

## Power Budget

**Version: 1**

All Major Components	Component Name	Part Number	Supply Voltage Range	Qty.	Absolute Maximum Current (mA)	Total Current (mA)	Unit
	Microphone	RS PRO 7542100	+2 - 10V	1	0.5	0.5	mA
	Op-amp	MCP6004	+1.8 - 6V	1	2	2	mA
	Curiosity nano	PIC18F57Q43	+5 V	1	500	500	mA
	5V regulator	L7805CV	+5 - 24V	1	1500	1500	mA
+5V Power Rail	Component Name	Part Number	Supply Voltage Range	Qty.	Absolute Maximum Current (mA)	Total Current (mA)	Unit
	Microphone	RS PRO 7542100	+5V	1	0.5	0.5	mA
	Op-amp	MCP6004	+5V	1	2	2	mA
	Curiosity nano	PIC18F57Q43	+5 V	1	500	500	mA
				Safety Margin		25%	
	Total Current Required on +12V Rail					628.125	mA
Regulator	+5V regulator	L7805CV	+5V	1	1500	1500	mA
	Total Remaining Current Available on +5V Rail					871.875	mA

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<i>External Power Source 1</i>	Component Name	Part Number	Supply Voltage Range	Output Voltage	Absolute Maximum Current (mA)	Total Current (mA)	Unit
Power Source 1 Selection	Wall power adapter	WSU060-2000	100-240 VAC	5.9	2000	2000	mA
Power Rails Connected to External Power Source 1							
	+5V Regulator	L7805CV	5		1500	1500	mA
<b>Total Remaining Current Available on External Power Source 1</b>						500	mA