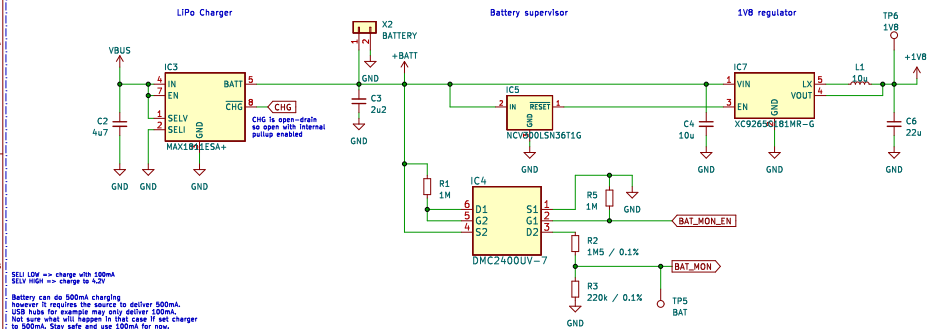
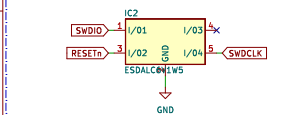


Power Management

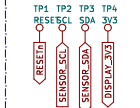


ESD protection

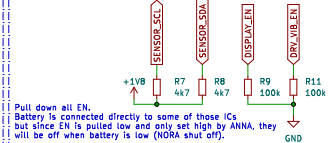


SWD pins will probably touch the skin, hence we need ESD protection. Those are not for 1.8V, but they will limit significantly and then internal nRF chip ESD protection handles the rest (if I understand correctly).

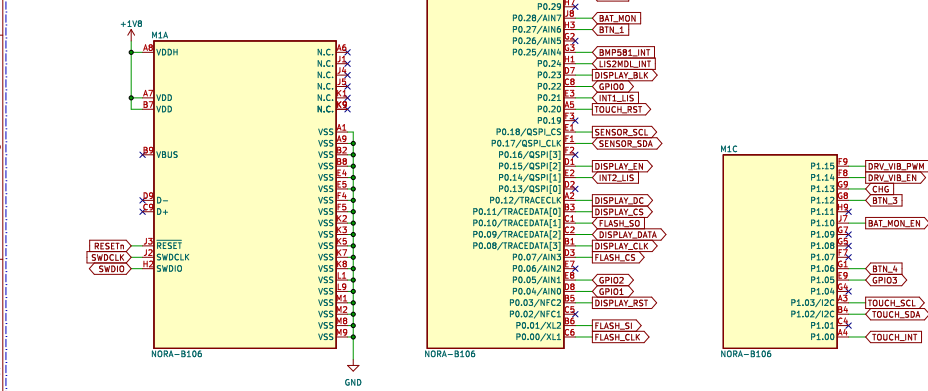
Test Points



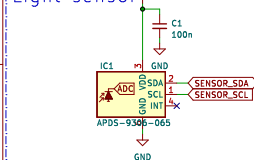
Pull-up/down resistors



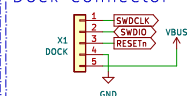
Microcontroller
(NORA-B106/nRF5340)



