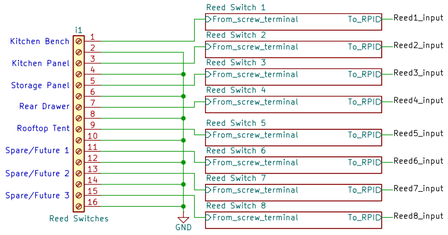
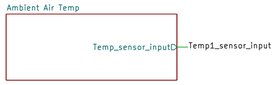
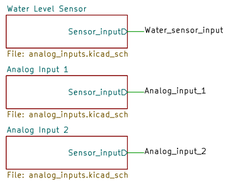
Reed Switches



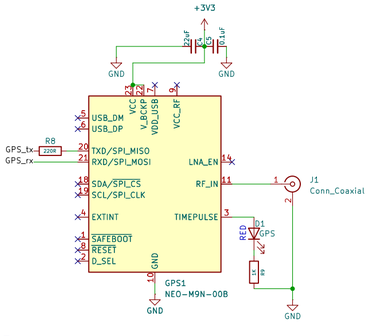
Temp Sensor 1-Wire Buses



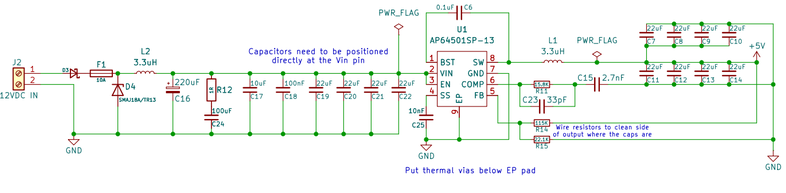
Arduino Analog Inputs



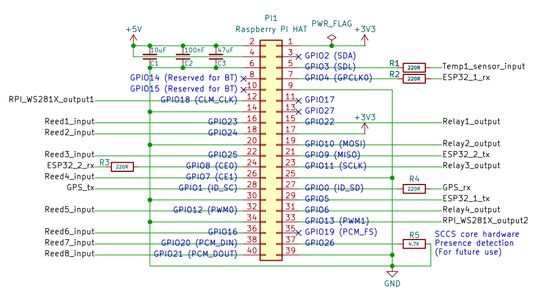
GPS



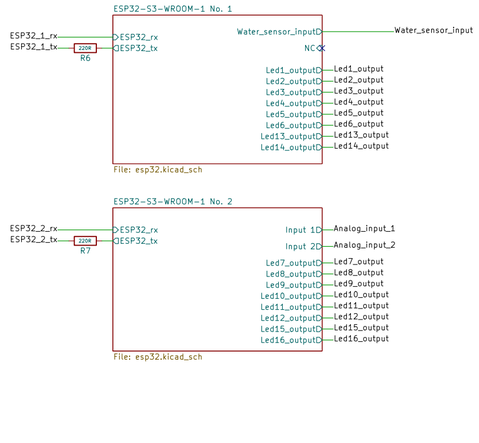
Power



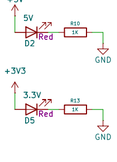
Raspberry Pi



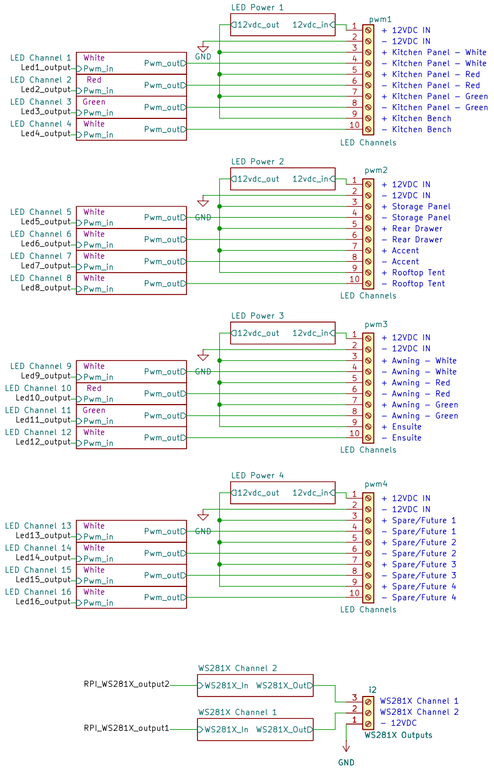
ESP32's



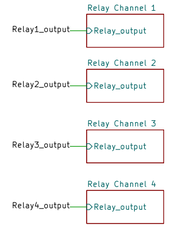
Power LED



Dimmable Lighting



Relay Channels



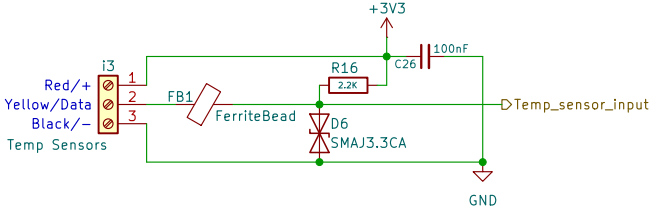
Notes

1. Power circuit provides 5V
2. RPI Provides 3.3V
3. 1-Wire Bus Notes:
   Put a 220R resistor on the data pin of each temp sensor but ensure it's not in series with the bus.
   Put a 100nF ceramic cap across VCC and GND at each temp sensor.
4. WS281X RPI Notes:
   PWM Channel 0 can be routed to GPIO 12 OR GPIO 18
   PWM Channel 1 can be routed to GPIO 13 OR GPIO 19
   Put a 220R in-line resister on data at each LED strip
   Put a 1000uF electrolytic cap between 12V and GND on each data strip
5. UARTS:
   UART1 / GPIO14/15 / Reserved for Bluetooth
   UART2 / GPIO00/01 / GPS
   UART3 / GPIO04/05 / ESP32 No. 1
   UART4 / GPIO08/09 / ESP32 No. 2

Scale: NTS
Drawn By: Joel Goudswaard
Singularity Automation Pty Ltd
Sheet: /
File: SCCS-RPI.kicad_sch

Title: Singularity Camper Control System (SCCS)

