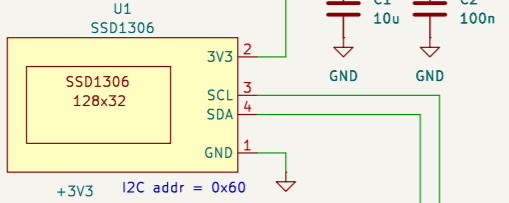
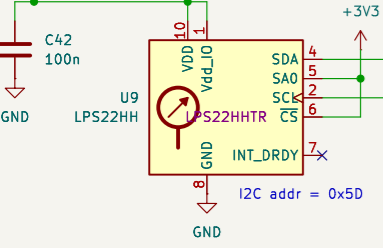


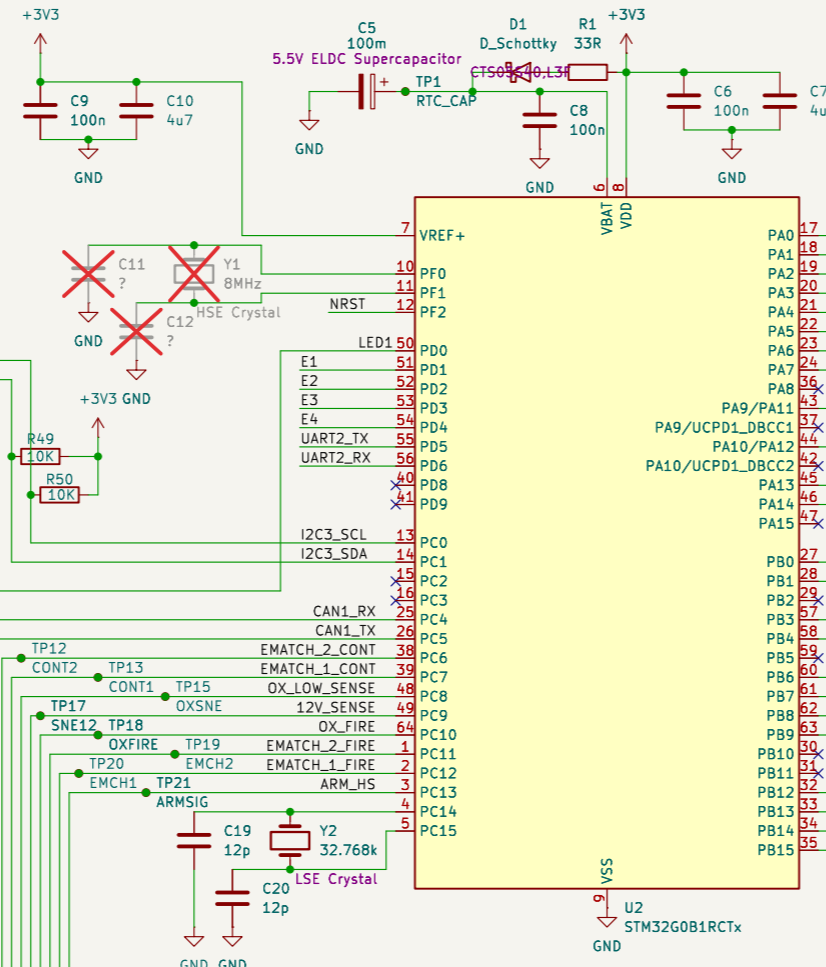
# Display



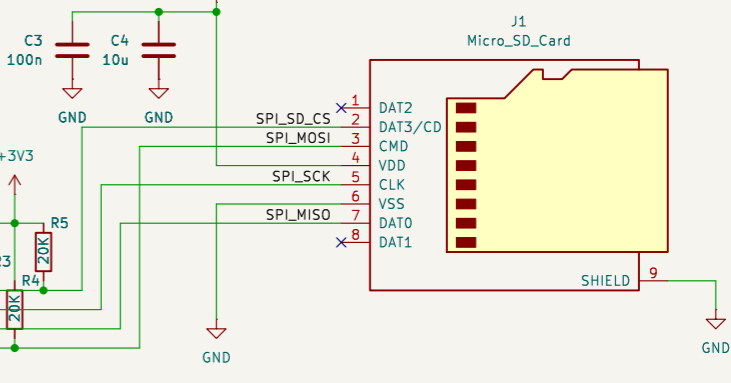
# P+T



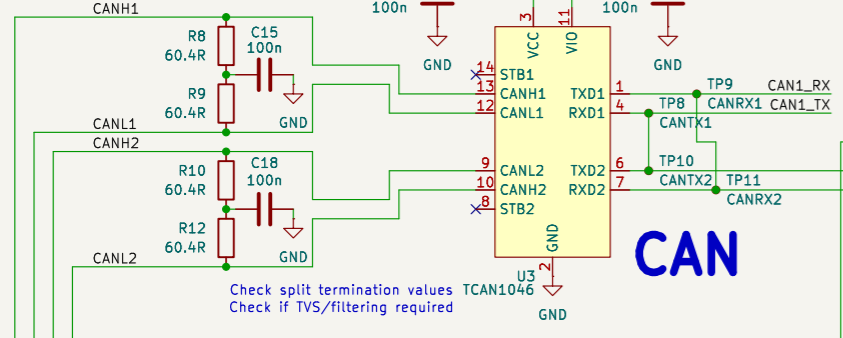
# MCU



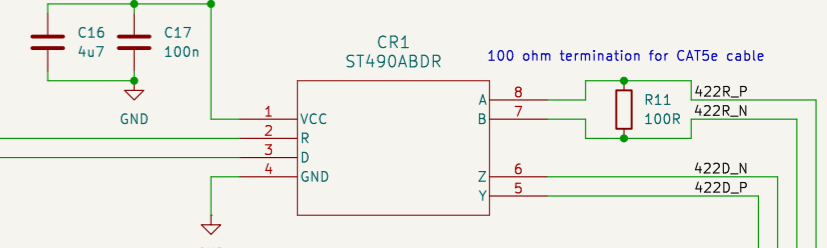
# Micro SD



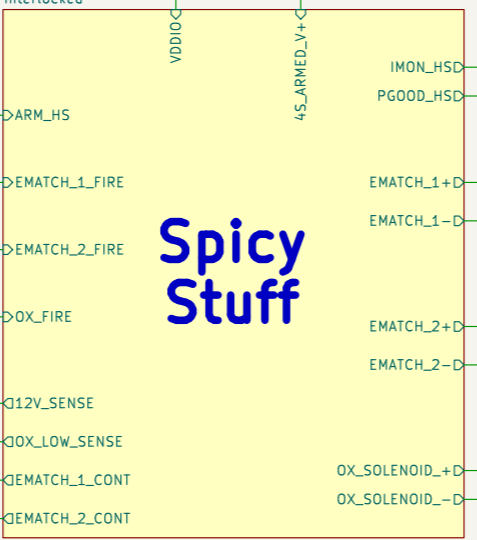
