NOTE: This is a "Work In Progress"; implement at your own risk.

Sheet: OSv4_logic

Logic

File: OSv4_logic.sch

Sheet: OSv4_H-bridge

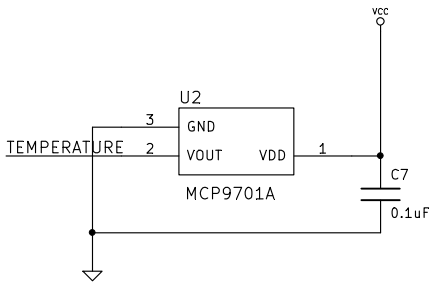
H-bridge

File: OSv4_H-bridge.sch

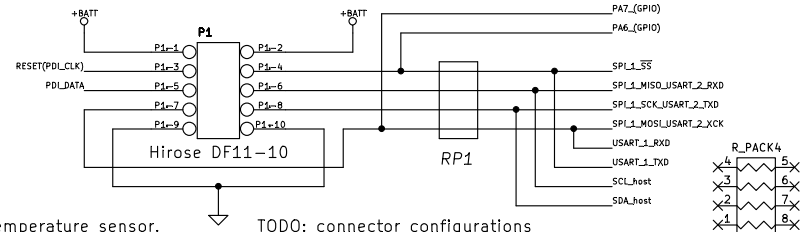
NOTE: This is most definitely a "Work In Progress" that is in a state of flux... It is presented for review purposes only and does not represent an end product!

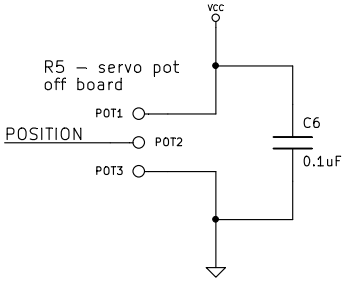
File: OSv4.sch Sheet: /		
Title: OpenServo v4 preliminary work-up, © OpenServo project 2010		
Size: A4	Date: 4 jul 2010	**Rev:**
KiCad E.D.A. eeschema (2010-05-05 BZR 2356)-stable		Id: 1/3

NOTE: This is a "Work In Progress"; implement at your own risk.



