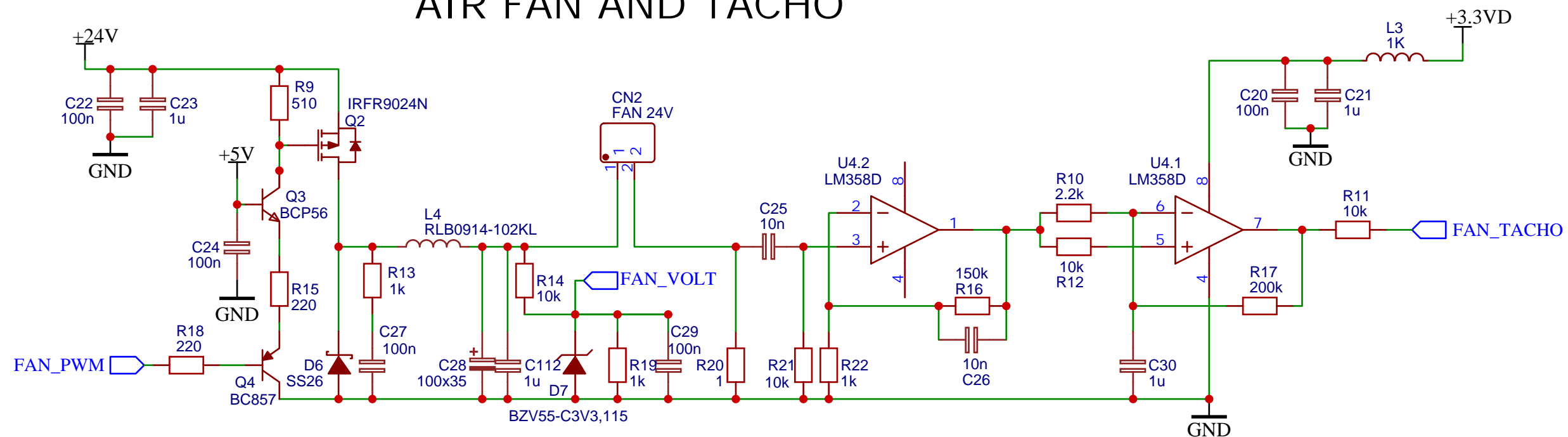
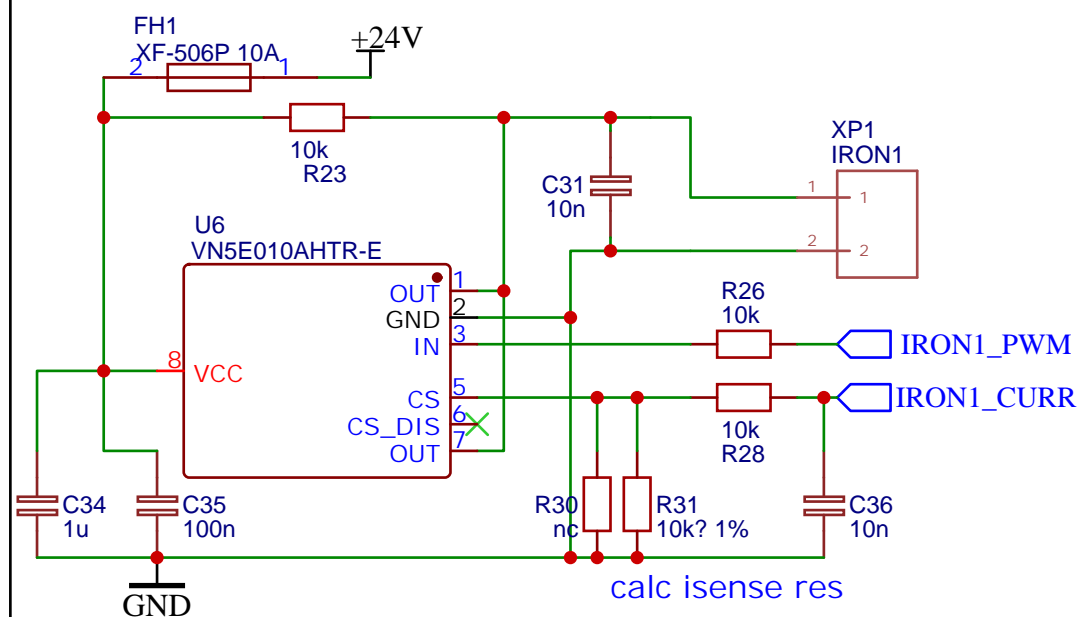


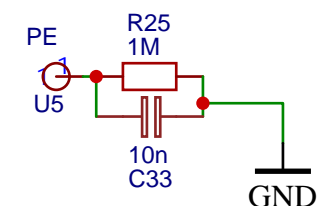
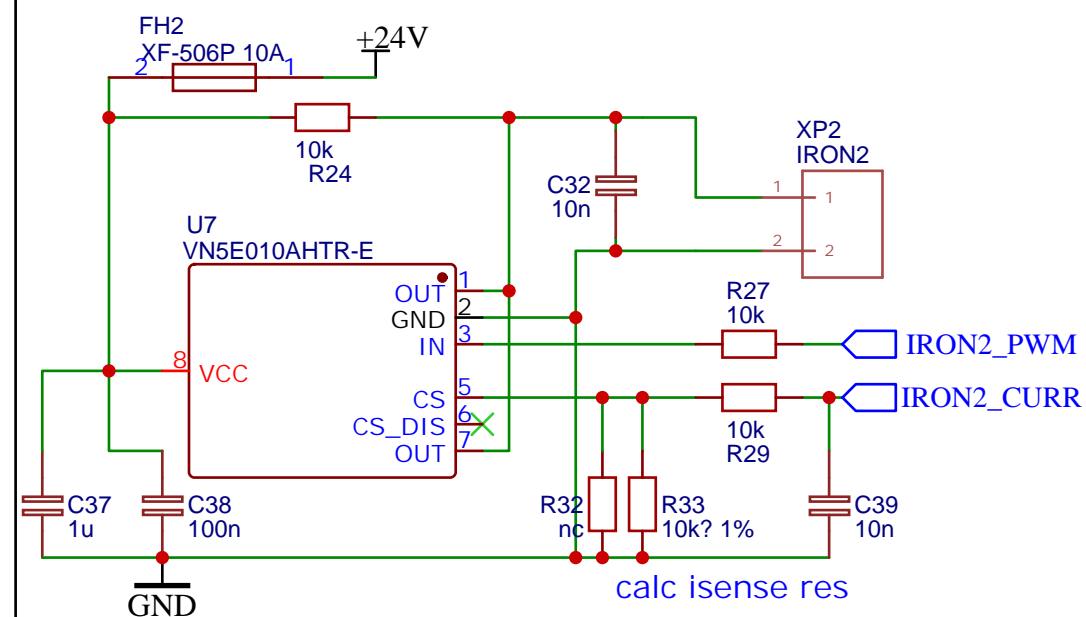
AIR FAN AND TACHO