# CAN



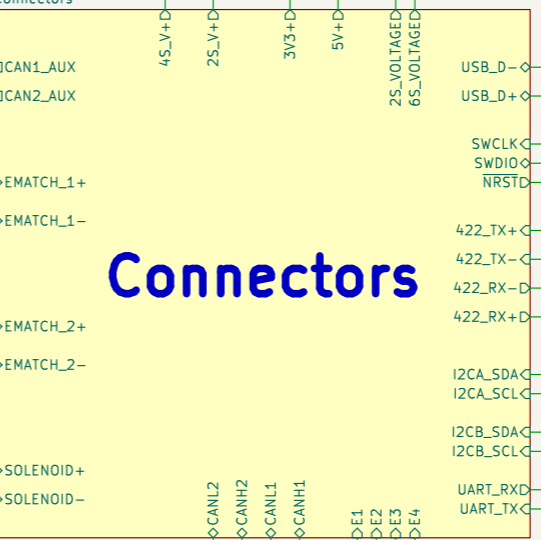
# RS-422



# Spicy Stuff



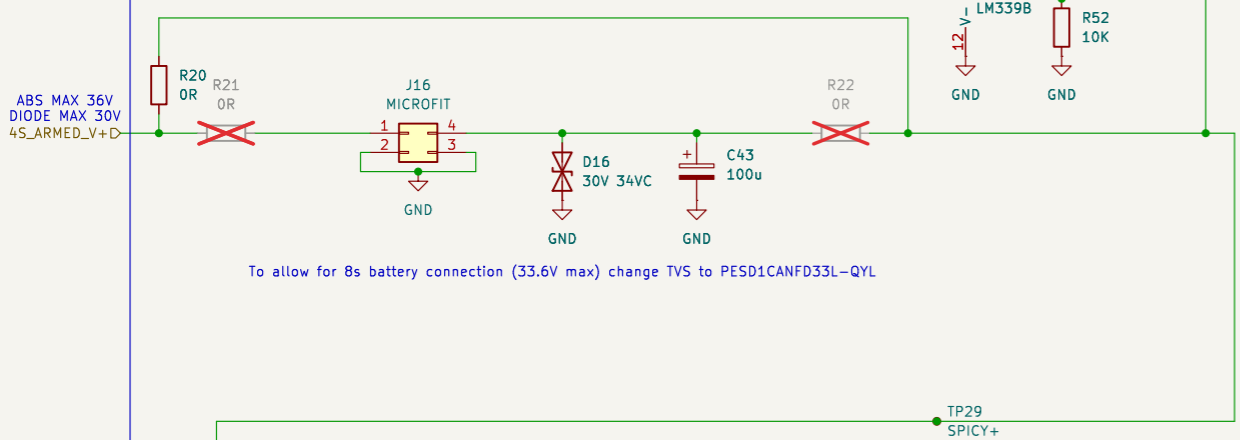
# Connectors



Checked:		
Drawn: Brad Redpath		
<b>Hybrid Test Stand 2025</b>		
Sheet: /		
File: Central_ECU.kicad_sch		
<b>Title: Central ECU Board</b>		
Size: A3	Date: 2025-04-13	Rev: A
KiCad E.D.A. 9.0.0		Id: 1/5

