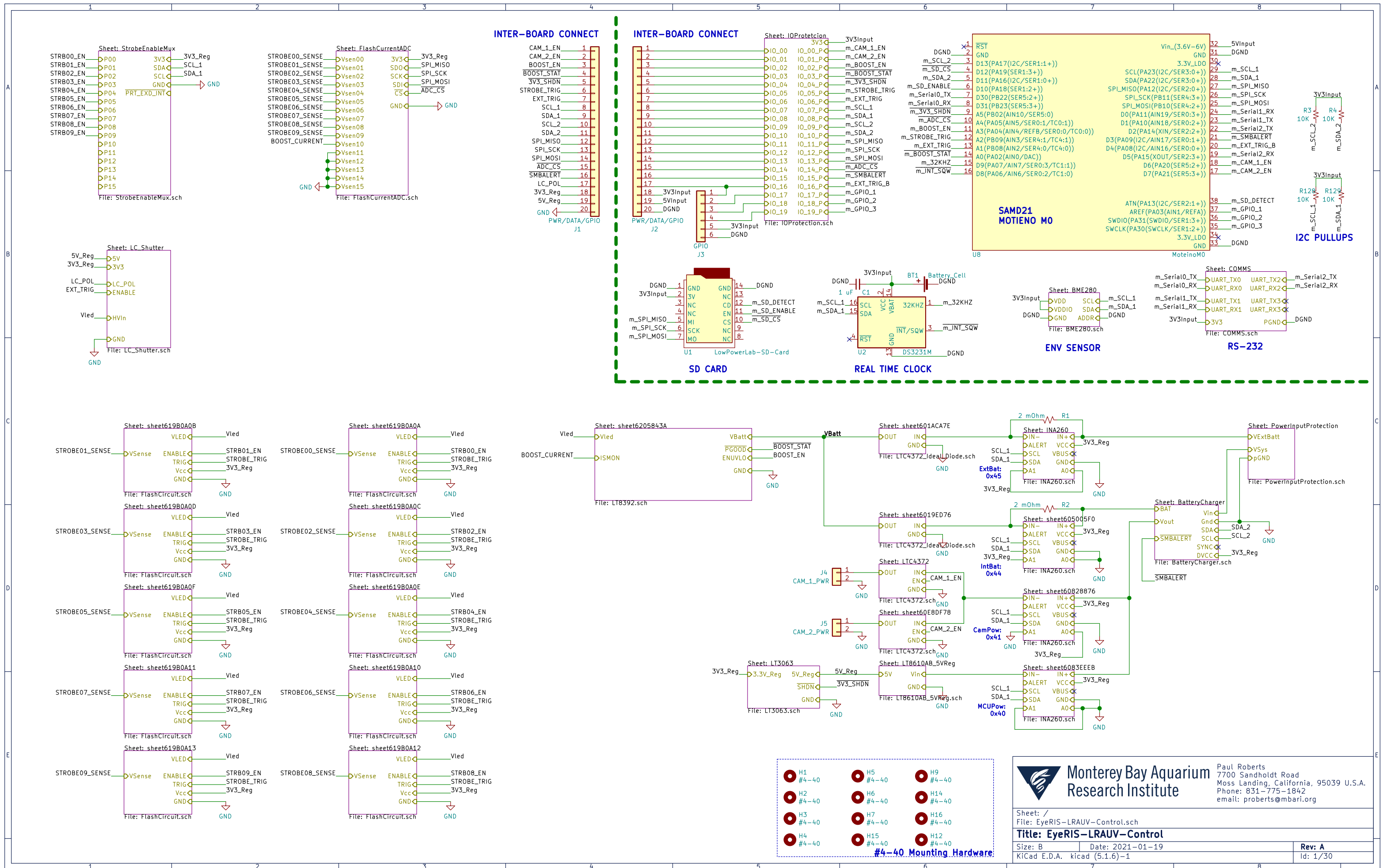
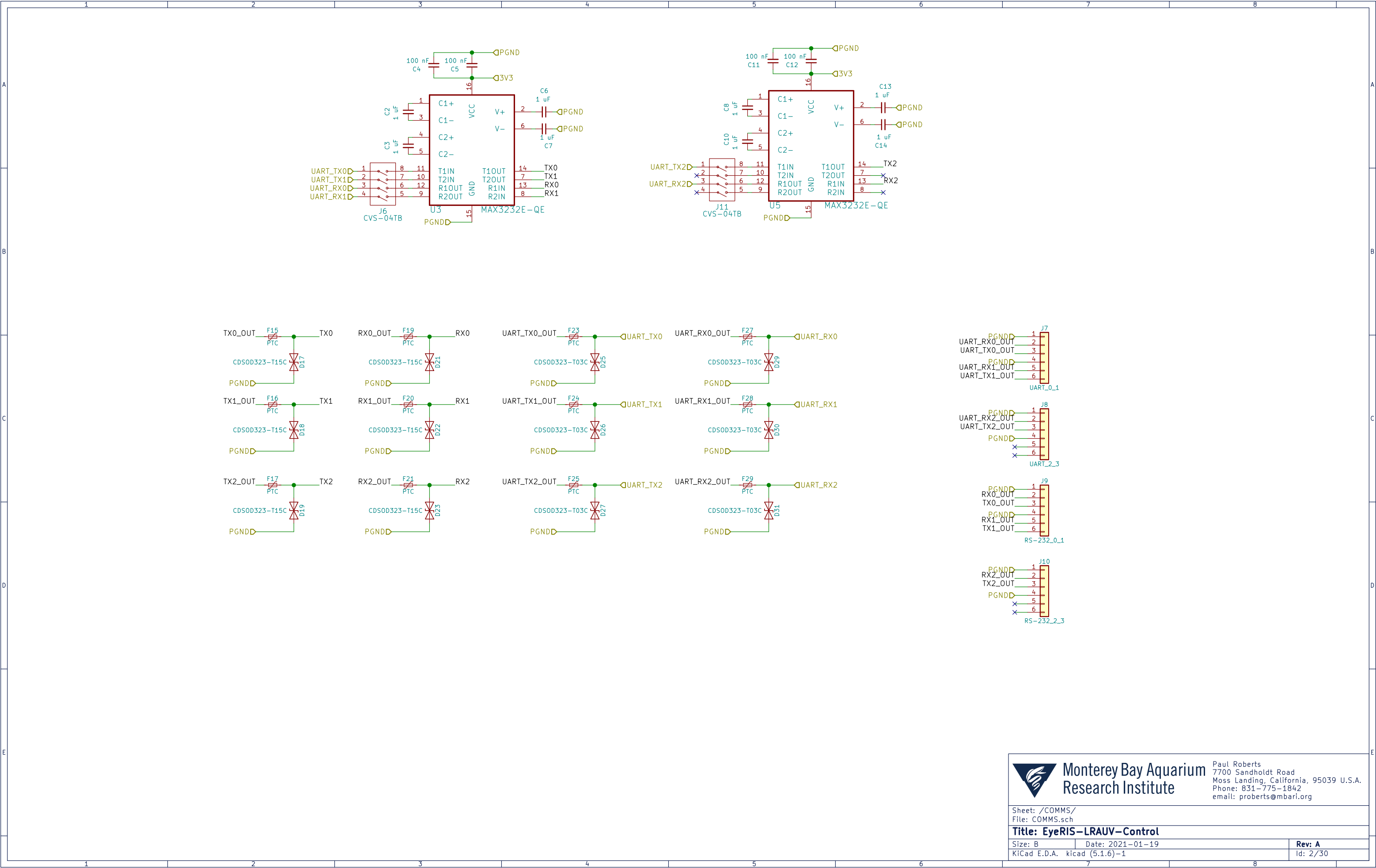






7.2 Connection diagram I²C

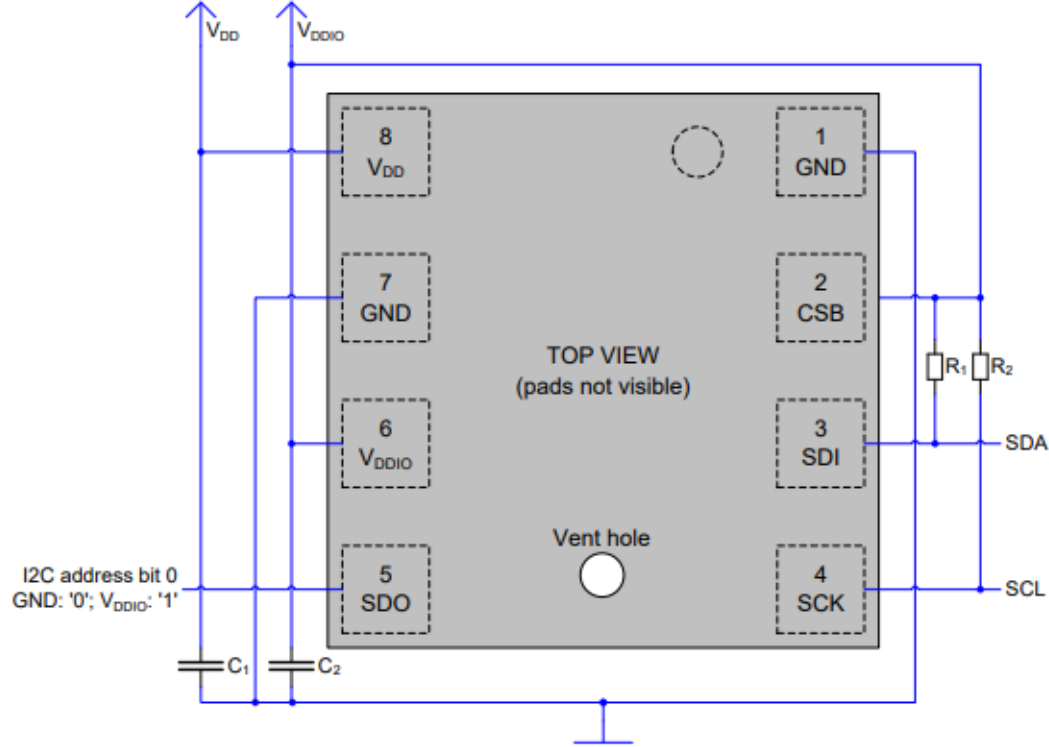
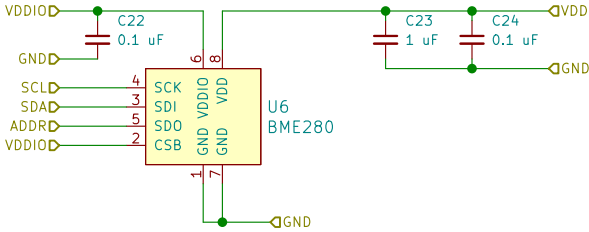


