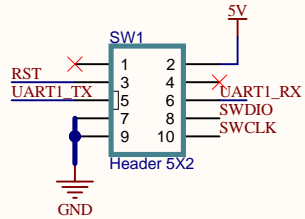
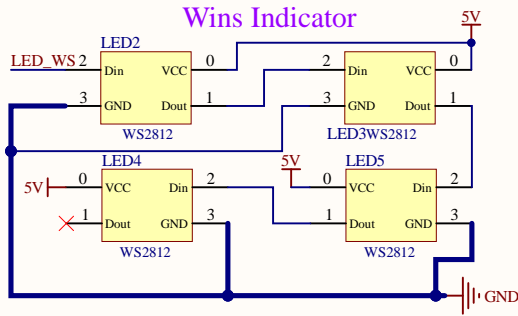


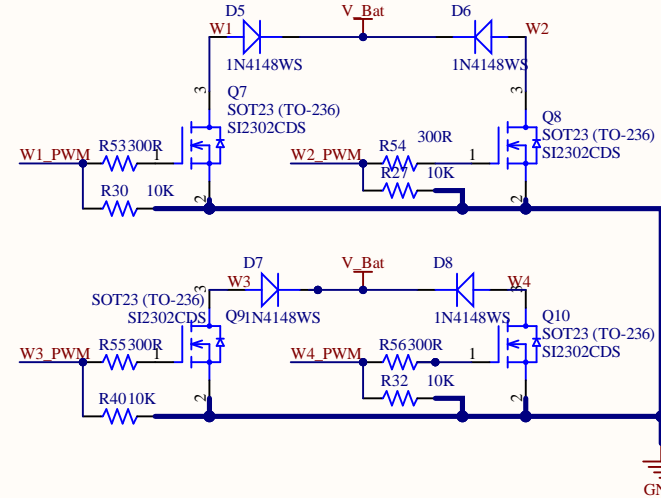
Debug&Download



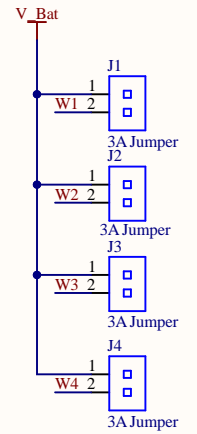
Wins Indicator



Wins control

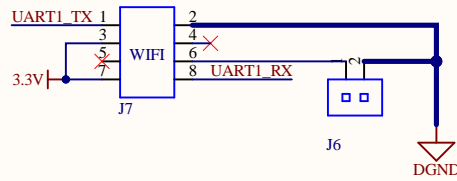


Add diode to provide pass through

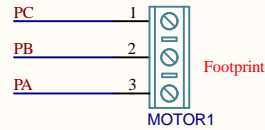


ESP8266

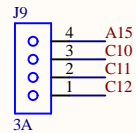
PD: Flash boot
Float: UART Download



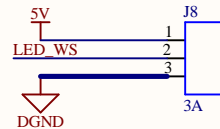
Motor connector



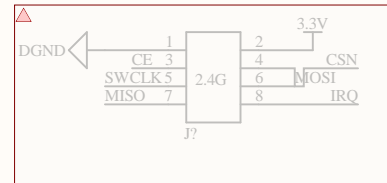
Step motor



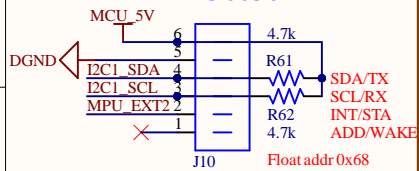
WS2812



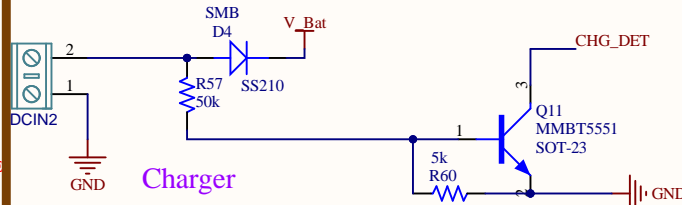
2.4G



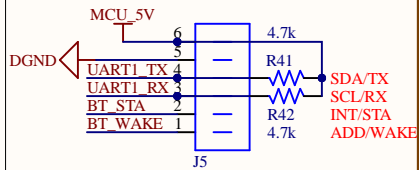
MPU6050



Charger



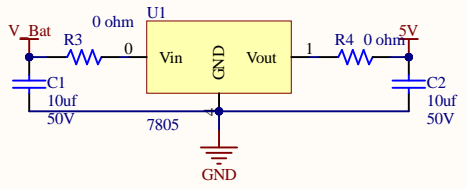
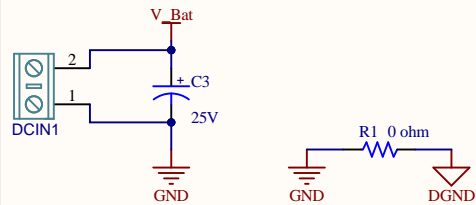
BT



