
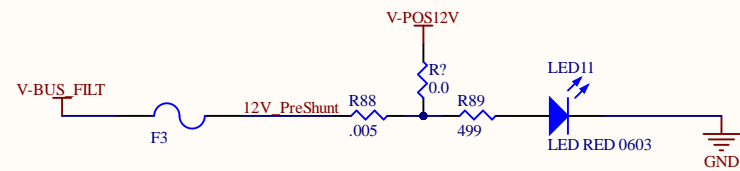


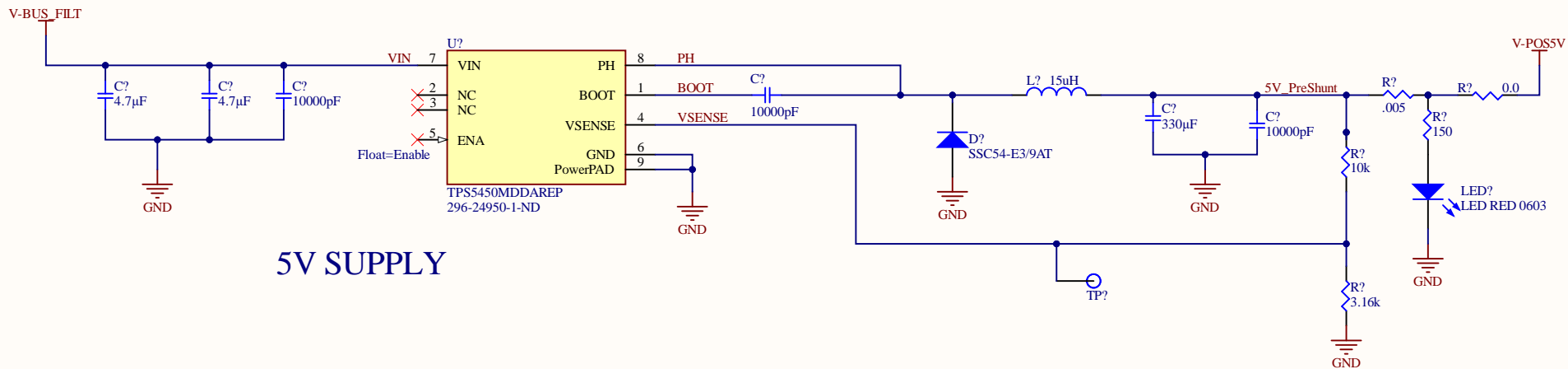
MAIN IO
SOLAR CAR 1
REV C

Title <i>Main IO</i>		Badgerloop Electrical 133 Engineering Research Building 1500 Engineering Drive Madison, WI 53706	
Engineer:	Revision:		
Date: <i>4/20/2023</i>	Time: <i>12:20:58 PM</i> Sheet <i>1</i> of <i>2</i>		
File: <i>main_io.SchDoc</i>			



Placeholder until it is determined whether we need to regulate to 12V

Title 12V Power		Badgerloop Electrical 133 Engineering Research Building 1500 Engineering Drive Madison, WI 53706	
Engineer: McGregor Farah	Revision: A	<div>BADGER LOOP</div>	
Date: 4/20/2023	Time: 12:20:56 PM		
File: power_12V.SchDoc		Sheet 1 of 1	



Title 5V Power		Badgerloop Electrical 133 Engineering Research Building 1500 Engineering Drive Madison, WI 53706	
Engineer: McGregor Farah	Revision: A	<div> <div></div> <div>BADGER</div> <div>LOOP</div> </div>	
Date: 4/20/2023	Time: 12:20:57 PM		
File: power_5V.SchDoc		Sheet 1 of 1	