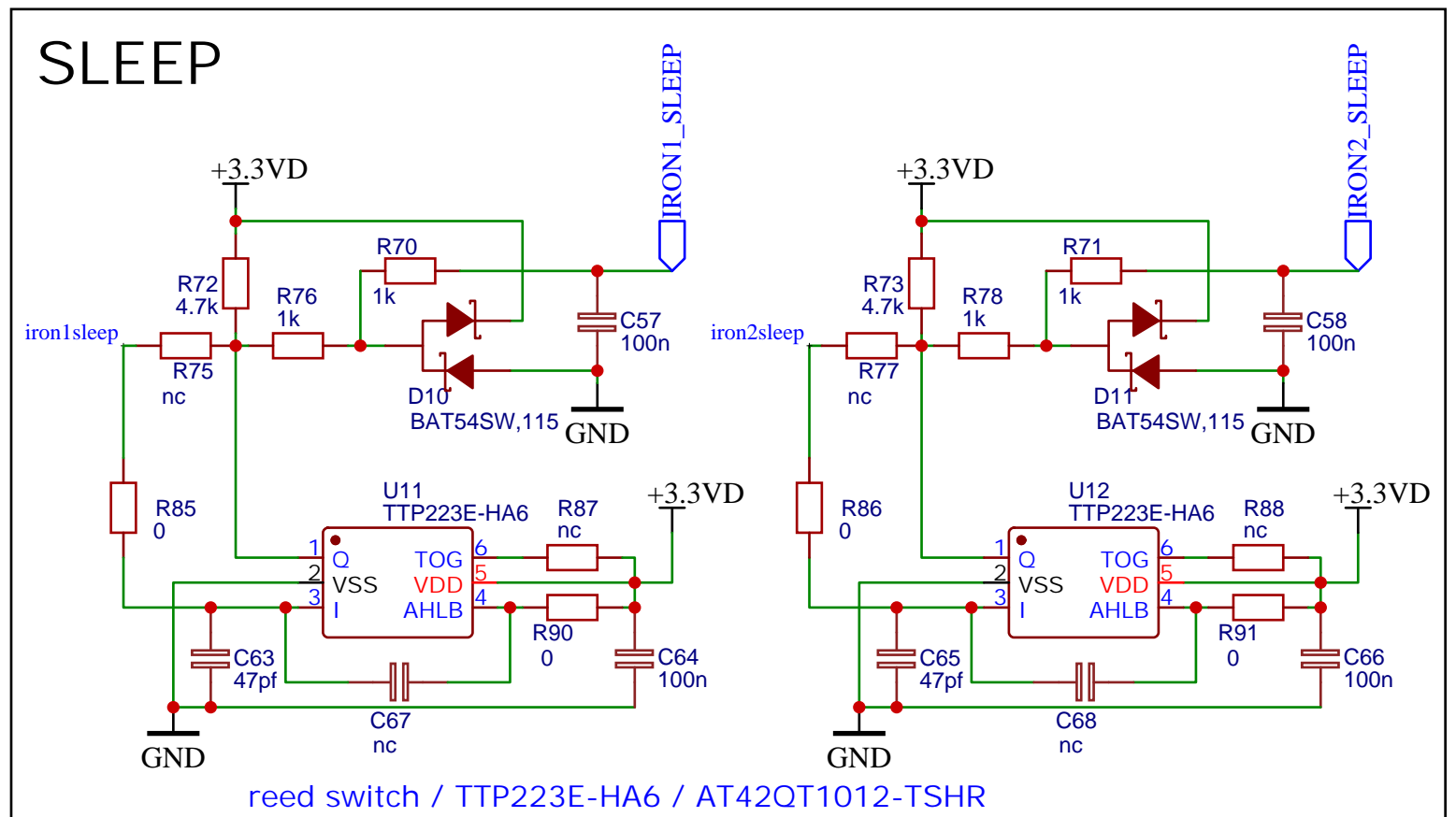
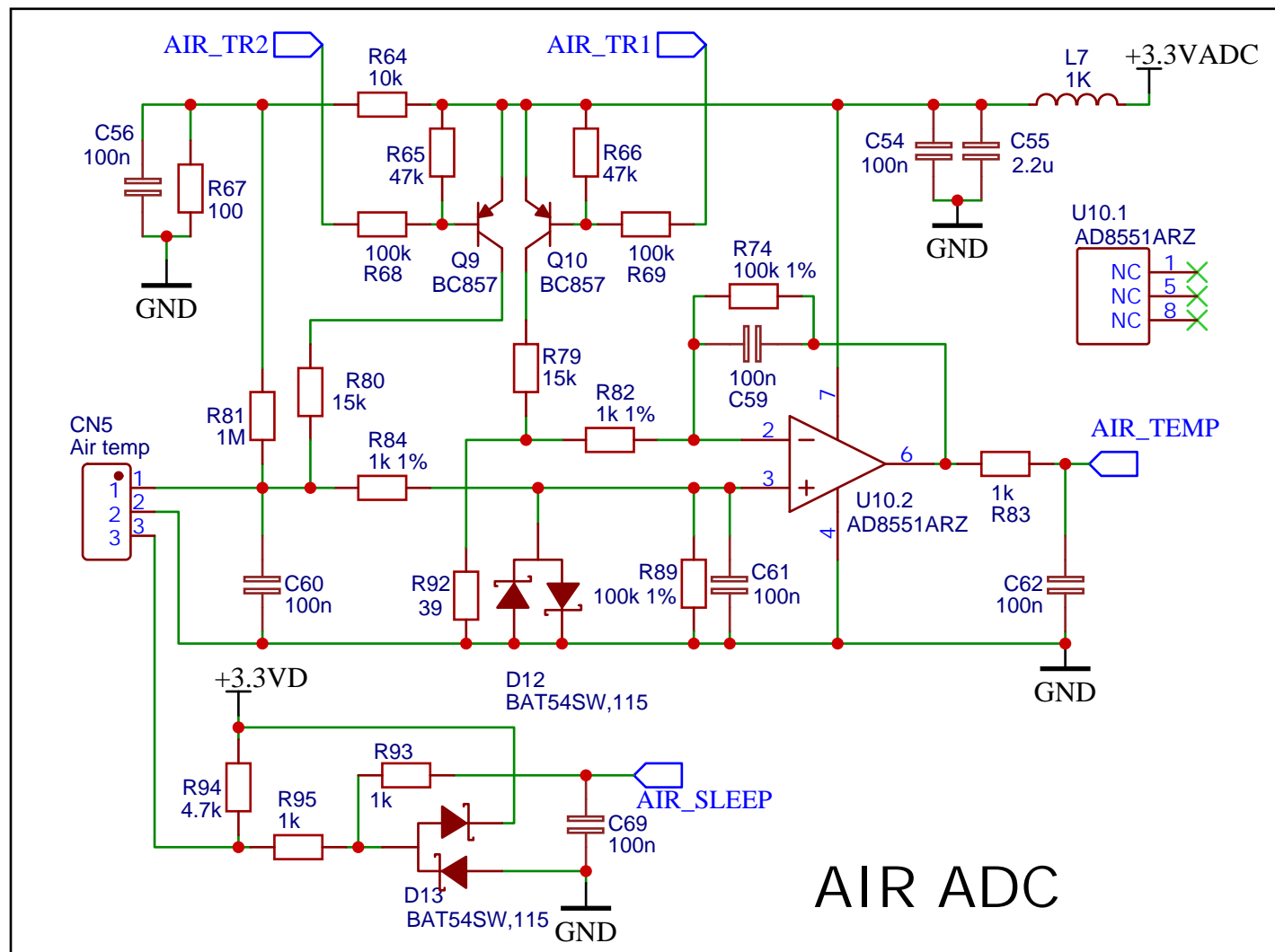