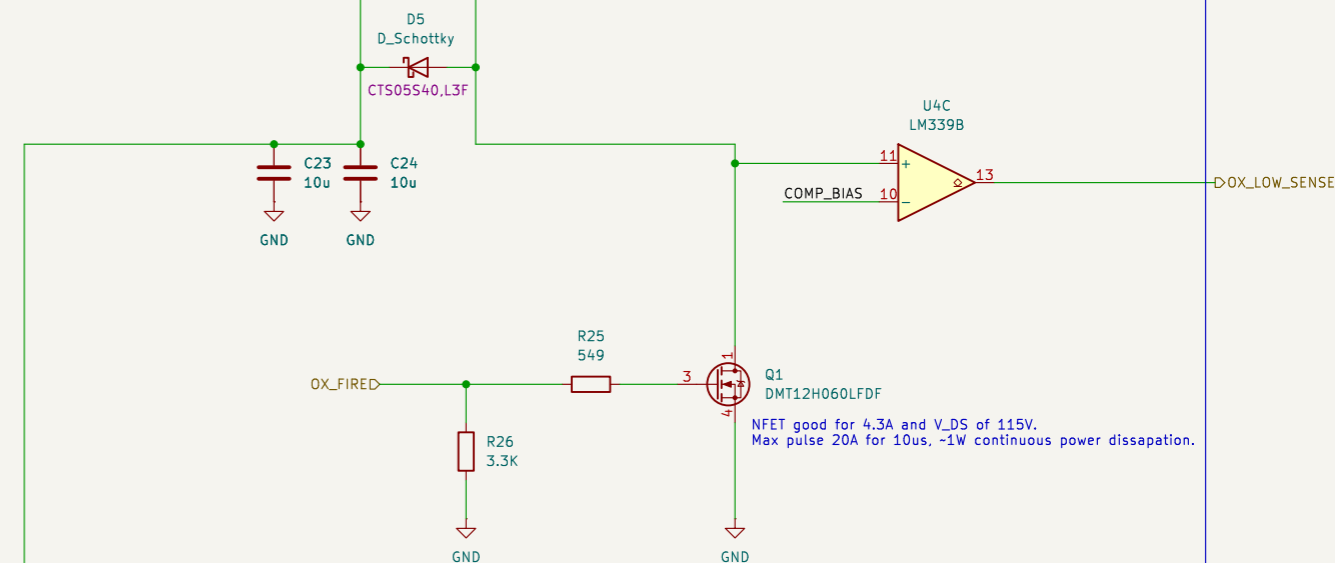
# External Regulator

Bypassed battery voltage or connector for external regulator



To allow for 8s battery connection (33.6V max) change TVS to PESD1CANFD33L-QYL

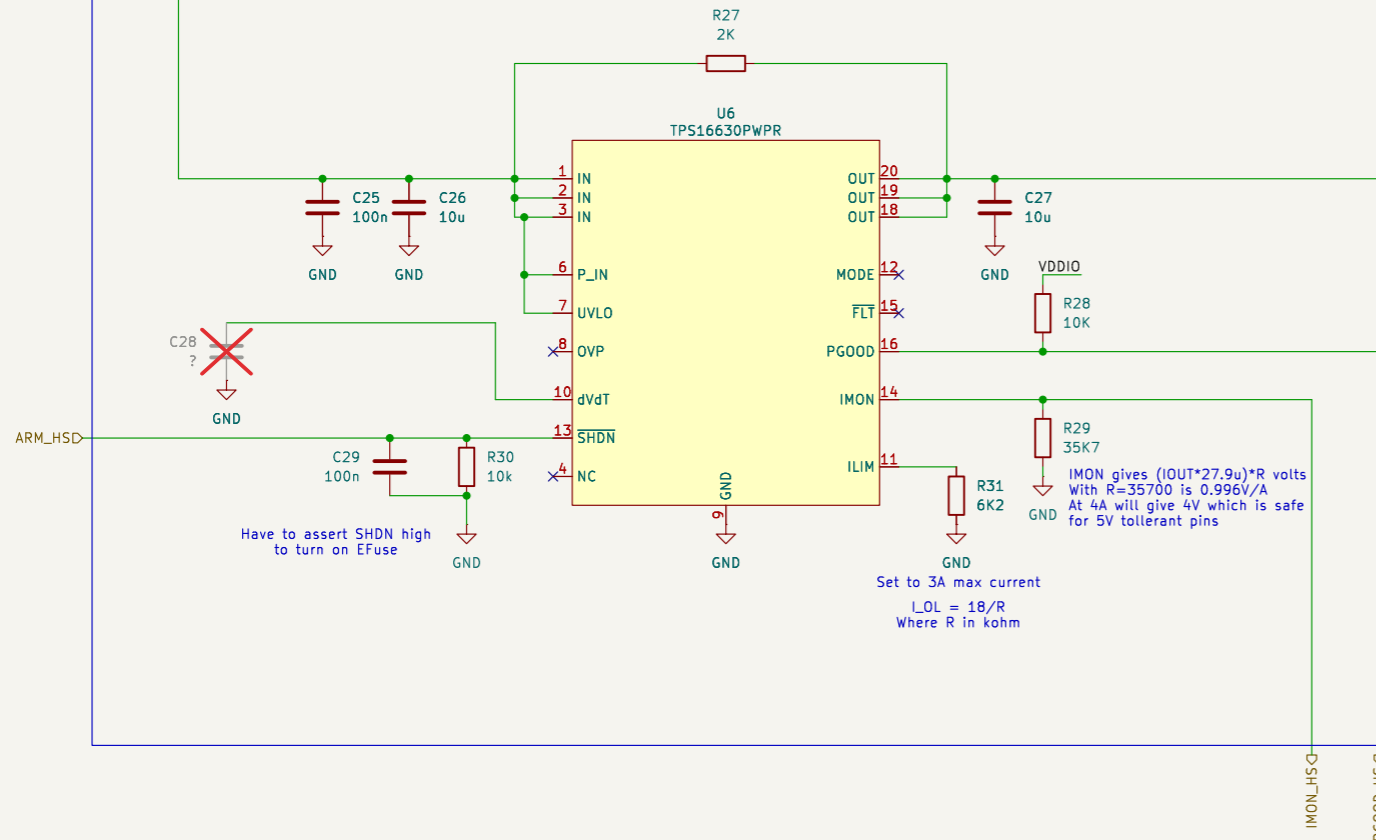
# Ox Solenoid Control



NFET good for 4.3A and V\_DS of 115V. Max pulse 20A for 10us, -1W continuous power dissipation.

