

VULTURE_MCB_V06

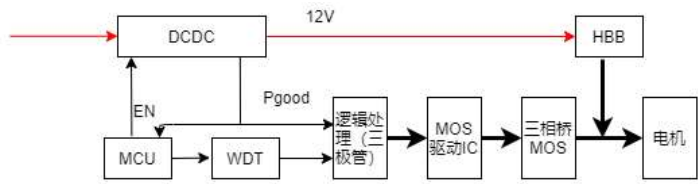
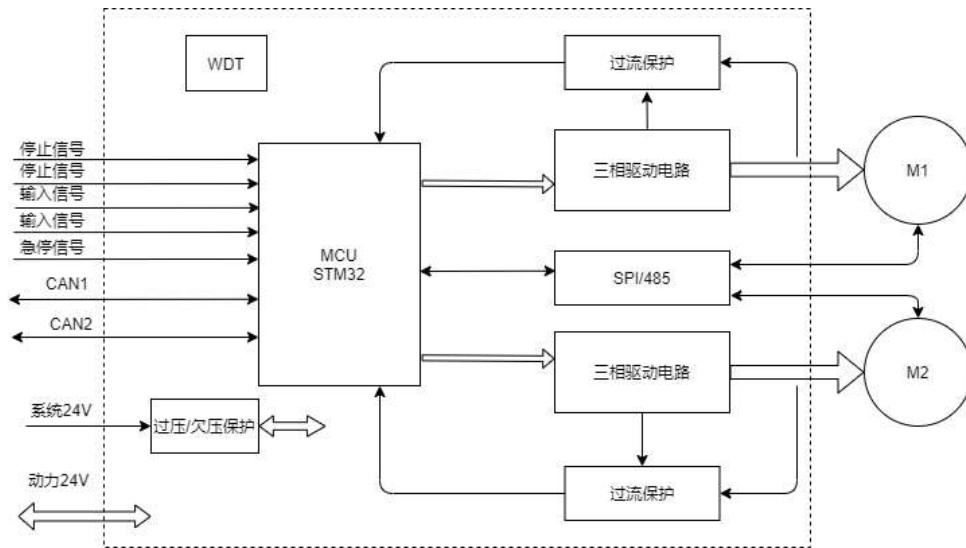
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Syrius 炬星		Syriusrobotics Technologies(ShenZhen)	
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Change List

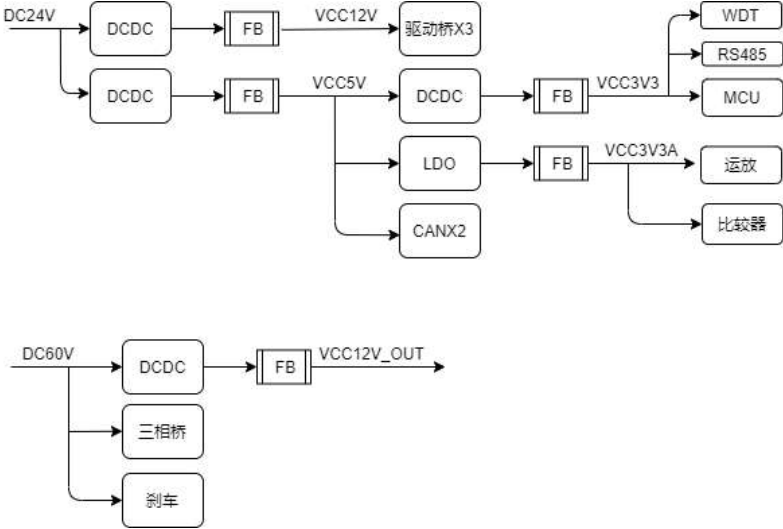
VER.	WHO	DATA	Description
MCB_V04	zhaodongliang	2022.10.19	the previous version
MCB_V05	LIUXING	2023.03.26	1.更改看门狗型号为SGM706 2.CAN FD 以及RS485电路NC 3.优化4570电路问题 4.MCU型号变更为G473 5.增加动力电泄放电路 6.NC一组驱动MOS 7.ABZ信号给到定时器coder引脚 8.SPI以及霍尔信号兼容分出两路信号 9.硬件过流保护改为NMOS 10.规范性整改
MCB_V06	LIUXING	2023.05.05	1.更改看门狗型号输出逻辑 2.兼容信号波形优化 3.过流保护上拉时间优化 4.参考电源增加过流保护 5,系统电源转12V，5V的输入端增加磁珠， 6,动力电源转12V的输入端增加磁珠 7,和利时轮毂电机编码器的5V和三相霍尔增加磁珠 8，CAN同步信号增加100K下拉电阻

