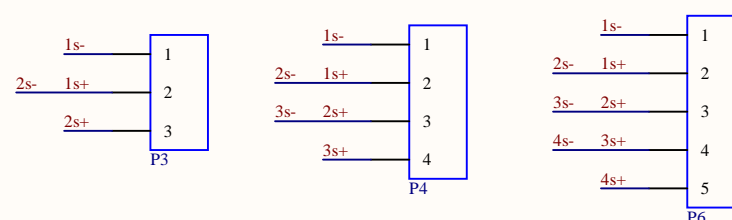
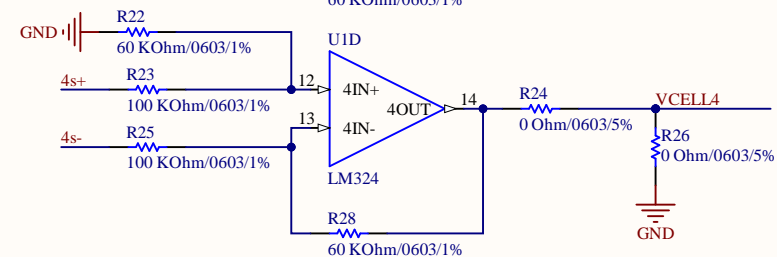
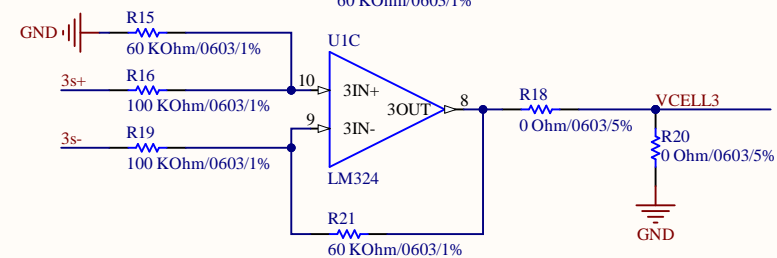
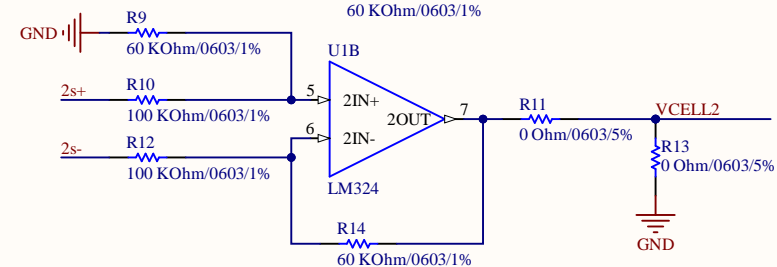
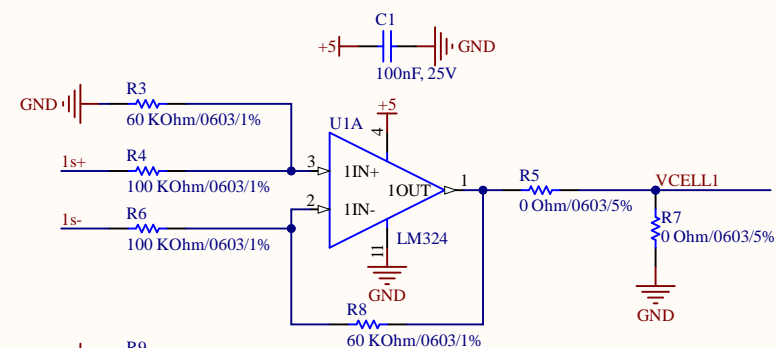
