[illegible]

Hardware: Connor McMillan (connor@mcmillan.website)
Firmware: John Gilcreast (johngilcreast@gmail.com)
McMillan Enterprises



Sheet: /
File: MEP-MAXI-85V-1-REV-2-Interface-Board.kicad_sch

Title: MEP MAXI 85V-1 REV 2 Interface Board

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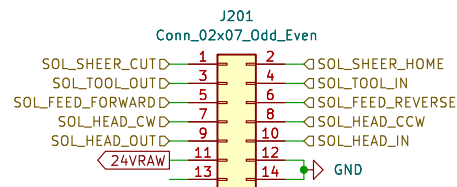
Size: A4	Date: 2024-12-08	Rev: X1
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Date: 2024-12-08

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Id: 1/8

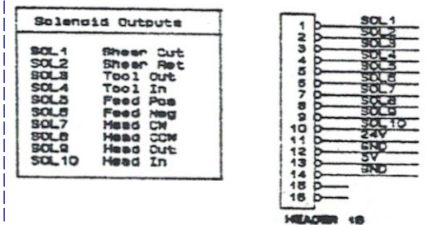
OUTPUT CONNECTIONS



Terminal Board Wiring

OUTPUT CONNECTIONS		
COLOUR	WIRE NUMBER	FUNCTION
RED	#1	SHEAR CUT
	#2	SHEAR HOME
	#3	TOOL OUT
	#4	TOOL IN
	#5	FEED FORWARD
	#6	FEED REVERSE
	#7	HEAD CW
	#8	HEAD CCW
	#9	HEAD OUT
	#10	HEAD IN
	#11	SOL COMMON
BLUE RED	#12	0V
	UNMARKED	0V
	#14	24V
	UNMARKED	24V
		24V

Control Board Schematic



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Title: MEP MAXI 85V-1 REV 2 Interface Board

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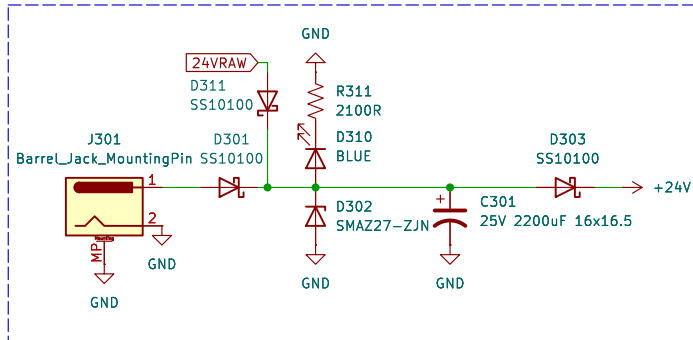
Id: 2/8



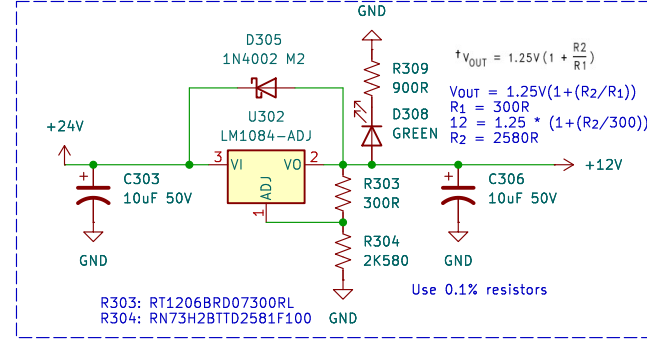
Notes

LEDs: 2-3V @20mA
 Half Brightness: 3V3 @ 10mA = 30R
 Half Brightness: 5V @ 10mA = 200R
 Half Brightness: 12V @ 10mA = 900R
 Half Brightness: 24V @ 10mA = 2100R