Block Diagram



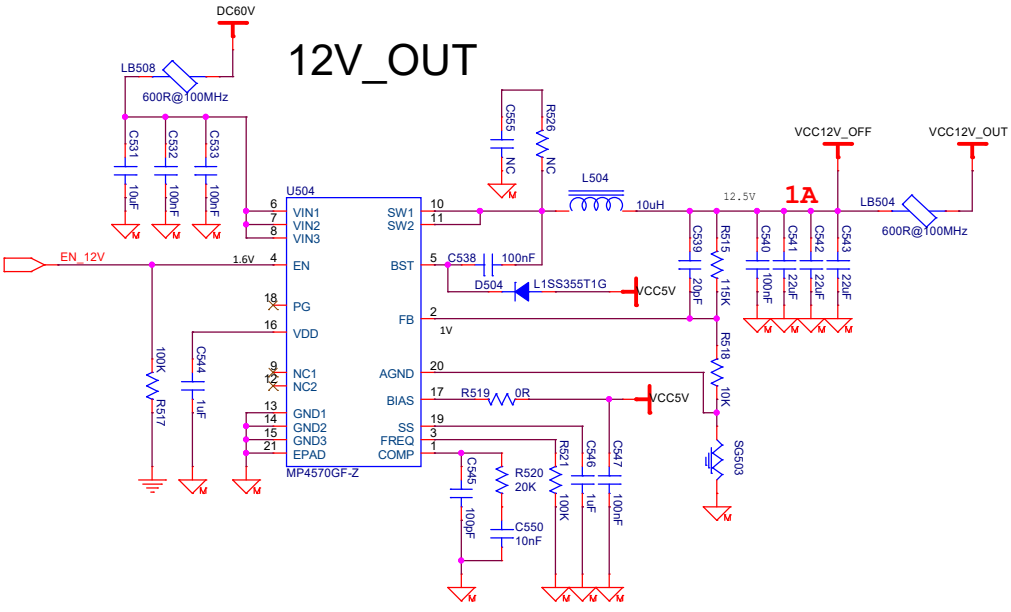
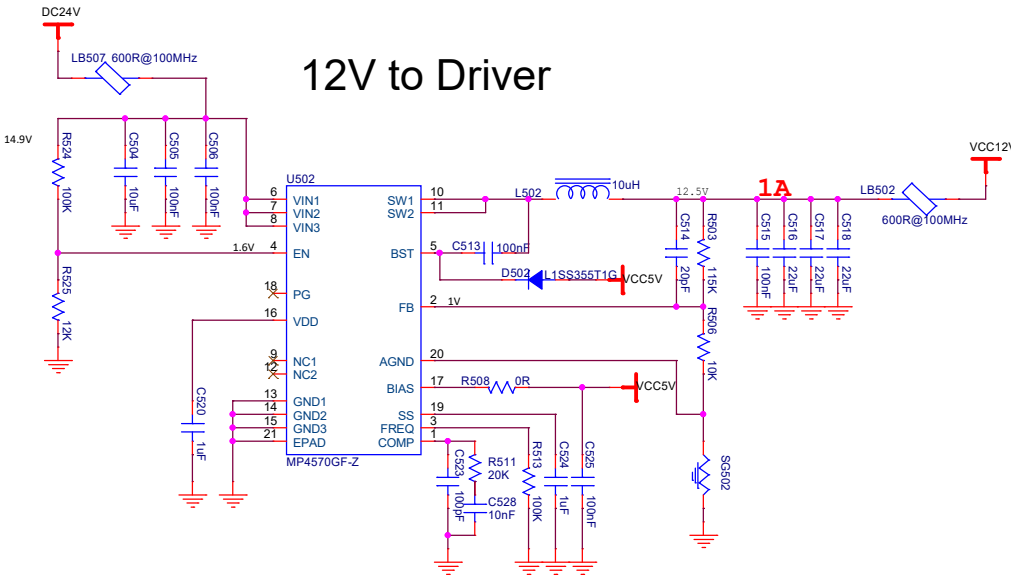
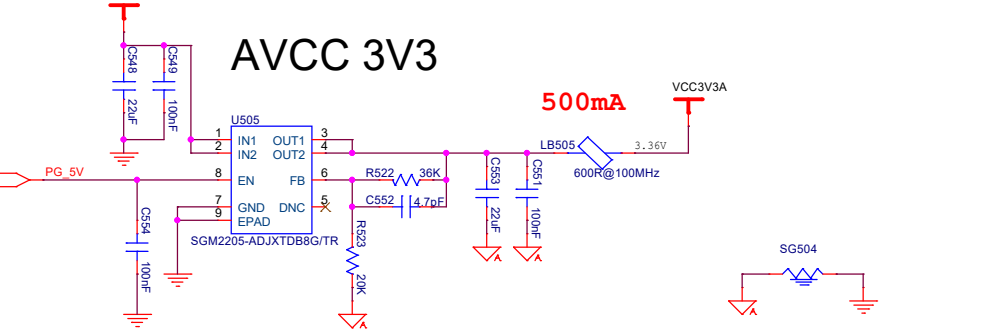
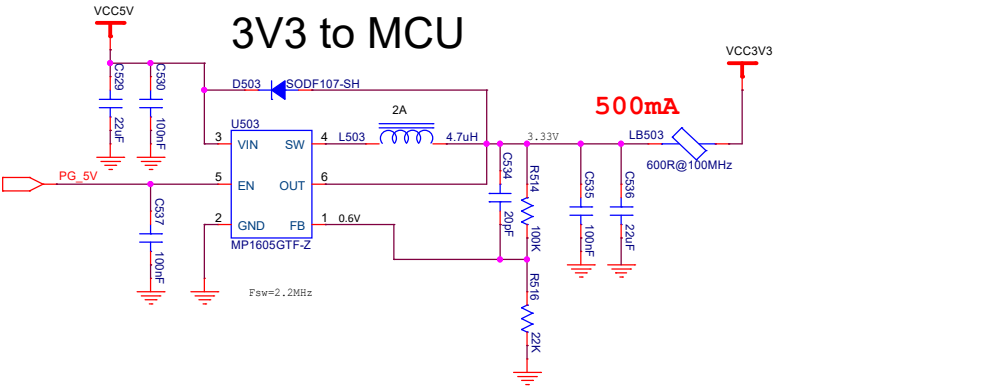
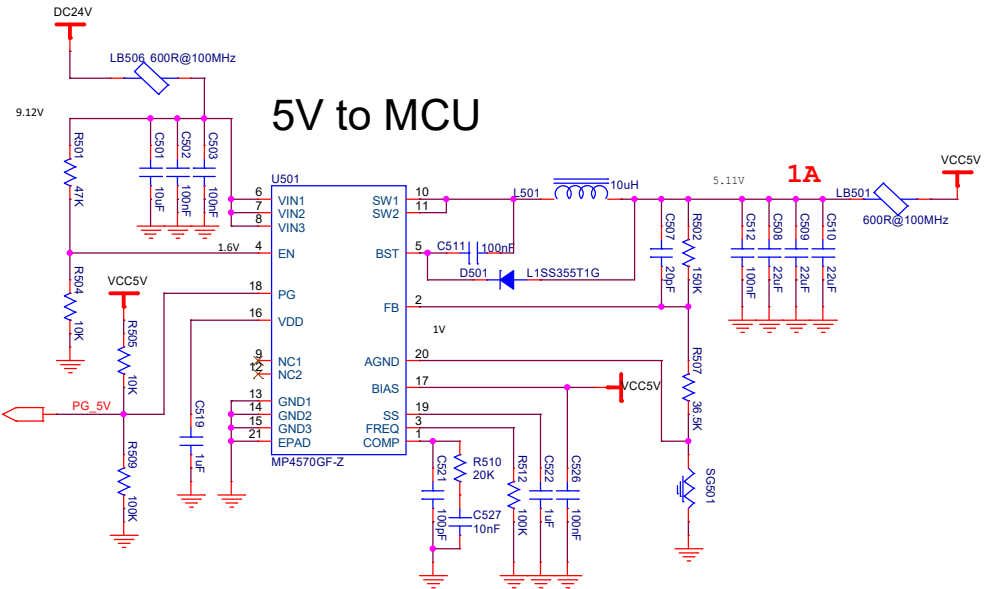
- 1.MCU 驱动电机前 (包括自检), 先打开对外12V电源 (高电平打开), 并检测12V是否正常, 对外12V正常后才能驱动mos
- 2.MCU检测到过流事件, 先让电机自由状态, 在关闭对外12V输出

Power Tree



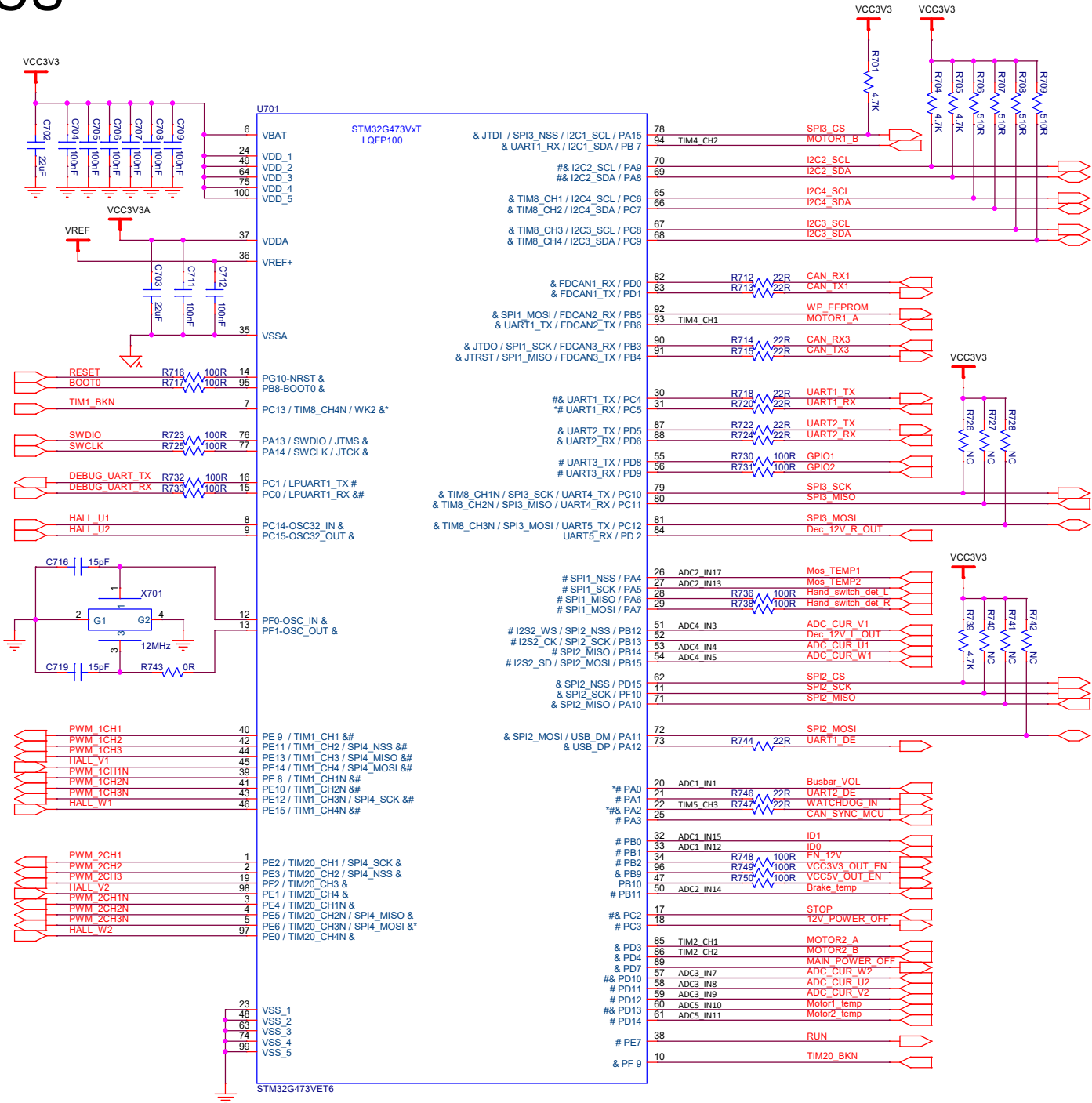
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Power

