STM32

File: MCU.kicad_sch

ESP32

File: ESP32.kicad_sch

Current_Measurement

File: Current_Measurement.kicad_sch

Voltage_Measurement

File: Voltage_Measurement.kicad_sch

Peak_Detector

File: Peak_Detector.kicad_sch

Zero_Crossing_Detection

File: Zero_Crossing_Detection.kicad_sch

RTC

File: RTC.kicad_sch

Power_Supply

File: Power_Supply.kicad_sch

Connectors

File: Connectors.kicad_sch

Display

File: Display.kicad_sch

USB_To_TTL

File: USB_To_TTL.kicad_sch

Sheet: /
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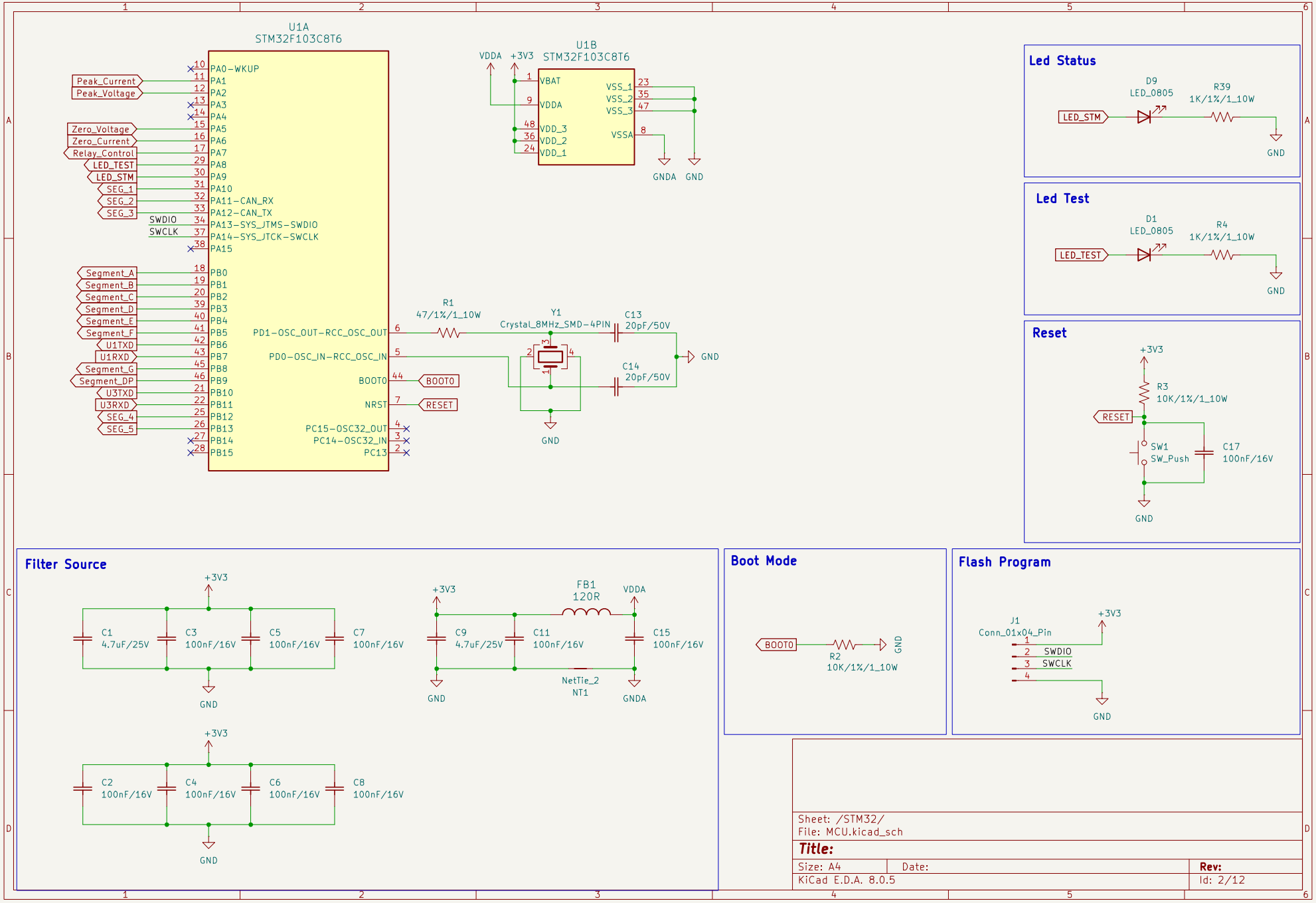
Size: A4	Date:	**Rev:**
KiCad E.D.A. 8.0.5		Id: 1/12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STM32F103C8T6
PA0-WKUP
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11-CAN_RX
PA12-CAN_TX
PA13-SYS_JTMS-SWDIO
PA14-SYS_JTCK-SWCLK
PA15
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PB8
PB9
PB10
PB11
PB12
PB13
PB14
PB15
PD1-OSC_OUT-RCC_OSC_OUT
PD0-OSC_IN-RCC_OSC_IN
BOOT0
NRST
PC15-OSC32_OUT
PC14-OSC32_IN
PC13
Peak_Current
Peak_Voltage
Zero_Voltage
