

Jumper List	
JP1	Hall power:
JP2	5V or current
JP3	Hall sensor signal type
JP4	
JP5	Direction <span style="color: red;">Installed is Low</span>
JP7	Brake <span style="color: red;">Installed is Low</span>
JP8	Speed Adjust
Installed: pot R20 controls speed Uninstalled: use a clock on JP8	

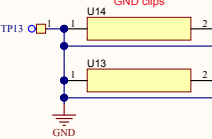
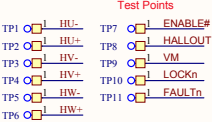
Default to populate:  
 JP1\_2-3, JP2  
 JP3\_1-2, JP4\_2-3  
 JP5, JP7, JP8

These circuits control whether pullup resistors and 2V biases are connected to the DRV8307 Hall inputs. Configuration is done by 2 jumpers (JP3, JP4), and it's provided to support differential Hall signals and single-ended Hall signals with any High/Low polarity. The purpose of the 2V bias is to connect to one end of each DRV8307 differential comparator, so that the single-ended signal swings 0V to 4V and is detected like a differential voltage.

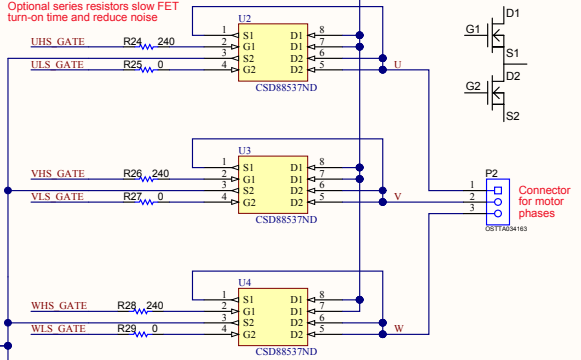
To use differential Halls, install JP3\_1-2 and JP4\_1-2. Then no pullup or bias is connected.

To use single-ended Halls with no polarity inversion, install JP3\_2-3 and JP4\_2-3, and connect motor wires to the + pins of P3.

To use single-ended Halls with polarity inversion, install JP3\_1-2 and JP4\_2-3, and connect motor wires to the - pins of P3.



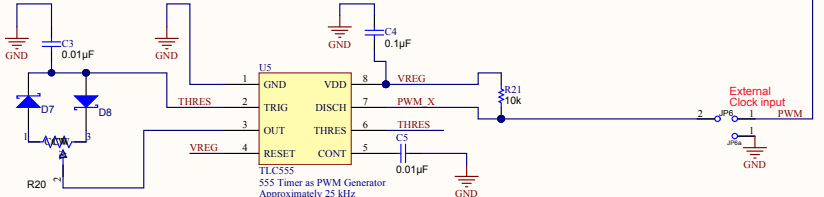
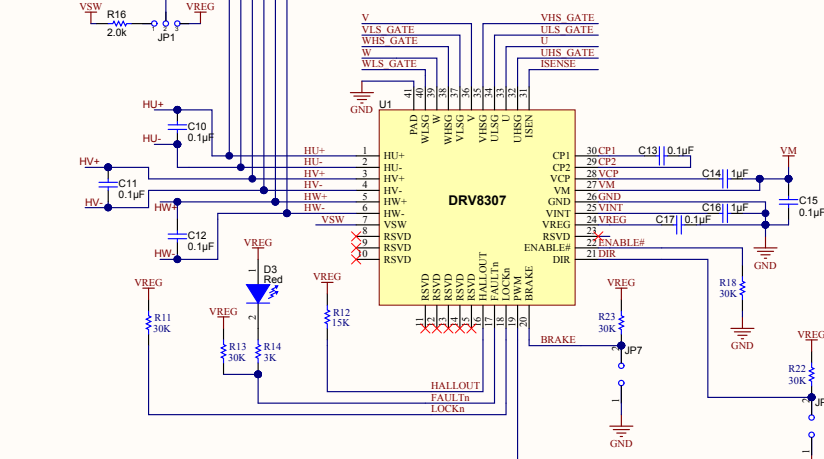
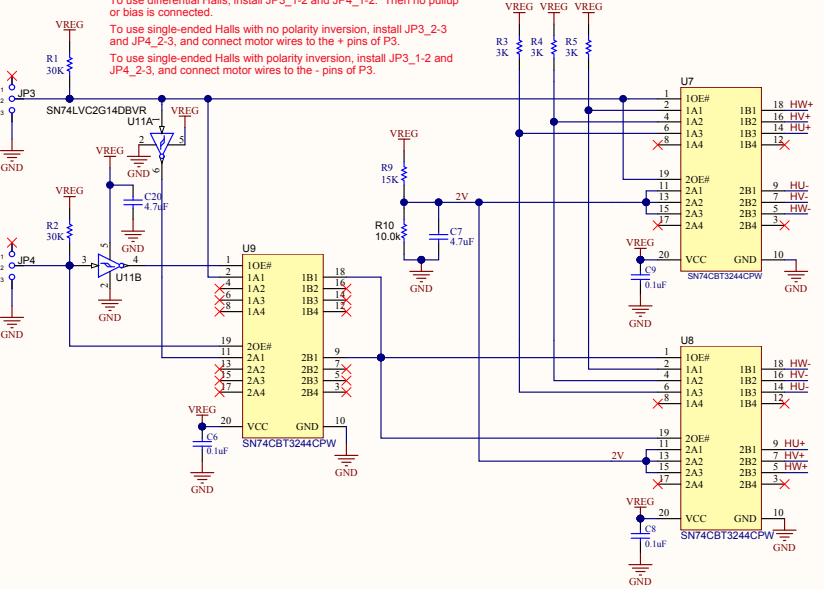
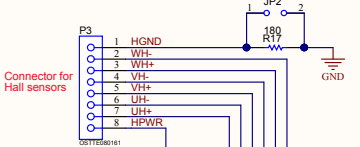
Optional series resistors slow FET turn-on time and reduce noise



To provide 5V Hall power, install jumpers JP1\_2-3 and JP2.

To provide current for Hall elements, install jumper JP1\_1-2 and uninstall JP2.

In general, if the resistance between the Hall PWR and GND wires is <250 ohms, use "current". The purpose of the 180 ohm resistor is to bias-up the common-mode voltage of Hall elements that output differential signals.



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