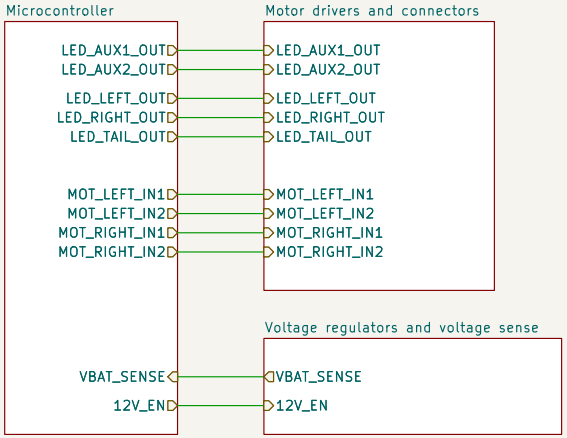
DEMON BOARD



Vagarth Gaurav

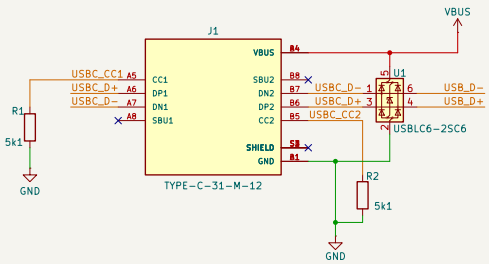
Sheet: /
File: demonBoard.kicad_sch

Title: Demon board

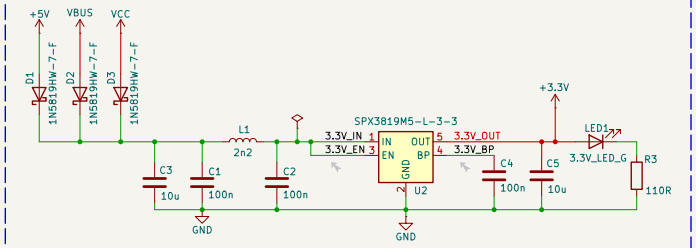
Size: A4	Date: 2026-01-05	**Rev:**
KiCad E.D.A. 9.0.6		Id: 1/4

