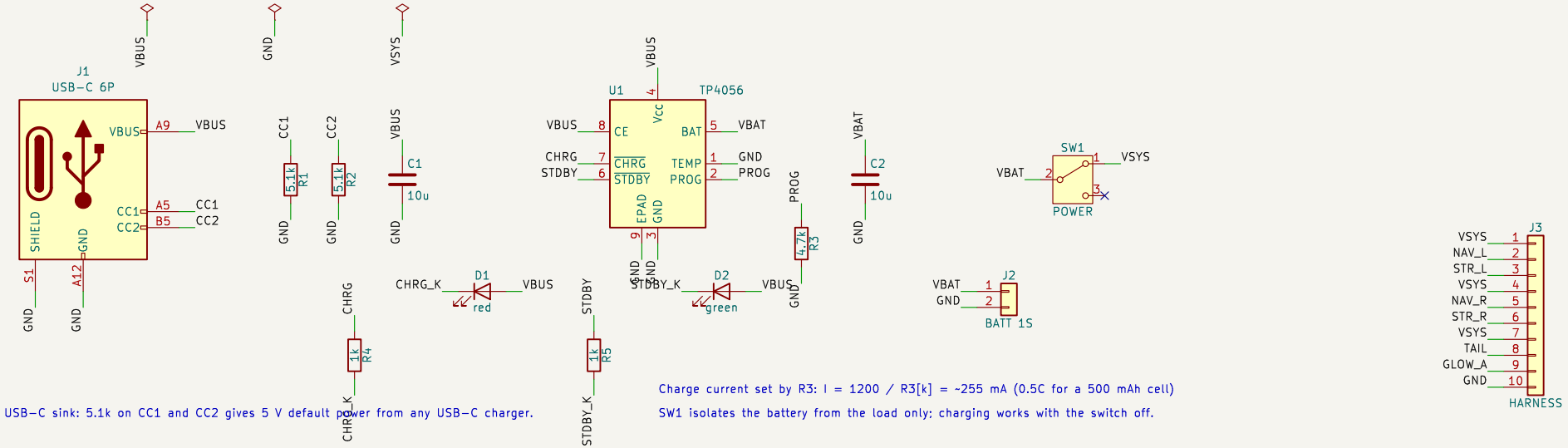
POWER IN AND CHARGER

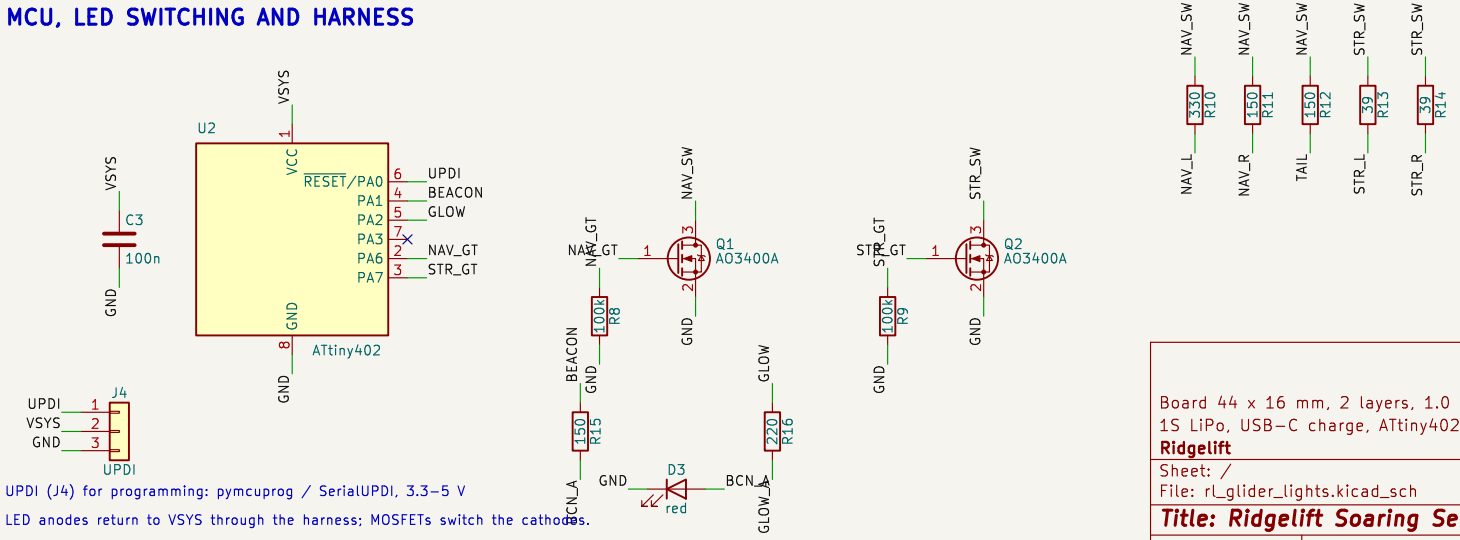


USB-C sink: 5.1k on CC1 and CC2 gives 5 V default power from any USB-C charger.

Charge current set by R3: I = 1200 / R3[k] = ~255 mA (0.5C for a 500 mAh cell)

SW1 isolates the battery from the load only; charging works with the switch off.

MCU, LED SWITCHING AND HARNESS



UPDI (J4) for programming: pymcuprog / SerialUPDI, 3.3–5 V

LED anodes return to VSYS through the harness; MOSFETs switch the cathodes.

Wing leads run inside the carbon spar tubes: 3 wires per wing (+, nav, strobe).

HARNESS PADS (J3)

1 VSYS Left wing common anode (+)
2 NAV_L Left red nav LED cathode
3 STR_L Left white strobe LED cathode
4 VSYS Right wing common anode (+)
5 NAV_R Right green nav LED cathode
6 STR_R Right white strobe LED cathode
7 VSYS Tail light anode (+)
8 TAIL Tail white LED cathode
9 GLOW_A Cockpit glow LED anode (+)
10 GND Cockpit glow LED cathode (–)

Board 44 x 16 mm, 2 layers, 1.0 mm FR4, 2 mm corner radius
1S LiPo, USB-C charge, ATtiny402 nav/strobe/beacon/glow controller
Ridgelift

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File: rl_glider_lights.kicad_sch

Title: Ridgelift Soaring Series display glider – light board

Size: A4	Date: 2026-11-14	**Rev: A**
KiCad E.D.A. 9.0.2		Id: 1/1