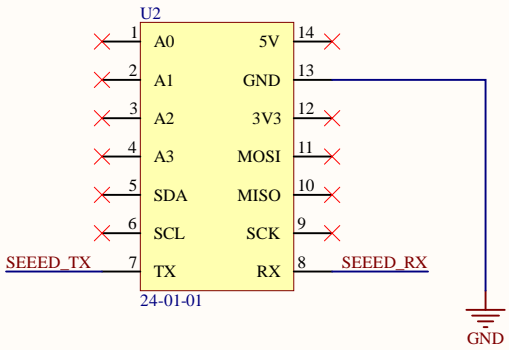
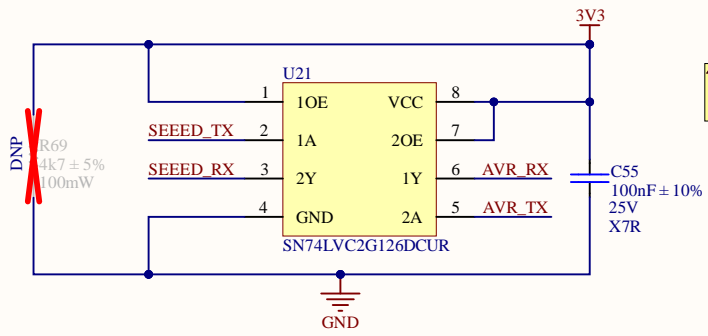


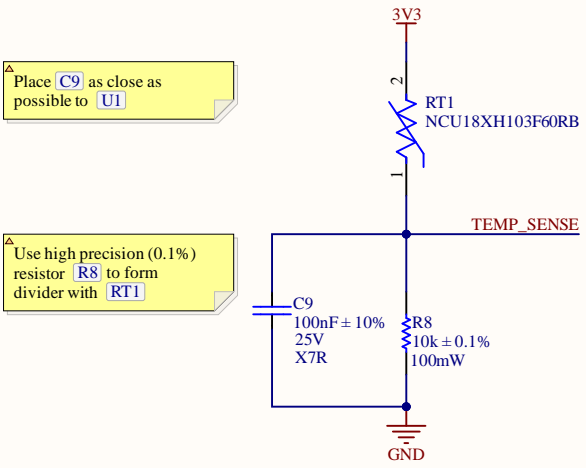
SEEDUINO



BUFFER

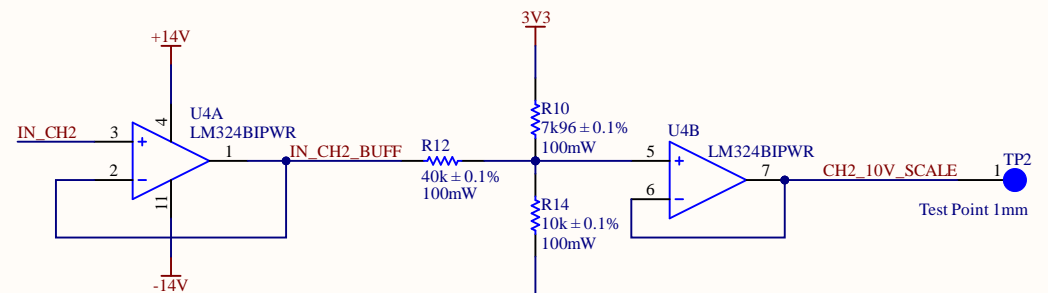
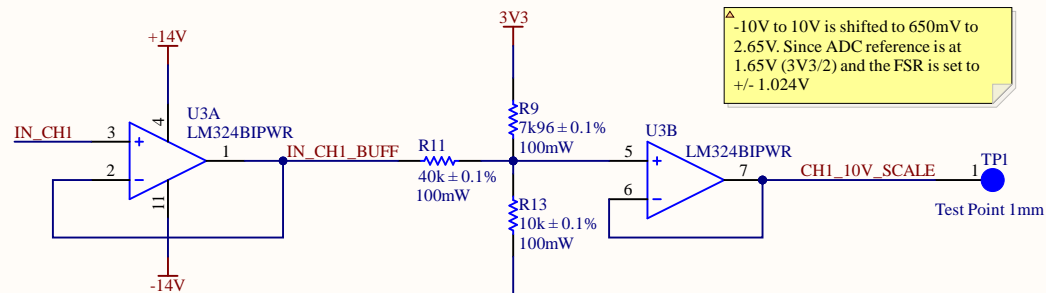


