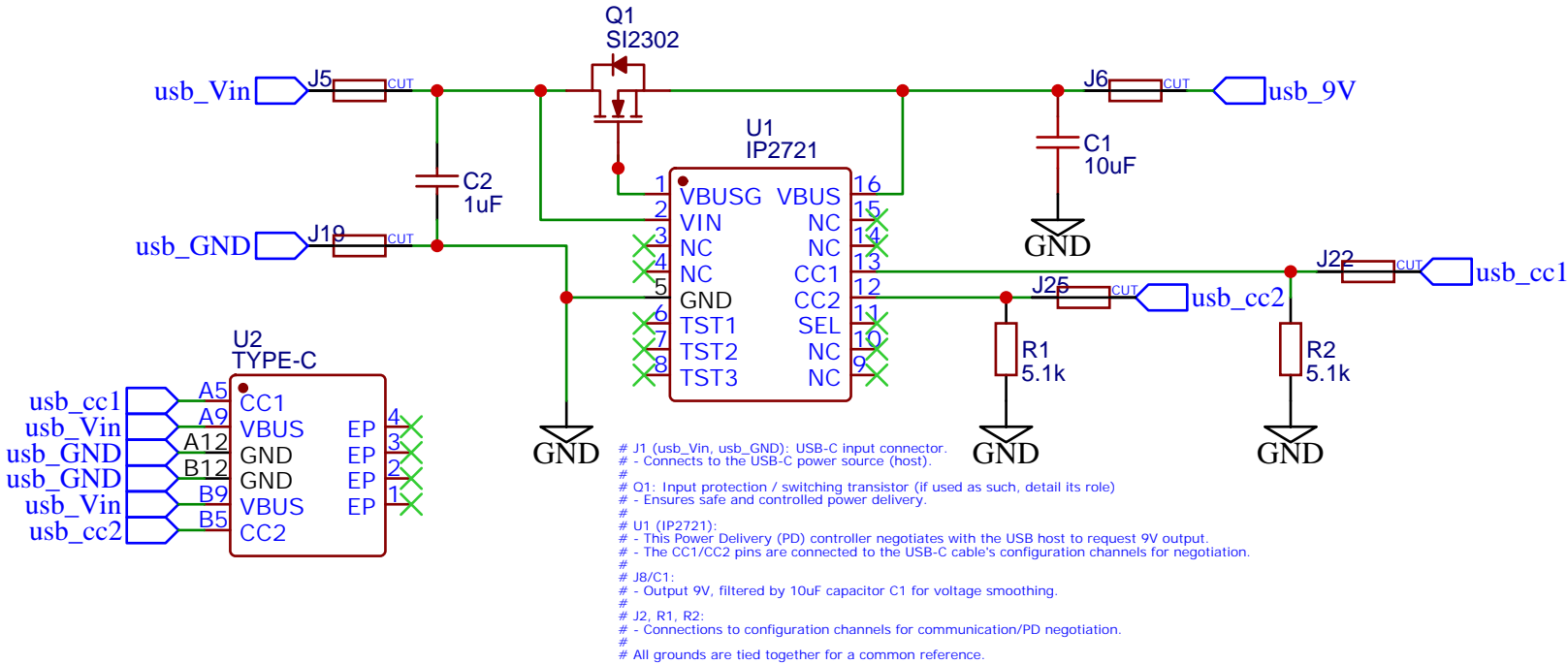
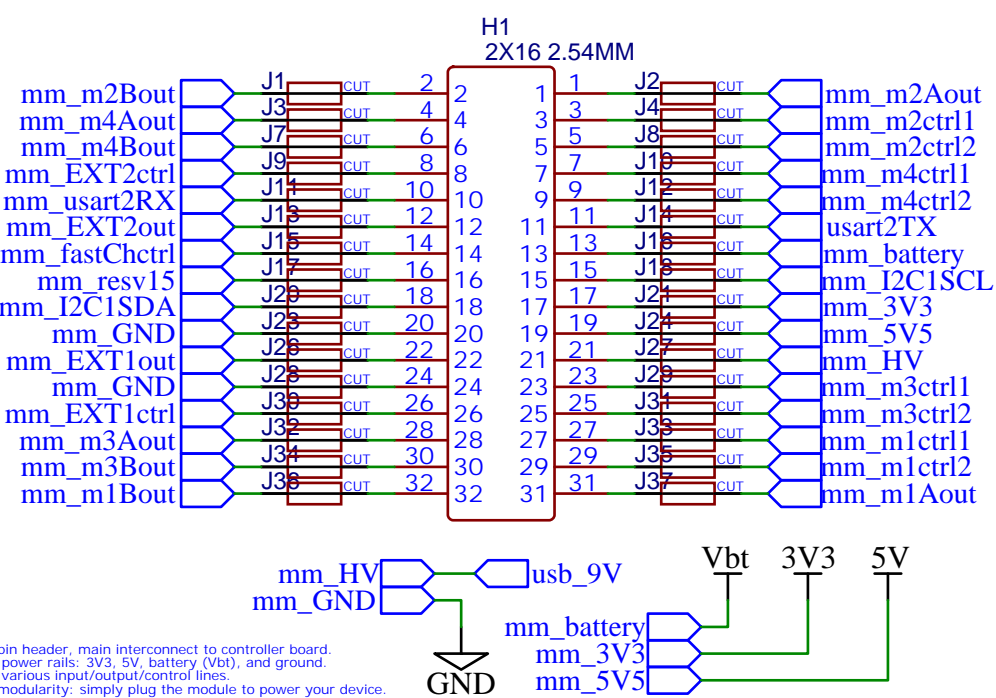