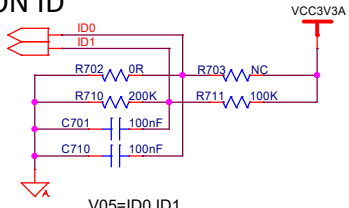


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MCU

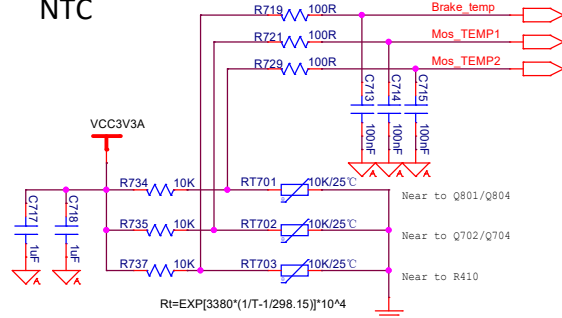


VERSION ID

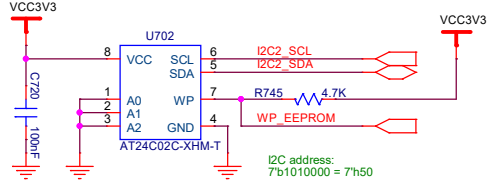


ID01	0	1	2	3	4	5	6
R552/R553	RD	0	22K	30K	100K	121K	150K	200K
R548/R549	RF	NC	150K	100K	200K	150K	121K	100K
VOLTAGE	0	0.42V	0.76V	1.10V	1.47V	1.83V	2.20V

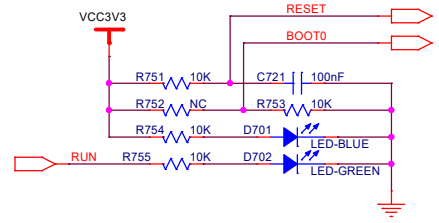
NTC



EEPROM



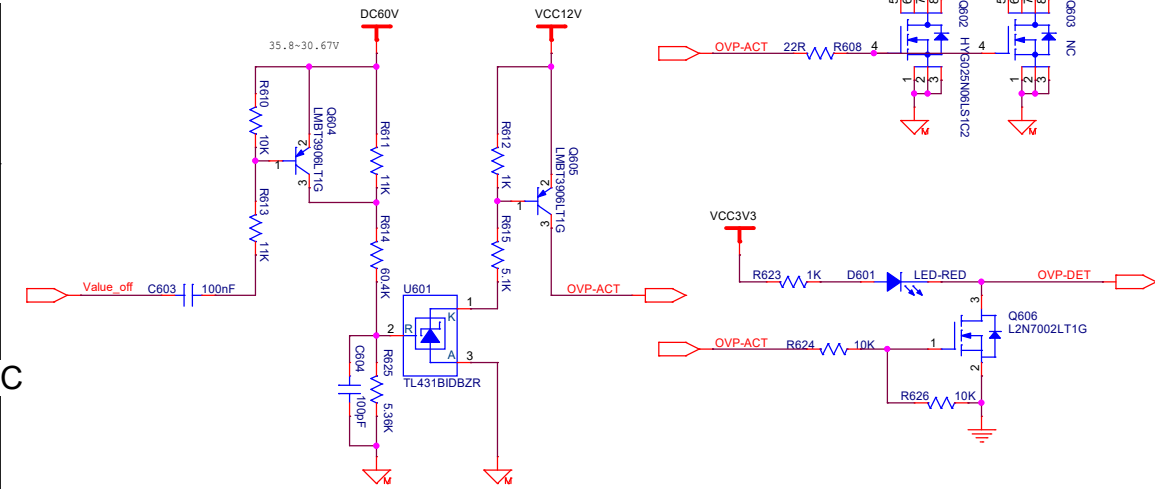
BOOT



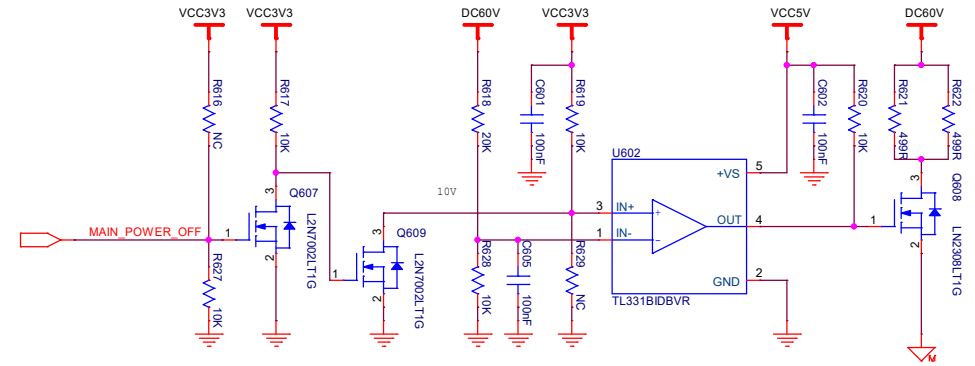
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Power Control

