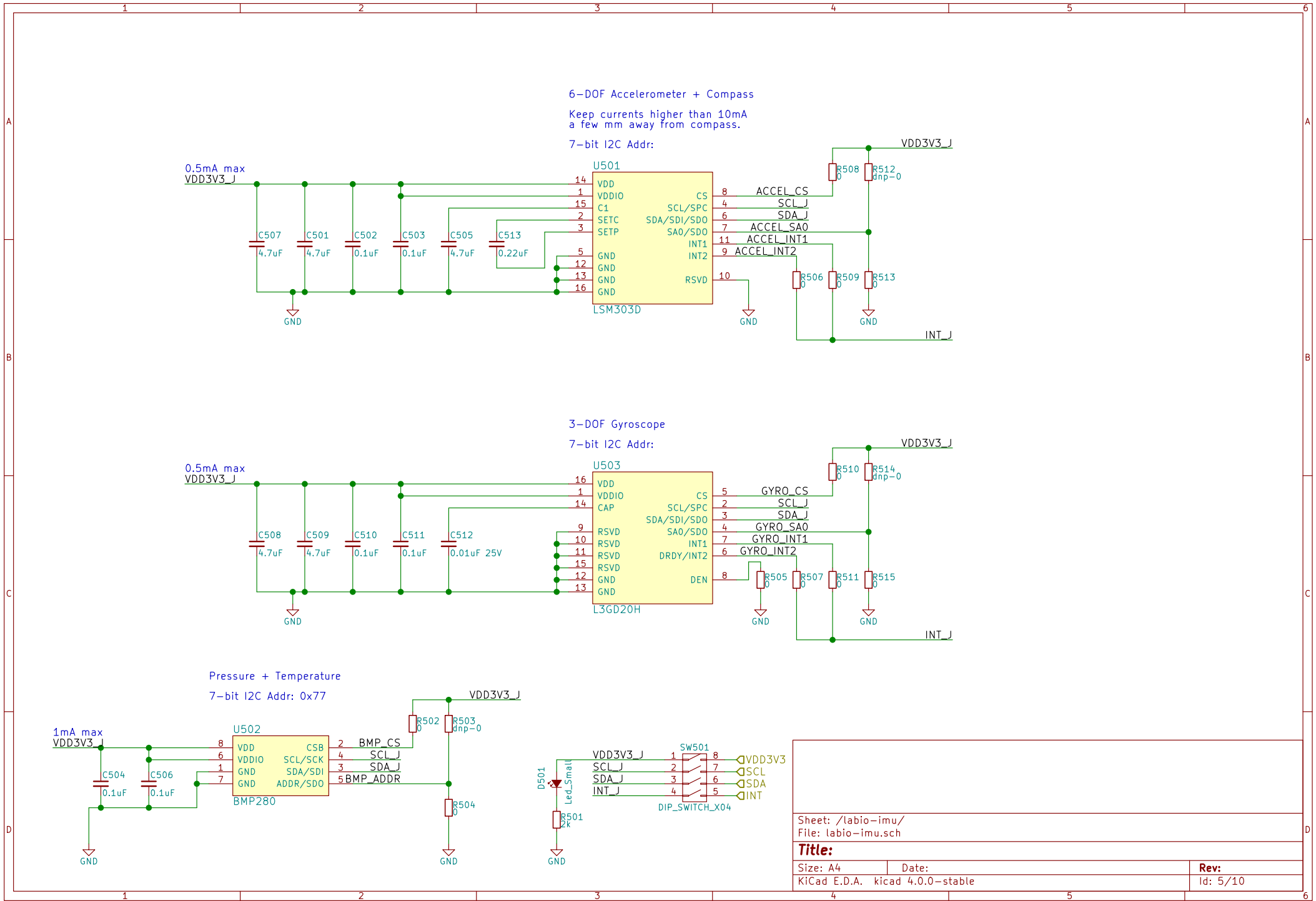


Note: top side ZIF connector has pins reversed from FPC.

| | |
|------------------------|--|
| Microcontroller | Control lines defined by layout / code |
| +3.3v | Supply voltage |
| Ground | Supply ground |