# High Side Switch

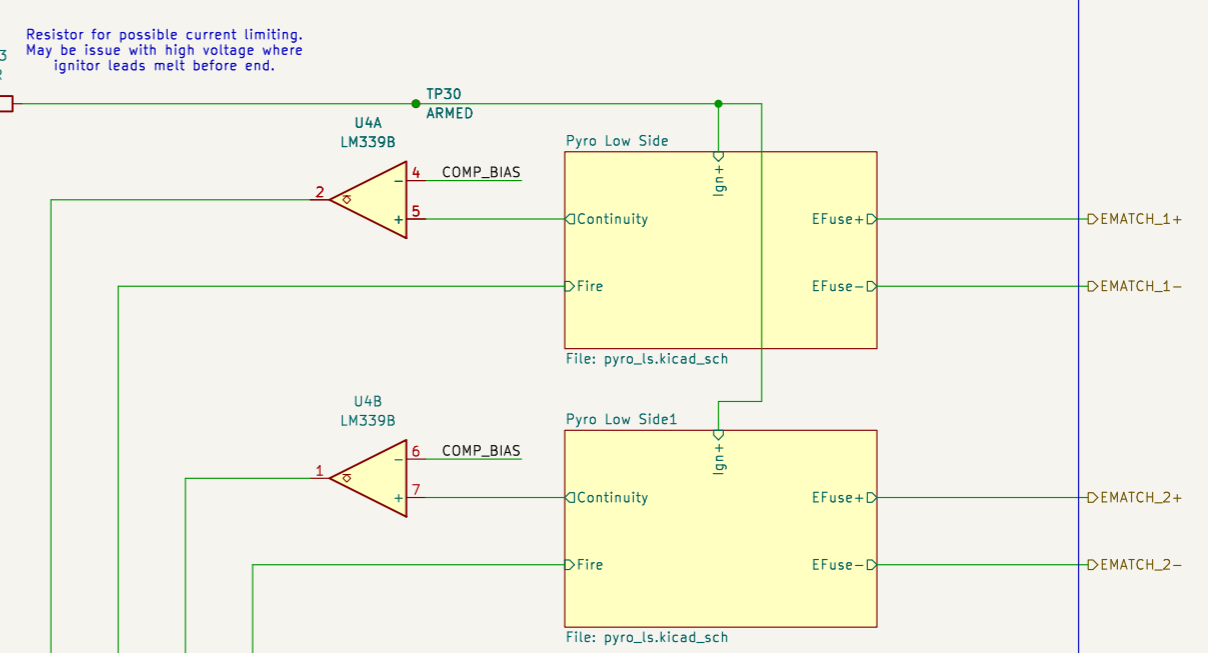
Allow a small current through to test continuity. With the voltage divider on the other side current will not exceed 137uA through each ignitor. In case of low side switch fault upto 15mA can pass, this should be well safe. Click for verification



