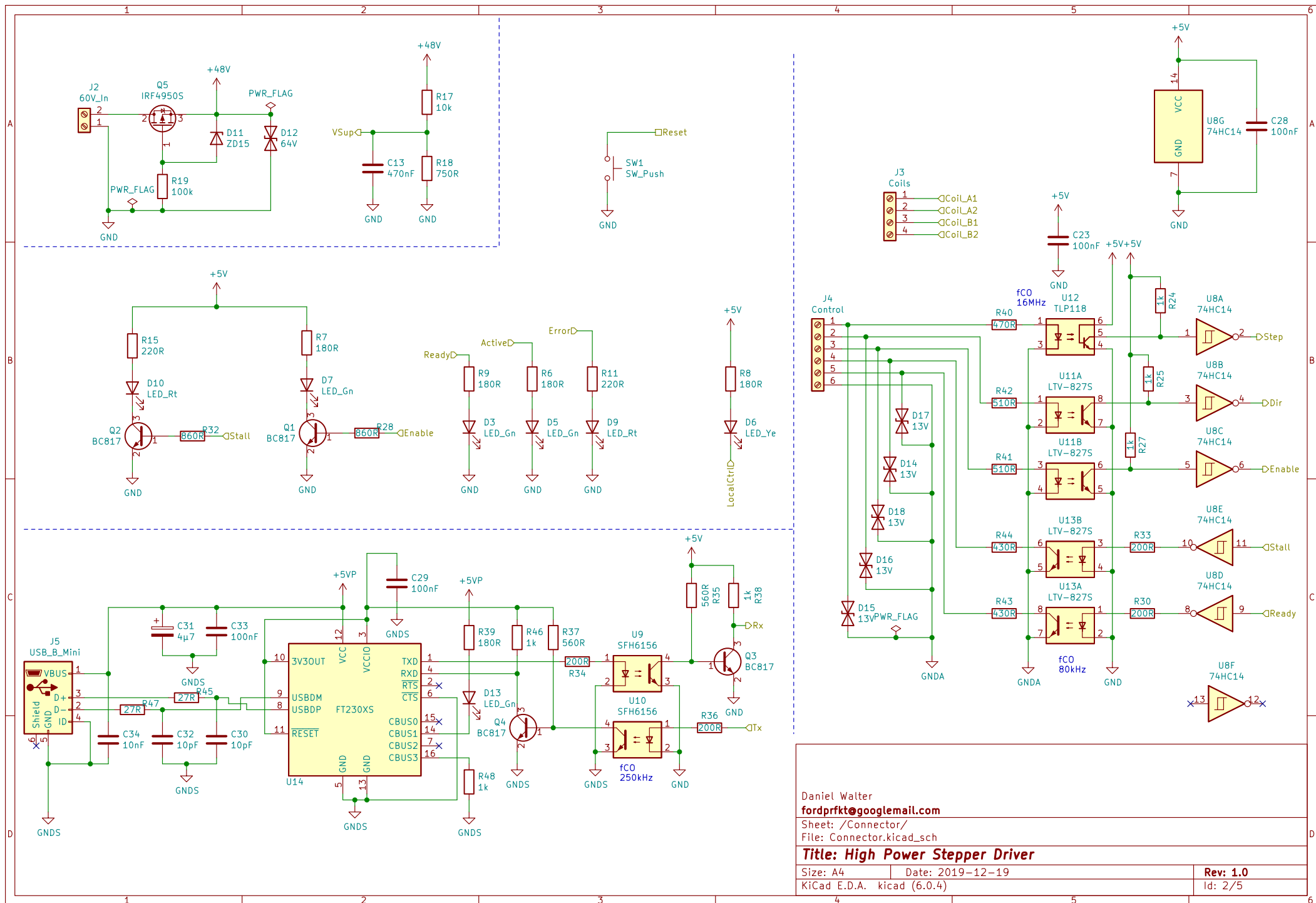


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Sheet: /
File: HPDriver.kicad_sch

Title: High Power Stepper Driver

Size: A4	Date: 2019-12-19	Rev: 1.0
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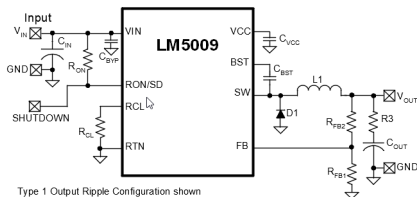
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Title: High Power Stepper Driver

Size: A4 Date: 2019-12-19
KiCad E.D.A. kicad (6.0.4)

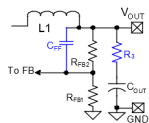
Rev: 1.0
Id: 2/5

Typical Application, Basic Step-Down Regulator



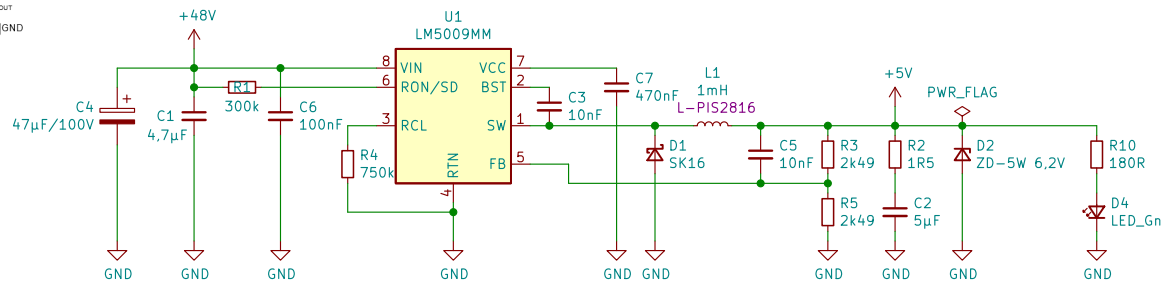
Type 1 Output Ripple Configuration shown

Type 2 Reduced Ripple Configuration



Step 9: Summary			
R_{FB}	=	2.49	kohms These two resistors set the output voltage.
R_{ON}	=	2.49	kohms
R_1	=	300	kohms Sets the switching frequency.
L_1	=	1000	μ H Determines the ripple current.
R_{CL}	=	750	kohms Sets the off-time in current limit.
Output Ripple Configuration	=	Type 2	Affects the amount of ripple at V_{OUT} .
R_3	=	1.5	Ohms Sets the ripple amplitude at V_{OUT} .
C_{FB}	=	10000	pF Ripple bypass for Type 2
C_{OUT}	=	5	μ F
C_{IN}	=	3.3	μ F
C_{OFF}	=	0.1	μ F See Note 1.
C_{BST}	=	0.47	μ F
C_{BST}	=	0.01	μ F
V_{OUT}	=	5.00	Volts
Nominal Switching Frequency	=	133	kHz

Notes: 1) Values shown for C_{BST} , C_{OFF} , and C_{OUT} are default values, and do not require calculation.



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Sheet: /Supply/

File: Supply.kicad_sch

Title: High Power Stepper Driver

Size: A4 Date: 2019-12-19

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Rev: 1.0

Id: 5/5