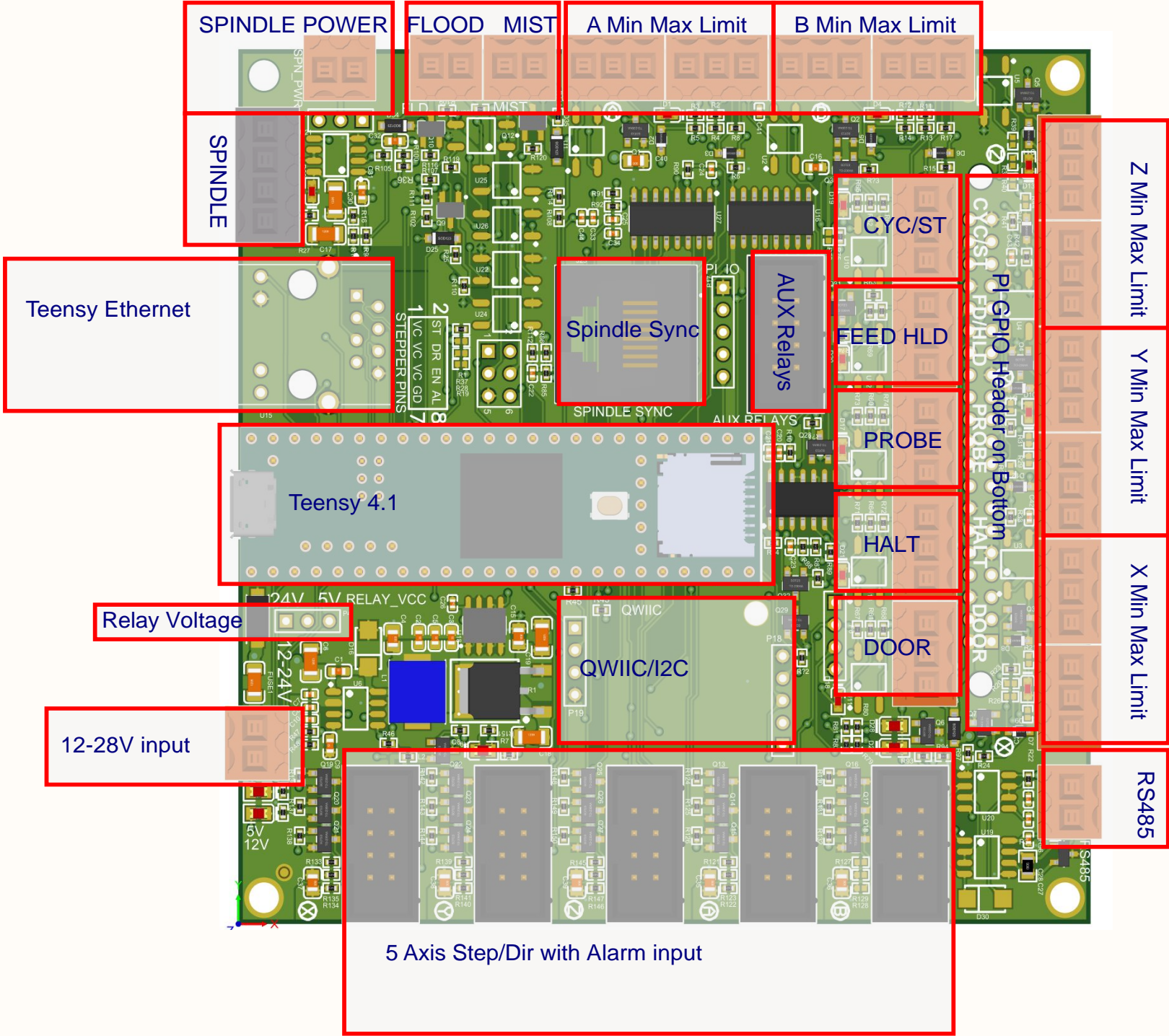


GRBLHAL2000 Breakout



Mechanical

PCB
LOGO
Expatria Technologies

FID1 FID2 FID3

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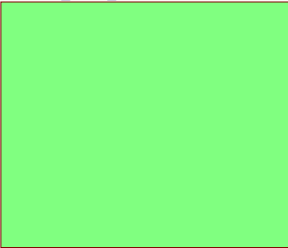


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B	2021-11-15 3:07:28 PM			1 / 14	

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U_PrintNC_BREAKOUT
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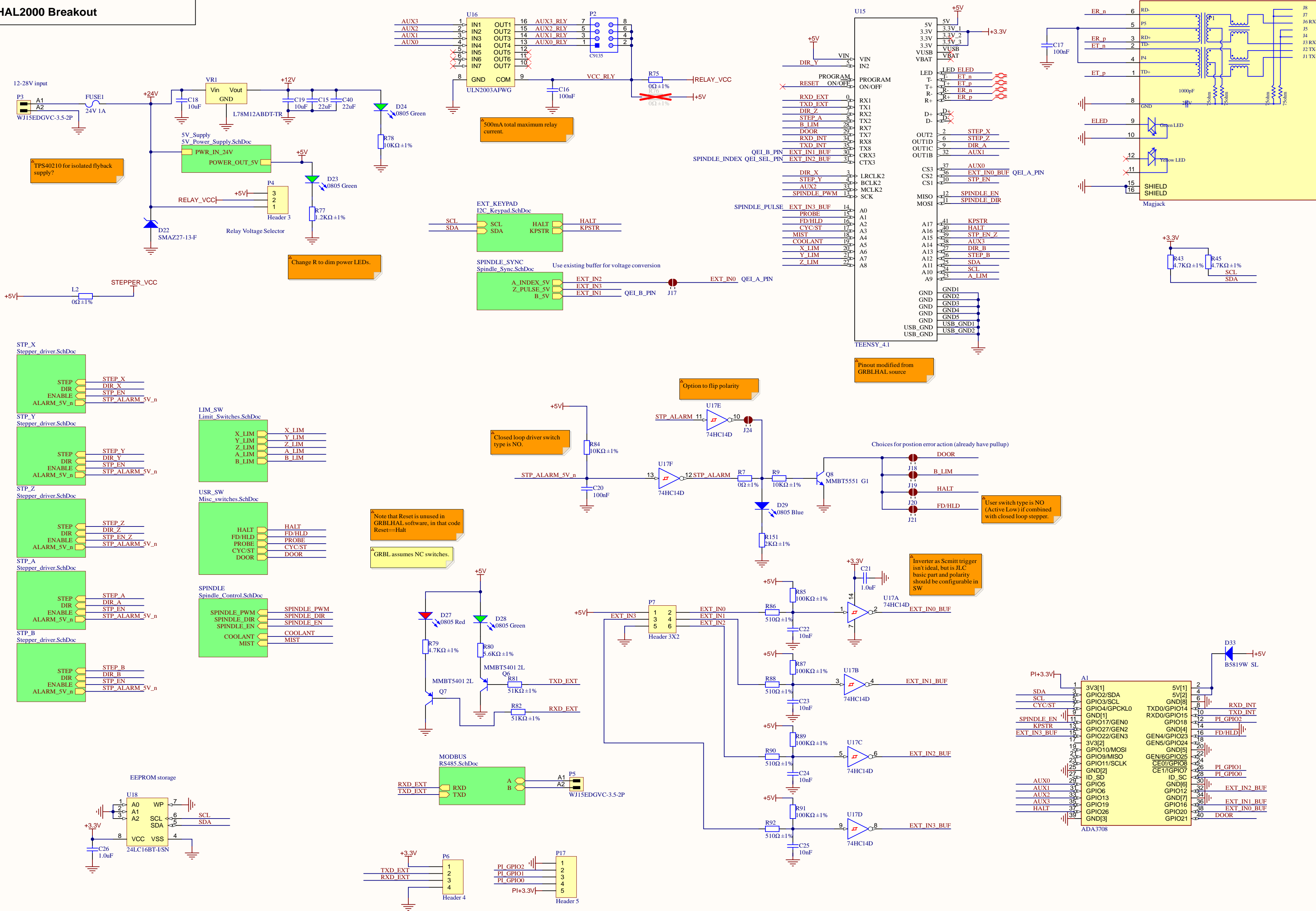
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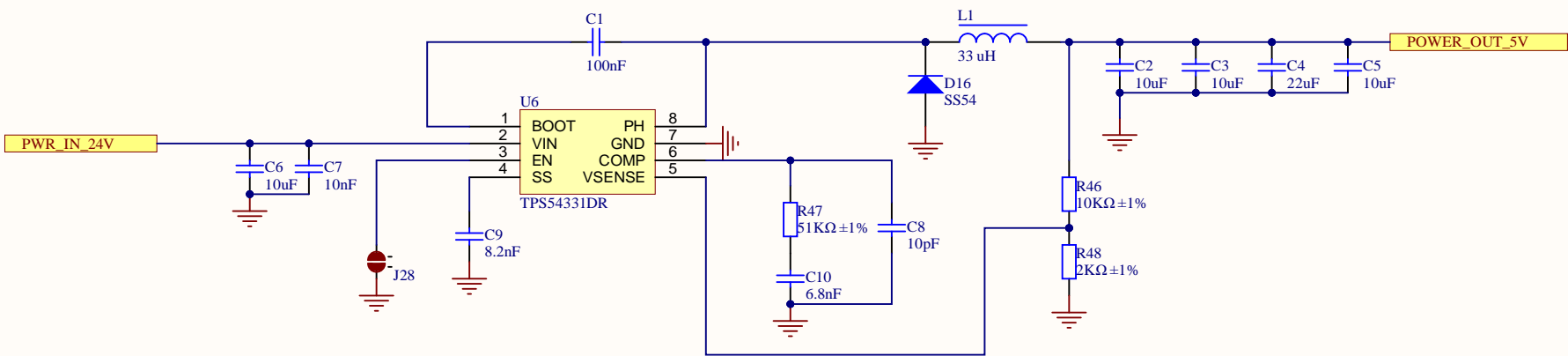
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B	2021-11-15 3:07:28 PM	2 / 14	

