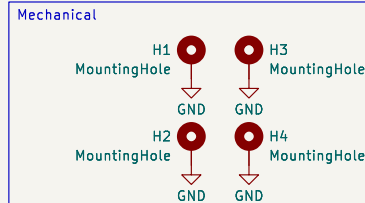
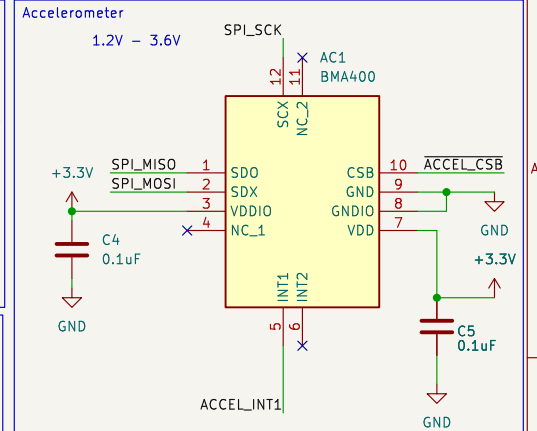
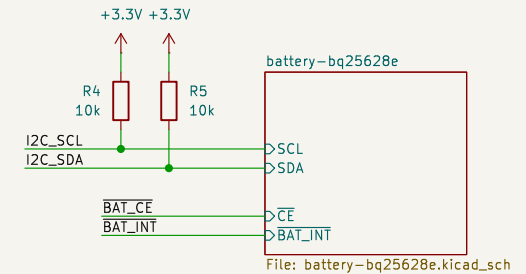
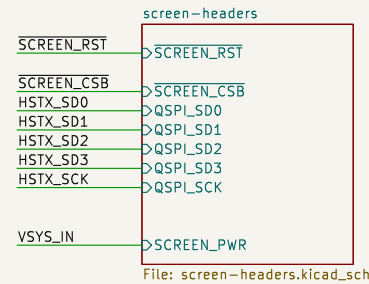
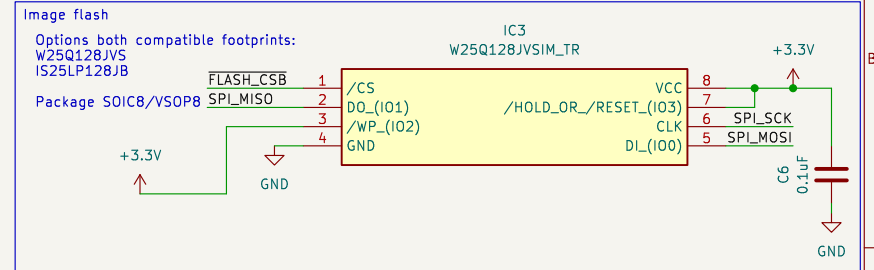
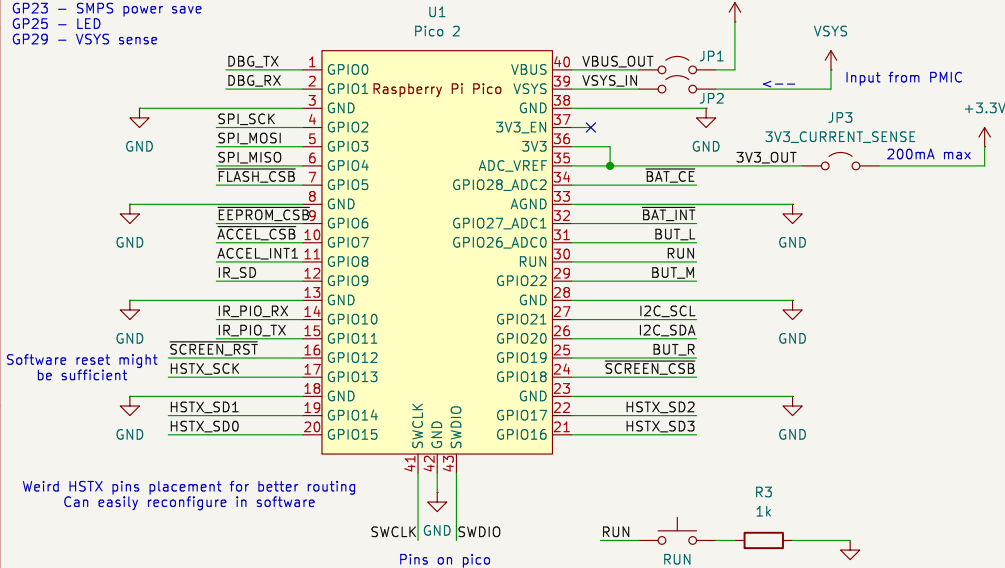