Have to assert SHDN high to turn on EFuse

Set to 3A max current  
I<sub>OL</sub> = 18/R  
Where R in kohm

# Ignitors



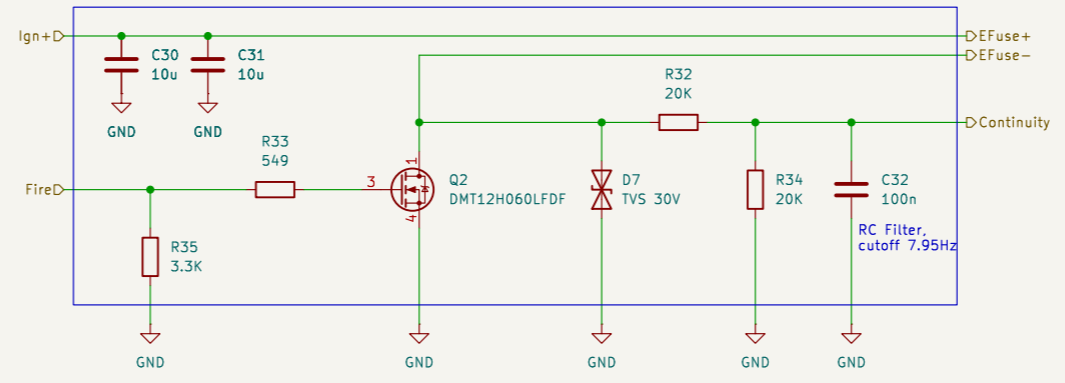
Resistor for possible current limiting. May be issue with high voltage where ignitor leads melt before end.

Checked:  
Drawn: Brad Redpath  
**Hybrid Test Stand 2025**  
Sheet: /Interlocked/  
File: ign+nc\_valve.kicad\_sch

**Title: Interlocked Components**

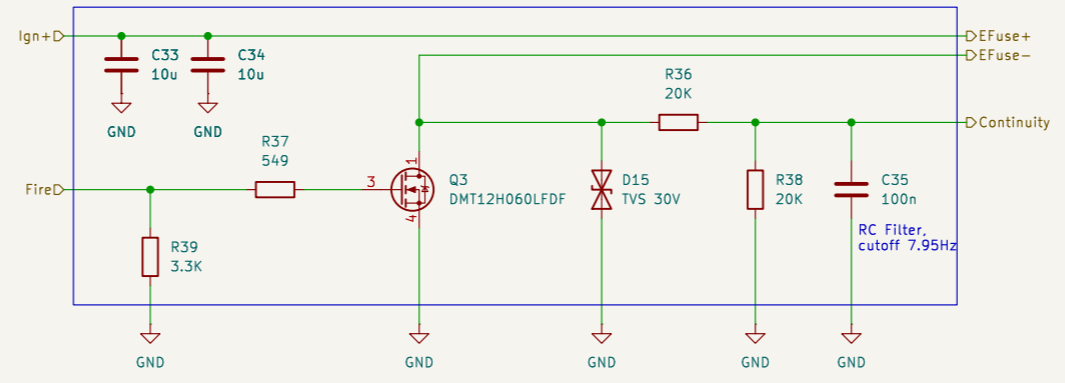
Size: A3 Date: 2025-04-13  
KiCad E.D.A. 9.0.0