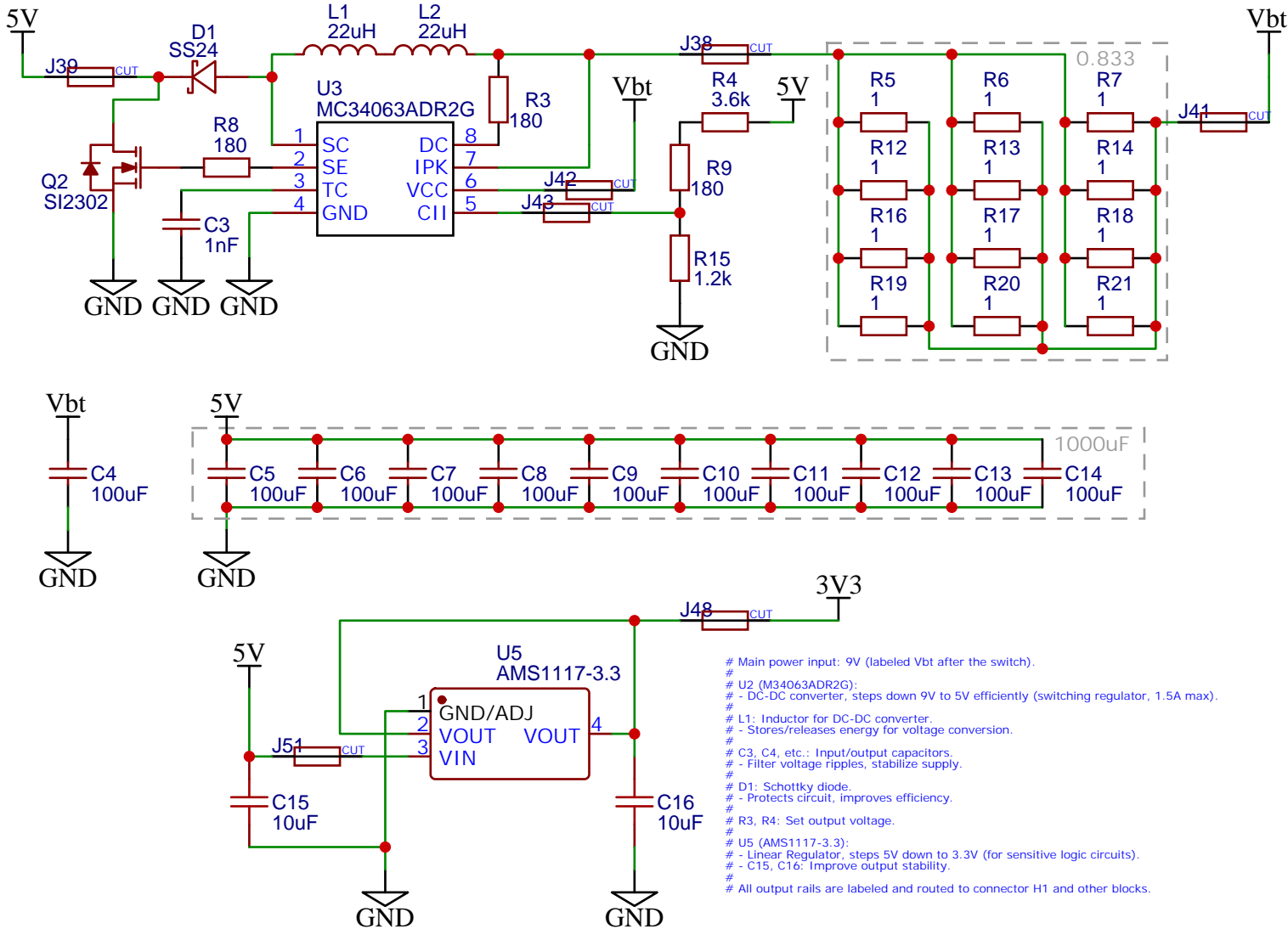
Integrate USB-C and Get 9V Out of the USB Host



