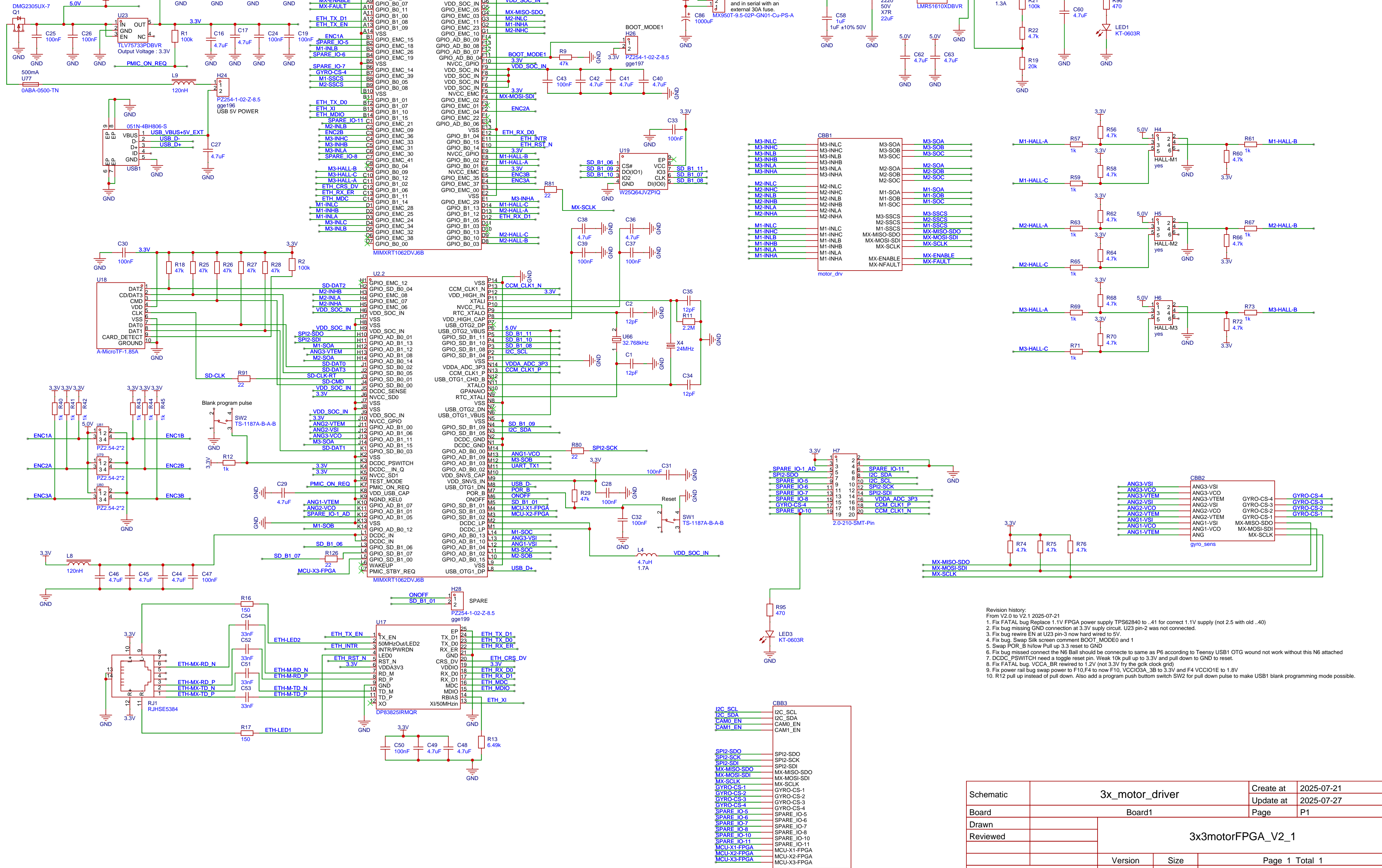


3x3Motor V2.1

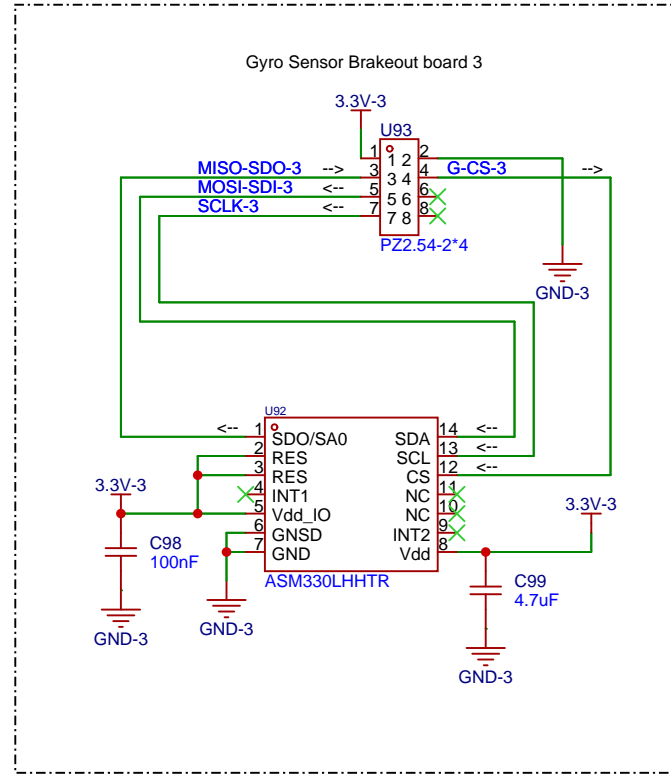
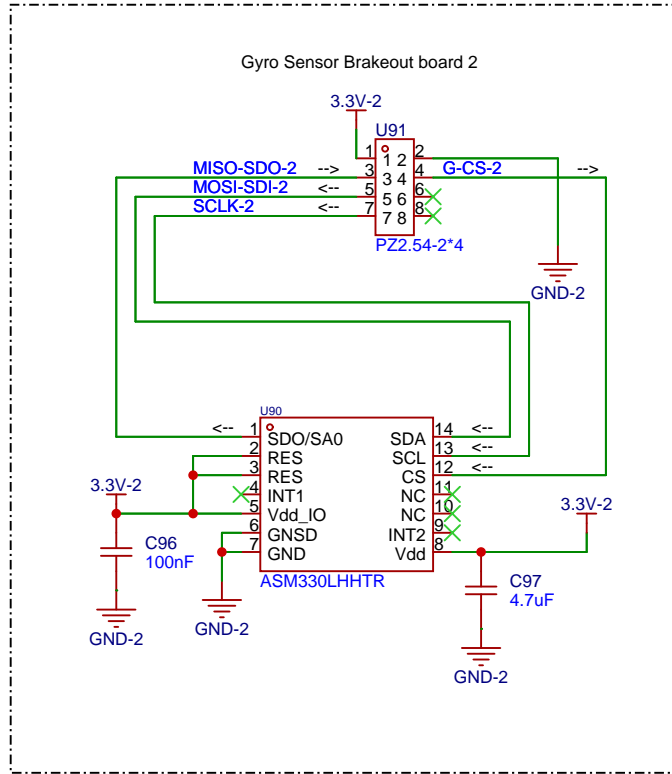
