Prototyping Printed Circuit Boards for the Omega Blade

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ECEN4013
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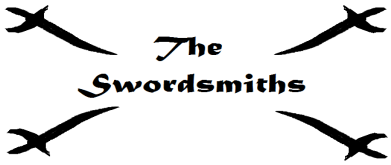
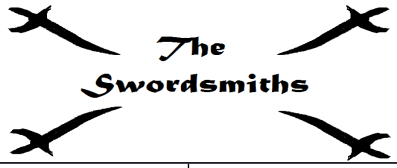


Required components: Alpha/Gamma

Component	Quantity	Footprint	Comments
PIC16F1788	1	SPDIP-28	
N4148 Diode	2	SOD323	
N4148 Diode	1	THRU-HOLE	
Programming Header	1	5-Header	
Accelerometer	1	6-Header	Must not be on center of rotation
LED Strip Header	1	4-Header	Should be near the top
Health RGB Header	1	4-Header	
BJT Transistor	1	SOT89	
Reset Button	1	2-Header	
Battery	1	2-Header	Must be near regulator
Regulator	1	3-Header	Must be near PIC
Decoupling Cap	1	805	Must be near PIC's Vdd/GND
Resistors	3	1206	
Interblade Conn.	1	3-Header	Should be near the top
IR LED Out	1	2-Header	Should be near the top
IR Reception	1	3-Header	Should be near the top

