

# EasyDriver v4.2

[www.schmalzhaus.com/EasyDriver](http://www.schmalzhaus.com/EasyDriver)

An easy to use bipolar stepper motor driver  
 Use 4 wire, 6 wire or 8 wire stepper motors  
 From about 150mA/phase to about 750mA/phase  
 Defaults to 5V for Vcc (logic supply), settable to 3.3V  
 Supply 8V to 30V DC power input on JP1  
 Do not connect or disconnect motor while EasyDriver is powered

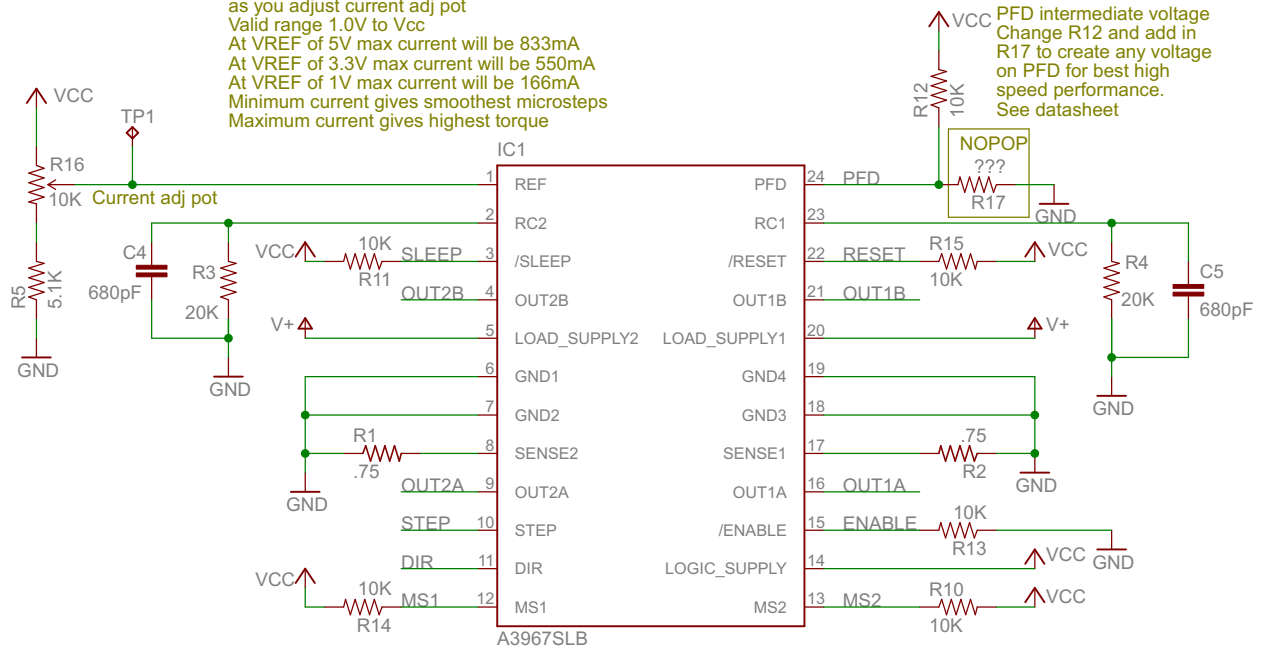
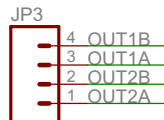
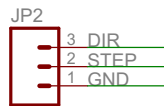
TP1 - VREF input to driver  
 Monitor this test point with meter as you adjust current adj pot  
 Valid range 1.0V to Vcc  
 At VREF of 5V max current will be 833mA  
 At VREF of 3.3V max current will be 550mA  
 At VREF of 1V max current will be 166mA  
 Minimum current gives smoothest microsteps  
 Maximum current gives highest torque

**DEFAULT OPTIONS**  
 Short JP5, JP6, JP7 pins to GND or Vcc to override

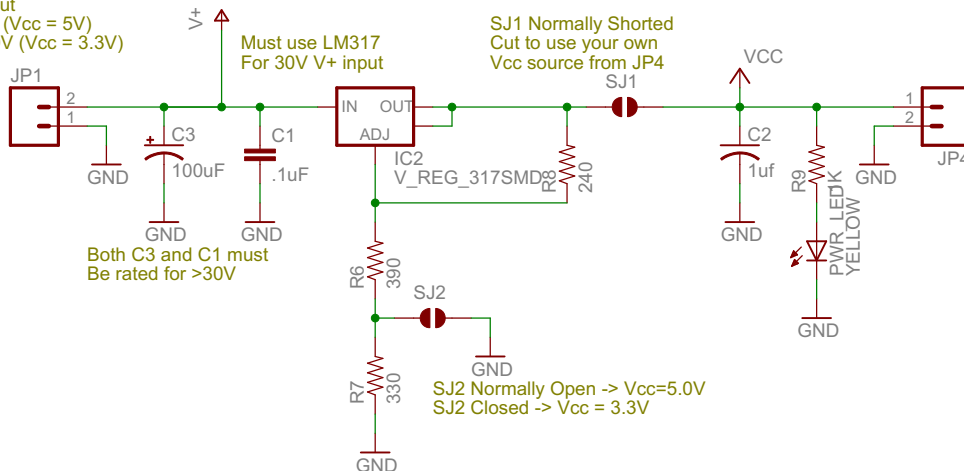
SLEEP = Vcc (awake)  
 MS1 = Vcc (1/8 microstep)  
 MS2 = Vcc (1/8 microstep)  
 ENABLE = GND (enabled)  
 RESET = Vcc (not reset)  
 PFD = Vcc (slow decay mode)

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

Coil 1 of motor across OUT1B and OUT1A  
 Coil 2 of motor across OUT2B and OUT2A



**Power Input**  
 8V to 30V (Vcc = 5V)  
 6.3V to 30V (Vcc = 3.3V)



Must use LM317  
 For 30V V+ input  
 Both C3 and C1 must be rated for >30V

SJ1 Normally Shorted  
 Cut to use your own Vcc source from JP4

SJ2 Normally Open -> Vcc=5.0V  
 SJ2 Closed -> Vcc = 3.3V

Vcc output  
 Max 70mA used by EasyDriver  
 The rest you can use

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