AMBIENT TEMP

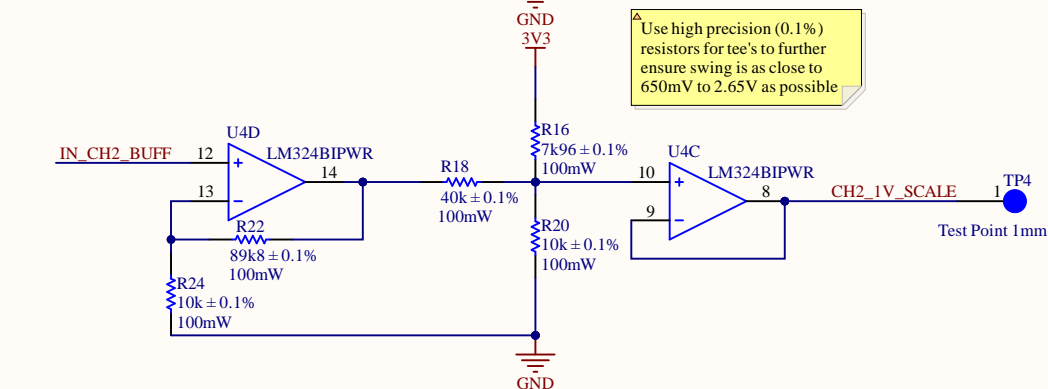
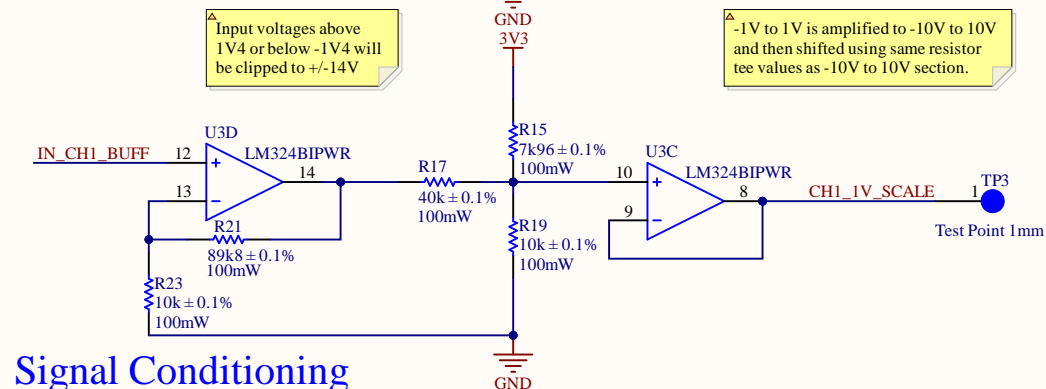


| | | |
|--------------------|--|---------------------------|
| Title | | |
| Seeeduino and Temp | | |
| Size | Number | Revision |
| A4 | 2 | 1 |
| Date: | 5/22/2025 | Sheet 2 of 11 |
| File: | C:\Users\...\Seeeduino and Temp.SchDoc | Drawn By: Rhett Humphreys |