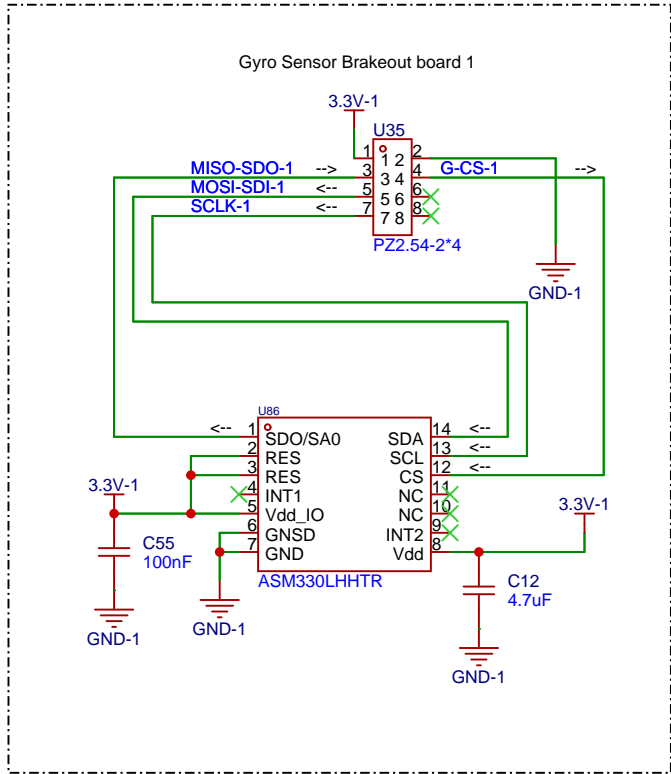
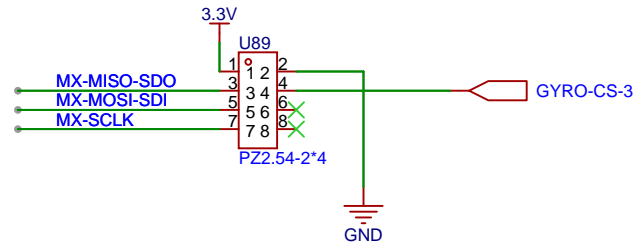
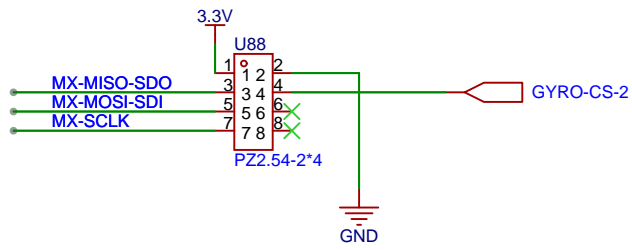
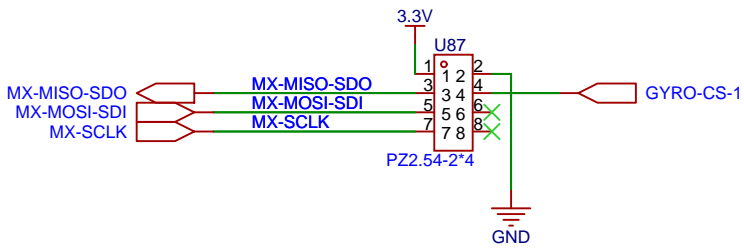
3x3MotorFPGA
Open Source 18-36V 3x motor controller board.