1

2

3

4

A

A

B

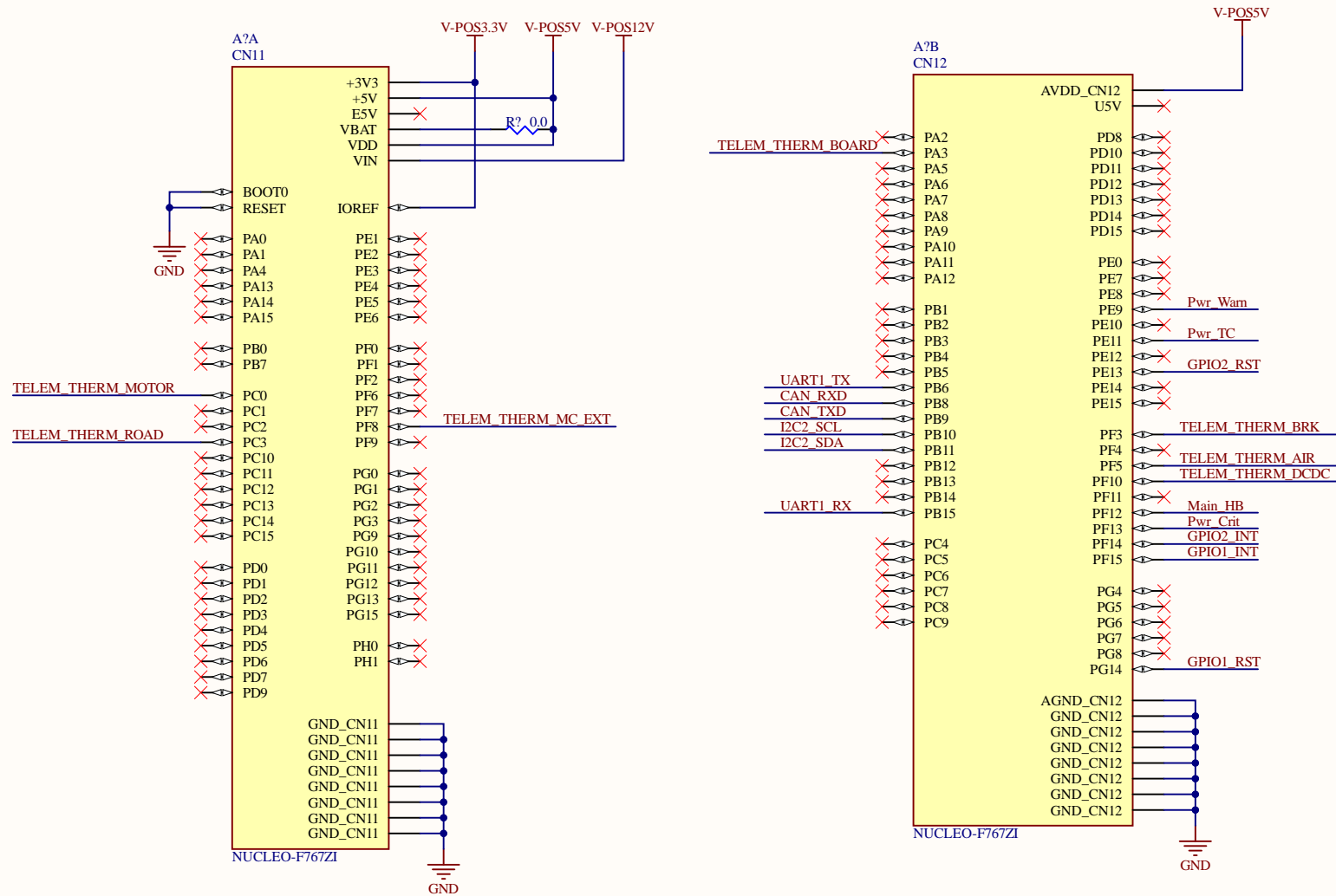
B

C

C

D

D



Title Beaglebone Black Interface		Badgerloop Electrical 133 Engineering Research Building 1500 Engineering Drive Madison, WI 53706	
Engineer: McGregorFarah	Revision: A	Time: 12:20:57 PM Sheet 1 of 1	
Date: 4/20/2023			
File: nucleo.SchDoc			

