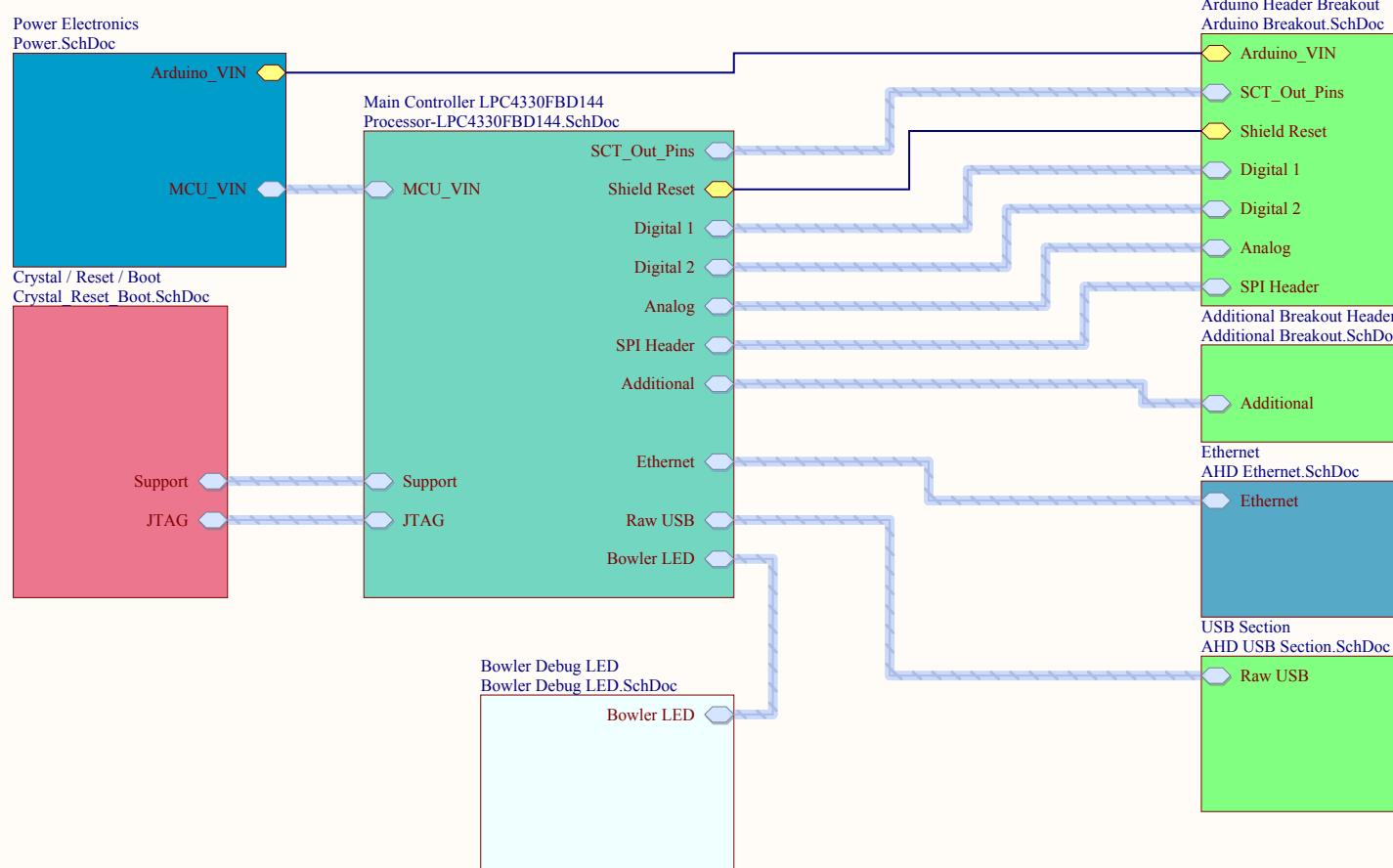
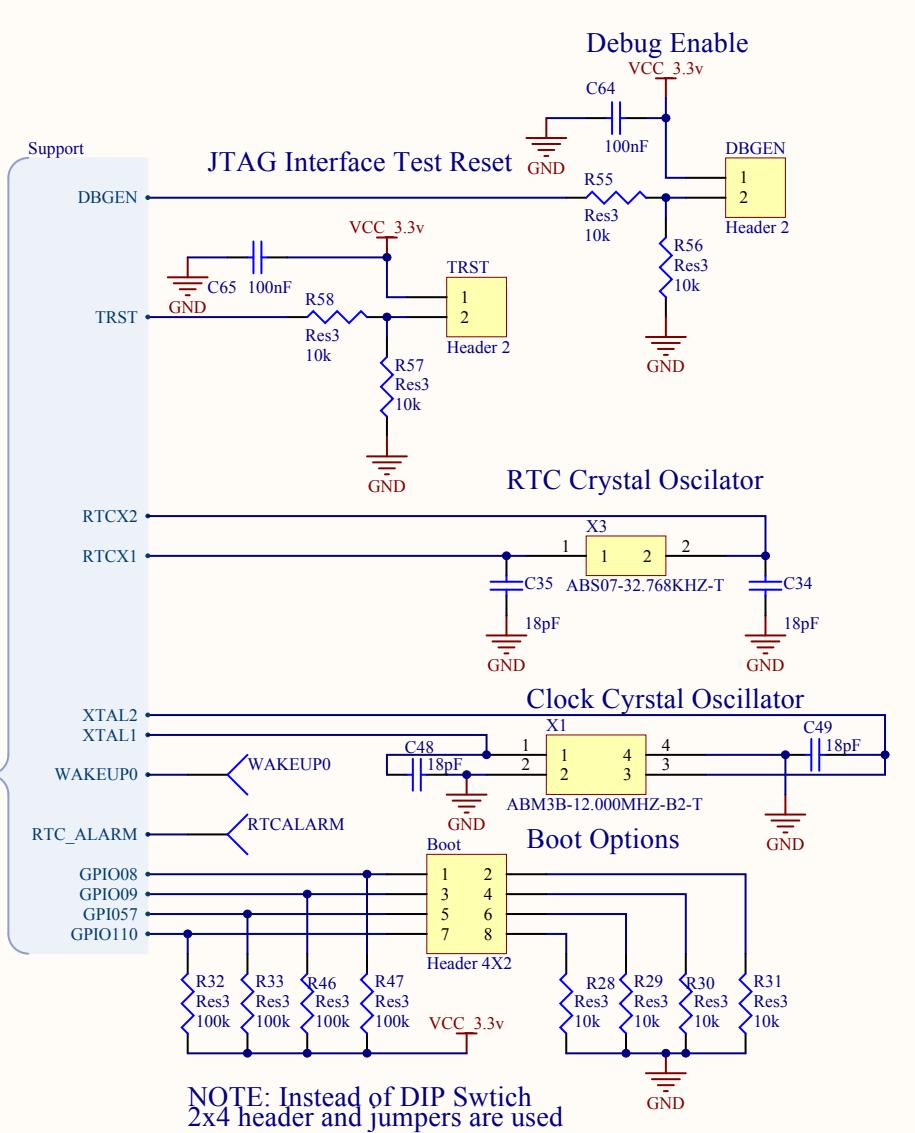
