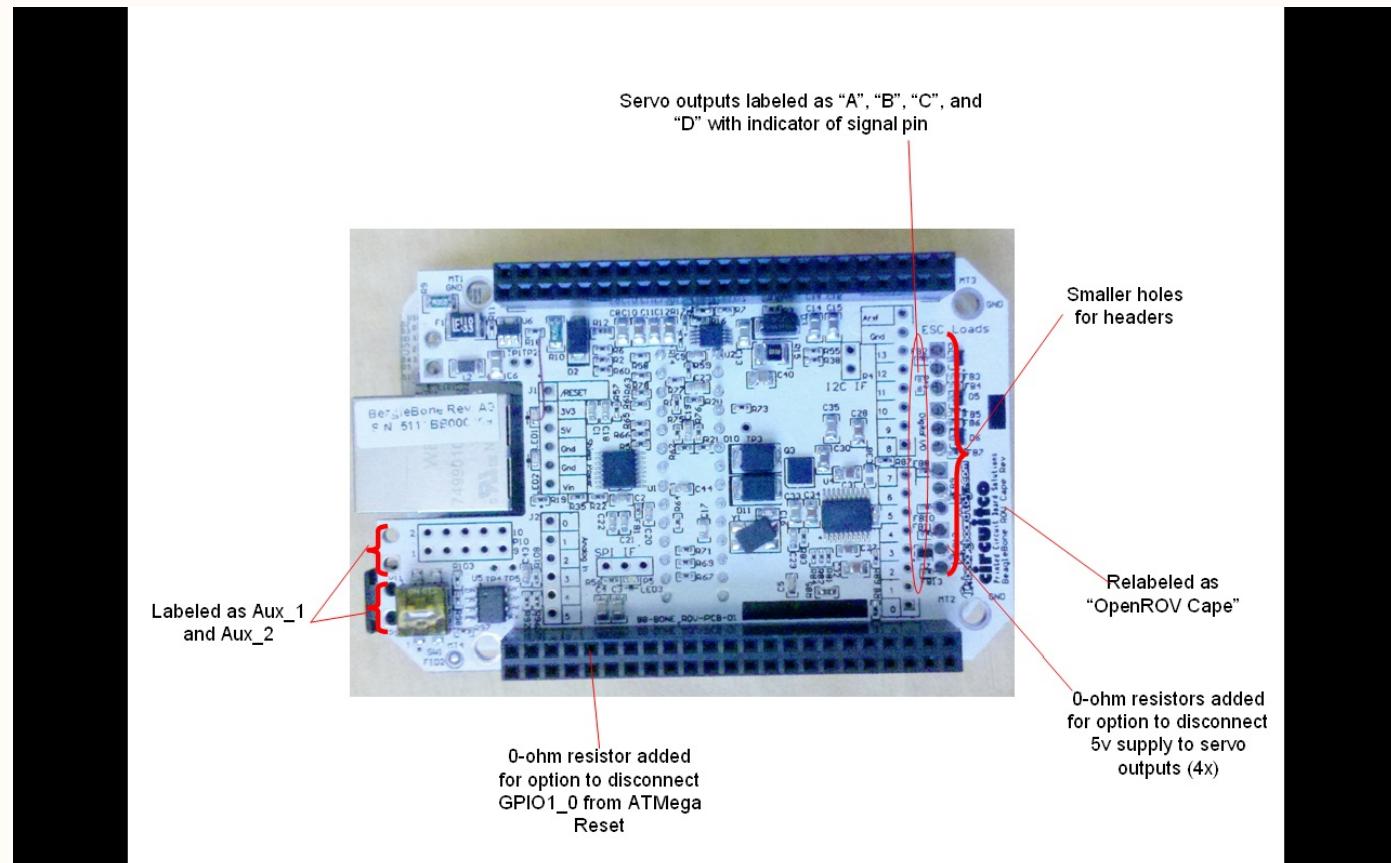


REV	DATE	BY	CHANGE			
1	8/22/13	GLS	Initial release			
2	10/15/12	GLS	Second Run			

1. FIXED The trace connecting LED1 and R18 is not there on PCB. Please check the board file.
2. Redesign for 2Amps cont, R15 needs to be 0.075ohms for 2A current output.  
With previous 0.11 ohm value BeagleBone would not power up. (DONE)
3. ALSO need to support 500mA on USB A jack
4. SW1 footprint is still not correct. Please refer to DVI-D cape to get correct footprint (FIXED)
5. move R3 to make easier to remove, add 0 ohms to uart signal on bone side (FIXED)
6. change hole dia to 0.040 for 5 pin arduino connectors (FIXED)
7. change crystal footprint (FIXED)
8. change R35 to 100K, solves ATmega reset voltage issue (FIXED)