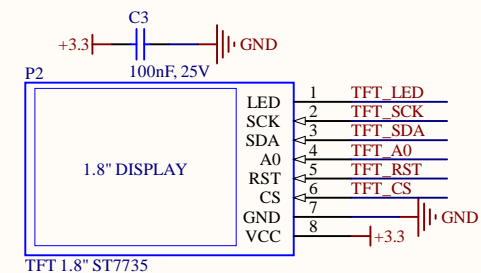
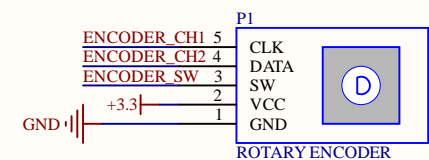
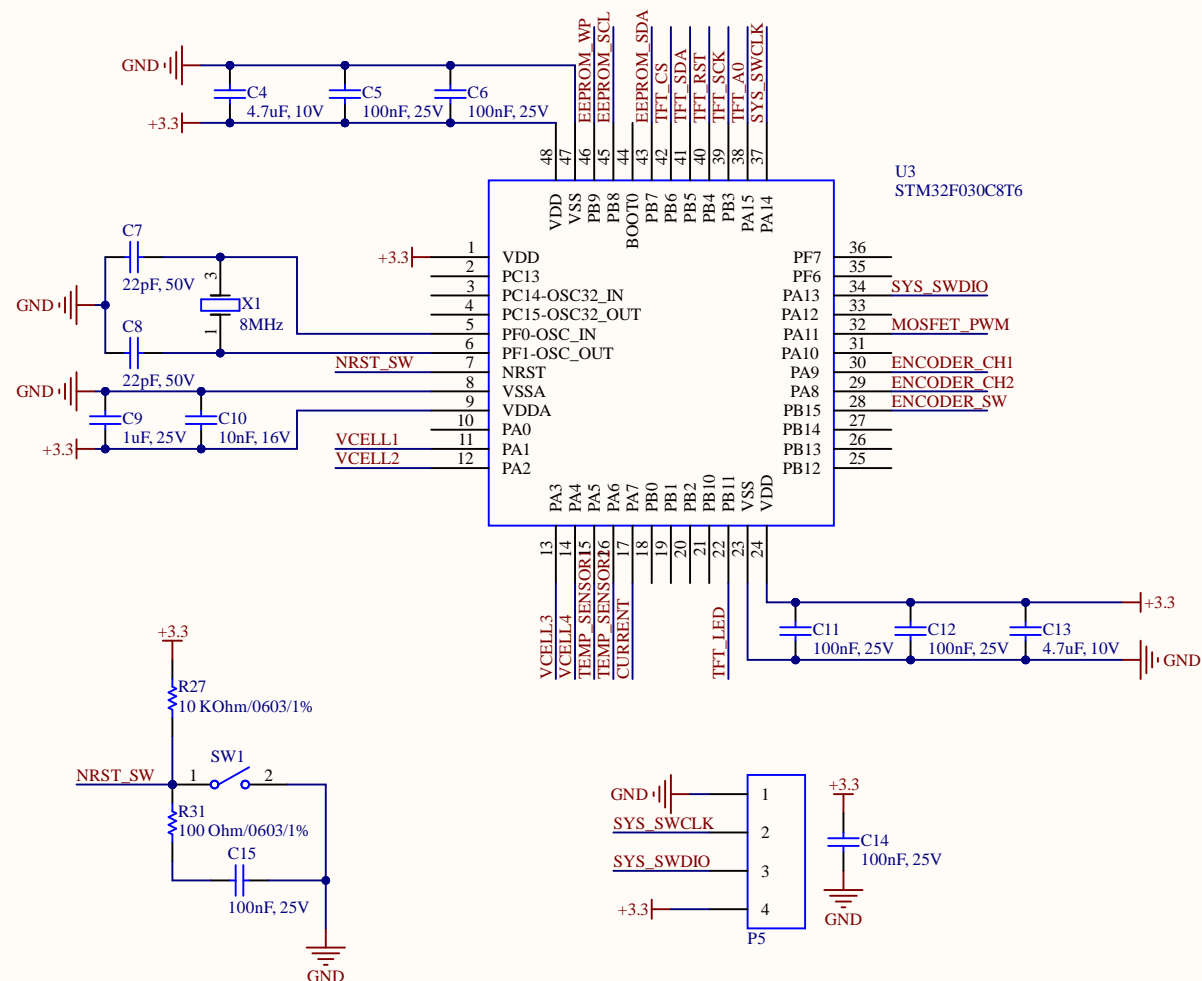
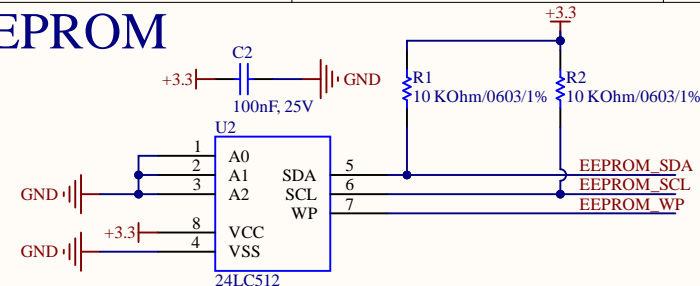