Maxium current thru P1: 4amps

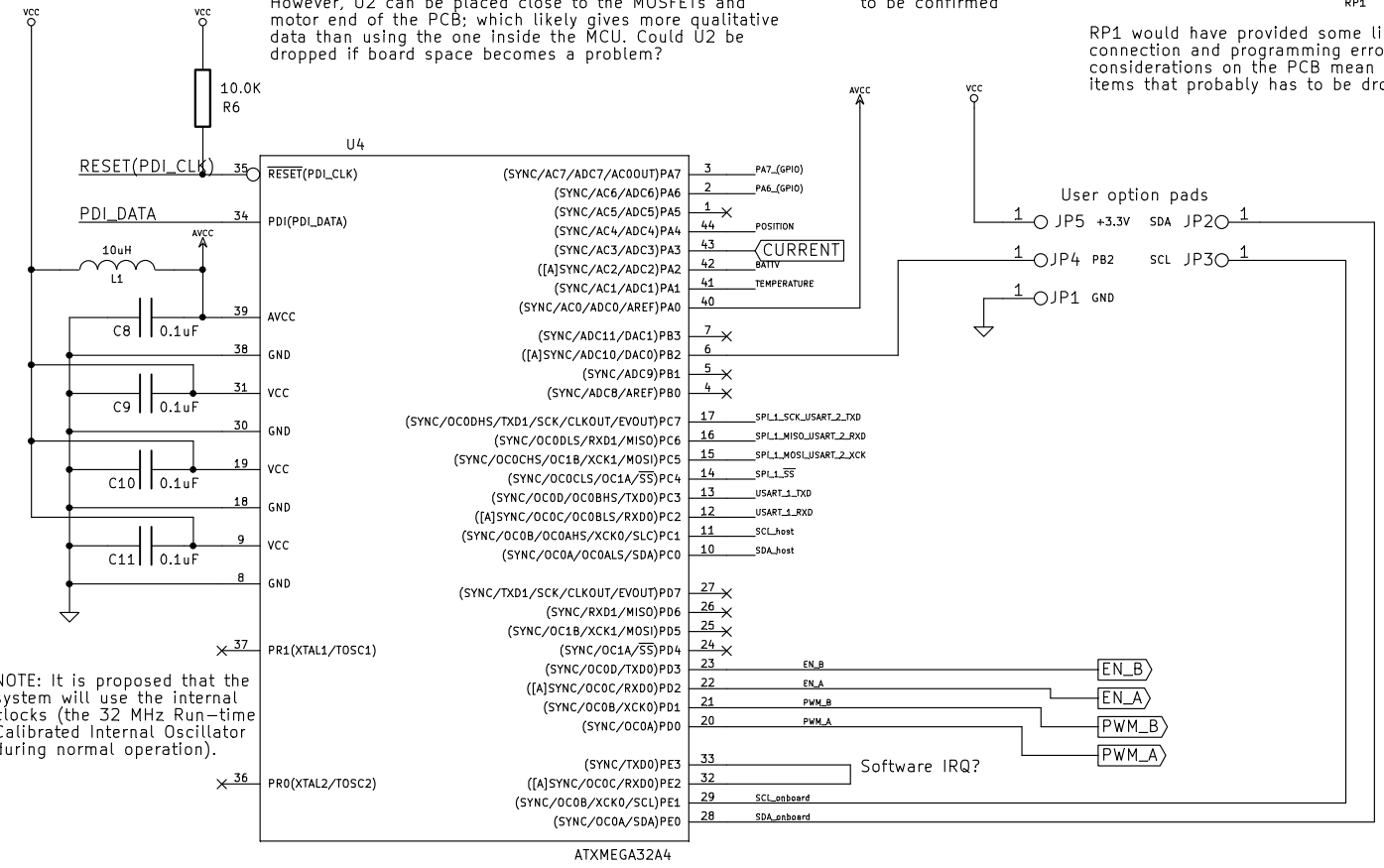




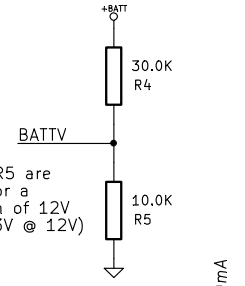
NOTE: The XMEGA has an integrated temperature sensor. However, U2 can be placed close to the MOSFETs and motor end of the PCB; which likely gives more qualitative data than using the one inside the MCU. Could U2 be dropped if board space becomes a problem?

TODO: connector configurations to be confirmed

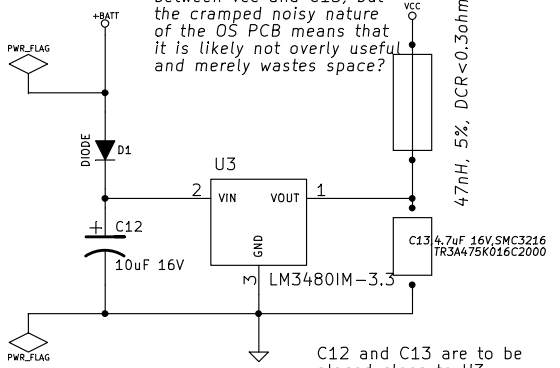
RP1 would have provided some limited protection against connection and programming errors; however design considerations on the PCB mean that this is one of the items that probably has to be dropped.



NOTE: It is proposed that the system will use the internal clocks (the 32 MHz Run-time Calibrated Internal Oscillator during normal operation).



R4 and R5 are scaled for a maximum of 12V (BATTV=3V @ 12V)



One might use an inductor between vcc and C13; but the cramped noisy nature of the OS PCB means that it is likely not overly useful and merely wastes space?

C12 and C13 are to be placed close to U3

NOTE: Decoupling capacitors to be placed close to the device for each supply pin pair in a signal group.