Designed by: Olle Welin 2025



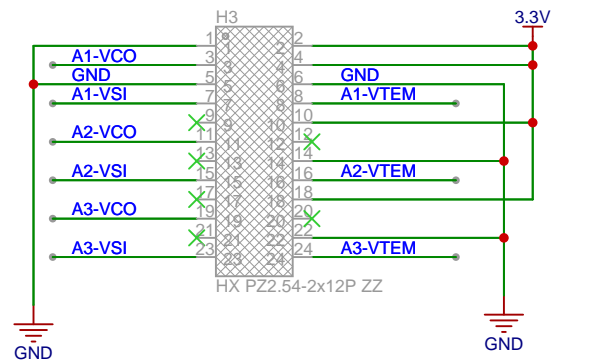
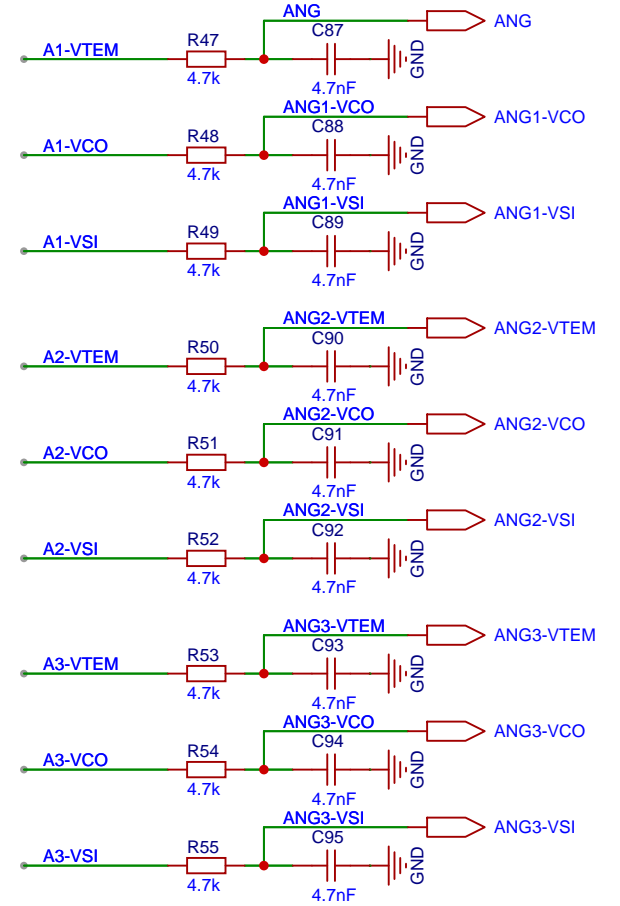
Revision history:

From V2.0 to V2.1	2025-07-21
1. Fix FATAL bug Replace 1.1V FPGA power supply TPS62840 to .41 for correct 1.1V supply (not 2.5 with old .40)	
2. Fix bug missing GND connection at 3.3V supply circuit. U23 pin-2 was not connected.	
3. Fix bug missing EN at U23 pin-3 now hard wired to 5V.	
4. Fix bug. Swap Silk screen comment BOOT_MODE0 and 1	
5. Swap POR_B h/w Pull up 3.3V reset to GND	
6. Fix bug missed connect the N6 Ball should be connect to same as P6 according to Teensy USB1 OTG wound not work without this N6 attached	
7. DCDC_PSWITCH need a toggle reset pin. Weak 10k pull up to 3.3V and pull down to GND to reset.	
8. Fix FATAL bug. VCCA_BF rewired to 1.2V (not 3.3V for the gclk clock gnd)	
9. Fix power rail bug swap power to F10,F4 to now F10, VCCIO3A_3B to 3.3V and F4 VCCIO1E to 1.8V	
10. R12 pull up instead of pull down. Also add a program push button switch SW2 for pull down pulse to make USB1 blank programming mode possible.	