HAL2000 Breakout



5V Power Supply



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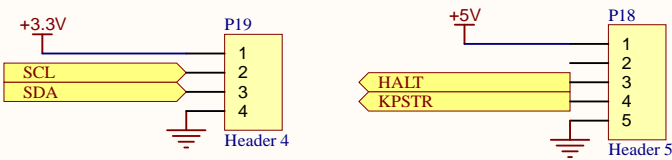


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B	2021-11-15 3:07:28 PM			4 / 14	

QWIIC I2C Keypad

Due to supply issues, starting with revision A5 the QWIIC RJ45 connector is removed and replaced with headers. This allows alternate uses of the I2C header



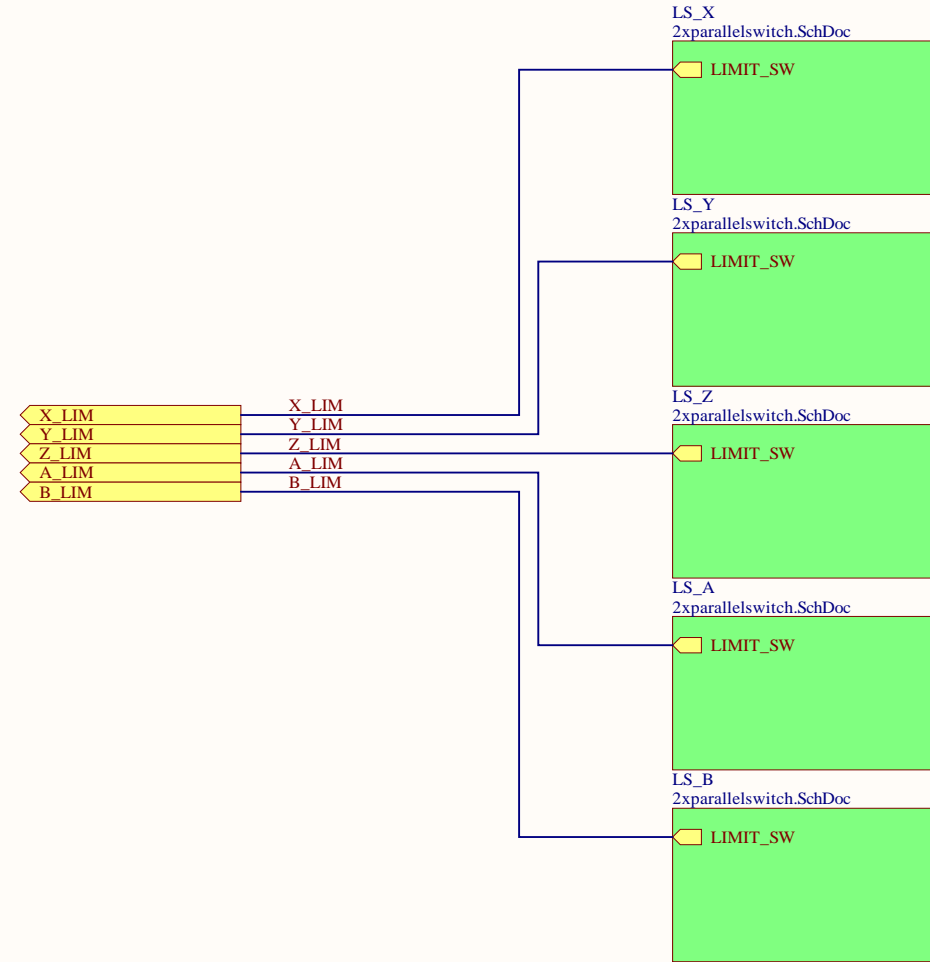
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Limit Switches