Figure 17: I²C connection diagram

Notes:

- The recommended value for C₁, C₂ is 100 nF
- The value for the pull-up resistors R₁, R₂ should be based on the interface timing and the bus load; a normal value is 4.7 kΩ
- A direct connection between CSB and VDDIO is required



ADDR = GND -> 0x76
ADDR = VDDIO -> 0x77



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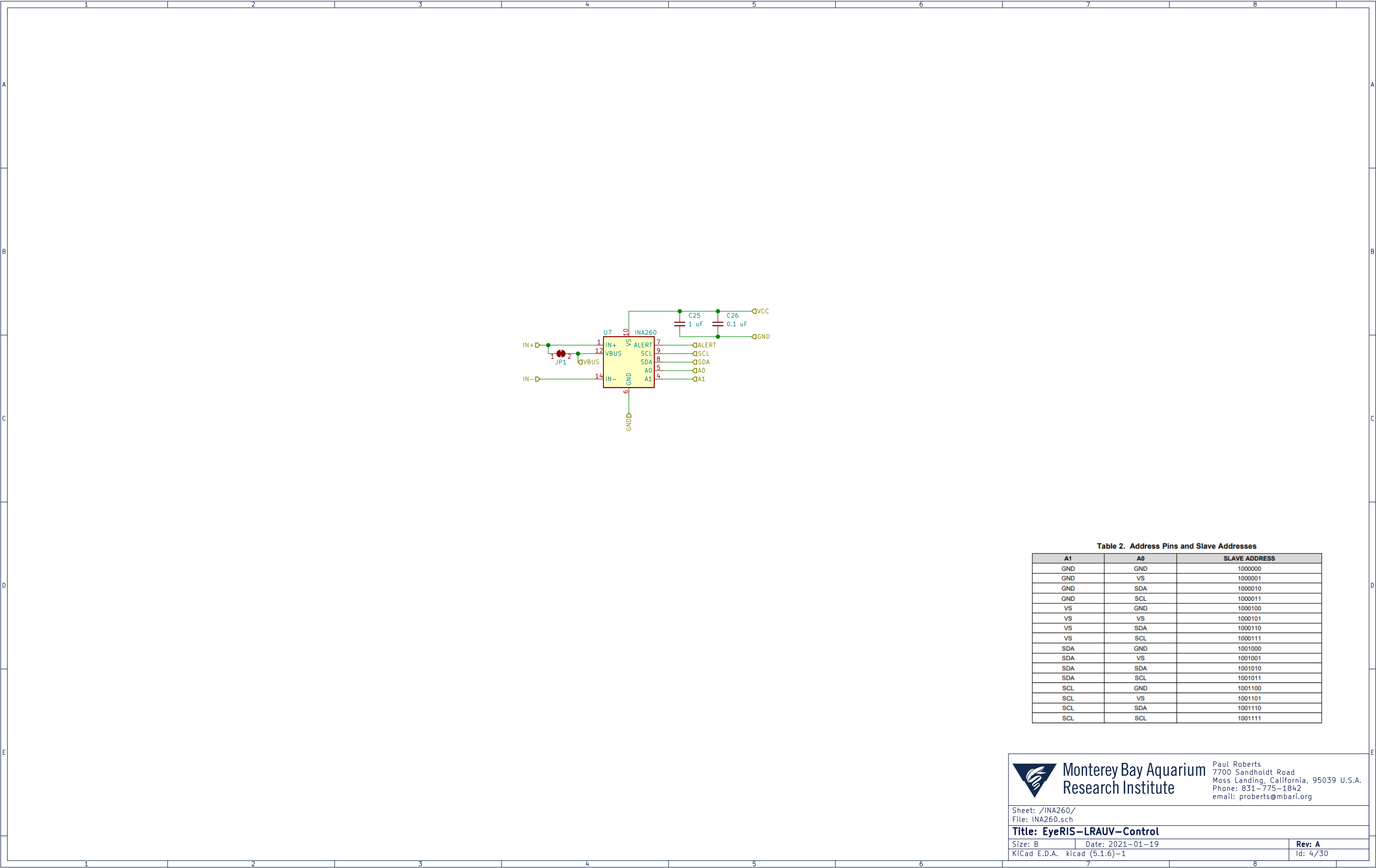
Paul Roberts
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Phone: 831-775-1842
email: proberts@mbari.org

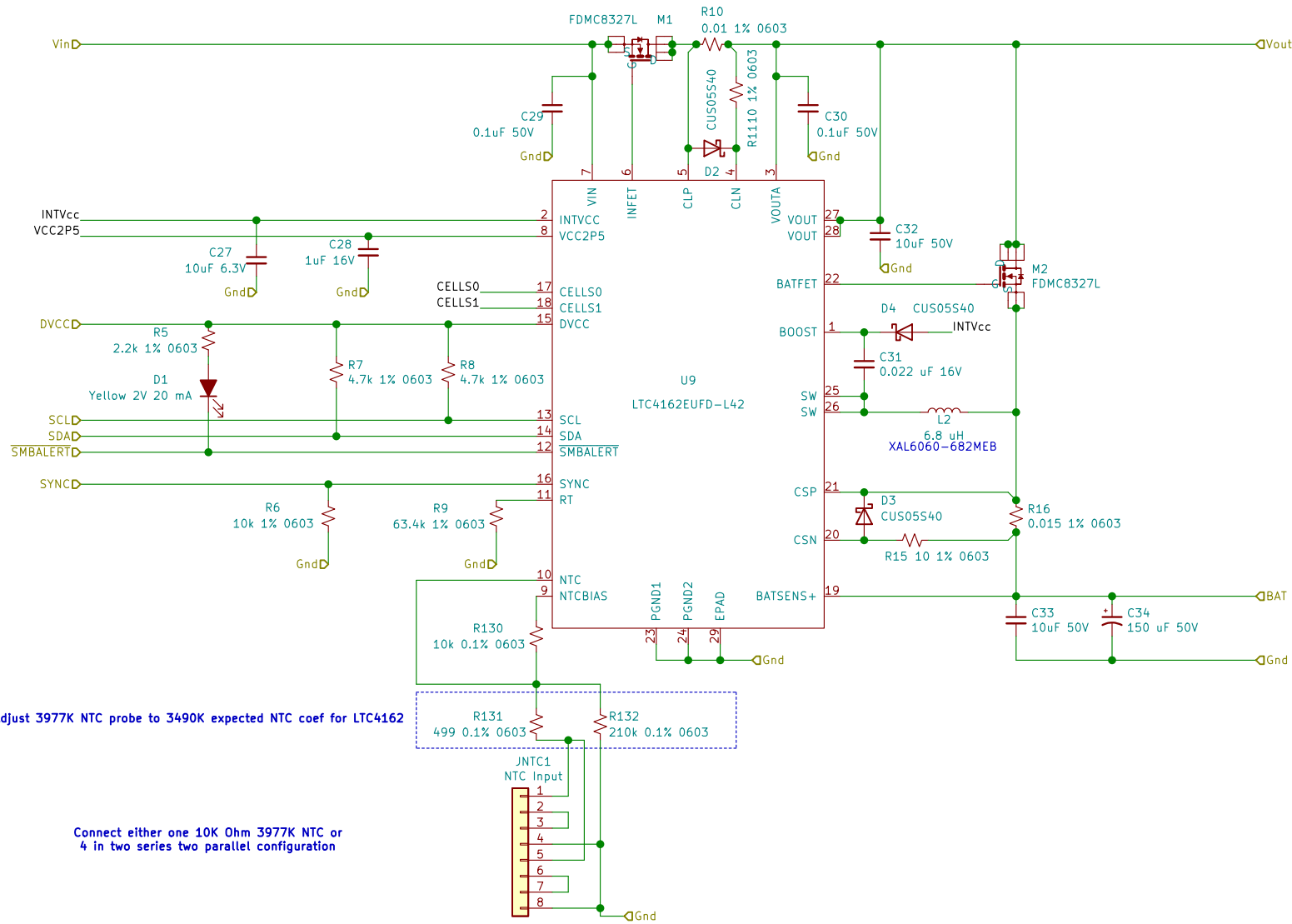
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Size: B Date: 2021-01-19
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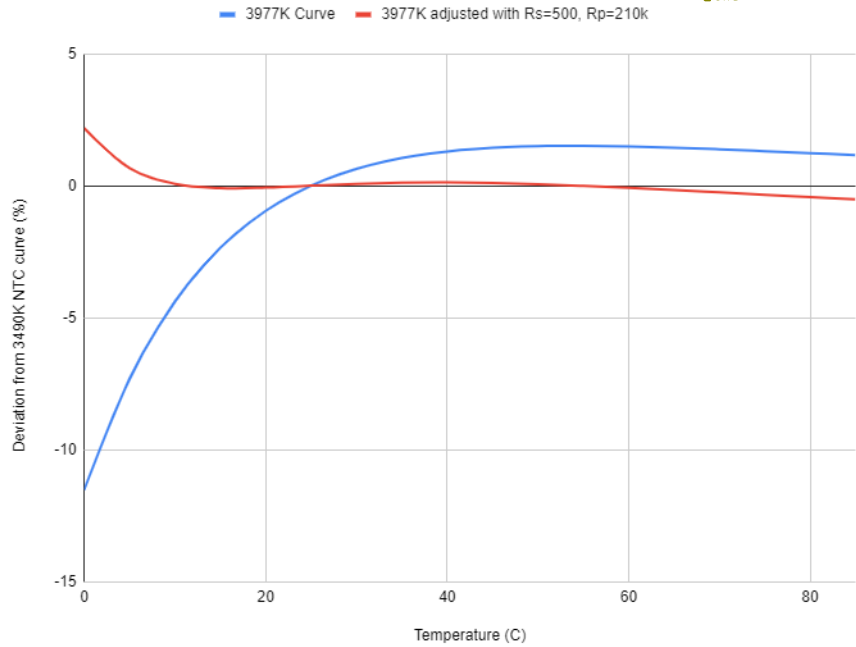
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Id: 3/30