Zero_Current
Relay_Control
LED_TEST
LED_STM
SEG_1
SEG_2
SEG_3
SWDIO
SWCLK
Segment_A
Segment_B
Segment_C
Segment_D
Segment_E
Segment_F
U1TXD
U1RXD
Segment_G
Segment_DP
U3TXD
U3RXD
SEG_4
SEG_5
U1B
STM32F103C8T6
VDDA
+3V3
VBAT
VDDA
VDD_3
VDD_2
VDD_1
VSS_1
VSS_2
VSS_3
VSSA
GNDA
GND
R1
47/1%/1_10W
Y1
Crystal_8MHz_SMD-4PIN
C13
20pF/50V
C14
20pF/50V
GND
RESET
Led Status
D9
LED_0805
R39
1K/1%/1_10W
LED_STM
GND
Led Test
D1
LED_0805
R4
1K/1%/1_10W
LED_TEST
GND
Reset
+3V3
R3
10K/1%/1_10W
RESET
SW1
SW_Push
C17
100nF/16V
GND
Filter Source
+3V3
C1
4.7uF/25V
C3
100nF/16V
C5
100nF/16V
C7
100nF/16V
GND
C2
100nF/16V
C4
100nF/16V
C6
100nF/16V
C8
100nF/16V
GND
+3V3
FB1
120R
VDDA
C9
4.7uF/25V
C11
100nF/16V
C15
100nF/16V
GND
NetTie_2
NT1
GNDA
Boot Mode
BOOT0
R2
10K/1%/1_10W
GND
Flash Program
J1
Conn_01x04_Pin
+3V3
SWDIO
SWCLK
GND
Sheet: /STM32/
File: MCU.kicad_sch
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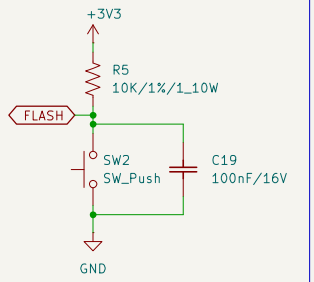
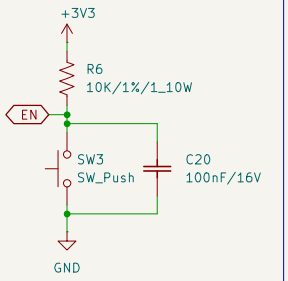
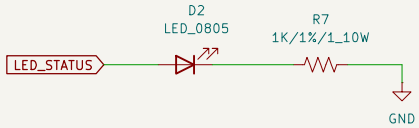
Flash