A

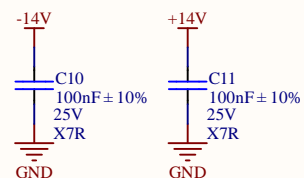


B

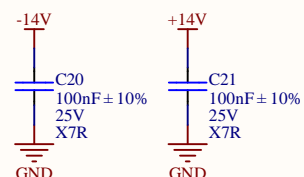


Signal Conditioning

OP-AMP Decoupling

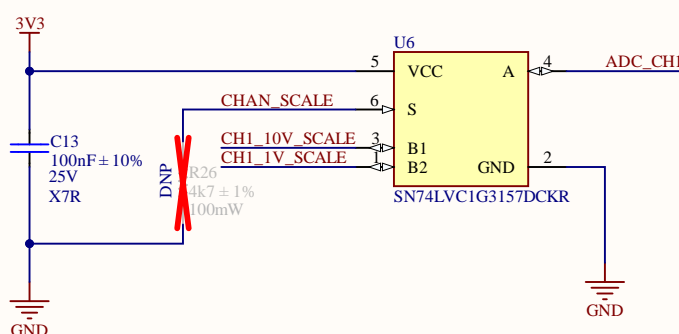


Place C10, C11 as close as possible to U3A

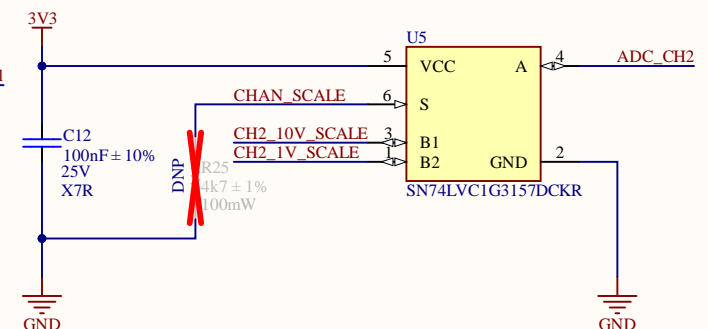


Place C20, C21 as close as possible to U4A

Analog Switches

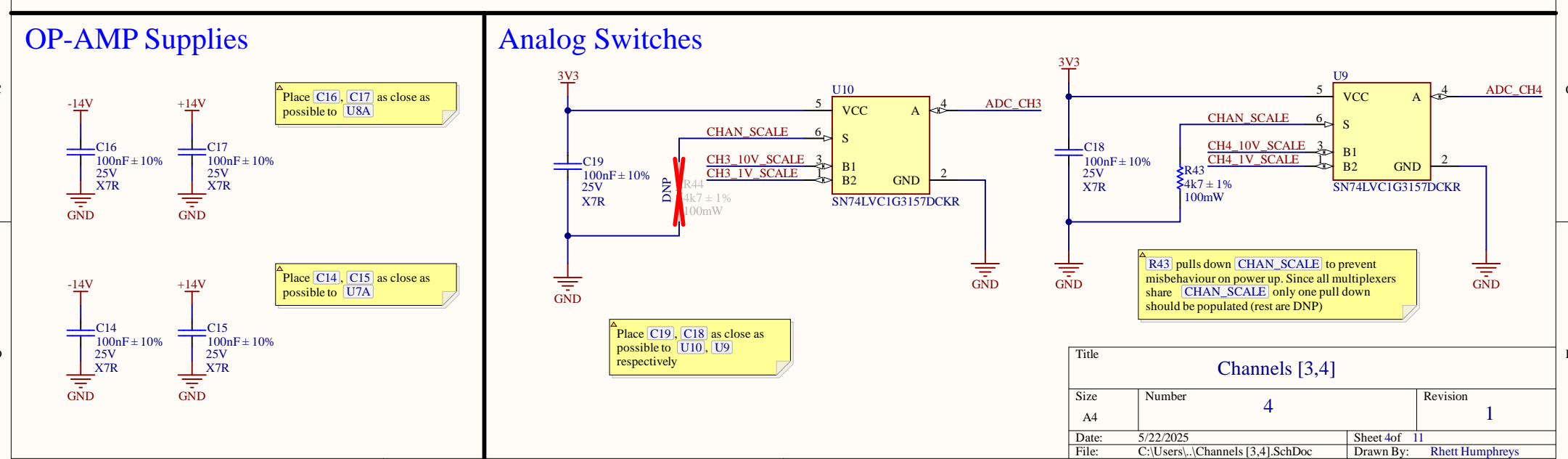
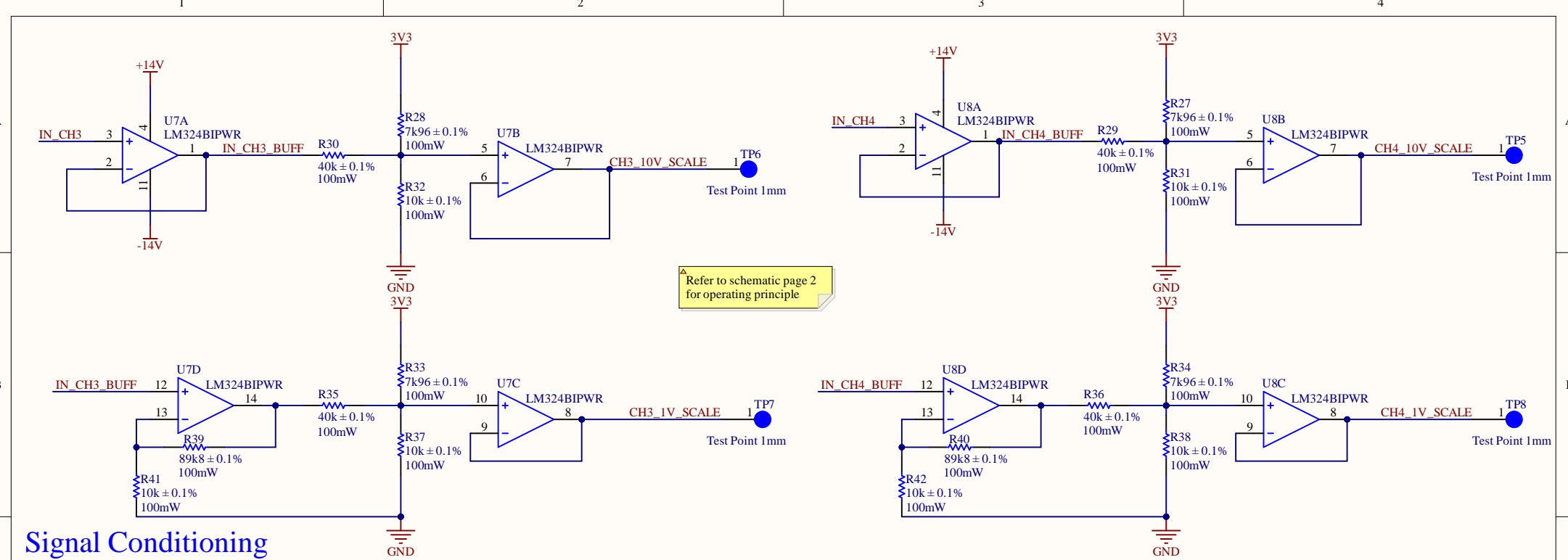


