Supporting Information

Open Source Photoreactor

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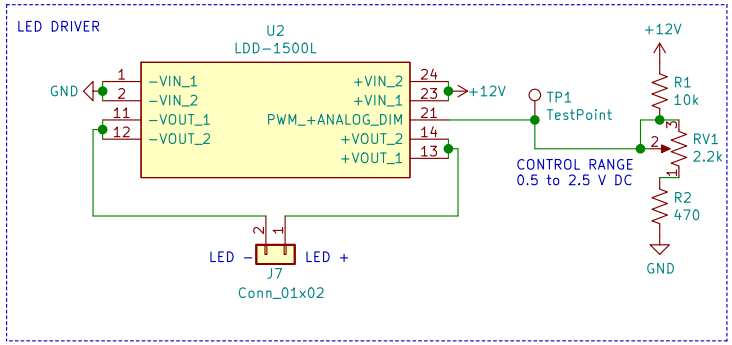
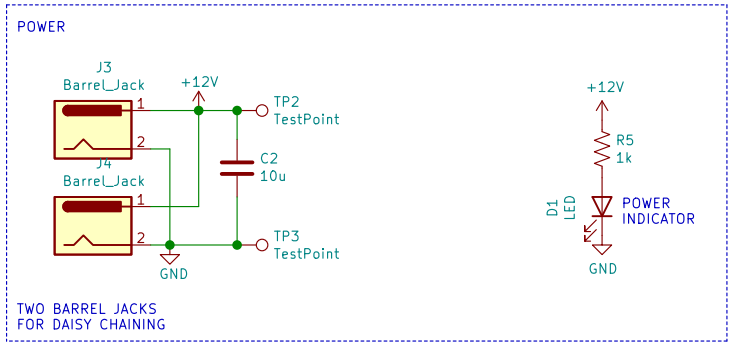
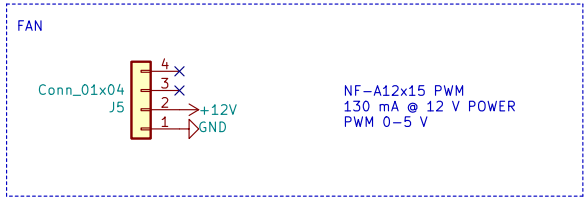
2.1 Analog







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Title: Analog Photoreactor Driver

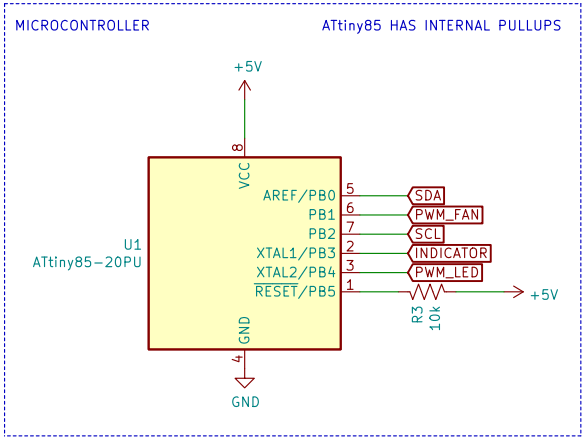
Size: USLetter | Date: 2021-01-29 | **Rev: 1.0.0**

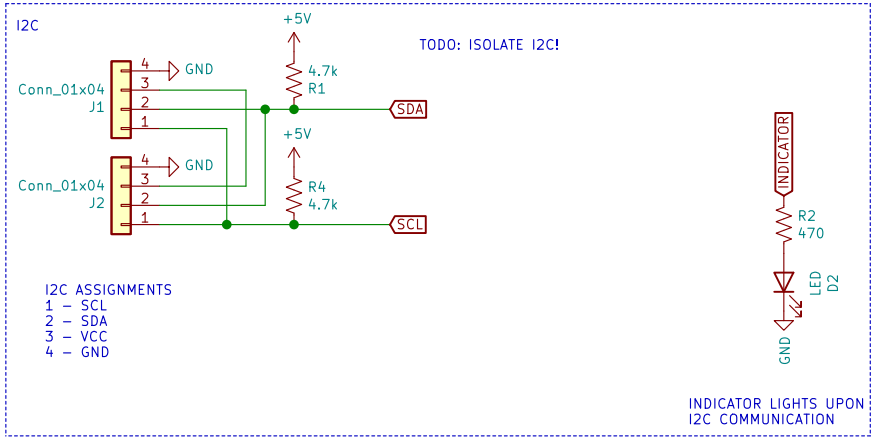
KiCad E.D.A. kicad 5.1.8+dfsg1-1+b1 | Id: 1/1