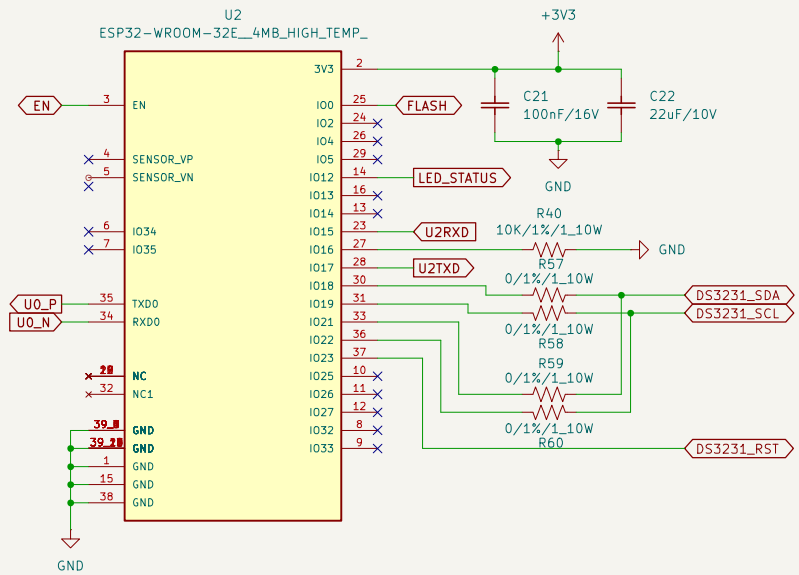
Enable



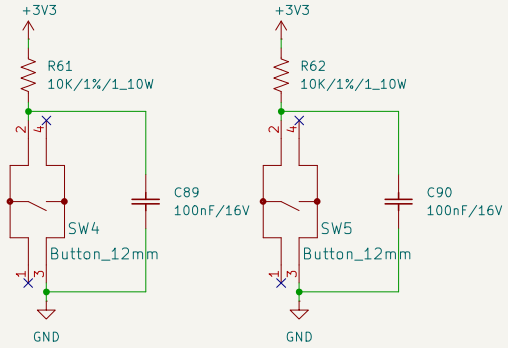
LED Test



MCU



User Button



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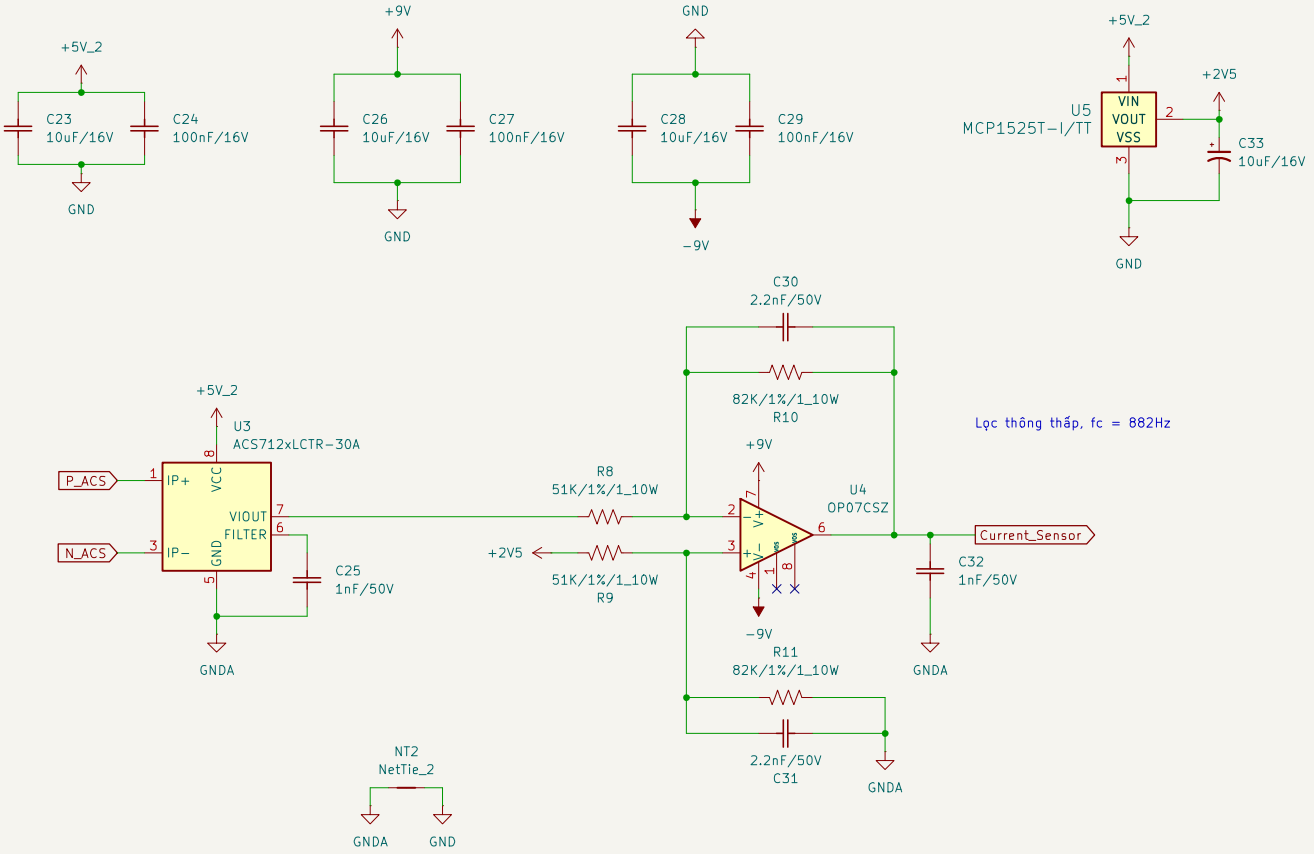