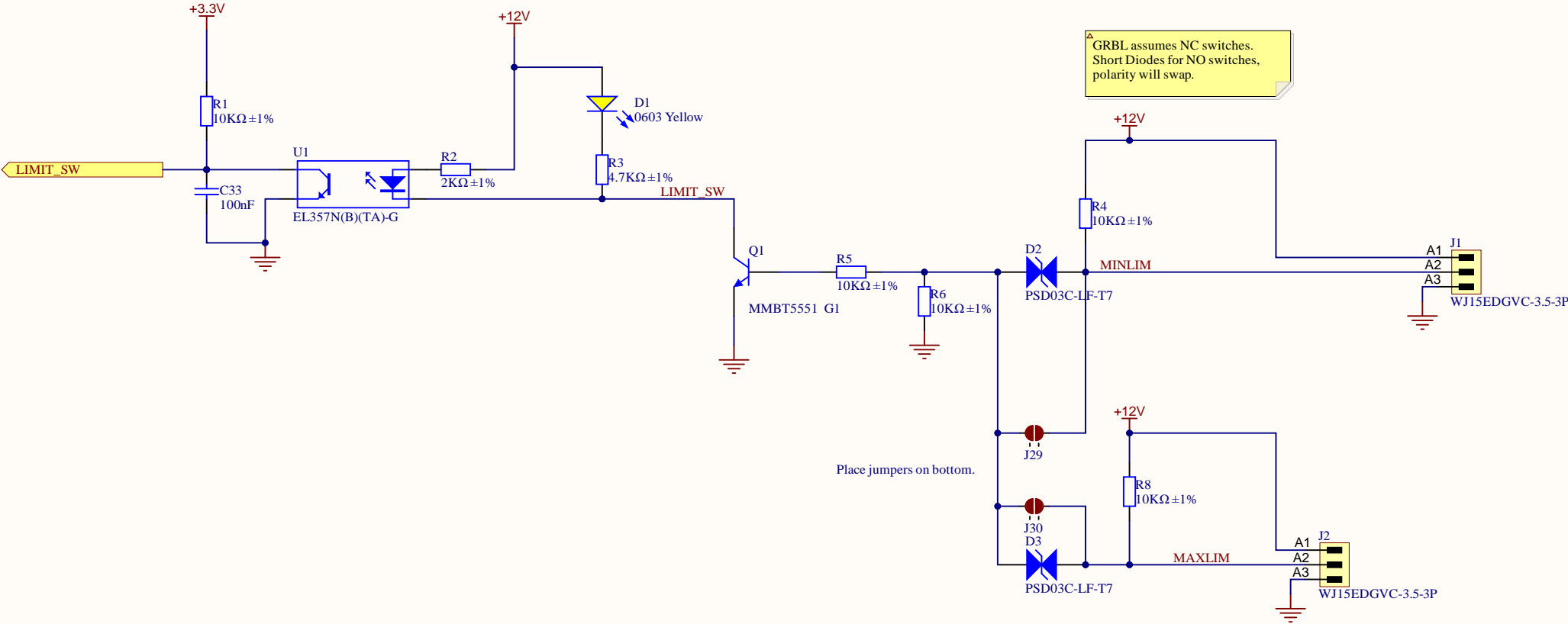
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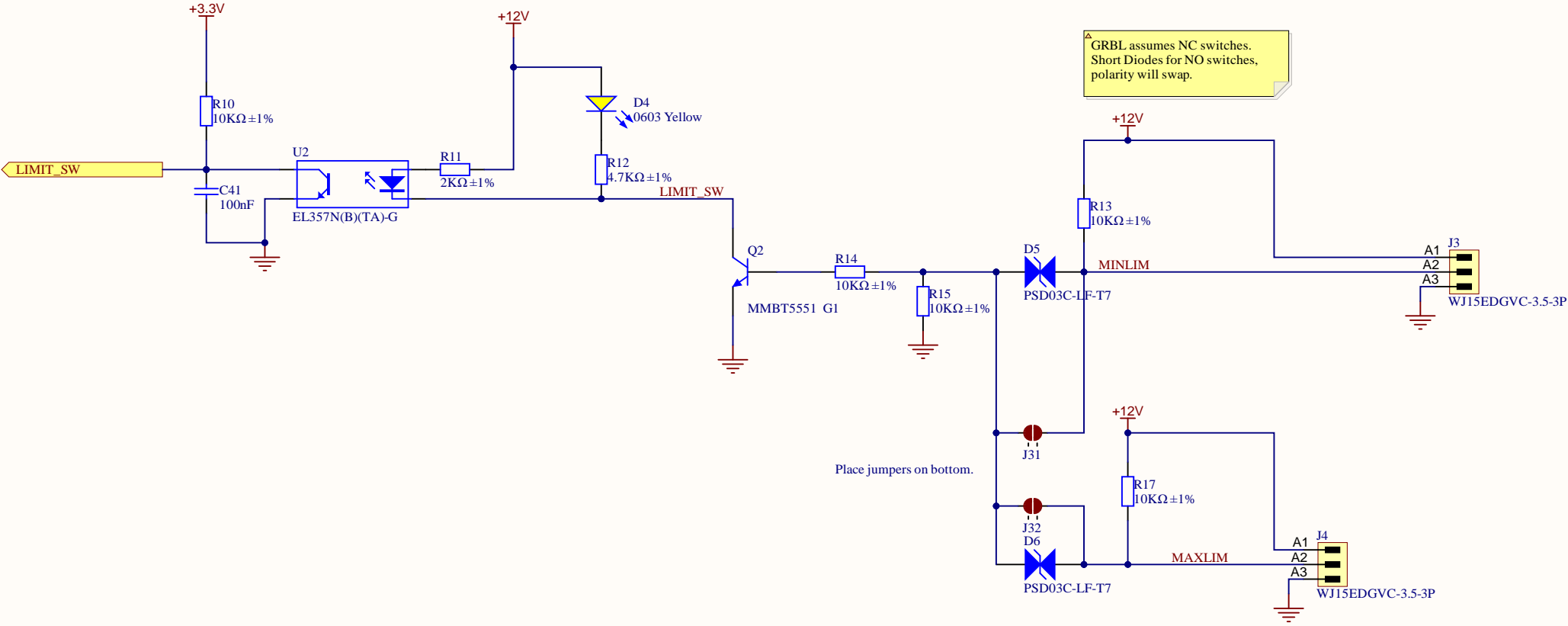
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SHEET				Limit Switch OR	
PROJECT			REV		
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Limit Switch OR



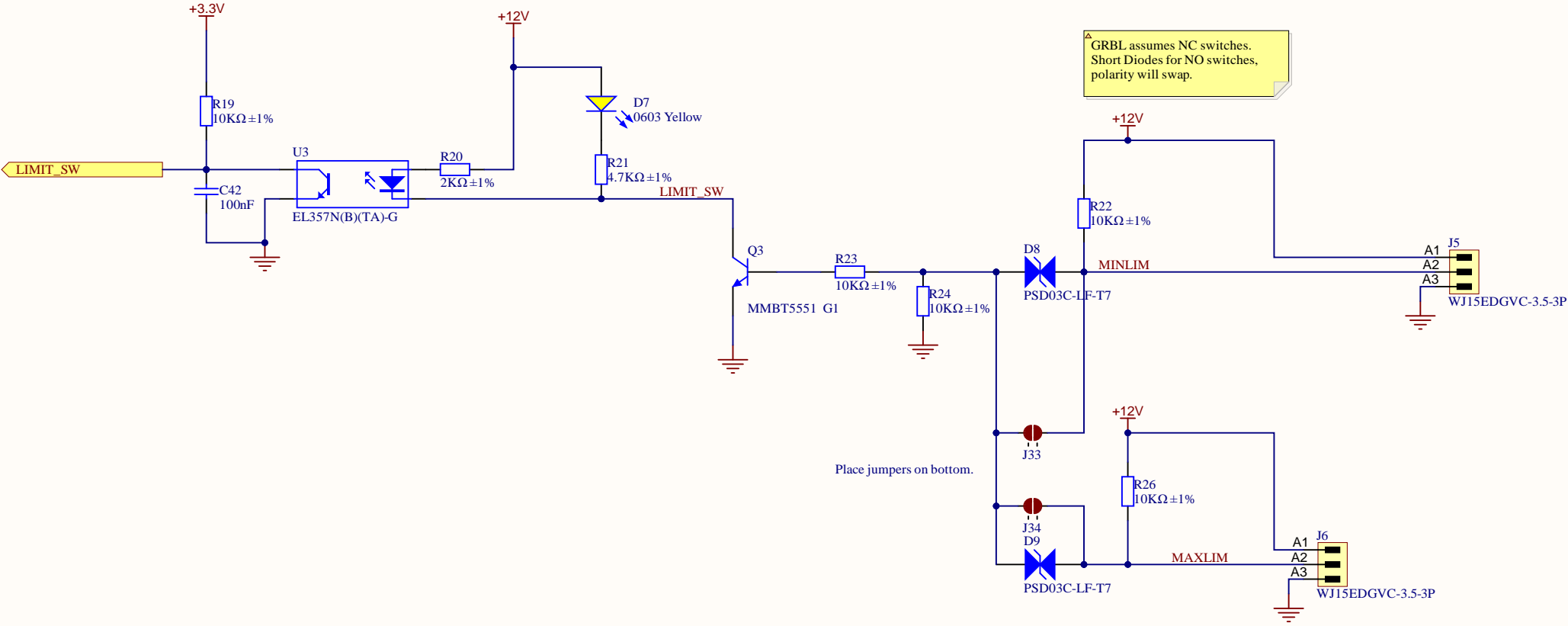
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Limit Switch OR