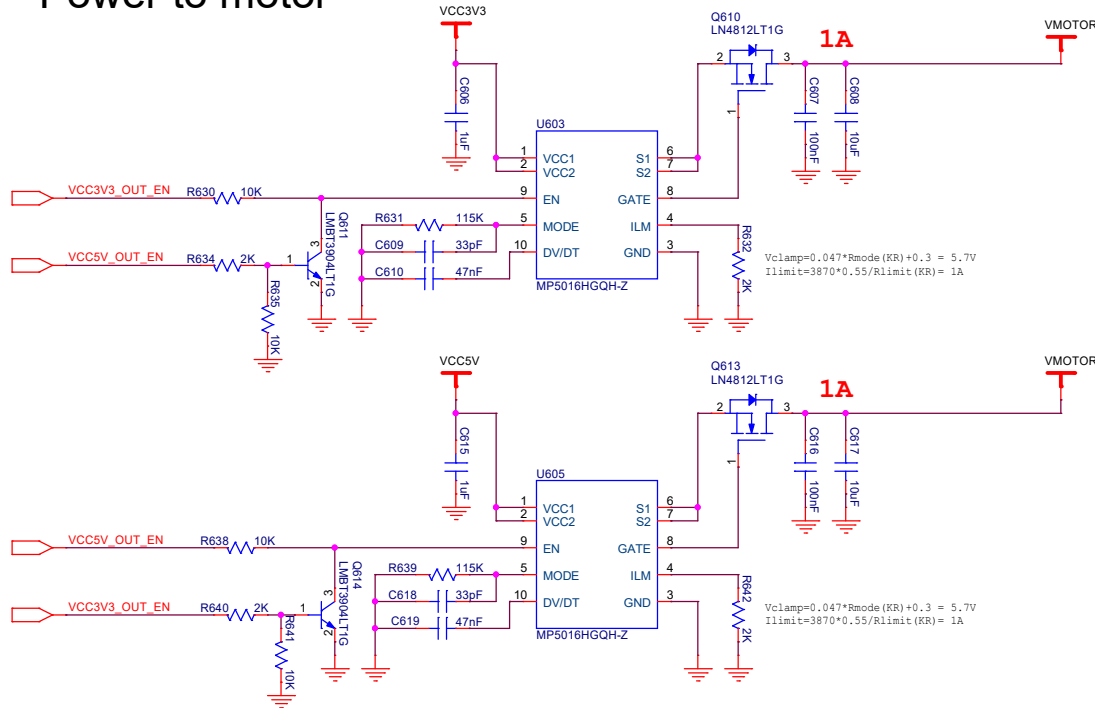
OVP



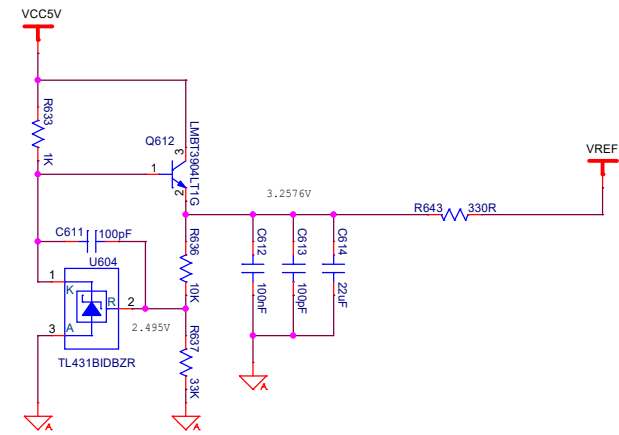
Power off



Power to motor



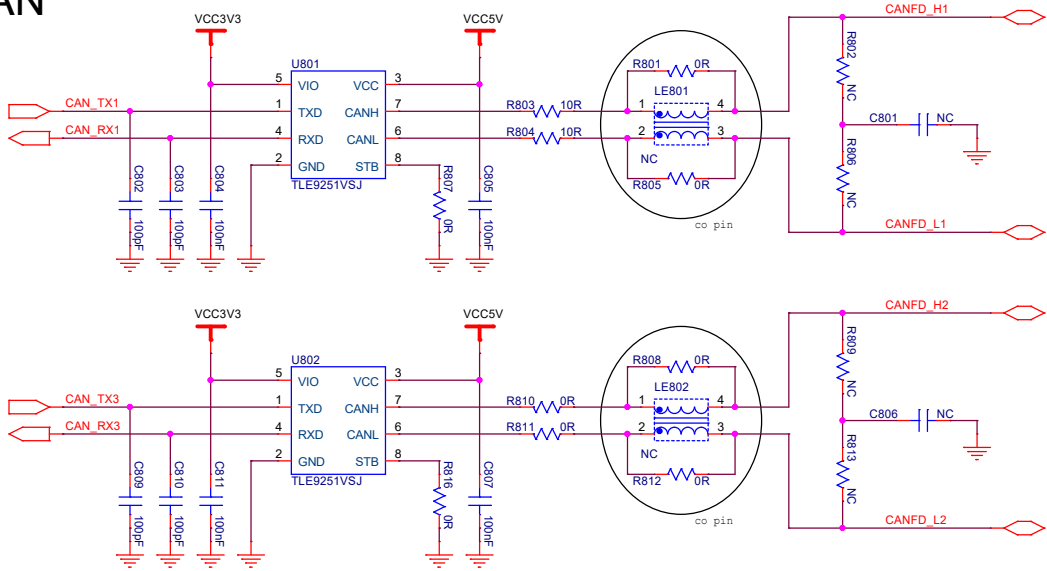
Power of VREF



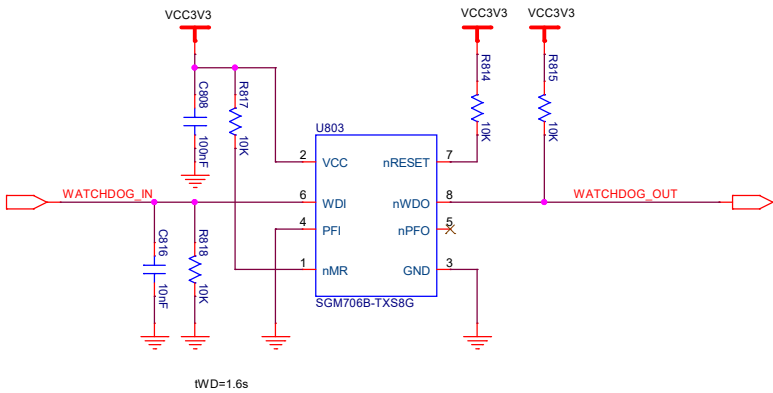
Sirius 炬星			
Siriusrobotics Technologies(ShenZhen)			
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CAN&WD&RS485

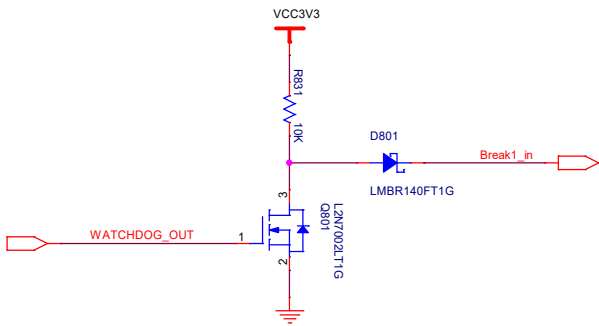
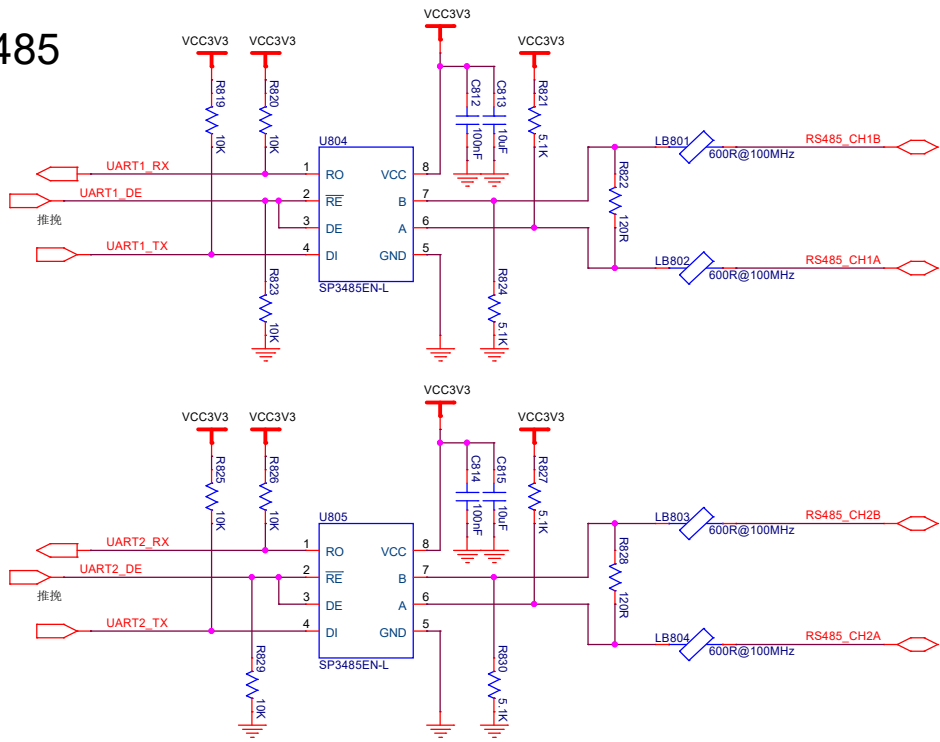
CAN