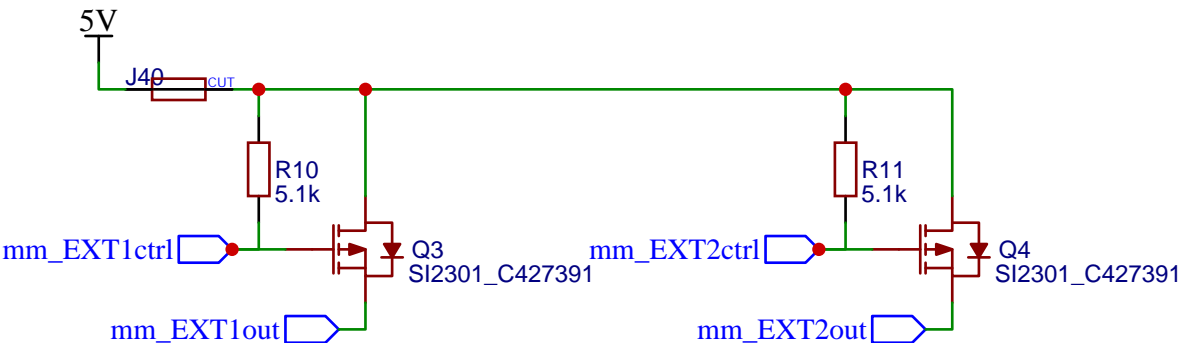
Connector to micro-controller/automarker



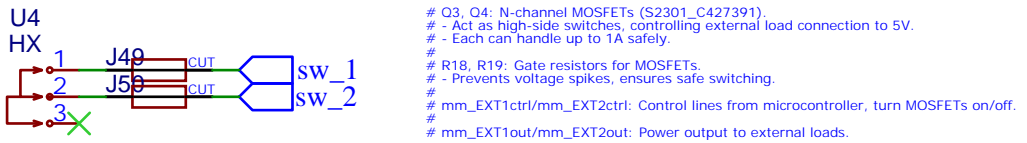
Provide a 3V3 5% accuracy (300mA max) and 5V Out 5% accuracy (1.5A max)