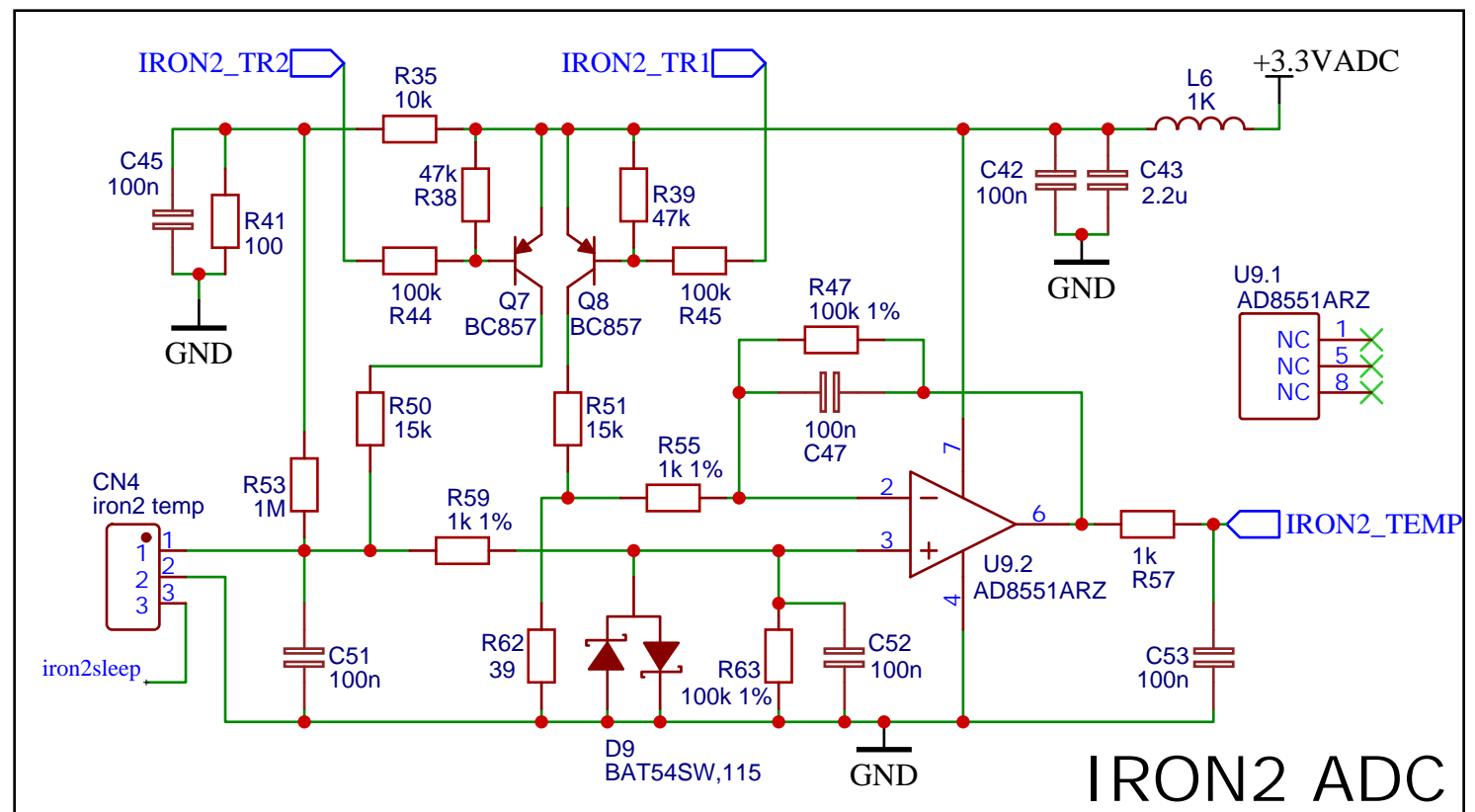
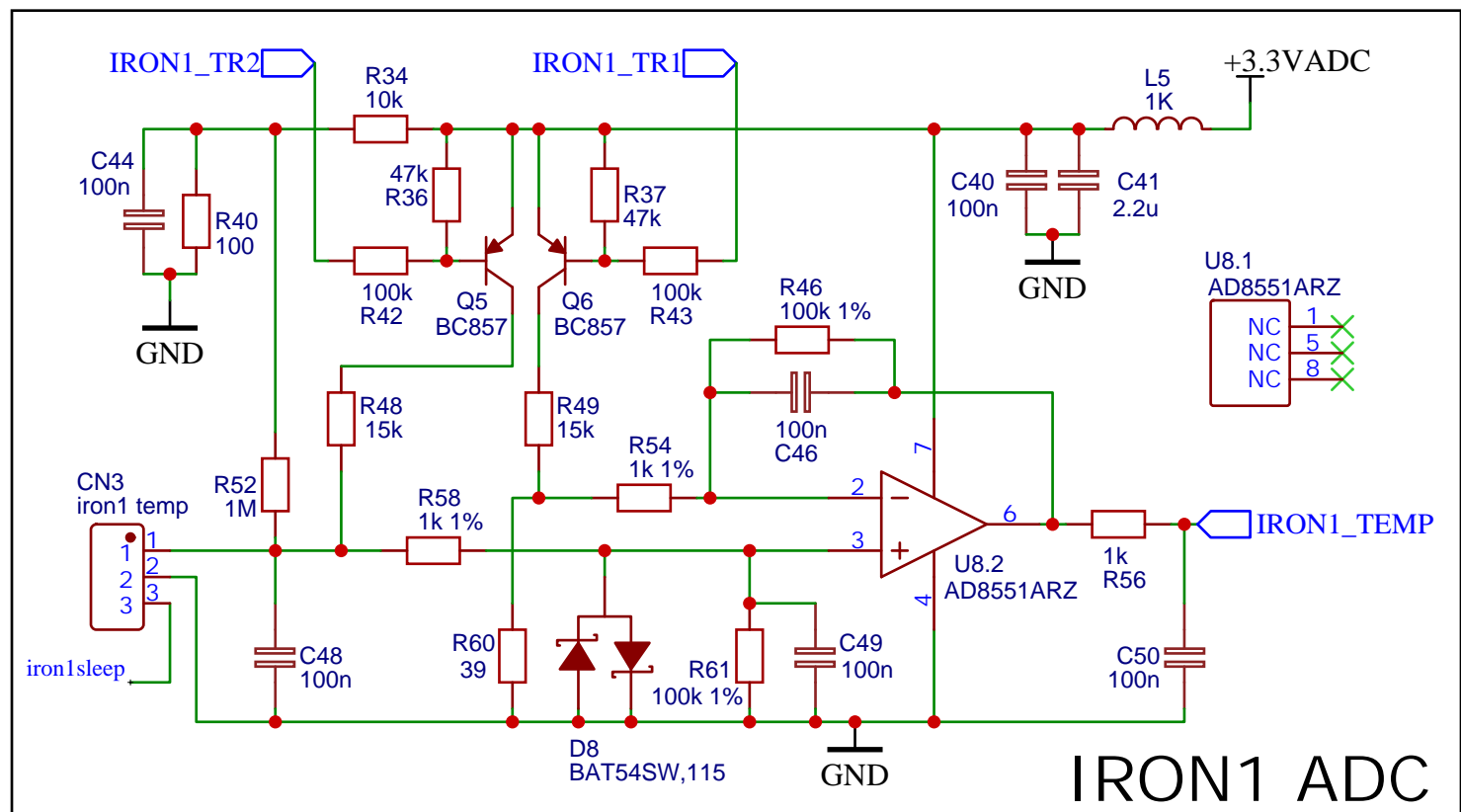
IRON1 HEATER