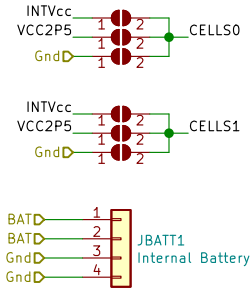


Adjust 3977K NTC probe to 3490K expected NTC coef for LTC4162

Connect either one 10K Ohm 3977K NTC or 4 in two series two parallel configuration



Set # of Cells Via jumpers



Li-Ion # OF CELLS	LiFePO4 # OF CELLS	LEAD-ACID		CELLS1 PIN VOLTAGE	CELLS0 PIN VOLTAGE
		# OF CELLS	VOLTAGE		
1	1	3	6V	INTVcc	INTVcc
2 *	2 *	6 *	12V *	INTVcc *	VCC2P5 *
3	3	9	18V	INTVcc	GND
4	4	12	24V	VCC2P5	INTVcc
5	5	DISALLOWED	—	VCC2P5	VCC2P5
6	6	DISALLOWED	—	VCC2P5	GND
7	7	DISALLOWED	—	GND	INTVcc
8	8	DISALLOWED	—	GND	VCC2P5
DISALLOWED	9	DISALLOWED	—	GND	GND



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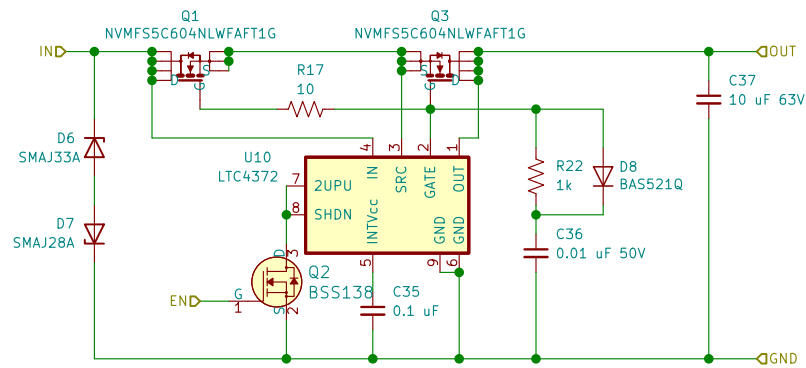
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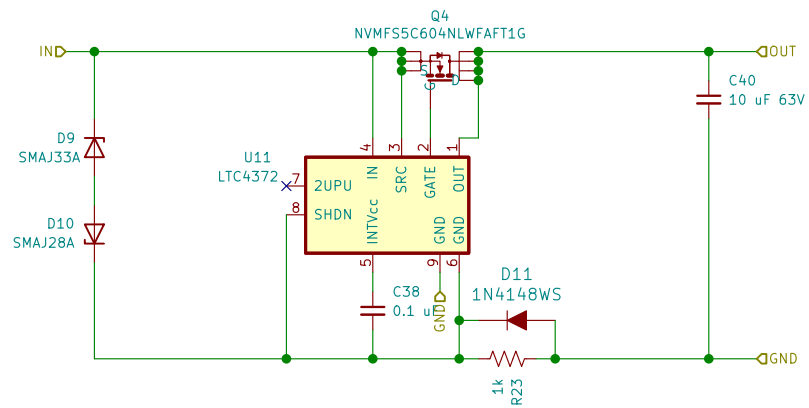
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Title: EyeRIS-LRAUV-Control

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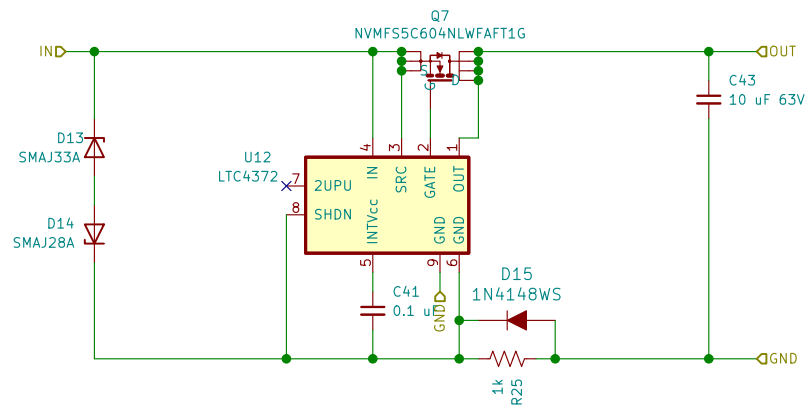
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Size: B Date: 2021-01-19
KiCad E.D.A. kicad (5.1.6)-1

Rev: A
Id: 7/30



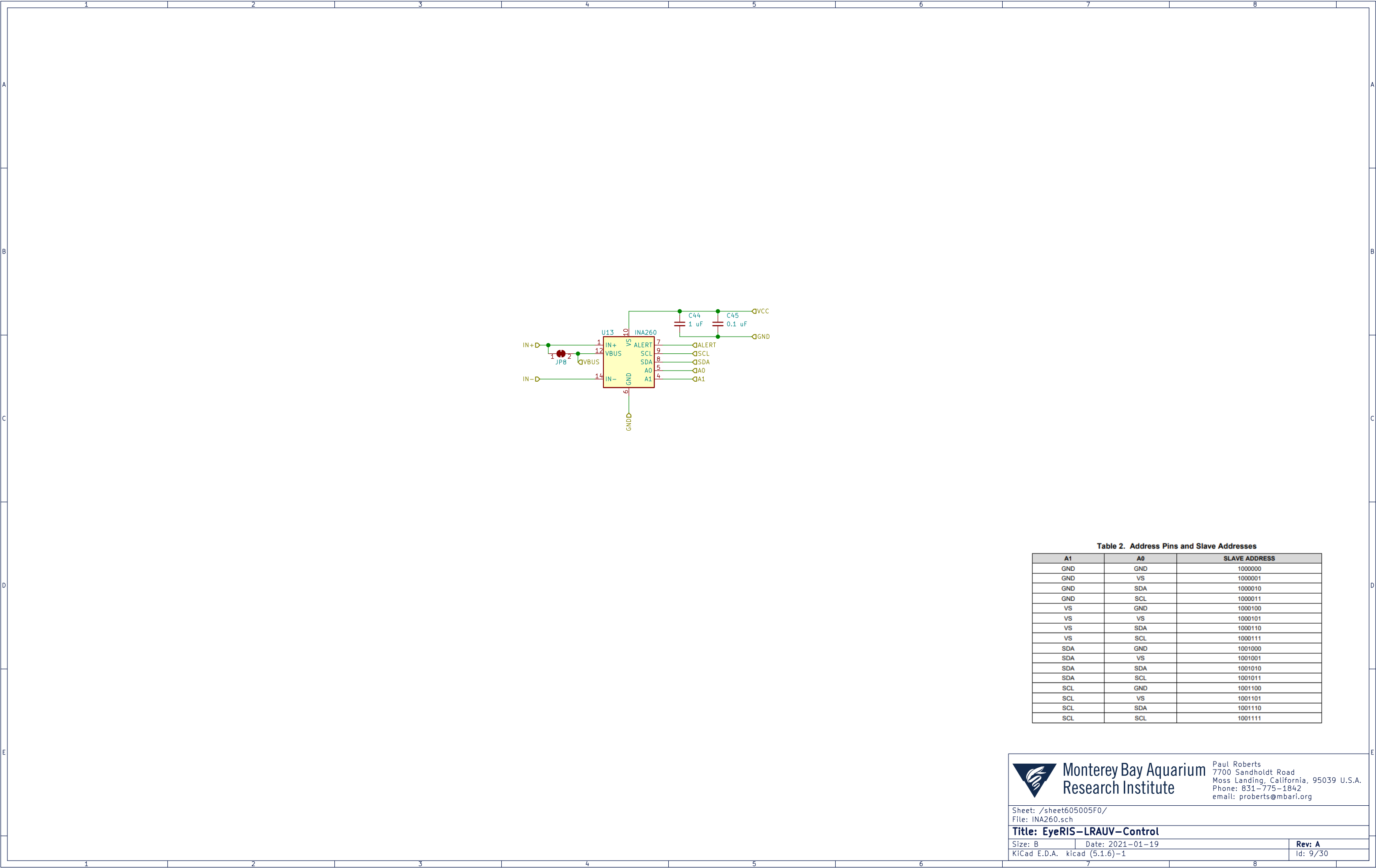


Table 2. Address Pins and Slave Addresses

A1	A0	SLAVE ADDRESS
GND	GND	1000000
GND	VS	1000001
GND	SDA	1000010
GND	SCL	1000011
VS	GND	1000100
VS	VS	1000101
VS	SDA	1000110
VS	SCL	1000111
SDA	GND	1001000
SDA	VS	1001001
SDA	SDA	1001010
SDA	SCL	1001011
SCL	GND	1001100
SCL	VS	1001101
SCL	SDA	1001110
SCL	SCL	1001111