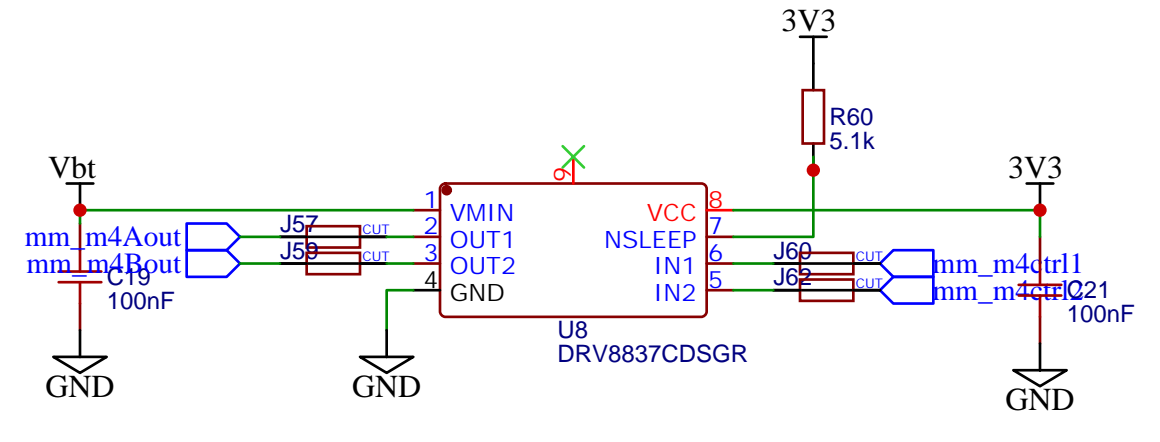
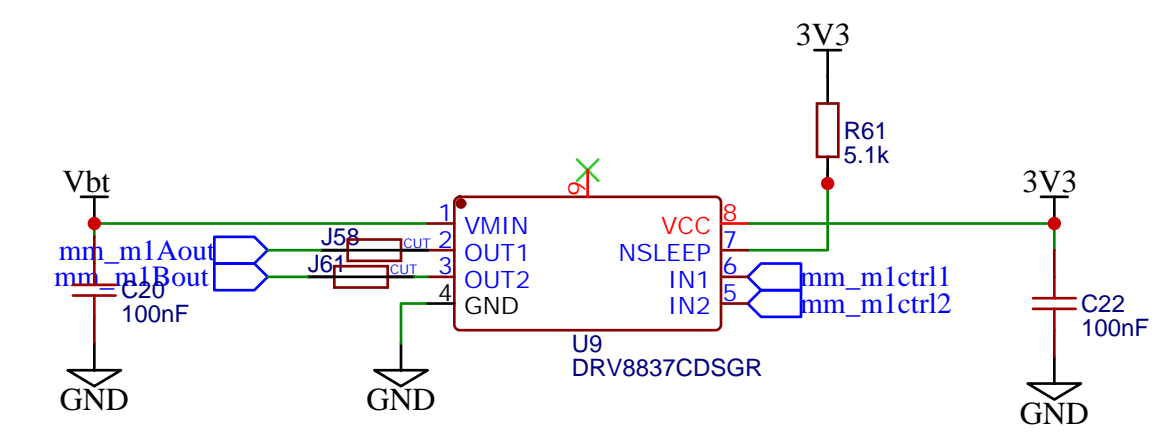
Provide 2x External Load Switching at 1A each (High Side connected to your 5V)