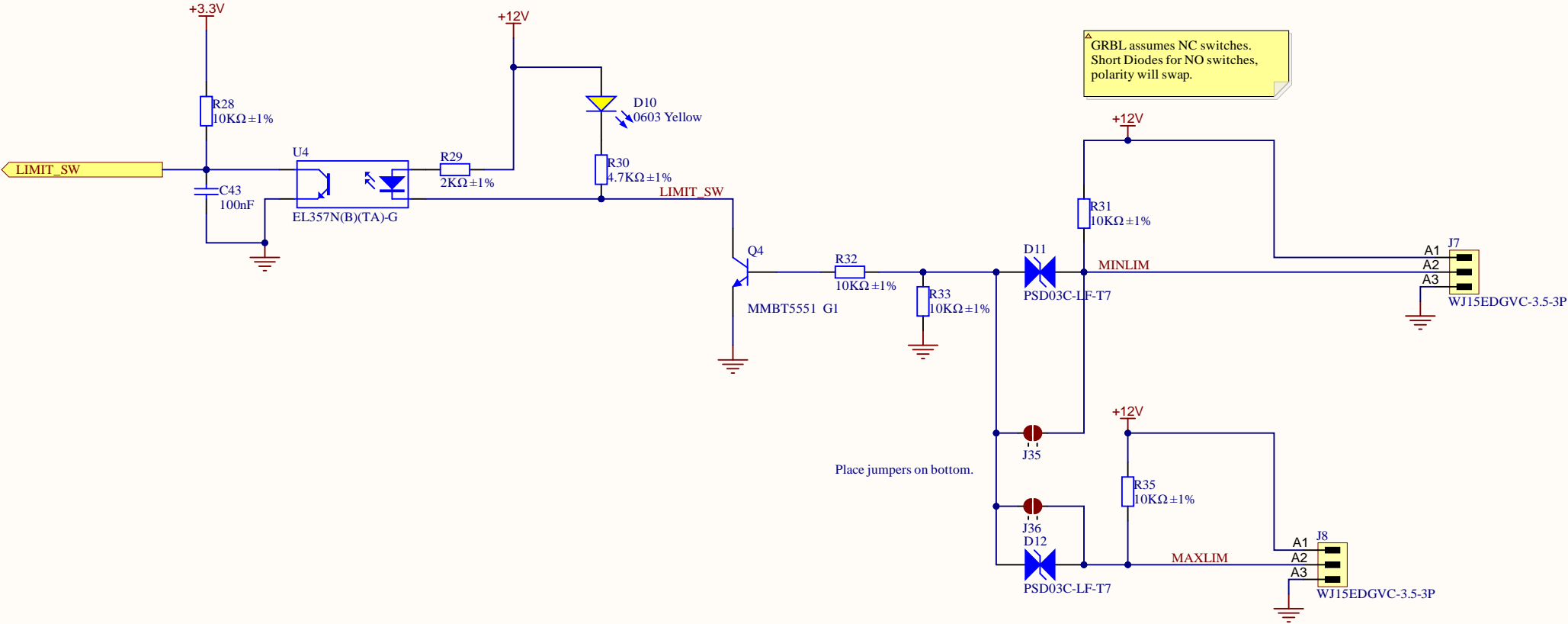
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Limit Switch OR



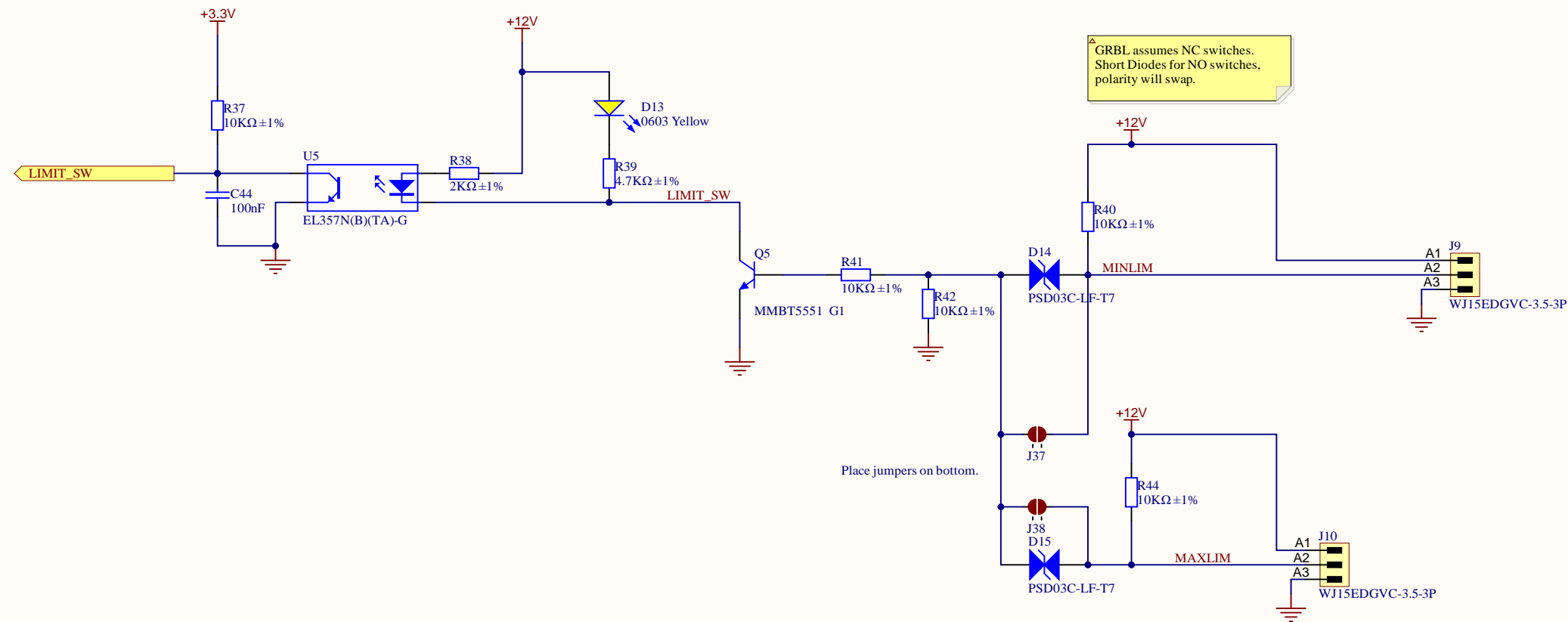
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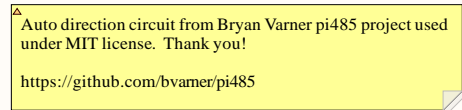