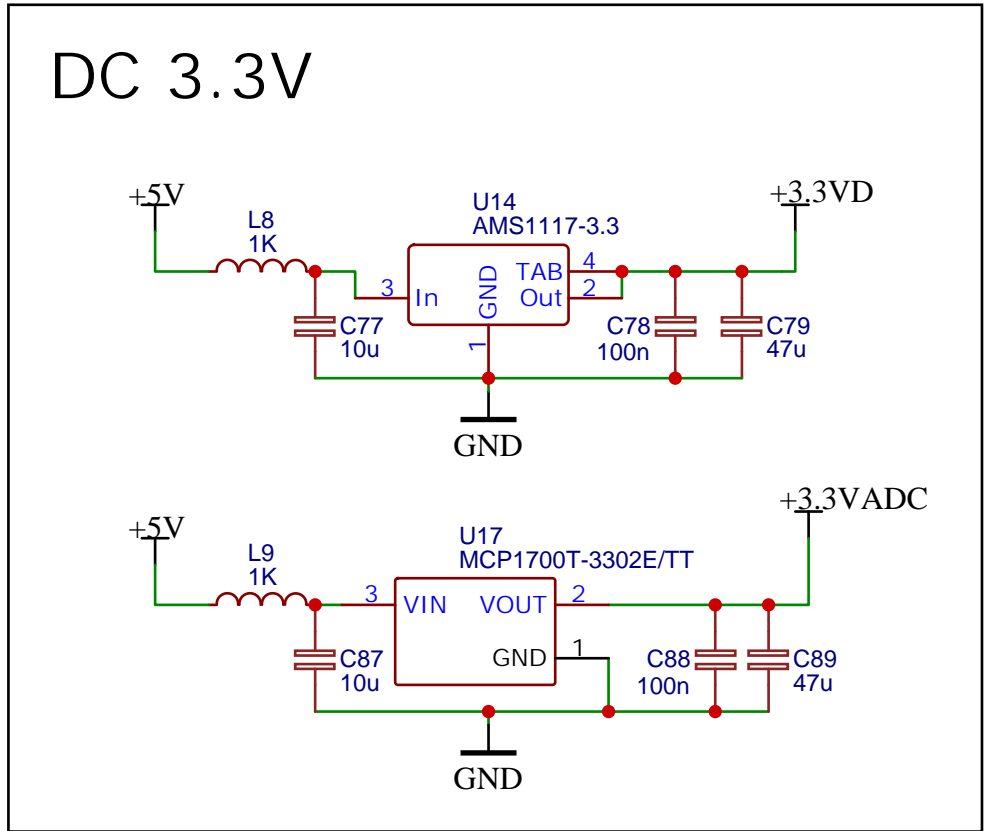
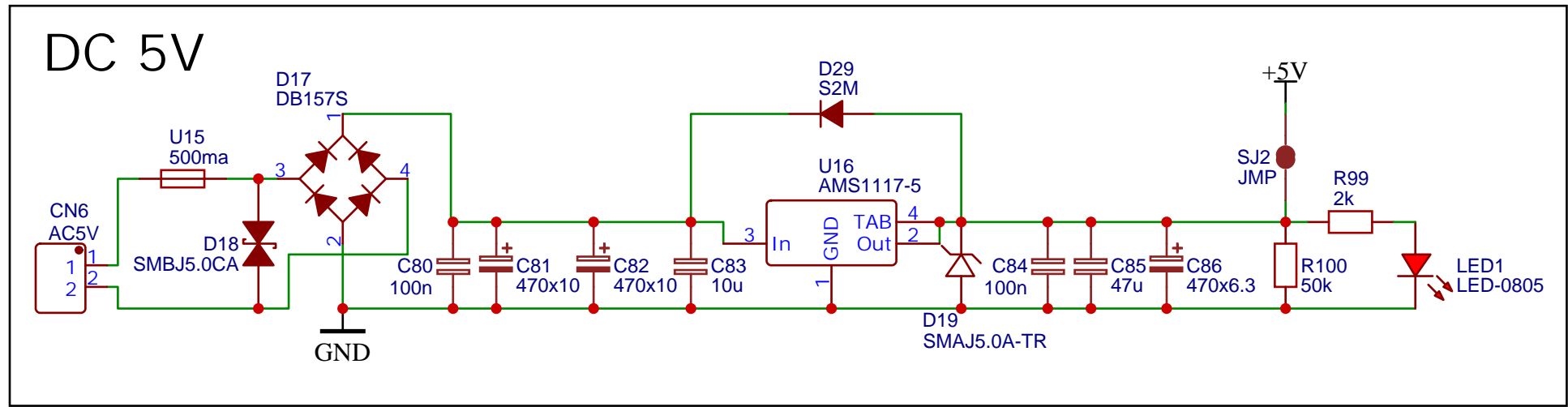
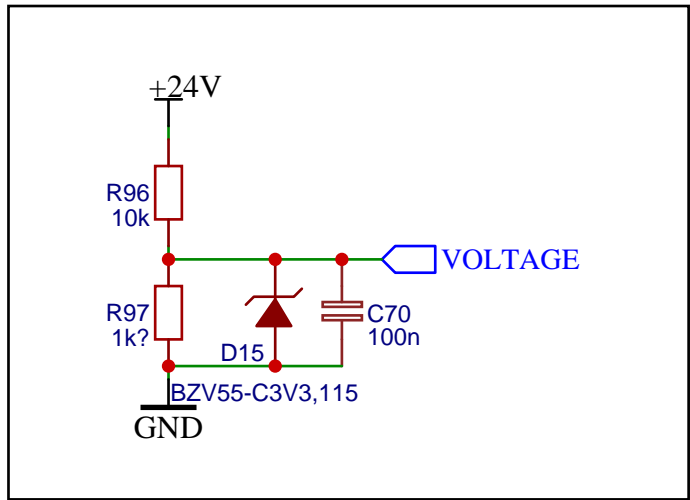
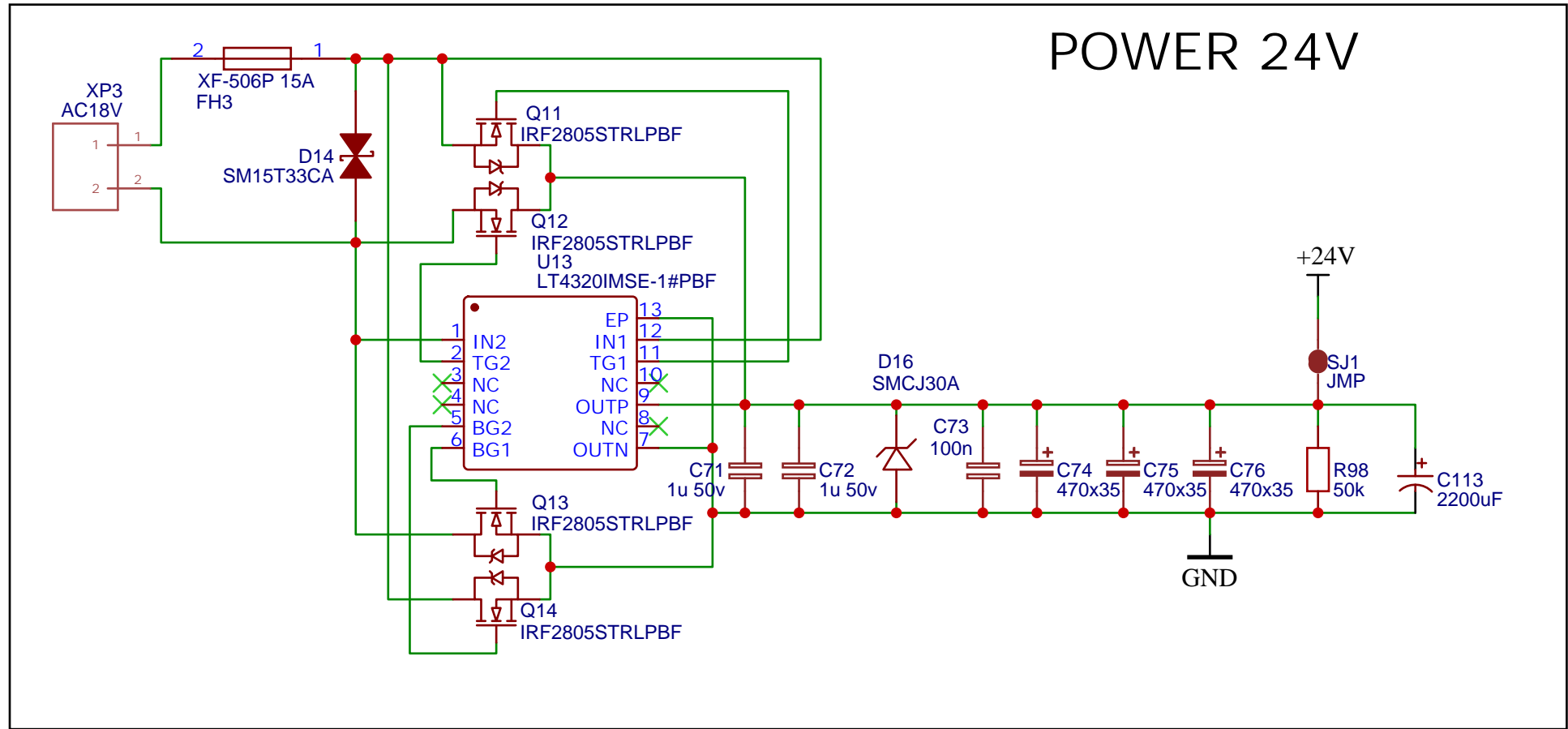
IRON2 HEATER



