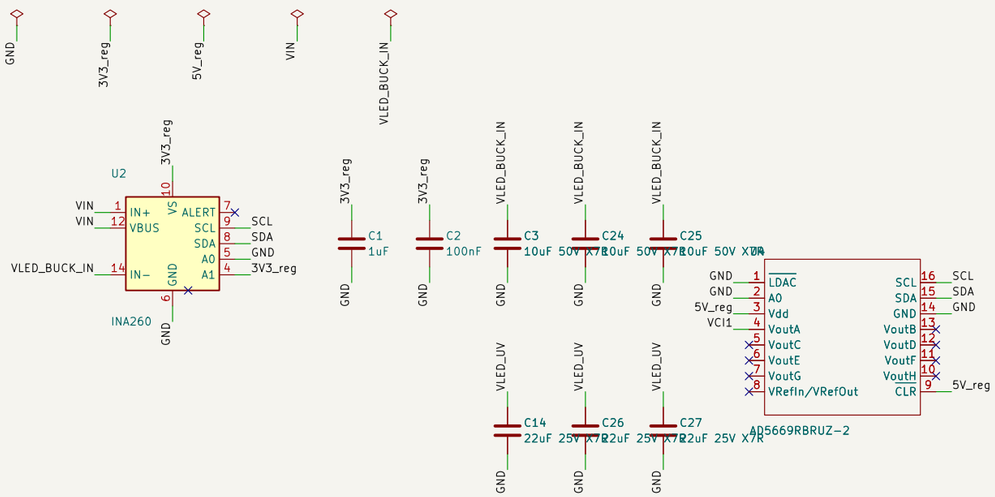




S1 INPUT (bottom of stack)
J1 (on the BOTTOM side) takes the controller ribbon: VIN 11–36 V, GND, 5V_reg, 3V3_reg, SDA, SCL, ENABLE_0. Pins 5, 6 and 12 are not connected.
U2 INA260 (0x44) measures VIN; its output VLED_BUCK_IN feeds S2 on bus pins 1–2.
C3/C24/C25: buck input bulk. C14/C26/C27: VLED_UV bulk (on the bus).
U4 AD5669RBRUZ-2 (A0=GND, ~LDAC=GND, ~CLR=5V_reg): VoutA = VCI1 –> bus pin 12 –> R11/R17 divider on S3. Needs the −2 grade (5 V span).

BUS (2x6 1.27 mm, same XY on every board; header on top, socket on bottom):
1,2 VIN | 3,4 GND | 5,6 VLED_UV | 7 5V_reg | 8 3V3_reg
9 SDA | 10 SCL | 11 ENABLE_0 | 12 VCI1 (DAC out, 0–5 V)
VIN pins: raw VIN on the S1 controller link; INA260 output (VLED_BUCK_IN) from S1 top to S2; not connected above S2.
UV-C (275 nm) is hazardous to eyes and skin.

LED: Luminus XFM-5050-UV-D130, 275 nm UV-C, 2 A typ / 3.2 A max
19 mm round board, part of a 3-board stack (S1 bottom, S3 top)
MBARI

Sheet: /
File: XFM5050UV-S1-Input.kicad_sch

Title: XFM-5050-UV stack 1/3: input monitor, DAC, bulk caps

Size: A3	Date: 2026-11-12	**Rev: B**
KiCad E.D.A. 10.0.6		Id: 1/1