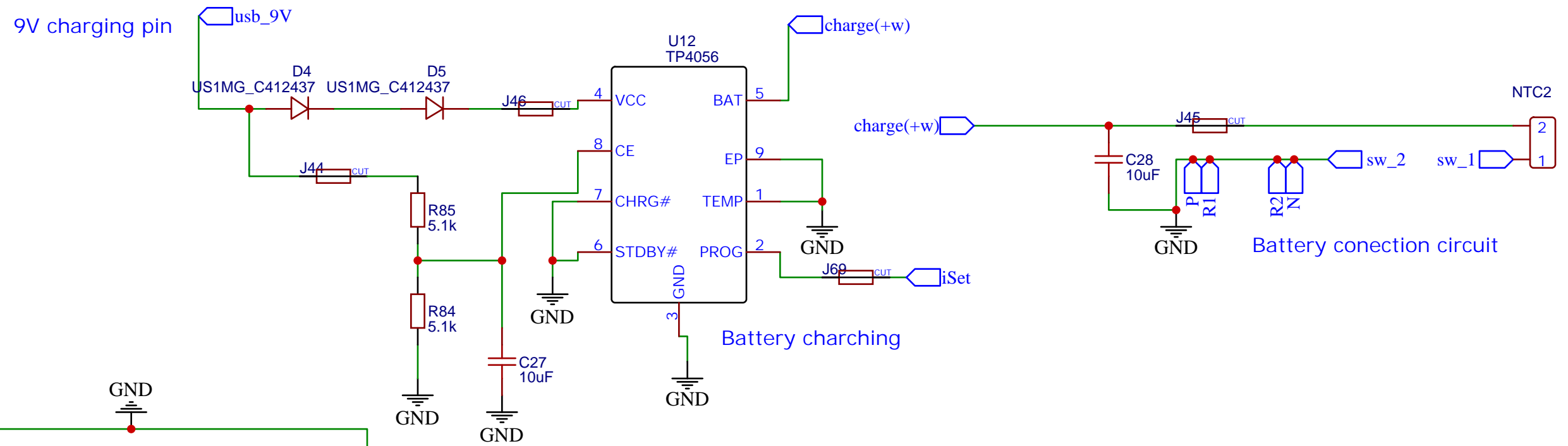
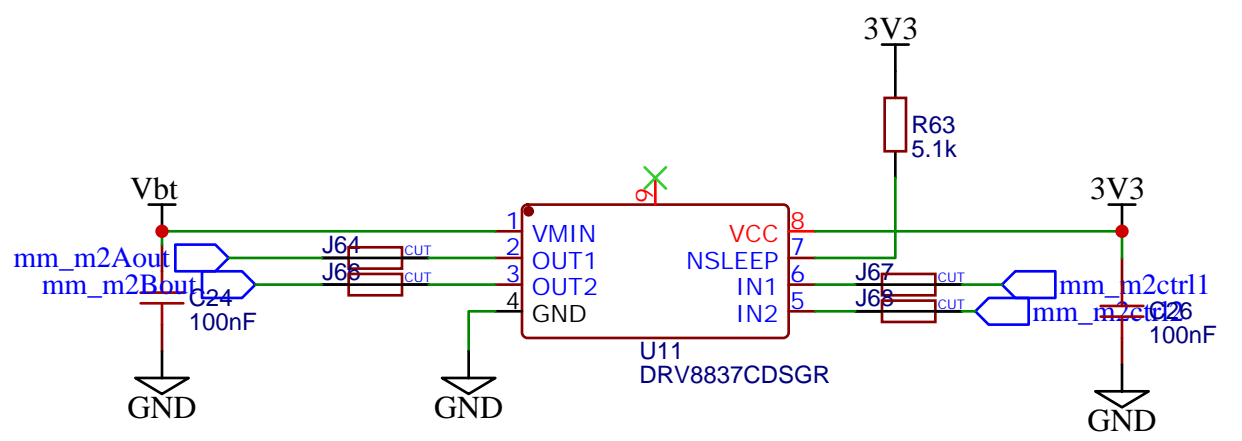
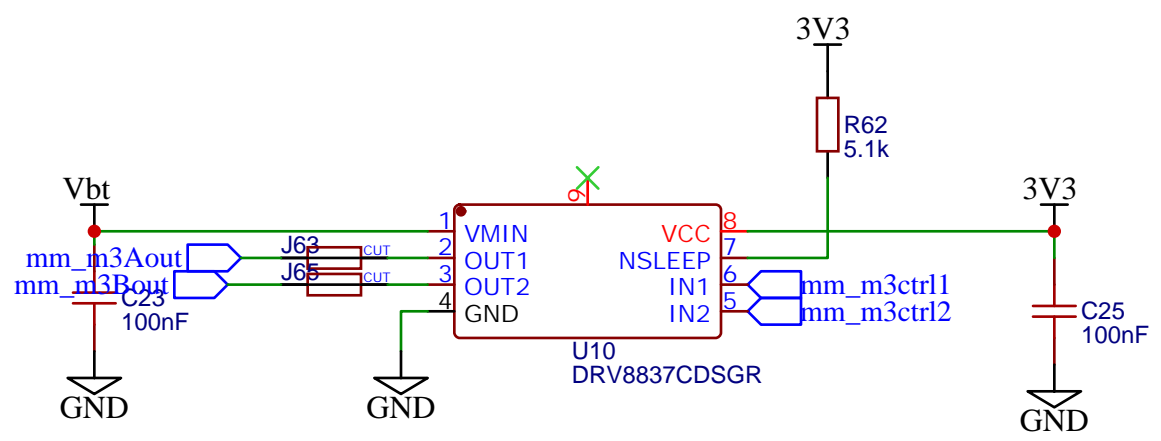
Provide an ON/OFF switch.
OFF state: battery draw <30uA.
ON state: can provide your robot peak current of 2A.
The switch needs to shut down 5V and 3V3.



TITLE: Subtasks 5 to 8 out of 8 for MM project		REV: 3.0
University of Cape Town EEE3080F	Company: University of Cape Town	
	Date: 2025-04-20 Drawn By: Nikola	
		Sheet: 1/1