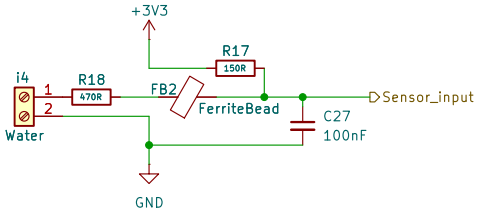
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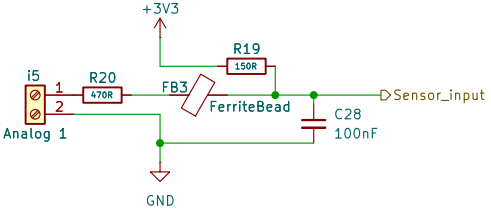
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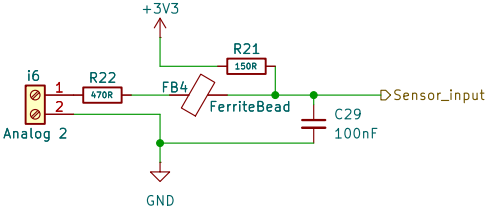
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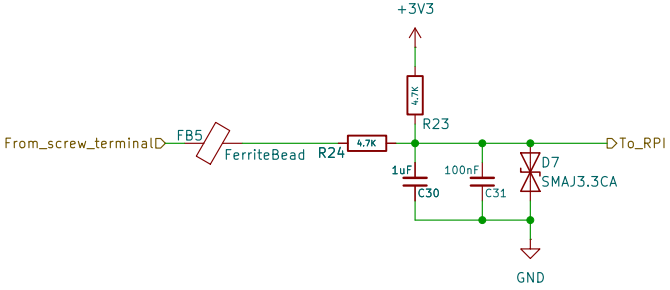
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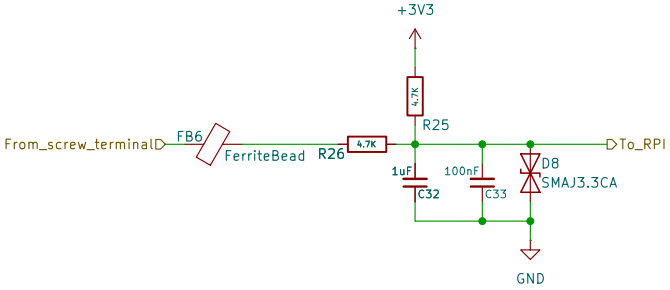
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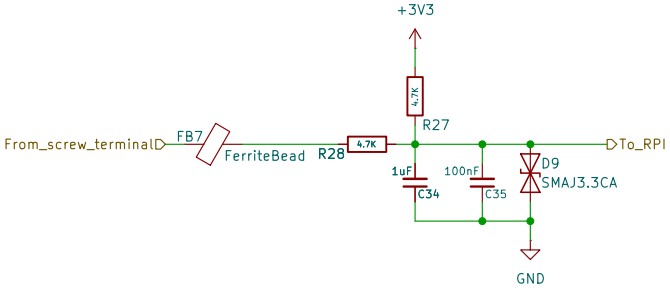
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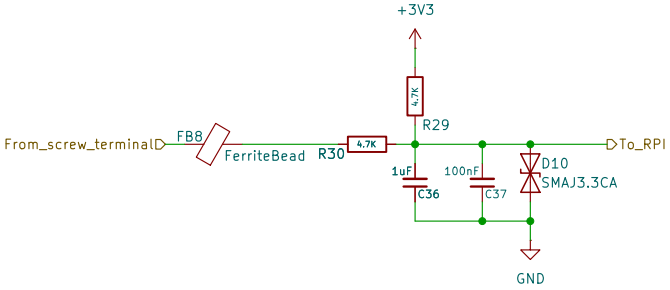
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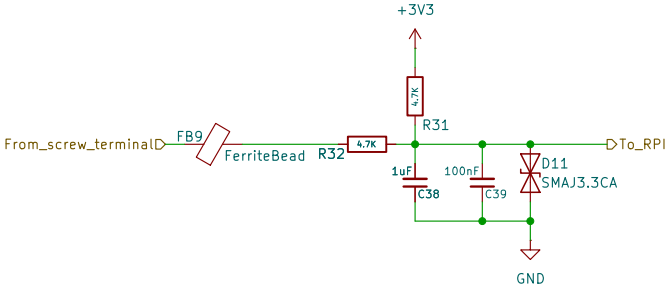
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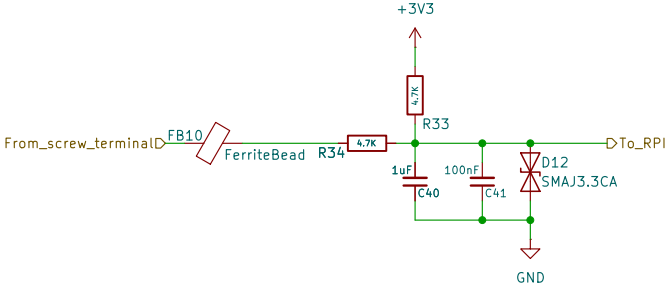