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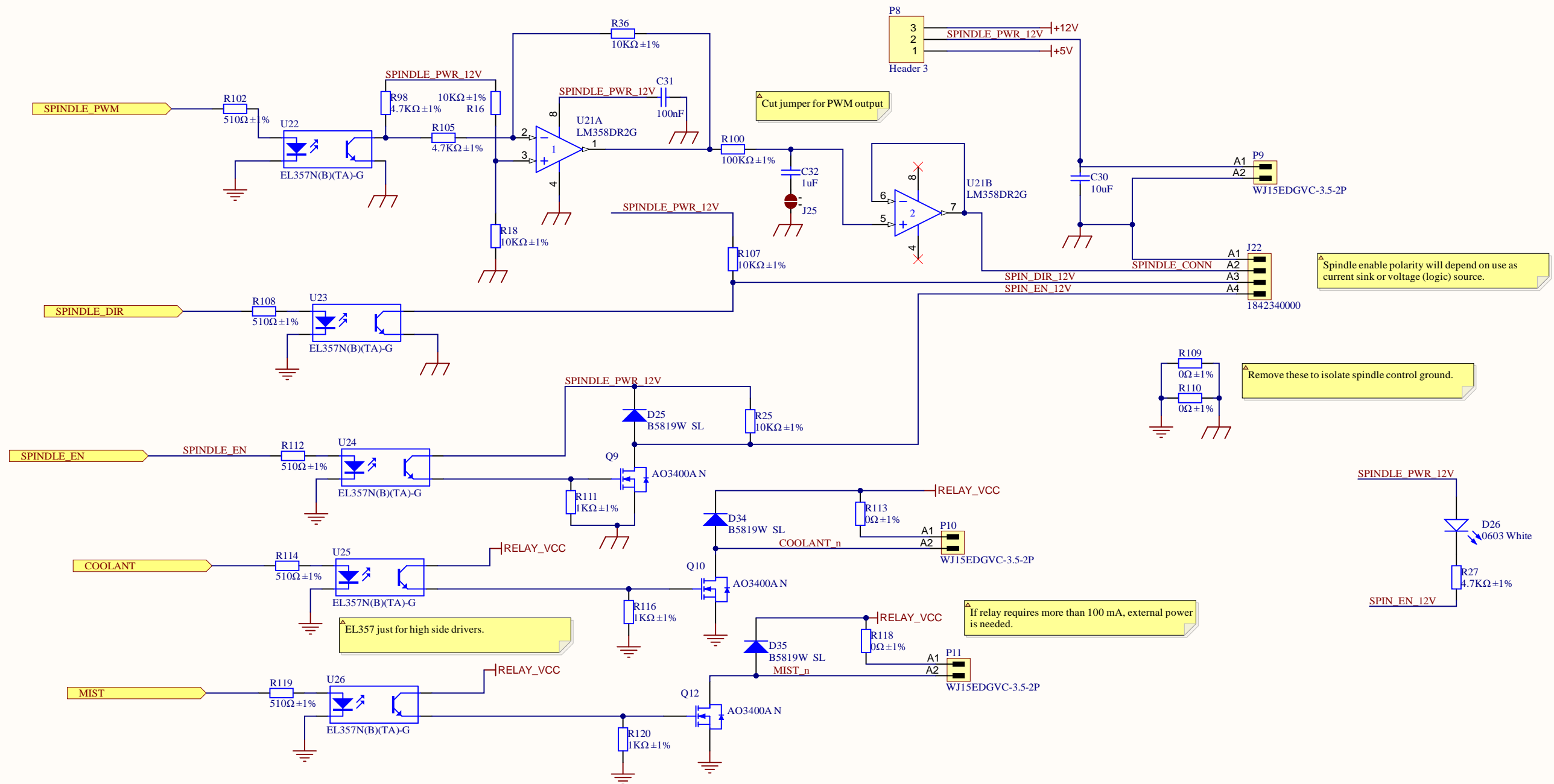
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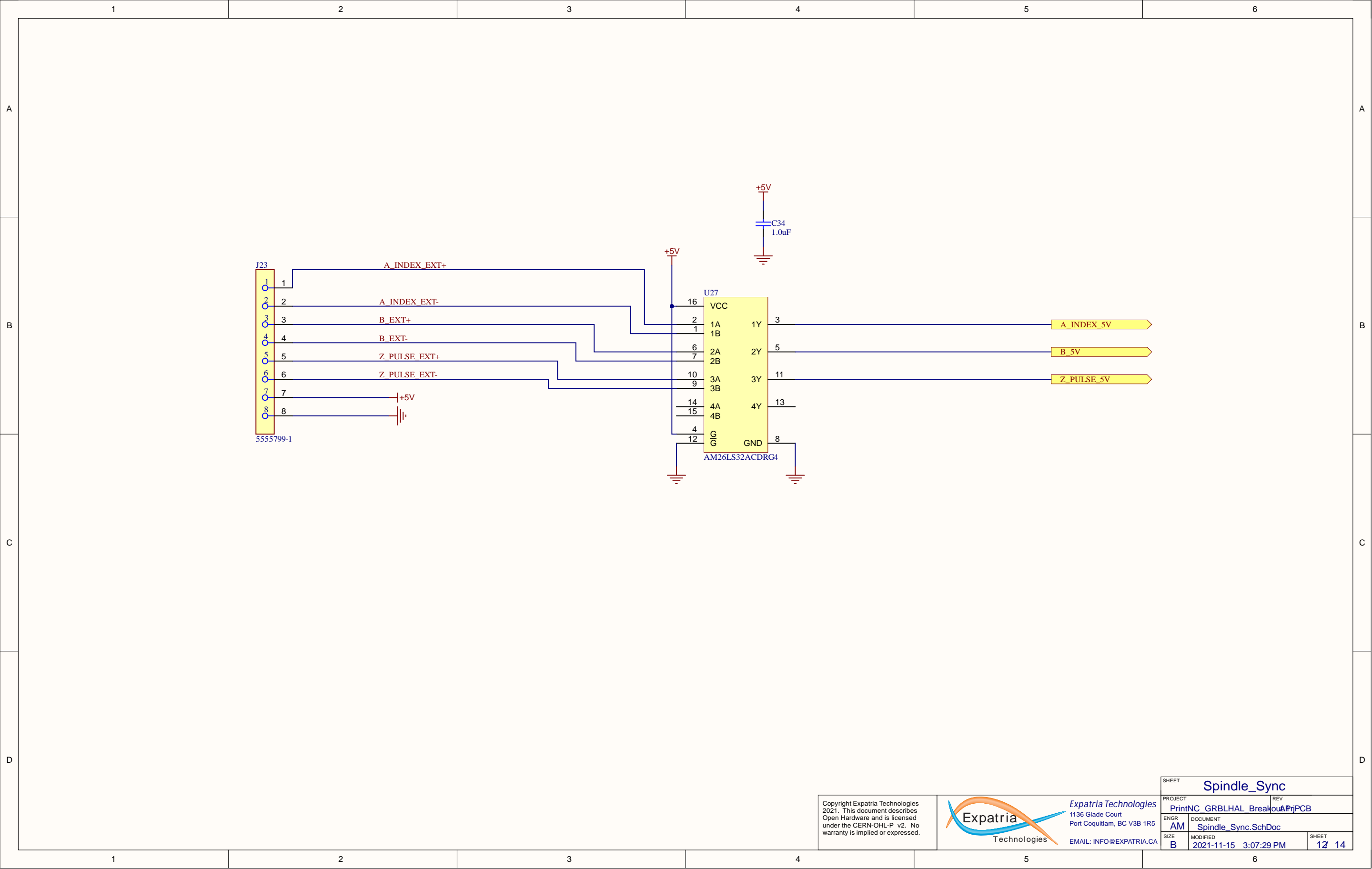
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Spindle Controls





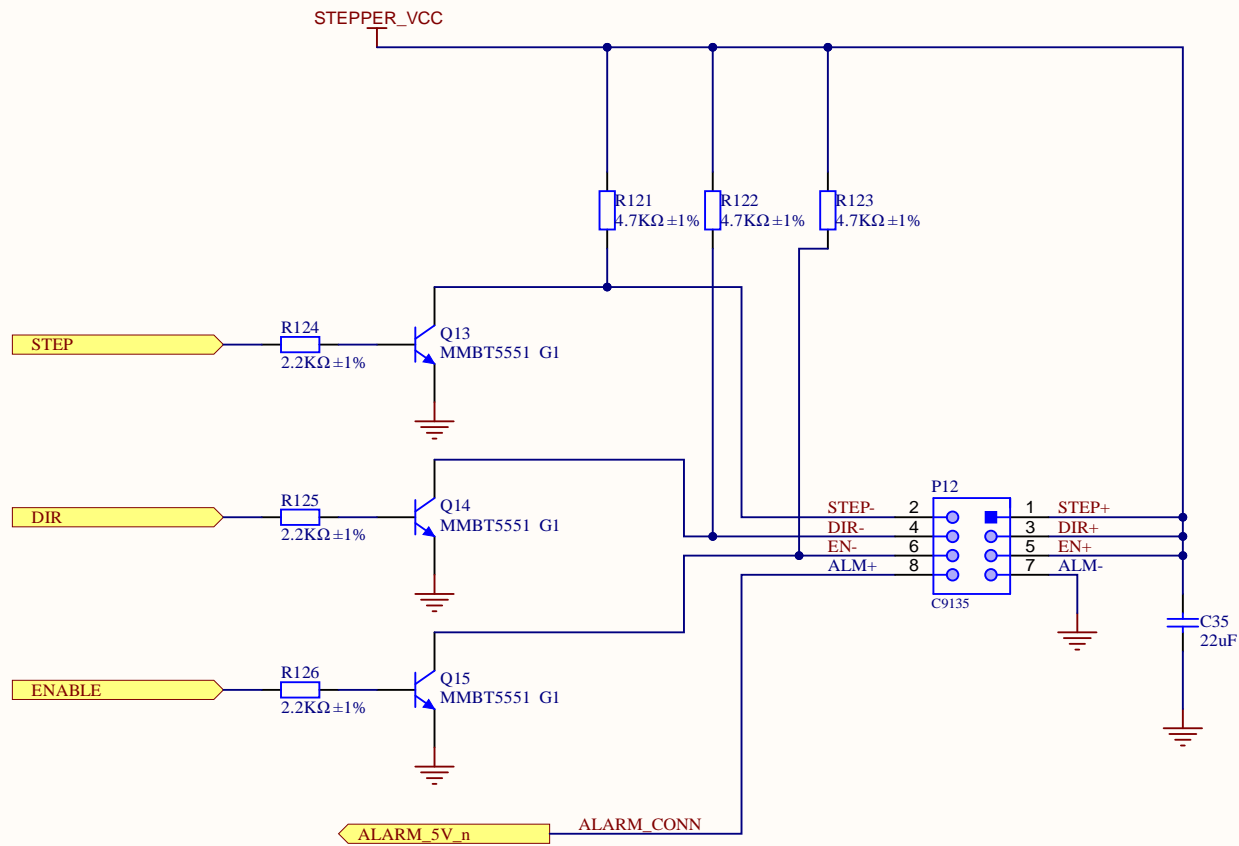
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Stepper Driver



