

Light Sensor Subsystem Project

Team Number:	105
Project Name:	Electric Blinds
Team Member Names:	Timmy, Abriana, Keith
Version:	Donovan Calderon

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

All Major Components	Component Name	Part Number	Supply Voltage	Rating
		MCP6004-E/P	+5V	5A
	Opamp			
	CDS PHOTORESISTOR	PDV-P8103	150mA	
	PIC18F57Q43 CURIOSITY			1.8V
	NANO	DM164150		5.5V

B. Assign each major component above to ONE power rail below. Assign different power rails in the design.
Add additional power rails or change the power rail voltages if necessary.

+5V Power Rail	Component Name	Part Number	Supply Voltage	Rating

	PIC18F57Q43 CURIOSITY NANO	MCP6004-E/P	1.8 5.5 +5	
	Opamp	DM164150	5 +(0)	
	CDS PHOTORESISTOR	PDV-P8103	150	
				Total Current
c1. Regulator or Source Choice	+5V regulator	LM7805	(ran)	
				Total Remaining Current
-5V Power Rail	Component Name	Part Number	Sup Volt	
	Opamp	DM164150	(ran)	
				Total Current

c3. Regulator or Source Choice	-5V Regulator	(full part number)	(range)
		Total Remaining Current	Total Remaining Current
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 Available on each rail above is not negative.			
+5V Power Rail	Component Name	Part Number	Range
c1. Regulator or Source Choice	+5V regulator	LM7805	(range)
D. Select a specific external power source (wall supply or battery) it can supply all the regulators with all the power rails simultaneously. If there are multiple power sources, list each separately below and indicate which regulators are supplied by which power source. Confirm that the Total Remaining Current Available on each power rail is not negative.			

<i>External Power Source 1</i>	Component Name	Part Number	Supply Voltage Range
Power Source 1 Selection	PIC18F57Q43 CURIOSITY NANO	(full part number)	1.8V to 5.1V
Power Rails Connected to External Power Source 1	+5V Regulator	LM7805	+0.9V to 35V
<i>Total Remaining Current Available on Each Rail</i>			1A