9. NEXT REV (could not fit in 4 layers) Add separate 3V-12V 5V switcher for bone supply during battery dips to <5V (possible when motors draw high current)  
Recommend Li batteries until next spin, Li batteries only have 0.040ohms and can do 4A peak, and can supply 17V on 2 motor draw.  
Each Alkaline C cell can have 0.15ohm Rs and with 8 in series this causes 4V drop to 8V in when 2 motors on, even if unloaded.  
AtMega code needs to monitor Vbatt and go into standby, load shedding mode when <7V and alert user. Blink Red LED

Resizing holes for the four ESC/servo ports to fit standard headers (changed to 0.040 diameter) (DONE)



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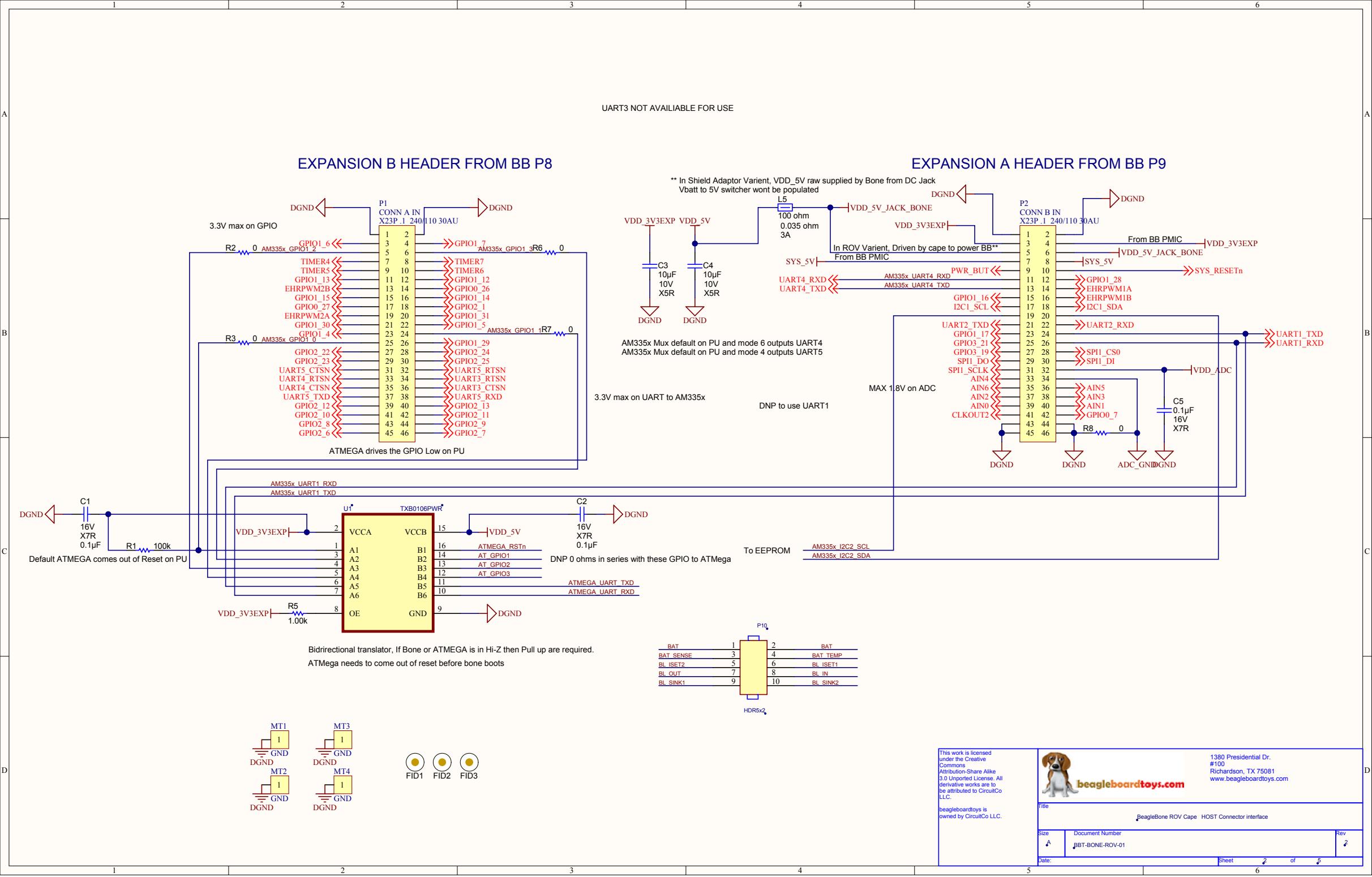