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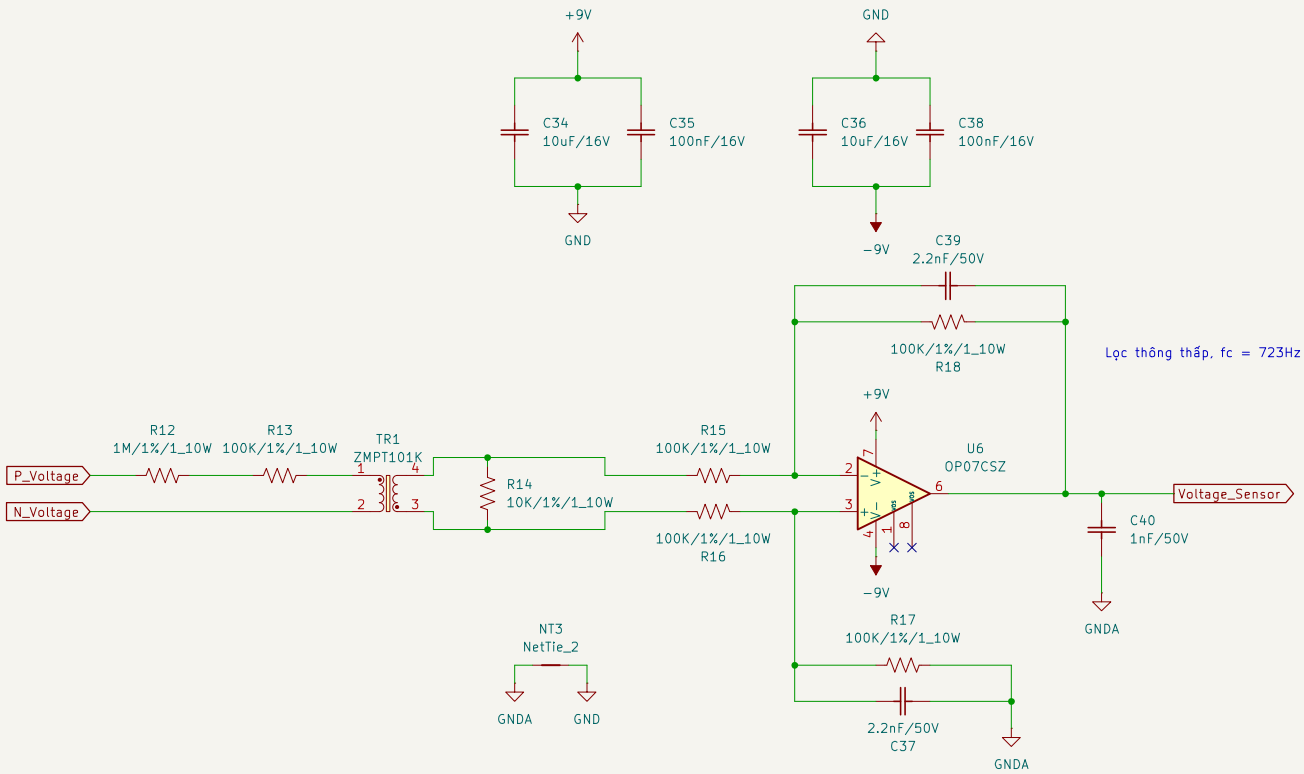

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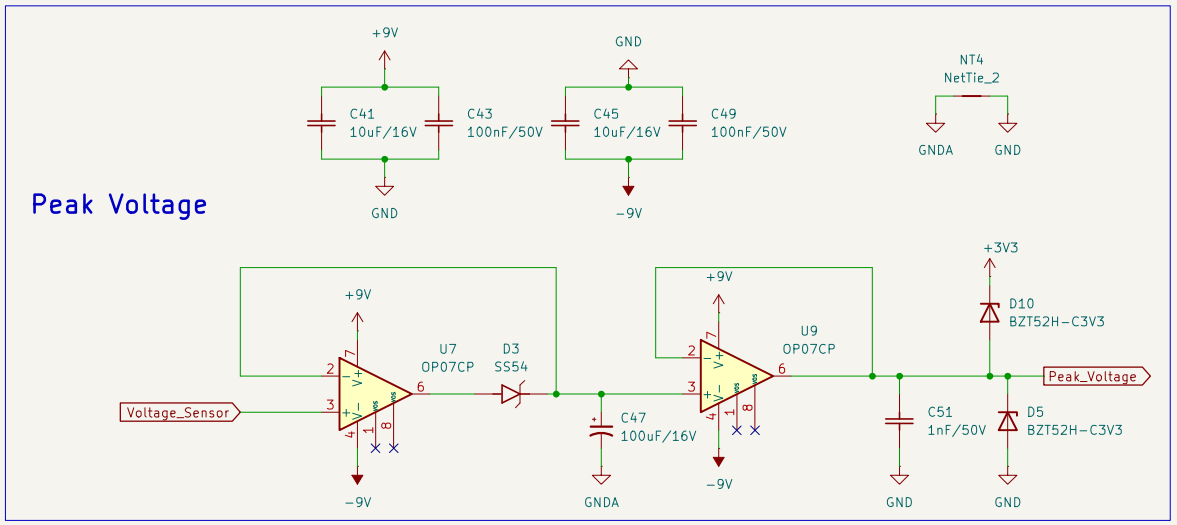