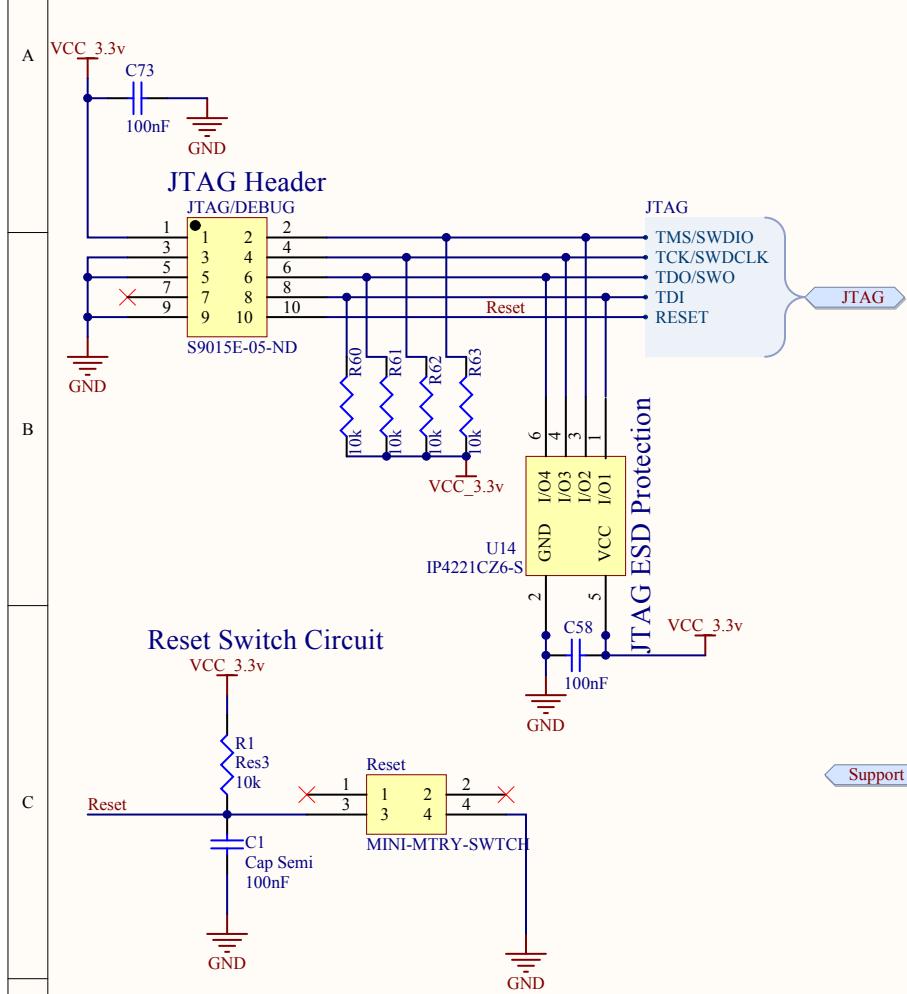