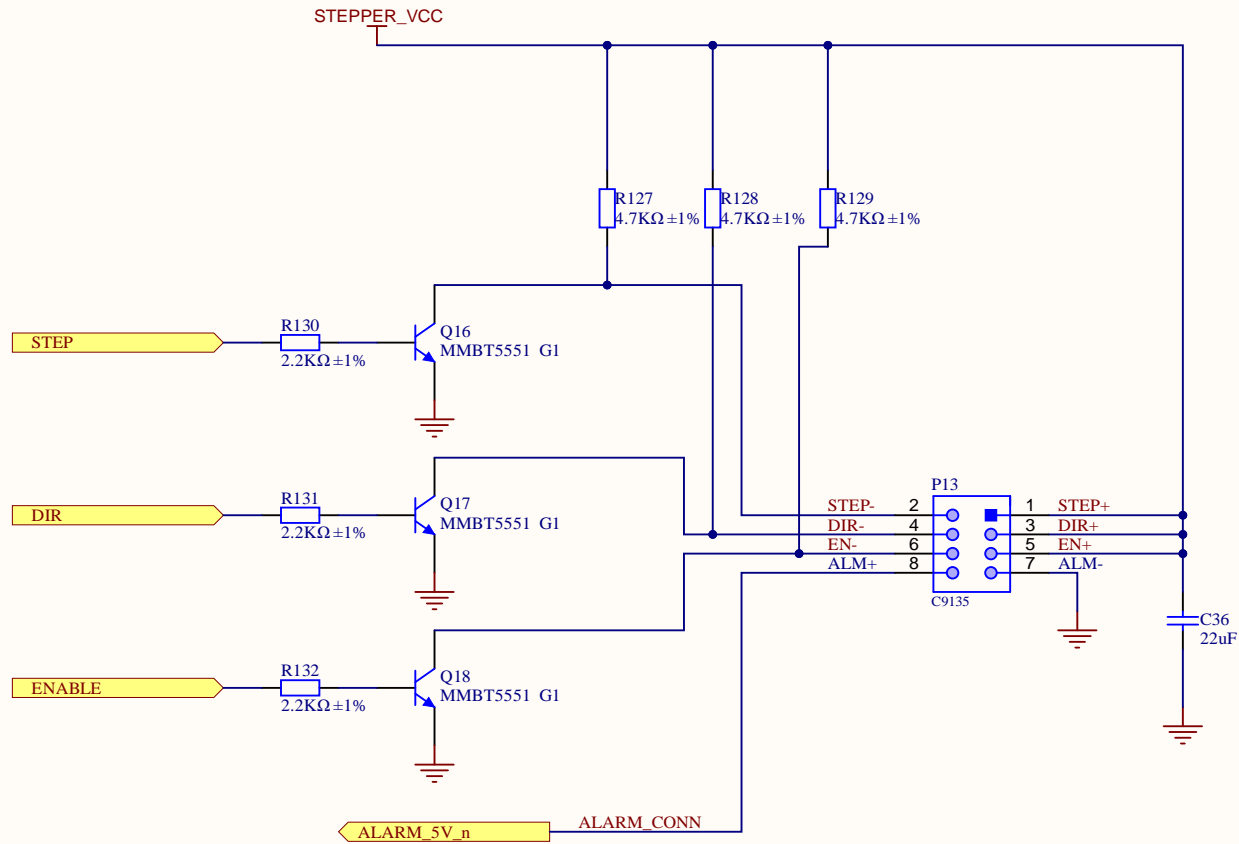
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Stepper Driver



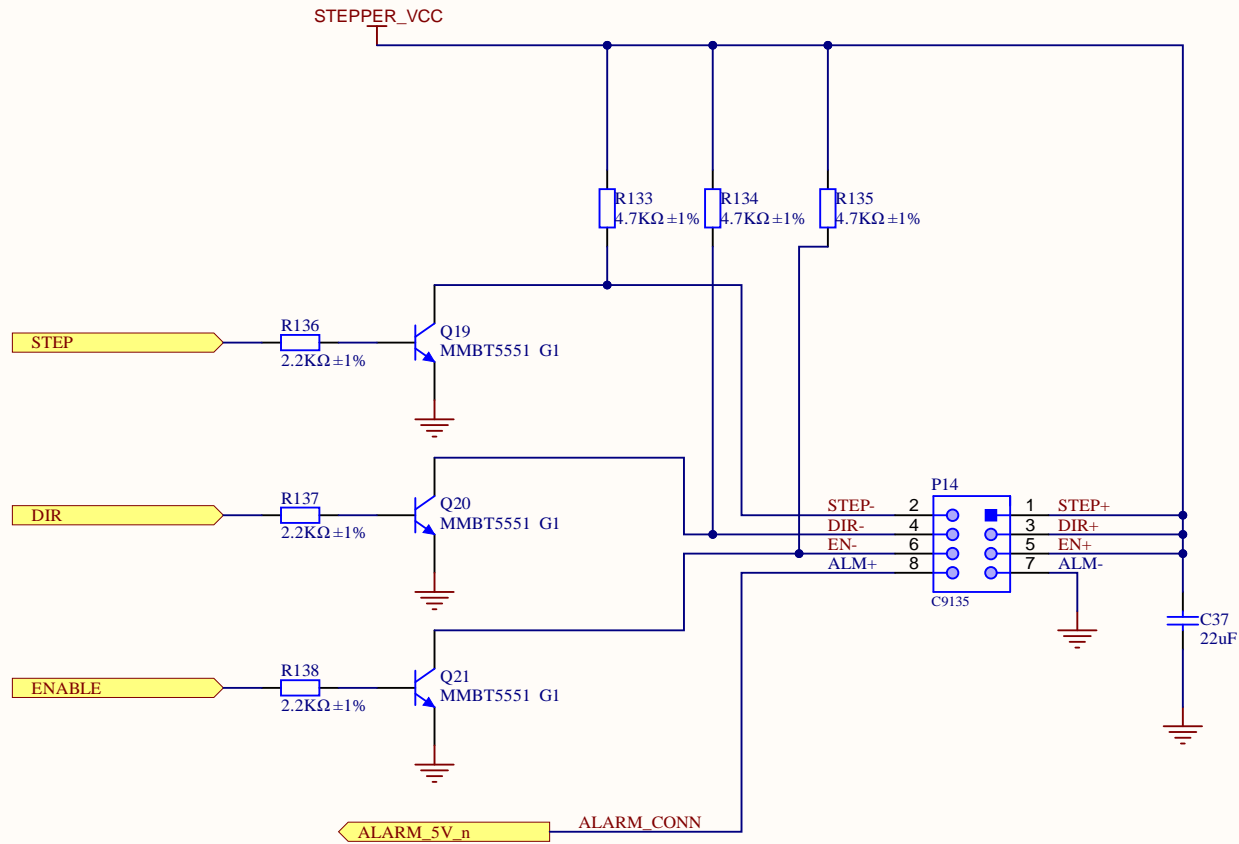
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SHEET			Stepper Driver		
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Stepper Driver