WATCH DOG



RS485



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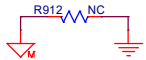
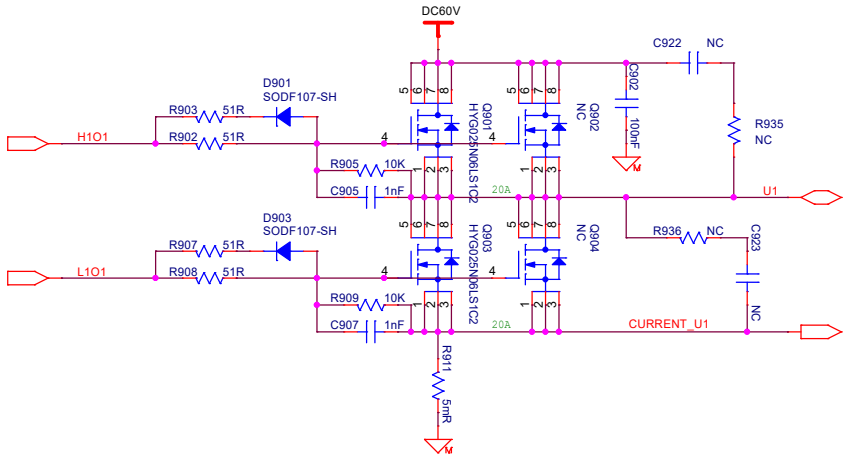
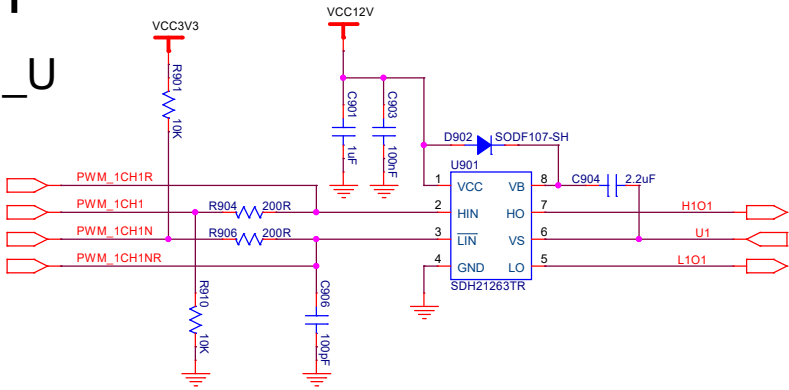
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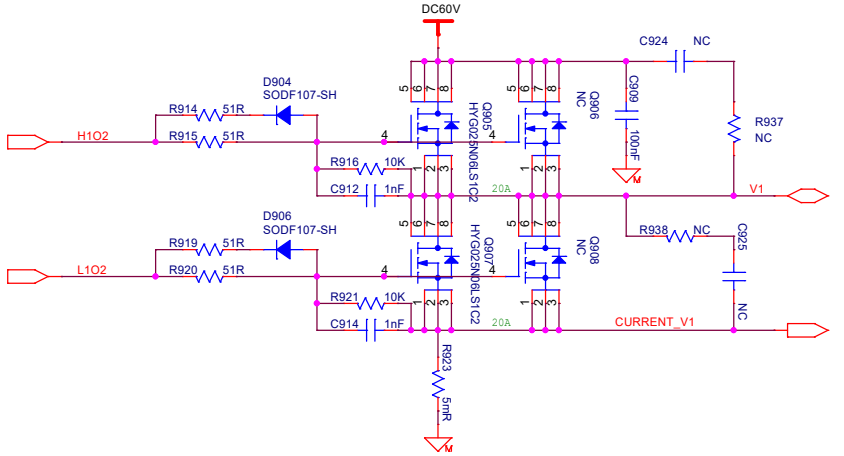
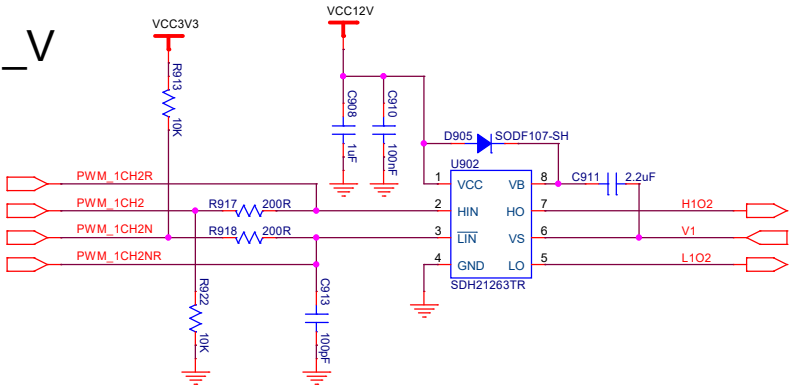
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Driver1

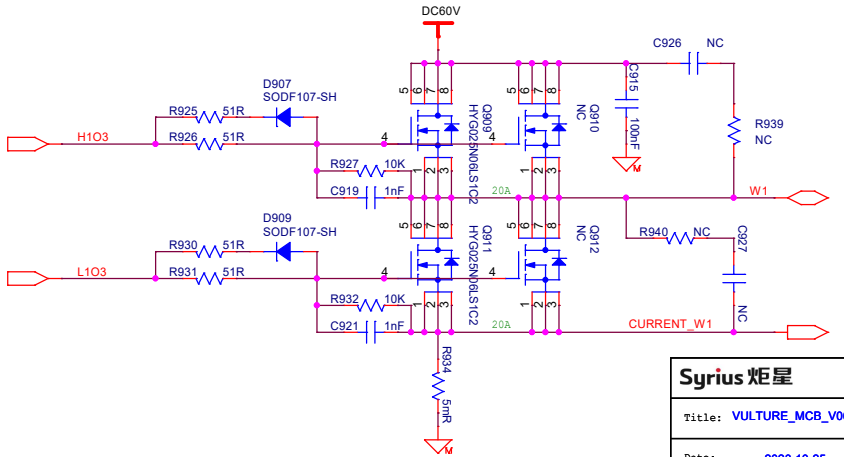
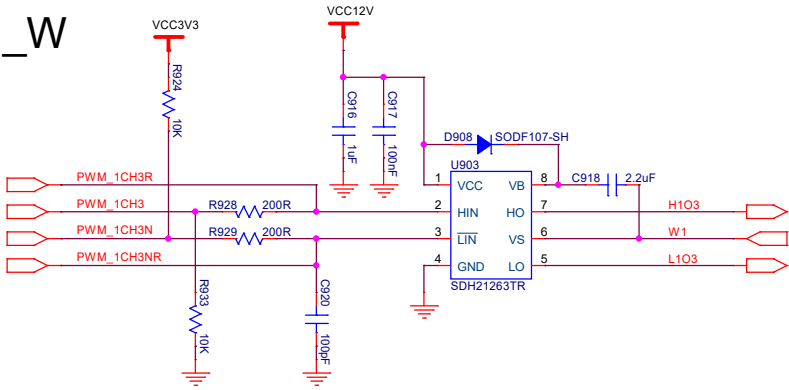
MOTOR1_U



MOTOR1_V

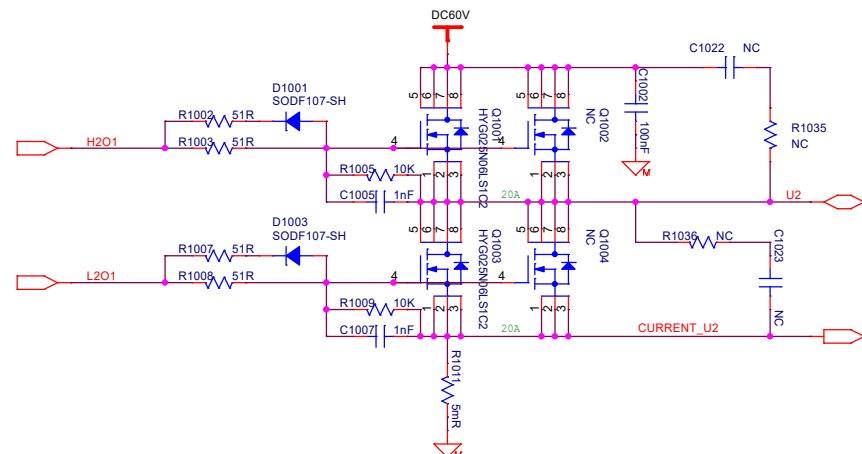
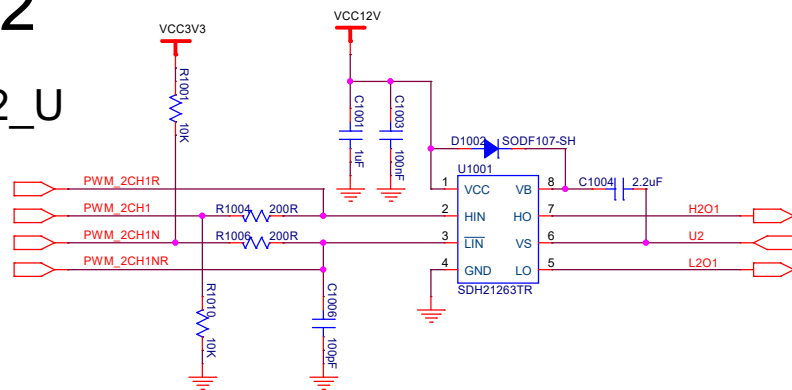