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Power

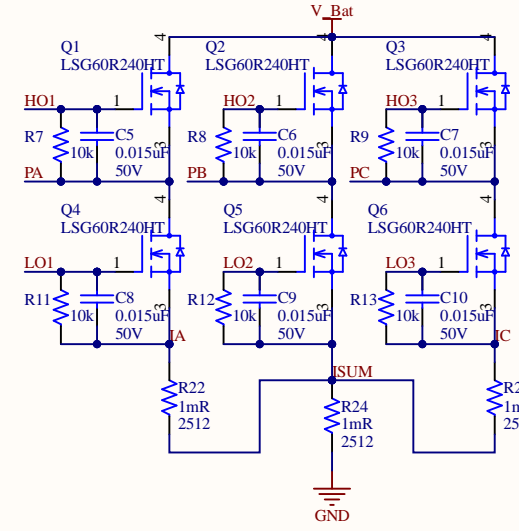
8.1-12.6V
3s1p Li-ion bat pack



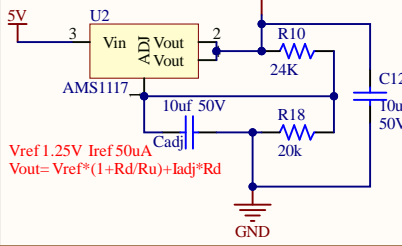
Voltage detection

Motor Driver

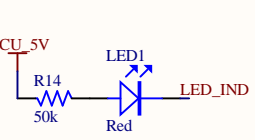
30V 100A
5.5m ohm @Vgs 10V Vgs_th = 3V 20V max
100A



3.3V

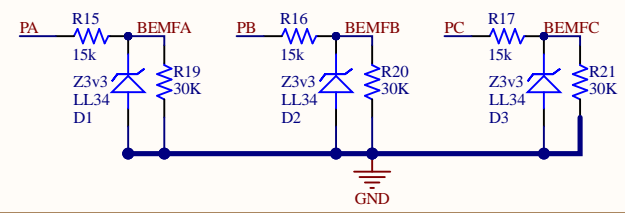


LED indicator

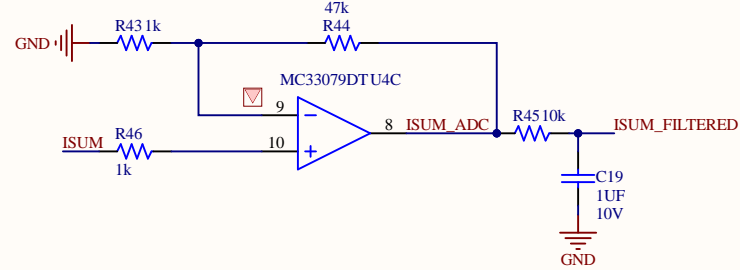
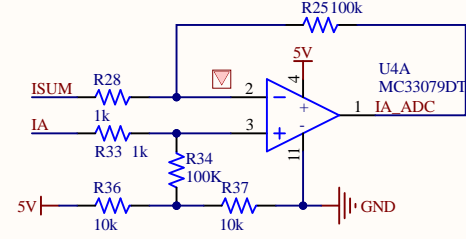
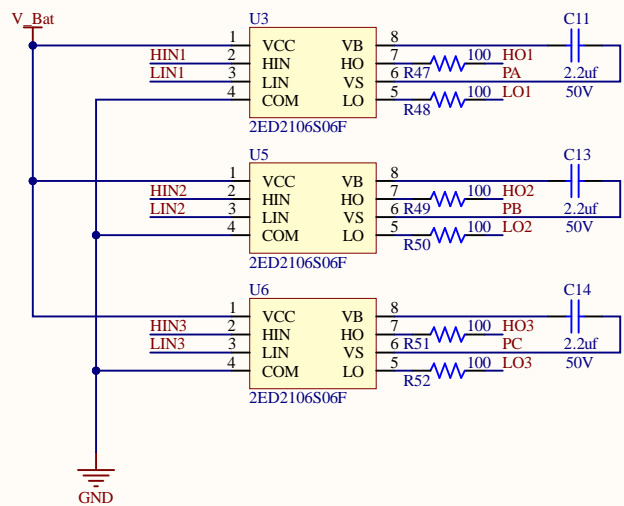


