# Laboratory Prototype Presentation

# Assignment 8

## CpE 190/EEE 193A

Demonstrate a <u>working</u> laboratory prototype that performs the functions of your design idea feature set as a coherent system. Carefully hand crafted circuits or pretty circuit boards are not required or even appropriate. Show all the functionality of your design idea. If your design proposal has 20 sensors, then the prototype will have 20 sensors. If your design uses 5 routers, then the prototype will have 5 routers. And so on. You are presenting real hardware and software in a system that addresses the societal problem by the use of your design idea.

This presentation is preceded by a laboratory prototype report submitted about one week prior to the laboratory prototype presentation.

In the design lab, present your laboratory prototype and demonstrate the device functionality in reference to the design idea goals. The first hour of the presentation will be an informal open lab period where visitors can approach your work table, view the working device and ask questions.

The remaining time will be for formal technical presentations. Present to the lab and guest audience a brief overview of your first semester work. Then present an overview of the anticipated second semester tasks. The audience should understand what will be completed at the end of the second semester. What tasks and issues are envisioned? How does your design idea ultimately address the problem statement? You will find it difficult to choose details that are convincing but not overwhelming in a short presentation.

All team members will speak.
Practice the presentation as a group and perform a convincing technical story.

The presentation will be professional with appropriate visual aids.

Audience handout (one page) required.

Total formal presentation time: 30 minutes per team including a short question period. Plan on speaking for 20 to 25 minutes with the remainder for questions.

Attendance is mandatory for the entire presentation time. Arrange your schedule and eliminate conflicts.

Check the syllabus for the presentation due date.

Presentation Guidelines
1. Oral presentation:
    - Each team will have about 25 minutes plus a short question period.
    - Each team member is required to present orally, 3 min/person minimum.
    - Each member must own at least one topic for oral presentation.
2. Some core topics are (you can add more to your presentation):
    - What you are designing and hardware block diagram.
    - How software is interfaced with hardware and software block diagram.
    - Work Breakdown Schedule and team task Schedule
    - Difficulties your team had and what you did to overcome them.
    - Status of the end of project prototype.
3. Hardware/Software Demo:
    - Say what the hardware will do before going into detail.
    - Explain what is happening with software for hardware to perform.
    - Explain what is going on inside hardware as you demo. Example: the robot is turning because it sensors sensed the wall and the software algorithm is computing the next opening…
    - You will need two people for hardware/software demo, one person will perform demo, the other explaining what is happening.


Your presentation graded based on there is a presentation rubric that the instructor will use.
1. Ease of comprehension of your presentation. Use top-down approach.
2. Smooth transition from team members, i.e. good flow in presentation.
3. Presentation materials: slides, easy-to-read block diagrams, functional hardware/software, and no hiccups.
4. Professionalism.
5. Ability to answer questions satisfactorily.
6. Meeting your allotted time.
7. Ability to attract the audience. Make it interesting.
    Team must verbally practice the presentation at least 2 to 3 times or until the whole team is able to perform the presentation within the allotted time and achieve the criteria above.
    Questions will be held until end of presentation.


Upload the Laboratory Prototype Presentation slide deck (in PowerPoint or other instructor approved editable format and PDF formats) and any attachments to the team's Hive site in the "Assignments - Fall 2014" folder.