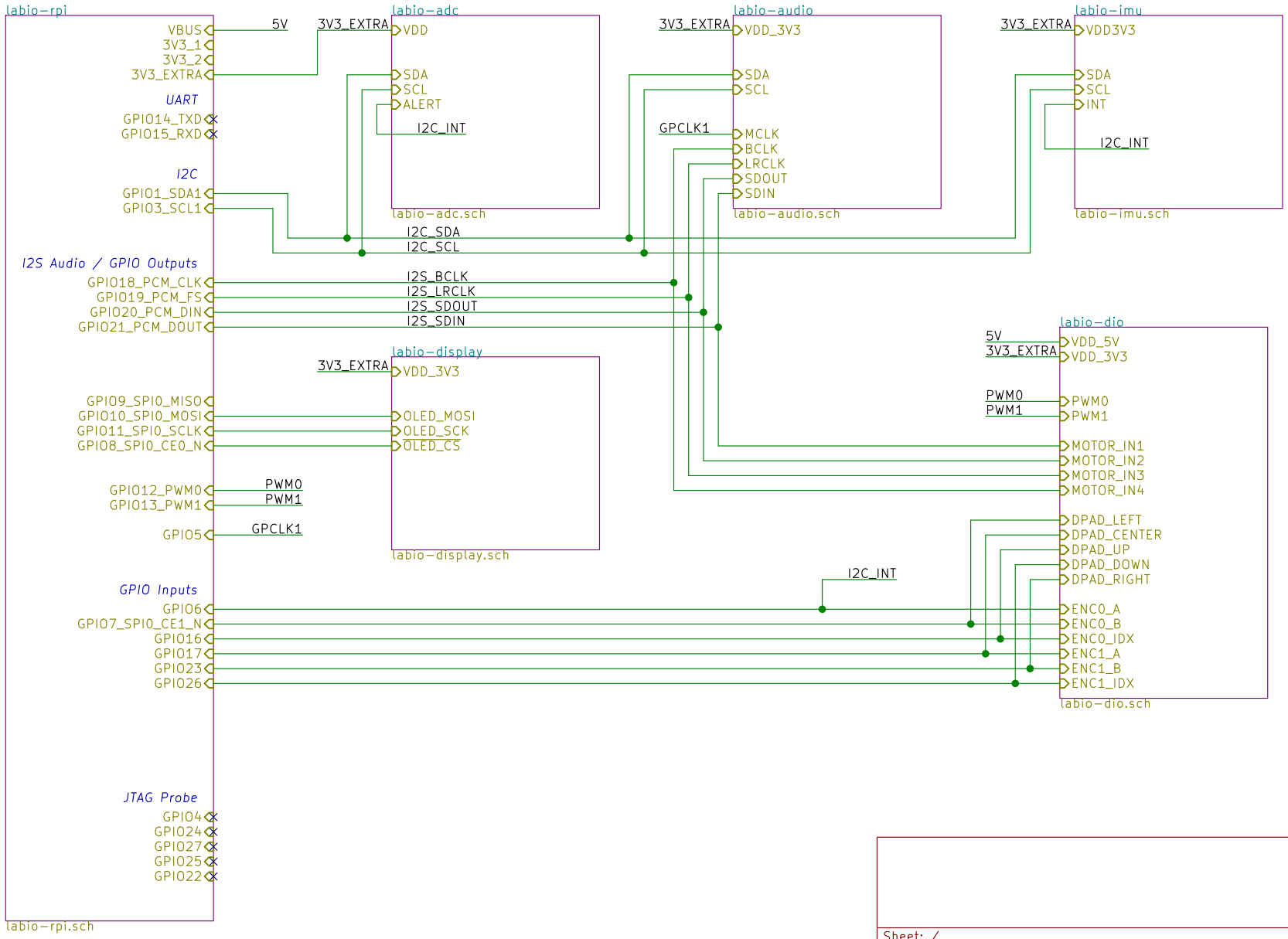

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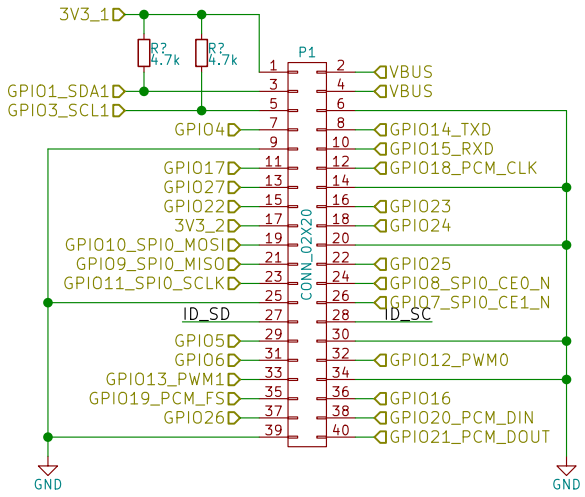
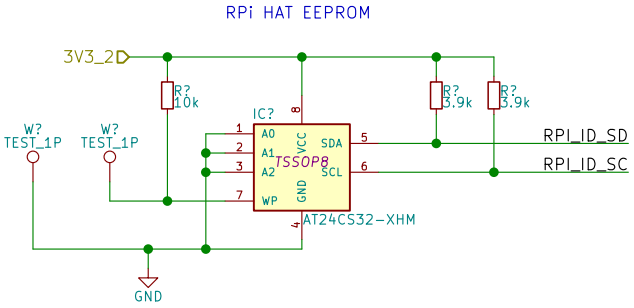
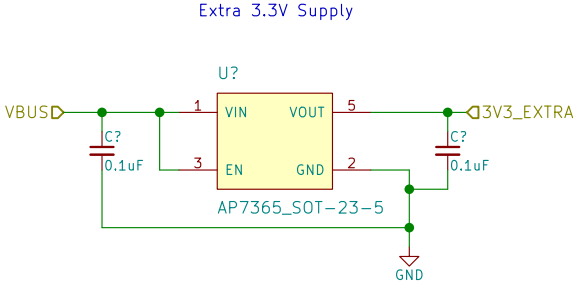
KiCad E.D.A. kicad 4.0.0-stable		Id: 1/7







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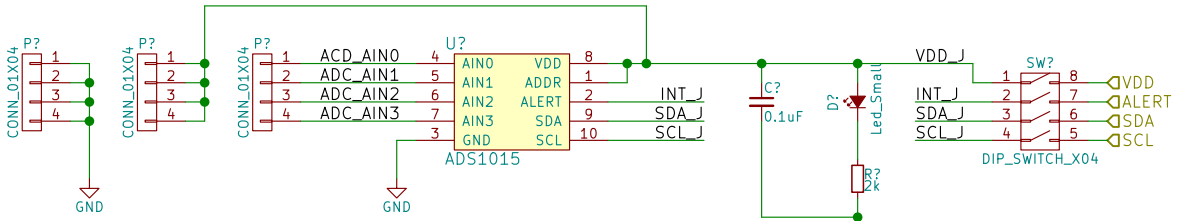
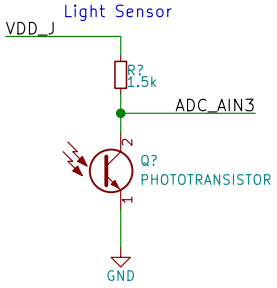
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 4.0.0-stable		Id: 2/7

12-bit (ADS1015) or 16-bit (ADS1115) ADC
with differential PGA and 4-channel mux.

7-bit addr: 0x73





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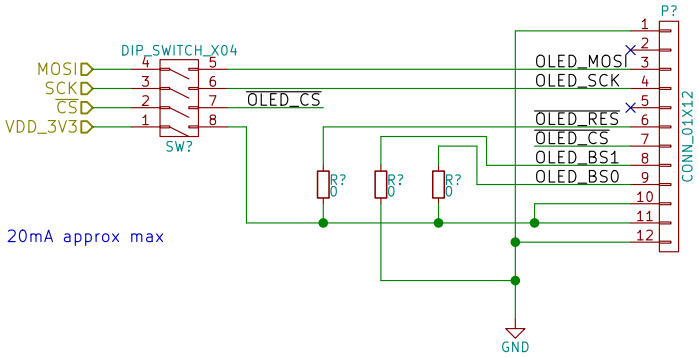
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 4.0.0-stable		Id: 3/7

CFAL12832D-B* OLED Display
3-wire SPI mode.



