 LEDs. Good news so far.

Nut & Bolt blog

A blog on the art, technology and science of (interaction) design. Project logs of Nut & Bolt projects and tutorials on interaction design related things. By David Menting.

On this blog, I am documenting the design of an internet-enabled linear LED clock: Stripe. Want to know more? Have a look at <u>all posts</u> <u>about Stripe (/category/stripe/)</u>, subscribe to the <u>RSS feed (/feed/)</u> or follow me on <u>Twitter</u> (http://twitter.com/studiomenting)

(http://nut-bolt.nl/feed/) (http://twitter.com/studiomenting) (nttp://nl.linkedin.com/in/davidmenting)

Categories

Electronics (/category/electronics/) (3)

Linux (/category/linux/) (1)

OpenWrt (/category/openwrt/) (1)

Stripe (/category/stripe/) (7)

Tutorials (/category/tutorials/) (1)

Uncategorized (/category/uncategorized/) (1)

2 of 3 14/3/2012 10:40 AM

3 of 3