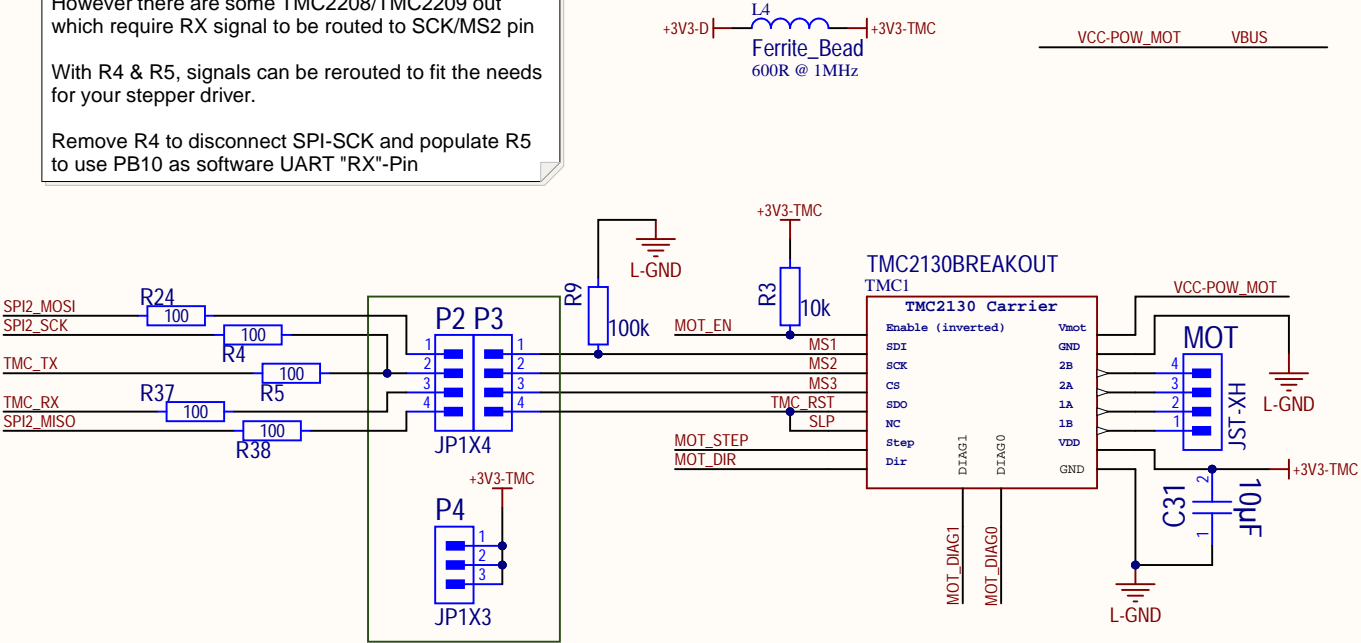


Normally RX signal is routed to the CS/MS3 pin if TMC2208/TMC2209 are used

However there are some TMC2208/TMC2209 out which require RX signal to be routed to SCK/MS2 pin

With R4 & R5, signals can be rerouted to fit the needs for your stepper driver.

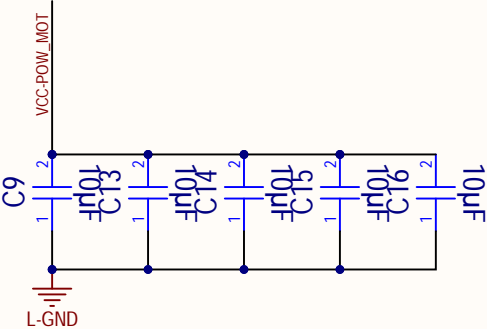
Remove R4 to disconnect SPI-SCK and populate R5 to use PB10 as software UART "RX"-Pin




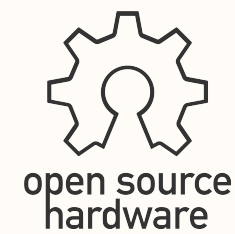
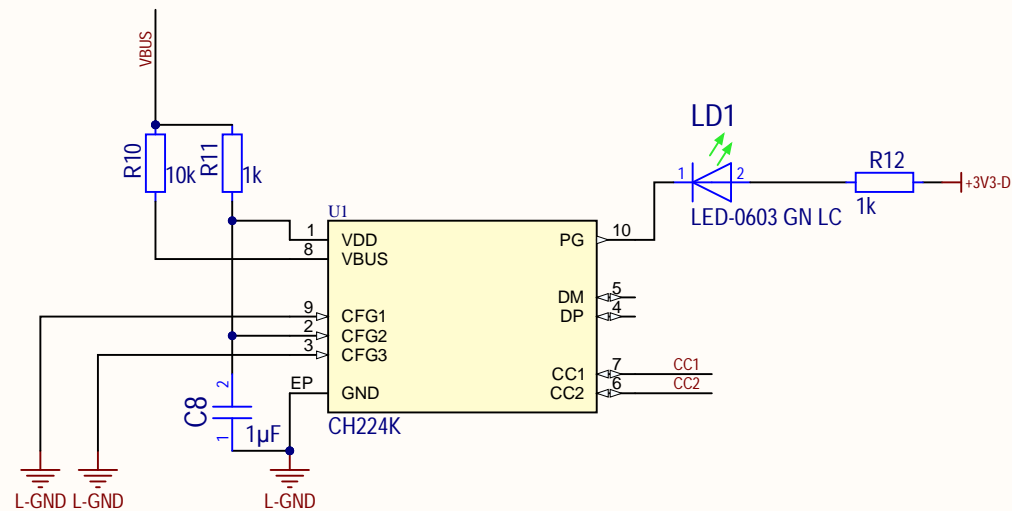
For SPI TMC Drivers: connect all 4 Pins from P2 to P3