Title		
Size	Number	Revision
A4		
Date:	10/31/2023	Sheet of
File:	E:\Battery-Monitor-System\Power_Supply	Dr.Sun By:

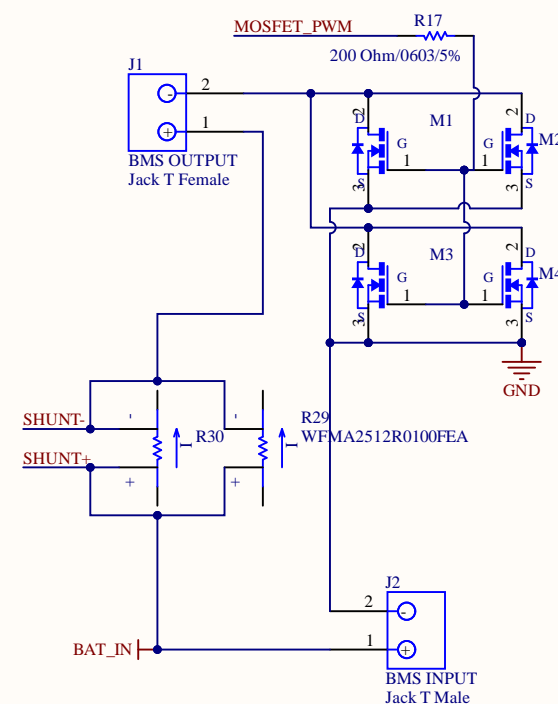


## BATTERY VOLTAGE MEASURE

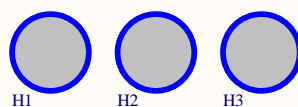
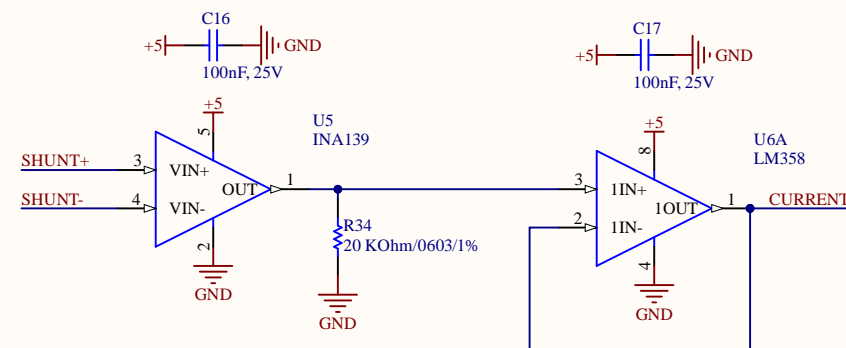
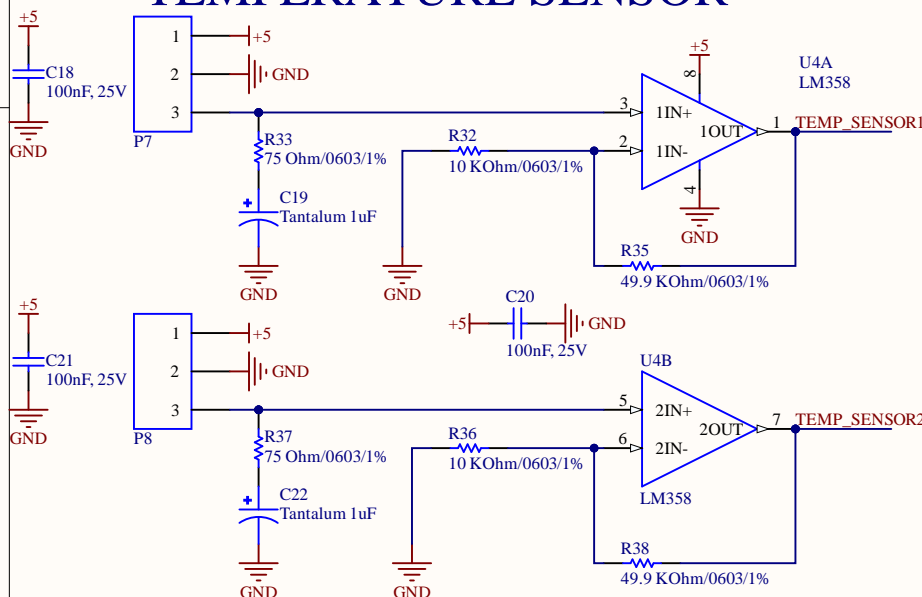


## USER INTERACTION

## SWITCHING CIRCUIT



## TEMPERATURE SENSOR



Title		
Size A3	Number	Revision
Date: 10/31/2023	Sheet of	
File: E:\Battery-Monitor-System\Voltage_BatDrawMBase.SchDoc		

