ECE375 Lab 1

TA: Han Jang
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Lab information

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

- TA information is available in the lab website.

- Canvas
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.
  - TA will provide you timeslots for Demo. Please check announcements one day before attending labs.

- **Office Hours**
  - If you have questions or need a help, use office hours and ask to any TA.
TA contact guides

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

- Questions or debugging help – to any TA.

- Do NOT send your code via email for a debugging help.
  - use office hours for debugging helps.
  - we need to check both hardware and software to examine.
  - If the time doesn’t work, set up a personal appointment via email.
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.
  - If you wish to change a partner, you MUST let your TA know at least 2 days prior to check-off to have you assigned a timeslot correctly.

- **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 in Canvas.
  - Code(.asm) file
    - Following the Naming Convention is required. Details are given in Canvas and the lab website.
    - 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 before the starting time of the next lab.
.asm file

- Follow the naming convention.
  Firstname_Lastname_Lab#_sourcecode.asm

  ex) Dongjun_Lee_Lab4_sourcecode.asm
  ex) Dongjun_Lee_and_Han_Jang_Lab4_sourcecode.asm
  ex) Dongjun_Lee_Lab4_challengecode.asm

- Include you and the partner’s name in the tope of .asm files.
  ex) ; Author: Dongjun Lee and Han Jang
      ; Date: January 7, 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%.
  - Introduction
  - Program Overview
  - Additional Questions (= Study Questions)
  - Difficulties
  - Conclusion
  - **Source code and Challenge code** - your complete code MUST be included in the last part of your report.

- **Check-off (Demo)** takes 60%.
- Challenges gives extra 10%.
  - Try Challenges. Highly recommend.

- If you miss either of lab report or Check-off, you will receive ZERO for its related lab.
Demo Instruction

- Get checked off only to your lab TA during the lab session.
  - TA will provide you timeslots for Demo. Please check announcements one day before attending labs.

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

1. 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 and PPTs.
  - 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?