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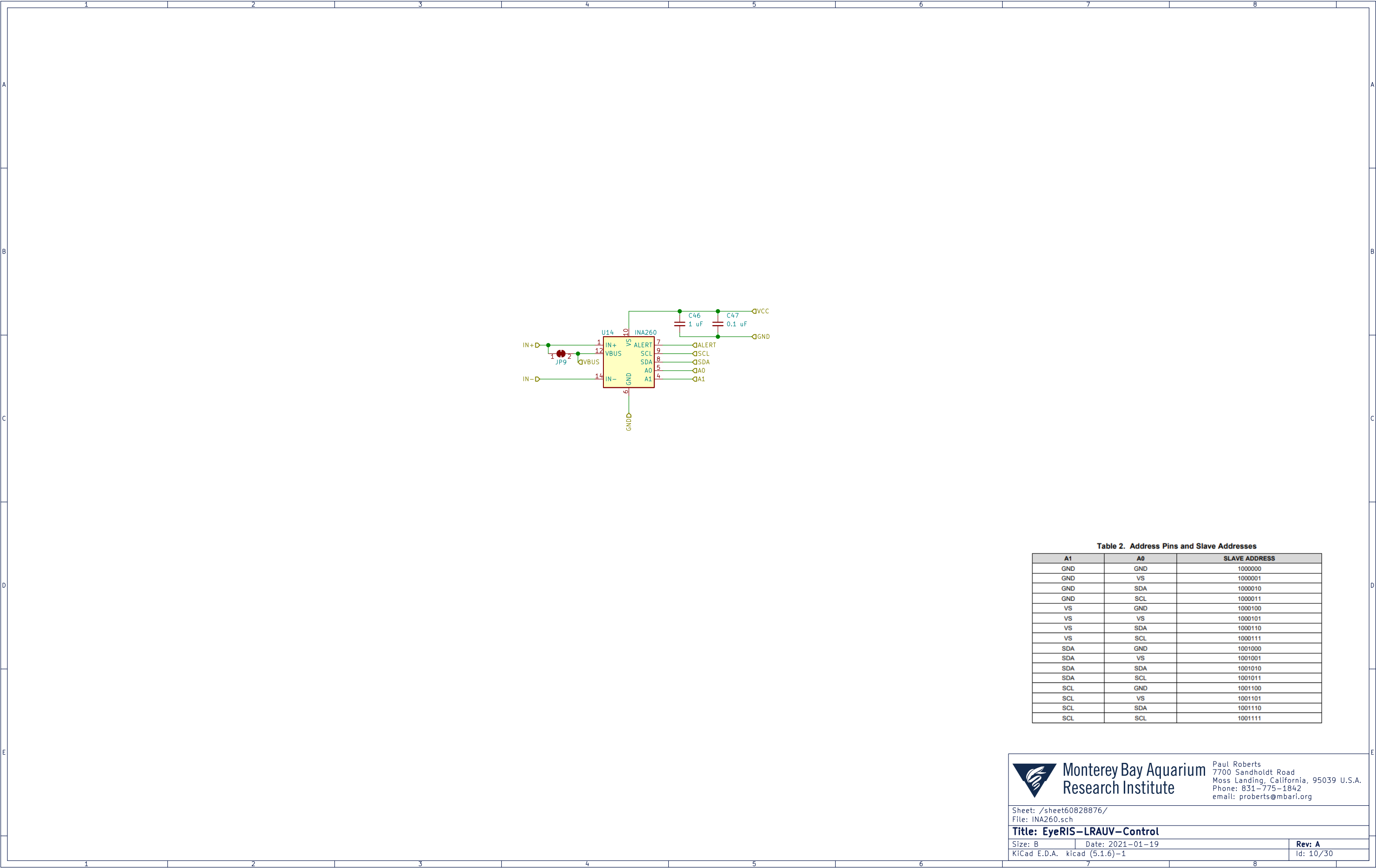


Table 2. Address Pins and Slave Addresses

A1	A0	SLAVE ADDRESS
GND	GND	1000000
GND	VS	1000001
GND	SDA	1000010
GND	SCL	1000011
VS	GND	1000100
VS	VS	1000101
VS	SDA	1000110
VS	SCL	1000111
SDA	GND	1001000
SDA	VS	1001001
SDA	SDA	1001010
SDA	SCL	1001011
SCL	GND	1001100
SCL	VS	1001101
SCL	SDA	1001110
SCL	SCL	1001111



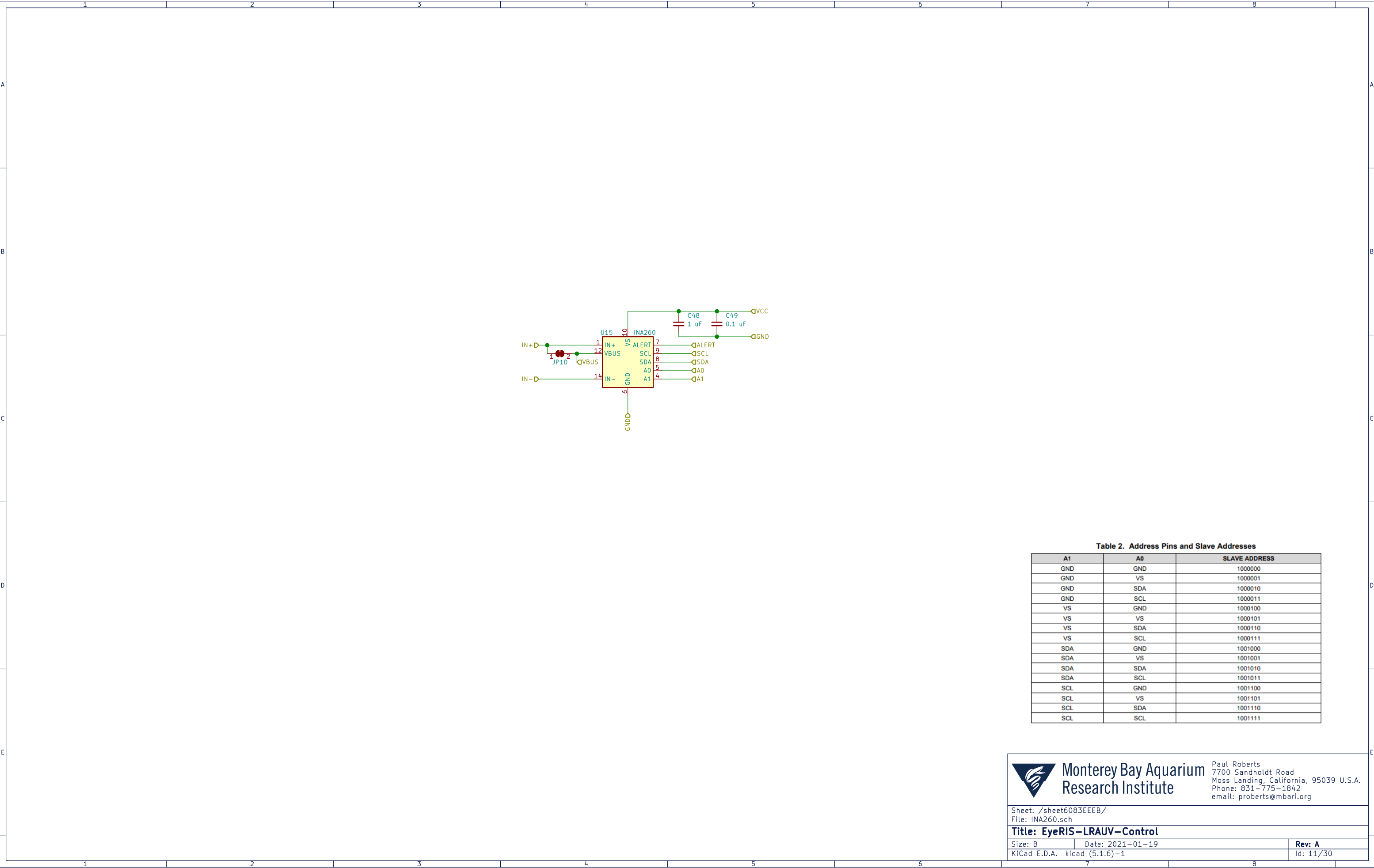
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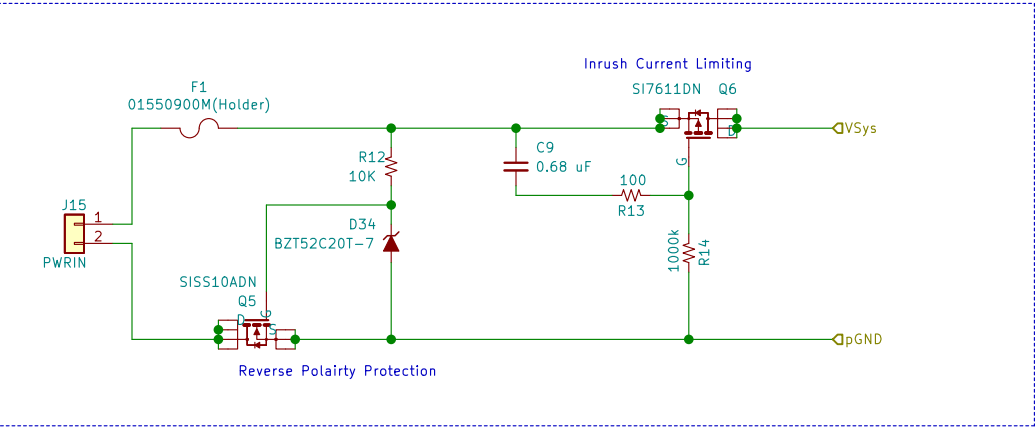
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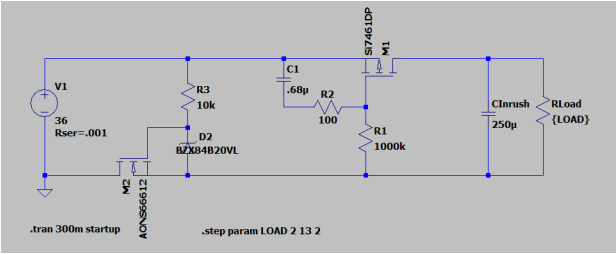
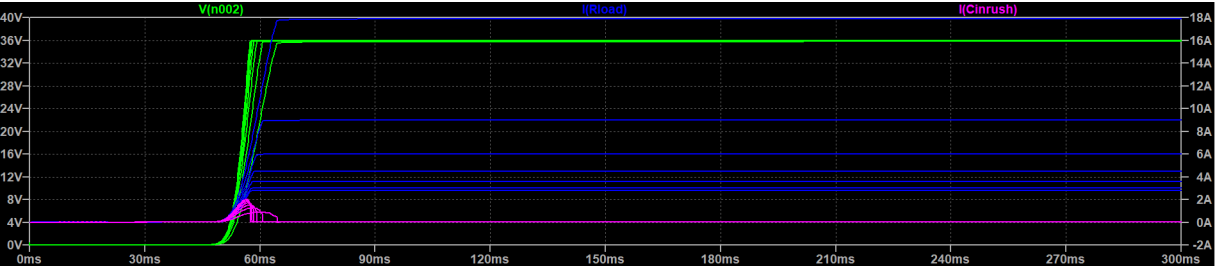
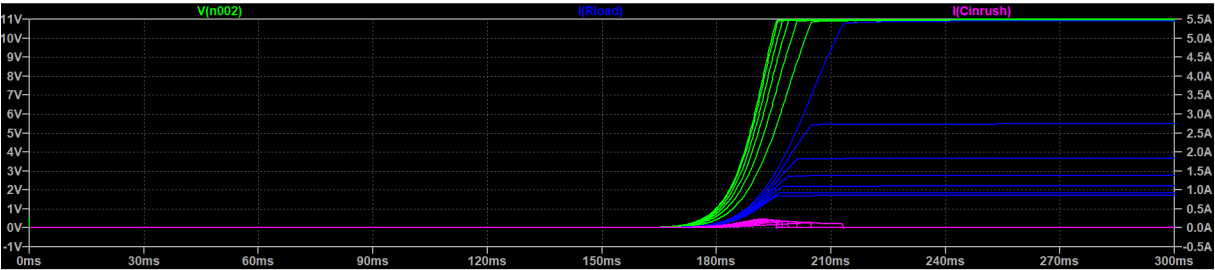
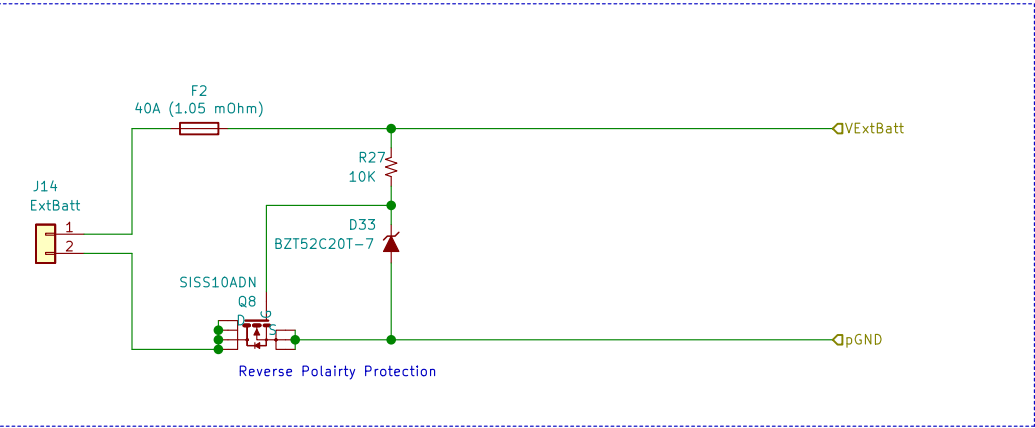
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LRAUV Load Controller Power Input with RP protetcion and Inrush limit to 2A @ 36V