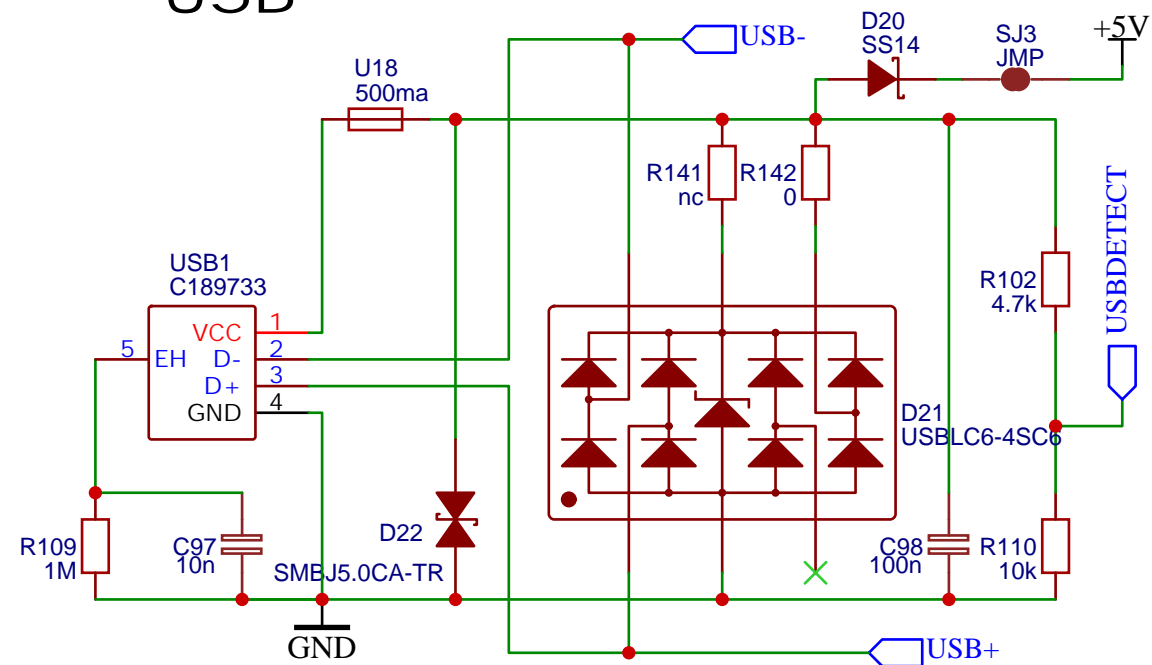
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EasyEDA	Company: none	Sheet: 1/1
	Date: 2021-08-06	Drawn By: xseregax