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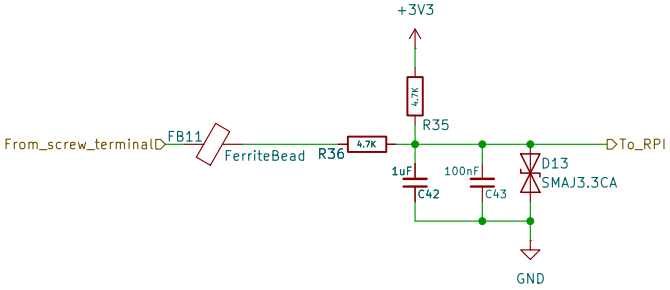
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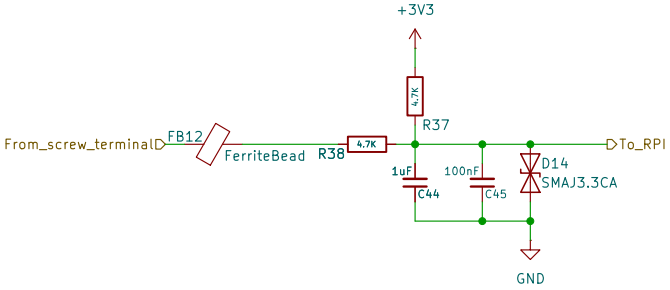
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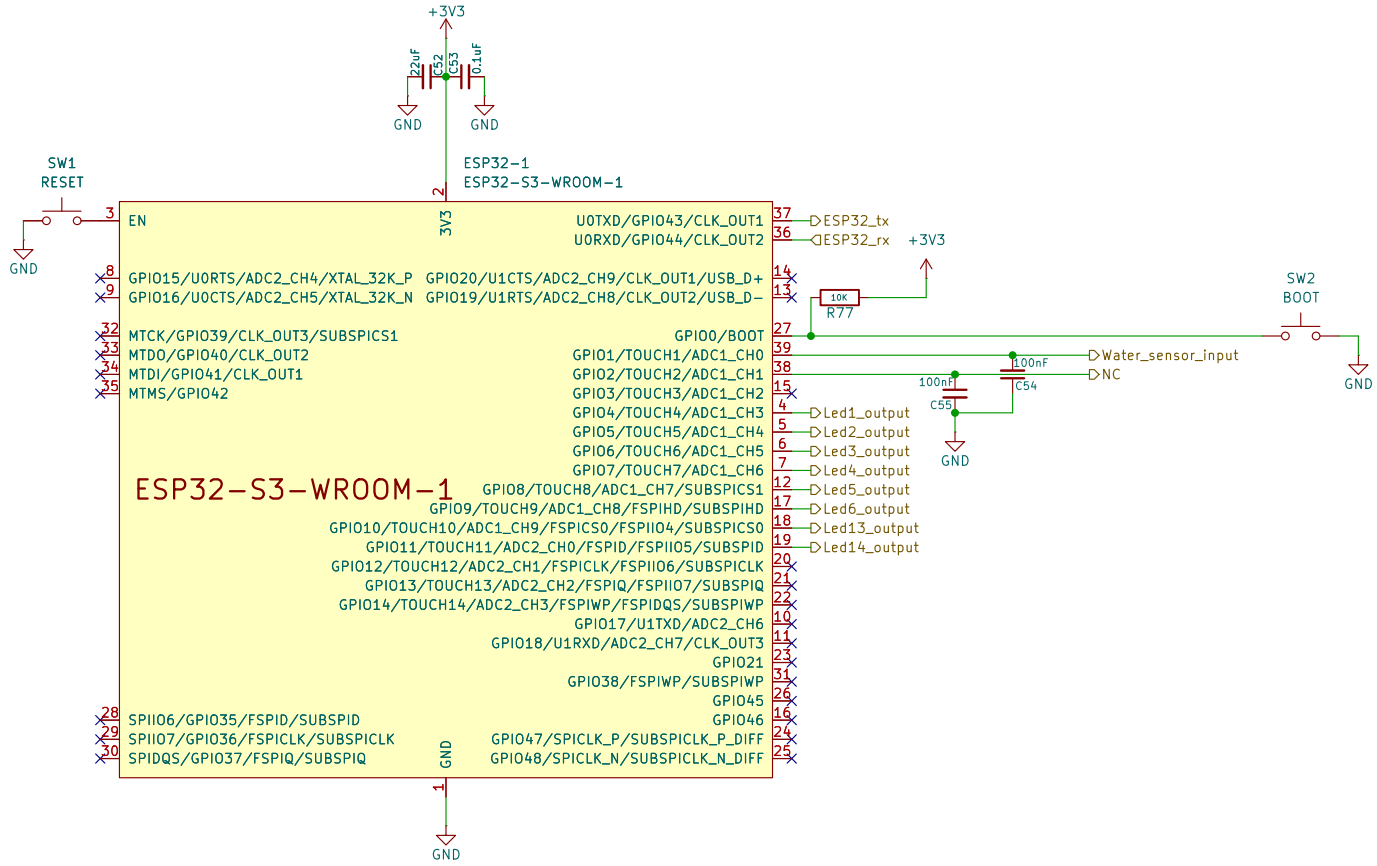
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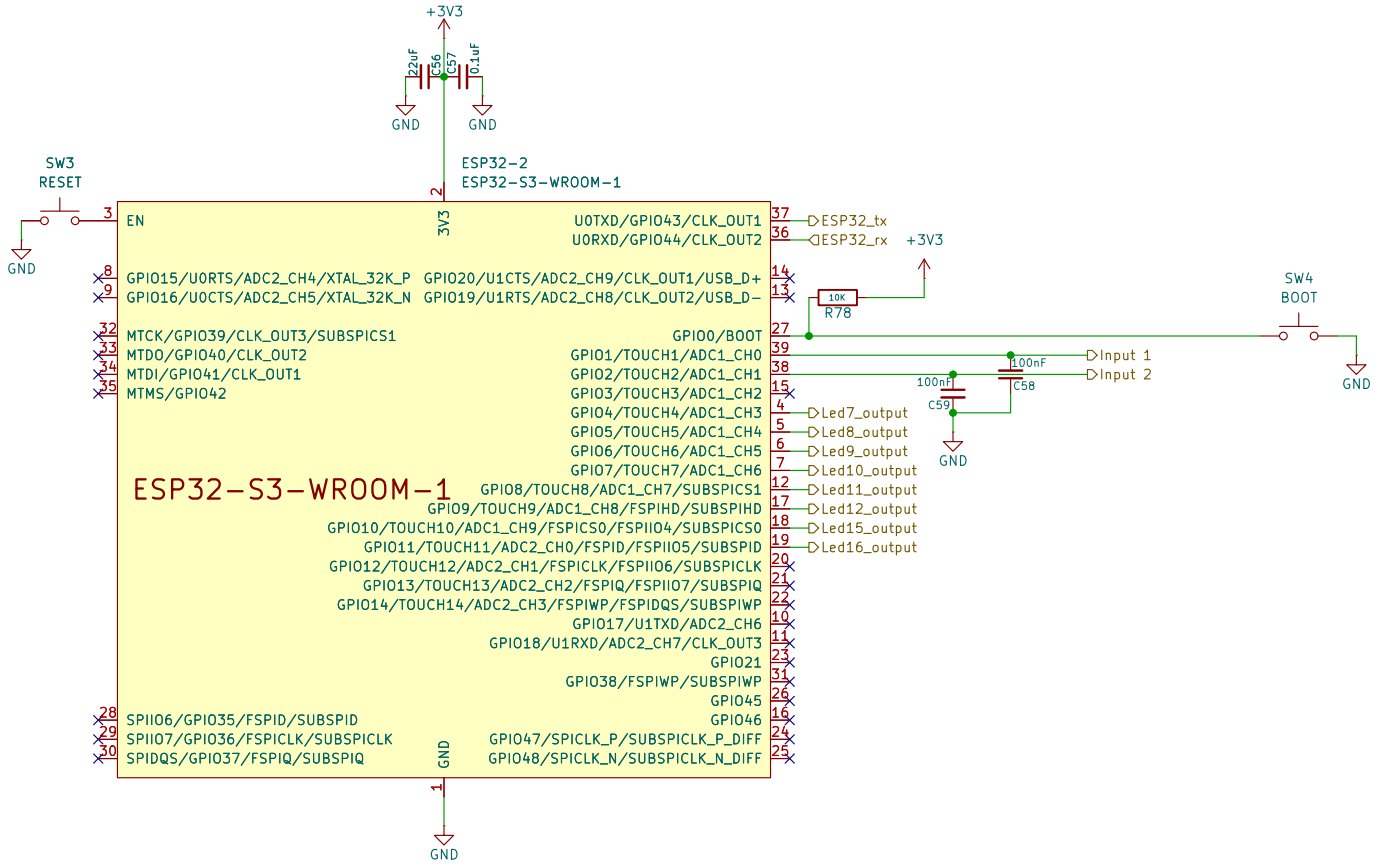
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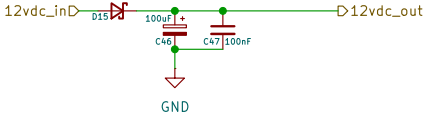
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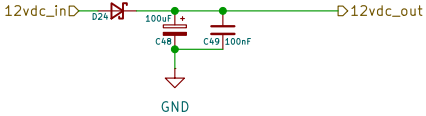
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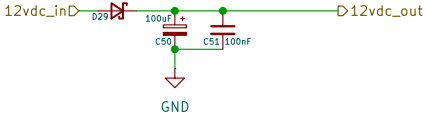
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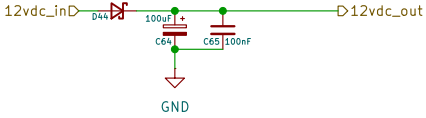