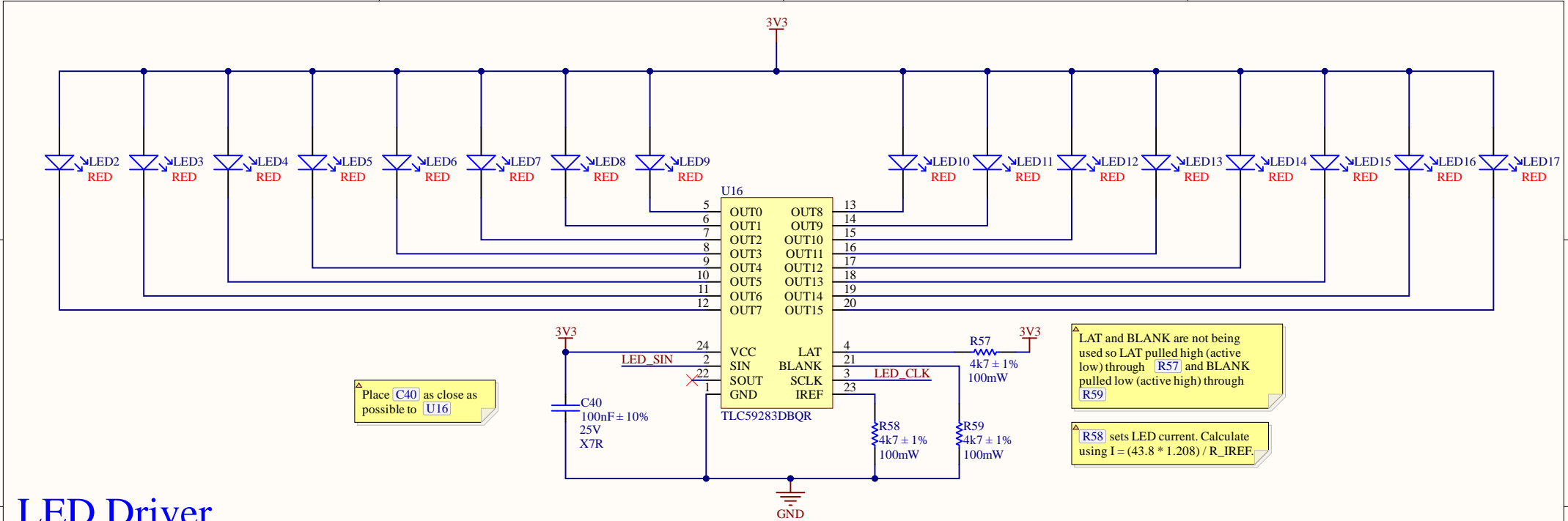
All multiplexers share same CHAN_SCALE signal since scale change must occur on all channels.