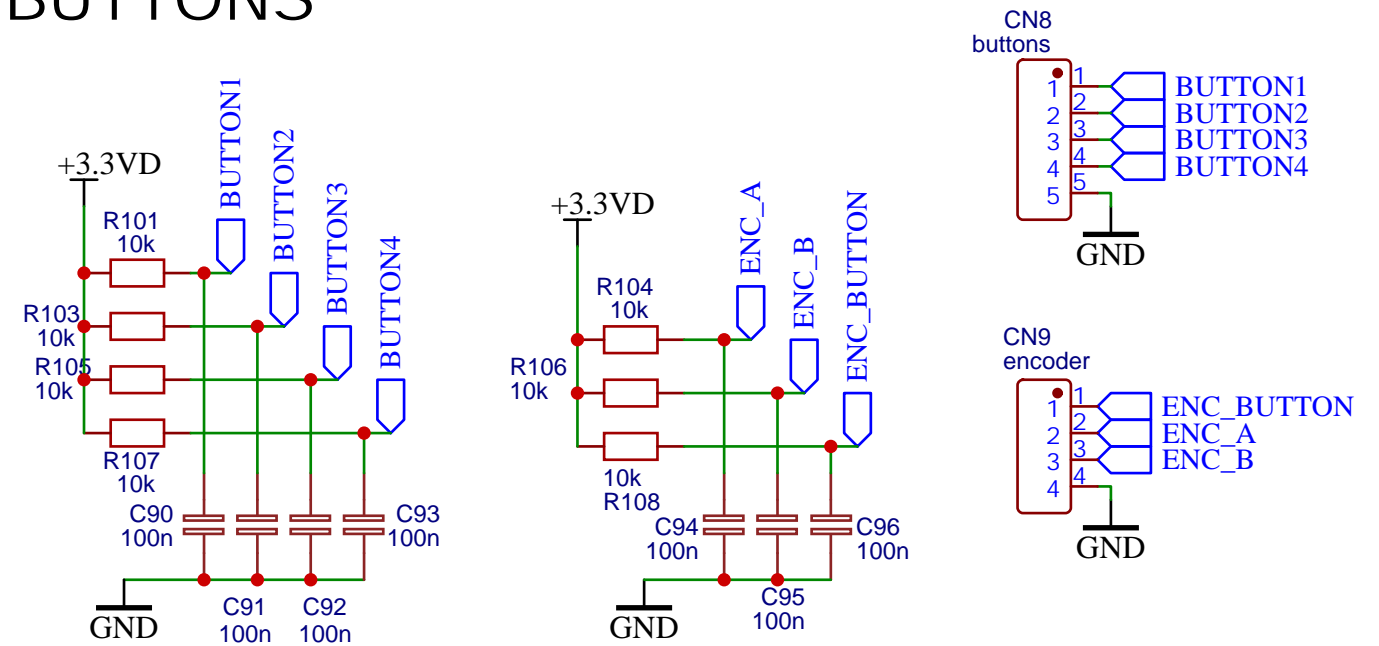
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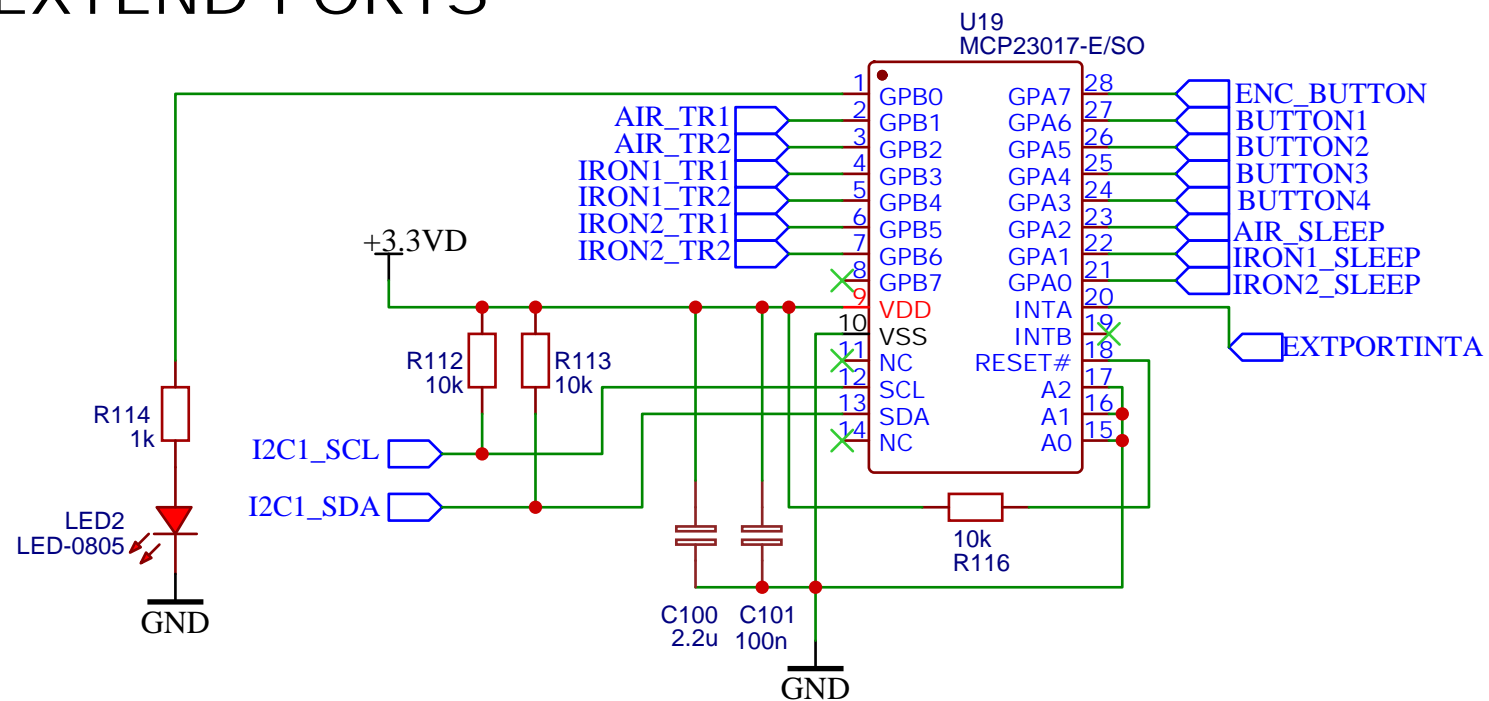
USB