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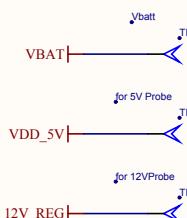
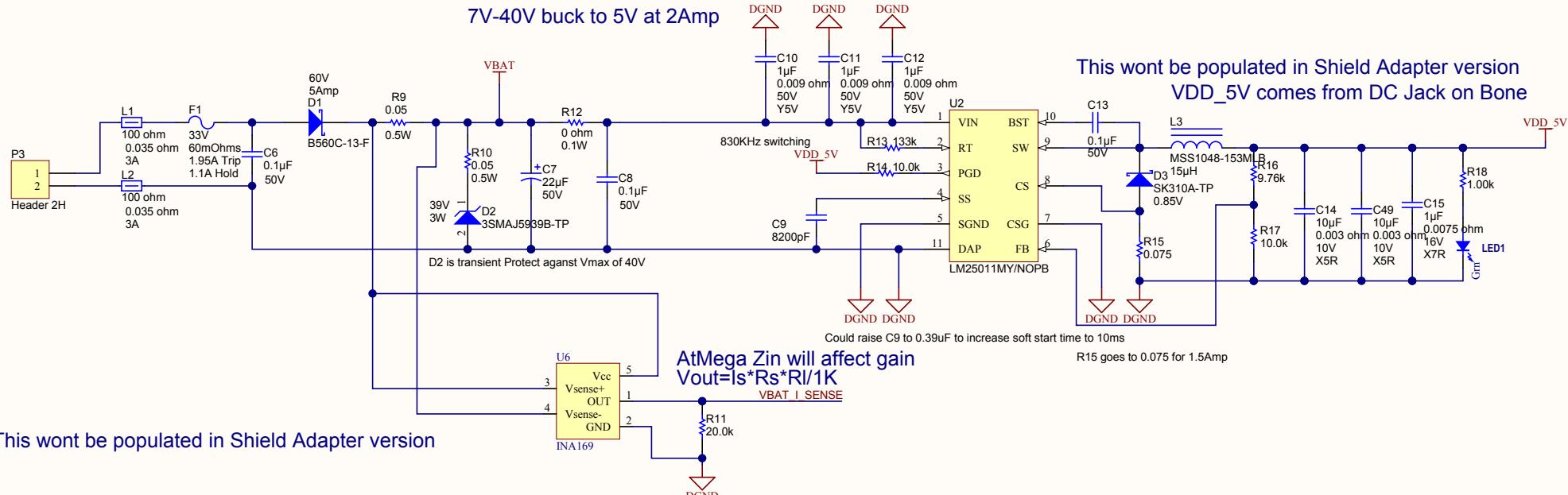