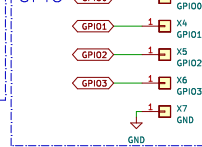
light sensor ^{+1VB}



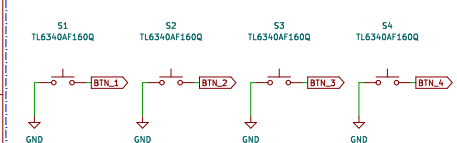
Dock connector



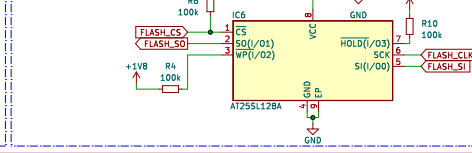
GPIO



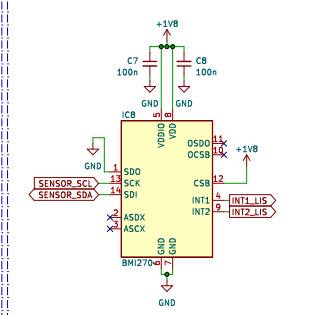
Buttons



External
16MB Flash

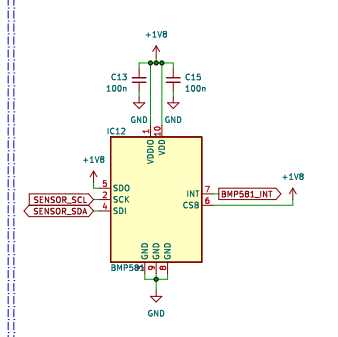


- IMU with step counter
- gesture detection etc.

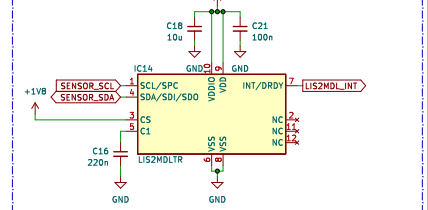


Careful with rotation, if not put as default, SW axis swap is needed.
Right now placed upsidedown, hence this is adjusted in SW.

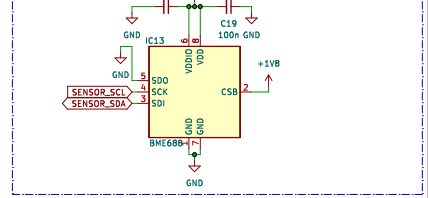
- High accuracy pressure sensor



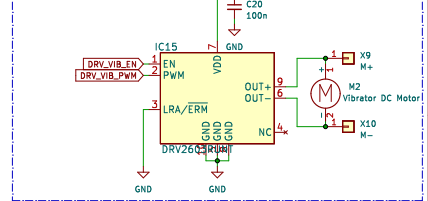
Magnetometer



Gas, Pressure, Temperature
& Humidity



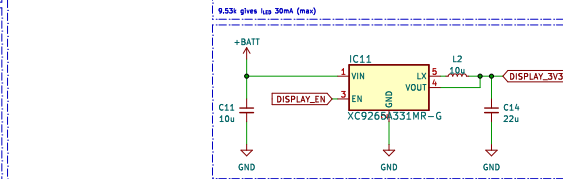
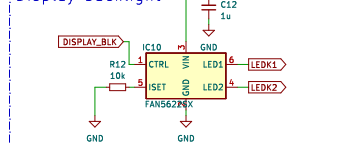
Vibration motor
(ERM Mode)



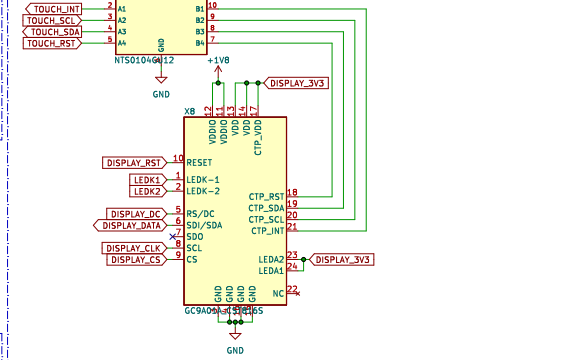
Display



- i Display backlight



1.8<->3.3 level shifter
NTS0104G012 has internal pullups.
Works for I2C
<https://www.nxp.com/docs/en/data-sheet/NTS0104.pdf>



I2C addresses

BMI270	0x68
BMP581	0x46
BME688	0x76
LIS2MDLTR	0x1E
APDS-9306-065	0x52

github.com/jakkra/ZSWatch-HW
Sheet: /
File: ZSWatch.kicad_sch
Title: ZSWatch v2

Size: User	Date: 2023-09-25	Rev: 3
KiCad E.D.A. kicad 7.0.2		Id: #/1