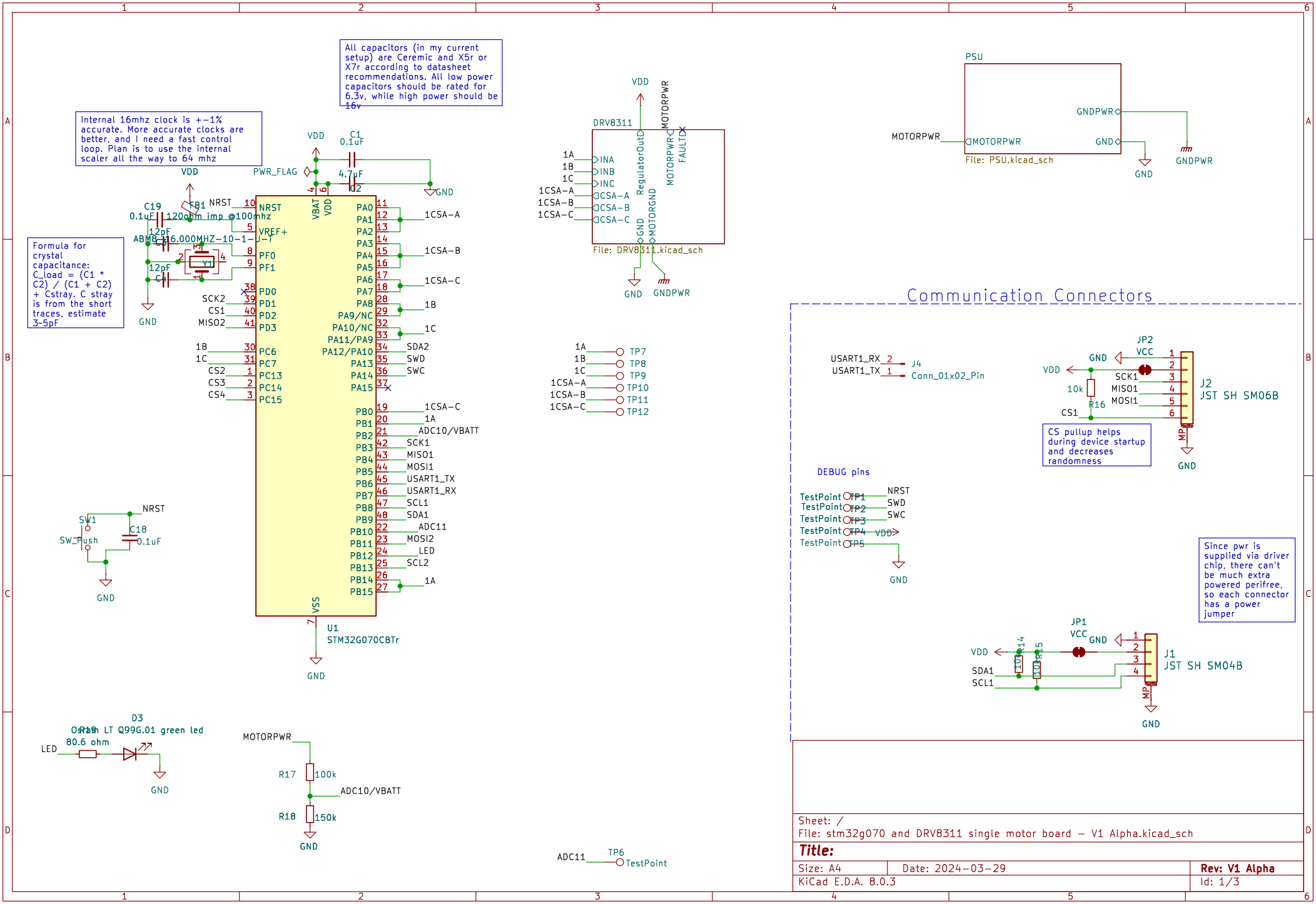
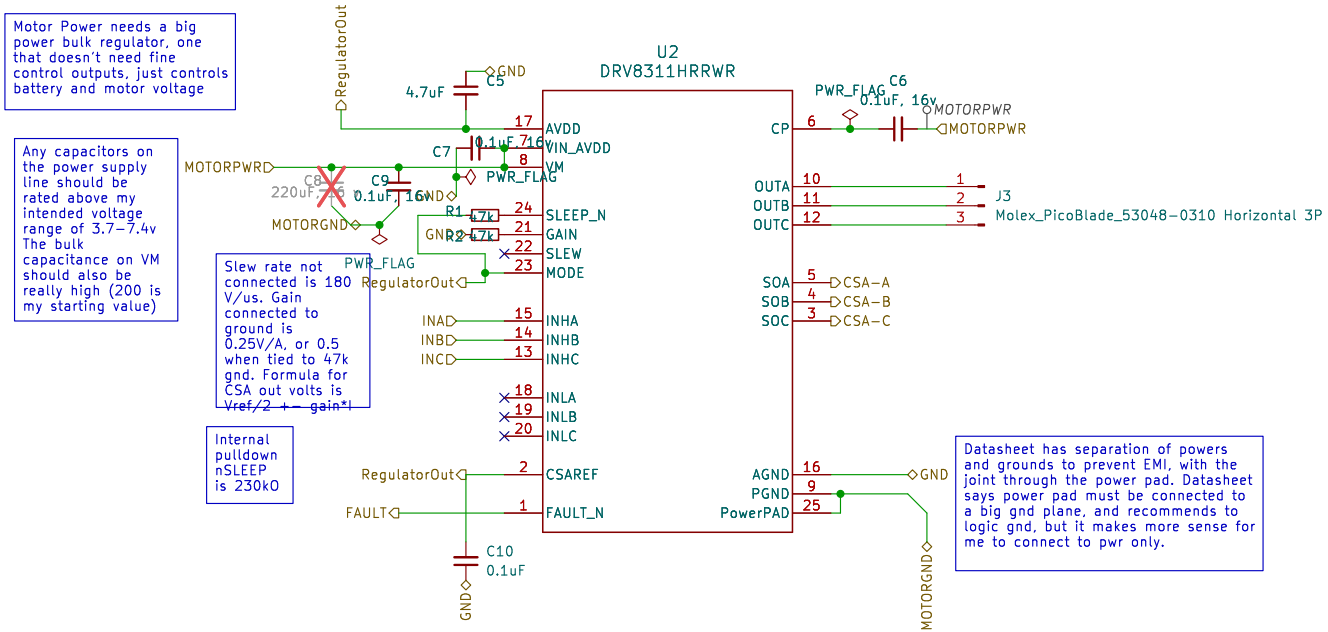

All capacitors (in my current setup) are Ceremic and X5r or X7r according to datasheet recommendations. All low power capacitors should be rated for 6.3v, while high power should be 16v
Internal 16mhz clock is +-1% accurate. More accurate clocks are better, and I need a fast control loop. Plan is to use the internal scaler all the way to 64 mhz