MICROCONTROLLER

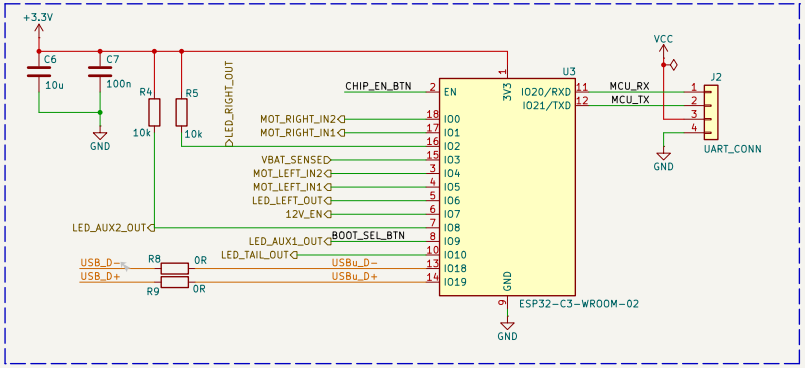
USB C



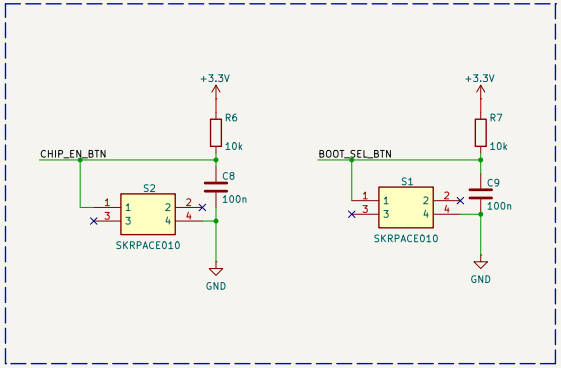
3.3V LDO



Microcontroller



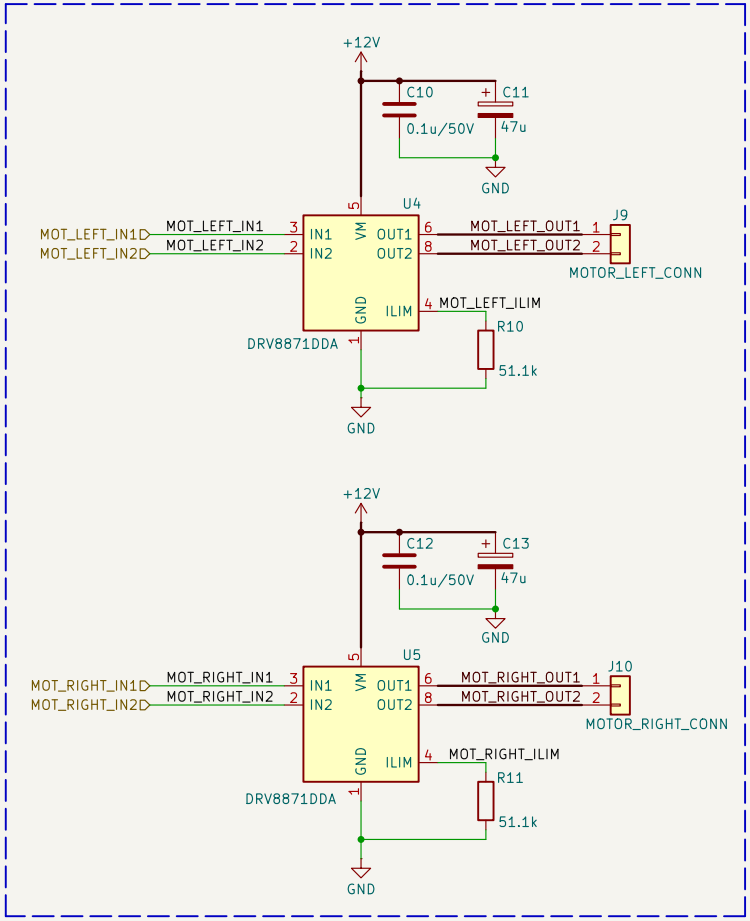
Buttons



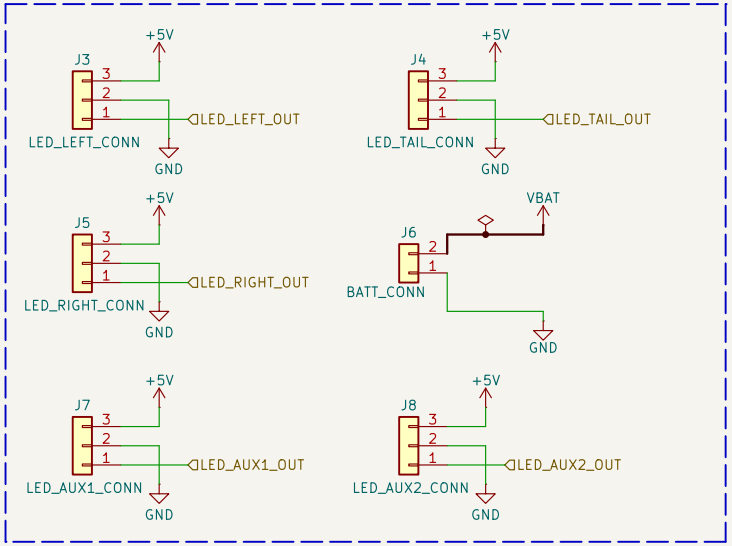
Vagarth Gaurav		
Sheet: /Microcontroller/		
File: Microcontroller.kicad_sch		
Title: Demon board		
Size: A3	Date:	Rev:
KiCad E.D.A. 9.0.6		Id: 2/4

Motor drivers and connectors

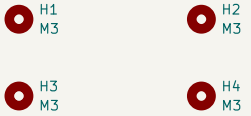
Motor outputs



Connectors



Mounting holes



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Sheet: /Motor drivers and connectors/		
File: Motor_drivers.kicad_sch		
Title: Demon board		
Size: A4	Date:	**Rev:**
KiCad E.D.A. 9.0.6		Id: 3/4

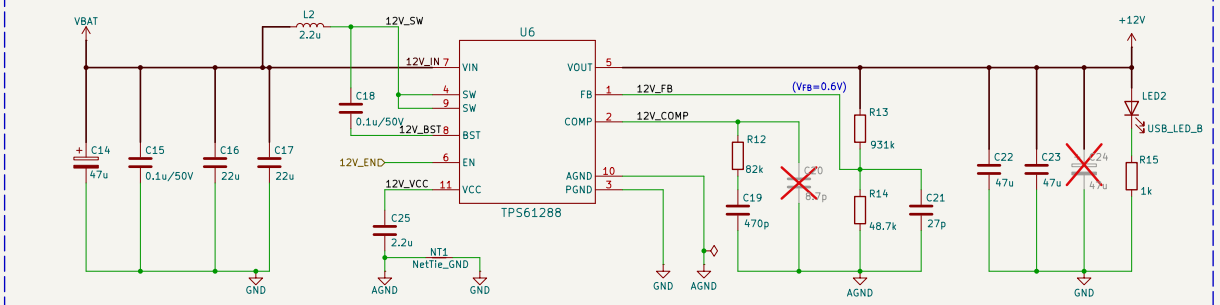
Voltage regulator and Voltage sense

12V boost converter

10.8 < VBAT < 11.8

3S Lipo -> Must be limited to max voltage of 11.8V!
10.8 < 3S < 11.8

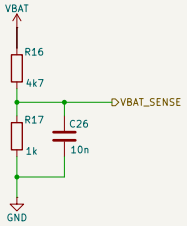
Max current: 4A



V_{out}= 0.6V x (1 + R13/R14)
V_{out}= 0.6V x (1 + 931k/48.7k) = ~12V

Battery Voltage sense

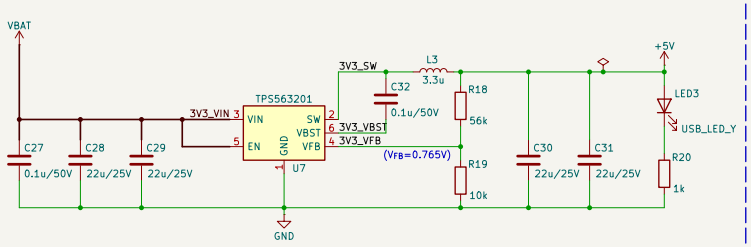
10.8 < VBAT < 12.6



5V buck converter

10.8 < VBAT < 11.8

Max current: 3A



V_{out}= 0.765V x (1 + R18/R19)
V_{out}= 0.765V x (1 + 56k/10k) = ~5V

Vagarth Gaurav		
Sheet: /Voltage regulators and voltage sense/		
File: voltage_regulators_and_voltage_sense.kicad_sch		
Title: Demon board		
Size: A3	Date:	Rev:
KiCad E.D.A. 9.0.6		Id: 4/4