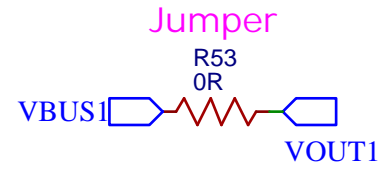
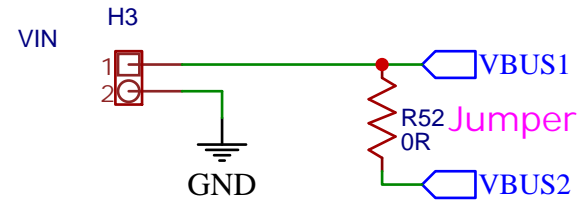
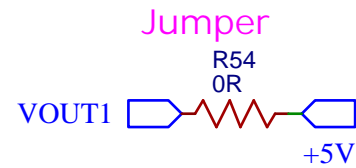


DC CONNECTOR

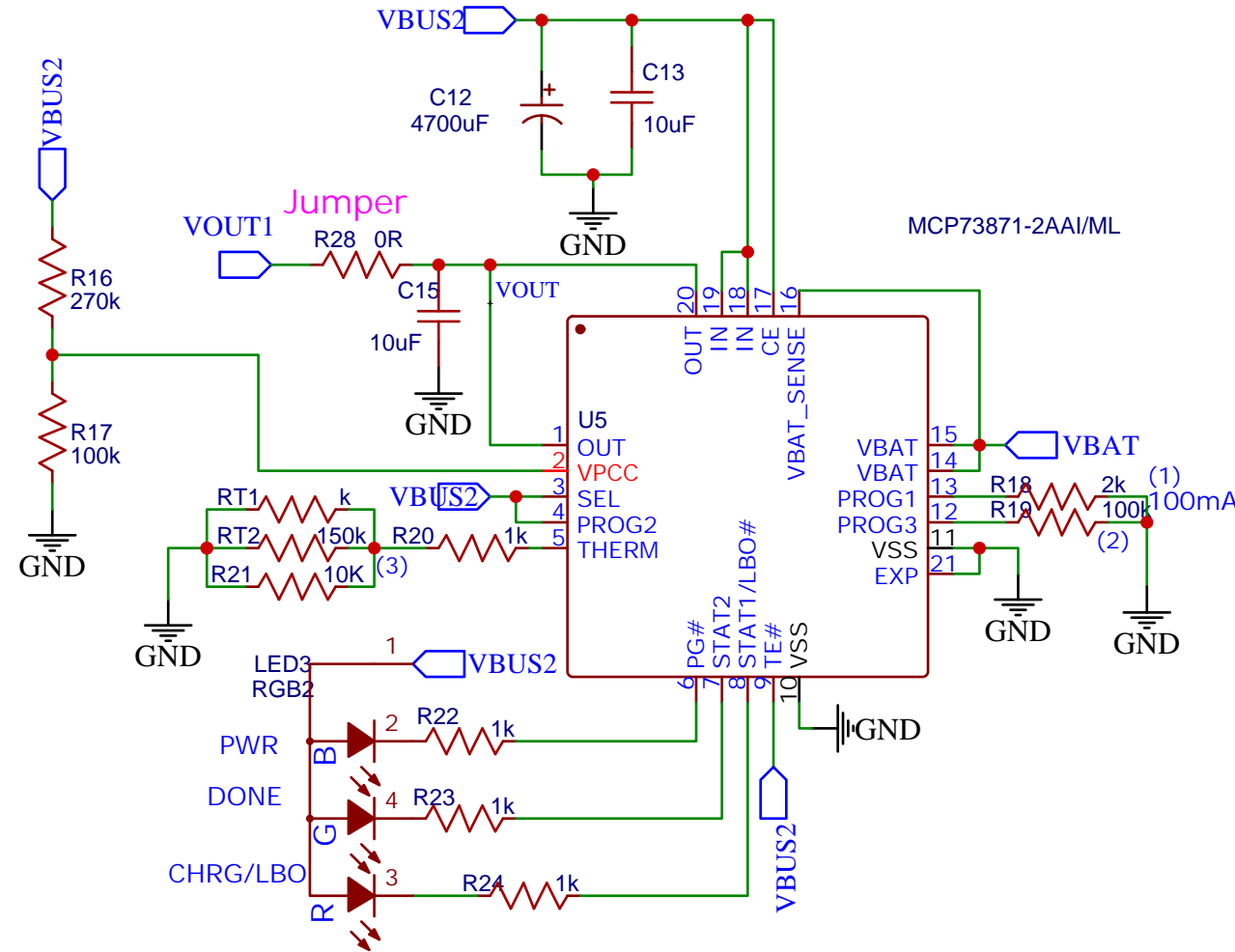


BYPASS MCP

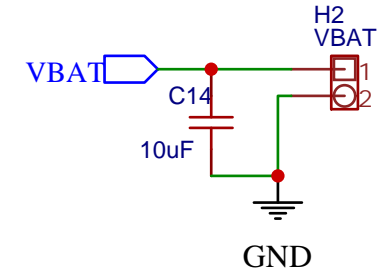


BYPASS TPS

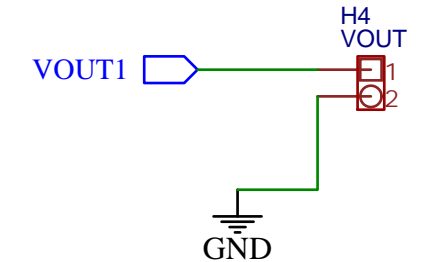
RECHARGE CIRCUIT