RoboSub Module Abstract Hardware Device



Title		
Size	Number	Revision
A		2.3b
Date:	4/22/2013	Sheet 1 of 9
File:	C:\Users\...\AHD Master Schematic.SchDoc	Drawn By: Adam Vadala-Roth

Crystals / Reset / Boot / JTAG

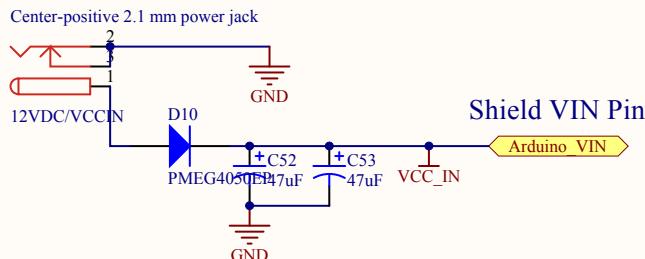


Title	LPC4330 Reset / Crystal / JTAG/ BOOT / RTC	
Size	Number	
A		
Date:	4/22/2013	Sheet of
File:	C:\Users\...\Crystal_Reset_Boot.SchDoc	Drawn By: Adam Vadala-Roth
2.4b		

Board Level Power Electronics / Power Conditioning / Power Decoupling

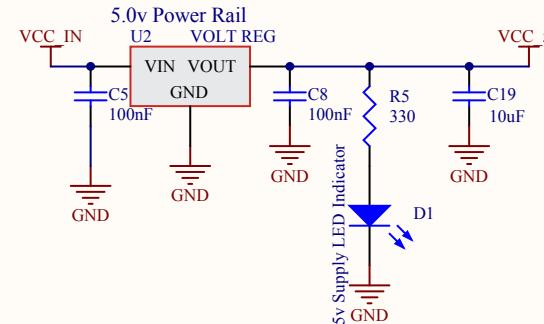
A

Power Input, Decoupling, & Damping



B

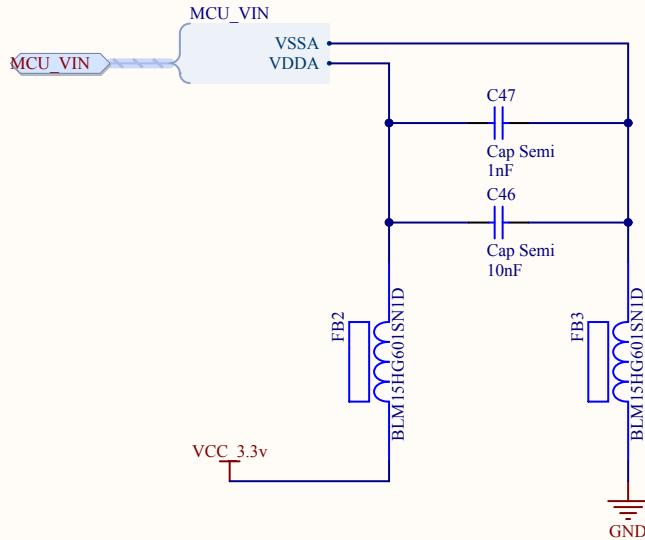
Power Conversion & Conditioning



A

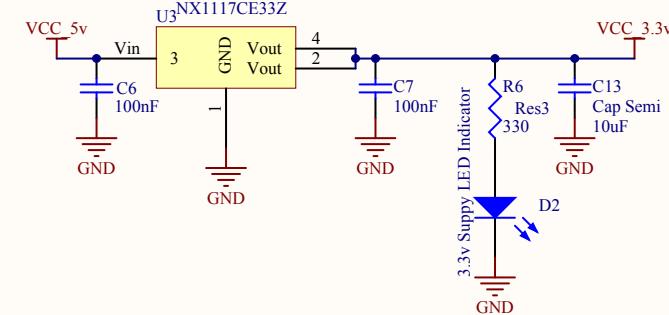
B

LPC43xx ADC Power



C

3.3v Power Rail



B

C

D

Title

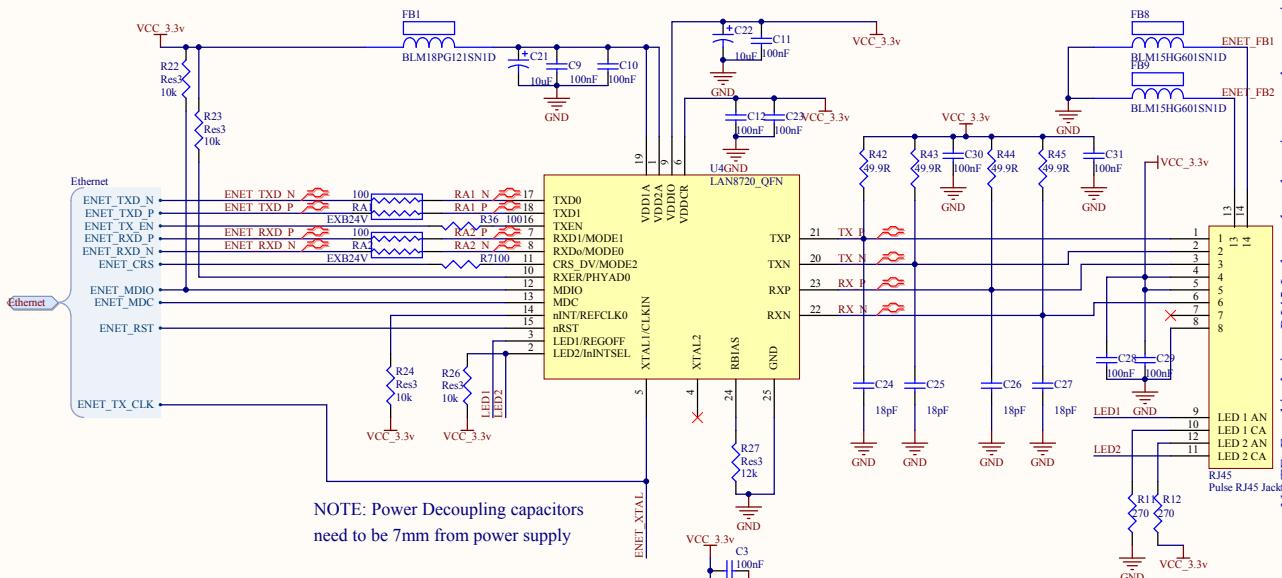
Board Level Power

Revision

2.4b

Size	Number	Revision
A		
Date: 4/22/2013	Sheet 4 of 9	2.4b
File: C:\Users\...\Power.SchDoc	Drawn By:	Adam Vadala-Roth