File: OSv4_logic.sch		
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Size: A4	Date: 4 jul 2010	**Rev: 0.0**
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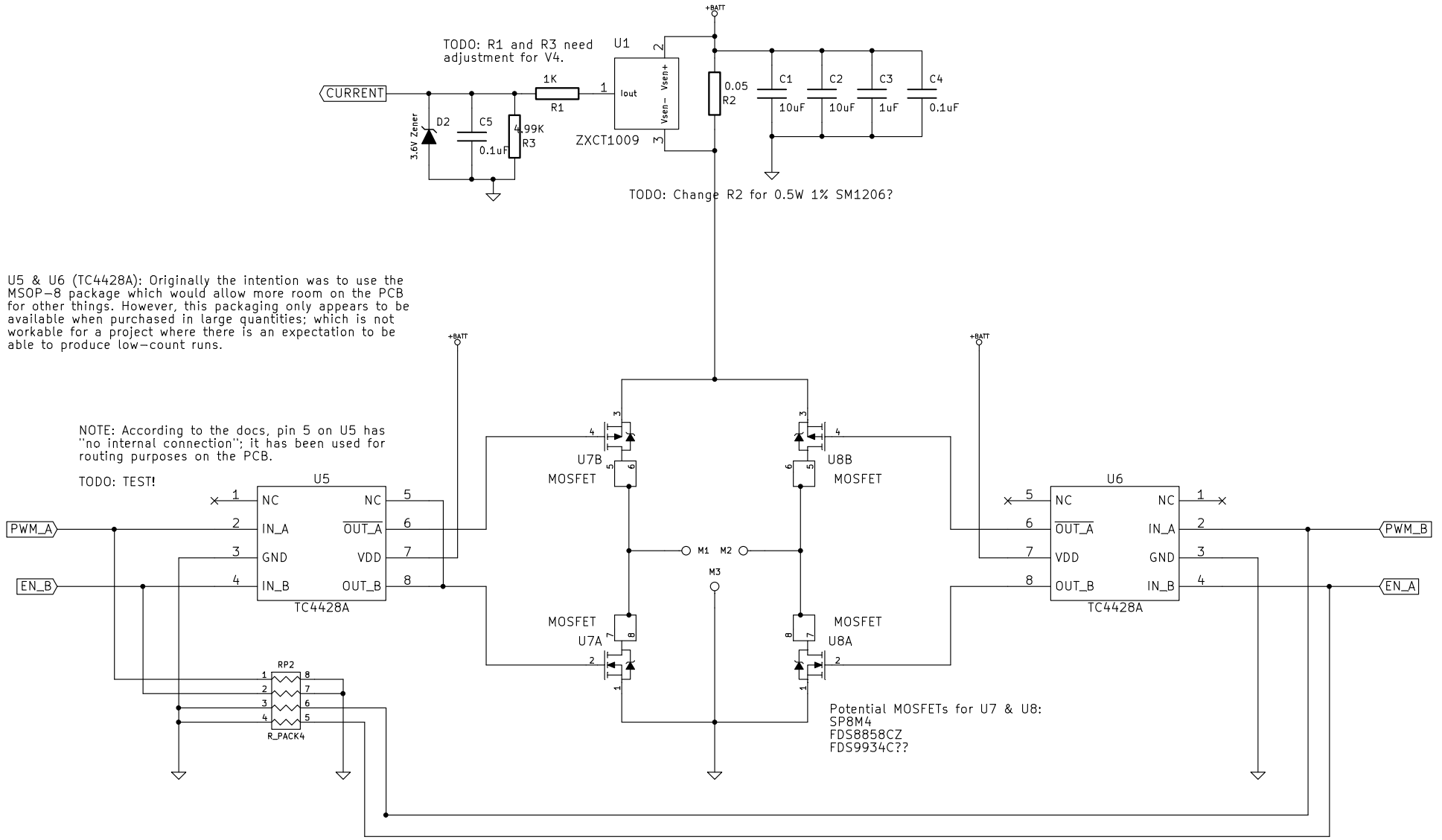

File: OSv4_H-bridge.sch		
Sheet: /OSv4_H-bridge/		
Title: OpenServo v4 preliminary work-up, © OpenServo project 2010		
Size: A4	Date: 4 jul 2010	**Rev: 0.0**
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