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Date:	Sheet	1 of 5



**6V to 40V DC POWER, Boost to 12V @ 1A**

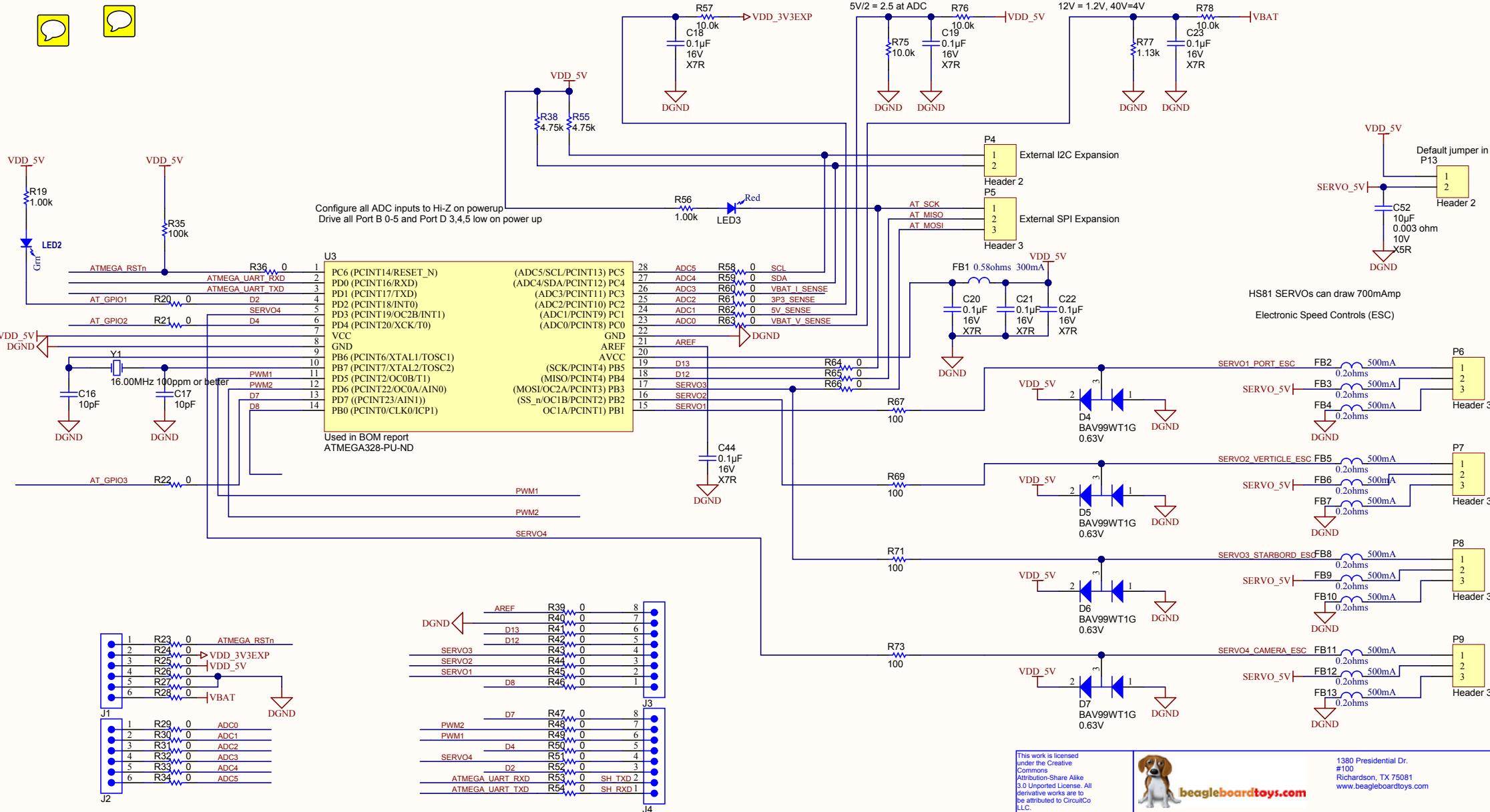


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#### **Populate these Resistors to enable Shield Connections**