MOTOR1_W

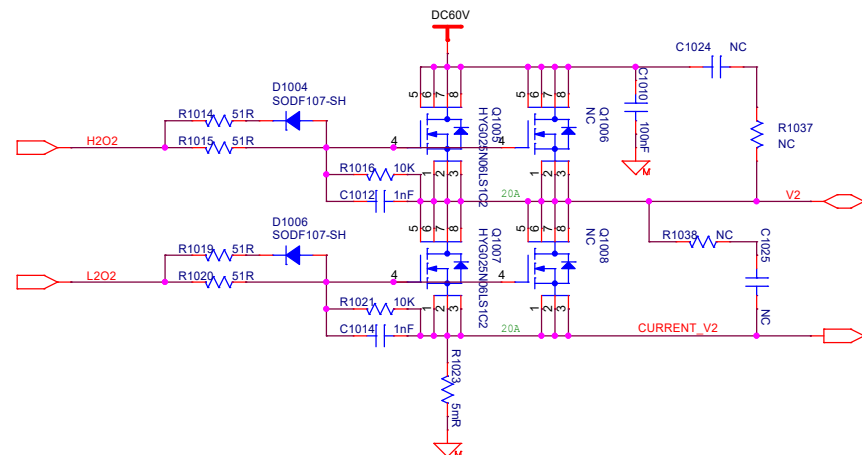
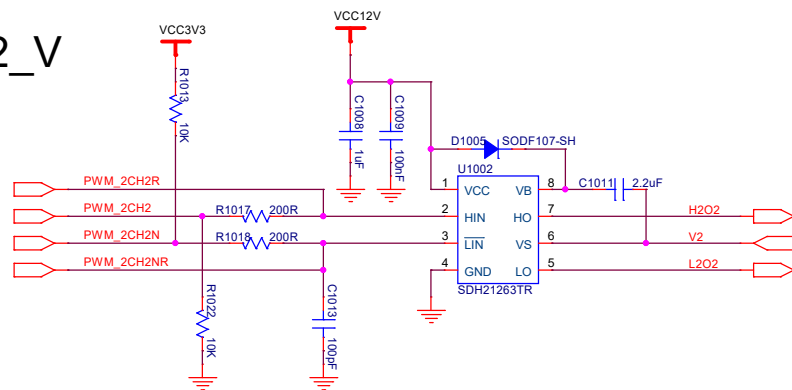


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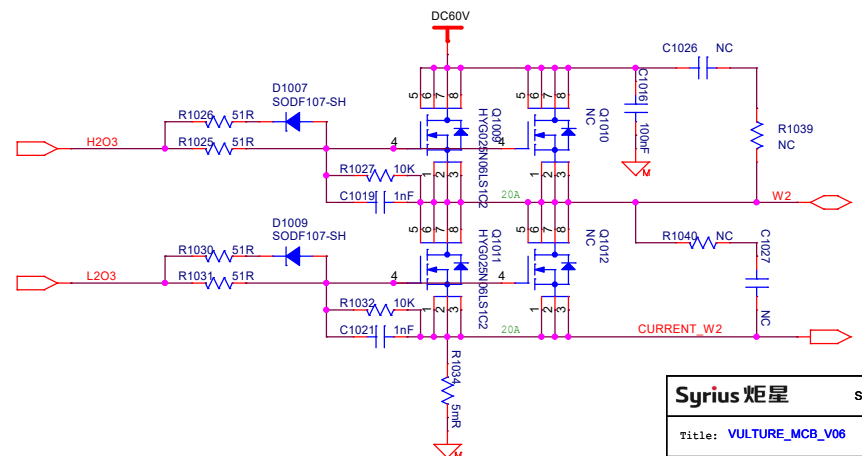
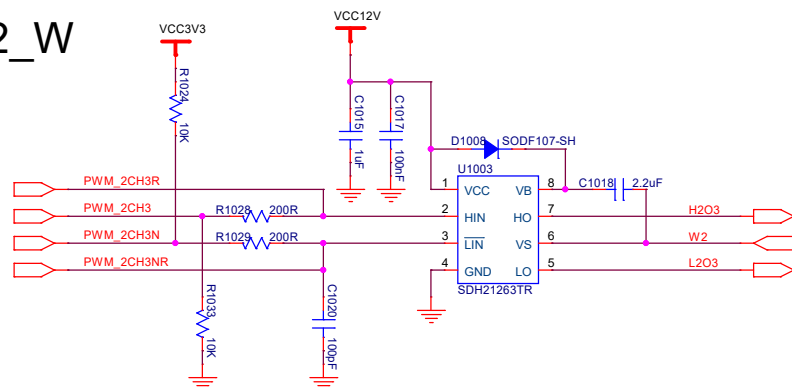
MOTOR2_U