Place C13, C12 as close as possible to respectively, U6, U5

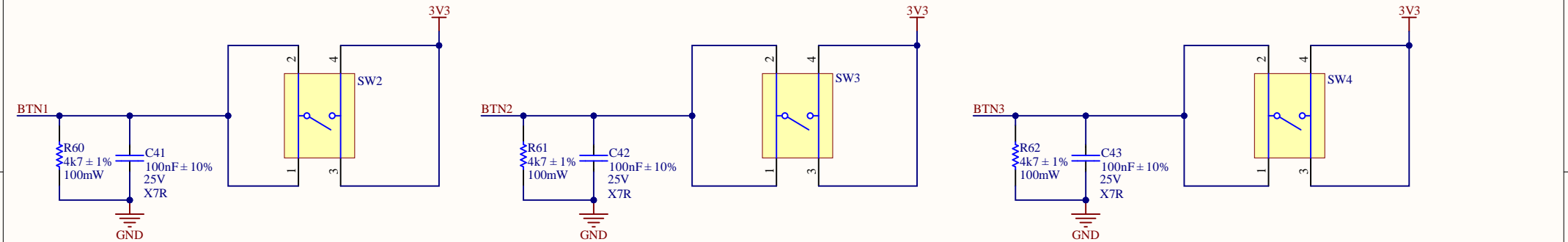
| Title | | |
|----------------|------------------------------------|---------------------------|
| Channels [1,2] | | |
| Size | Number | Revision |
| A4 | 3 | 1 |
| Date: | 5/22/2025 | Sheet 3 of 11 |
| File: | C:\Users\...\Channels [1,2].SchDoc | Drawn By: Rhett Humphreys |





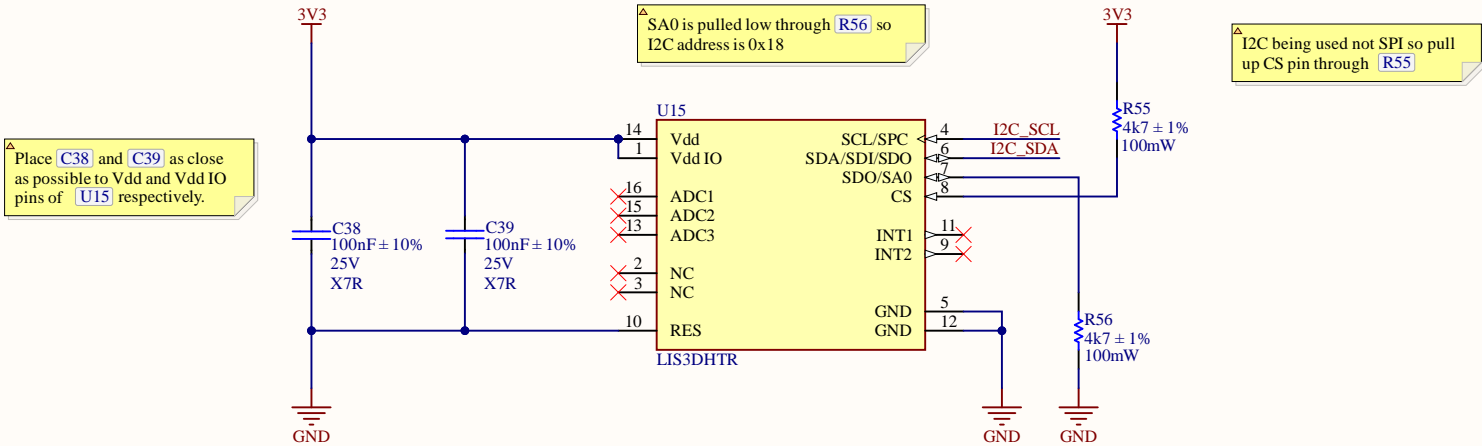
LED Driver

Buttons



Place C41, C42 and C43 as close as possible to GPIO pins used for buttons of U1

| Title | | |
|--------------------|--|---------------------------|
| Alarms and Buttons | | |
| Size | Number | Revision |
| A4 | 6 | 1 |
| Date: | 5/22/2025 | Sheet 6 of 11 |
| File: | C:\Users\...\Alarms and Buttons.SchDoc | Drawn By: Rhett Humphreys |



