RGBDigit

RGBDigit is the first 7 segment display with programmable RGB LEDS, requiring only 3 wires to control.

New Library avaliable to control the RGBdigits see download page

Writen by Erik Homburg (Nice job thanks a lot)

Millions of colours

Arduino driven

Only 3 wires

RGBDigit impression

Inspiration

The idea is inspired on a 7 segment display clock near my bed that used only one colour. I wanted a clock that would gradually change colour based on the time. Facing the available standard products, I began to realize I had to make the suitable digits myself. The current products on the market, are the following:

Standard 7 segment display

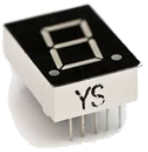
The well-known classic 7-segment display –

One pre-set colour –

Limited variety of colours –

10 wires on the back –

Relatively cheap, around €0,80 per display –



Adafruit RGB 7 segment display

Although the display looks quite good and offers the – different colours, it has quite some disadvantages –

– High price, around €12 per display –

– 25 pins on the back –

These digits require a lot of solder work. If you want to have a simple 4 digit clock, you would have to solder 100 wires. Also, a more advanced micro controller is needed, since the Arduino UNO doesn't have enough ports for even one of these digits!

How RGBDigit works

The new developed RBGDigit gives a solution with the struggles that are shown above. We offer the following features:

– **Arduino Neopixcel driven**
– **Neopixels**, allowing 16.581.375 possible colours and the use of the well-developed Neopixel library
see adafruit.com/neopixeluberguide/arduino-library
– By using standard neopixels the RGBDigit's can also be controlled by micro controllers other than the Arduino UNO e.g. raspberry pi.
– **Minimum number of connecting pins**, using only 3pens in from your micro controller and 3 pens out that are used to connect the digits with each other.
– **Cascading** up to 10 RGDigits, using only 3 input wires for all the digits.
– **Open source product.**
– **Currently** there is already a RGBDigit library available written by a RGBDigit user .
– **Supporting** products available for using the RGBDigit's.
– At this moment there is a Arduino UNO shield and a Arduino Micro 4 or 6 digit backbone available.
Hardware and demo software available via the Site or Webshop.
– See RGBDigit.com/Download and RGBDigit.com/shop or the **Source information** section below

Target group

Although the first intention of the digit was to serve my own project, I propose the following target groups for RGBDigits:

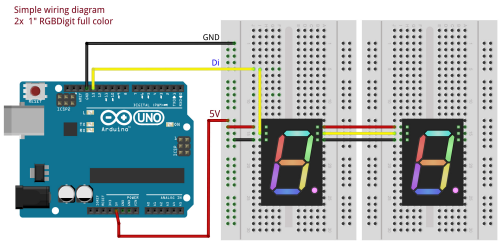
Arduino community

Electronics hobbyists

Product Designers

Professional industries

Retro clock fanatics



RGBDigit application proposal

Easily showing a range using colours for

– Temperature

– Speed

– Pressure

– Height

– Humidity

Or as display for

– Fuel indicator

– (Mood) clock

– Countdown timer

– Scoreboard

– Chess clock

– Elevator floor indicator

– Simple news ticker

– Panel meter’s

Source information

https://www.rgbdigit.com

http://www.rgbdigit.com/rgbdigit/download-page

https://rgbdigit.com/RGBDigit_datasheet.pdf

https://www.adafruit.com/products/1399

https://github.com/ralphcrutzen/RGBDigit

https://rgbdigit.com/description_Clock_ENG

RGBDigit

Temp versus color