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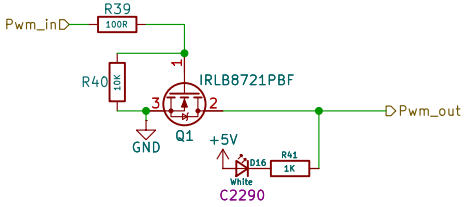
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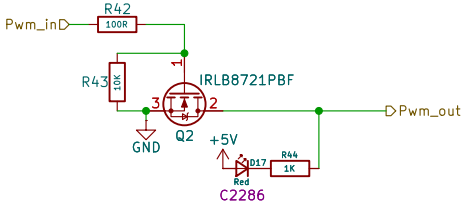
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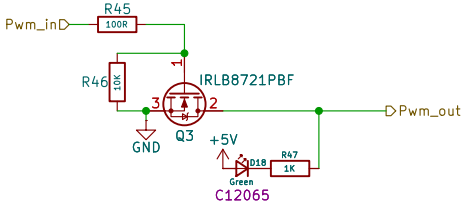
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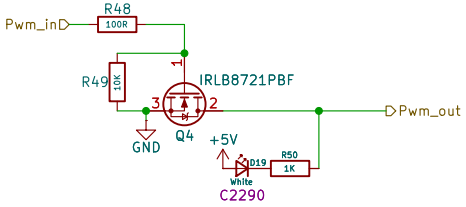
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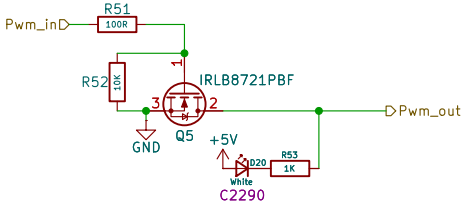
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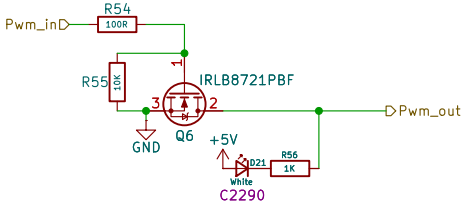
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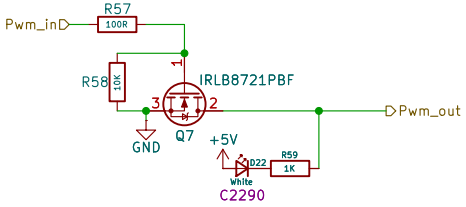
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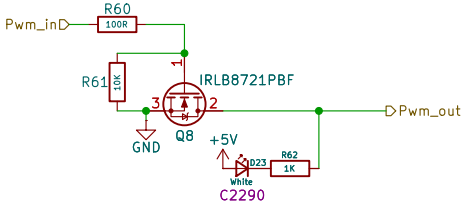
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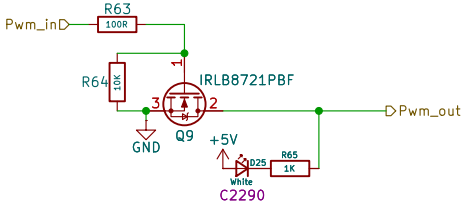