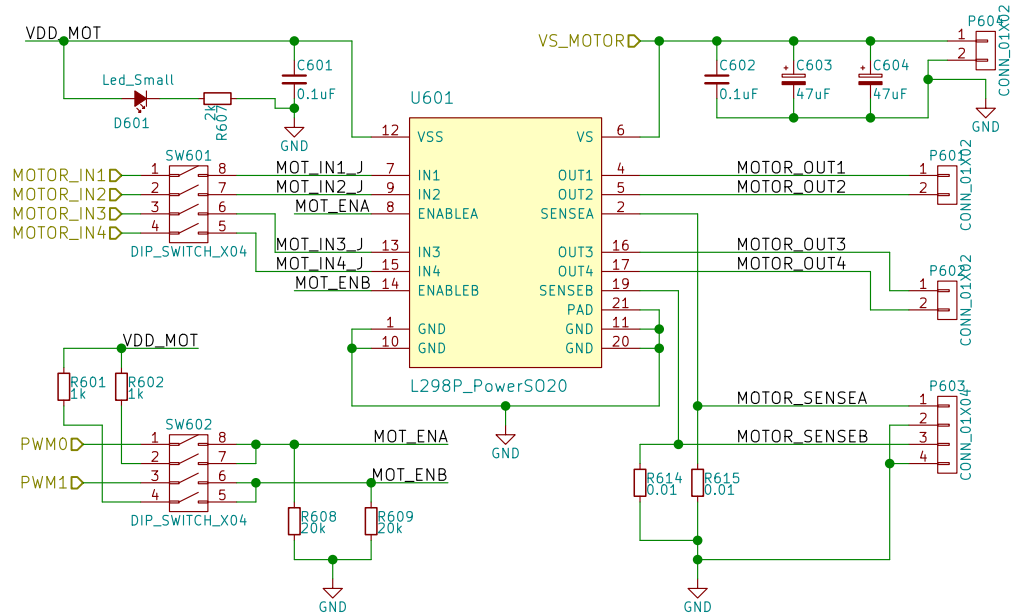
Notes:

- * Tie D2 and D1 together
- ** Okay to Tie Vdd and Vbat together



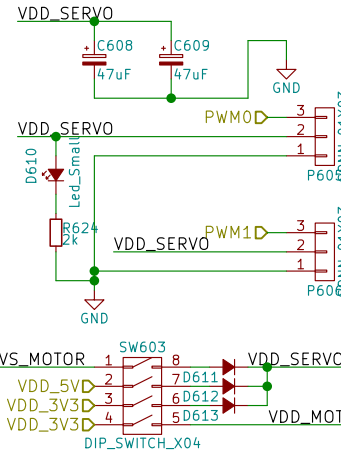
Motor Driver

2x DC Motors or 1x Bipolar Stepper Motor



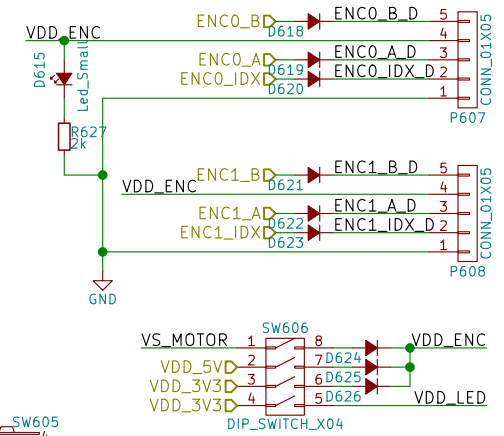
Servo Pins

Ground, voltage, signal headers.
Jumper for power source.



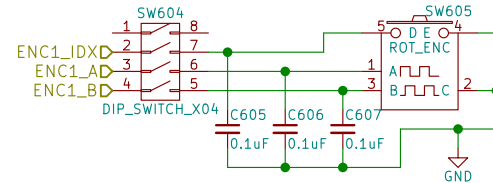
Quadrature Encoder Pins

US Digital S1 Pinout.
Jumper for power source.
Diodes for 5V levels and multiplexing.
Use RPi pull-ups.