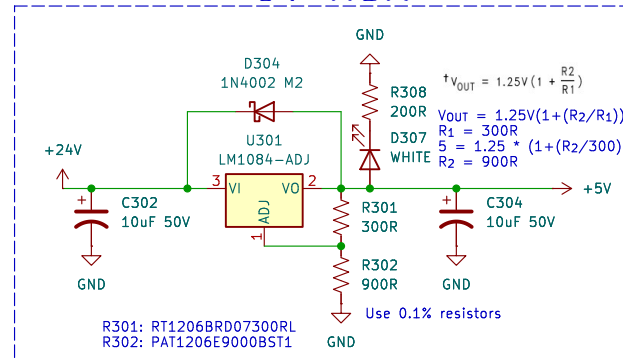
24V Rail



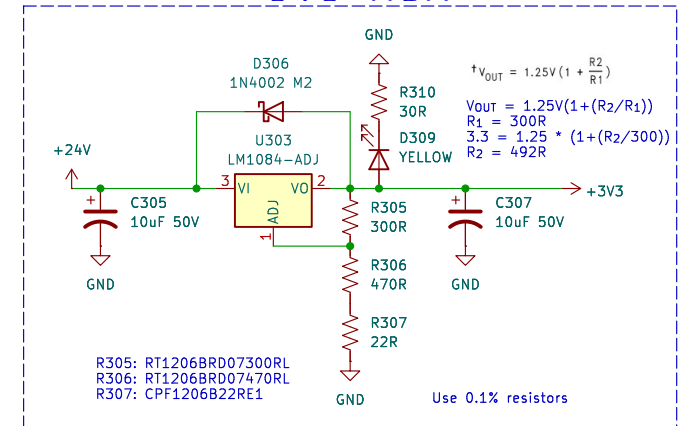
12V Rail



5V Rail



3V3 Rail



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Sheet: /External Power/

File: external_power.kicad_sch

Title: MEP MAXI 85V-1 REV 2 Interface Board

Size: A4

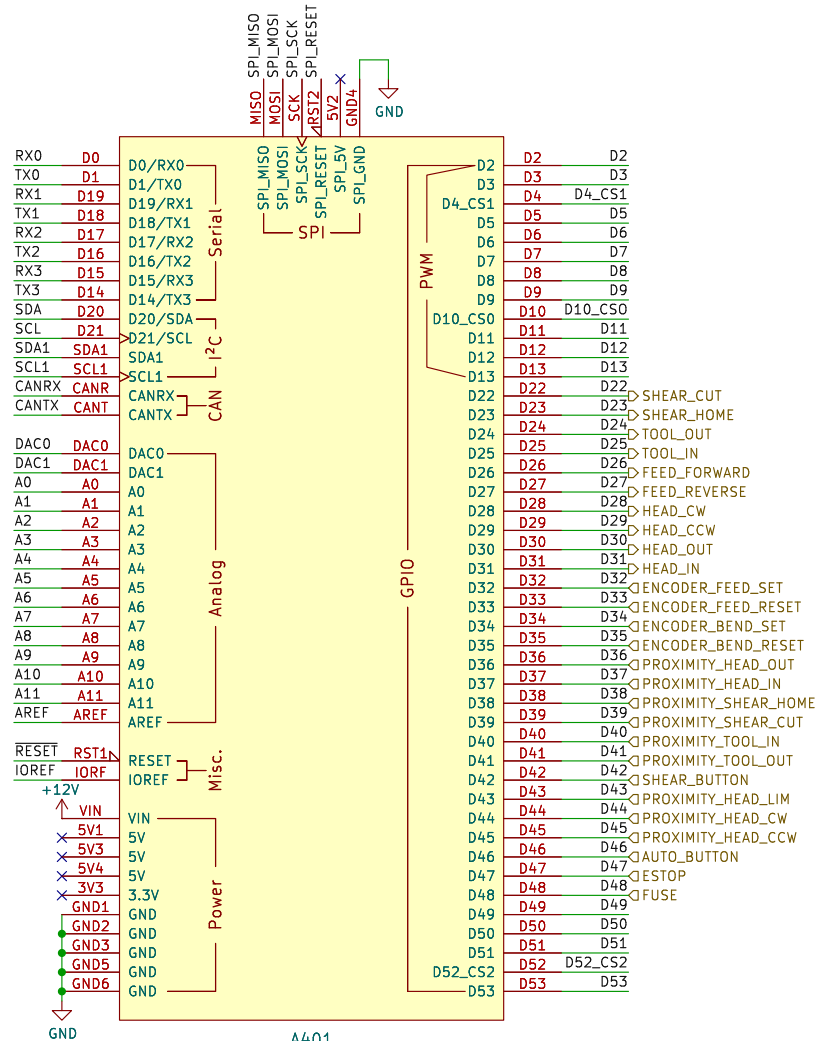
Date: 2024-12-08

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Rev: X1

Id: 3/8





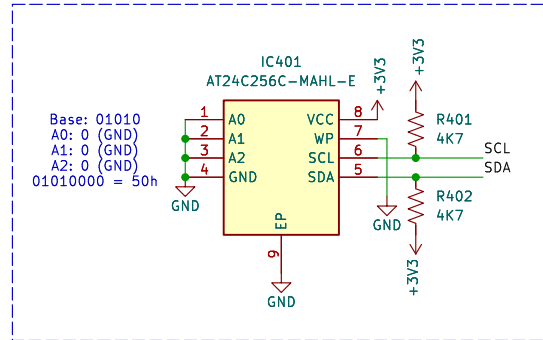
A401
Arduino_Due_Shield

Pin Description

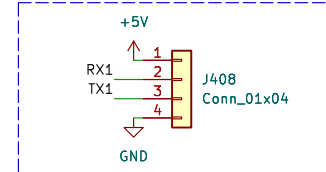
Pin#	I/O	Description
D22	O	SHEAR_CUT
D23	O	SHEAR_HOME
D24	O	TOOL_OUT
D25	O	TOOL_IN
D26	O	FEED_FORWARD
D27	O	FEED_REVERSE
D28	O	HEAD_CW
D29	O	HEAD_CCW
D30	O	HEAD_OUT