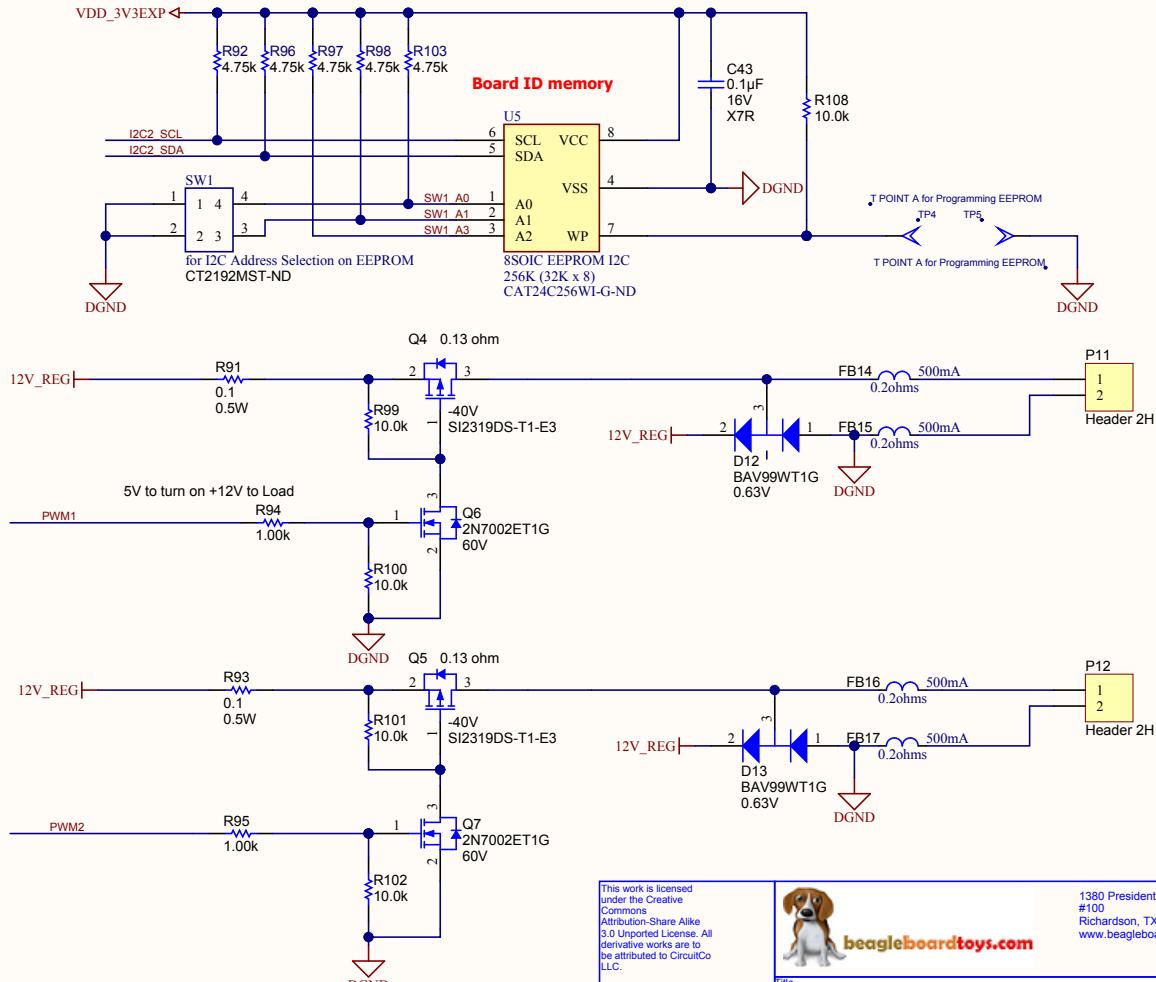


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BeagleBone ROV Cape ID EEPROM

