

Moisture Sensor Power Budget

Team Number:	201
Project Name:	Garden Buddy
Team Member Names:	Isaiah Johnston
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	PIC18F57Q43		1.8V-5.5V	1	20	20	mA
	Op-amp buffer	MCP6022-I/P		2.5V - 5.5V	1	5	5	mA
	Inductor	AIUR-06-331K		N/A	1	1300	1300	mA
	Schottky clamp diode	BAT85S-TAP		N/A	1	0	0	mA
	5V buck regulator	LM2575-5.0WT		+4V- 40V	1	1000	1000	mA
	8-pin IDC connector	215570-8		N/A	1	0	0	mA
	AC/DC WALL MOUNT	WSU090-0800		+90V-264V	1	800	800	mA
+5V Power Rail		Component Name	Part Number	SupplyVoltageRange	#	AbsoluteMaximumCurrent (mA)	TotalCurrent(mA)	Unit
	Curiosity Nano	PIC18F57Q43		1.8V-5.5V	1	20	20	mA
	Op-amp buffer	MCP6022-I/P		2.5V - 5.5V	1	5	5	mA
							0	mA
							0	mA
							0	mA
							0	mA
							25	mA
							25	mA
							31.25	mA
c2. Regulator or Source Choice	5V buck regulator	LM2575-5.0WT		+4V- 40V	1	1000	1000	mA
							968.75	mA
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 simultaneously. If you need multiple power sources,								
External Power Source 1		Component Name	Part Number	SupplyVoltageRange	Outpu	AbsoluteMaximumCurrent (mA)	TotalCurrent(mA)	Unit
Power Source 1 Selection		Battery pack	WSU090-0800	+90V-264V	+9V	800	1768.75	mA
Power Rails Connected to External Power Source 1		5V buck regulator	LM2575-5.0WT	+4V- 40V	5V	1000	1000	mA
							768.75	mA