External Battery Input with RP protection and no Inrush limit



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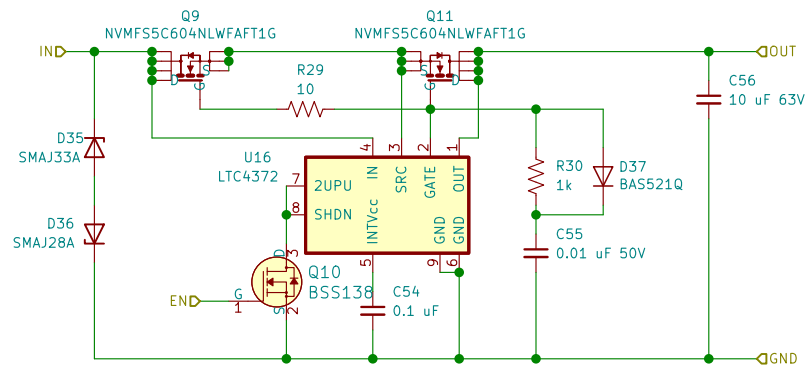
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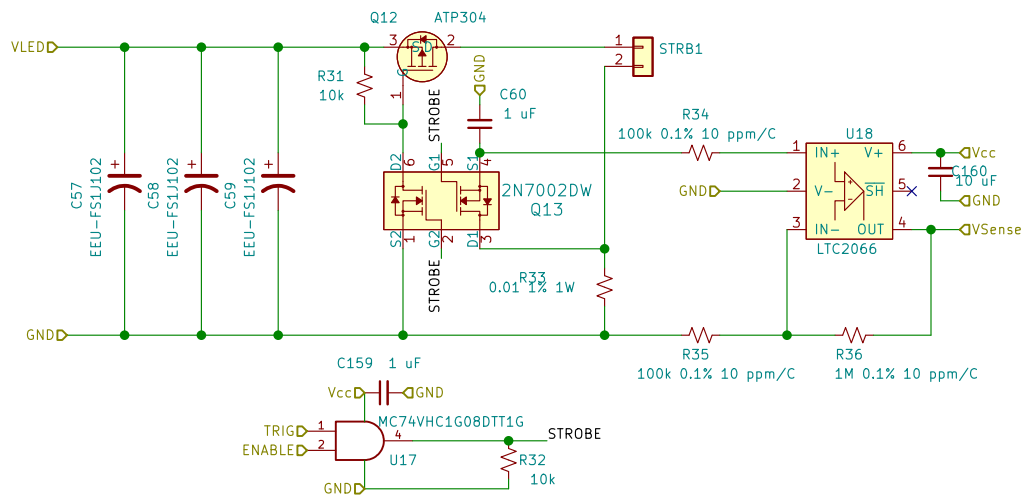
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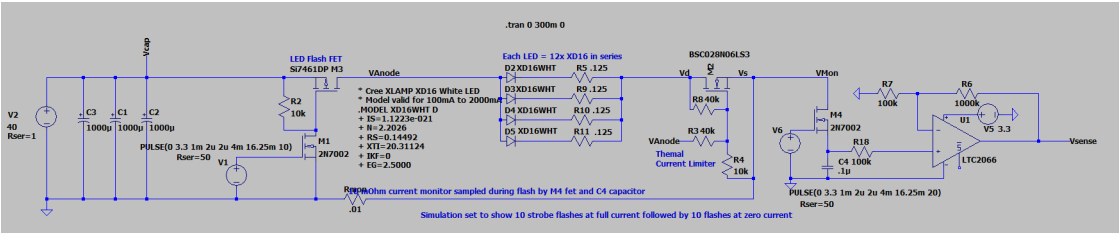
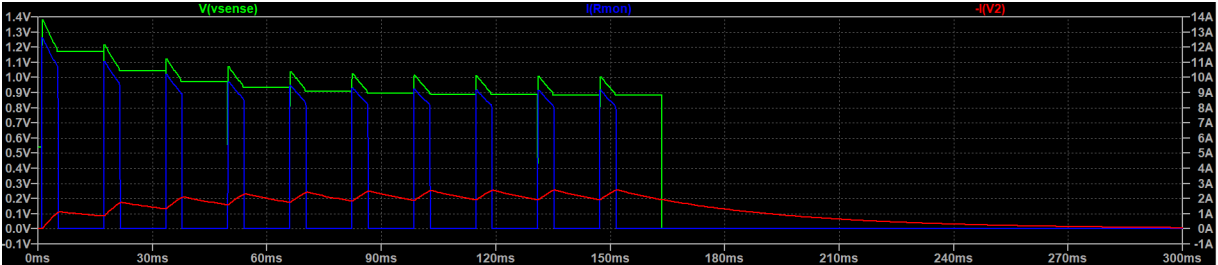
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Rev: A
Id: 14/30



LT spice simulation of 60 Hz, 4ms flashes with flash current, monitor voltage and capacitor ripple current



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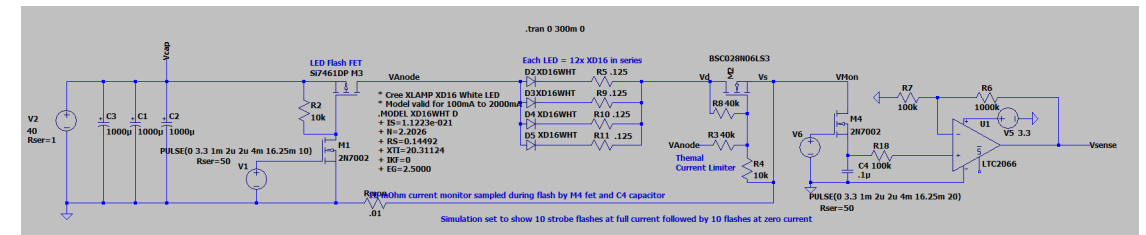
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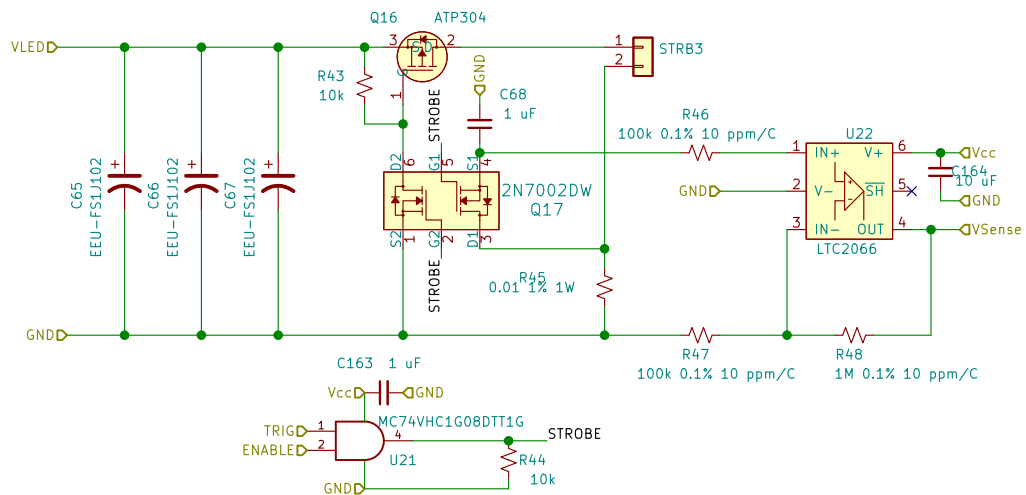
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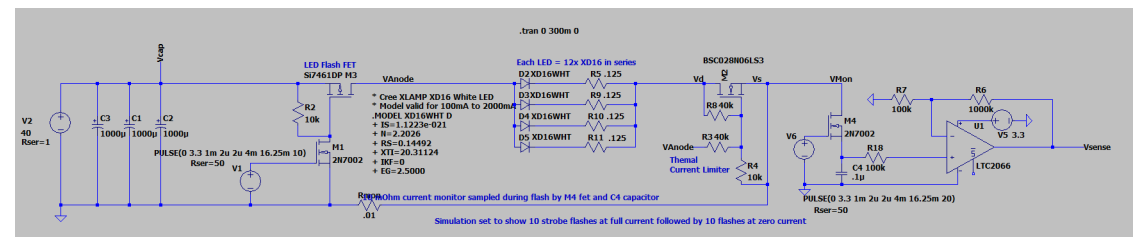
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Rev: A
Id: 15/30