20mA approx max

Interface

Pin No	Sym	3 Wire SPI	4 Wire SPI	I2C
1	GND	**GND**	**GND**	**GND**
2	D2	NC	NC	SDA*
3	D1	SDA	SDA	SDA*
4	D0	CLK	SCLK	SCL
5	D/C#	NC	D/C	**Vcc**
6	RES#	RESET	RESET	RESET
7	CS#	**GND**	**GND**	**GND**
8	BS1	**GND**	**GND**	**Vcc**
9	BS0	**Vcc**	**GND**	**GND**
10	Vdd	**Vcc****	**Vcc****	**Vcc****
11	Vbat	**Vcc****	**Vcc****	**Vcc****
12	GND	**GND**	**GND**	**GND**

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

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

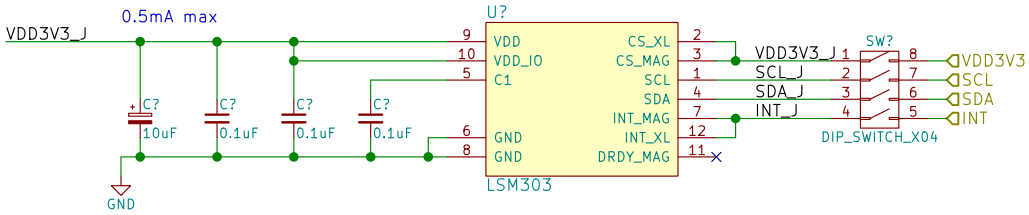
Title:

Size: A4 | Date: | **Rev:**
KiCad E.D.A. kicad 4.0.0-stable | Id: 4/7

6-DOF Accelerometer + Compass

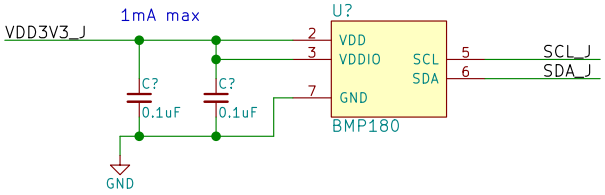
Keep currents higher than 10mA
a few mm away from compass.

7-bit I2C Addr:



Pressure + Temperature

7-bit I2C Addr: 0x77



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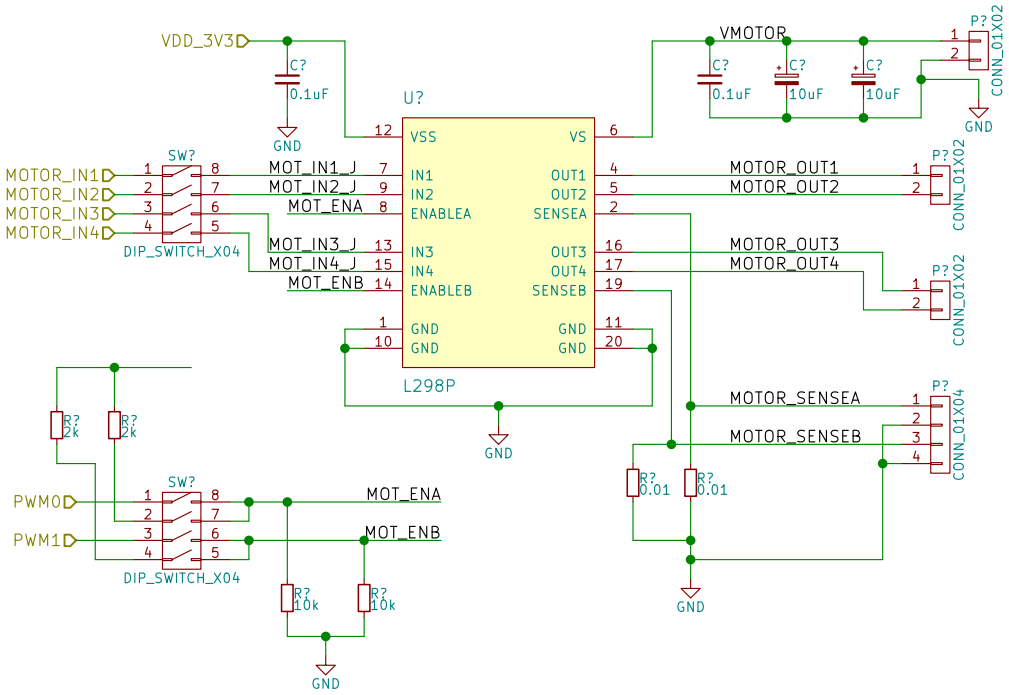
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 4.0.0-stable		Id: 5/7

