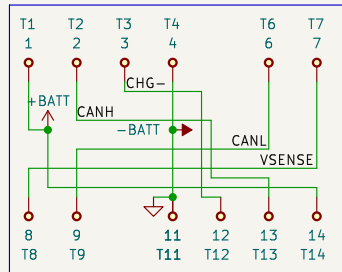


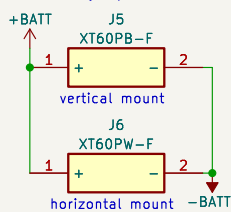
battery connector



connector is reversible

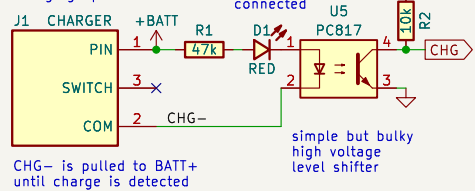
pin 5 and 10 are also internally connected in the battery, but they are not used.

13S battery, up to 54.6V



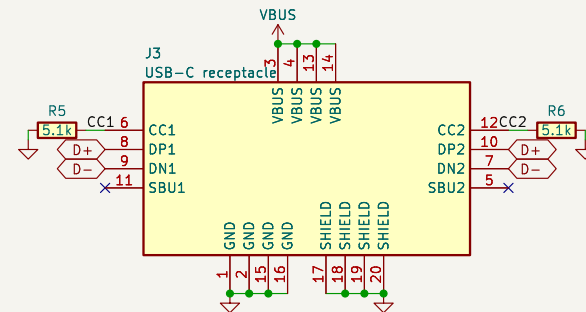
once turned on, you can also charge through the battery port. there is no current feedback protection. thus don't put batteries in parallel without balancing them first.

charging up to 5A

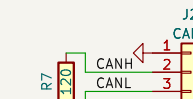
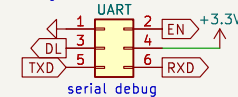


CHG- is pulled to BATT+ until charge is detected

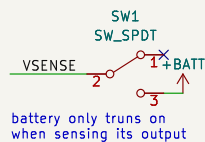
connectors only required to debug/flash



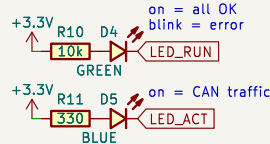
DL low=start bootloader can be set using DTR J7
EN low=assert reset can be set using RTS



CAN termination resistor adjust value to setup one needed to pull to recessive



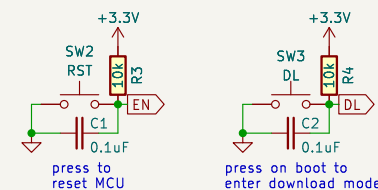
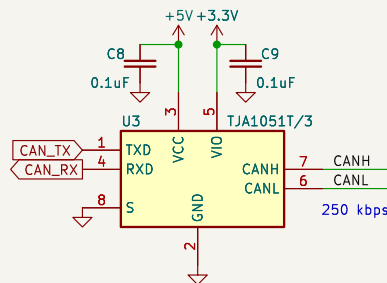
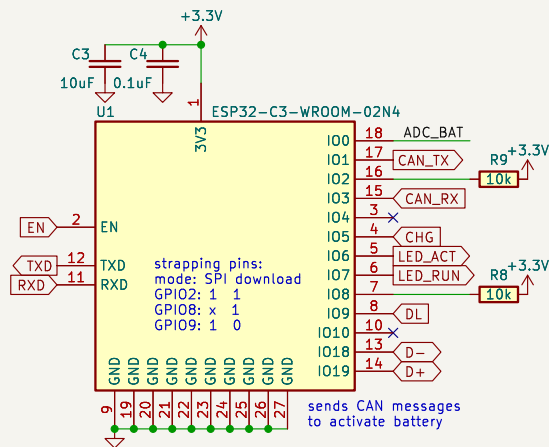
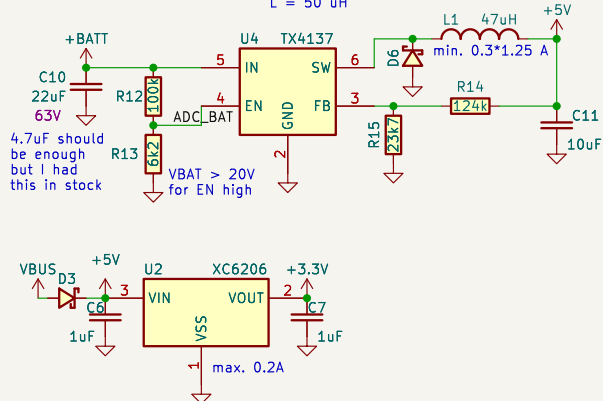
battery only turns on when sensing its output



$$L = V_{out} * (V_{in} - V_{out}) / (V_{in} * (I_{max} * 0.3) * f_{SW})$$

$$L = 5 * (55 - 5) / (55 * (0.3 * 0.3) * 1e6)$$

$$L = 50 \mu H$$



CERN-OHL-5 connector for RPH0002 battery by
King Kevin
CuVoodoo

Sheet: /
File: RPH0002_connector.versioned.kicad_sch

Title: RPH0002 connector

Size: A4 Date: 2023-06-27

KiCad E.D.A. kicad-cli 7.0.5

Rev: 1.14

Id: 1/1