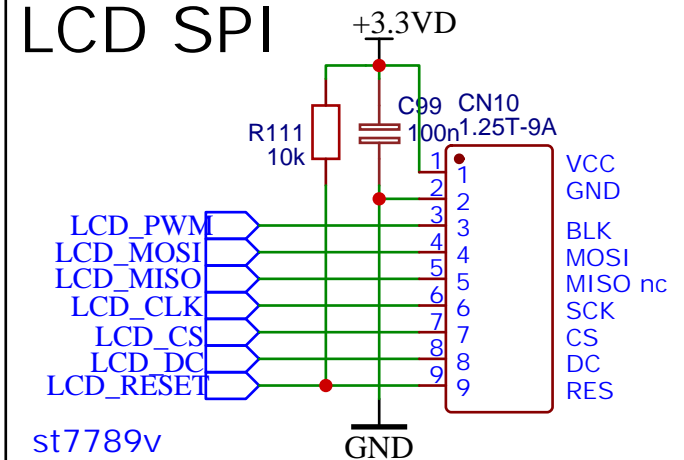
BUTTONS



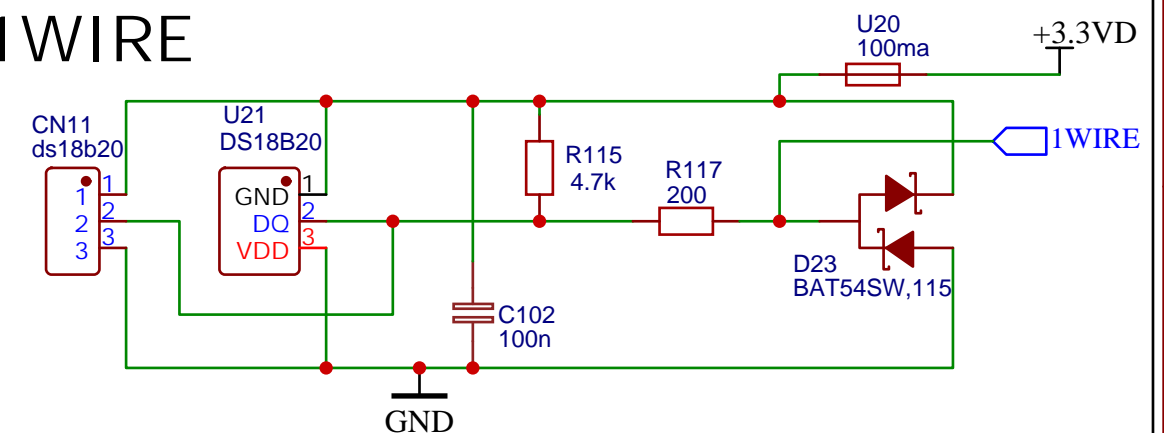
EXTEND PORTS



LCD SPI



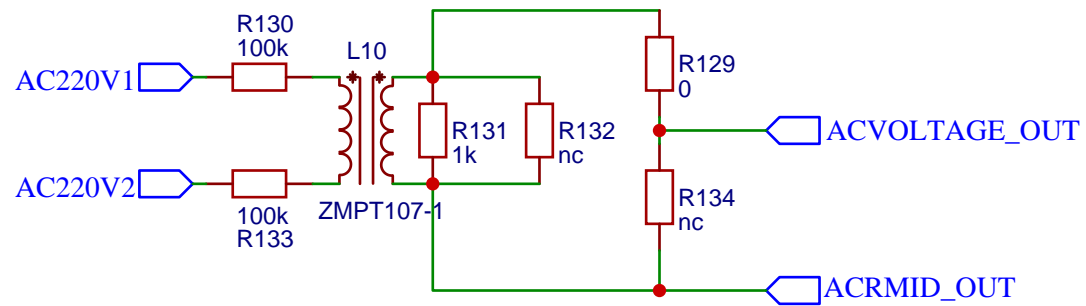
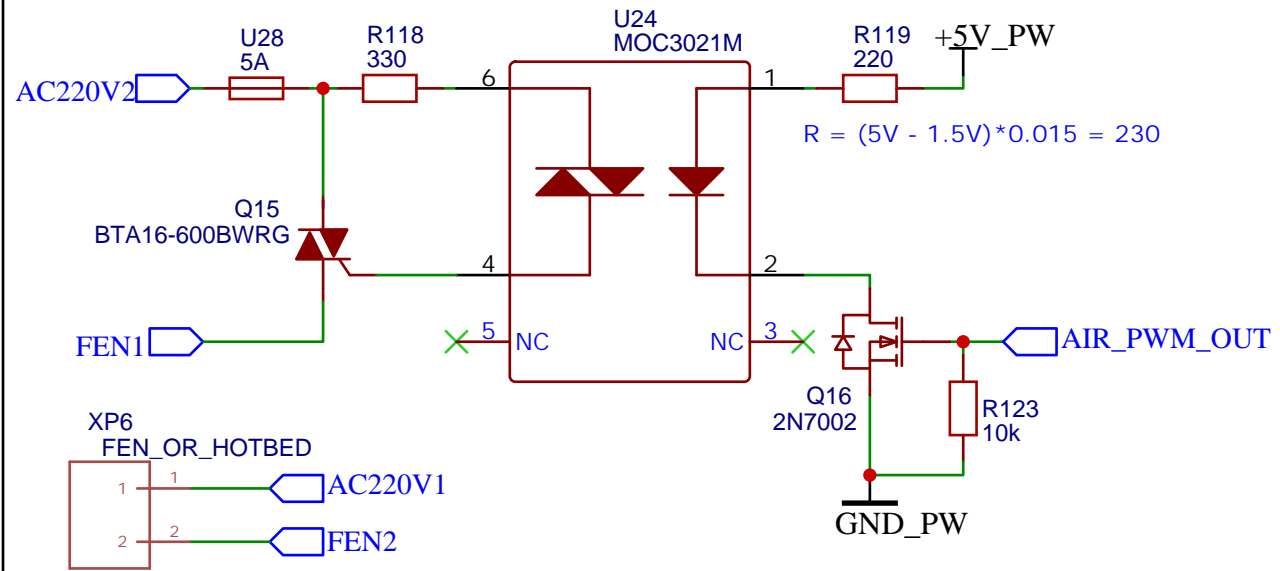
1WIRE



