

Power Budget									
Team Number: 204									
Project Name: ClapSense									
Team Member Names: Aaron Kiem, Roshan Roy, Caleb Yuen, and Quinn Maness									
Version: 2									
All Major Components		Component Name	Part Number	Supply Voltage Range	#	AbsoluteMaximumCurrent (mA)	TotalCurrent(mA)	Unit	
		PDV-P5003 Photo-Resistor	PDV-P5003-ND	+0 - 350V	1	5.7	5.7	mA	
		MCP6004 Op-Amp	MCP6004-I/P-N	+1.8 - 6V	1	0.17	0.17	mA	
		Microcontroller	PIC18F57Q43	+1.8 - 5.5V	1	500	500	mA	
+5V Power Rail		Component Name	Part Number	Supply Voltage Range	#	AbsoluteMaximumCurrent (mA)	TotalCurrent(mA)	Unit	
		PDV-P5003 Photo-Resistor	PDV-P5003-ND	+0 - 350V	1	5.7	5.7	mA	
		MCP6004 Op-Amp	MCP6004-I/P-N	+1.8 - 6V	1	0.17	0.17	mA	
		Microcontroller	PIC18F57Q43	+1.8 - 5.5V	1	500	500	mA	
		Subtotal							
		Safety Margin							
		25%							
		632.3375							
		mA							
Regulator Choice		+5V Regulator	LM7805	+0 - 35V	1	1000	1000	mA	
		367.6625							
		mA							
External Power Source		Component Name	Part Number	Supply Voltage Range	Output	AbsoluteMaximumCurrent (mA)	TotalCurrent(mA)	Unit	
Power Source Selection		Plug-in Wall Supply	none	110VAC	+24V	5000	5000	mA	
Power Rails Connected to External Power Source		+5V Regulator	LM7805	+0 - 35V	1	1000	1000	mA	
		Total Remaining Current Available on External Power Source							
		4000							
		mA							