Lab #1: Soldering/Wire-wrapping Tutorial & Practice

**Purpose**

In this lab you will meet your TA and give them the required information listed below. Next you will see a short demonstration on soldering & wirewrapping during this lab to aide you in building your UF 68HC12 board and adding future hardware to the board. Upon seeing the TA demonstrate these techniques, you will be encouraged (forced) to try to solder boards on your own and wirewrap connections for practice.

**Student Information Collection**

Please give your TA the following information upon entering lab:

1. name
2. UFID
3. your current email address
4. yes/no that you are registered for the course

**Lab Policies & Procedures**

Upon receiving the above information for each student, your TA will now briefly go over our rules & policies of the lab.

**Wire-wrapping Practice**

1. You will be given two sockets or headers and you are asked to solder these in lab onto the scrap proto-board provided by the TA. They should be placed approximately one inch away from one another.

2. Once these two items have been soldered onto the board, you are to wire-wrap each pin from one socket to a pin on the other socket. Pin1 of the first socket should go to Pin1 of the second socket and so forth for all remaining pins.

3. Your wire-wraps should contain at least 5-7 turns of bare conductor on a wire-wrap pin. It is recommended that you strip 1/2 to 3/4" of insulation from your wire-wrap wire for wrapping onto a pin.

**UF 68HC12 Board Construction**

You will receive your board (kit) and will begin building your UF board in lab 2. Do not build it at home unless you have the permission of the TA. Some of you can not be trusted with a sharp object in your place of residence.

**Laptops**

Students are required to bring and use their own personal laptops in the upcoming labs. All PCs will be removed from the lab excluding the sole PC that is to be used only by the TAs.

**Appendix**

EEL4744C: Lab Rules & Policies

1. Pre-labs are due at the BEGINNING of lab. Students will not be allowed into lab unless they have submitted their pre-labs. Pre-labs must be submitted during the first 5 minutes of lab.

2. Students must show up to lab no later than 5 minutes after the scheduled starting time.

3. Students must ALWAYS turn in BOTH ASM and LST files for every program as part of the pre-lab for EVERY LAB.
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4. All ASM files must be **FULLY COMMENTED**. The TA’s will not give credit if there are no comments. This applies to both pre-lab and in-lab material.

5. All ASM and LST files must have the following information included as a header:

   * Lab 7 Part 2
   * Name: Al E. Gator
   * Section #: 2003
   * TA Name: Bill
   * Description: This program uses OC2 to generate…

   ASM and LST files without the above information **will not be accepted**.

6. Students are **NOT** to leave copies of their files in the 4744 lab computers. After using the computers, all lab files must be erased before leaving. TA’s finding such material will deduct points from the student’s lab score.

7. Students are **NOT** to work in groups. There should only be 1 student sitting at each computer or laptop. Students **CANNOT** help each other during lab. All questions should be directed to the TA.

8. Students will be given a single set of parts for each lab. In the event of a broken part, it is the student’s responsibility to find an equivalent part. The 4744 lab will not replace damaged components.

9. The student will download this form from the class website and keep it as a reference throughout the semester.