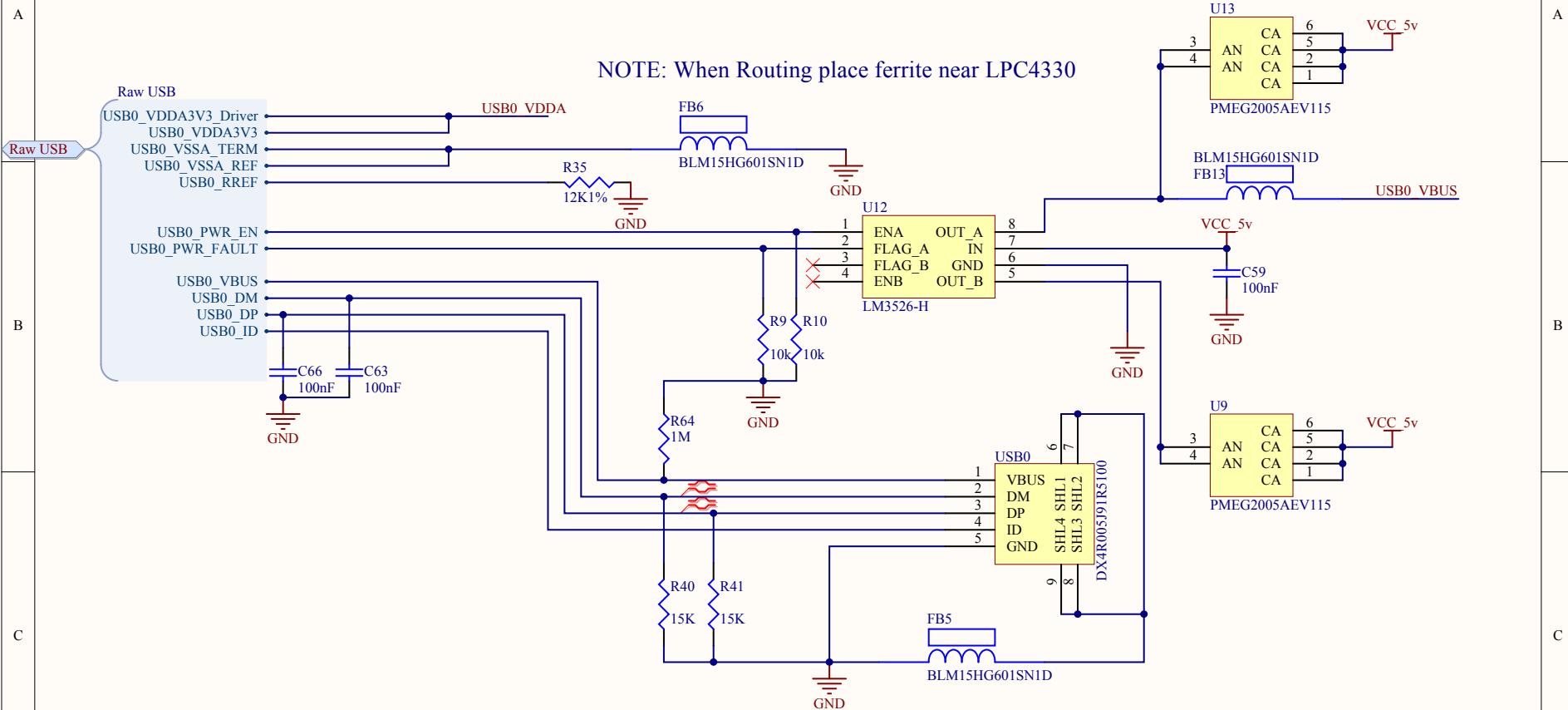
Ethernet Physical Layer (SMSC LAN8720)



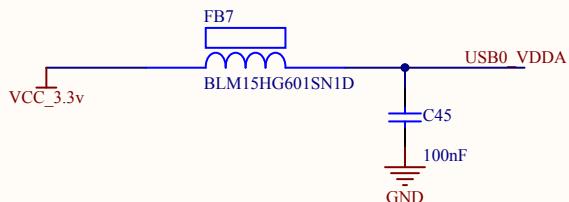
Title		Ethernet Section	Revision
Size	Number		2.4b
B			
Date:	4/22/2013	Sheet 5 of 9	
File:	C:\Users\VAHD Ethernet.SchDoc	Drawn By:	Adam Vadala-Roth