| | | | | |
|-------|-----------------------------------|------------|-----------------|--|
| Title | | | Accelerometer | |
| Size | Number | Revision | | |
| A4 | 7 | 1 | | |
| Date: | 5/22/2025 | Sheet 7 of | 11 | |
| File: | C:\Users\...\Accelerometer.SchDoc | Drawn By: | Rhett Humphreys | |

A

A

B

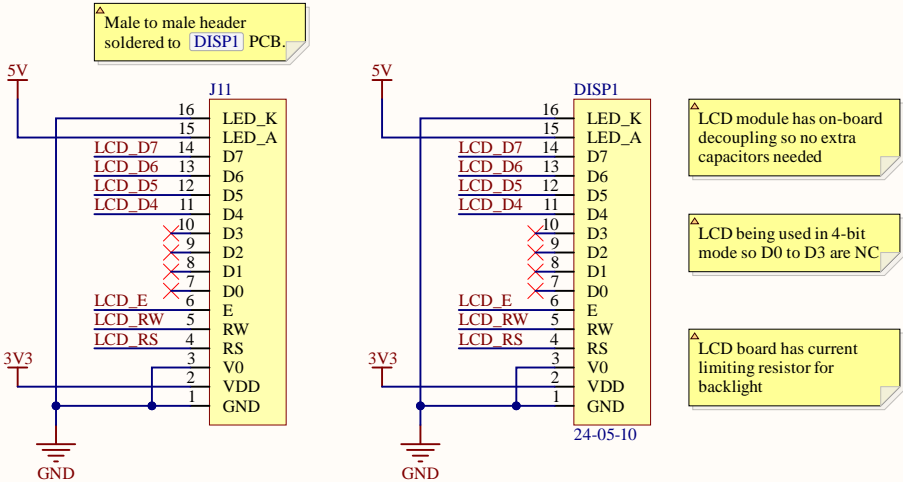
B

C

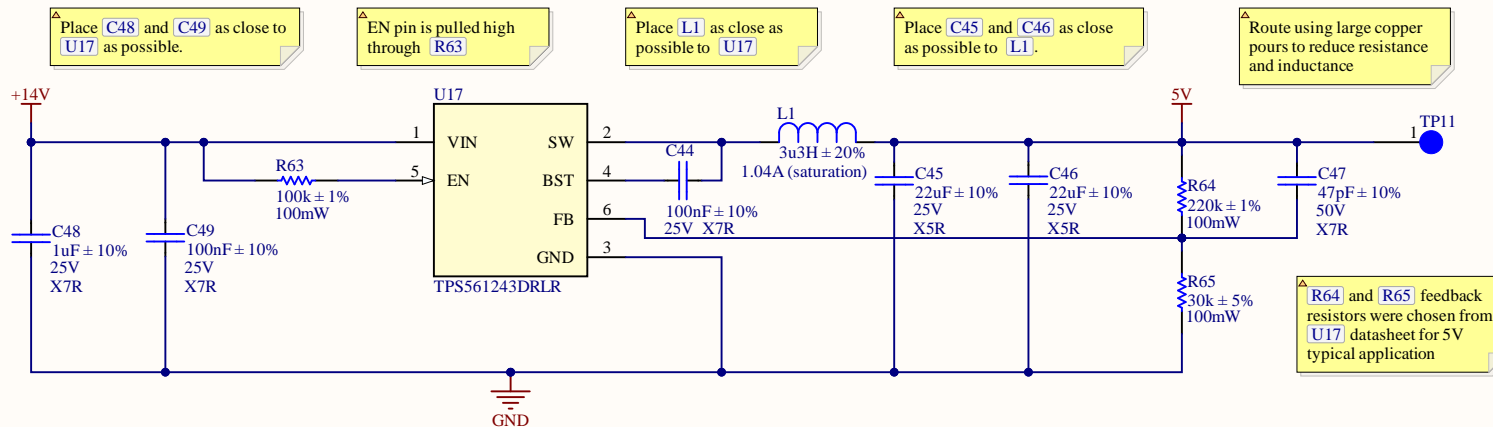
C

D

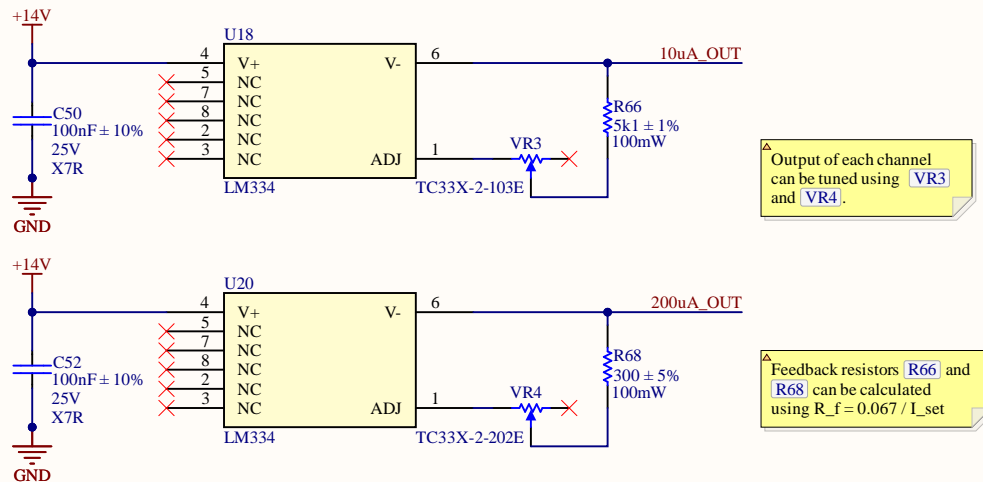
D



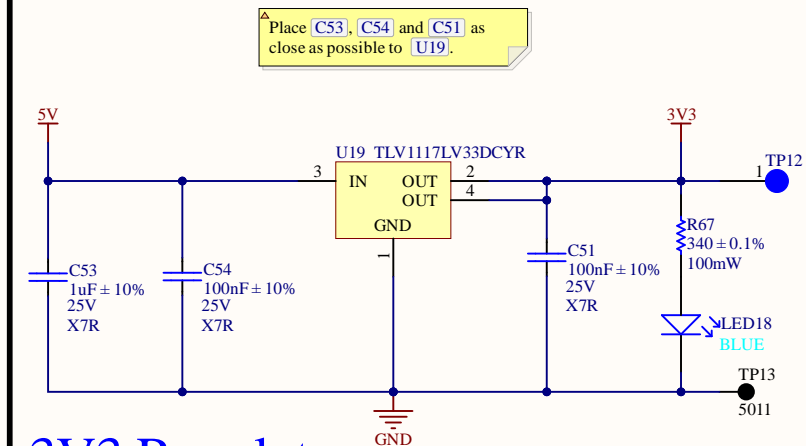
| | | |
|-------|-------------------------|---------------------------|
| Title | | |
| LCD | | |
| Size | Number | Revision |
| A4 | 8 | 1 |
| Date: | 5/22/2025 | Sheet 8 of 11 |
| File: | C:\Users\...\LCD.SchDoc | Drawn By: Rhett Humphreys |



