

UNC Charlotte, Department of Electrical and Computer Engineering
ECGR 4101/5101, Fall 2008, Homework #6
Due: 10/29/2008, at the beginning of class (20 points)

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

1. (1 point) How long did this homework take you?
2. (5 points) Read the article “Serial Terminal Solution” from the October issue of Circuit Cellar Ink.
 - a. What is the motivation of this project
 - b. How many and what types processors are used in the device.
 - c. Could this circuit be done with a Renesas board? Why or why not?
3. (10 points) Clean up the following C function (for converting temperature to Celsius from Fahrenheit) to meet coding guidelines of Lecture Notes 9. Assume that valid values of i range from -40 to 250. If this value is not valid, return the value TEMP_ERROR. Make sure the code is correct!

```
int fc(int i) {  
    int r;  
    r = (i-32)*9.0/5.0;  
    return r;  
}
```

 - a. Is the code correct? Why or why not?
 - b. Change(s) needed to meet 1.1:
 - c. Change(s) needed to meet 1.2:
 - d. Change(s) needed to meet 8.1:
 - e. Change(s) needed to meet 5.1:
4. (4 points) Read the Russell Massey article “Introduction to Interrupts.” In four lines of correct English, summarize Mr. Massey’s article.