Formula for crystal capacitance: C_load = (C1 * C2) / (C1 + C2) + Cstray. C stray is from the short traces, estimate 3-5pF
U1
STM32G070CBTr
DRV8311
File: DRV8311.kicad_sch
PSU
File: PSU.kicad_sch
Communication Connectors
J4
Conn_01x02_Pin
J2
JST SH SM06B
CS pullup helps during device startup and decreases randomness
DEBUG pins
J1
JST SH SM04B
Since pwr is supplied via driver chip, there can't be much extra powered perifree, so each connector has a power jumper
D3
Osram LT Q99G.01 green led
80.6 ohm
100k
150k
Sheet: /
File: stm32g070 and DRV8311 single motor board – V1 Alpha.kicad_sch
Title:
Size: A4
Date: 2024-03-29
Rev: V1 Alpha
KiCad E.D.A. 8.0.3
Id: 1/3



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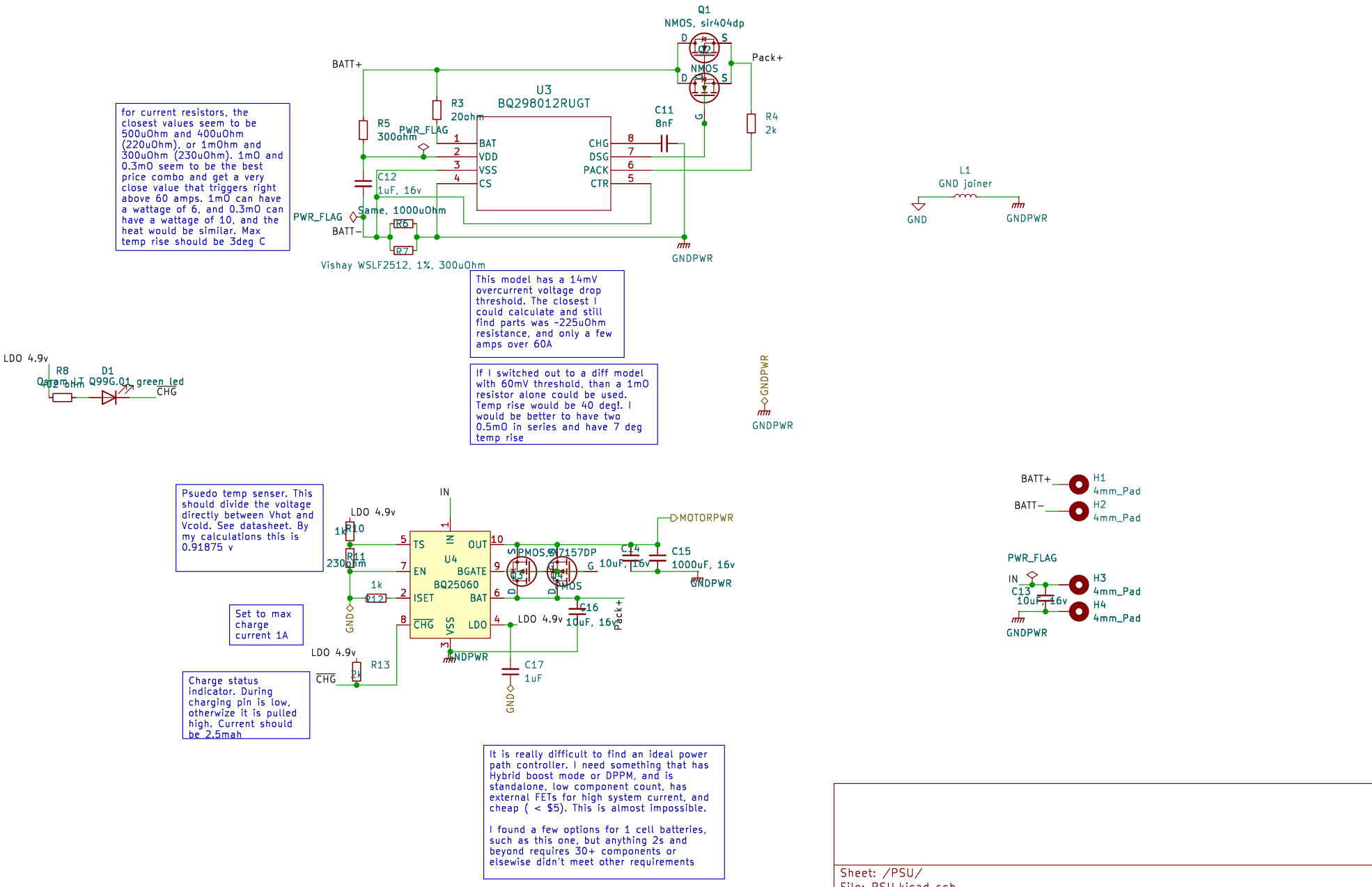
KiCad E.D.A. 8.0.3		Id: 2/3



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Size: A4	Date: 2024-03-29	**Rev: V1 Alpha**
KiCad E.D.A. 8.0.3		Id: 3/3