For UART TMC Drivers: Connect P2.3 to P3.3 (or P2.2 to P3.2 is you are using "odd" drivers, see note above!)

For "dumb" Drivers: Use P3.1 - P3.3 with P4.1 to P4.3 to set MS1/MS2/MS3 pins



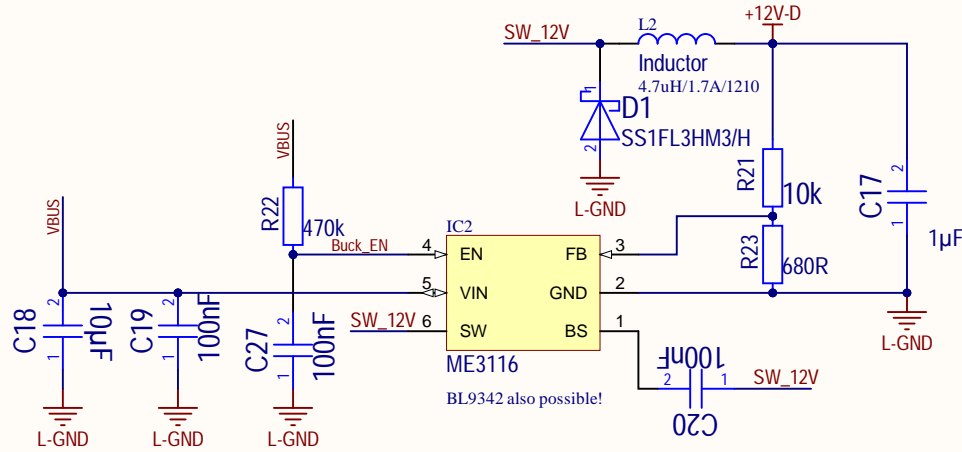
Last Modification: 05.10.2024	@4R3Ngineering 
Document: Stepper_Driver.SchDoc	
Project: PD-Toolhead.PrjPcb	
Variant: [No Variations]	



Last Modification:	@4R3Ngineering
05.10.2024	
Document:	
PD-Sink.SchDoc	
Project:	
PD-Toolhead.PrjPcb	
Variant:	
[No Variations]	



12V Generation (1A)



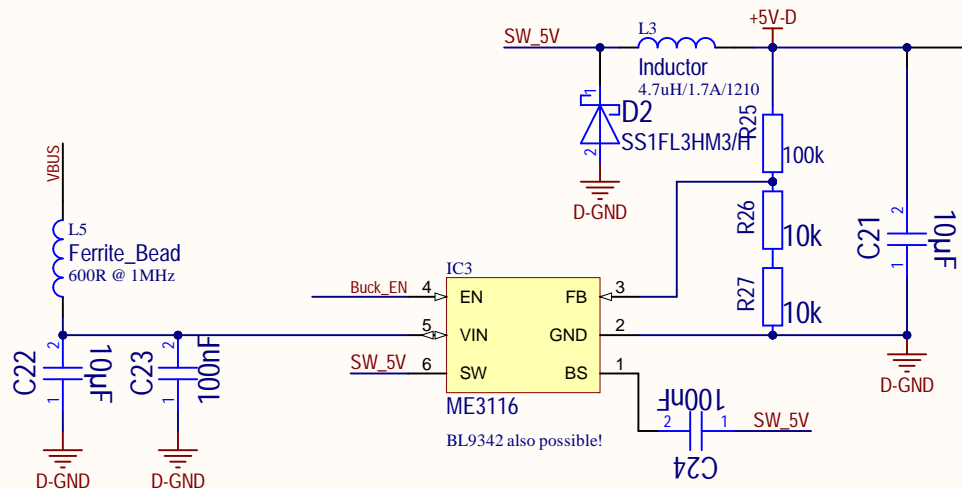
5V will actually be around 4.8V.

This is desired, as Neopixels have a high level of 0.7*Vdd. If we have a 3.3V signal, than we can only afford 4.7V level signal (most of the time it'll work also with a 5V supply and a 3.3V signal, so I think 4.8V is fine.)

Need a tradeof between physical size and practicability here as the PCB is already packed.

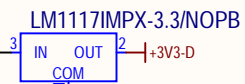
In case it does not work, tweak R25, R26 and R27

5V Generation (1A)



3V3 Generation (~200mA)

A1



open source hardware

Last Modification:
05.10.2024
Document:
Power.SchDoc
Project:
PD-Toolhead.PrjPcb
Variant:
[No Variations]