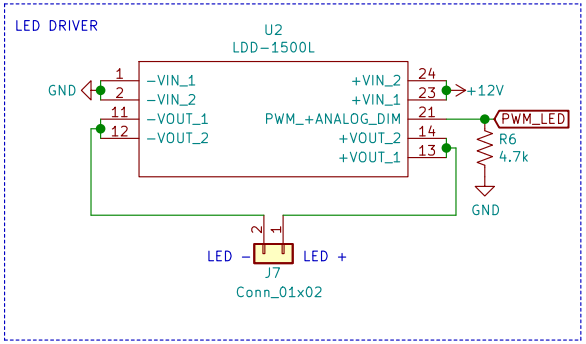
2.2 Digital

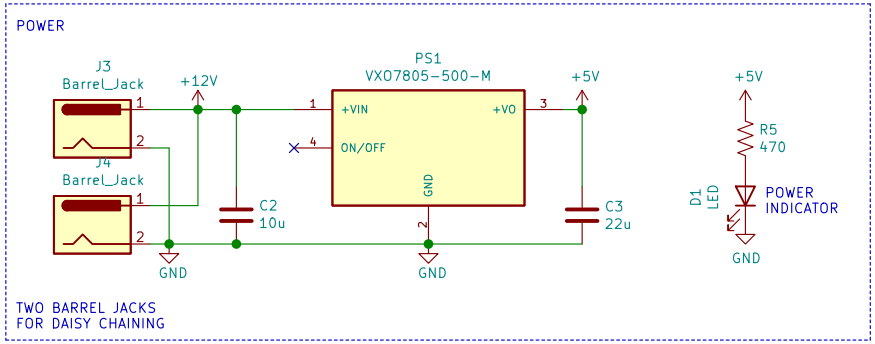
TODO: document I2C connection choice. Consistent with Adafruit, Sparkfun, Seeed...

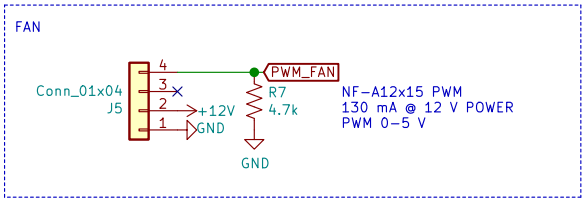
2.2.1 Driver











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Title: Digital Photoreactor Driver

Size: USLetter	Date: 2021-01-22	**Rev: 1.0.0**
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2.2.2 Controller

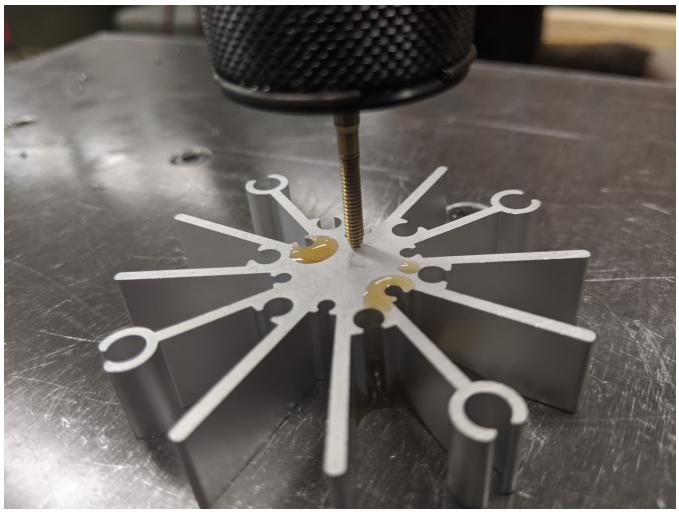

Figure S1: Two of the innermost holes on the extruded heatsink must be 4-40 tapped.

3 Mechanical Construction

0.5" standoff: RAF 4505-440-AL

3.1 Base

3.1.1 LED and Heatsink

TODO: LED PCB part number

TODO: heatsink part number

Tap the heatsink. We used thread-forming tap: OSG 1400105300.

TODO: heatsink compoud

Install with wires facing towards printed hole

Use 4-40 1/4".

3.1.2 Fan

TODO: fan part number

Noctua NF-A12x15 PWM

pins: blue: PWM (5 V) yellow: +12 V black: ground

Use 4-40 3/4" into captured nuts

4 Efficacy