Sound

Removed sound because lack of pins



Actual chip has extra 4 pins, at least 1 (the pico LED pin)
can be reused in final design.
1 needs to stay as USB VBUS_SENSE (probably)
GP24 – VBUS sense
GP23 – SMPS power save
GP25 – LED
GP29 – VSYS sense



Sheet: /
File: pico2–carrier.kicad_sch

Title:

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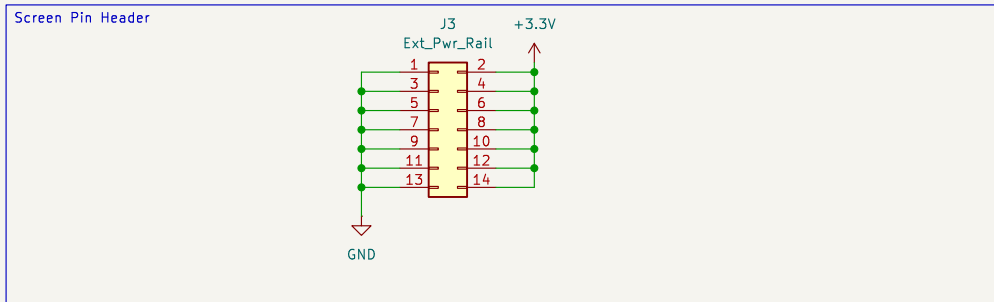
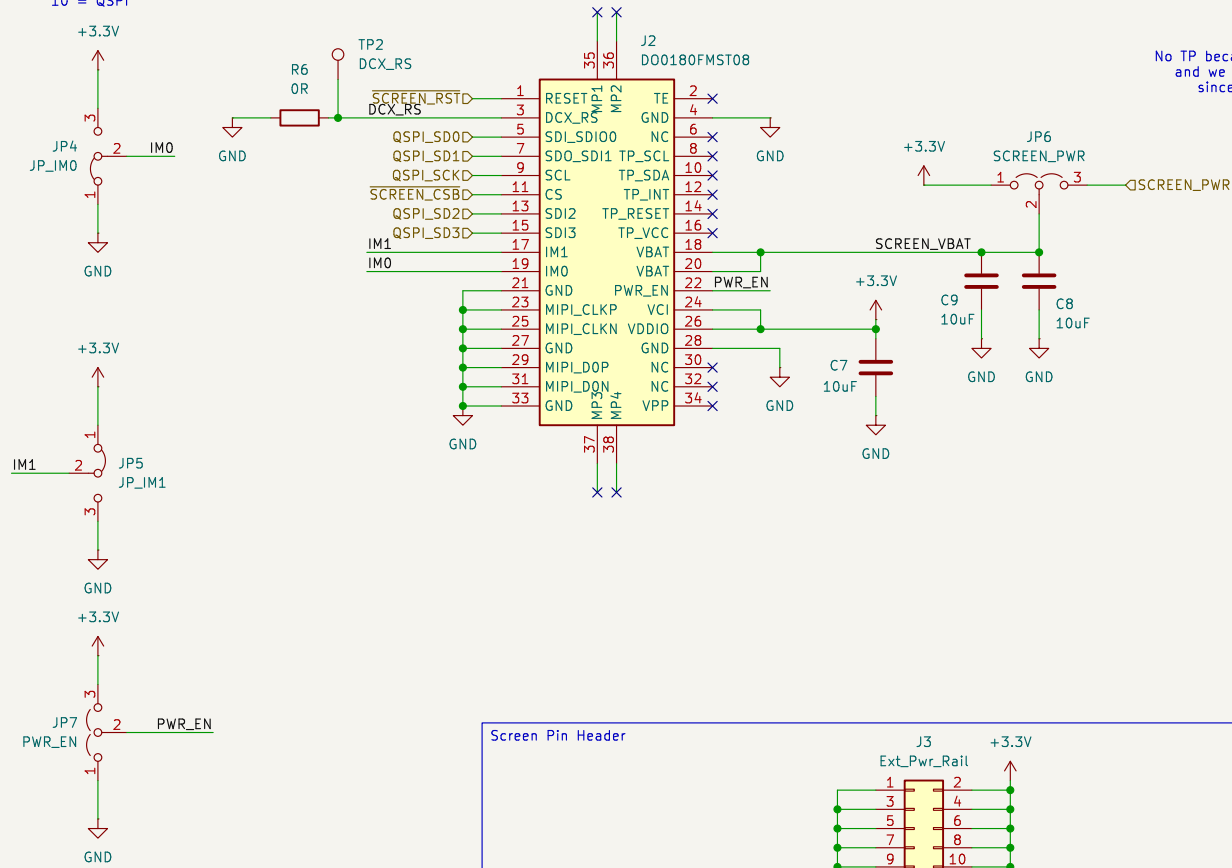
Rev:

Id: 1/4

00 = SPI 3-wire
01 = SPI 4-wire
10 = QSPI

Needs to be 12.0mm from edge of board, odds side facing edge

No TP because MCU doesn't have enough pins
and we won't use it in the final version
since screen will be behind a lens



Sheet: /screen-headers/
File: screen-headers.kicad_sch

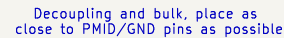
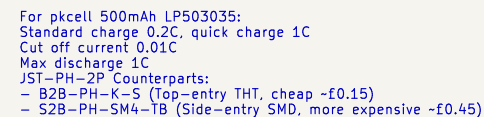
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A

B

C

D



Id: 3/4

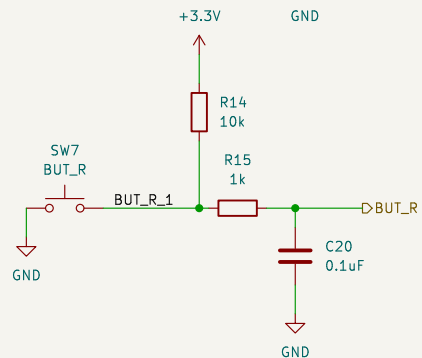
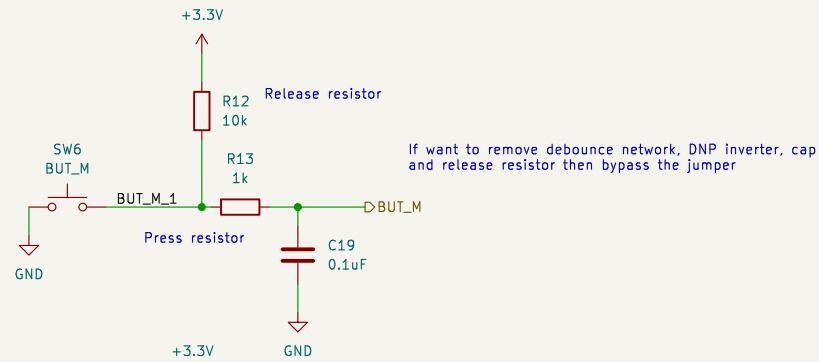
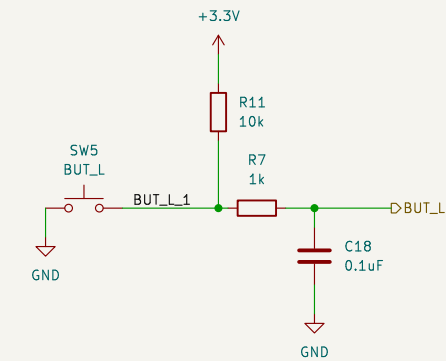
Candidate:
Omron B3FS-1010P

RC network + Schmitt trigger/inverter for debounce and signal cleanup
There are dedicated debounce ICs but are expensive.

$0.1\mu\text{F} + 10\text{k} = 1\text{ms}$ rise
 $0.1\mu\text{F} + 1\text{k} = 0.1\text{ms}$ fall

RP2350 has optional Schmitt trigger inputs (min 0.2V hysteresis)
RP2350 can also pull-up buttons so maybe remove external pullup (32-86k resistors)
Still need cap, 0.1uF seems fine, maybe go a bit higher to 1uF if buttons are bad.

10k pullup/0.1uF cap with internal schmitt trigger (on by default) seems stable



Sheet: /buttons-debounce/
File: buttons-debounce.kicad_sch

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