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Document Number

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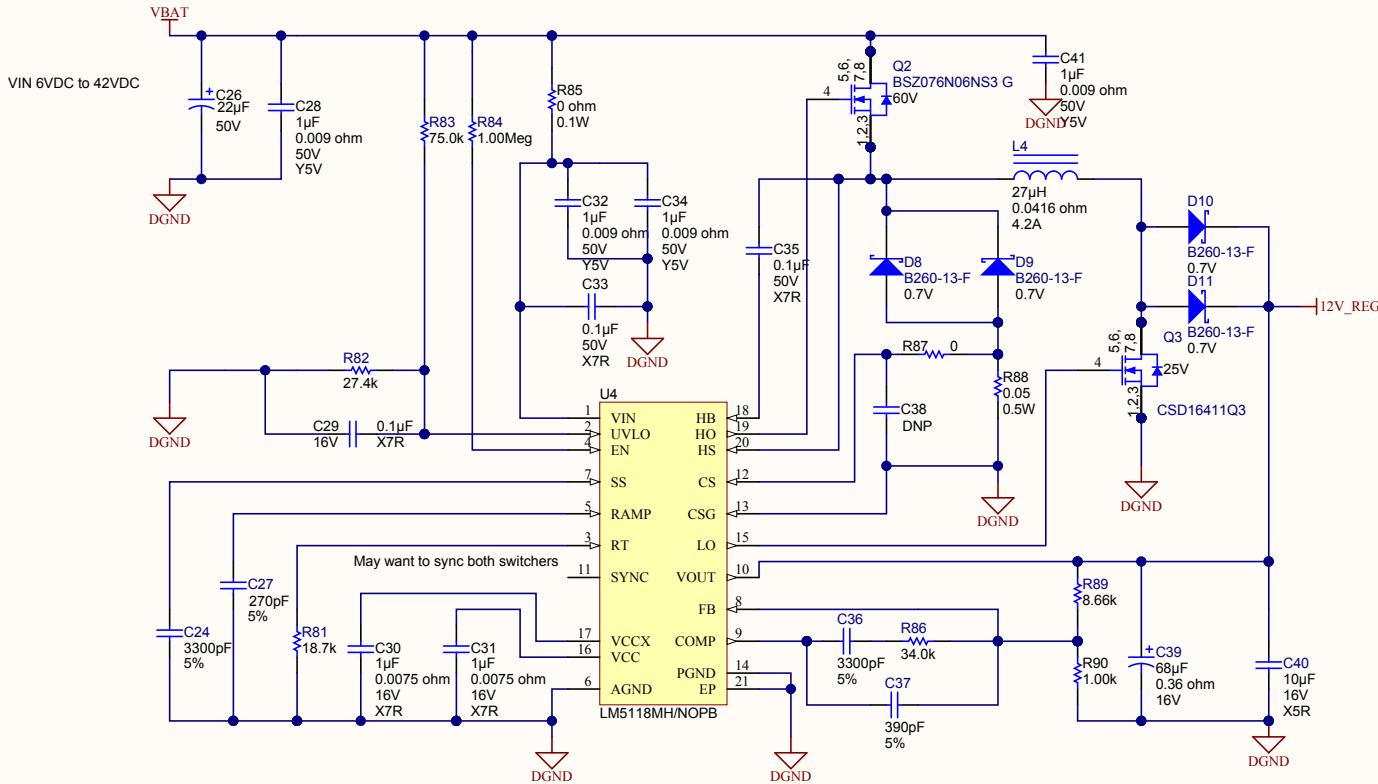
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This wont be populated in Shield Adapter version

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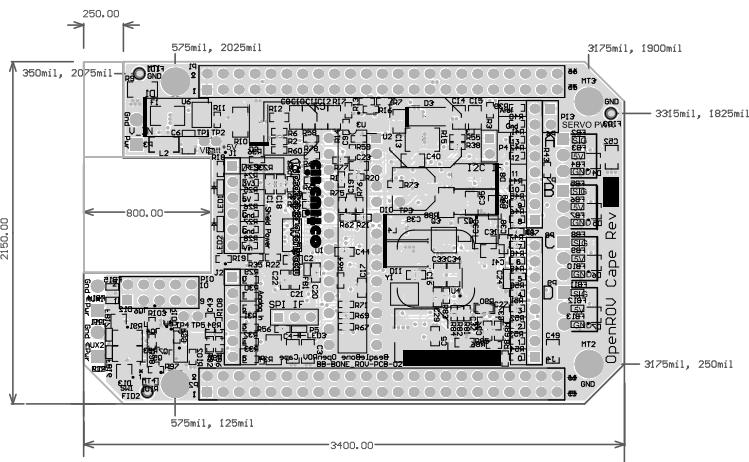


