

# Power Budget

Team Number: 101

Project Name: Projectz

Team Member Names: Raj, Isaiah, Liam, Myles

Version: 1

All Major Components	Component Name	Part Number	Supply Voltage Range	Qty.	Absolute Maximum Current (mA)	Total Current (mA)	Unit
	Microcontroller	PIC18F57Q43	0-5V	1	150	150	mA
	Rotary Potentiometer (10kΩ)		0-5V	1	0.5	0.5	mA
	Push Button (10kΩ pull-down, pressed)		0-5V	1	0.5	0.5	mA
	LED #1		0-5V	1	10	10	mA
	LED #2		0-5V	1	10	10	mA
150 + 0.5 + 0.5 + 10 + 10 = 171 mA total subsystem current							

+5V Power Rail	Component Name	Part Number	Supply	Qty.	Absolute	Total	Unit
	All Major Components		0-5 V	1	171	171	mA
						0	mA
	<b>Subtotal</b>					171	mA
	<b>Safety Margin</b>					25%	
	<b>Total Current Required on +5V Rail</b>					213.75	mA
<b>Regulator</b>	+5V Regulator	LM7805	(range)	1	1000	1000	mA
<b>Total Remaining Current Available on +5V Rail</b>						786.25	mA

External Power Source 2	Component Name	Part Number	Supply	Output	Absolute	Total	Unit
<b>Power Source 2 Selection</b>	Wall Power Supply		+9V	-9V	300	300	mA
<b>Power Rails Connected to External Power Source 2</b>	-5V Regulator	(full part number)	5V	1	150	150	mA

External Power Source 2							
Total Remaining Current Available on External Power Source 2						150	mA

