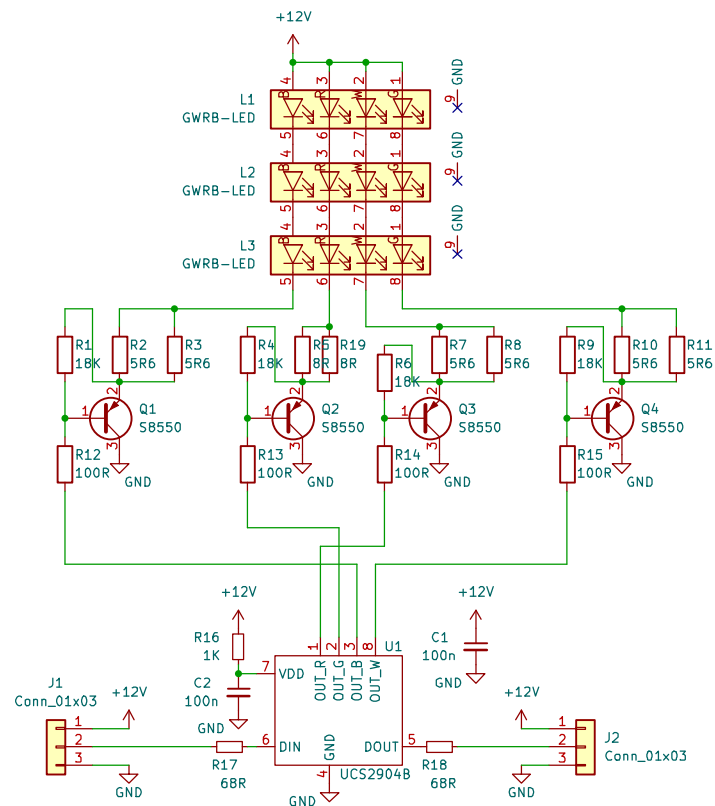


TEST:
B, 10R → 310mA
R, 18R → 330mA
W, 10R →
G, 10R → 346mA

$$\begin{aligned} V_{ds} (\text{output RGBW pins}) &< 3.5V \\ V_{ds} &= V_{CC} - I * R - N * V_{led} \\ V_{ds} &= 12v - 0.35 * 3 - 3 * 3.3 \\ V_{ds} &= 12v - 1.05 - 9.9 \\ V_{ds} &= 12 - 10.95 \\ V_{ds} &= 1.05 \end{aligned}$$

| | | | | |
|---|------------|----------|----------|-------|
| R | 620-630nm | 40-60LM | 2.2-2.6V | 350mA |
| G | 520-530nm | 60-80LM | 3.2-3.6V | 350mA |
| B | 460-470nm | 30-40LM | 3.2-3.6V | 350mA |
| W | 6000-8000K | 90-100LM | 3.2-3.6V | 350mA |

```
Vds (output RGBW pins) < 3.5V
Vds = VCC - I * R - N * Vled
Vds = 12v - 0.35*3 - 3*3.3
Vds = 12v - 1.05 - 9.9
Vds = 12 - 10.95
Vds = 1.05
```



Package_S0:S0-8_3.9x4.9mm_P1.27mm
https://www.led-stuebchen.de/download/UCS2904_English_2019-6-27.pdf

TU Delft
StudioLab
Jerry de Vos

Sheet: /
File: NP_RGBW_HP.kicad_sch

Title: High Power Neopixel

| | |
|----------------------|------------------|
| Size: A4 | Date: 2024-06-06 |
| KiCad E.D.A. 8.0.2-1 | |

| |
|----------|
| Rev: 1.0 |
| Id: 1/1 |