Week 1 homework

Due date and so forth

Please email your completed assignment to the course TA by Thursday, 5 pm of week 2. Assignments that are late by at most one week will receive at most 50% of full credit. We will not grade anything submitted more than one week late.

When your homework submission includes one or more Arduino code files, please use the template **p398dlp_template.ino** as the starting point for your code. (I have it posted to the course homeworks web page.) Please fill in **all** of the fields shown in the template file.

In addition, your homework submissions—code, cell phone photos, etc. must include enough identifying information for us to tell who you are!

Problem 1.

During the semester we'll be working with the Arduino IDE, the Anaconda Python IDE, and the AutoDesk products Tinkercad and (perhaps) EAGLE PCB. Downloads and student registrations are free for all of these. You may have been able to download and install the two IDEs, and register for a (free) student account with AutoDesk. If not, do it now. Anaconda Python has considerably better debugging and code development tools than Jupyter, with which you might have already worked, so I want you to install the Anaconda Python software on your laptop.

Please submit screen shots from your laptop of the Arduino and Anaconda Python IDEs, and also a Tinkercad.com page that shows that you have logged into your account, rather than just showing the free, no-account-needed page.

Problem 2.

Add a BME680 and an LCD to your breadboard, using the wiring indicated in the schematic linked to "GG's data logger schematic for spring 2021" on the course's "Code and design resource repository" web page. You should be able to find demo code that'll let you read temperature, pressure, and humidity from the BME680, and display them on the LCD. Have the display update about once per second.

Please submit the program file that you develop to accomplish this, along with a smartphone photo of the breadboard circuit that shows the LCD displaying the BME680 data.