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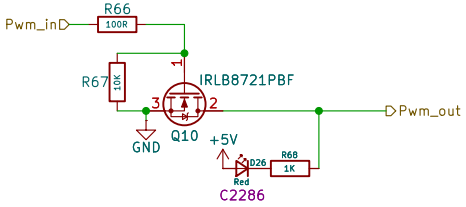
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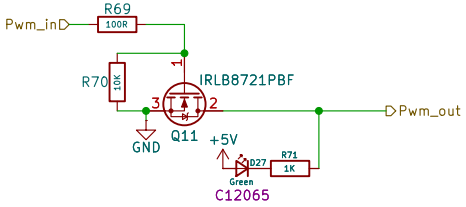
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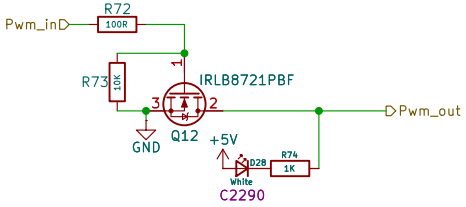
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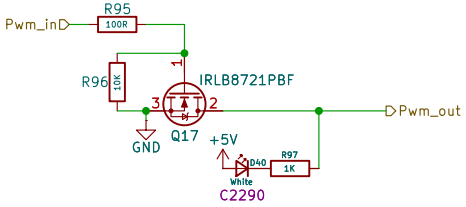
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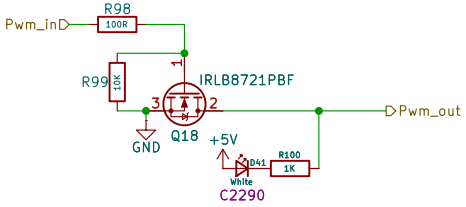
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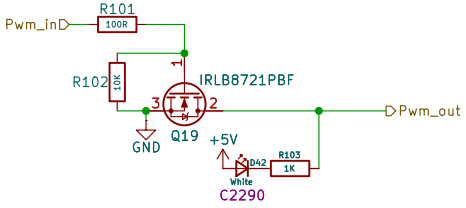
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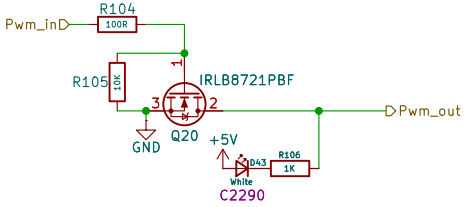
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KiCad E.D.A. 10.0.4		Id: 33/41