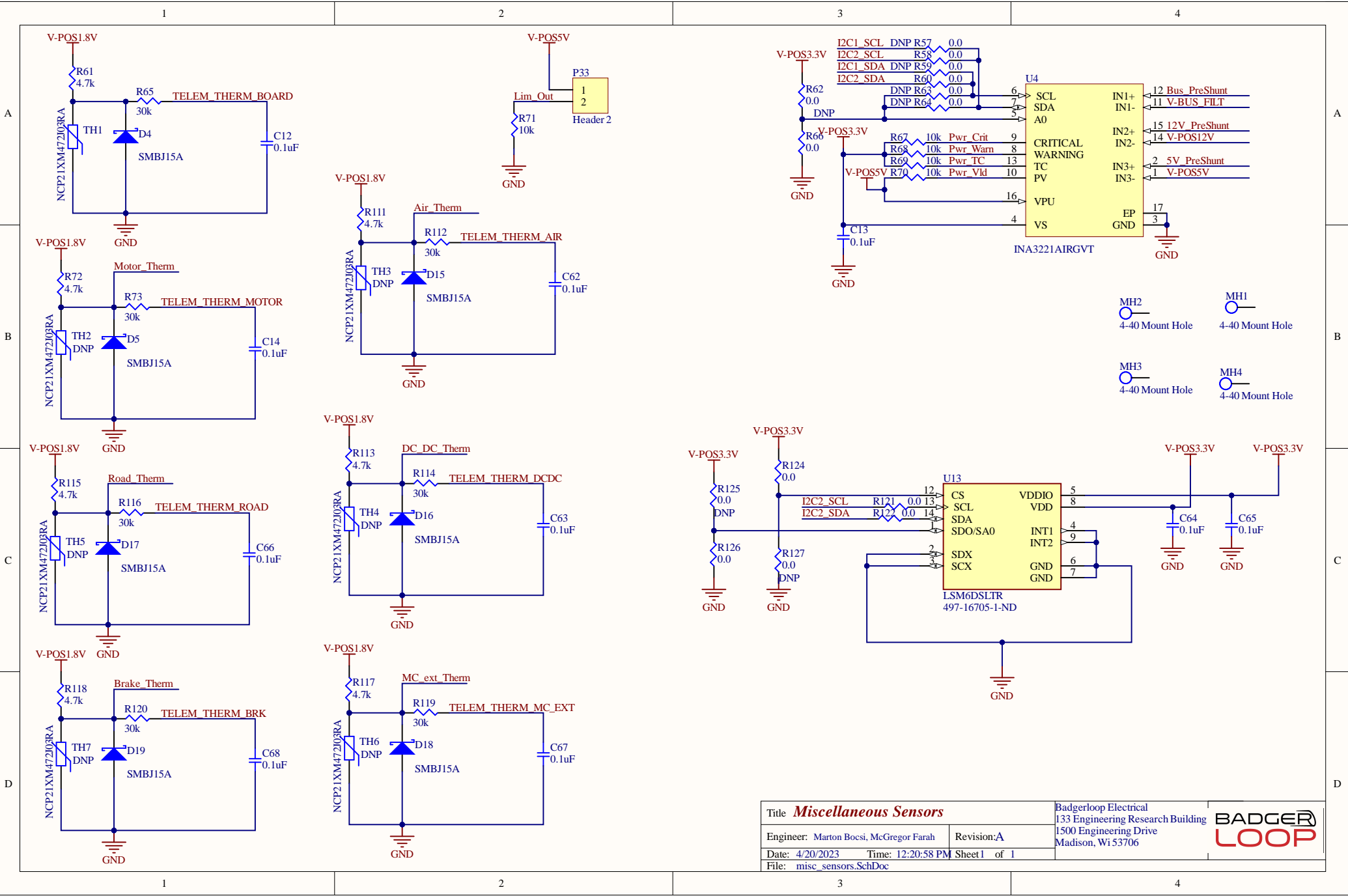


1

2

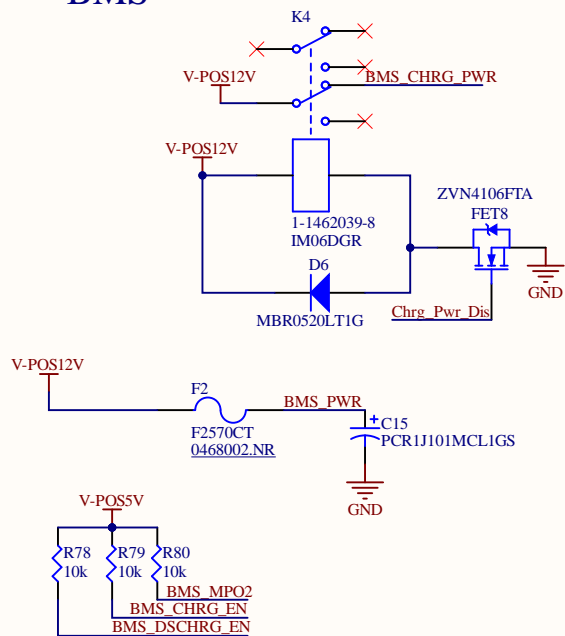
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4

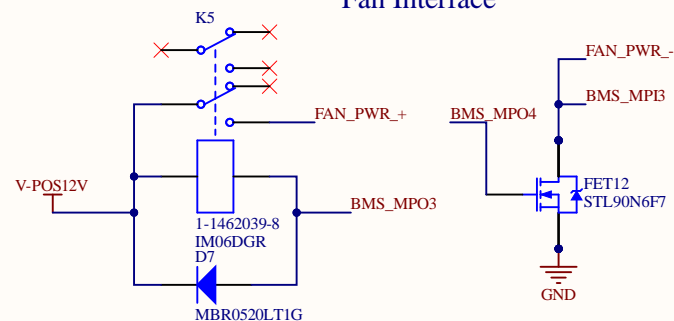


Title Miscellaneous Sensors		Badgerloop Electrical 133 Engineering Research Building 