

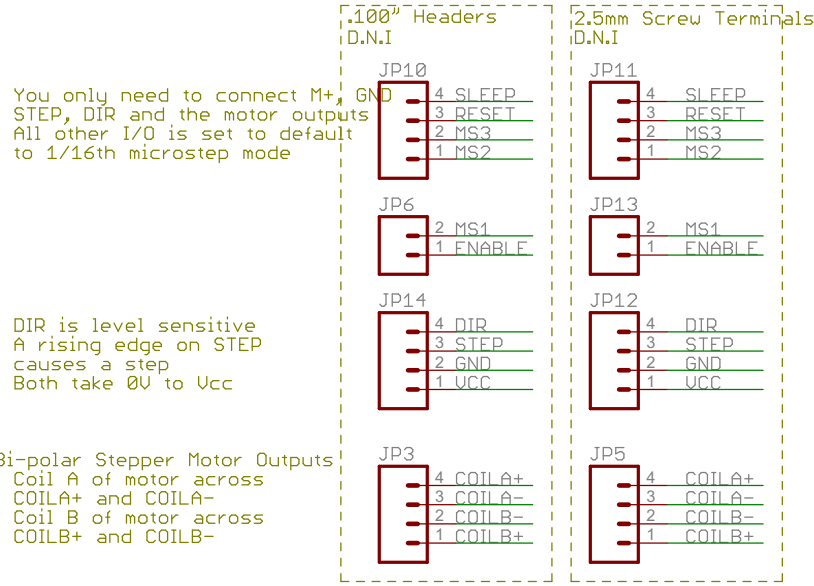
BigEasyDriver v1.2

www.schmalzhaus.com/BigEasyDriver

An easy to use bipolar stepper motor driver
Use 4 wire, 6 wire or 8 wire stepper motors
From 0mA/phase to over 2A/phase
Defaults to 5V for Ucc (logic supply), settable to 3.3V
Supply 8V to 35V DC power input on JP1 or JP7
Do not connect or disconnect motor while BigEasyDriver is powered

DEFAULT OPTIONS
Short JP10, or JP6 pins to GND or Ucc to override
SLEEP = Ucc (awake)
MS1 = Ucc (1/16 microstep)
MS2 = Ucc (1/16 microstep)
ENABLE = GND (enabled)
RESET = Ucc (not reset)
MS3 = Ucc (1/16 microstep)

NOTE: UCC is normally an OUTPUT. You do not need to supply power to the Big Easy Driver through UCC. The only power needed is through M+ (motor power).

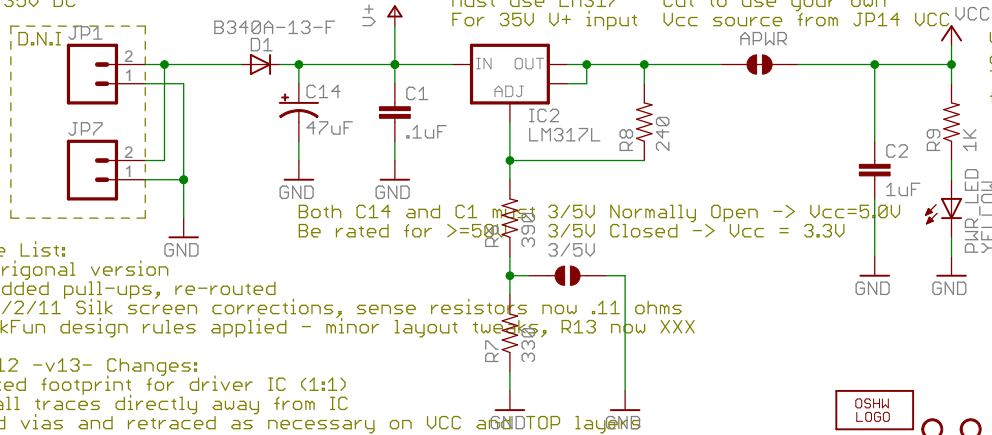


You only need to connect M+, GND, STEP, DIR and the motor outputs. All other I/O is set to default to 1/16th microstep mode

DIR is level sensitive
A rising edge on STEP causes a step
Both take 0V to Ucc

Bi-polar Stepper Motor Outputs
Coil A of motor across COILA+ and COILA-
Coil B of motor across COILB+ and COILB-

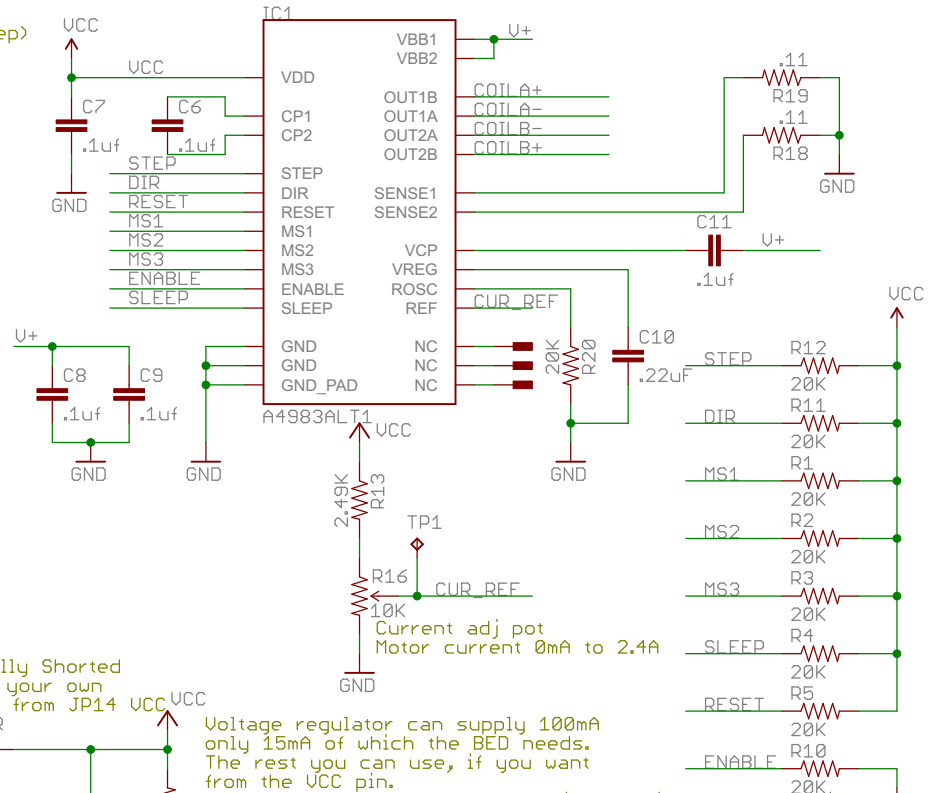
Power Input JP1, JP7
8V to 35V DC



APWR Normally Shorted
Must use LM317
For 35V U+ input Ucc source from JP14

Voltage regulator can supply 100mA only 15mA of which the BED needs. The rest you can use, if you want from the UCC pin.

Change List:
v1.0 Original version
v1.1 Added pull-ups, re-routed
v1.2 5/2/11 Silk screen corrections, sense resistors now .11 ohms
SparkFun design rules applied - minor layout tweaks, R13 now XXX
1/10/12 -v13- Changes:
-updated footprint for driver IC (1:1)
-ran all traces directly away from IC
-moved vias and retraced as necessary on UCC and GND TOP layers



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Designed by Brian Schmalz
Produced by Spark Fun Electronics

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