5V Regulator

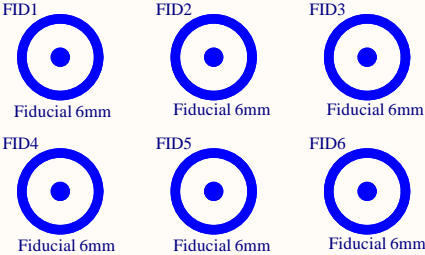


Current Sources



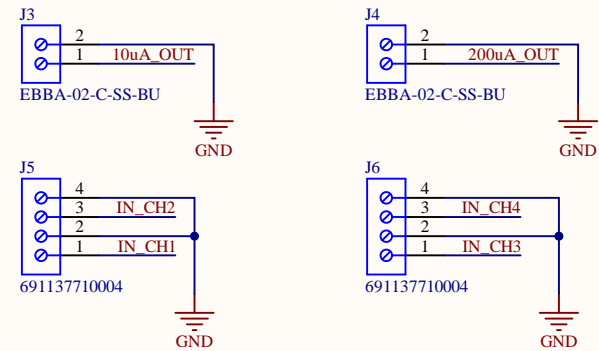
3V3 Regulator

| Title | | |
|-------|---------------------------|---------------------------|
| Power | | |
| Size | Number | Revision |
| A4 | 9 | 1 |
| Date: | 5/22/2025 | Sheet 9 of 11 |
| File: | C:\Users\...\Power.SchDoc | Drawn By: Rhett Humphreys |



Fiducials

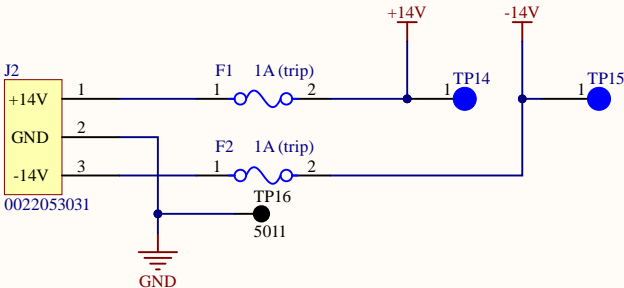
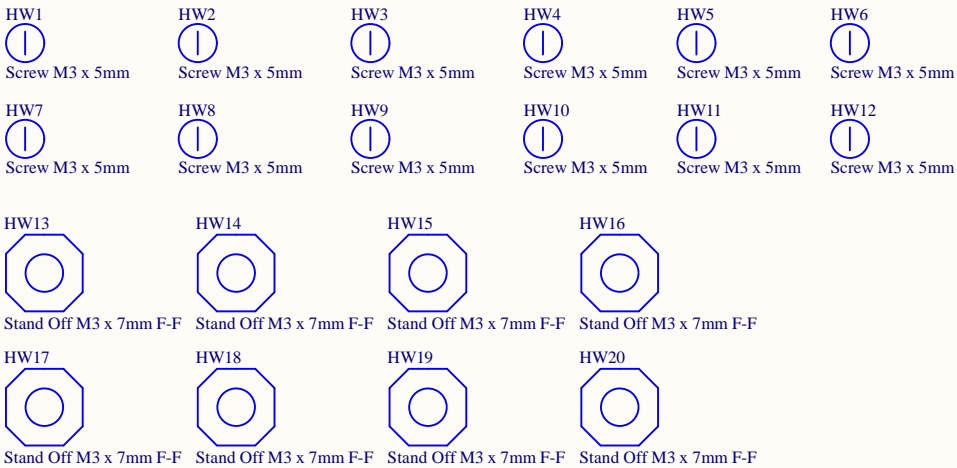
Mounting Holes



Place J3 and J4 relatively close to J5 and J6.

Screw Terminals

Mounting Hardware



Power Connector

| Title | | |
|----------|------------------------------|---------------------------|
| Hardware | | |
| Size | Number | Revision |
| A4 | 10 | 1 |
| Date: | 5/22/2025 | Sheet 1 of 11 |
| File: | C:\Users\...\Hardware.SchDoc | Drawn By: Rhett Humphreys |

Wires

W1 should be used for +14V connection, W2 for GND and W3 for -14V

- W1

22-03-03
24AWG, multistrand, 1000mm RED
- W2

22-03-06
24AWG, multistrand, 1000mm GREEN
- W3

22-03-01
24AWG, multistrand, 1000mm BLACK

Connector Housing

J8

0022013037
Molex female housing 2.54mm 3 pos

Crimps

- J7

0008550102
Molex crimp gold 22-30 AWG
- J9

0008550102
Molex crimp gold 22-30 AWG
- J10

0008550102
Molex crimp gold 22-30 AWG

| | | | |
|-------|----------------------------|-----------|-----------------|
| Title | | | Cables |
| Size | Number | Revision | |
| A4 | 11 | 1 | |
| Date: | 5/22/2025 | Sheet | 11 of 11 |
| File: | C:\Users\...\Cables.SchDoc | Drawn By: | Rhett Humphreys |