TITLE: buttons		REV: 1.0
EasyEDA	Company: none	Sheet: 1/1
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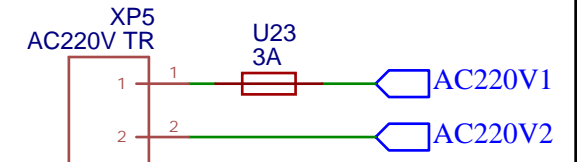
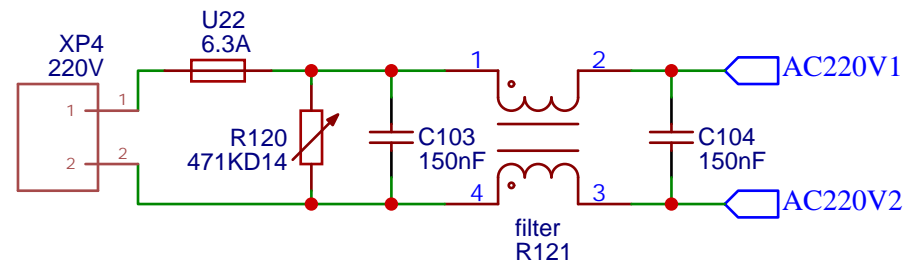
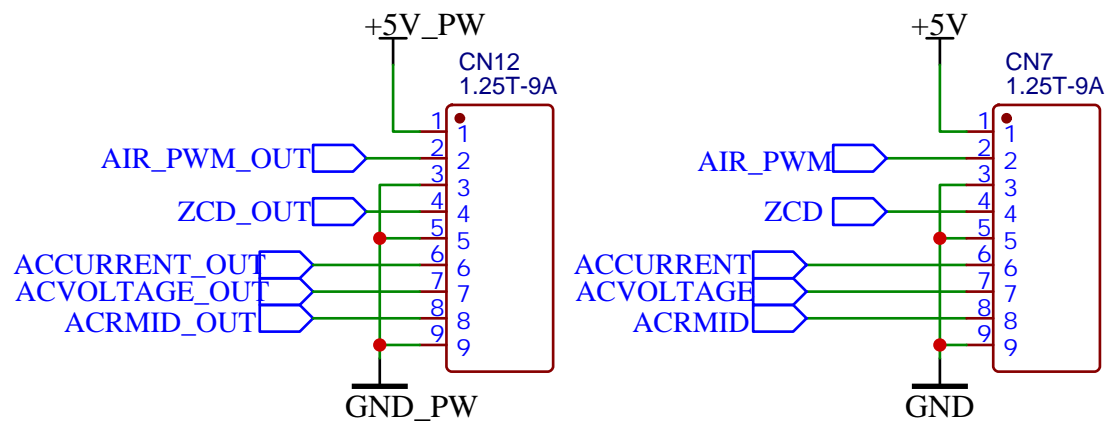
FEN 220V PWM

$$V_{min} = R \times I_{GT} + V_{GT} + V_{TM} = 330 \times 0.05A + 1.3V + 3V = 20.8V$$

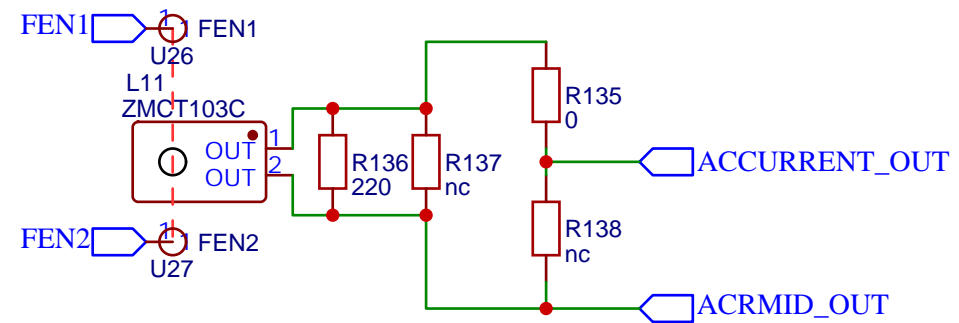
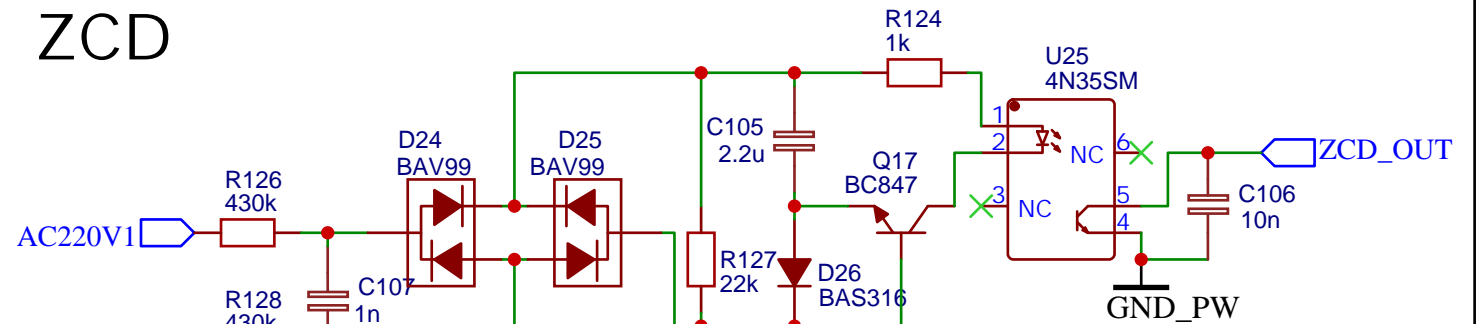


ZMPT107
 1000:1000, 2mA:2mA, 50
 $V_{Outmax} = (\text{Peak Voltage}) / (2 \sqrt{2}) = 3.3V / (2 \sqrt{2}) = 1.167V$
 $R_{in} = V_{in} / I = 230V / 1.15mA = 200k$
 $R_{burden} = (V_{Outmax} / V_{in}) \times R_{in} = (1.167V / 230V) \times 200k = 1014$
 1k : $V_{out} = 1.15V$

$V_{out} = 230/2 = 115k$
 $R_{bud} = 580$



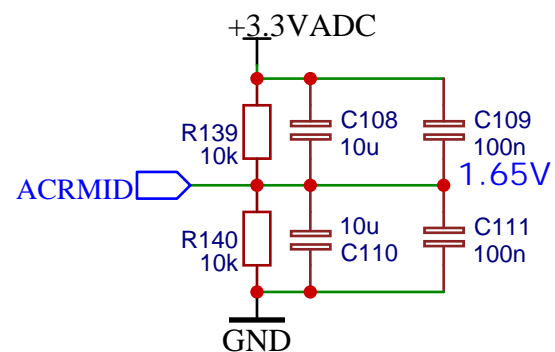
ZCD



ZMCT103C
1000:1, max 5A:5mA, 50

<https://learn.openenergymonitor.org/electricity-monitoring/ct-sensors/interface-with-arduino>
<https://tyler.anairo.com/projects/open-energy-monitor-calculator>

$$\text{burden_resistor} = (\text{system_voltage} / 2.0) / ((I_{\text{RMS}} * 2) / \text{ct_turns}) = 233$$



TITLE: ac		REV: 1.0
	Company: none	Sheet: 1/1
	Date: 2021-08-27 Drawn By: xseregax	