**ECE 3849**

**Real-Time Embedded Systems**

**Lab report guidelines**

Submit your **report** the **source code** (CCS project in a zip file) electronically on **Canvas**.

Report contents:

* **Cover sheet:** Report title, your names, and lab signoff on date by TA’s name. Lab must be signed off by the TA to receive a grade. The signoff date indicates whether you were on time for the completion of the lab assignment.
* **Introduction**: State the objectives of the lab and what you actually accomplished. This brief section informs the reader what they should expect to find in the rest of the document.
* **Discussion and Results**: Explain what you did in this lab, how you did it, and why this implementation is appropriate/sufficient for the overall goals.
  + Explain system requirements and real-time goals. Assign thread types and priorities based on the top-level design.
  + Explain your implementation of each major lab component or step in the signoff. Demonstrate your understanding of the code you wrote and how it fits into the design. (This part of the report is worth the most points.)
  + Include measurement results in numbered figures, and explain them.
  + Document any serious difficulties you encountered.
* **Conclusions**: Summarize the most important outcomes of this lab exercise. This brief section emphasizes the most important results that this report documents.
* **Source code**: Submit your complete CCS project in a zip file on **Canvas**. Source code is **required** to receive a lab grade.
  + Goals of the lab should be fulfilled without extraneous computation, especially in ISRs.
  + Control flow should be concise and clear: no excessive nested loops, no long switch statements that could be replaced by a simple computation.
  + Code should be readable: do not overuse “magic numbers,” unclear variable names.
  + If shared data bugs are discovered, points will be deducted.
  + Code should be well-commented: explain the high-level functionality.

Your report must be well structured. Points may be deducted for the following:

* Unprofessional style or formatting
  + Clearly label all sections
  + Number and label all figures and tables

Source code submission instructions:

To submit your code for grading, you will need to create a zip file of your CCS project so that the TAs can build it. To do this:

1. [if necessary] Right click on your project and select "Rename..."
2. Enter a name in the following format: ece3849\_lab#\_username1\_username2, where username1 and username2 are the usernames of you and your partner. # is the lab number 1, 2, or 3.
3. Click OK and wait for CCS to rename your project.
4. Right click on your project again and select "Export...". Select "Archive file" from the list and click Next.
5. In the next window, you should see the project you want to export selected in the left pane and all of the files in your project selected in the right pane. You should not need to change which files are selected.
6. Click the "Browse" button, find a location to save the archive (like your network drive) and type in a file name using the EXACT SAME NAME as you used in Step #2.
7. Click "Finish". CCS should now create a zip file in the directory you specified.
8. Upload this zip file to the **Lab** Assignment on Canvas.