LT spice simulation of 60 Hz, 4ms flashes with flash current, monitor voltage and capacitor ripple current



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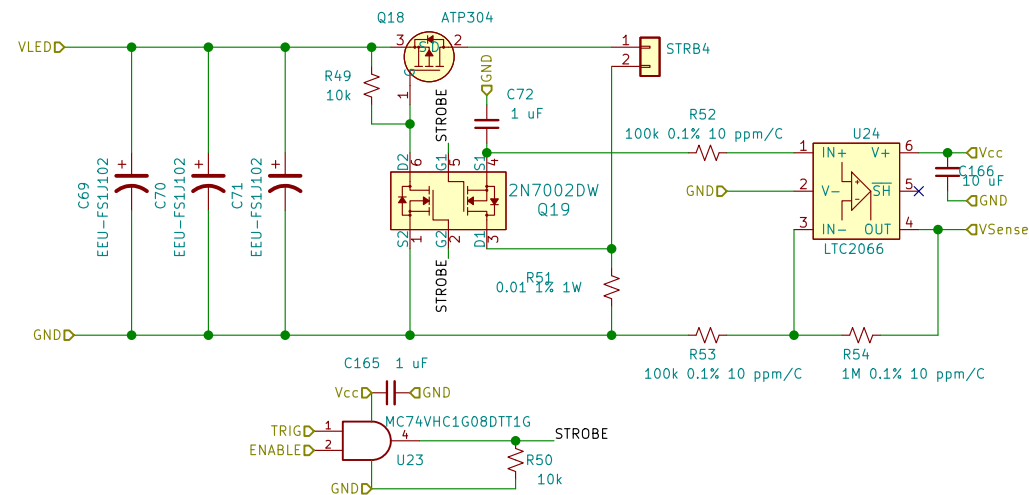
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Phone: 831-775-1842
email: proberts@mbari.org

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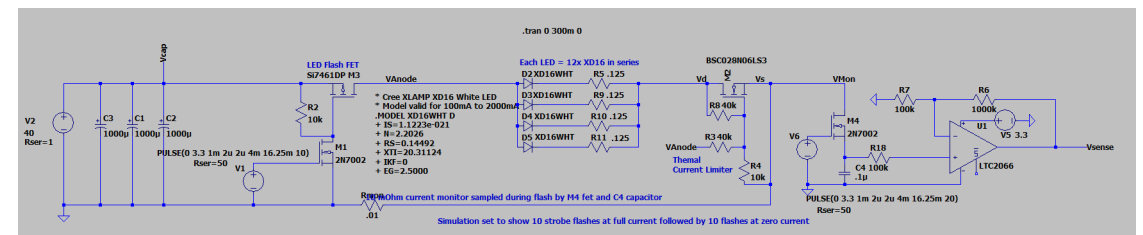
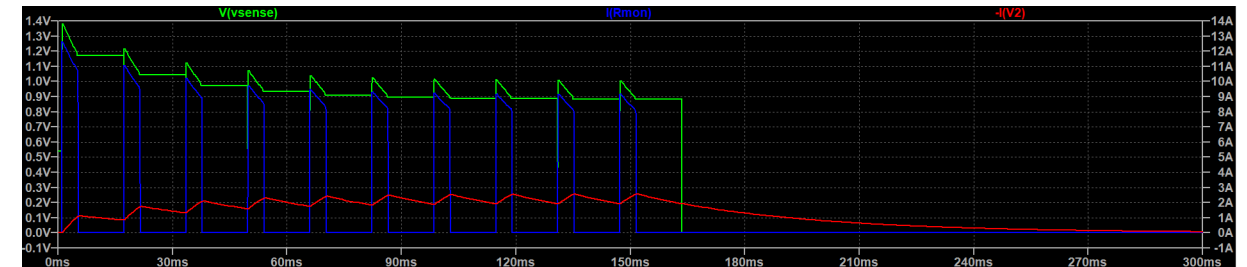
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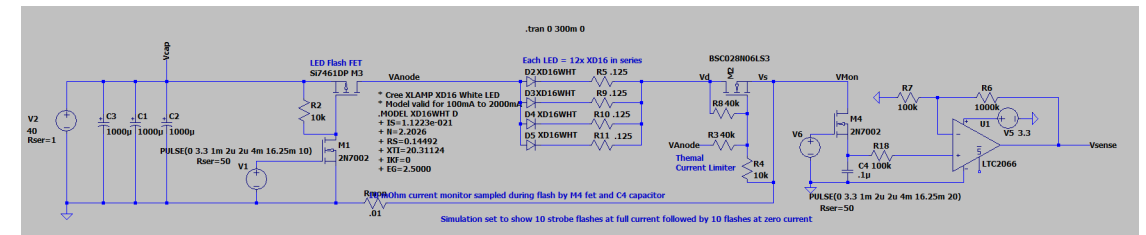
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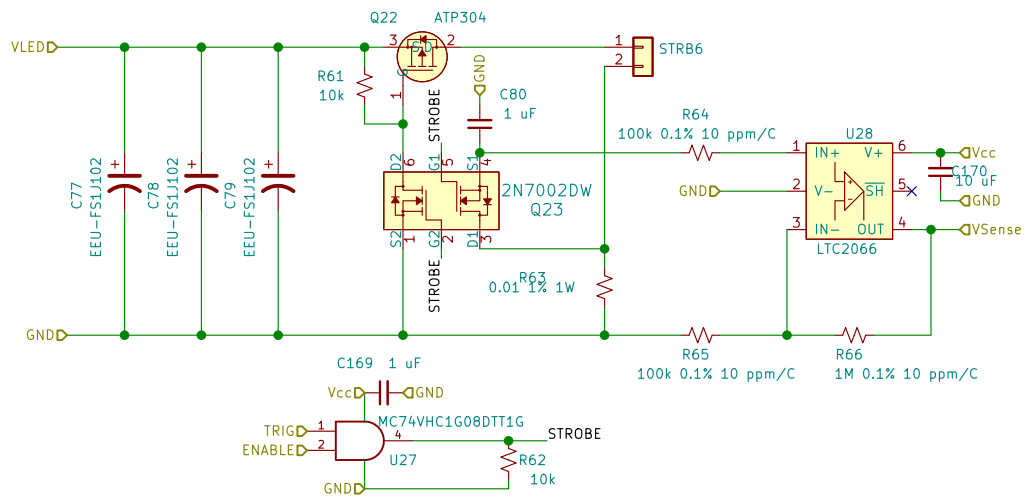
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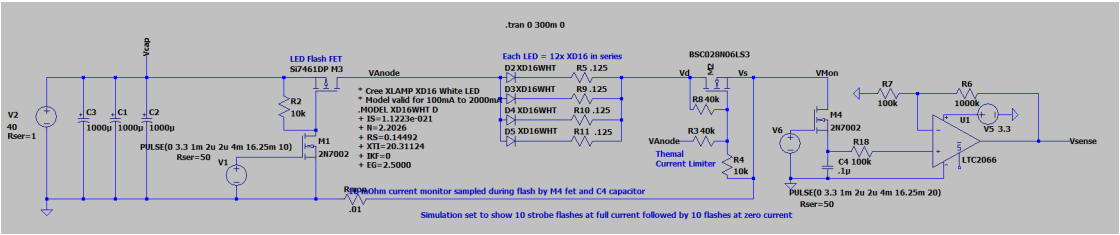
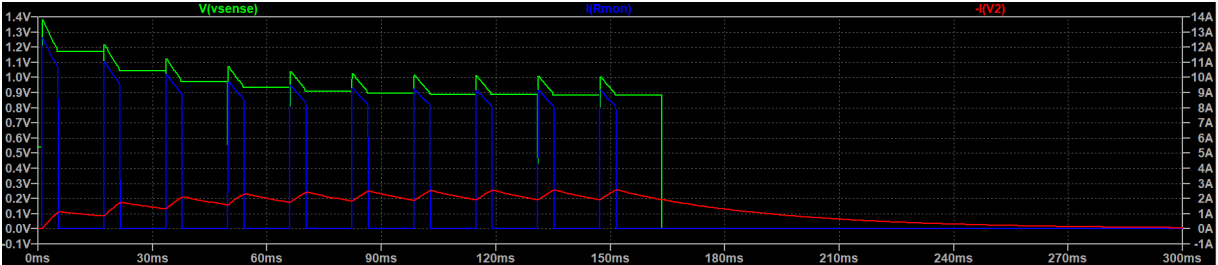
LT spice simulation of 60 Hz, 4ms flashes with flash current, monitor voltage and capacitor ripple current







LT spice simulation of 60 Hz, 4ms flashes with flash current, monitor voltage and capacitor ripple current