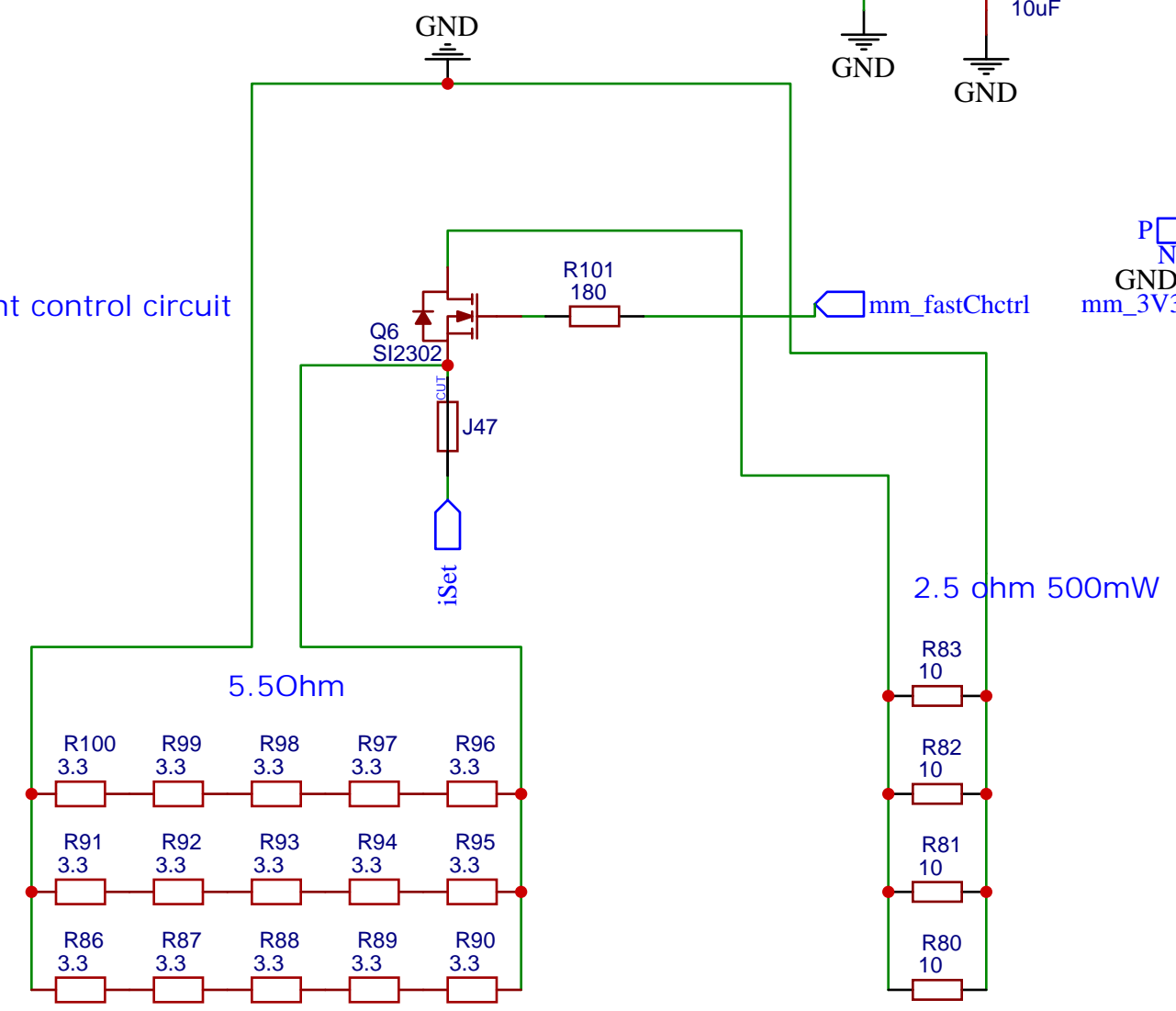


Motor Control Circuitry

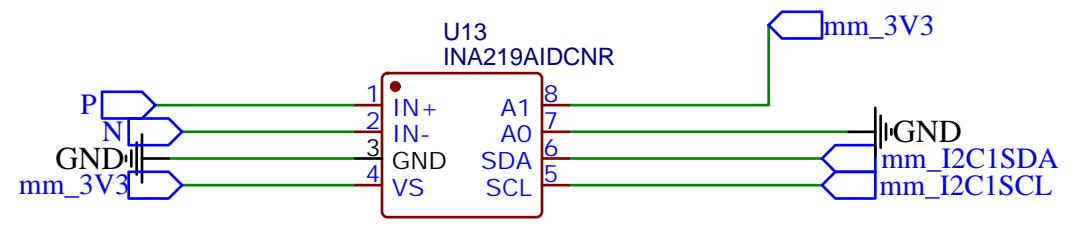


Battery chraging from 9V pin
Battery monitoring System
Charging mode control circuit

Current control circuit



Battery monitoring



Current sensing resitor network