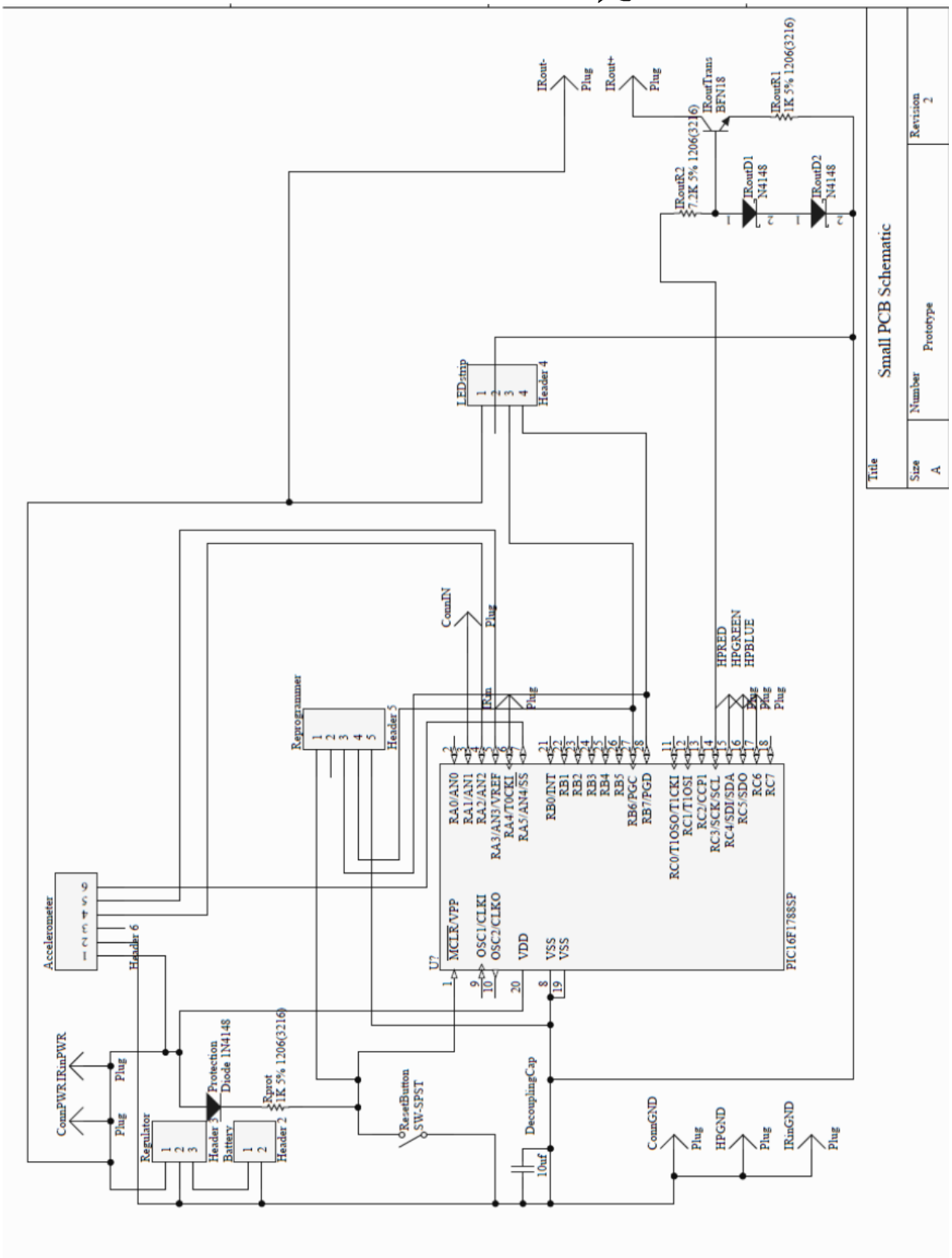
Required Components: Beta/Delta

Component	Quantity	Footprint	Comments
PIC16F1788	1	SPDIP-28	
N4148 Diode	2	SOD323	
N4148 Diode	1	THRU-HOLE	
Programming Header	1	5-Header	
Accelerometer	1	6-Header	Must not be on center of rotation
LED Strip Header	1	4-Header	Should be near the top
Health RGB Header	1	4-Header	
BJT Transistor	1	SOT89	
Reset Button	1	2-Header	
Battery	1	2-Header	Must be near regulator
Regulator	1	3-Header	Must be near PIC



Decoupling Cap	1	805	Must be near PIC's Vdd/GND
Resistors	3	1206	
Interblade Conn.	1	2-Header	Should be near the top
IR LED Out	1	2-Header	Should be near the top
IR Reception	1	3-Header	Should be near the top
Audio Board	1	Custom	

The Swordsmiths



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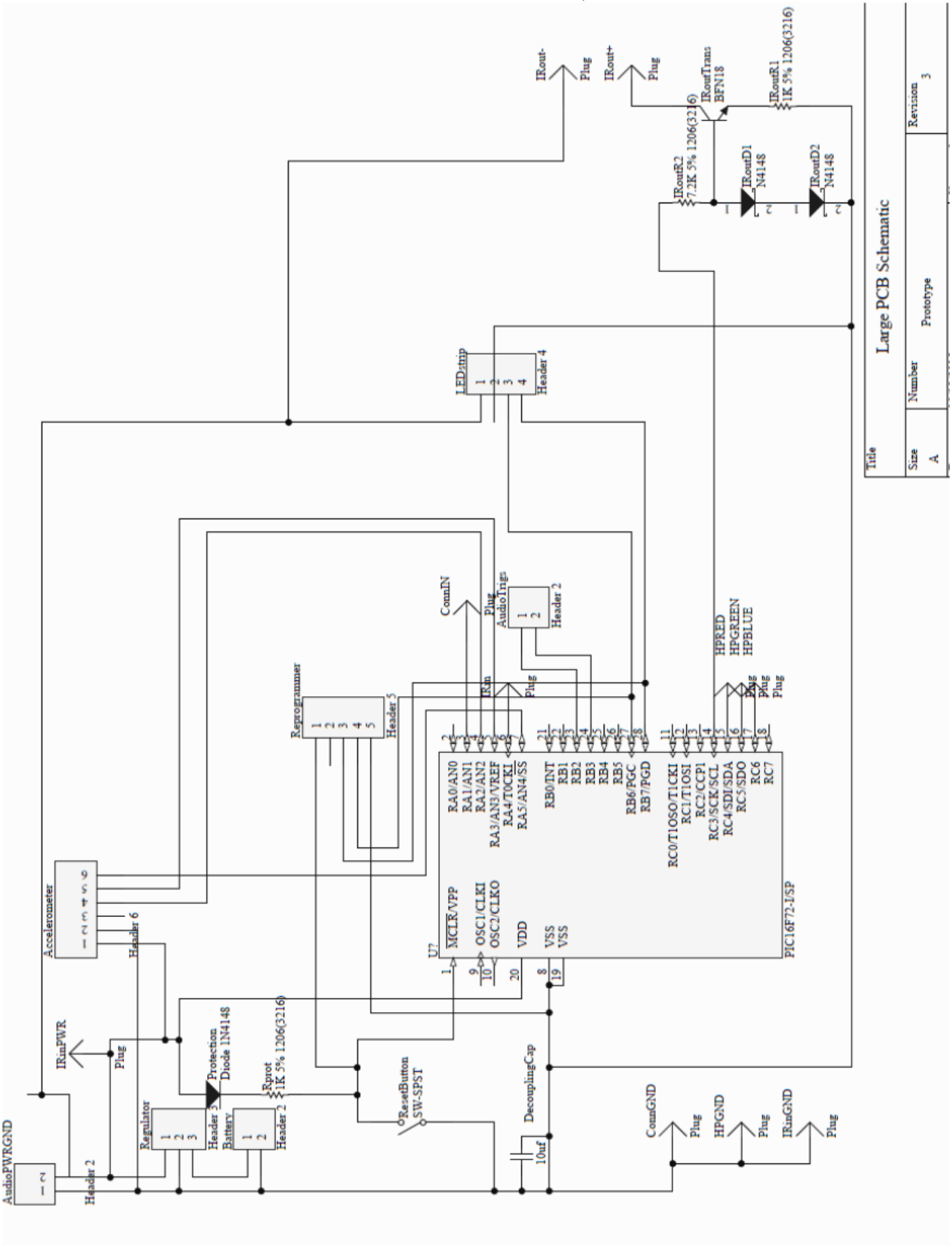

