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File: HPDriver.sch

### Title: High Power Stepper Driver

Size: A4 Date: 2019-12-19

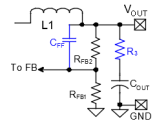
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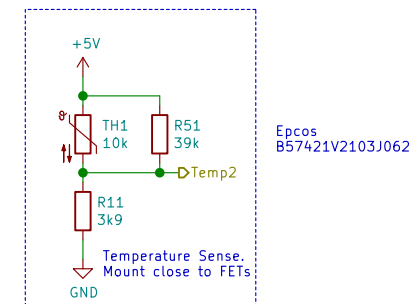
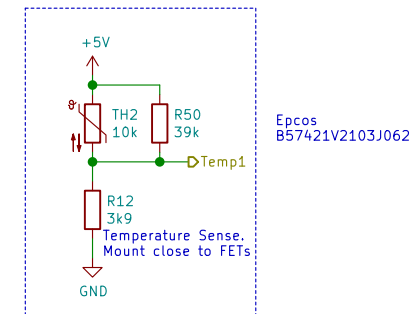
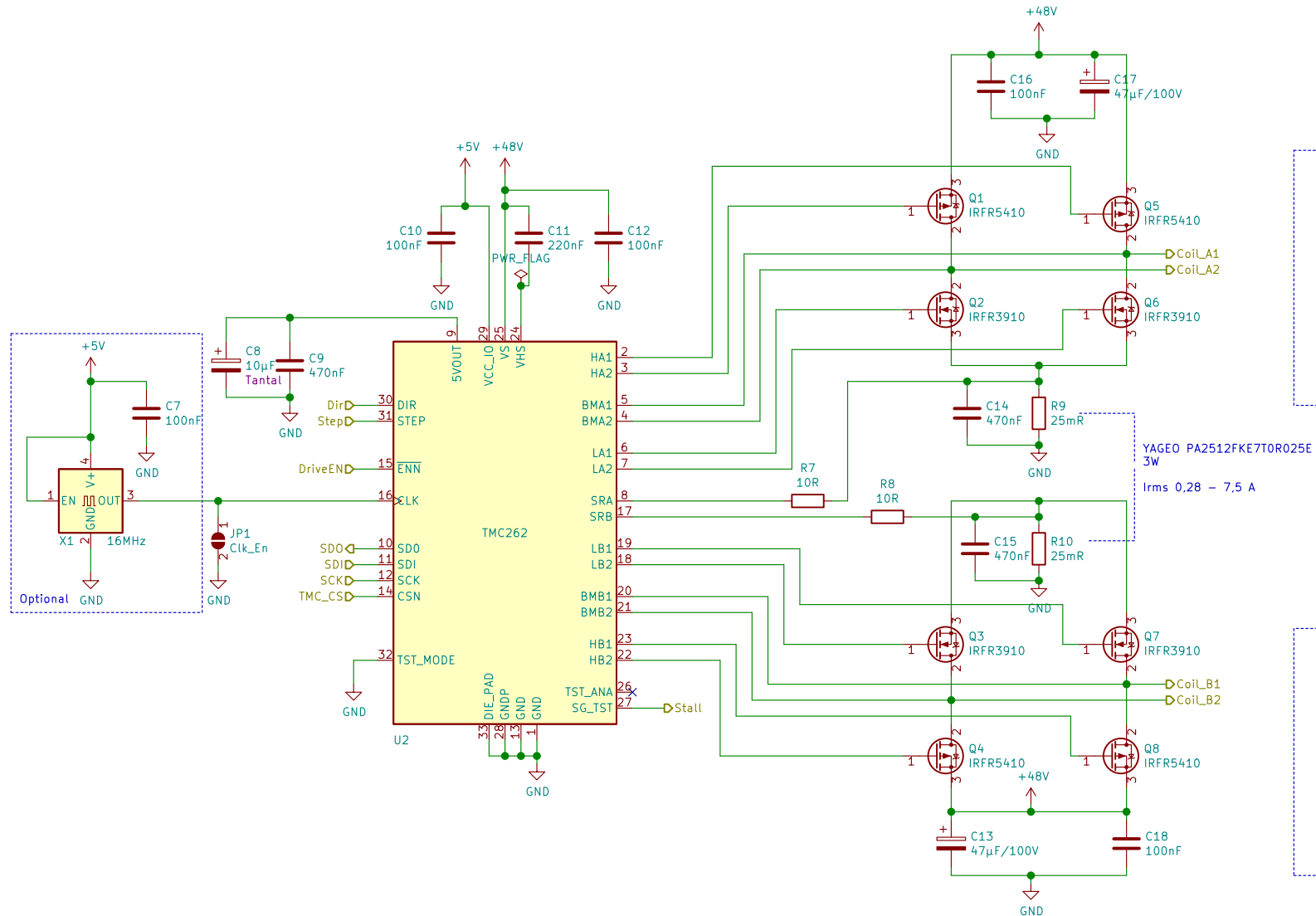
Type 1 Output Ripple Configuration shown