BEMF Detection

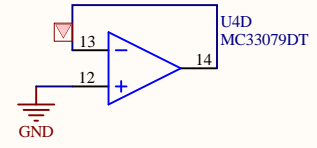
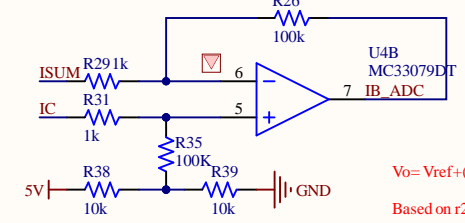
A0-A2 ADC1 In 【0-3】



MOS Gate driver



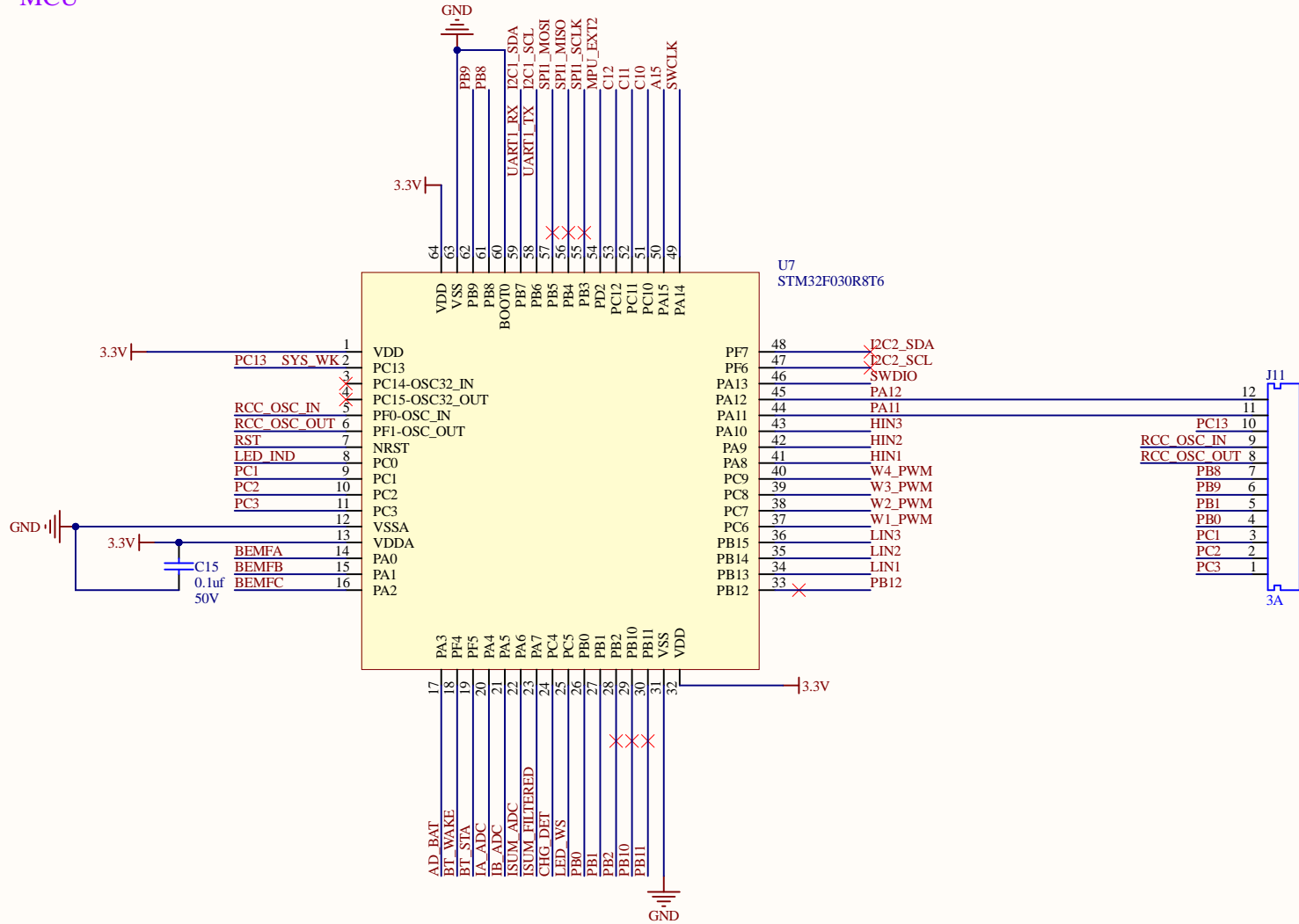
Current sampling




$V_o = V_{ref} + (V_+ - V_-) \cdot R_{26} / R_{29}$
Based on $r_{29} = r_{31} / r_{26} = r_{35}$

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MCU



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