MOTOR2_V

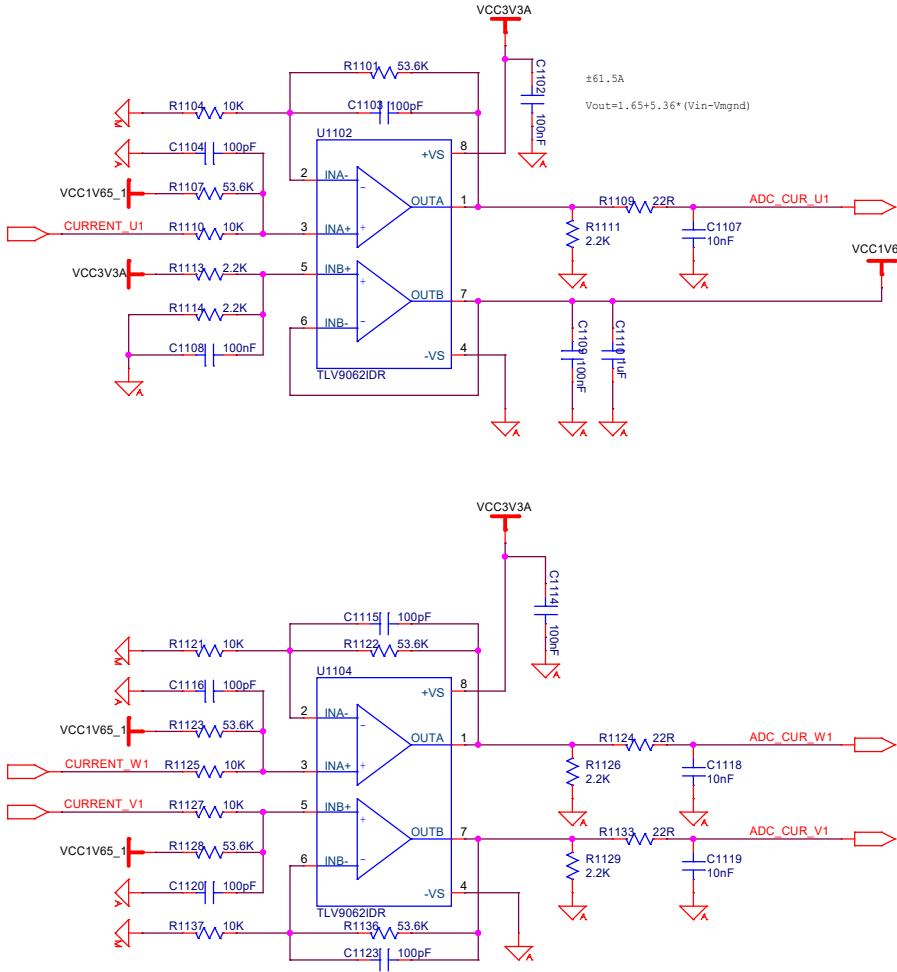


MOTOR2_W



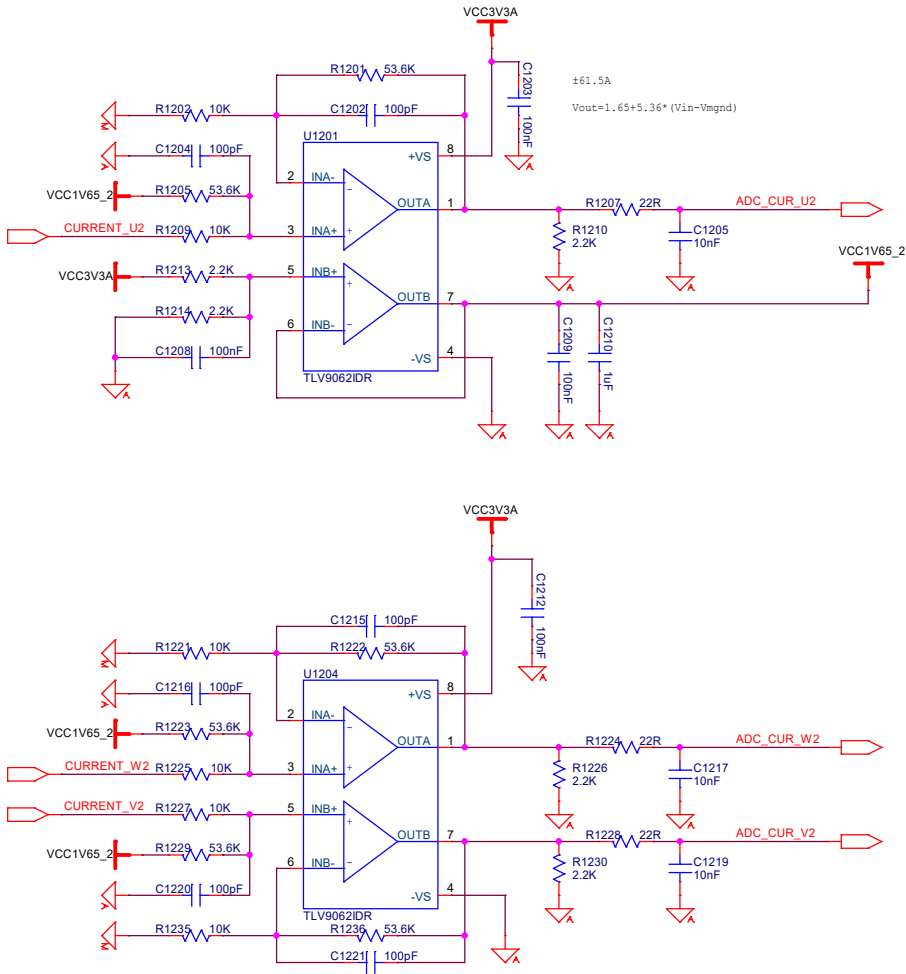
AMP1

OPA

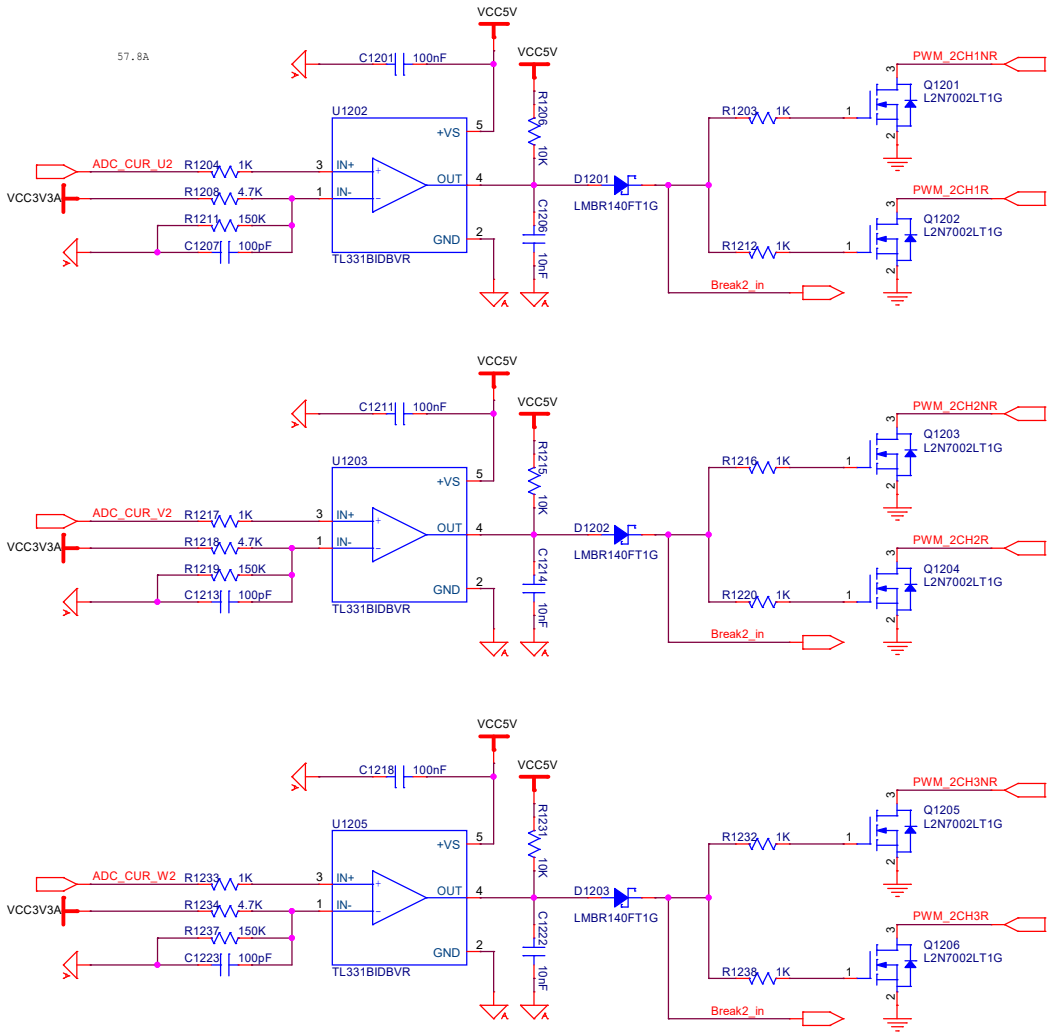


AMP2

OPA

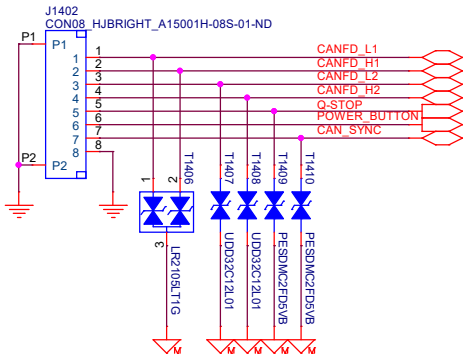
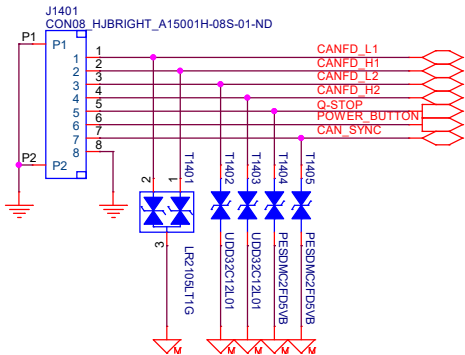