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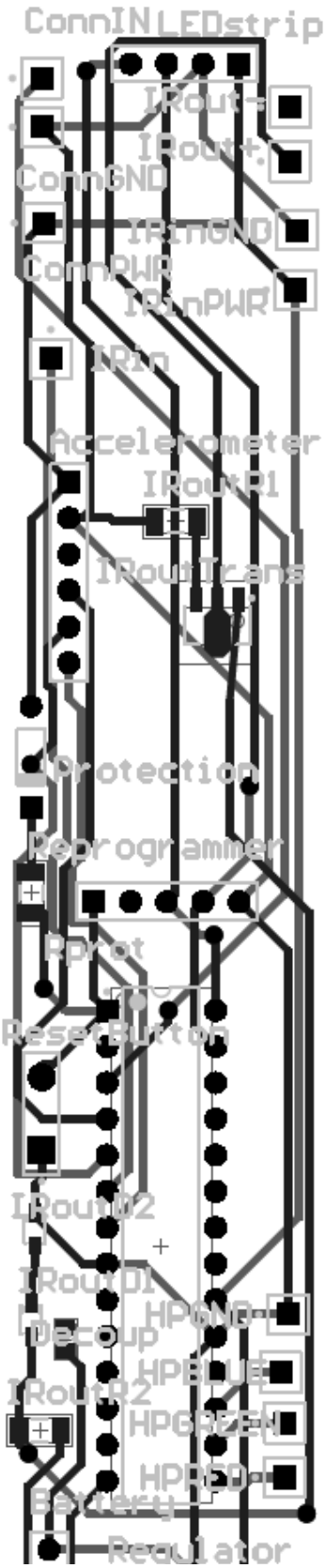

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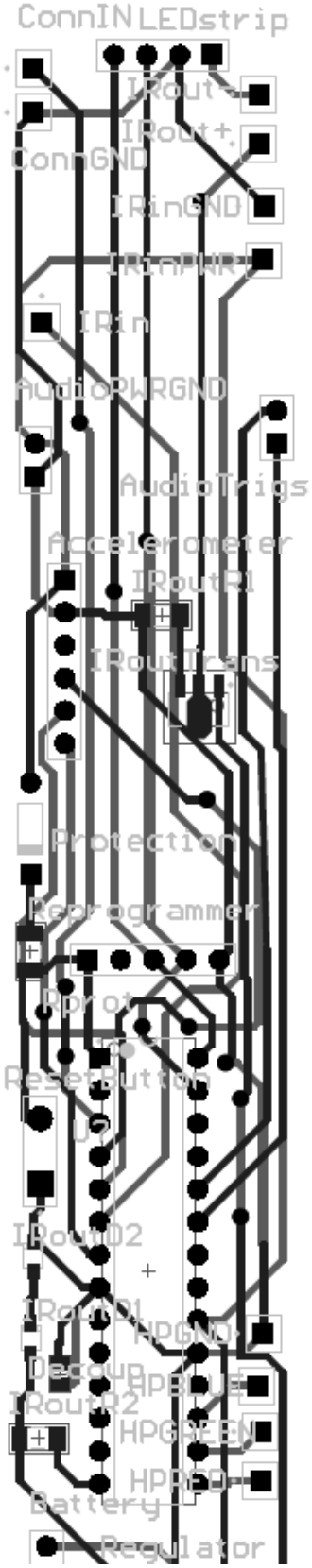

Left: Alpha/Gamma PCB Design
Right: Beta/Delta PCB Design