USB Section

NOTE: When Routing place ferrite near LM3526

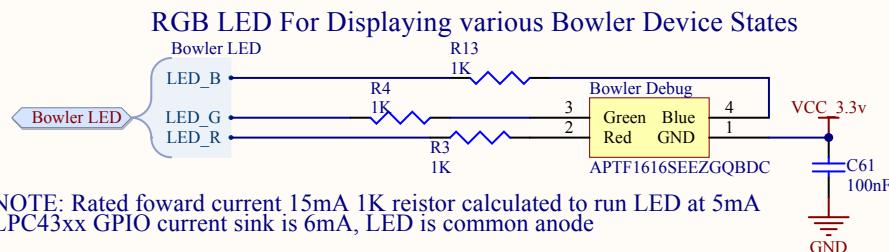


NOTE: When Routing place this circuit near LPC4330 and power supply



Title		USB Section	
Size	Number	Revision	
A		2.4b	
Date:	4/22/2013	Sheet	6 of 9
File:	C:\Users\...\AHD USB Section.SchDoc	Drawn By:	Adam Vadala-Roth

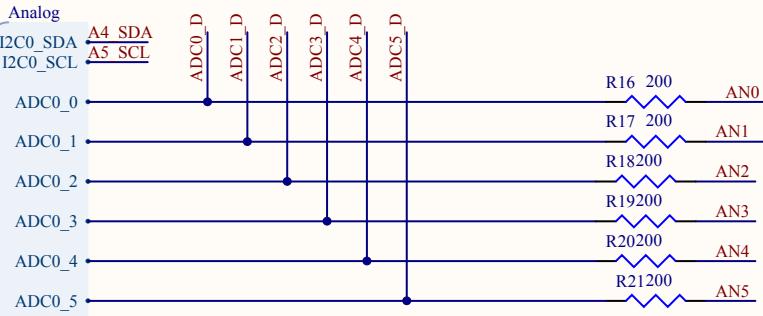
Status LED (RGB LED for Bowler Status Changes)



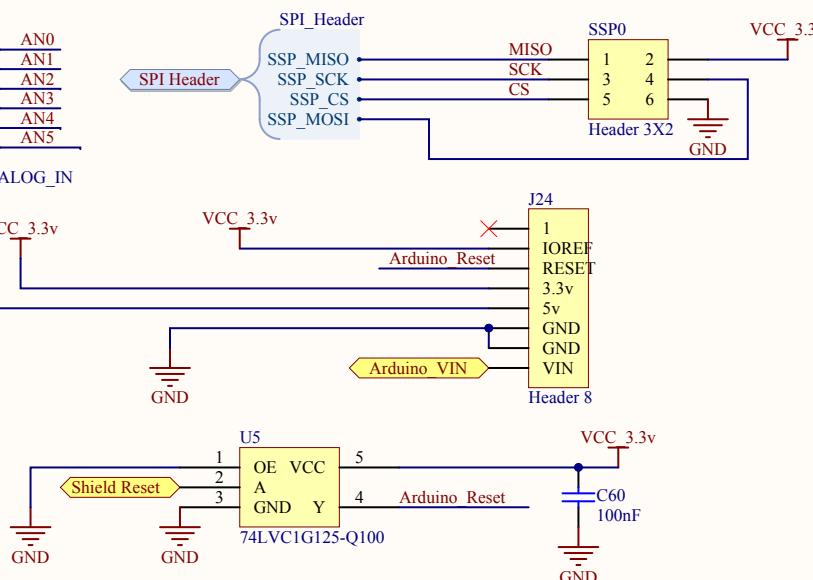
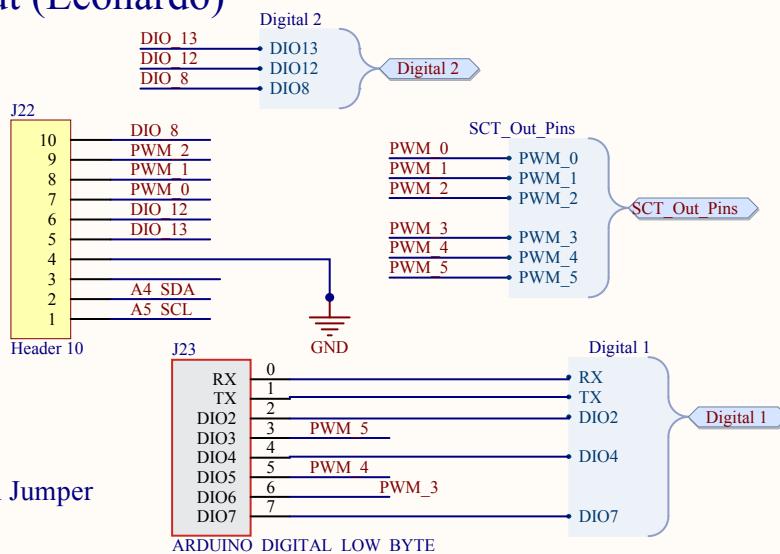
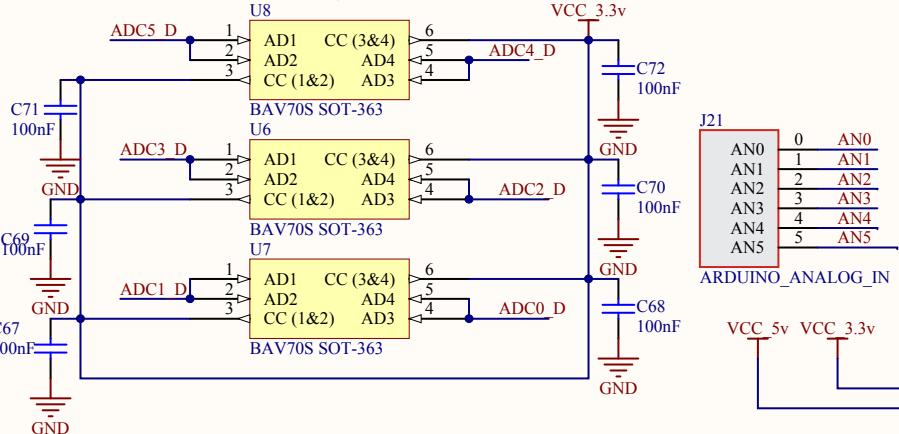
Title		
Size	Number	Revision
A		2.4b
Date:	4/22/2013	Sheet 7 of 9
File:	C:\Users\...\Bowler Debug LED.SchDoc	Drawn By: Adam Vadala-Roth