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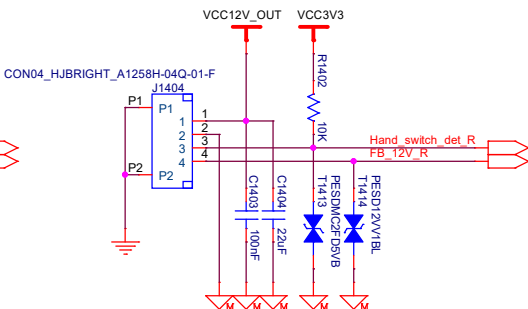
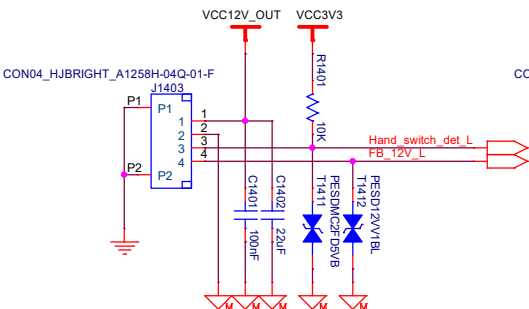


Connector to Board

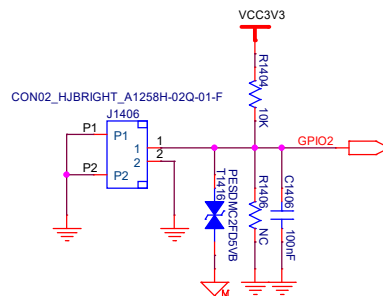
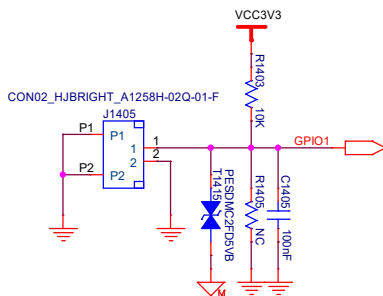
SYSTEM



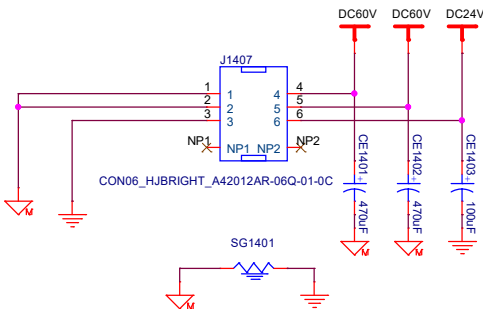
HAND SWITCH



GPIO IN



POWER IN



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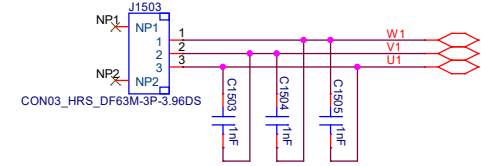
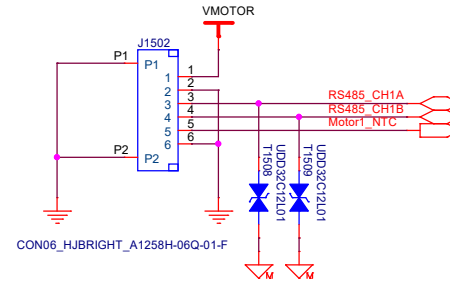
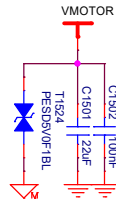
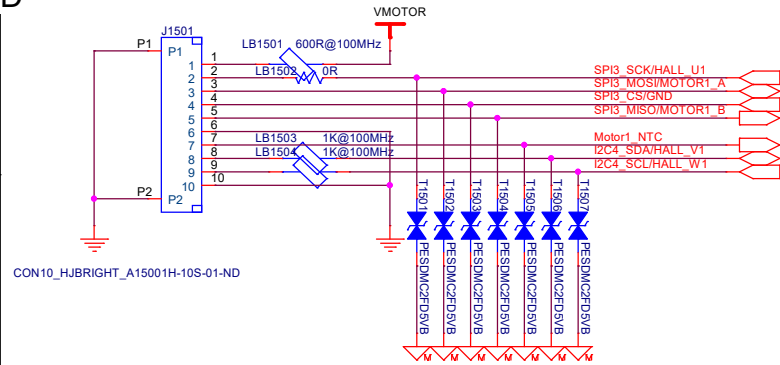
E-STOP

The diagram illustrates an E-STOP circuit. It features a red signal line and a blue signal line. The red line starts at a terminal labeled 'Q-STOP', passes through a 100R resistor (R1341), a 100nF capacitor (C1329), a 100nF capacitor (C1330), a 10K resistor (R1338) connected to VCC3V3, a 100R resistor (R1342), and ends at a terminal labeled 'STOP'. The blue line starts at a terminal labeled 'STOP', passes through a 100nF capacitor (C1331), a 100R resistor (R1342), a 10K resistor (R1338) connected to VCC3V3, a 100nF capacitor (C1330), a 100nF capacitor (C1329), and ends at a terminal labeled 'Q-STOP'. A diode D1302 (LRB520S-40T1G) is connected in parallel with the 100R resistor (R1342) on the blue line, with its cathode towards the 'STOP' terminal.

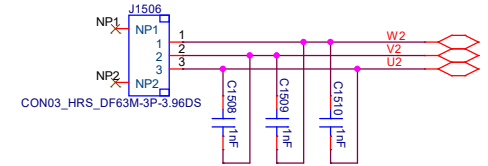
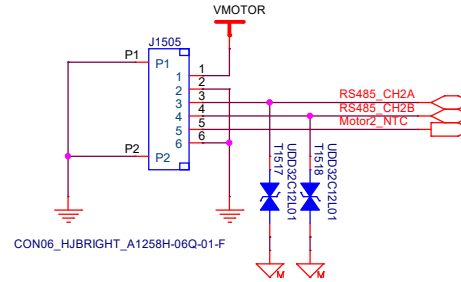
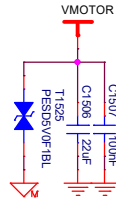
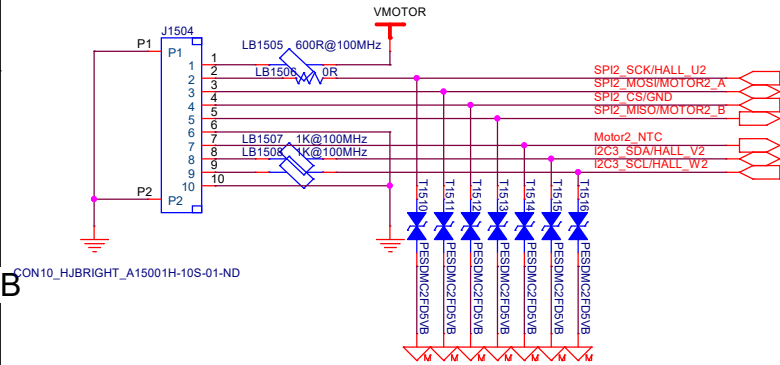
A

Connector to Device

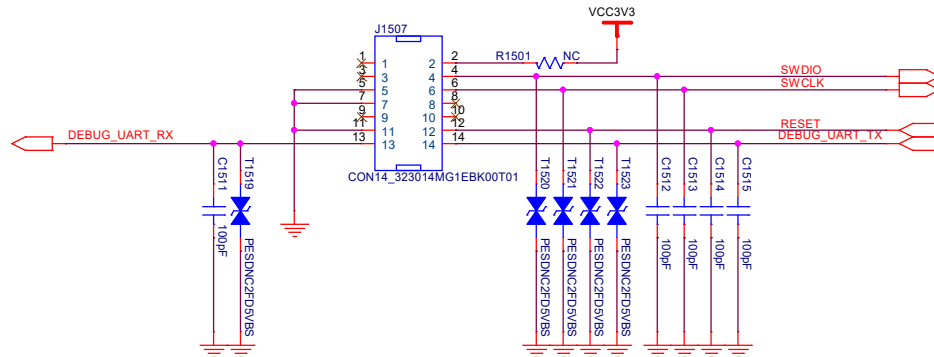
MOTOR1



MOTOR2



DEBUG



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