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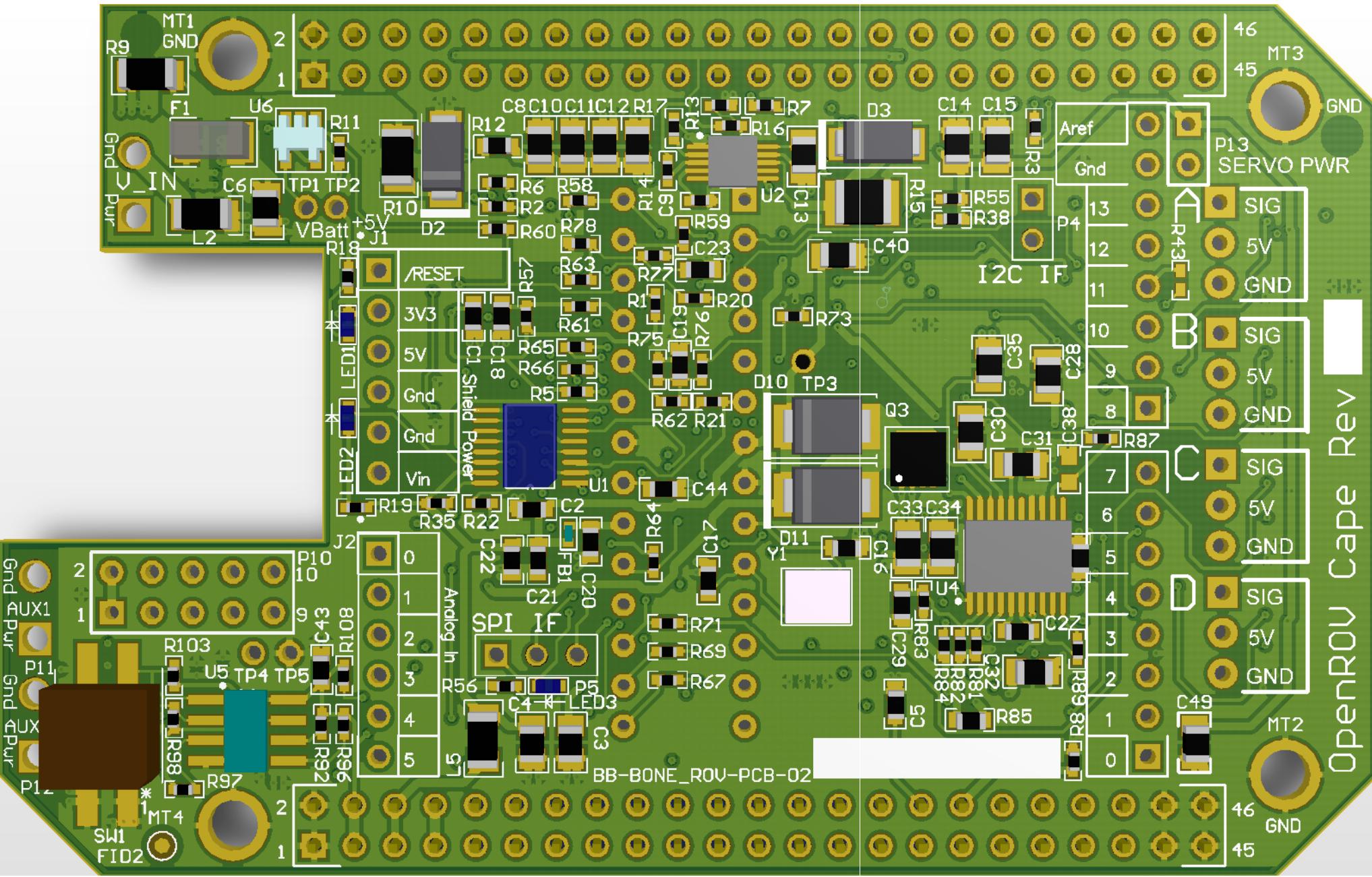
BeagleBone ROV Cape 12V BOOST

