3-Phase Brushless Motor Driver

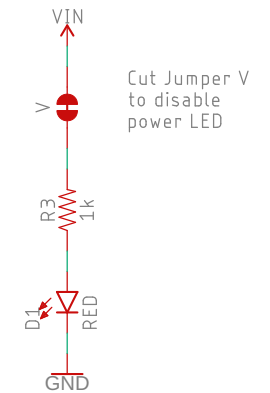Input Range: 2V to 11V
I/O Supply: 2 – 5.25V
Max Current: 2A
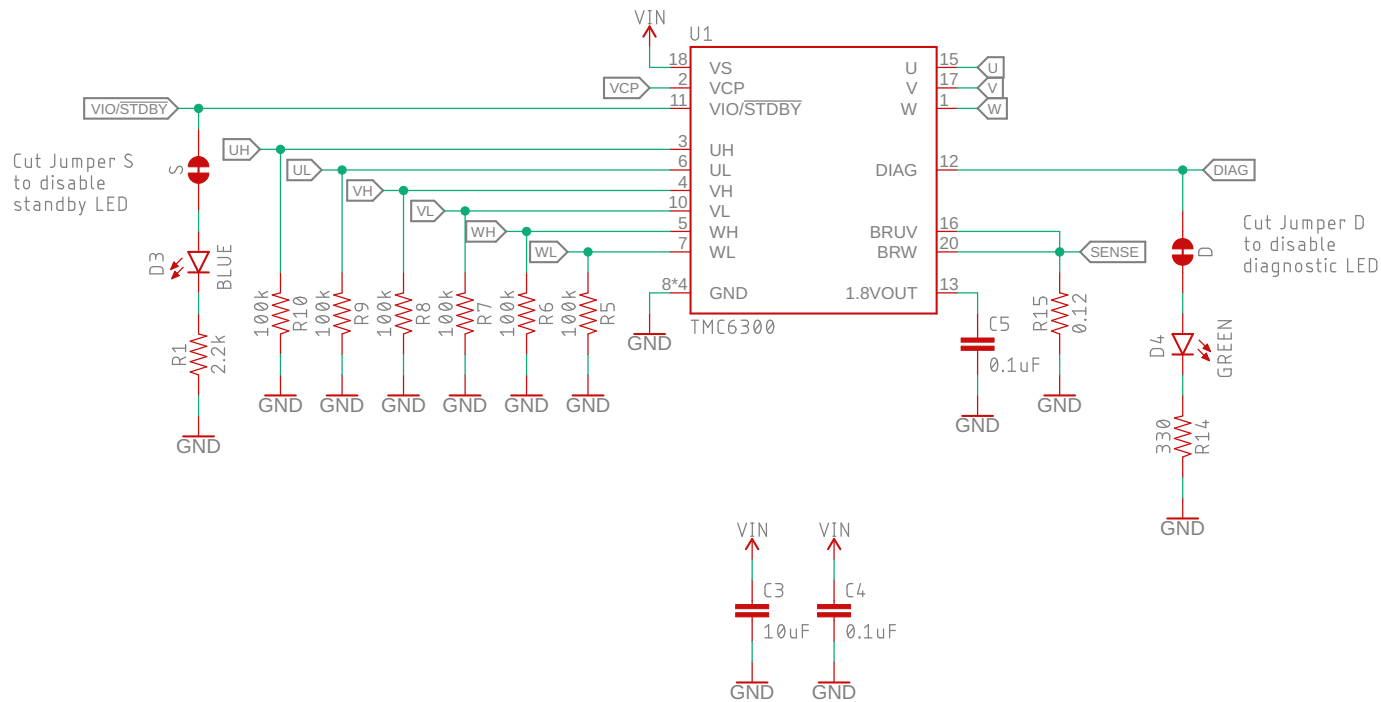
0.1" Headers
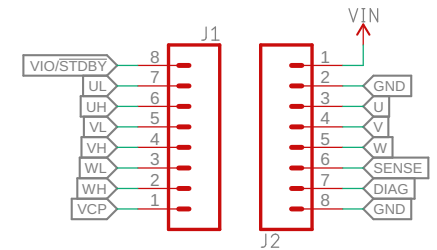
J1
- 8 VIO/STDBY
- 7 UL
- 6 UH
- 5 VL
- 4 VH
- 3 WL
- 2 WH
- 1 VCP

J2
- 1 VIN
- 2 GND
- 3 U
- 4 V
- 5 W
- 6 SENSE
- 7 DIAG
- 8 GND

U1 — TMC6300

VIN
- 18 VS
- 2 VCP
- 11 VIO/STDBY
- 3 UH
- 6 UL
- 4 VH
- 10 VL
- 5 WH
- 7 WL
- 8*4 GND
- 15 U
- 17 V
- 1 W
- 12 DIAG
- 16 BRUV
- 20 BRW
- 13 1.8VOUT

Cut Jumper S to disable standby LED
S
D3 BLUE
R1 2.2k
GND

R10 100k
R9 100k
R8 100k
R7 100k
R6 100k
R5 100k
GND GND GND GND GND GND

Cut Jumper D to disable diagnostic LED
D
SENSE
R15 0.12
GND

C5 0.1uF
GND

D4 GREEN
R14 330
GND

VIN VIN
C3 10uF   C4 0.1uF
GND GND

Power LED

VIN
V
Cut Jumper V to disable power LED
R3 1k
D1 RED
GND

TITLE: SparkFun_TMC6300_Breakout

Special Instructions

Design by: N. Seidle
Revised by: M. Chodikov

REV: v10

Date: 3/23/2023 6:07 PM

Sheet: 1/1

sparkfun

open hardware