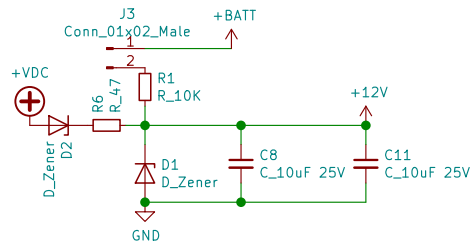
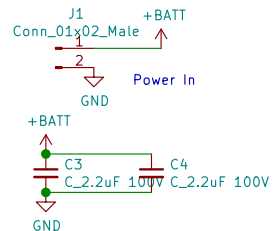


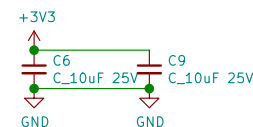
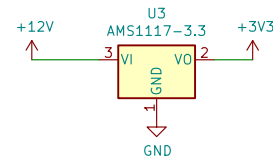
Kickstart



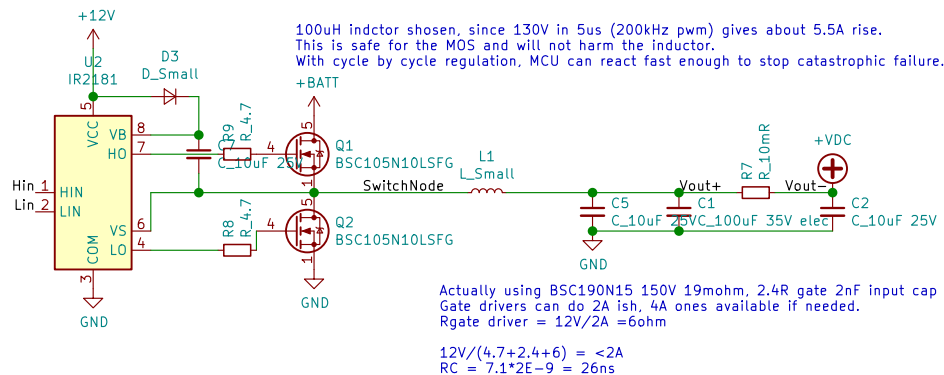
Momentarily touching conn j3 causes a current which charges the 12V capacitors and shortly after the 3.3V ones

This should allow the system to self start, at which point, VDC, the output can supply the MCU and gate drivers

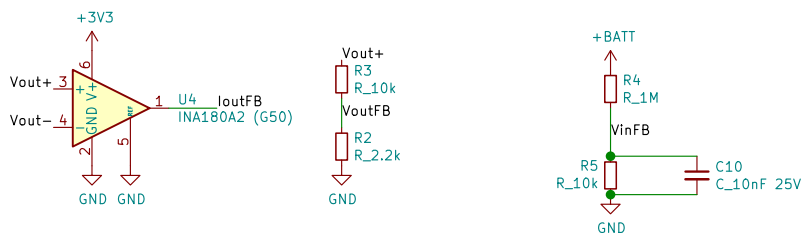
Regs



Power Electronics



Feedback conditioning



Current on 10mohm shunt should be able to read up to 2x the saturation of the inductor - 3.5A
 $7A * 0.01 * 50 \text{ gain} = 3.5V$, close enough.

Vout should enable up to 1.5x the required 12V
 $18 * 2.2 / (10 + 2.2) = 3.25$

Vin should be sufficient to enable feedforward PWM control
 $150V * 10k / 1M = 1.48V$

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