1500 Engineering Drive Madison, WI 53706	
Engineer: Marton Bocsi, McGregor Farah	Revision: A	BADGER LOOP	
Date: 4/20/2023	Time: 12:20:58 PM		
File: misc_sensors.SchDoc		Sheet 1 of 1	

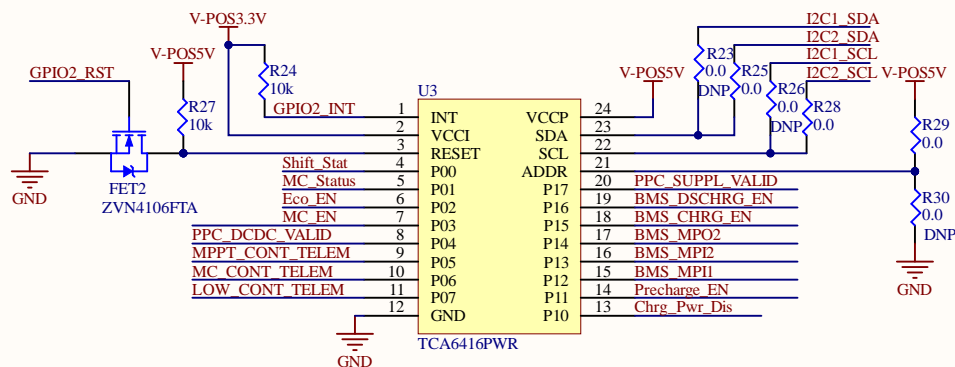
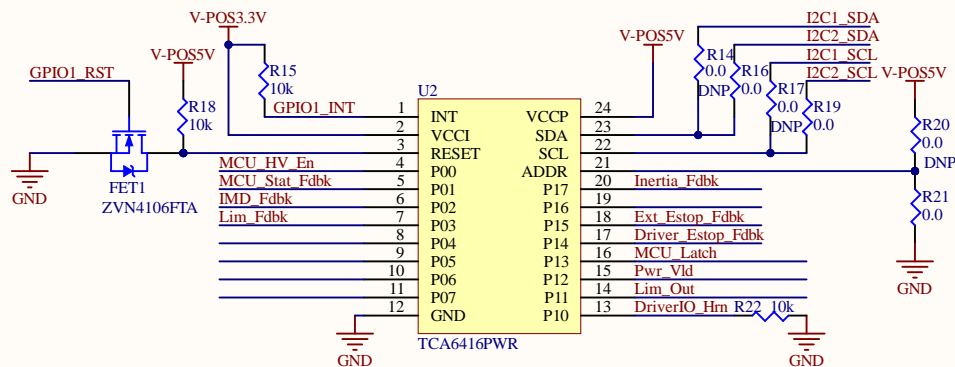
BMS