Arduino Header Break Out (Leonardo)

Resistors on Analog IN for FSR Conversion



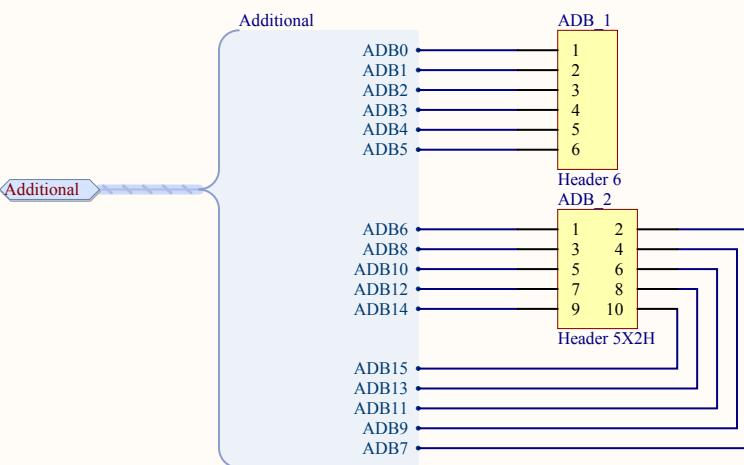
Analog Sensor Full Scale Range conversion circuitry for 5 volt sensors



Title **Arduino Leonardo Headers**

Size	Number	Revision
A		
Date: 4/22/2013	Sheet 8 of 9	2.4b
File: C:\Users\...\Arduino Breakout.SchDoc		Drawn By: Adam Vadala-Roth

Additional GPIO Breakout



A

A

B

B

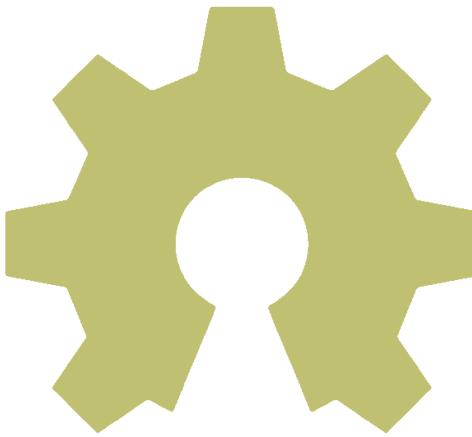
C

C

D

D

Title Additional Digital IO		
Size A	Number	Revision 2.4b
Date: 4/22/2013	Sheet 9 of 9	
File: C:\Users\...\Additional Breakout.SchDoc	Drawn By: Adam Vadala-Roth	



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