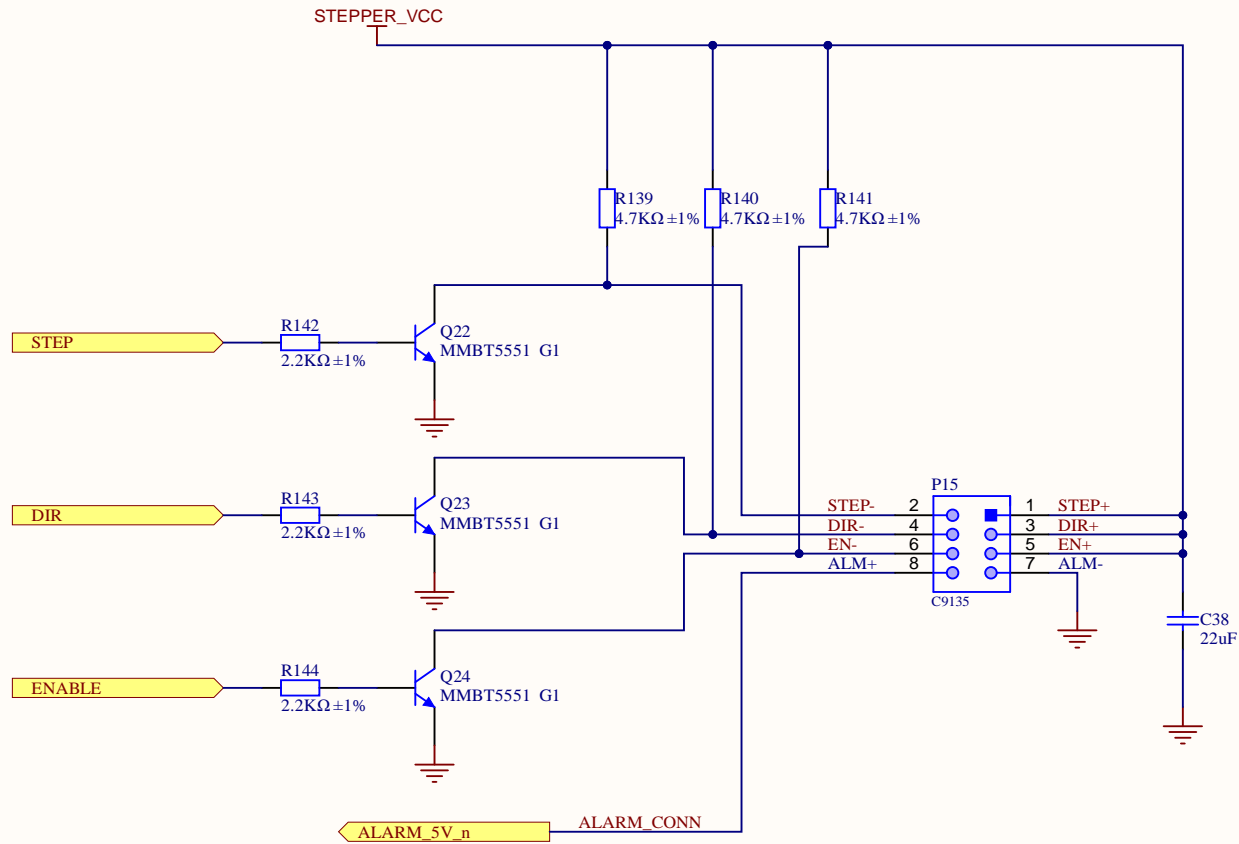
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Stepper Driver



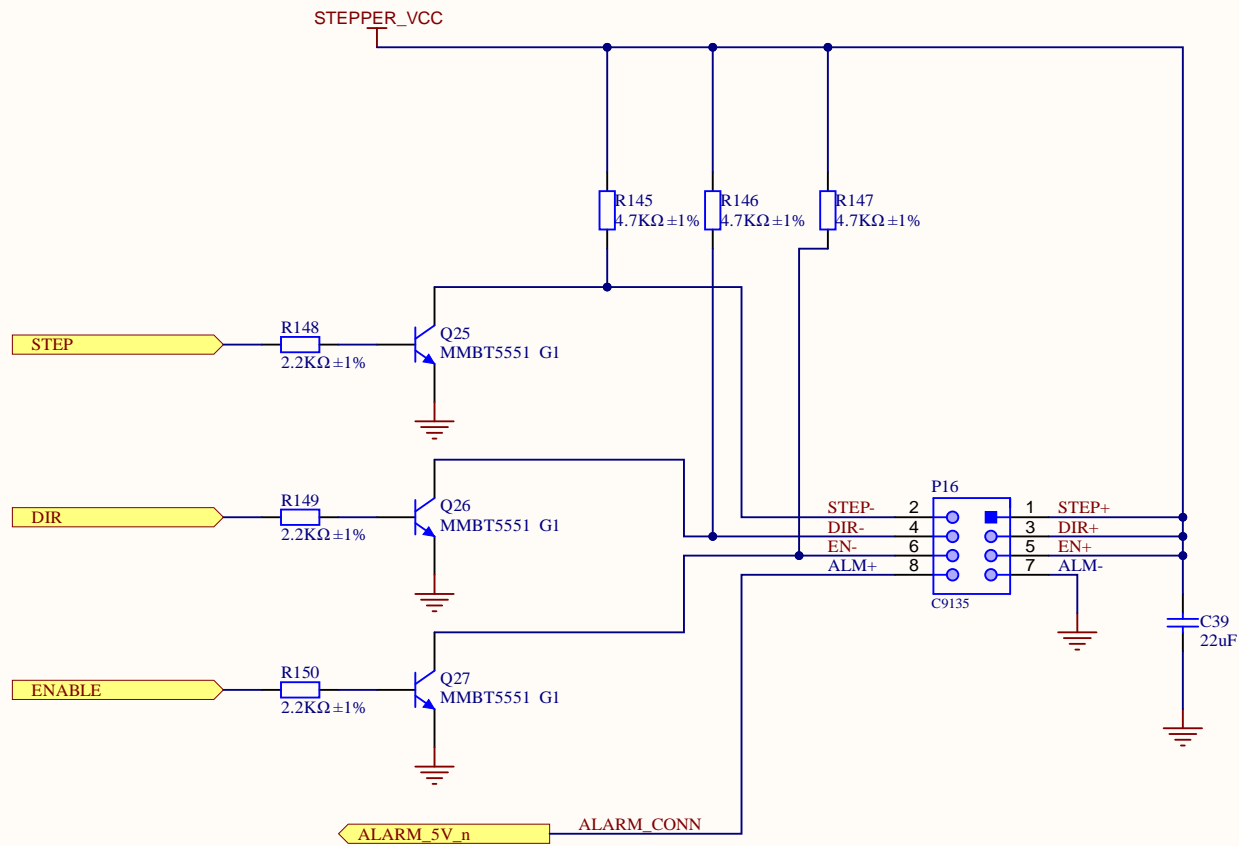
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Stepper Driver



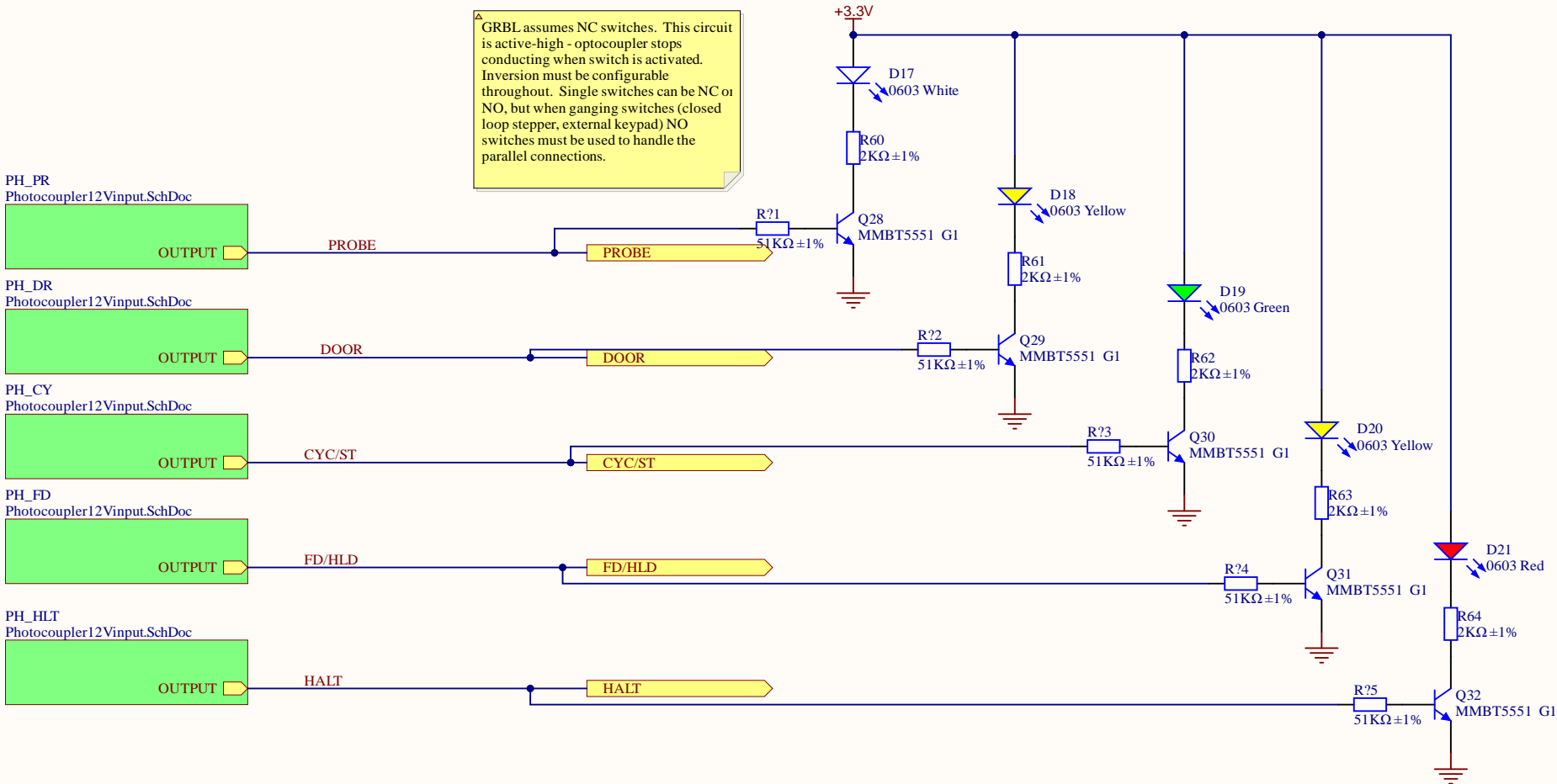
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SHEET			Stepper Driver		
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SIZE		MODIFIED		2021-11-15 3:07:29 PM	
B				9 / 14	

