

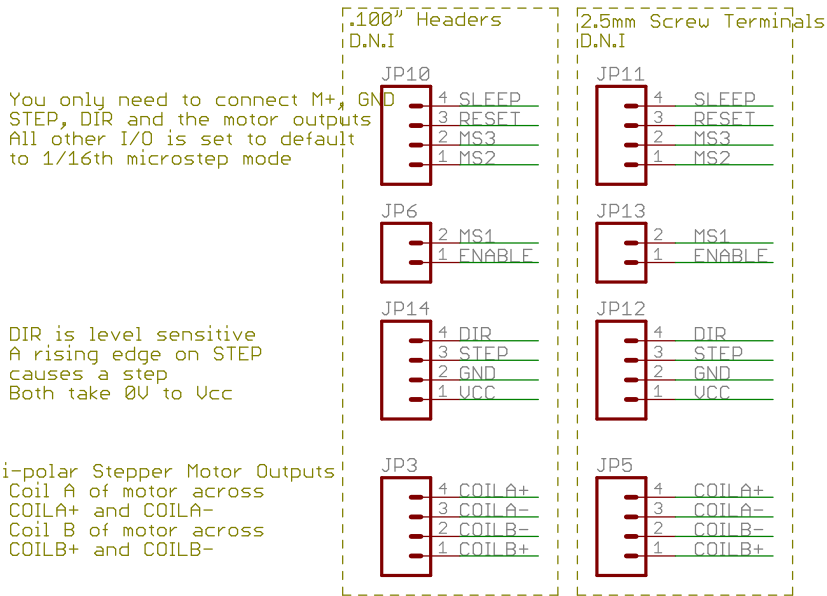
# BigEasyDriver v1.2

[www.schmalzhaus.com/BigEasyDriver](http://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  
 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  
 to 3.3V  
 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 COIL A+ and COIL A-  
 Coil B of motor across COIL B+ and COIL B-

Power Input JP1, JP7  
 8V to 35V DC

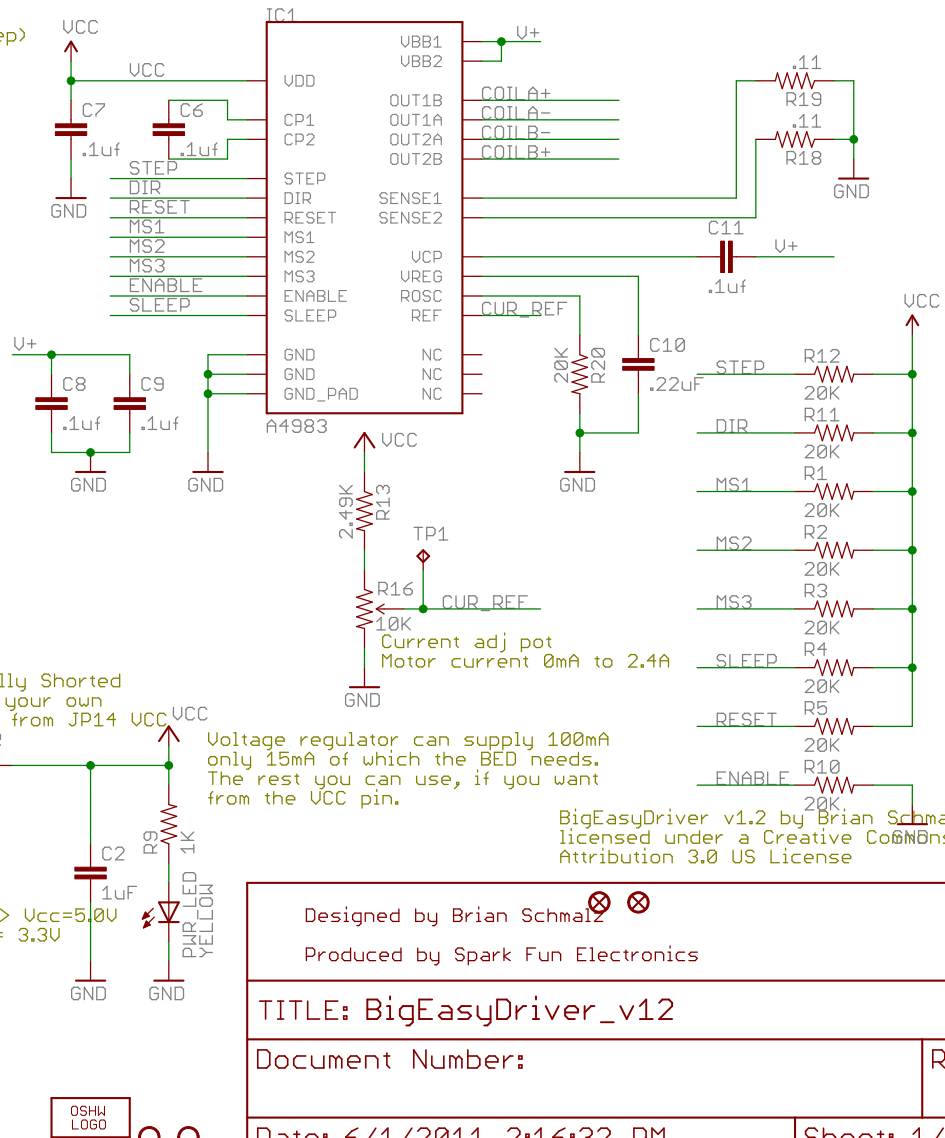
Must use LM317  
 For 35V U+ input

APWR Normally Shorted  
 Cut to use your own 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.

BigEasyDriver v1.2 by Brian Schmalz is licensed under a Creative Commons Attribution 3.0 US License

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



Designed by Brian Schmalz	
Produced by Spark Fun Electronics	
TITLE: BigEasyDriver_v12	
Document Number:	SFE
Date: 6/1/2011 2:16:32 PM	REV:
Sheet: 1/1	