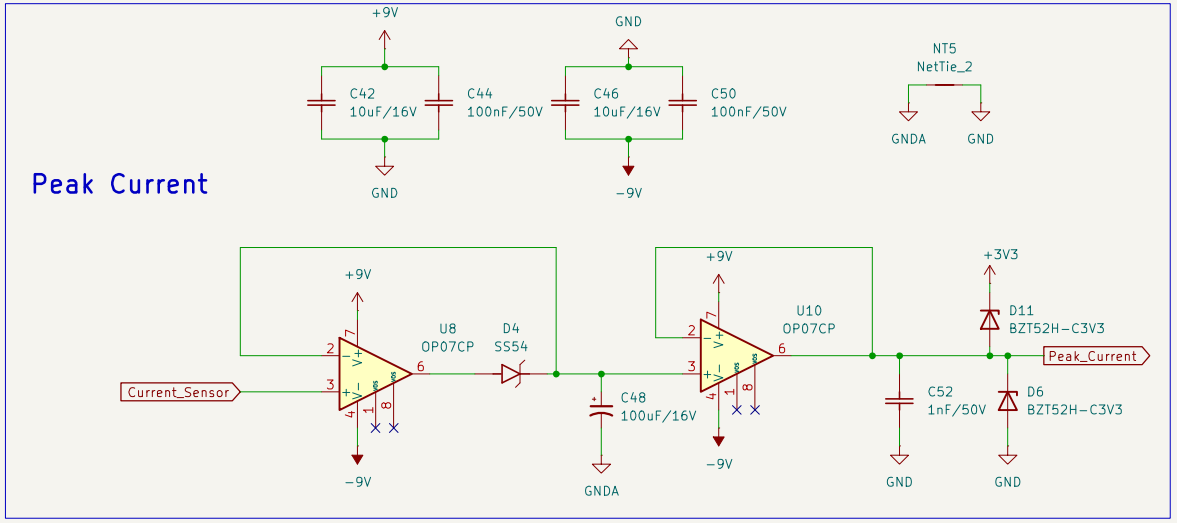

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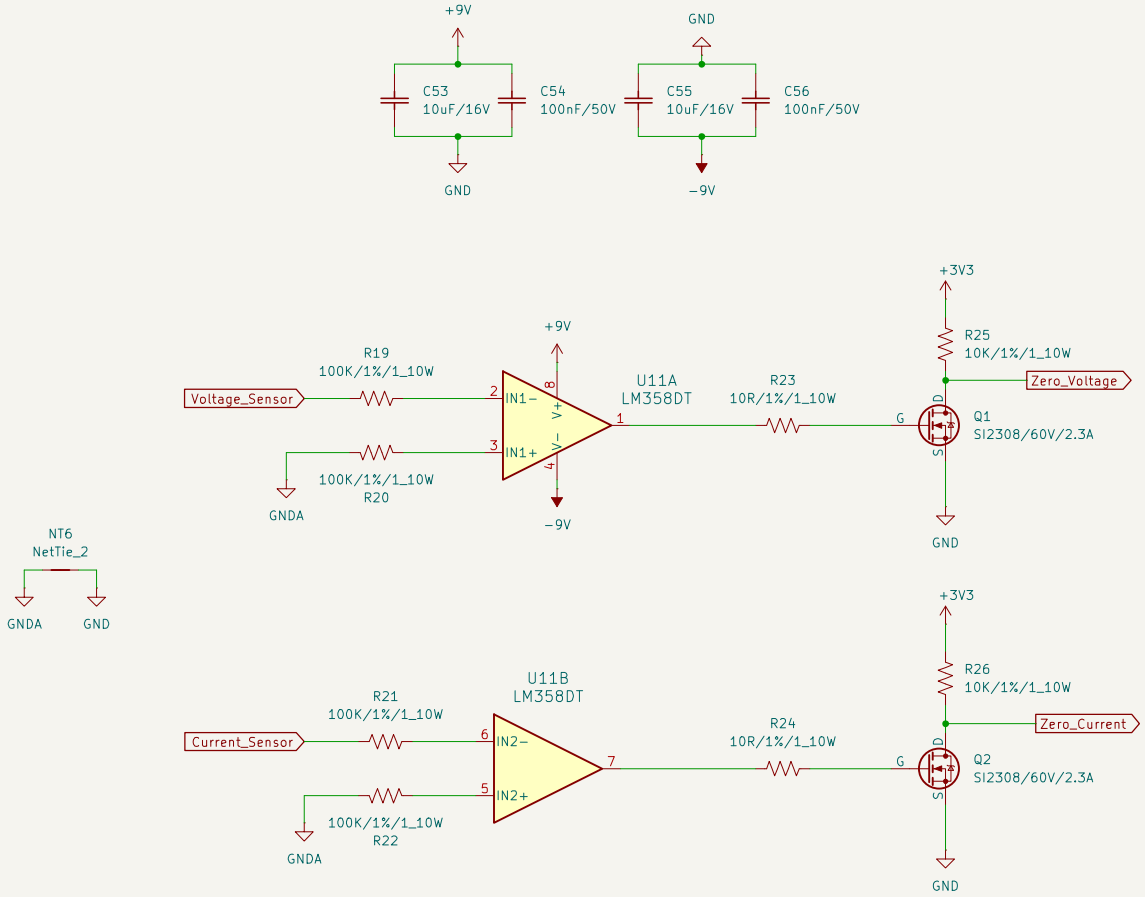

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