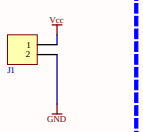
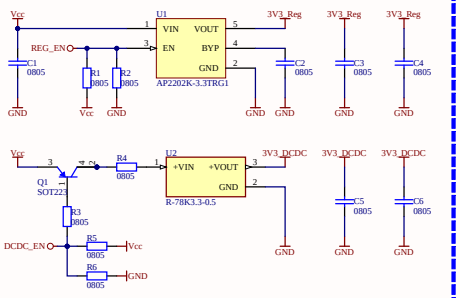
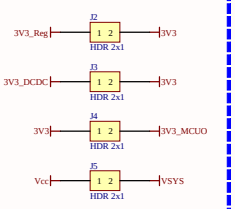
Battery Pack Connection



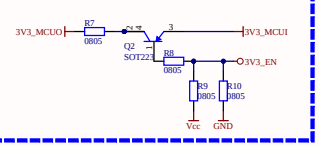
External Voltage Regulation Options



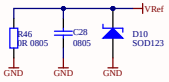
Voltage Regulation Jumpers



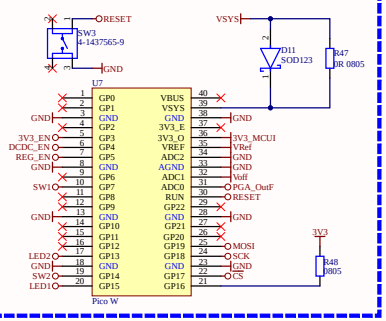
Microcontroller 3V3 Supply Option



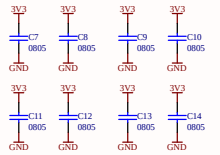
Microcontroller ADC Reference



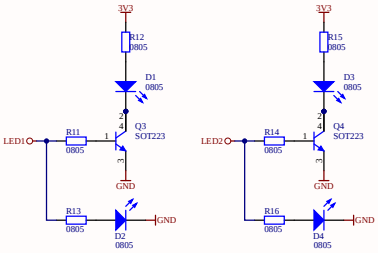
Microcontroller



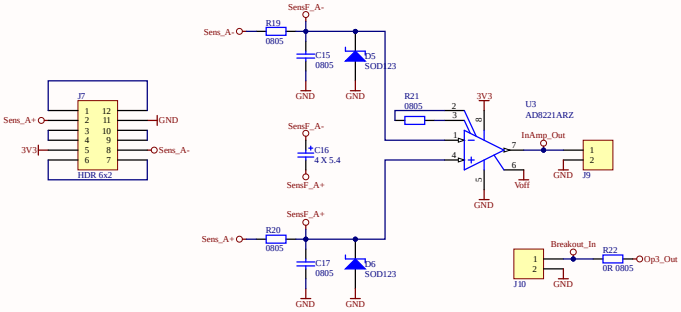
Decoupling Caps



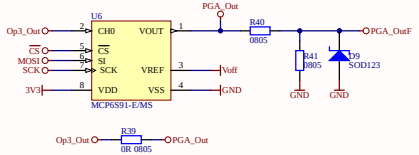
LED Driver Circuits



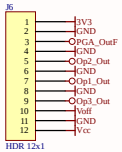
Chip In-Amp Option



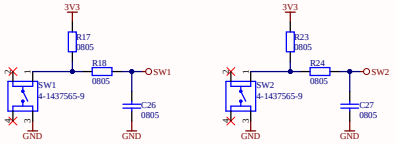
Programmable Gain Amplifier



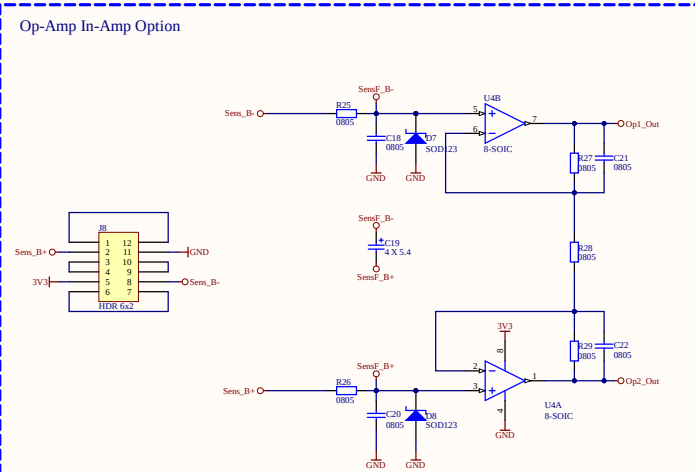
Testpoints



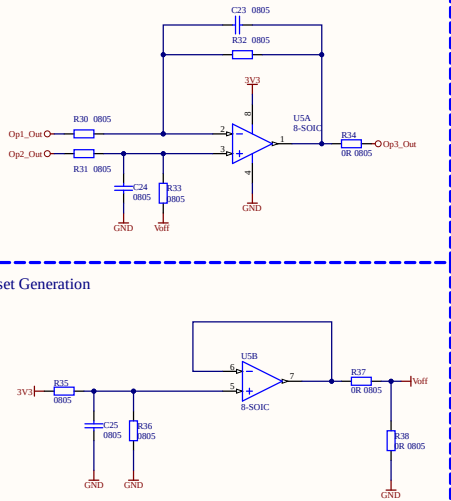
Tactile Switches



Op-Amp In-Amp Option



Offset Generation



IMPORTANT NOTES

1) This PCB is designed to support many different design choices, some essential, some not so much. Consequently, you should NOT aim to populate every footprint nor every subsection of the design.

2) To enable some of these design choices, footprints for 0 Ohm resistors and 2 pin headers are included. Be sure to jumper or not jumper these connections correctly, and be aware that not every connection that you may wish to jumper will have dedicated jumper footprints.

3) BEFORE populating anything else, make sure that you install the headers for the Raspberry Pi Pico.

4) Do NOT connect the USB power supply and the battery power at the same time. This can be avoided either by methodically remembering to disconnect J5 when plugging in the USB or by adding D11 to diode OR the voltages.

5) Only ONE of J2, J3 and J4 should be connected at one time. Likewise, only ONE of R22 and R34 should be connected at one time.

Title	ELECTENG 770 Smart Scale Interface Board	
Size: A2	Number	Revision: 2.1
Date: 3/11/2024	Sheet of	
File: C:\Users\...Capstone_Schematic_24.SchDoc	Drawn By: CYL AKB SK	