D31	O	HEAD_IN
D32	I	ENCODER_FEED_SET
D33	I	ENCODER_FEED_RESET
D34	I	ENCODER_BEND_SET
D35	I	ENCODER_BEND_RESET
D36	I	PROXIMITY_HEAD_OUT
D37	I	PROXIMITY_HEAD_IN
D38	I	PROXIMITY_SHEAR_HOME
D39	I	PROXIMITY_SHEAR_CUT
D40	I	PROXIMITY_TOOL_IN
D41	I	PROXIMITY_TOOL_OUT
D42	I	SHEAR_BUTTON
D43	I	PROXIMITY_HEAD_LIMIT
D44	I	PROXIMITY_HEAD_CW
D45	I	PROXIMITY_HEAD_CCW
D46	I	AUTO_BUTTON
D47	I	ESTOP
D48	I	FUSE

I = Interrupt Input

I2C EEPROM



Nextion HMI Connector



Hardware: Connor McMillan (connor@mcmillan.website)
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Sheet: /Arduino DUE IO/
File: arduino_due_io.kicad_sch

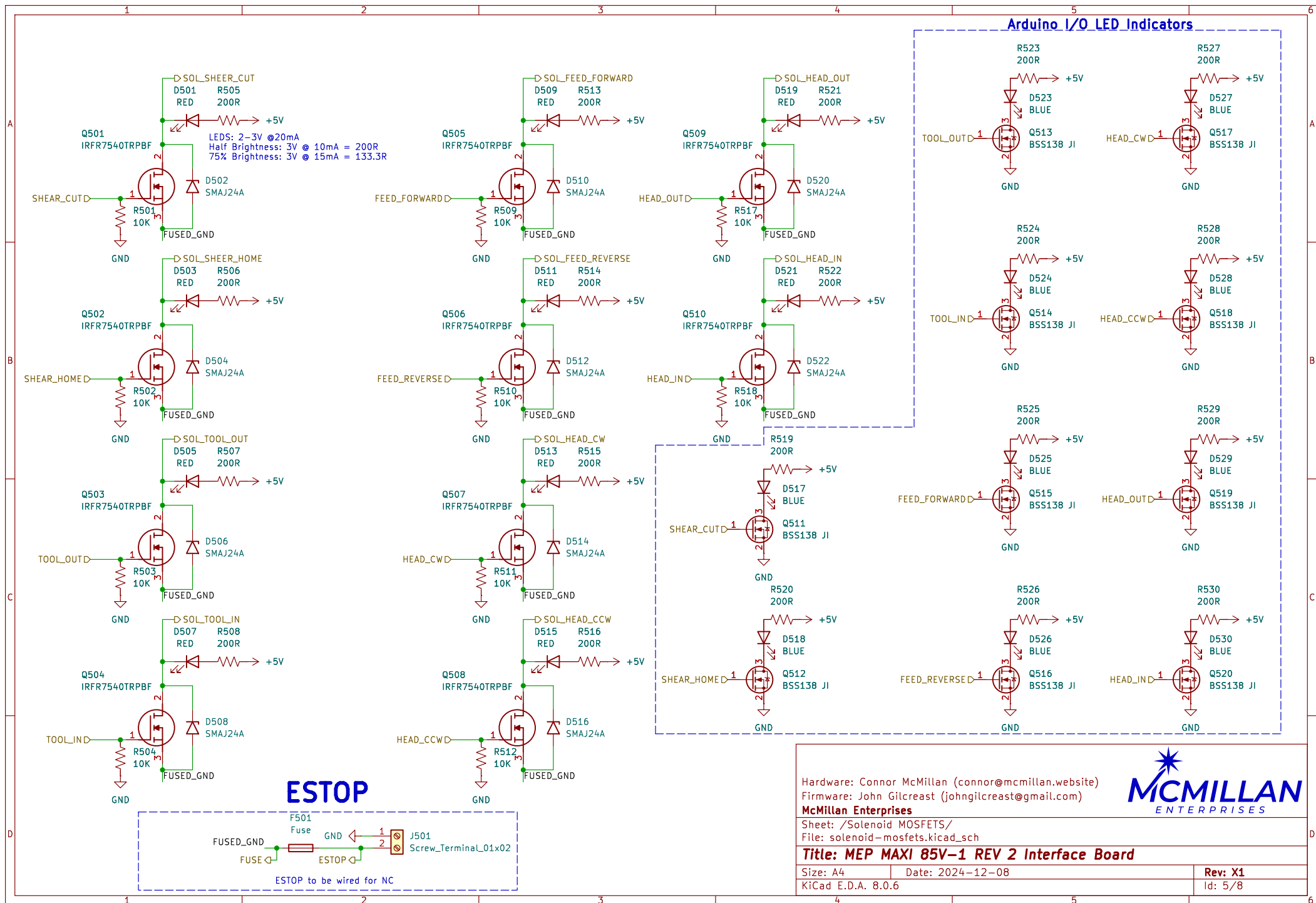
Title: MEP MAXI 85V-1 REV 2 Interface Board

