USB-C Power input

J1
USB_C_Receptacle_USB2.0_16P

PWR_FLAG

VBUS — A4 — VBUS

CC1 — A5
CC2 — B5

C1
10uF

GND

D− — A7
D− — B7
D+ — A6
D+ — B6

SHIELD
GND

R1
5k1

R2
5k1

SBU1 — A8
SBU2 — B8

S1   A1

GND   GND

PWR_FLAG

GND

Charge controller

VBUS

U1
MCP73831-2-OT

VDD — VBAT — 3
VBUS — 4

PROG — Vss — STAT

5

PROG   2   1

R3
2k

R4
10k

C2
10uF

Reverse polarity protection
Q1 Si2319CDS

3   2

1

Battery connector
Conn_01x02_Pin J2

1 — Pin 1: VBAT (+)
2 — Pin 2: GND (−)

WARNING:
−Use only 1S (3.7V) LiPo batteries
−Battery capacity must be 500mAh or greater

LED
D1

VBUS

GND

R3 = 2k sets Charge Current to 500mA
I_charge = 1000 / R_prog

GND

GND
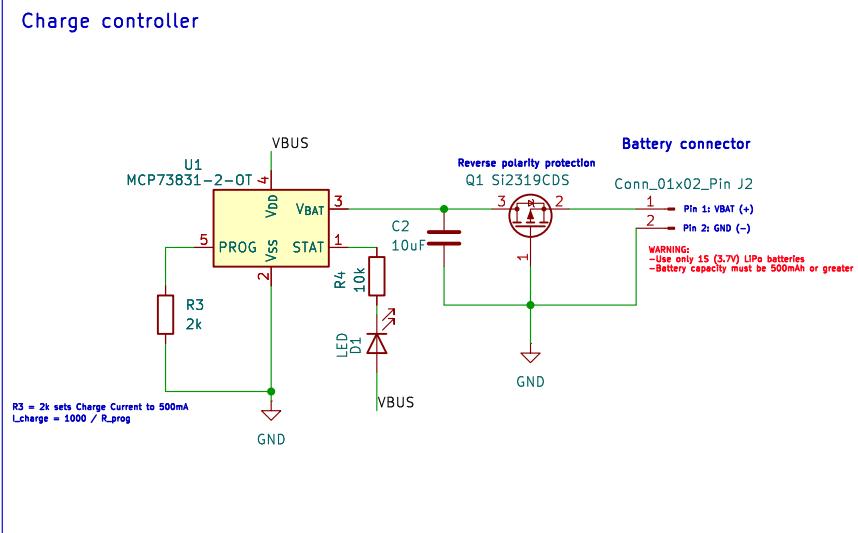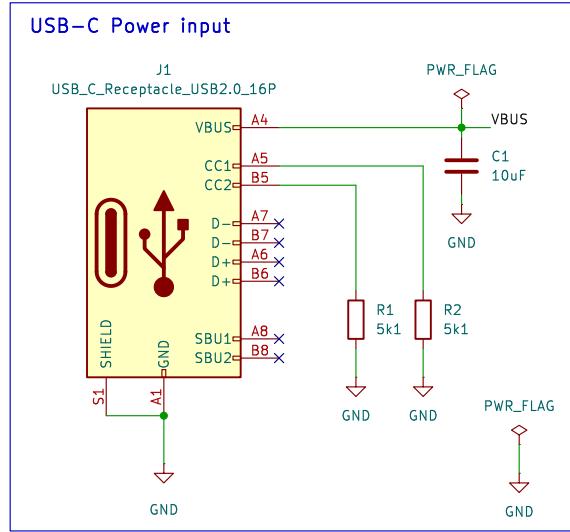

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Title: USB-C Li-Po Charger

Size: A4 | Date: 2025-11-10 | **Rev: 1.1**

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