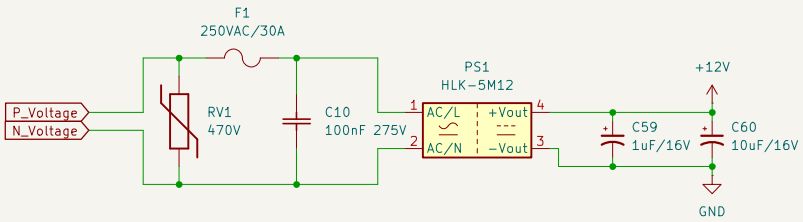
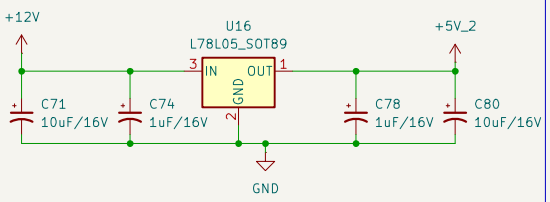
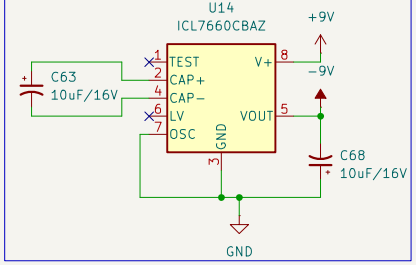
220VAC To 12VDC/450mA



