

Universal Led Ring

Introduction

Cause i can not find precise led ring.

There's no existing solution to get 16 pots in line with its rings which fits in a 19" rack face.

So i tried to design it.

The goal:

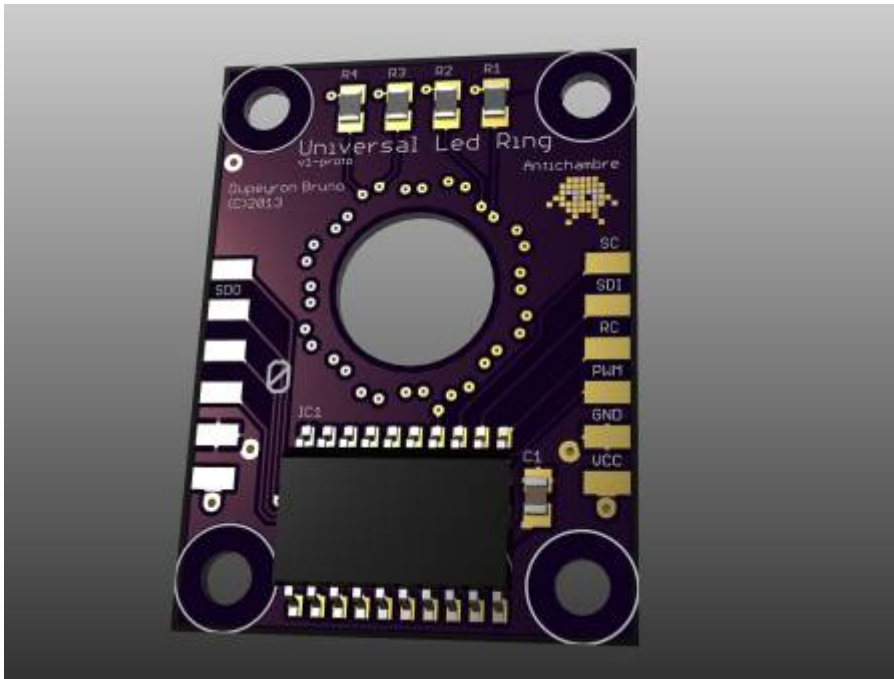
- 20mm diameter ring.
- 32 matrixed bicolor Leds on SR with PWM support.
- Width<27mm between 2 rings for 16 pots or encoders to fit in a 19" rack.
- Support encoders and potentiometers 270° and 300°.
- Low profile for integration facility.

How:

I need to drive 32 leds, 4*8. The trick was to find a register which has 12 ouputs and compatble with SR line(DOUT). The **NXP HEF4894B** was made for it, i's a 12-stage shift-and-store register, its operation is very similar to that of the 74HC595(serial I/O, serial clock, parallel load) except that it has a strobe input for PWM function.

Autocad design rendering:





In fab at [Osh Park](#) ...

From:
<https://wiki.midibox.org/> - **MIDIbox**

Permanent link:
https://wiki.midibox.org/doku.php?id=ac_ulr&rev=1379588050

Last update: **2013/09/19 10:54**