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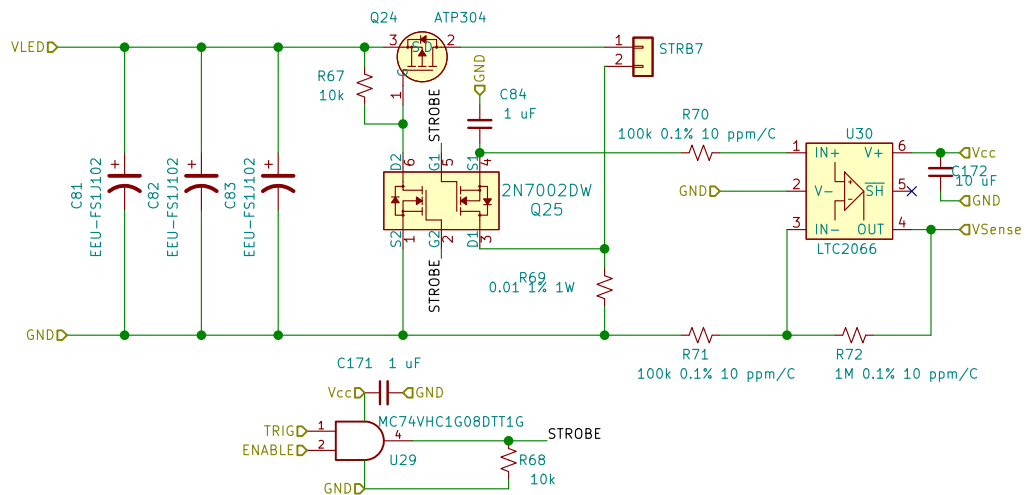
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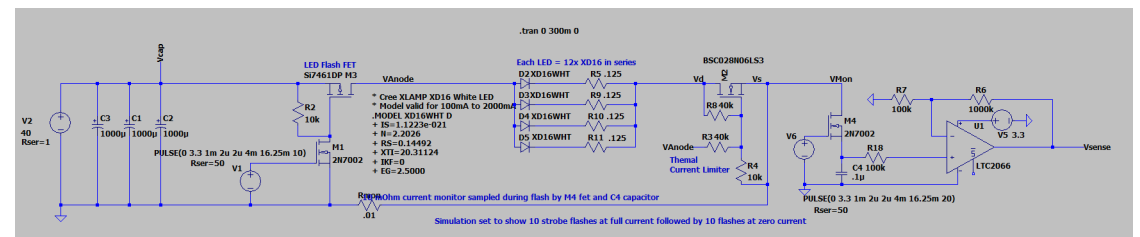
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Rev: A
Id: 20/30



LT spice simulation of 60 Hz, 4ms flashes with flash current, monitor voltage and capacitor ripple current



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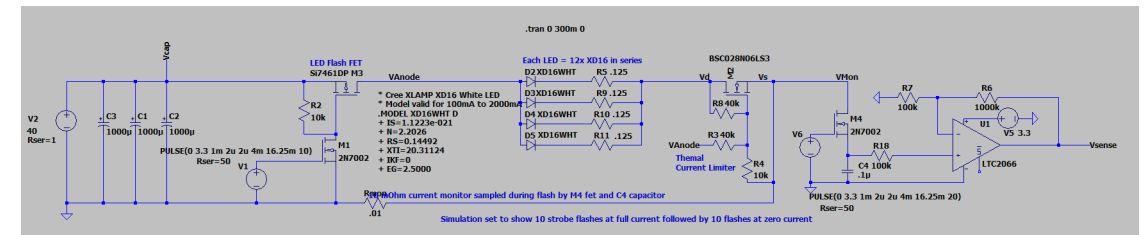
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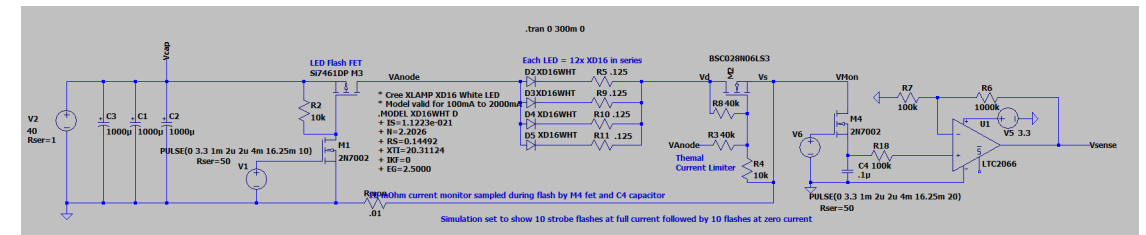
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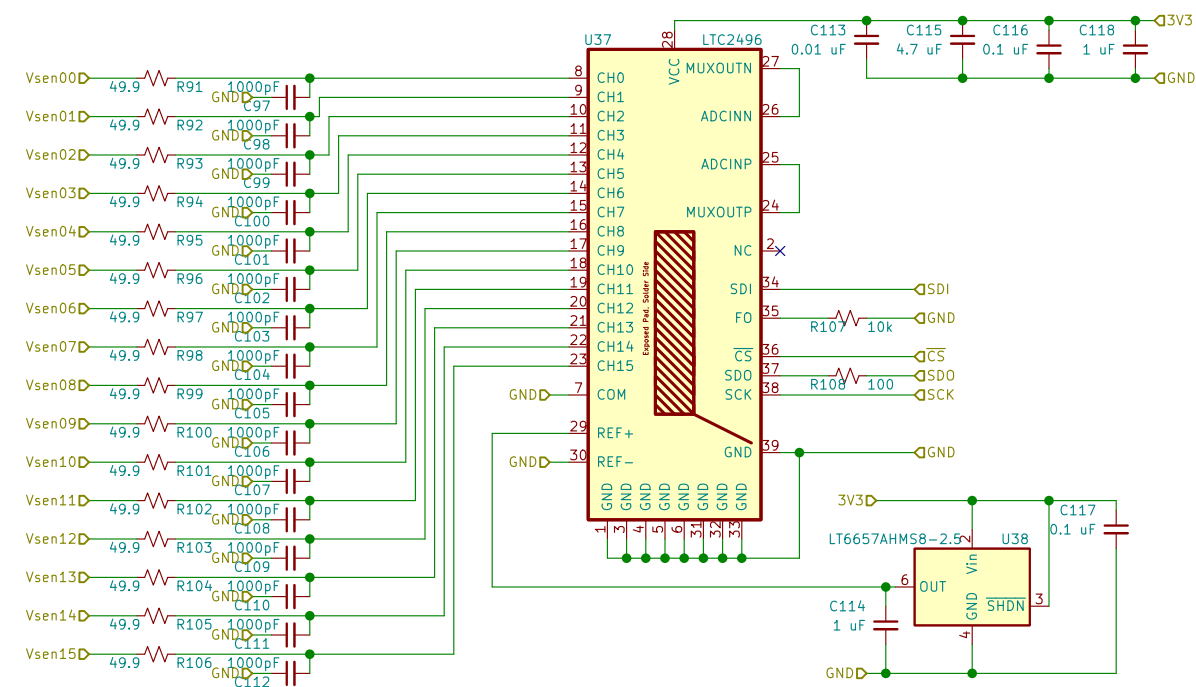
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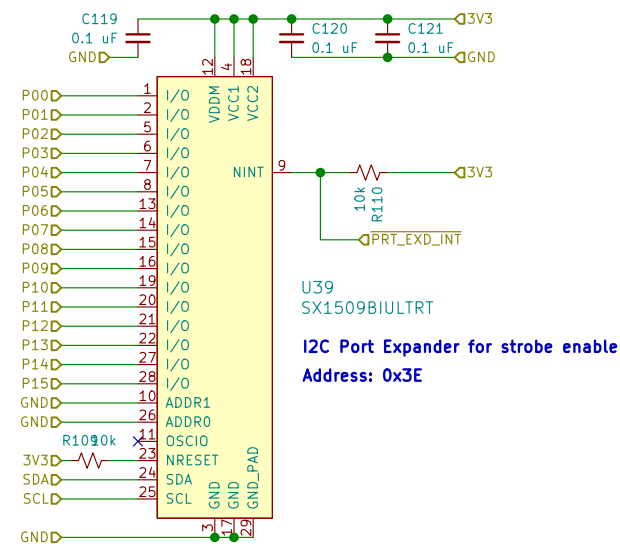
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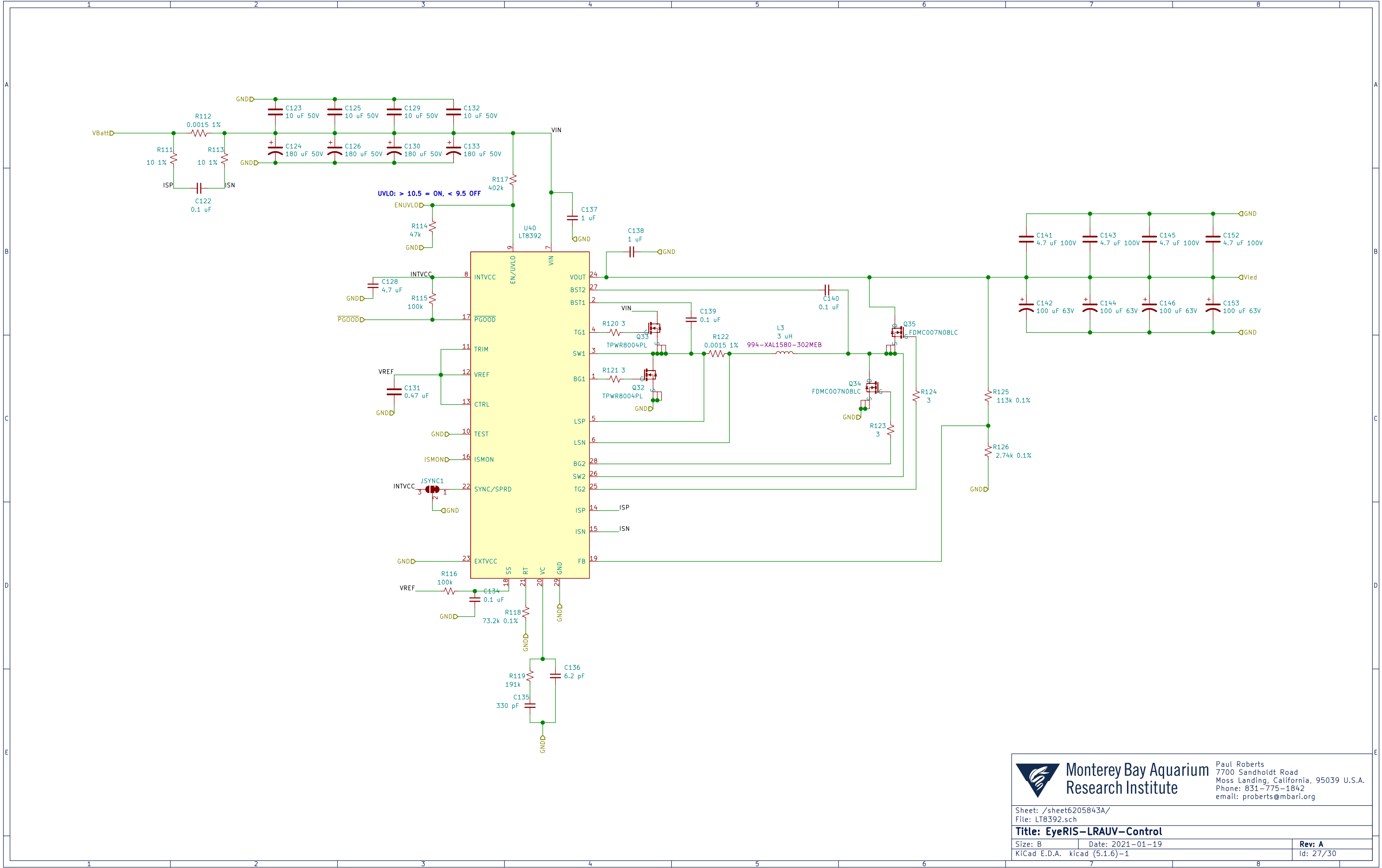