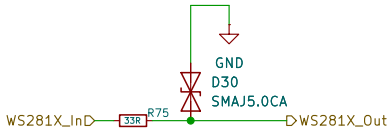
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KiCad E.D.A. 10.0.4		Id: 35/41



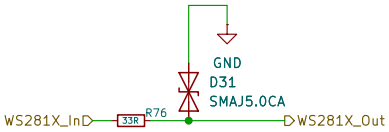
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KiCad E.D.A. 10.0.4		Id: 36/41



Sheet: /WS281X Channel 1/
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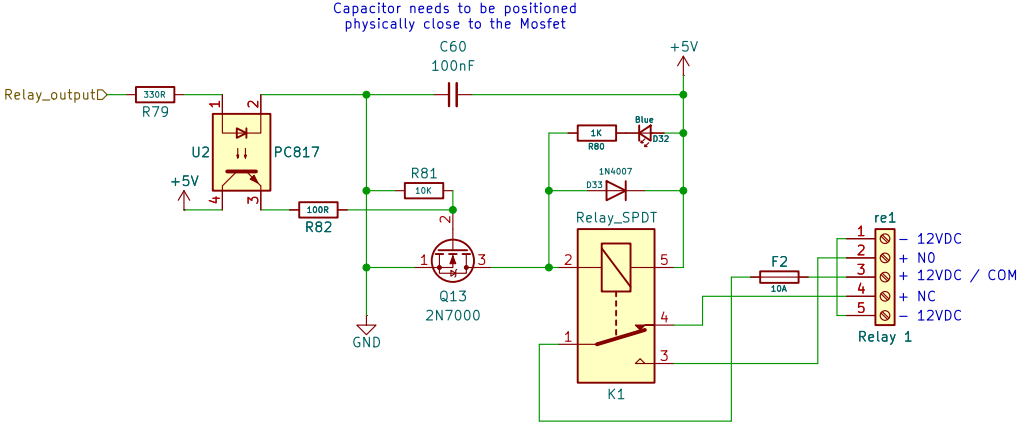
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KiCad E.D.A. 10.0.4		Id: 37/41



