ECE375 Lab 1

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Lab information

- Lab website
  http://web.engr.oregonstate.edu/~jangha/ece375

- Lab info and materials can be found in the lab website.

- Assignments submission to Canvas.

- Face covering is required at all times.
Lab session and Office hours

- **Lab Materials**
  - Handouts and PPTs are available in the lab website.
  - Weekly introduction videos will be posted in the “Media Gallery” of your lab in Canvas.

- **Lab sessions**
  - Scheduled lab sessions will only be used for check-offs from lab 2.

- **Office Hours**
  - If you have questions or need a help, bring it to any TA who’s holding office hours.
TA contact guides

- Check-offs – only to your lab TA during the lab session.

- Questions or debugging help – to any TA.

- We don’t respond to emails containing code for a debugging help.
  - use office hours for debugging helps.
  - we need to check both hardware and software to examine.
ECE375 lab

• Labs:
  ◦ **Work alone or in a group as you prefer.**
    • A single group can have no more than two people.
    • You’re NOT allowed to find a partner out of the same lab.
    • You are free to change the partner each lab.
  ◦ Submit ‘lab reports’ and ‘.asm files’ **individually.**
    • If you’re in a group, both you and the partner should submit the same files.
    • Be sure to include both you and the partner’s names to prevent plagiarism issues.
  ◦ **Prelabs are independent.**
    • Do NOT share prelab reports with your partner.
ECE375 lab

- Submit assignments to Canvas.
  - Code(.asm) file
    - Following the Naming Convention is required. Read the lab website for details.
    - Include you and the partner’s name and the date in the top of your .asm file.
    - Backup is cheap. Please save & backup your code.

- Lab/Prelab Reports
  - Use the template given in the lab webpage.
  - Prelabs are for the next lab.

- Assignments are due by the starting time of the next lab.
.asm file

- Follow the naming convention.
  Firstname_Lastname_Lab#_sourcecode.asm

  ex) FirstName_LastName_Lab4_sourcecode.asm
  ex) FirstName_LastName_Lab4_challencencode.asm
  ex) Dongjun_Lee_and_Han_Jang_Lab4_sourcecode.asm

- Include you and the partner’s name in the top of .asm files.
  ex) ; Author: Han Jang and Dongjun Lee
      ; Date: October 22, 2021

These are very important for plagiarism issues!
It's your duty to defend, a plagiarism manager may have no clue about you or the team! Stay away from it in advance.
Plagiarism Issues

• If you’re in a group, you and the partner is on joint responsibility.

• If your partner plagiarized the code and kept it in secret to you, both of you are in a responsibility.

• The system will directly report the issue to the department.
Plagiarism Issues

• Partially using the code.
  ◦ It is NEVER allowed to represent another person’s work as your own even just the small part.
  ◦ Your understanding of codes does not matter.

• Changing comments, variable & register names.
  ◦ You will not be free from plagiarism as long as the order of instruction sets are the same, even though you’ve changed comments, variable names, or register names.

• If your submitted code in Canvas and the demonstrating code are different, you will be suspected as an academic dishonesty.
Grading Guides

- Pre-lab takes 10%.
- Write-up takes 30%.
  - Your report MUST include your code in the bottom page.
- Check-off (Demo) takes 60%.
- Challenges gives extra 10%.
- If you miss any of lab report or check-off, you will receive ZERO for the whole related lab assignments.
Demo Instruction

- Get checked off only to your lab TA during the lab session.
  - You will be asked some random questions regarding the lab or your code.

- Don’t forget to add comments!
  - Your assembly code need to be well-commented to answer TA’s questions.
Demo Instruction

1. TA will download your submitted code from Canvas.

2. Compile and flash your code to the AVR board.

3. Demonstrate it's working.
   - Although you didn’t make it to complete the lab, show your work to TA to get partial credits.

4. Explain your code.
   - TA will ask some questions regarding the code. Poor answering will take away some credits.
   - Adding comments in every line is required.
Lab 1 – Introduction

- Lab Introduction
  - Lab 1 is designed to familiarize you to ATmega128, Atmel studio, and Universal programmer.

- Software, USB programmer
Software

- Software needed.
  - Atmel Studio.
  - Universal Programmer.
  - Drivers.

- All instructions and tutorials are given in the lab webpage.
Lab 1

• Install Atmel Studio.

• Install software for USB Programmer.
  ◦ Universal Programmer GUI.
    • Unzip every file.
    • Install “USBASP Window Driver”.
    • Download and Open “Universal Programmer GUI”.
  ◦ AVRdude (other option).
    • Download AVRdude.
    • Setting AVRdude in Atmel Studio.
Lab 1

- Watch the lab introductory video.
- Download .asm file and follow the introduction.
  - Programmed file (BasicBumpBot.asm) is given in the lab website.
- Attend the lab being prepared and show it’s working to your TA.
  - Read the handout, watch the lab introductory video.

- For the future labs, we strongly suggest to
  - Read handouts/PPTs and watch tutorial videos.
  - Discuss issues with other groups.
    - If you still have problems, then ask TAs.
Lab 1

- Unlike other labs, there is no write-up required for lab 1 report.
  - Remove contents like introduction, program overview, and so on.
  - You only need to answer study questions written in the handout.

Be sure to use the lab report template!
Questions?