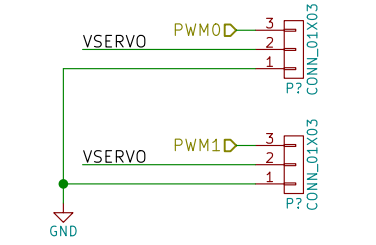
Motor Driver

2x DC Motors or 1x Bipolor Stepper Motor



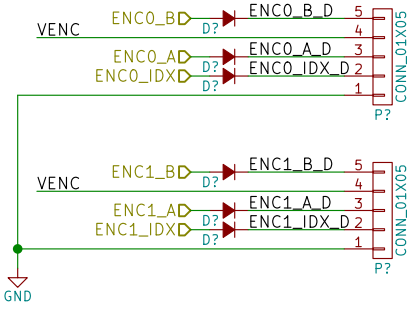
Servos

Ground, voltage, signal headers.
Jumper for VMOTOR or 5V power.



Quadrature Encoder

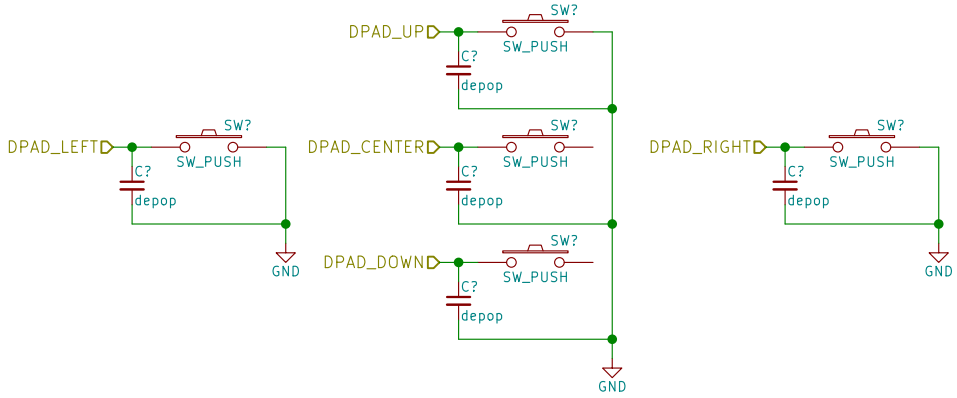
US Digital S1 Pinout.
Jumper for 3V3 or 5V power.
Diodes for 5V levels and multiplexing.
Use RPi pull-ups.