User Switches



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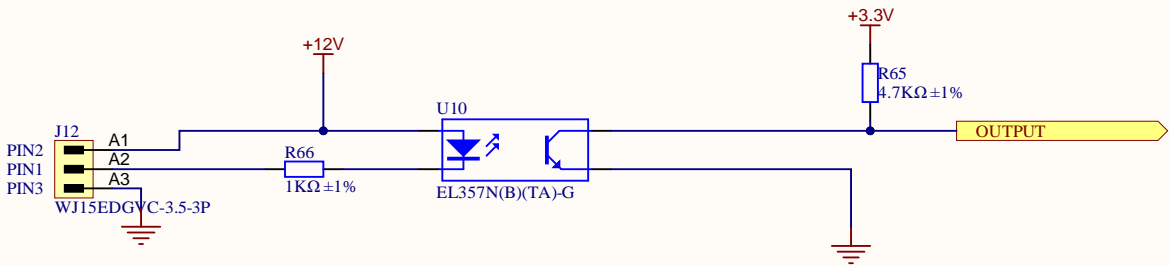


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B	2021-11-15 3:07:29 PM			7 / 14	

Photo Coupler 12V input

GRBL assumes NC switches. For that reason this circuit is active-high - U2 stops conducting when switch is activated. Inversion must be configurable throughout.



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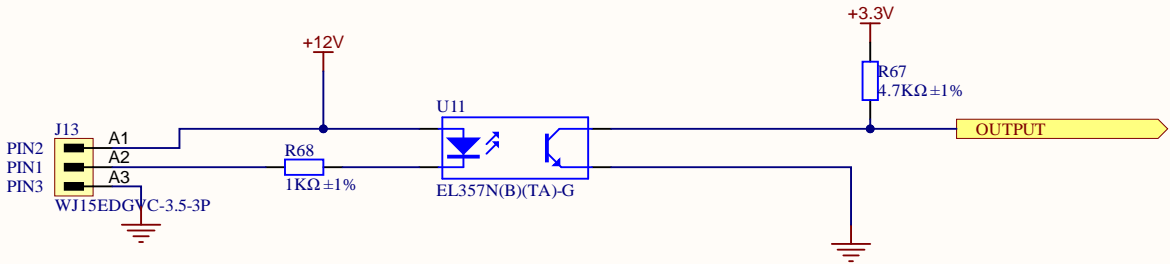


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ENGR	DOCUMENT	SHEET	
AM	Photocoupler12Vinput.SchDoc	8 / 14	
SIZE	MODIFIED		
B	2021-11-15 3:07:29 PM		

Photo Coupler 12V input

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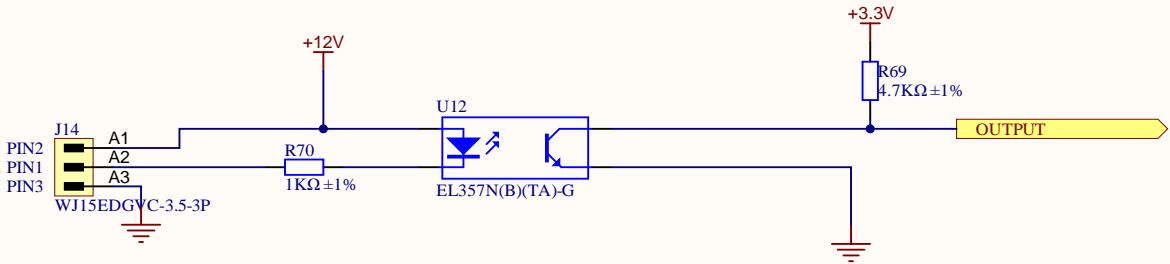


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Photo Coupler 12V input

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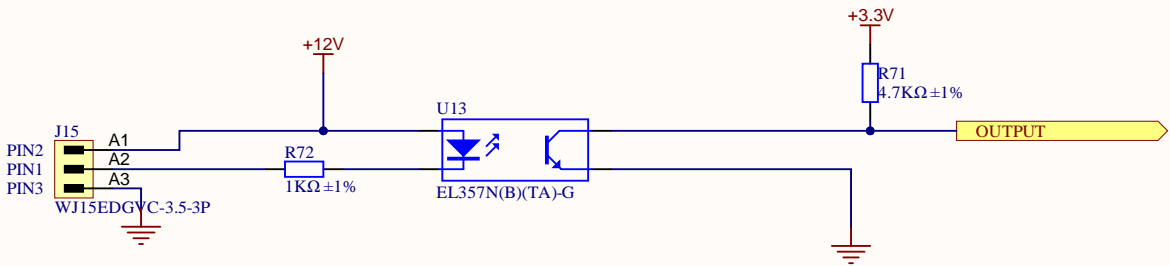


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SHEET		SHEET	
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B		2021-11-15 3:07:29 PM	
		8 / 14	

Photo Coupler 12V input

GRBL assumes NC switches. For that reason this circuit is active-high - U2 stops conducting when switch is activated. Inversion must be configurable throughout.



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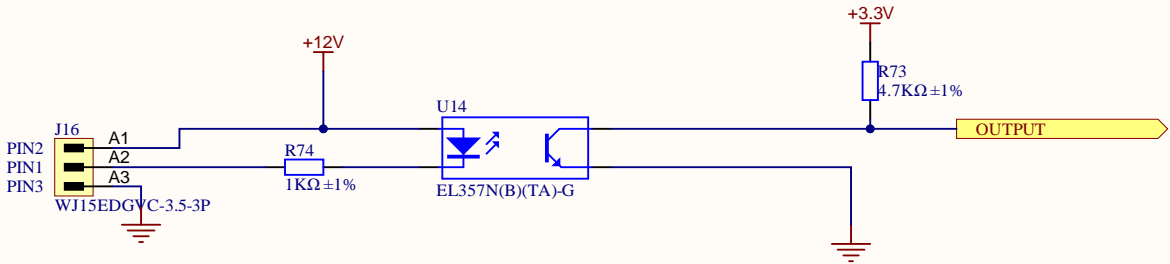


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SIZE	MODIFIED	SHEET	
B	2021-11-15 3:07:29 PM	8 / 14	

Photo Coupler 12V input

GRBL assumes NC switches. For that reason this circuit is active-high - U2 stops conducting when switch is activated. Inversion must be configurable throughout.



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