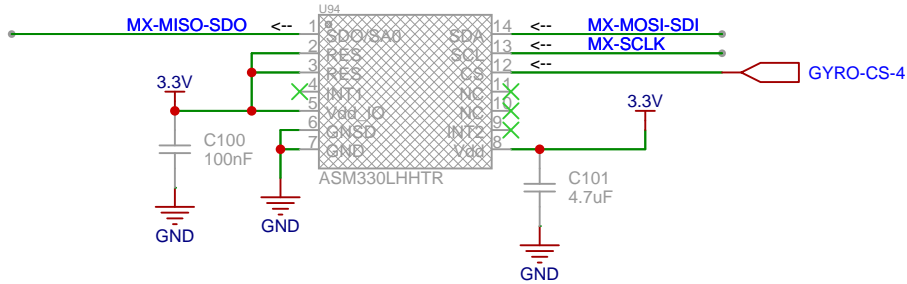
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		Update at	2025-07-27	
Board	Board1		Page	P1
Drawn	3x3motorFPGA_V2_1			
Reviewed				
		Version	Size	Page 1 Total 1
		V2.1	A4	EasyEDA.com




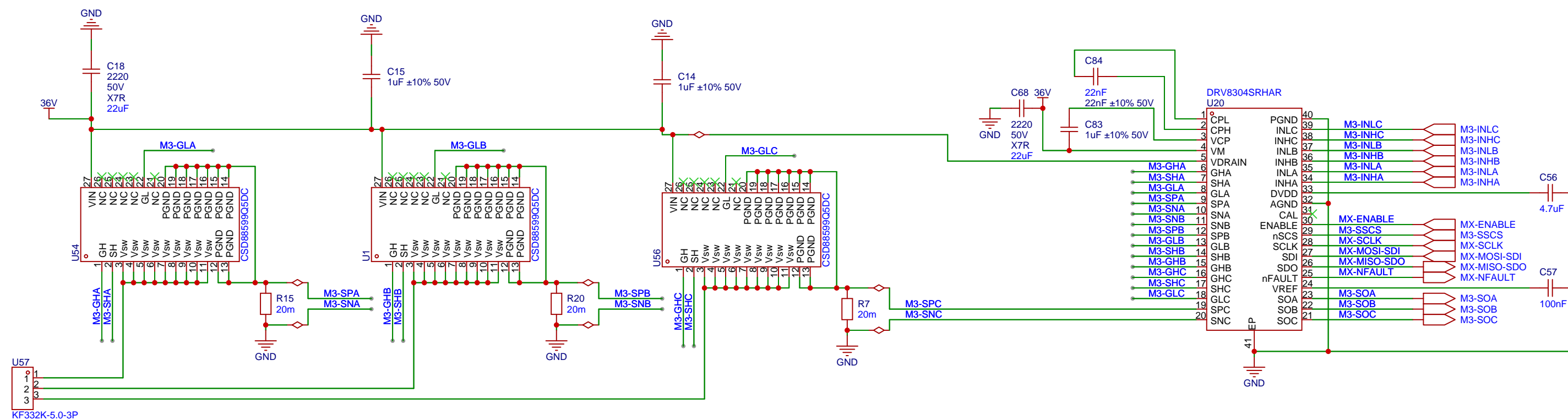
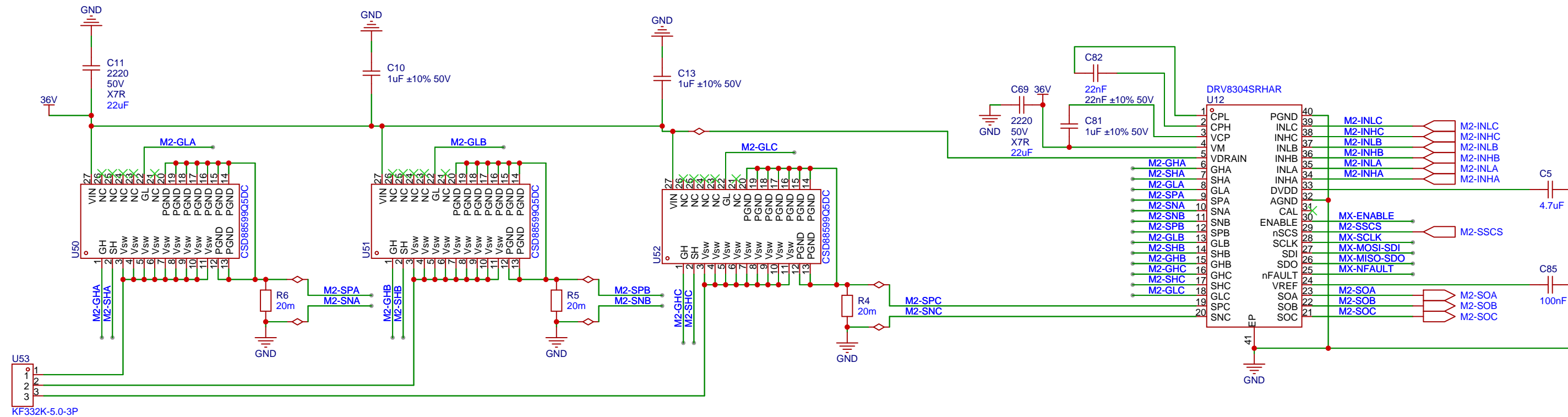
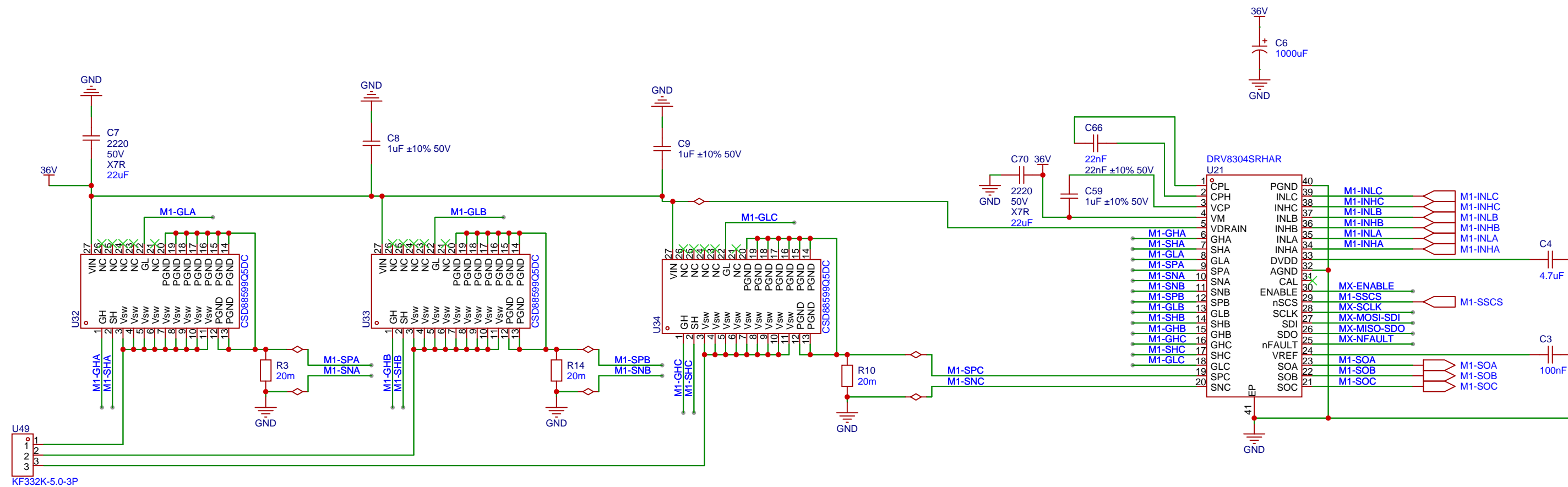