Size: A4 Date: 2024-12-08

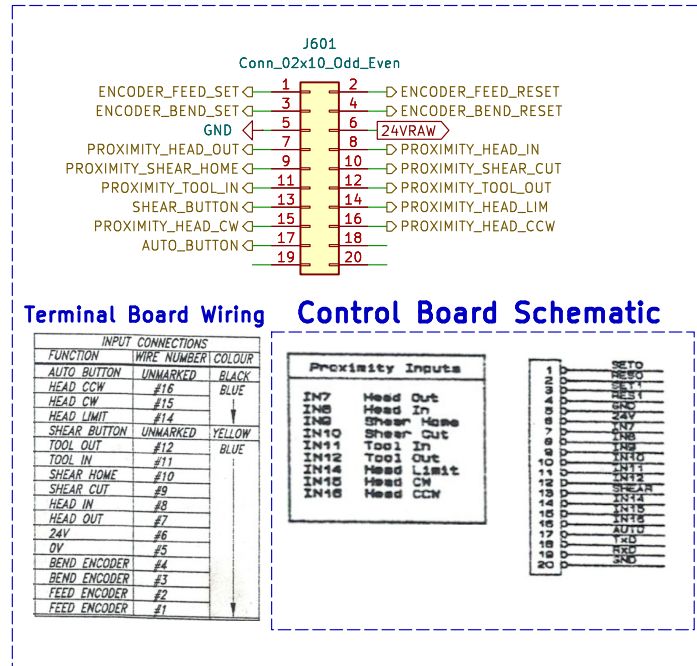
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INPUT CONNECTIONS



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Sheet: /Input Connections/
File: input_connections.kicad_sch