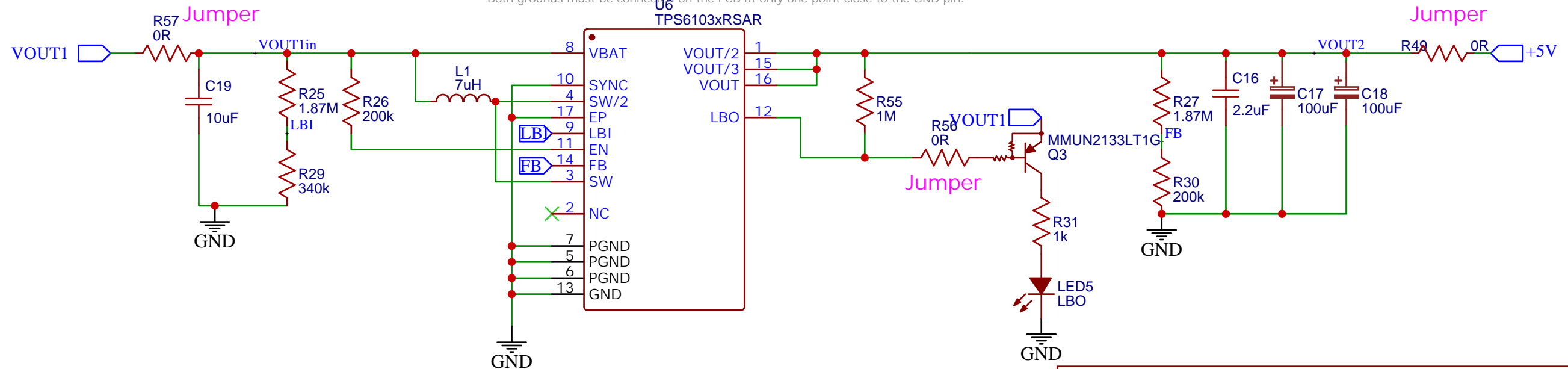
BATTERY CONNECTORS



BOOSTER INPUT CONNECTORS



DC BOOSTER

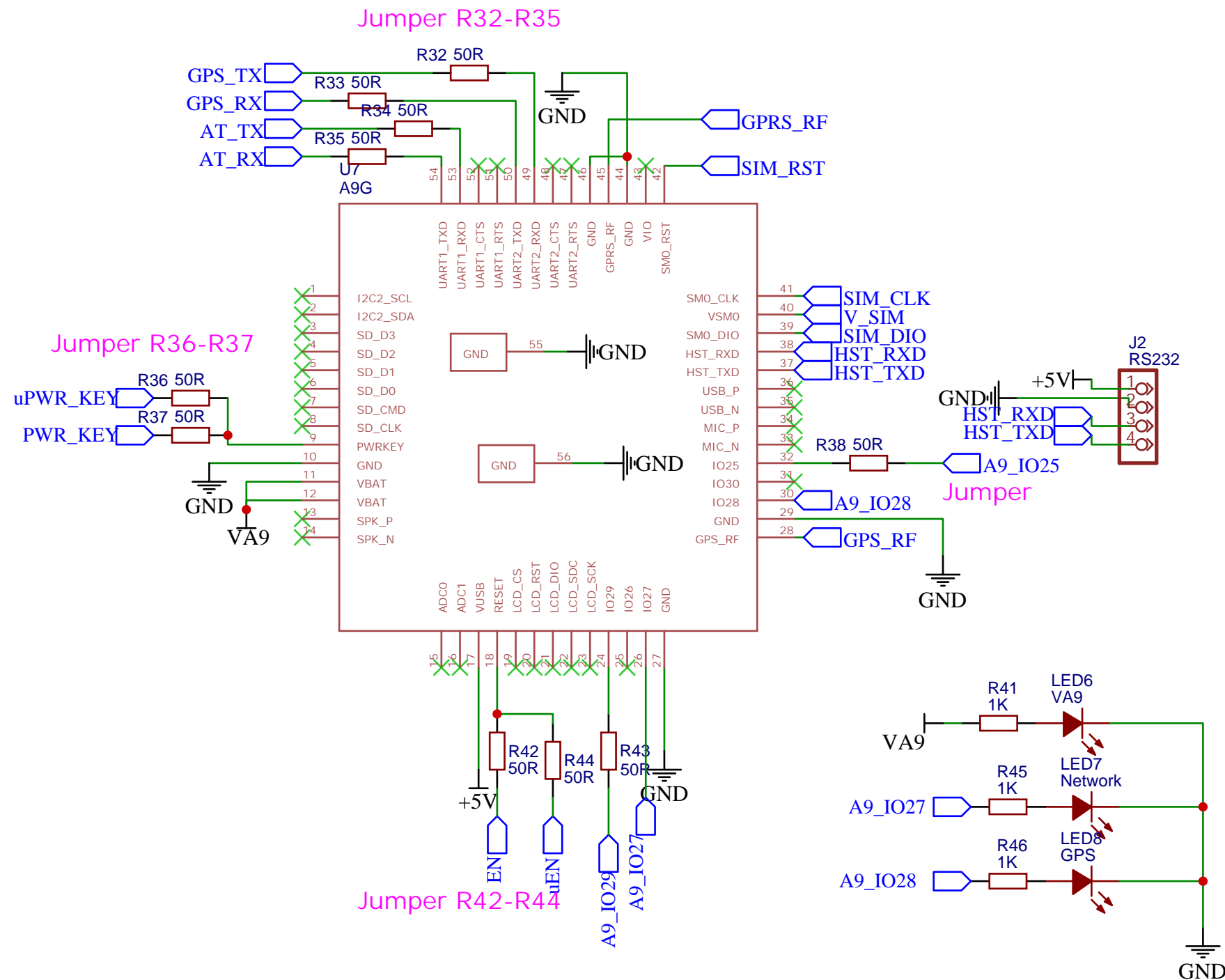


Both grounds must be connected on the PCB at only one point close to the GND pin.

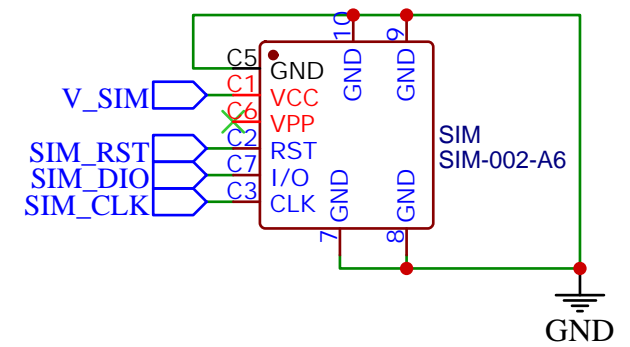
- (1) Max recharge current $I_{reg} = 1000V/R_{prog1}$
- (2) Stop recharge condition $I_{reg} = 1000V/R_{prog3}$
- (3) Tolerance $<10\%$
- (4) RT2 is a placeholder for a real NTC. If thermistor is not needed, R11=short and R12=open

TITLE: Schematic ScooterAQNet Revision 4		REV: 4.0
Company: TECO		Sheet: 2/4
Date: 2021-08-13		Drawn By: SajjadHussain

