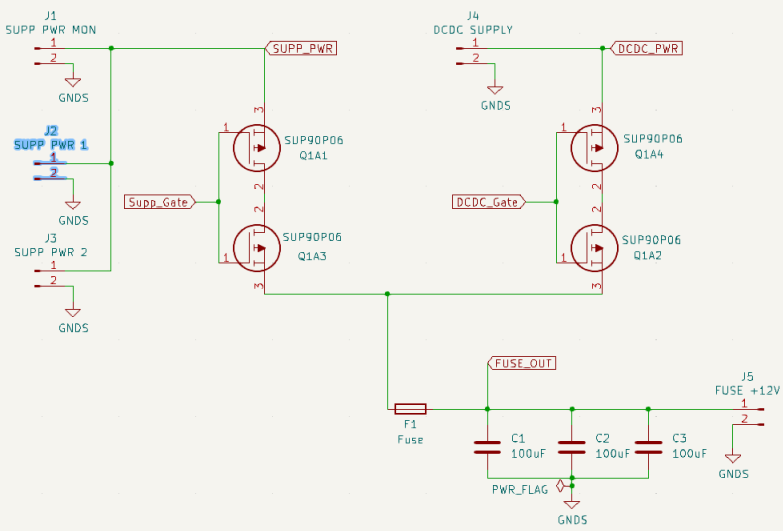
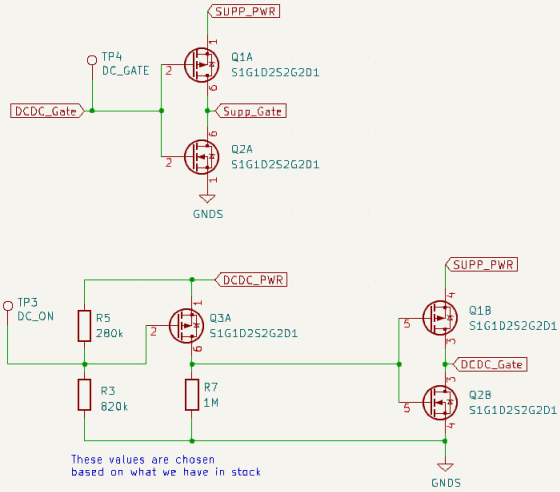
Power Board

This board switches power to the fuse box between the DCDC power supply and the supplemental battery depending on whether the DCDC power is on or not.





Version History

v4.0

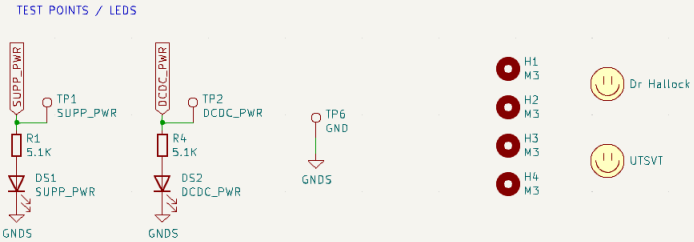
Used op-amp circuitry to handle power handoff between DCDC and supplemental. Added an extra connector for the second supplemental battery.

v4.1

Replaced op-amps with MOSFETs and inverters for logic as the slew rates of the op-amps were too slow. Added capacitors for the output.

v4.2(next version)

Need to be able to handle a range of inputs from the supplemental battery. Need to stabilize output voltage at 12 volts. It is difficult to know at exactly what voltage DCDC will get selected due to the range of threshold voltages for Q3(switching could be somewhere from 5 to 11.95 volts).



Fall 2022

UT Solar Vehicle Team — Power Systems

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Title: Power Board v4.0

Size: A	Date: 2022-11-05	Rev:
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