Rev: A  
Id: 2/5



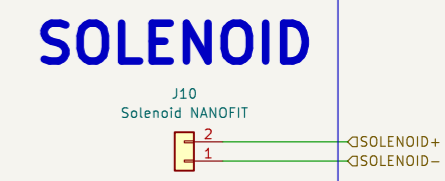
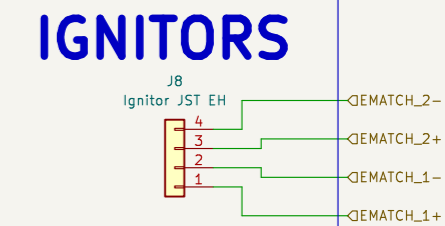
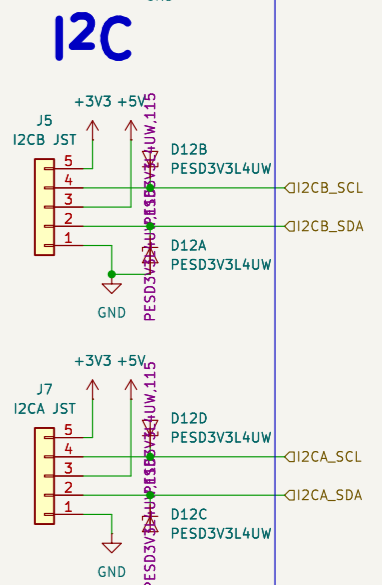
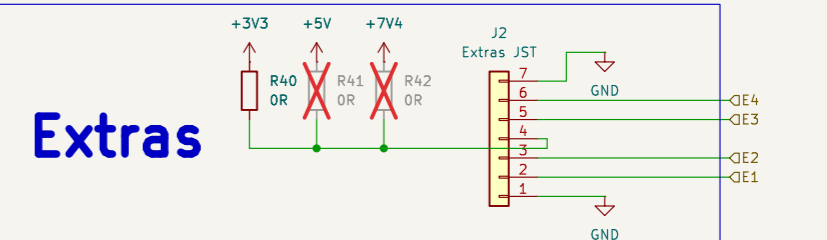
