Team Number:	106
Project Name:	Automatic Plant Care
Team Member Names:	Charlie Klotz
Version:	1

A. List ALL major components (active devices, integrated circuits, etc.) except for power sources, voltage regulators, resistors, capacitors, or passive elements

All Major Components	Component Name	Part Number	SupplyVoltageRange	#	AbsoluteMaximumCurrent (mA)	TotalCurrent(mA)	Unit
	curiosity nano board	PIC18F57Q43	1.5-5.5V	1	500	500	mA
	quad op-amp	MCP6004	1.5-5.5V	1	0.7	0.7	mA

B. Assign each major component above to ONE power rail below. Try to minimize the number of different power rails in the design.

+5V Power Rail	Component Name	Part Number	SupplyVoltageRange	#	AbsoluteMaximumCurrent (mA)	TotalCurrent(mA)	Unit
	curiosity nano board	PIC18F57Q43	1.5-5.5V	1	200	200	mA
	quad op-amp	MCP6004	1.5-5.5V	1	100	100	mA
	5V regulator	LM7805	7-35V	1		0	mA
						0	mA
						0	mA
					Subtotal	300	mA
					Safety Margin	25%	
					Total Current Required on +5V Rail	375	mA
c2. Regulator or Source C	+5V Regulator	LM7805	(range)	1	1000	1000	mA
					Total Remaining Current Available on +5V Rail	625	mA

C. For each power rail above, select a specific voltage regulator using the same process as for major component selection. Confirm that the Total Remaining Current

D. Select a specific external power source (wall supply or battery) for your system, and confirm that it can supply all of the regulators for all of the power rails

External Power Source 1	Component Name	Part Number	SupplyVoltageRange	Outp	AbsoluteMaximumCurrent (mA)	TotalCurrent(mA)	Unit
Power Source 1 Selectior	Plug-in 9V 1000mA	63	100-240V	9V	1000	5000	mA
Power Rails Connected to External Power Source 1	+5V Regulator	LM7805	5-35V	1	1000	1000	mA
					Total Remaining Current Available on External Power Source 1	4000	mA