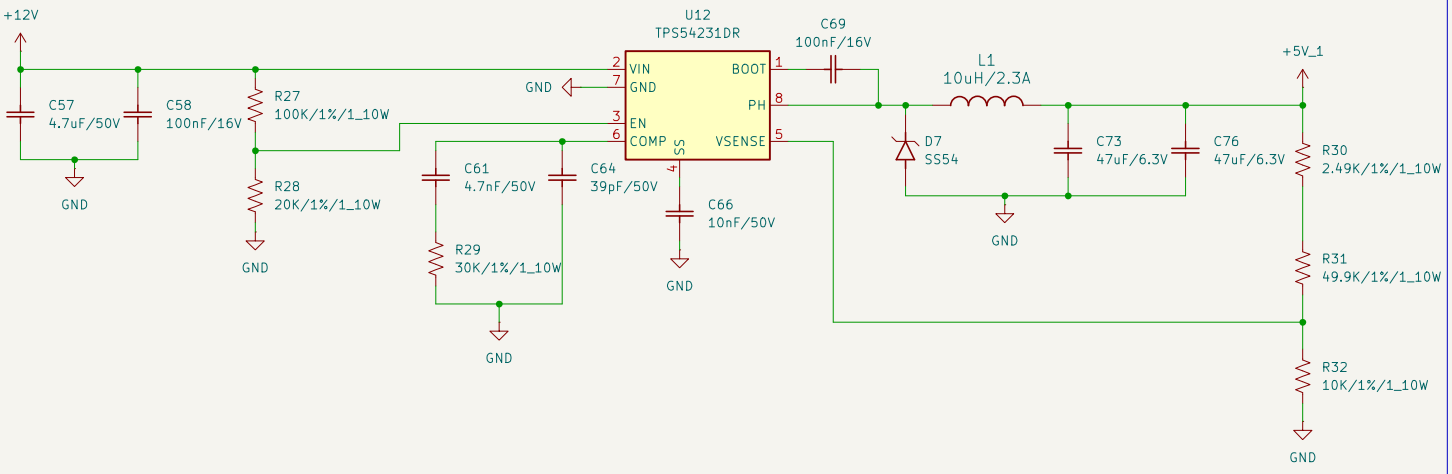
Linear Regulator 5V – L78L05



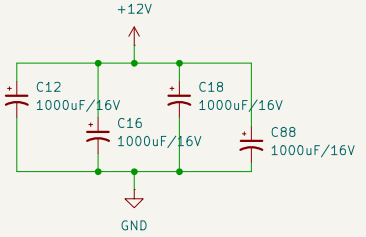
Charge Pump –9V – ICL7660CBAZ



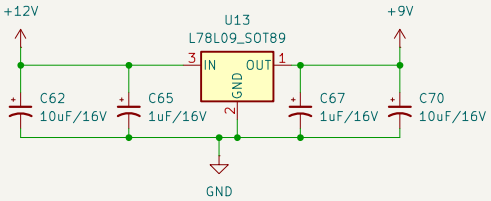
Switching Regulator – TPS54231DR



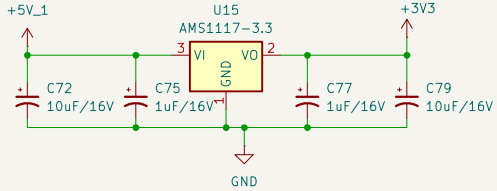
Energy Storage



Linear Regulator 9V – L78L09



Linear Regulator 3V3 – AMS1117



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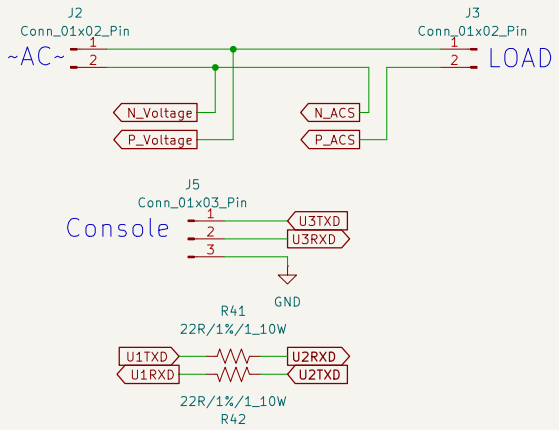

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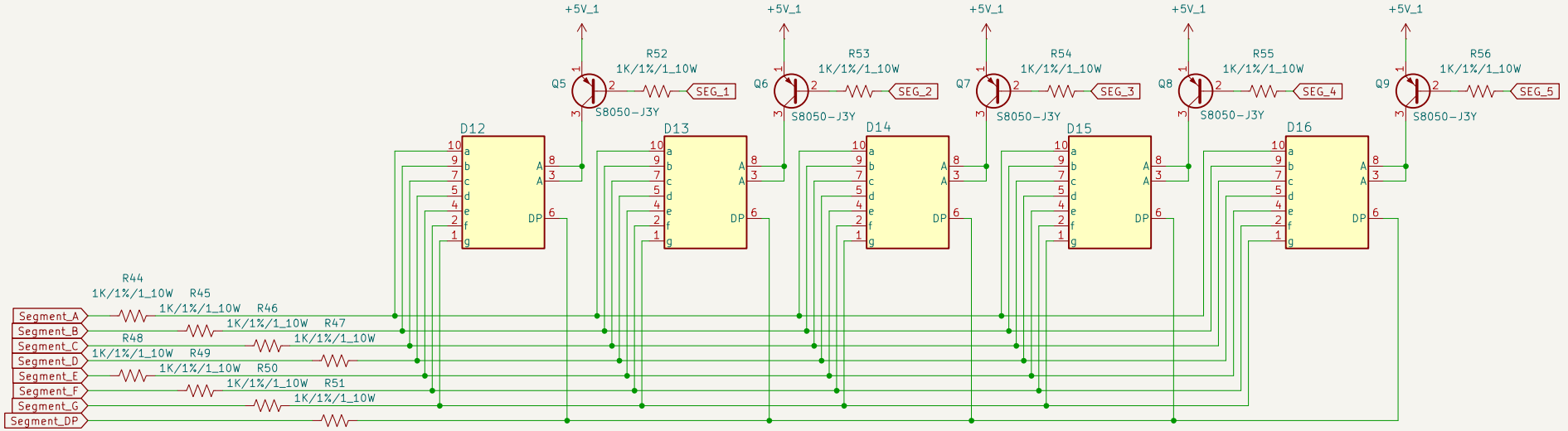