Fan Interface

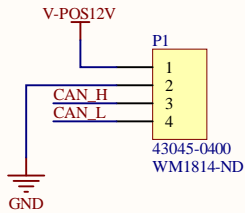


Title Motor Controller/BMS Interface		Badgerloop Electrical 133 Engineering Research Building 1500 Engineering Drive Madison, WI 53706	
Engineer: M. Farah, A. Marshall, O. D'Souza	Revision: A	<div> <div></div> <div>BADGER LOOP</div> </div>	
Date: 4/20/2023	Time: 12:20:58 PM		
File: mc_bms_interface.SchDoc		Sheet 1 of 1	

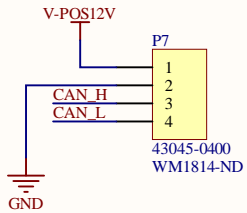


Title GPIO		Badgerloop Electrical 133 Engineering Research Building 1500 Engineering Drive Madison, WI 53706	
Engineer: McGregor Farah	Revision: A		
Date: 4/20/2023	Time: 12:20:59 PM		
File: gpio.SchDoc	Sheet 1 of 1		

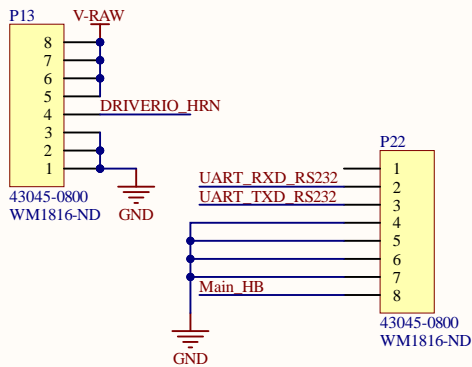