**Type 2  
Reduced Ripple  
Configuration**



Step 3. Summary			
$R_{in}$	2.42	kohms	These two resistors set
$R_{in}$	2.49	kohms	the output voltage.
$R_1$	300	kohms	Sets the switching frequency.
$L_1$	1000	$\mu$ H	Determines the ripple current.
$R_{in}$	750	kohms	Sets the off-line in current limit.
Output Ripple Configuration			
Type	1.5	Ohms	Affects the amount of ripple at $V_{out}$ .
$R_3$	10	Ohms	Sets the ripple amplitude at $V_{out}$ .
CR	10000	$\mu$ F	Ripple bypass for Type 2
$C_{out}$	5	$\mu$ F	See Note 1
$C_{in}$	3.3	$\mu$ F	
$C_{ess}$	0.1	$\mu$ F	
$C_{out}$	0.47	$\mu$ F	
$C_{ess}$	0.01	$\mu$ F	
$V_{out}$	5.80	Volts	
Nominal Switching Frequency	133	kHz	

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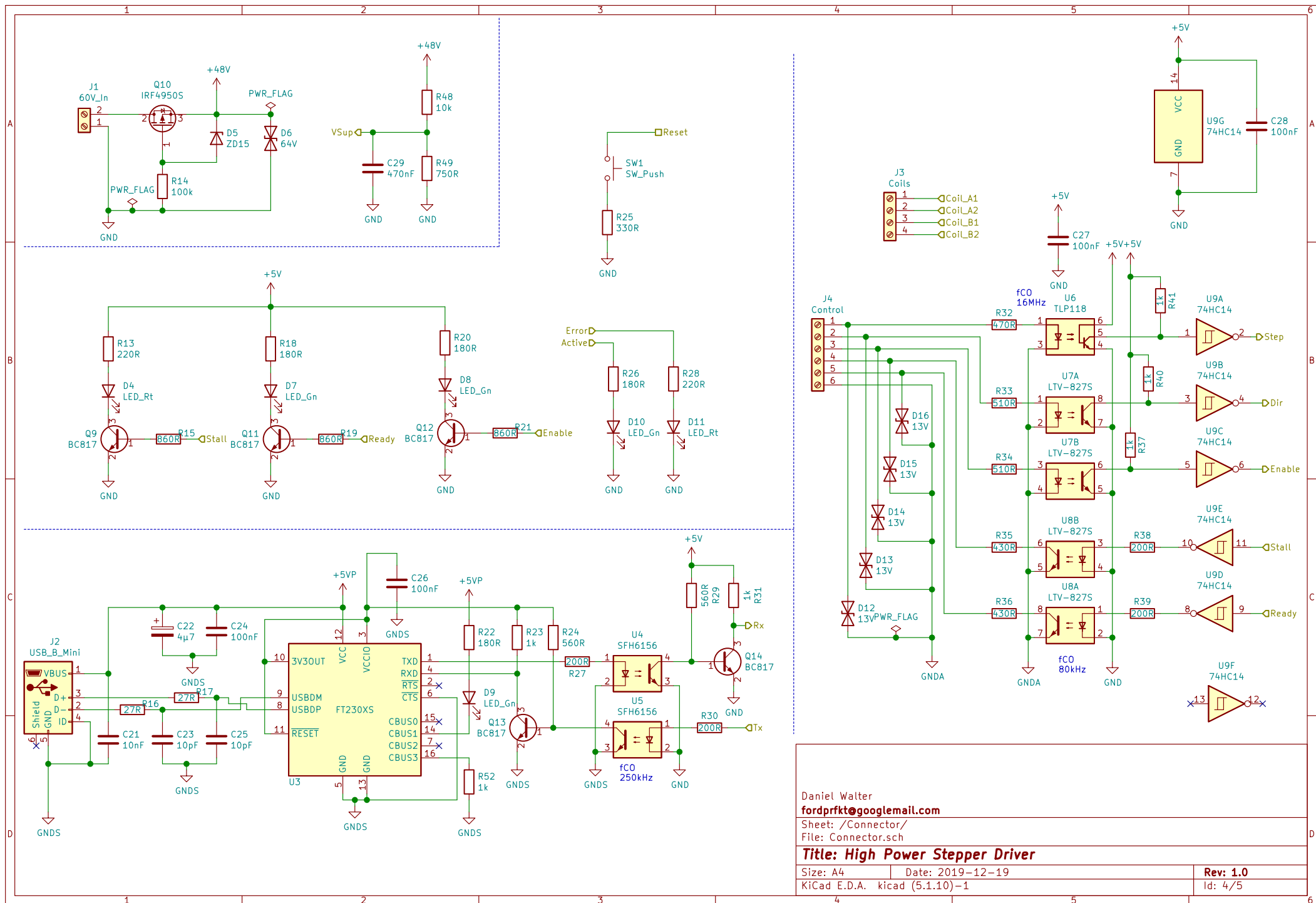
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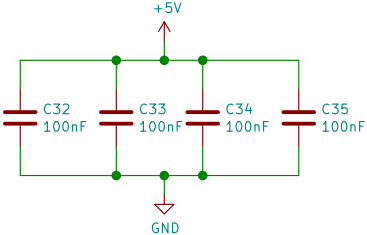
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