Angular sensor option input interface to 3 x ADA4571



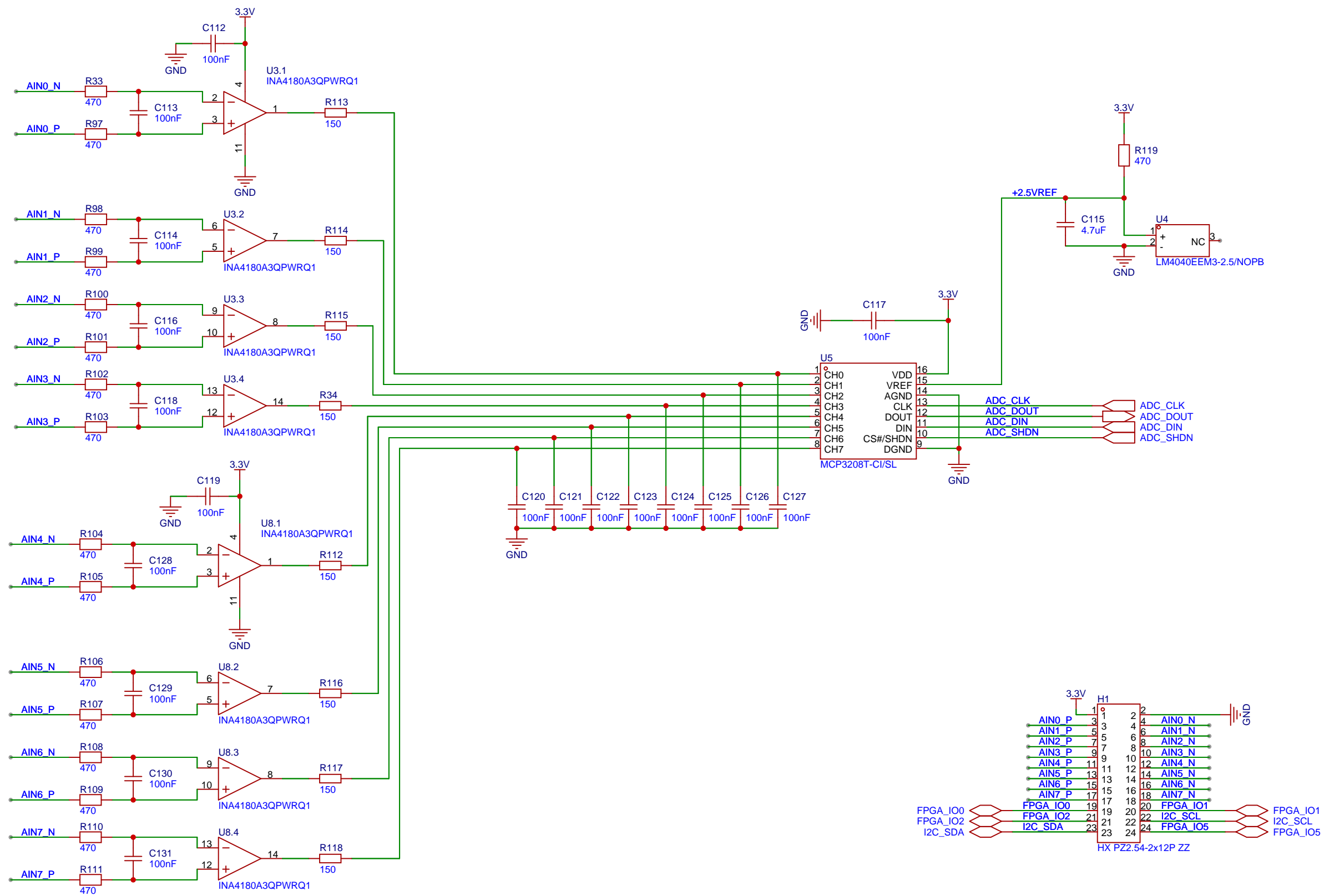
Gyro Sensor 4 On board for candel out vehical frame movments




Schematic	gyro_sens			Create at	2025-07-21
				Update at	2025-07-21
Board				Page	P1
Drawn		3x3motorFPGA_V2_1			
Reviewed					
		Version	Size	Page 1 Total 1	
		V1.0	A4	EasyEDA.com	



Schematic	motor_drv			Create at	2025-07-21
				Update at	2025-07-21
				Page	P1
Board					
Drawn					
Reviewed					
3x3motorFPGA_V2_1					
		Version	Size	Page 1 Total 1	
		V1.0	A4	EasyEDA.com	



Schematic	Current_shunt_ADC			Create at	2025-07-21
				Update at	2025-07-21
Board				Page	P1
Drawn		3x3motorFPGA_V2_1			
Reviewed					
		Version	Size	Page 1 Total 1	
		V1.0	A4	EasyEDA.com	