

**UNC Charlotte, Department of Electrical and Computer Engineering  
ECGR 4101/5101, Fall 2008, Homework #2  
Due: 9/10/2008, at the beginning of class (20 points)**

**Assignment should be typed, a hard copy turned in to instructor**

1. How long did this homework take you? (1 point)
2. I have an LED whose average current drain is 2mA at 3.0v. I am using 200 mAhr 1.2v cells as the power supply for this LED. If I want my LED to powered on for 8 weeks continuously, how many cells do I need and in what configuration (i.e. how do I connect them)? (3 points)
3. For the SKP board, what is the total amount of memory that can be used by a user for storing programs? (2 points)
4. Can you, the user, store a program instruction at memory location 00100h? Why or why not? (2 points)
5. Read the July 2008 EE Times article “Power trends point to a knowledge of integration.” In four lines of correct English, summarize what the authors suggest can be done to reduce power consumption in electronic devices. (5 points)
6. Jim Turley wrote the article “The Two Percent Solution” in 2002. Mr. Turley believed processors make up only a small percentage of semiconductor volume yet generate most of the revenue. That was six years ago. Has anything changed since then? In up to ten lines of correct English, state why you agree or disagree with him, **and cite one current article or website to justify your points.** (7 points)