Power Budget Example

Team Number:	207
Project Name:	**Trash Canner**
Name:	**Riley Franco**
Version:	**2**

All Major Components	Component Name	Part Number	SupplyVoltageRange	#	AbsoluteMaximumCurrent (mA)	TotalCurrent(mA)	Unit
	H-bridge	FAN8100N	+2.2V-9V	1	65	65	mA
	Brushed DC motor	Pololu 3484	+12V	1	2500	2500	mA
	Curisoity nano microcontroller	PIC18F57q43	+1.8V - 5.5 V	1	50	50	mA
	Test LED	Built-in-LED	+3V-3.6V	1	20	20	mA
	5V regulator	LM7805T	+7V - 35V	1	1000	1000	mA

+12V Power Rail	Component Name	Part Number	SupplyVoltageRange	#	AbsoluteMaximumCurrent (mA)	TotalCurrent(mA)	Unit
	Brushed DC motor	Pololu 3483	+12V	1	2500	2500	mA
					Subtotal	2500	mA
					Safety Margin	25%	
					Total Current Required on +12V Rail	3125	mA
c1. Regulator or Source Choice	+12V power supply	ALITOVE 12V Power Supply	+12V - 35V	1	5000	5000	mA
					Total Remaining Current Available on +12V Rail	1875	mA

+5V Power Rail	Component Name	Part Number	SupplyVoltageRange	#	AbsoluteMaximumCurrent (mA)	TotalCurrent(mA)	Unit
	H-bridge	FAN8100N	+2.2V-9V	1	65	65	mA
	Curisoity nano microcontroller	PIC18F57q43	+1.8 - 5.5 V	1	50	50	mA
	Test LED	Built-in-LED	+3-3.6V	1	20	20	mA
					Subtotal	135	mA
					Safety Margin	25%	
					Total Current Required on +5V Rail	168.75	mA
c2. Regulator or Source Choice	+5V Regulator	LM7805T	+7V-35V	1	1000	1000	mA
					Total Remaining Current Available on +5V Rail	831.25	mA