MCC Interface



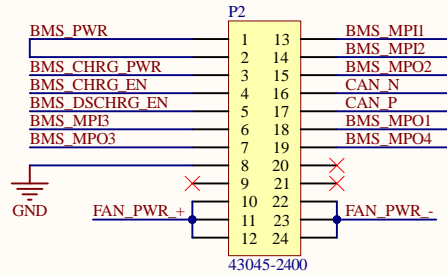
MPPT Interface



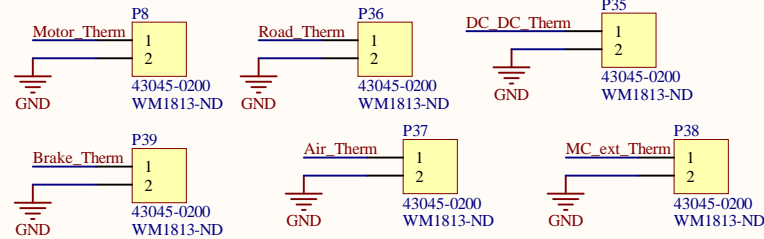
Driver IO Interface



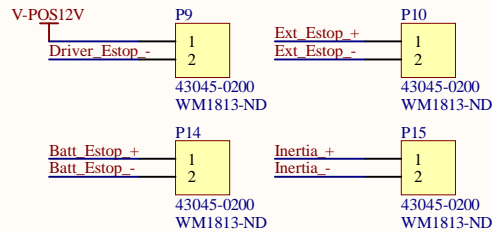
BMS Interface



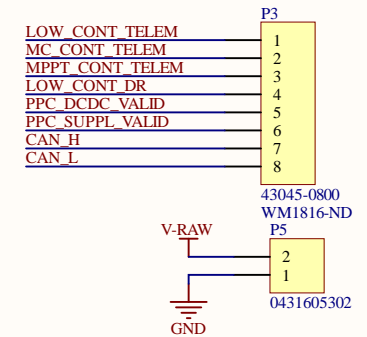
Thermistor



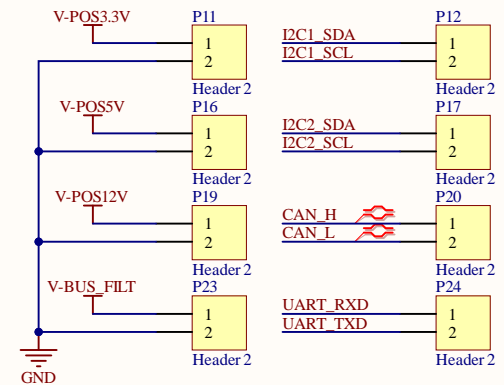
Shutdown Inputs




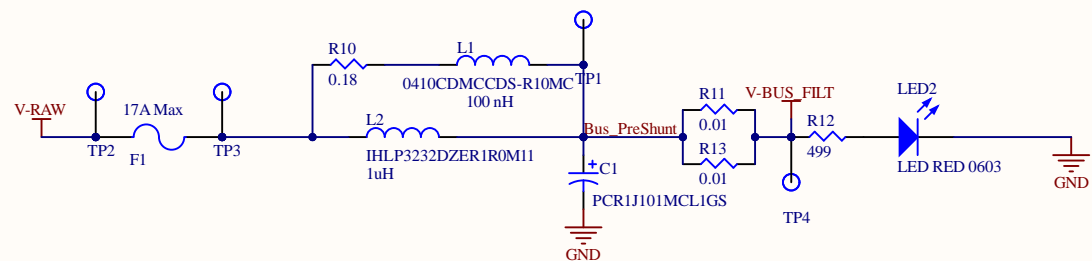
HV Controller Interface




Debug Headers



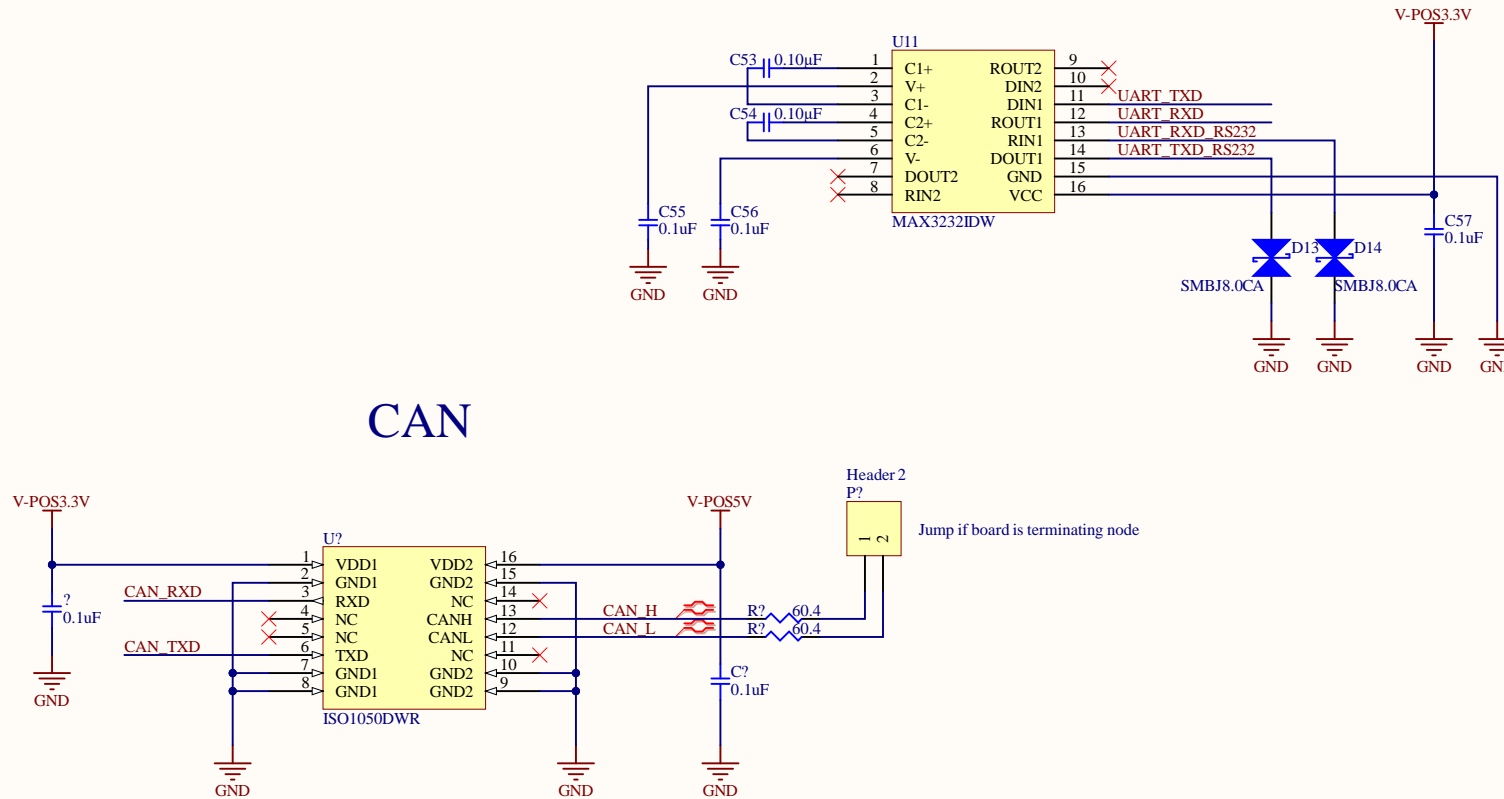
Title Connectors		Badgerloop Electrical 133 Engineering Research Building 1500 Engineering Drive Madison, WI 53706	
Engineer: McGregor Farah	Revision: A		
Date: 4/20/2023	Time: 12:21:00 PM		
File: connectors.SchDoc		Sheet 1 of 1	



Title Bus Filter		Badgerloop Electrical 133 Engineering Research Building 1500 Engineering Drive Madison, WI 53706	
Engineer: Marton Bocsi, McGregor Farah	Revision: A		
Date: 4/20/2023	Time: 12:21:00 PM		
File: bus_filter.SchDoc		Sheet 1 of 1	

Clamping Diode Selection Reference :: https://e2e.ti.com/blogs_/b/industrial_strength/posts/how-to-choose-a-tvs-diode-for-rs-232-rs-485-and-can-based-on-voltage-ratings

CAN



Title *		Badgerloop Electrical	
Engineer: *		133 Engineering Research Building	
Date: 4/20/2023		1500 Engineering Drive	
Time: 12:21:01 PM		Madison, WI 53706	
File: Serial_Interface.SchDoc		Sheet 2 of 2	
		BADGER LOOP	