16-channel, 16-bit, 2.5V reference single-ended ADC







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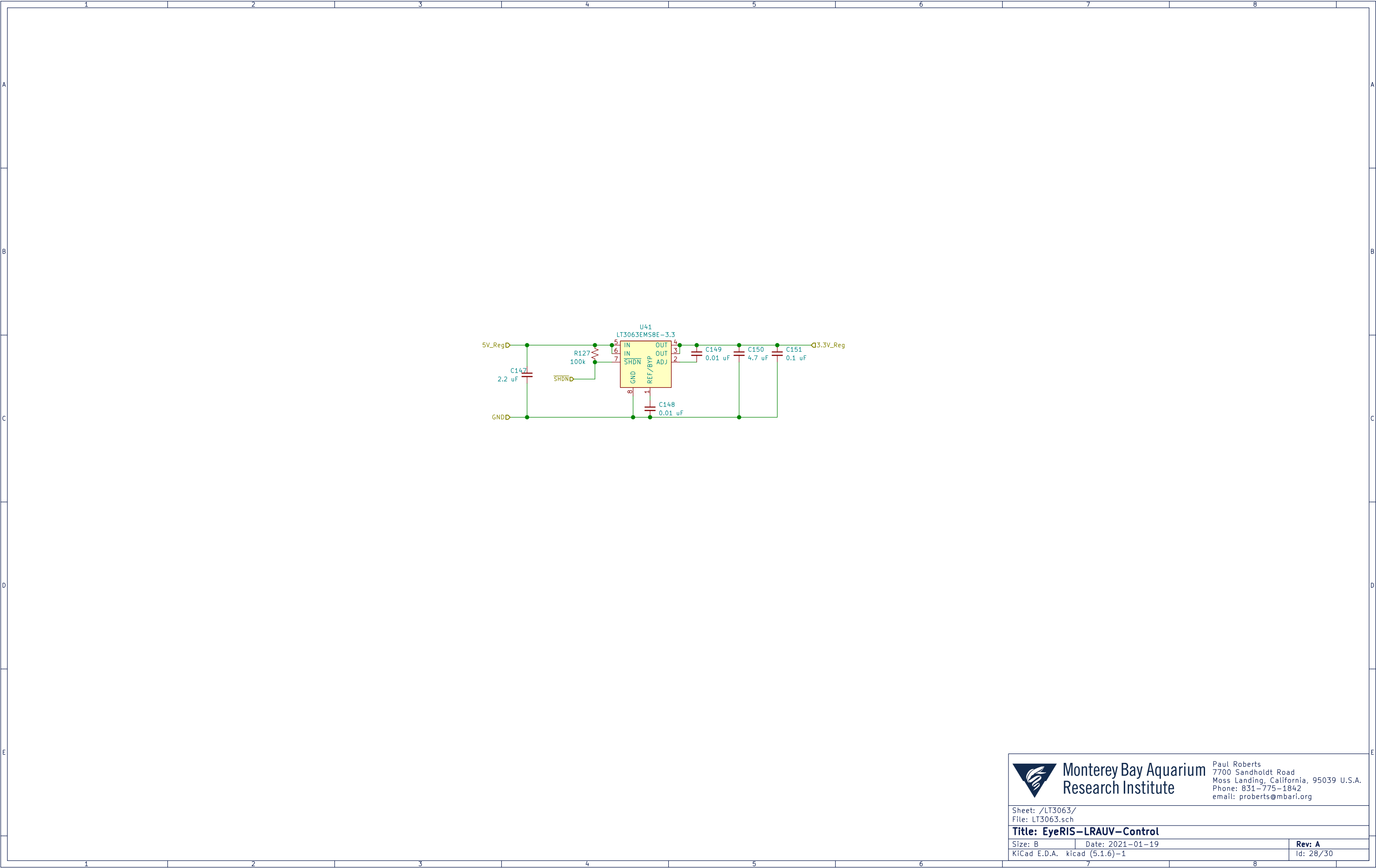
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Size: B Date: 2021-01-19
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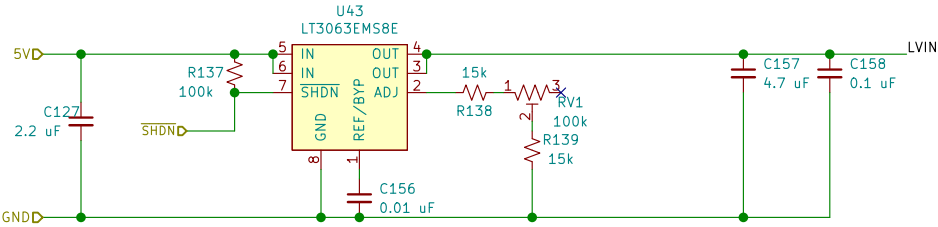
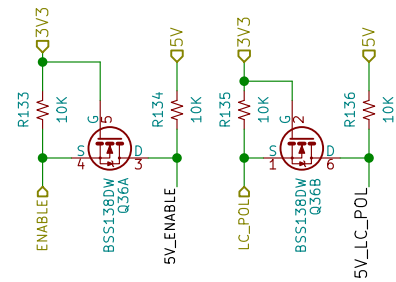
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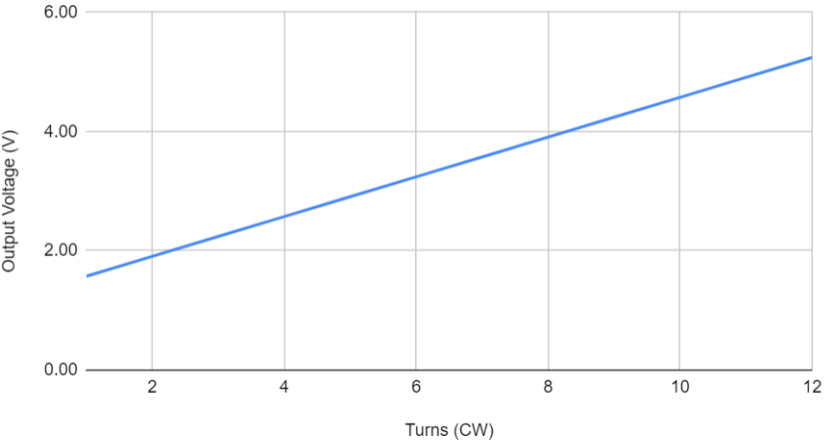
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Id: 28/30



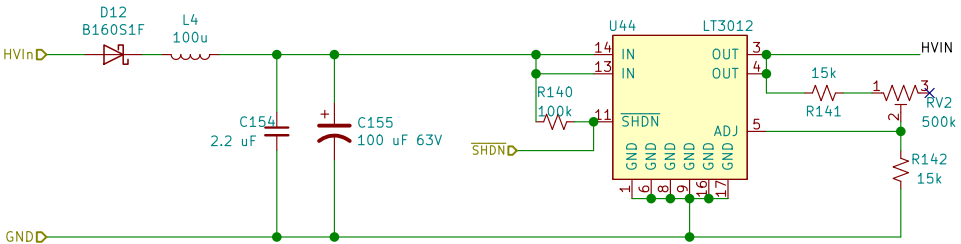
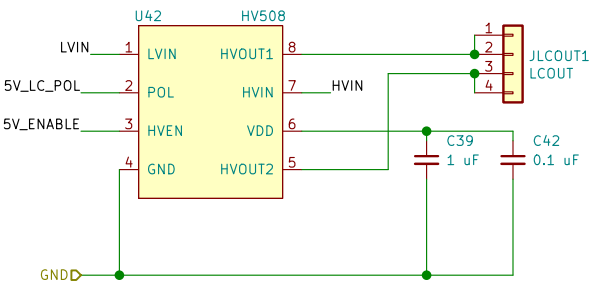
3.3 to 5V Level Shifter



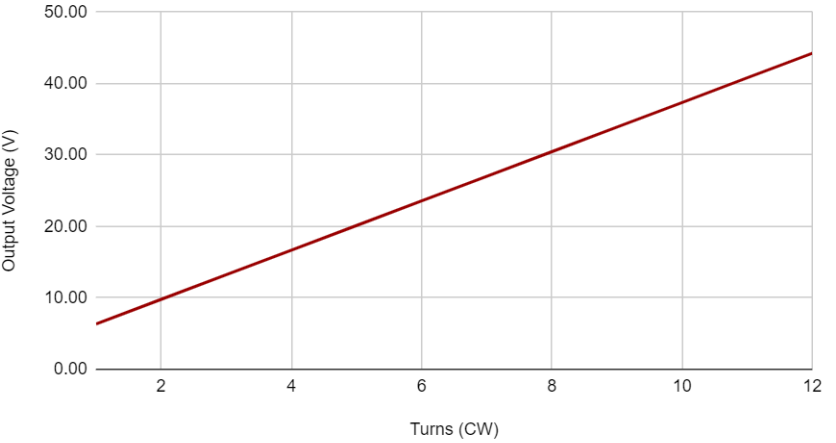
LVIN Voltage vs. Turns (CW)



HV508 LC Shutter Driver (90V Max)



HVIN Voltage vs. Turns (CW)



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Title: EyeRIS-LRAUV-Control

Size: B Date: 2021-01-19
KiCad E.D.A. kicad (5.1.6)-1

Rev: A

Id: 30/30