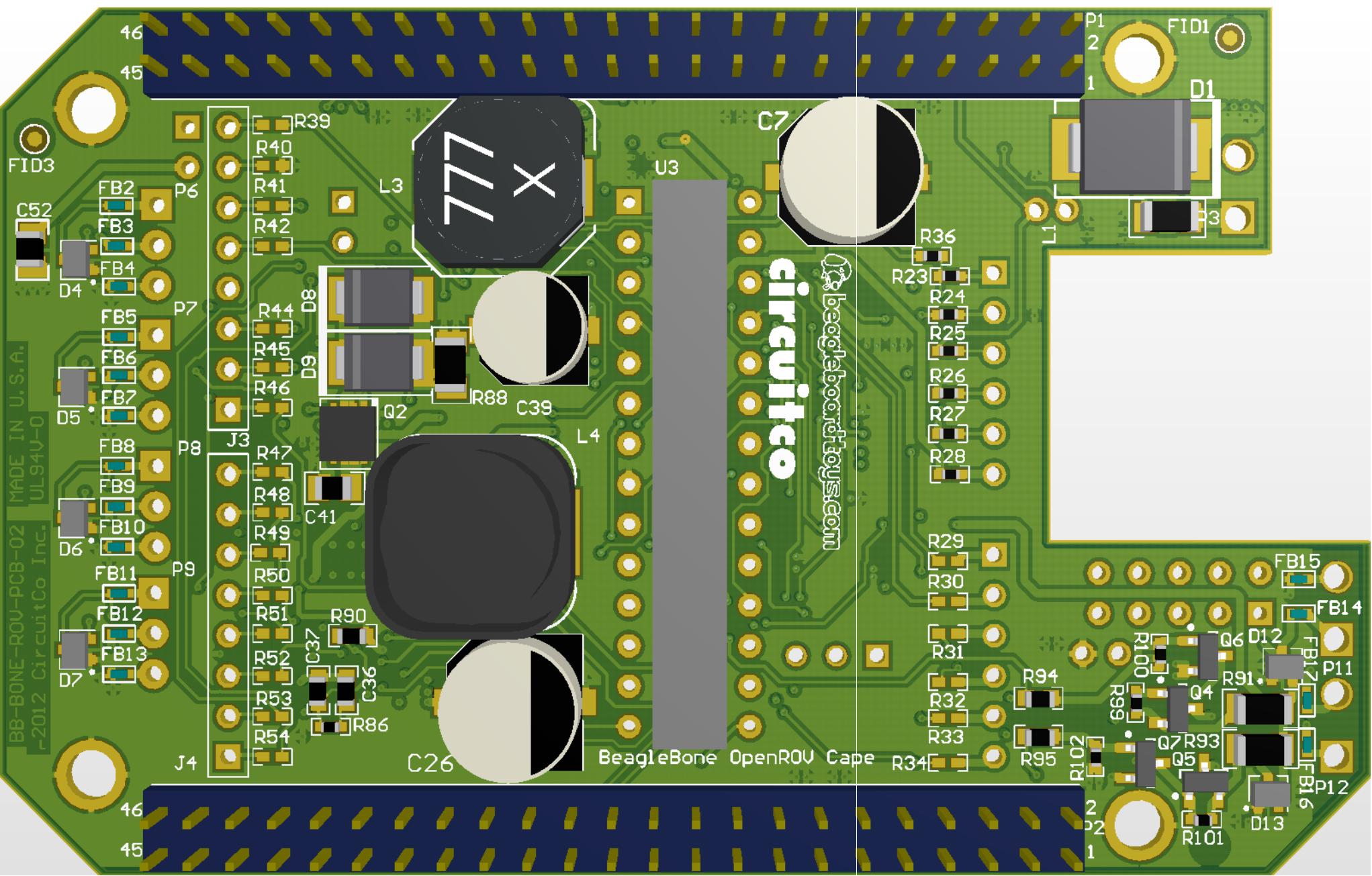
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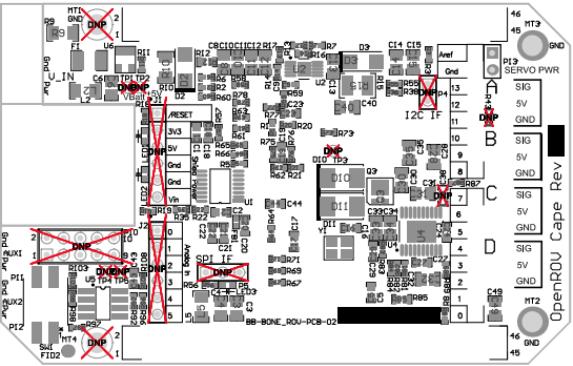


## Top Overlay

### Bottom Overlay







Top Overlay

Top Solder

