CSE 3442 Embedded Systems I
Fall 2024, Lab 1

This lab is due by September 2, 2024.

1. Install the TI Code Composer Studio software on your laptop from https://software-dl.ti.com/ccs/esd/documents/ccs_downloads.html.
2. Download the Tivaware library SW-EK-TM4C123GXL-2.2.0.295.exe at https://www.ti.com/tool/SW-TM4C and extract the tm4c123gh6pm.h file from the /inc folder to your computer.
3. Connect your controller board to your PC. If you do not have a board yet, there are a couple of boards you can borrow from the TA for testing in the lab.
4. Follow these steps in CCS:
    a. Select File > New > Project
    b. Select CCS Project and Select Next
    c. Make sure the target is Tiva TM4C123GH6PM and the connection is Stellaris In-Circuit Debug Interface.
    d. Give the project a name, use an Empty Project, and Select Finish
    e. Copy the stop_go.c, clock.c, clock.h files to the project directory you created for the new project.
    f. If main.c exists in the project, delete it from the project. If you do not, you will have two main() functions the the program will not compile.
    g. Copy the tm4c123gh6pm.h file you downloaded earlier to the project directory.
    h. Select the “Debug” button from the toolbar.
    i. The program will compile and then stop at the opening brace ({) in main().
    j. Select View > Debug and press the green play arrow to continue.
    k. Optional: To prevent the program from stopping in main() every time you run the program, go to Project > Properties and then Debug > Auto Run and Launch Options and remove “main” in the Run to symbol edit box.
5. Verify that the stop go program runs as expected.
6. Demonstrate this result to the TA for credit.