Title: MEP MAXI 85V-1 REV 2 Interface Board

Size: A4

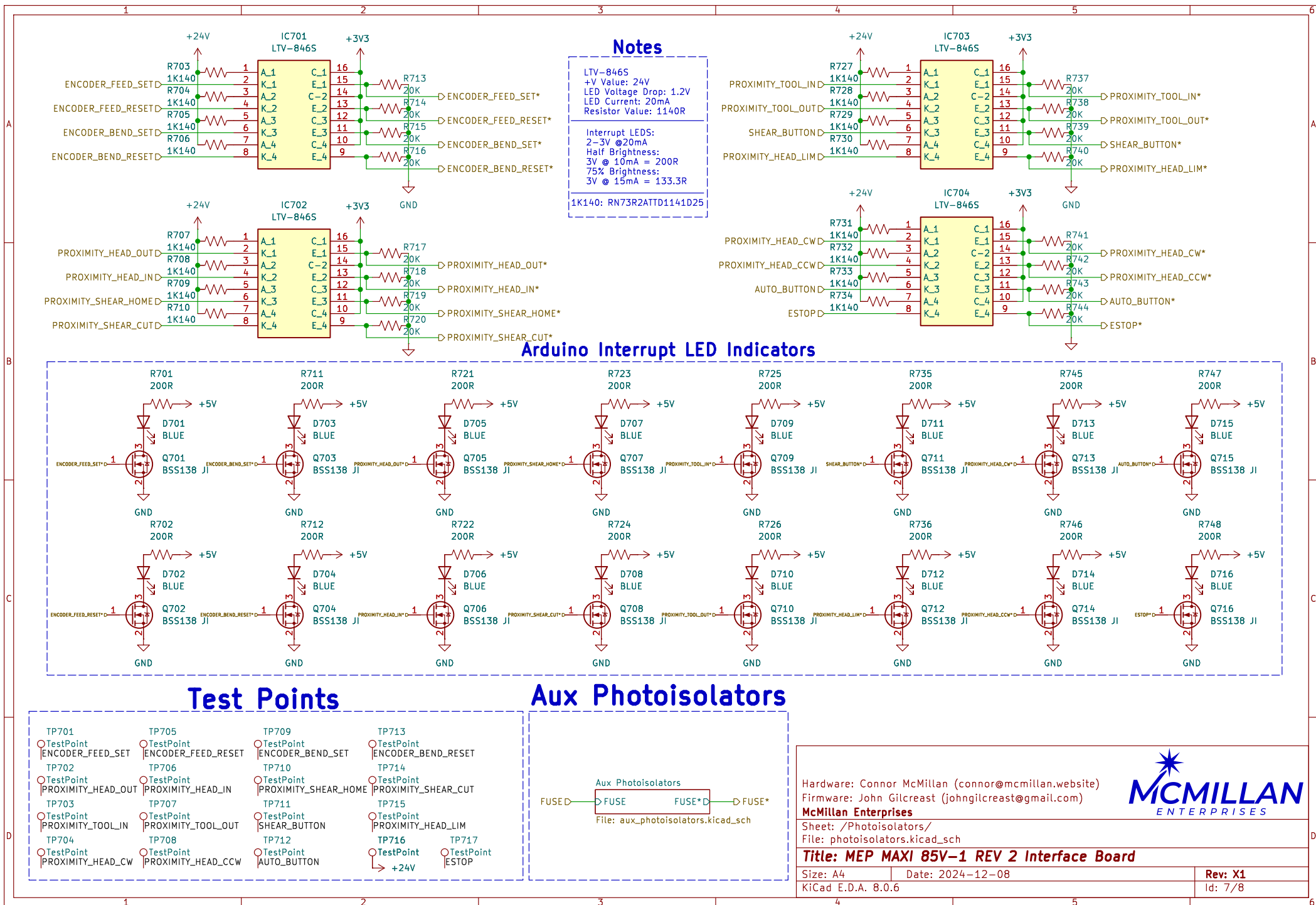
Date: 2024-12-08

Rev: X1

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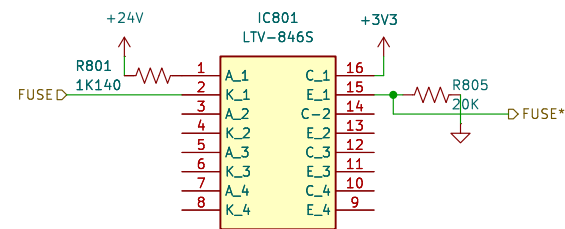
Id: 6/8



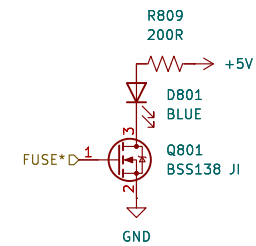


Test Points

TP801
TestPoint
FUSE



Arduino Interrupt LED Indicators



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Sheet: /Photoisolators/Aux Photoisolators/
File: aux_photoisolators.kicad_sch

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Size: A4 Date: 2024-12-08

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Rev: X1

Id: 8/8