Designator	Comment	Description	LibRef	Quantity
C25	1uF, 10V	WCAP-CSGP Multilayer Ceramic Chip Capacitor, General Purpose, size 0603, XSR, 1uF, 10V	885012106010	1
C9	1uF, 25V	WCAP-CSGP Multilayer Ceramic Chip Capacitor, General Purpose, size 0603, XSR, 1uF, 25V	885012106022	1
C4, C13	4.7uF, 10V	WCAP-CSGP Multilayer Ceramic Chip Capacitor, General Purpose, size 0603, XSR, 4.7uF, 10V	885012106012	2
C10	10uF, 16V	WCAP-CSGP Multilayer Ceramic Chip Capacitor, General Purpose, size 0603, X7R, 10uF, 16V	885012206040	1
C7, C8	22pF, 50V	WCAP-CSGP Multilayer Ceramic Chip Capacitor, General Purpose, size 0603, NP0, 22pF, 50V	885012006053	2
U2	24Cxx	EEPROM	24Cxx	1
C26	100uF, 10V	WCAP-CSGP Multilayer Ceramic Chip Capacitor, General Purpose, size 0603, X7R, 100uF, 10V	885012206020	1
C1, C2, C3, C5, C6, C11, C12, C14, C15, C16, C17, C18, C20, C21	100uF, 25V	WCAP-CSGP Multilayer Ceramic Chip Capacitor, General Purpose, size 0603, X7R, 100uF, 25V	885012206071	14
L1	100uH, 0.77A	WE-PQ2A SMT Power Inductor, size 7850, 100uH, 0.77A	78477520	1
C23	220uF	WCAP-ASL1 Aluminum Electrolytic Capacitor, V-Chip, D4.3 x H7.7mm, 220uF, 16V	865080345012	1
C24	680uF	WCAP-ASL1 Aluminum Electrolytic Capacitor, V-Chip, D12.5 x H14mm, 680uF, 25V	86508562017	1
SW1	434123050816	WS-TASV J-Bend SMT Tact Switch, 12VDC, 35mA, 16kg, height 5mm	434123050816	1
U8	AMS1117-3.3V	AMS1117-3.3V	AMS1117-3.3V	1
M1, M2, M3, M4	AC0472	MOSEFT 20V 55A N- Channel	AC0472	4
D4	Blue, 3.2V	WL-SMOW SMT Mono- color Chip LED Waterclear, size 0603, Blue, 3.2V, 1.05deg	150008575000	1
J2	BMS INPUT	Jack 1.10A	Jack 1 Male	1
J1	BMS OUTPUT	Jack 1.10A	Jack 1 Female	1
R29, R30	Current Sense Resistor	Shunt Resistor	Current Sense Resistor	2
D3, D3	0 Schottky	Schottky Diode	0 Schottky	2
P3, P7, P8	Header 3H	Header, 3-Pin, Right Angle	Header 3H	3
P4, P5	Header 4H	Header, 4-Pin, Right Angle	Header 4H	2