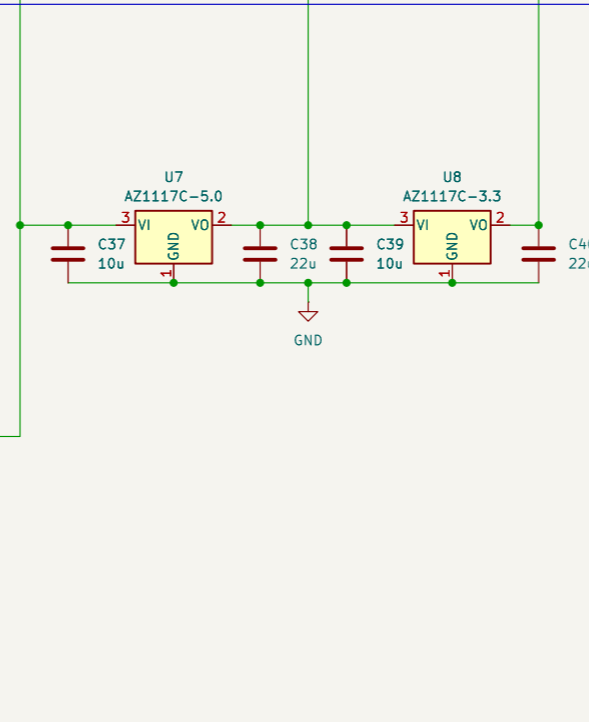
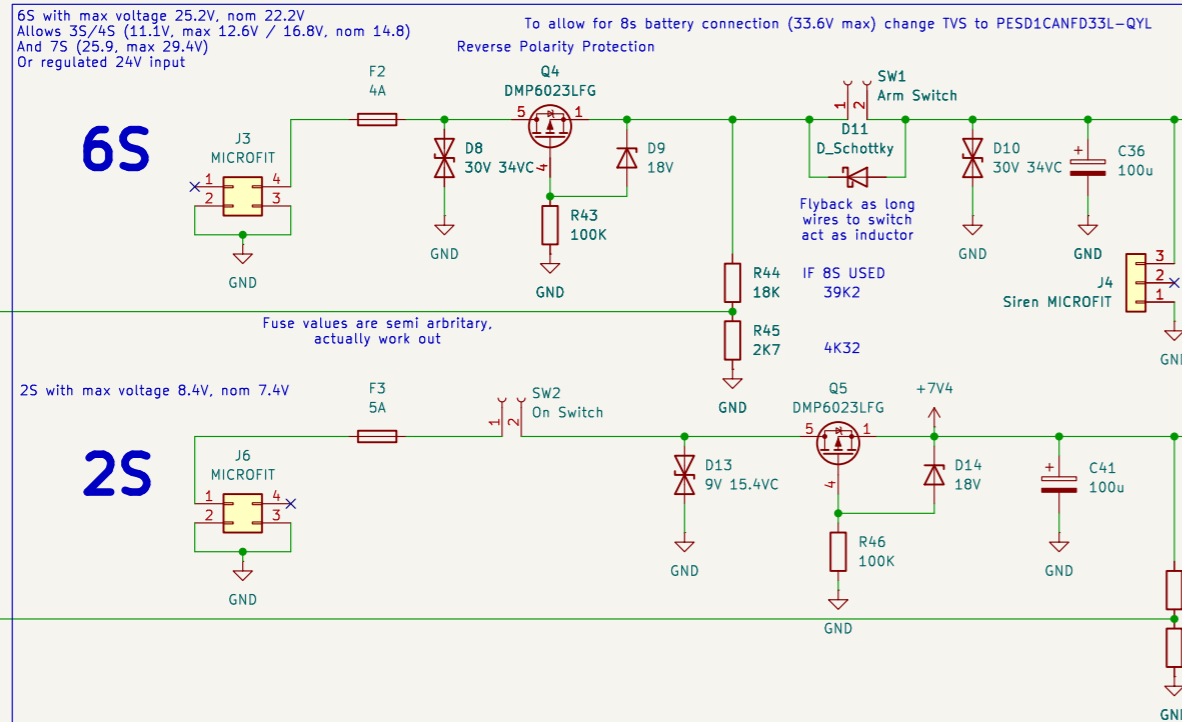
Checked:  
 Drawn: Brad Redpath  
**Hybrid Test Stand 2025**  
 Sheet: /Interlocked/Pyro Low Side1/  
 File: pyro\_ls.kicad\_sch