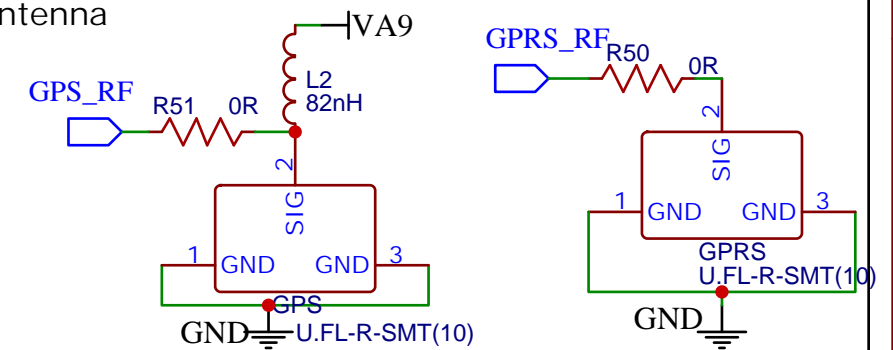
A9G



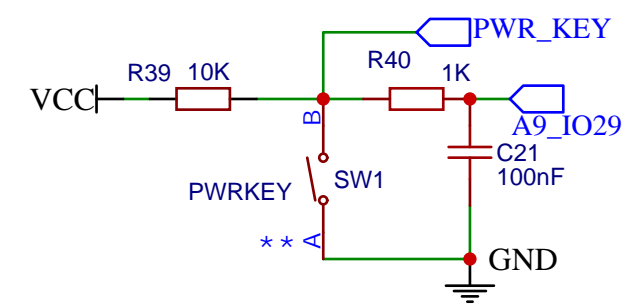
Micro Sim



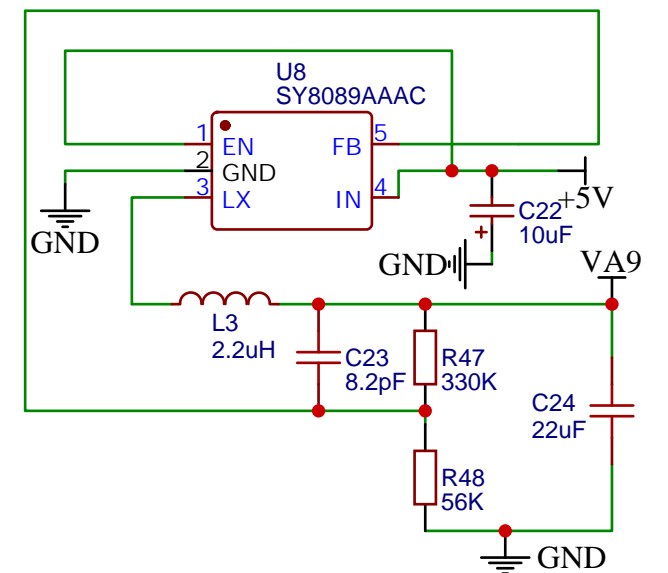
Antenna



A9G Power Key



A9G Voltage Regulator



TITLE:

Schematic ScooterAQNet Revision 4

REV: 4.0



Company: TECO

Sheet: 3/4

Date: 2021-08-13

Drawn By: SajjadHussain

Jumpers/0-Ohm


R50Jumper for GPRS Antenna
R51Jumper for GPS Antenna
R52to control connection of MCP73871 input
R28Jumper for MCP73871 VOUT Output
R49Jumper for TPS61030RSAR VOUT Output
R53to bypass MCP73871 while it is not inserted
R54to bypass TPS61030RSAR while it is not inserted
R56joins TPS LBO to LED circuit
R57Joins output of MCP to input of TPS
R32-R38, R42-R44 connects different ESP32 pins to A9G pins

PCB Soldering TODOs

Not Used
D2, D3, D4USB Protection
C12Charge IC Ripple Protection
RT1Charge IC Thermistor
R29, R27, R30, R31, R55 LED5, Q3,Required TPS61030 & LBO
R53to bypass MCP73871 while it is not inserted
R54to bypass TPS61030RSAR while it is not inserted
R36connects A9G PWRKEY to ESP32 pin
R42connects A9G RESET pin to power-up/button reset
VIN, J1, J2Headers

Not Used at Start, but used after testing individual parts
R28Joins VOUT (MCP) and VOUT1
R49Joins VOUT2 (TPS) and +5V

Replaced
D1=>ORProtection Diode @ Input
R25=>ORNo Threshold for TPS6103x
R44=>NMOSFETRequired for A9G Reset
C14, C15, C13=> Same as C19High Ratings
H2=>Battery ConnectorBattery Connection
H1=>SDS ConnectorSDS Connection

TITLE: Schematic ScooterAQNet Revision 4		REV: 4.0
	Company: TECO	Sheet: 4/4
	Date: 2022-02-26 Drawn By: SajjadHussain	