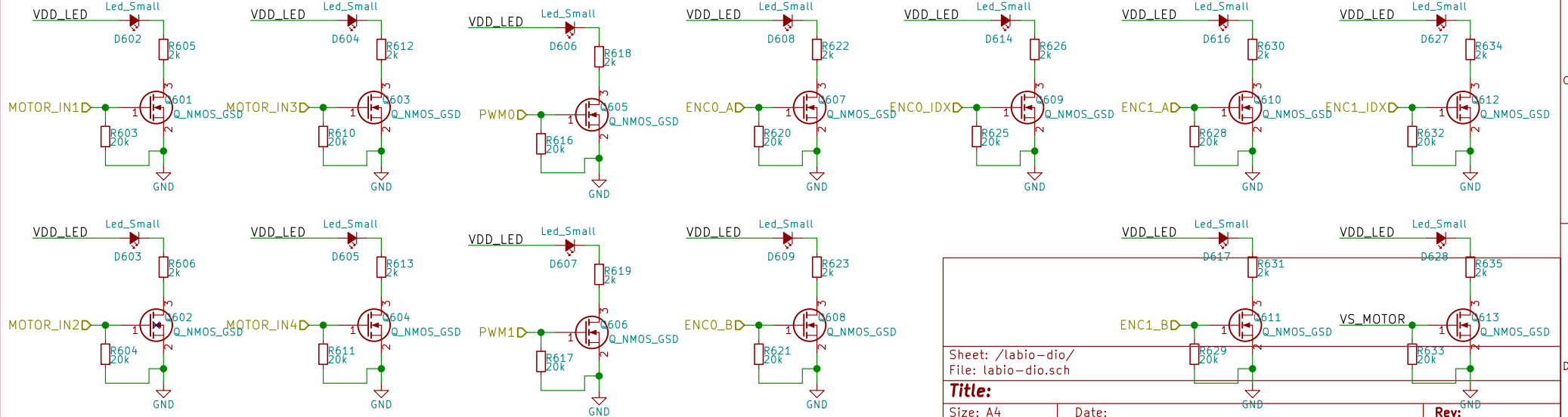


Quadrature Encoder (onboard)

Use RPi pull-ups.



LED Indicators



Sheet: /labio-dio/
File: labio-dio.sch

Title:

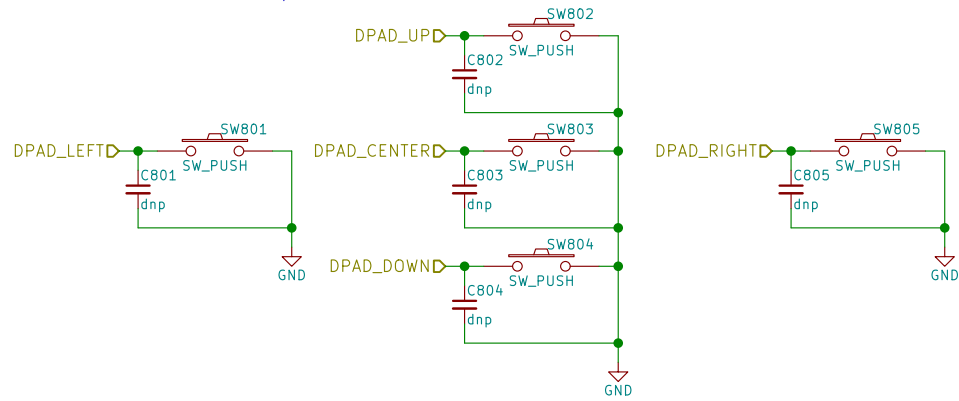
Size: A4
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Date:

Rev:
Id: 6/10

D-Pad

Use RPi pull-ups.
Optional C for decoupling.
Individual IO lines for interrupts.



Sheet: /labio-dpad/
File: labio-dpad.sch

Title:

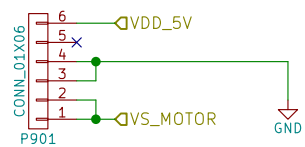
Size: A4
KiCad E.D.A. kicad 4.0.0-stable

Date:

Rev:
Id: 8/10

External Power (Future)

Provides logic and motor power from power supply or battery pack with possible charging from USB (rpi) power.
2x motor power for current rating.



Sheet: /labio-power/
File: labio-power.sch

Title:

Size: A4

Date:

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Rev:

Id: 9/10

RPi-like Mounting Holes
M3 for M3/no 4/M2.5 hardware.

H1001



hole

H1003



hole

H1004



hole

H1005



hole

H1007



hole

H1008



hole

Heatsink Mounting
25x25mm with 30x30mm M3 holes

H1002



hole

H1006



hole

Sheet: /labio-mech/
File: labio-mech.sch

Title:

Size: A4

Date:

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Rev:

Id: 10/10