<b>Title: Pyro Low Side</b>	
Size: A3	Date: 2025-04-13
KiCad E.D.A. 9.0.0	Rev: A Id: 3/5

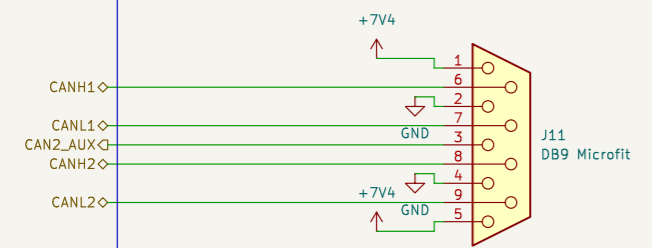
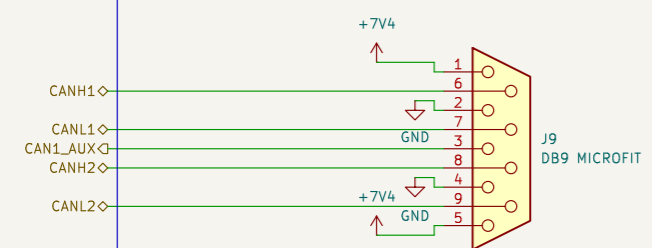


Checked:  
 Drawn: Brad Redpath  
**Hybrid Test Stand 2025**  
 Sheet: /Interlocked/Pyro Low Side/  
 File: pyro\_ls.kicad\_sch

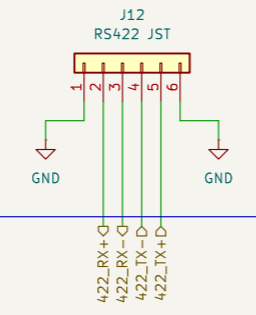
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KiCad E.D.A. 9.0.0	Rev: A Id: 4/5



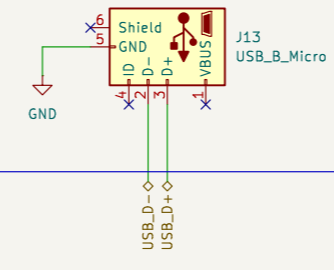
**CAN**



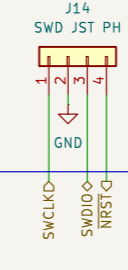
**RS-422**



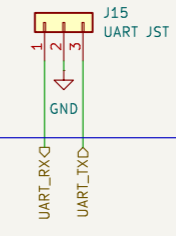
**USB**



**SWD**



**UART**



Checked:		
Drawn: Brad Redpath		
<b>Hybrid Test Stand 2025</b>		
Sheet: /Connectors/		
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<b>Title: Connectors</b>		
Size: A3	Date: 2025-04-13	Rev: A
KiCad E.D.A. 9.0.0		Id: 5/5