TODO: Add led state indicators w/ NMOS drivers

D-Pad

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



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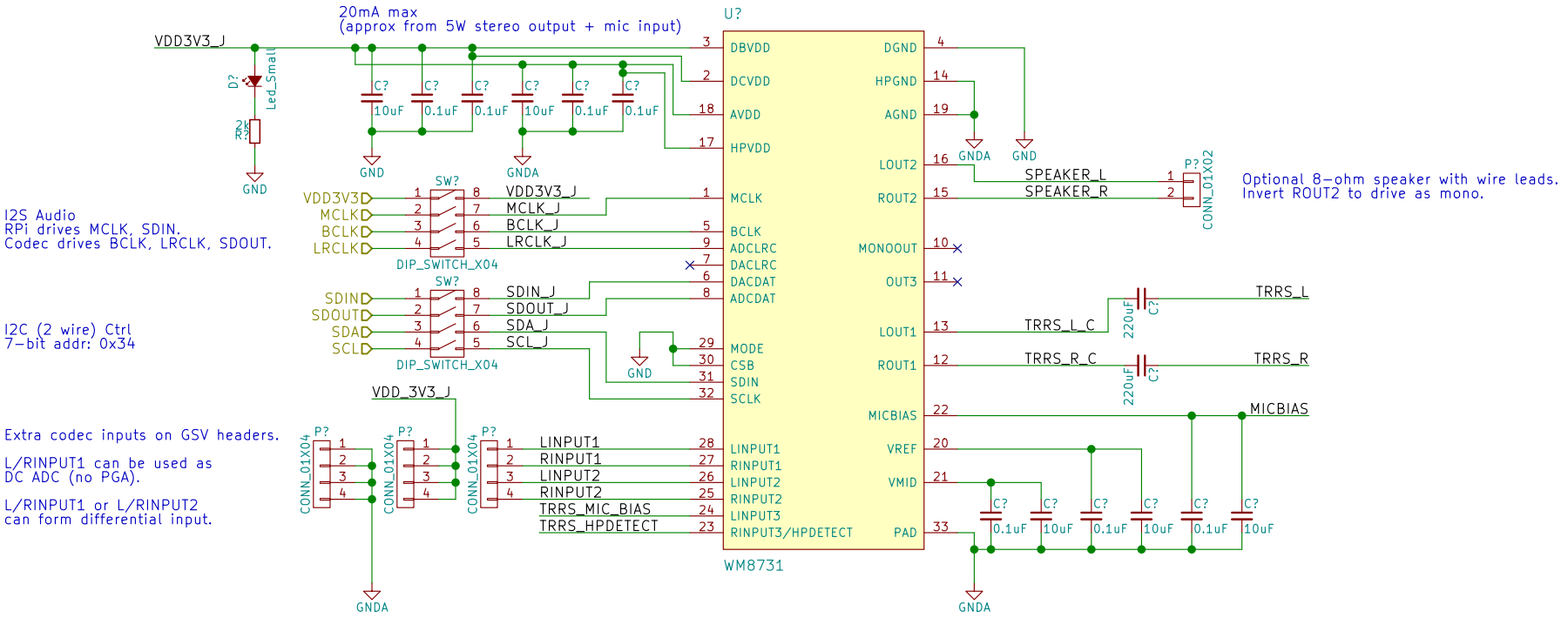
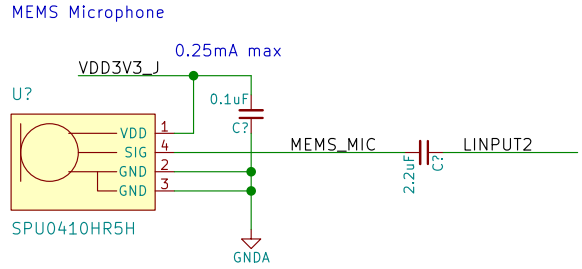
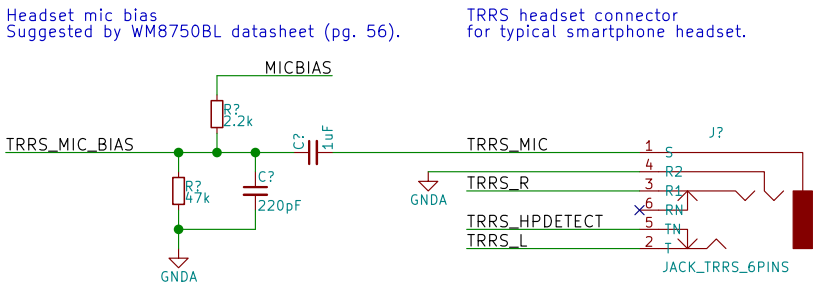
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 4.0.0-stable		Id: 6/7







TRRS headset connector
for typical smartphone headset.

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Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 4.0.0-stable		Id: 7/7