P6	Header 5H	Header, 5-Pin, Right Angle	Header 5H	1
H1, H2, H3	Male	10pin 2mm	Male	3
U5	INA139	High-Side Measurement Current Shunt Monitor	INA139	1
U1	LM224	OPAMP General Purpose Amplifier 4 Circuit, 1.2uA	LM224	1
U4, U6	LM258	General Purpose Amplifier 2 Circuit 1.1uA	LM258	2
U7	LM2596	Simple Switcher Power Converter 150 kHz 6V to 60V, 3A Step-Down Voltage Regulator	LM2596	1
D1	Red, 2V	WL-SMOW SMT Mono- color Chip LED Waterclear, size 0603 4mm, Red, 2V, 60deg	150048586000	1
F1	RESETTABLE FUSE 1206	Polymetric PTC Resettable Fuse 6V 350mA In Surface Mount 1206_3216 Metric - Concave	RESETTABLE FUSE 1206	1
R5, R7, R11, R13, R18, R20, R24, R26	Resistor 0 Ohm 0603 5%	Code 0R, 1/10W	Resistor 0 Ohm 0603 5%	8
R1, R2, R27, R32, R36	Resistor 10 KOhm 0603 1%	Code 103, 1/10W	Resistor 10 KOhm 0603 1%	5
R34	Resistor 20 KOhm 0603 1%	Code 203, 1/10W	Resistor 20 KOhm 0603 1%	1
R25, R38	Resistor 49.9 KOhm 0603 1%	Code (4992, 480), 1/10W	Resistor 49.9 KOhm 0603 1%	2
R3, R6, R9, R14, R15, R21, R22, R28	Resistor 60 KOhm 0603 1%	Code 603, 1/10W	Resistor 60 KOhm 0603 1%	6
R13, R17	Resistor 75 Ohm 0603 1%	Code 750, 1/10W	Resistor 75 Ohm 0603 1%	2
R4, R6, R10, R12, R16, R19, R23, R25	Resistor 100 KOhm 0603 1%	Code 104, 1/10W	Resistor 100 KOhm 0603 1%	8
R11, R40	Resistor 100 Ohm 0603 1%	Code 1000, 1/10W	Resistor 100 Ohm 0603 1%	2
R17	Resistor 200 Ohm 0603 1%	Code 201, 1/10W	Resistor 200 Ohm 0603 1%	1
R39	Resistor 470 Ohm 0603 1%	Code 471, 1/10W	Resistor 470 Ohm 0603 1%	1
P1	Rotary Encoder	KY-040	MODULE ROTARY ENCODER	1
U1	STM32F030C8T6	Code 105 105, 1206 (3216 Metric)	STM32F030C8T6	1
C19, C22	Tantalum Capacitor	Code 226 10%, 2312 (6032 Metric)	Tantalum Capacitor	2
C27	Tantalum Capacitor	Code 226 10%, 2312 (6032 Metric)	Tantalum Capacitor	1
P2	IFT 1.8" ST7735	LCD 1.8inch 160x128 IFT ST7735	IFT 1.8" ST7735	1
R1	KTAL	KTAL	KTAL	1