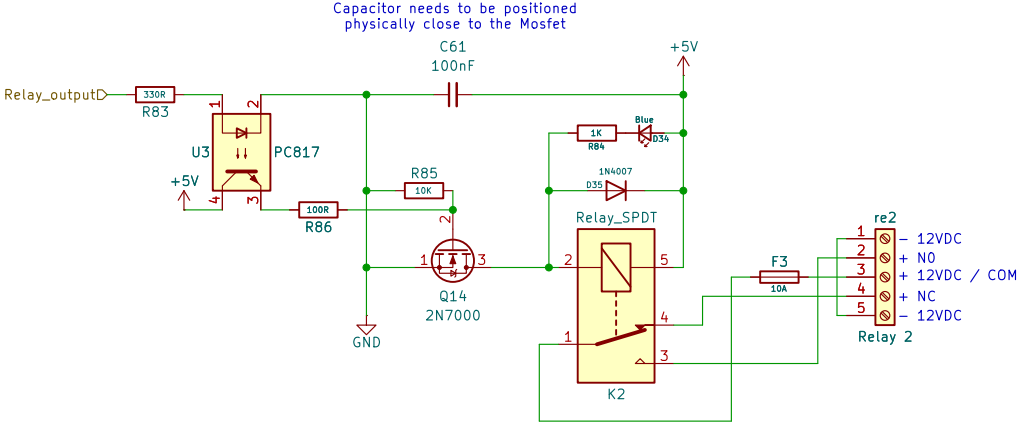
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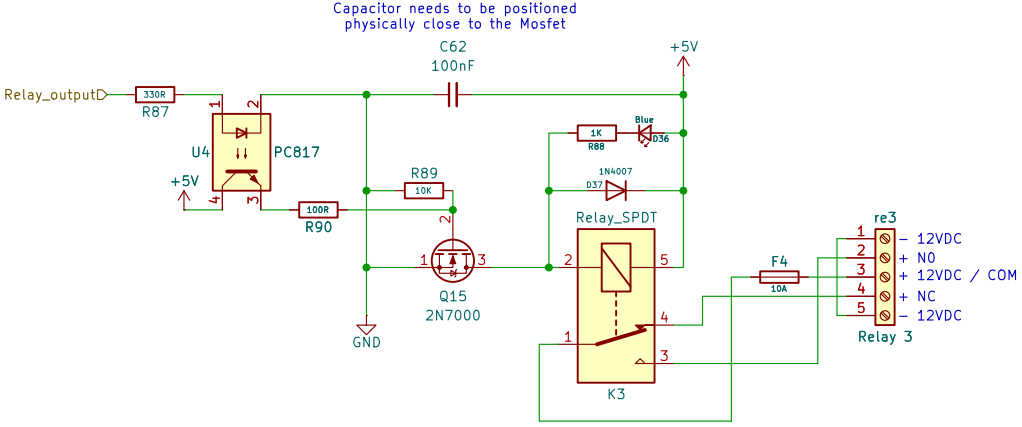
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KiCad E.D.A. 10.0.4		Id: 38/41