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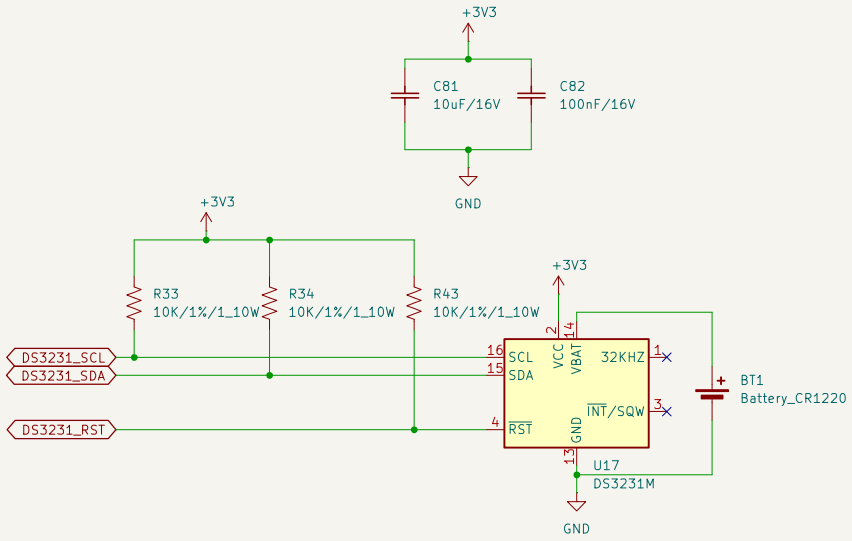

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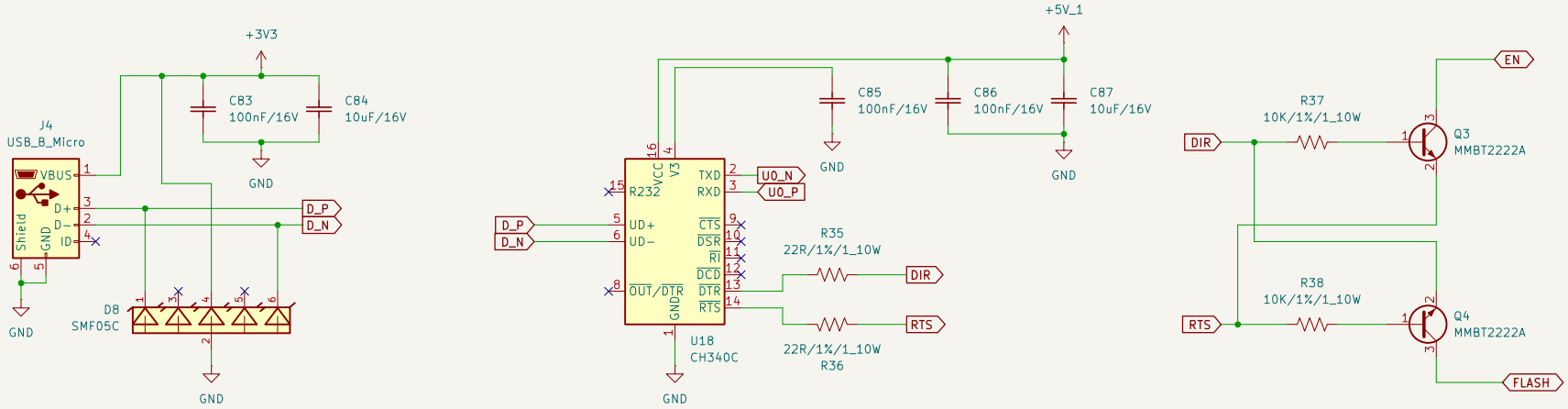

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