Supporting Information

Open Source Photoreactor

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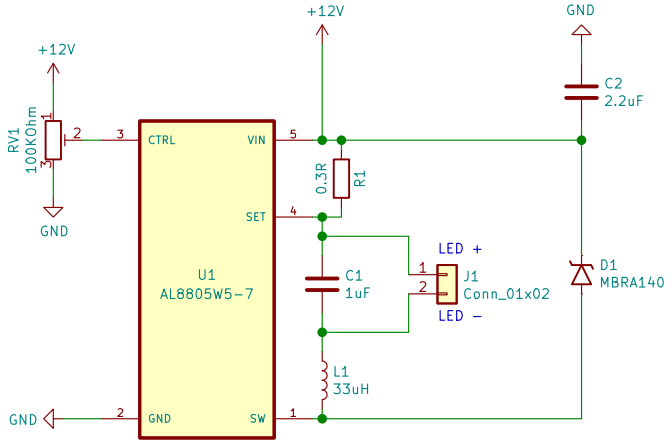
1 Introduction

2 Mechanical Construction

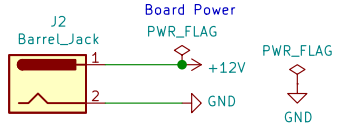
3 Electronics

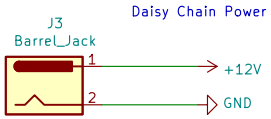
3.1 Analog

Analog Control LED Driver
0.3R = max current of 333 mA

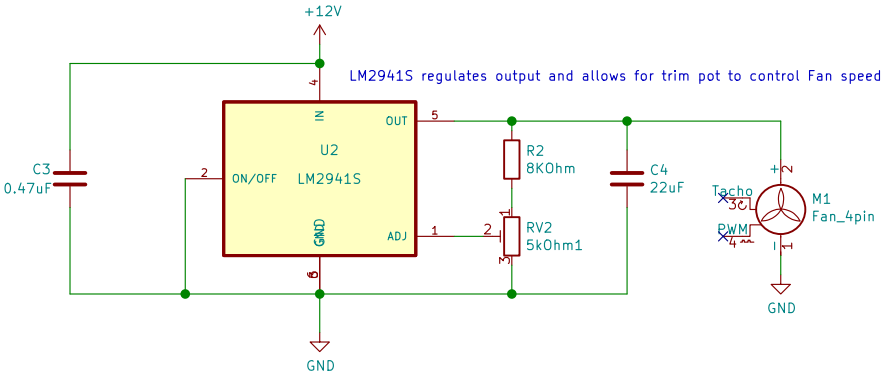


This LED driver is adapted from SparkFun femtobuck design.
I've added a trim pot to control the driver. It should output constant 330 mA to LEDs.





Analog Control Fan



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File: driver.sch

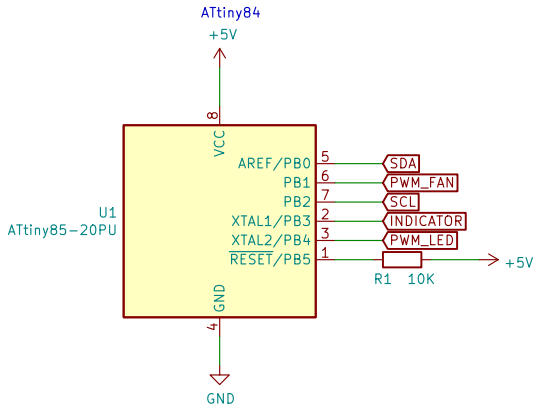
Title: Analog Photoreactor Driver

Size: USLetter	Date: 2021-01-19	**Rev: 1.0.0**
KiCad E.D.A. kicad 5.1.8+dfsg1-1+b1		Id: 1/1

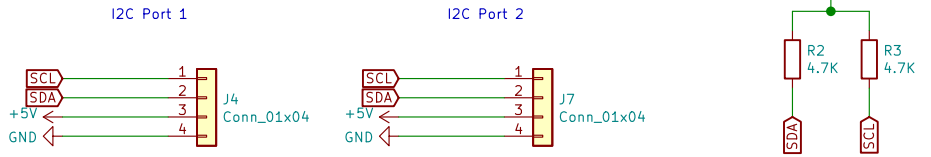
3.2 Digital

3.2.1 Driver

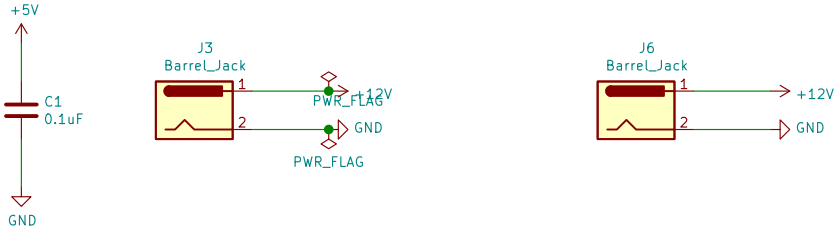
Microcontroller



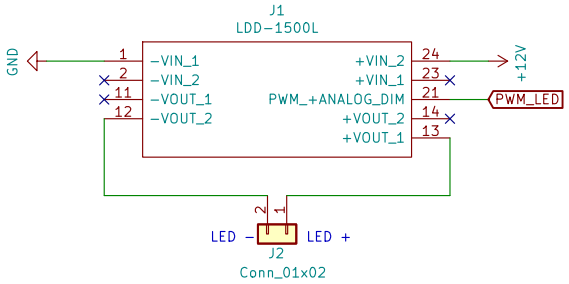
I2C



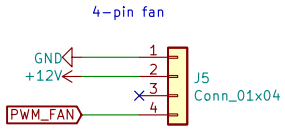
Power



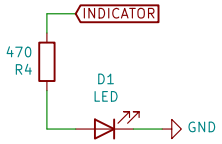
LED Driver



Fan



Indicator LED



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3.2.2 Controller

4 Efficacy