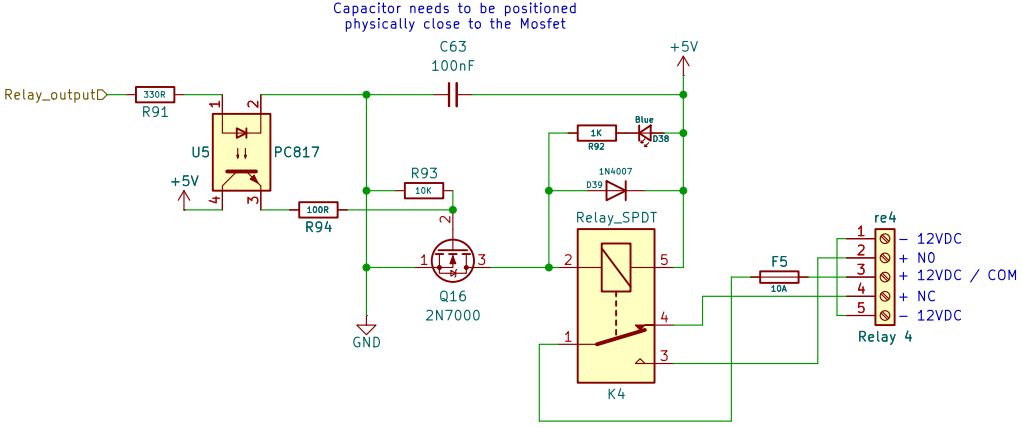
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KiCad E.D.A. 10.0.4		Id: 39/41



Sheet: /Relay Channel 2/ File: relay_channel.kicad_sch		
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Size: A5	Date:	**Rev:**
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Sheet: /Relay Channel 3/		
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Sheet: /Relay Channel 4/		
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