Coop: Development of a WEP for a FSR Strap

• Coop objective: To develop, assemble and test a wearable electronic platform (WEP) for a force sensitive resistor (FSR) strap

• MENRVA Lab – Dr. Carlo Menon
• Hiring supervisor: Lukas-Karim Merhi (305/440 TA)
• Email for Job Description: lma3@sfu.ca
• Will be posted to Simplicity in the next few days
Dealing with the ENSC 305W/440W Presentation, Demo, & Post-Mortem

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School of Engineering Science
Simon Fraser University
November 2015

“The human brain is a remarkable organ. It starts to work as soon as you are born and doesn't stop until you get up to deliver a presentation.”

-- Anonymous
Presentation Outline

By the end of this presentation, you will understand the following about your 305W/440W presentations:

- Organization of presentation
- Material to be covered in presentation
- Team presentations
- Answering questions

And some other stuff:

- **Written Progress Report**: Sun, Nov 29 by 11:59 PM
- **System Test Plan** (2-4 pages): Along with Progress Report
- **Final Team Self-Evaluation**: A week before your demo
- **Journals**: Give to me in demo (pick up in Spring)
- **Post-mortems & Presentations**: Mail both to me by 11:59 on day of demo
Organizing Your Presentation

- Standard Organization:
  - Title slide (names, roles, team, date, title)
  - Organizer slide (material to be covered – can be called an “outline” or “objectives”)
  - Motivation and Background
  - Body of the presentation (divide into logical sections): High level systems, Roles, Budget, Timeline, Problems, Learning, (minimal schematics or code, please)
  - Conclusion/Summary
  - Acknowledgements/References
  - Question slide

- 20 minutes for presentation; 10 minutes for questions
305W/440W Specifics

- 90 minutes total:
- 30 minutes for Set-up
- 30 minutes for Presentation (high level – general)
- 30 minutes for Demo (low level – “show and tell”, and technical details)

Topics that should be covered:
- Motivation for project (why)
- Managerial/Technical Roles in project (who)
- System overview (what)
- High level system design (how); include alternatives
- Business case (market, cost, financing, competition, etc.)
- Project specifics: timeline (when), budget, teamwork (compare estimates and reality)
- What was learned?
- Conclusions and future plans for project
- Information sources (where)
- Acknowledgements of help
- Questions
Team Presentations

- Plan as a team (who does what)
- Share content & visuals (to ensure consistency)
  - One person should pull everything together
  - Beware of OS/Program incompatibilities
  - Everyone must review
- Rehearse (individually)
- Rehearse (as a team)
- Final check for spelling, grammar, & format
Team Presentations

Introduction (Background)

Hardware

Software

Implementation & Training

Conclusion
Presentation Roles

- **Presentation Leader:**
  - Introduces the team
  - Introduces the project
  - May or may not provide background
  - Motivates the audience
  - Introduces next presenter

- **Other Presenters:**
  - Each addresses a specific topic
  - Introduce next presenter

- **Presentation Leader:**
  - Summarizes presentation
  - Motivates the audience
  - Opens the floor for questions
Team Transitions

• Hi, I’m Joe and we will talk about . . .

• Blah, blah, blah . . .

• I’d like to introduce Amy, who will talk about . . .

• Thanks Joe. I will talk about . . .

• Blah, blah, blah . . .

• I’d like to introduce John, who will talk about . . .
Transitions

1. Joe introduces all the team members (include a slide with everyone’s name). He then introduces the topic.
2. Other team members are on the sidelines. When each person is introduced, s/he smiles and waves/nods at audience.
3. Joe then introduces Amy, and he moves off to the side.
4. Amy moves to the podium and thanks Joe. She then talks about her topic.
5. Amy introduces John, and she moves off to the side.
6. **QUESTIONS:** The presenter for a specific section should generally answer the questions related to that section. But be prepared to help out should anyone run into trouble.
7. **NOTE:** Avoid fidgeting or chatting with other team members when you are on the sidelines.
Answering Questions

- In terms of persuading your audience, the question period may be more important than the presentation.
  
  - How well do you know the material?
  - Why is it important?
  - What are its implications?
  - Can you extend the work?
A Procedural Primer for Questions

1. Ask if anyone has any questions and pause for 10 secs.
2. Listen carefully to the question (don’t interrupt the questioner!).
3. Thank the questioner for their question, but don’t overdo “That’s a good question.” Try more creative phrasing: “I’ve been thinking about that question a lot myself”.
4. Restate the question in order to ensure that you understand it and to ensure that everyone has heard it.
5. Ask the questioner to rephrase the question if you don’t understand it.
6. Answer the question concisely (avoid lengthy answers or peripheral issues).
7. Ask the questioner if that answers their question.
Body Language Issues & Questions

- Raise your own hand as you ask for questions.
- Smile at the audience as appropriate and look thoughtful (nod or tilt head) while being asked a question.
- Look directly at the person asking the question.
- Avoid crossing arms in front of your torso or placing hands on hips (try to move hands and arms naturally).
- Move toward the person asking the question (where possible).
- Reflect upon the question for a few seconds.
- Move away from the questioner when answering the question (i.e., address the entire audience).
- Avoid fumbling with papers or looking at notes.
- Avoid becoming defensive!
Don’t Know the Answer?

- Be honest (most professionals have well-tuned BS detectors, and some will call you on attempts to hide your ignorance).
  - Say you don’t know, but offer to find the answer later.
  - Say you don’t know, and ask if someone in the audience knows the answer.
  - Say you don’t know, and suggest a source where the answer might be found.
  - Say you don’t know, but answer a related question.
  - Don’t use these strategies too frequently or you will look ignorant. Speculate if you must: “I am just speculating here, but . . . .”
**Other Stuff**

- Andrew or I may interrupt the presentation to ask questions (I will ensure we stay on time)
- Having handouts or gizmos to pass around makes the presentation more interesting
- Focus on visuals rather than text (you are not teaching 305)
- Timbits/doughnuts and juice/pop are a good investment
- Formal dress can help establish credibility
- Check grammar and spelling on slides
- Quality of presentation/demo is critical in terms of 440W grade
- Media may be invited to some demos
- Feel free to invite family, friends, or sponsors
Written Progress Report

Audience: Lukas

Deadline: Sun, Nov 29 at 11:59 PM

- The main focus is on preparedness for presentation/demo.
- If everything is going well, outline your project, state what you’ve accomplished, and whether you are on time and on budget. Note your preparation for demo. Informative in nature (1 page).
- If there are major problems or changes, explain and justify the problem/change. Persuade your audience about the viability of you demoing by the scheduled time (2 pages).
- Lukas will set up appointments with teams that seem to be having significant problems.
Deadlines for Final Documents

- E-mail me a copy of your **System Test Plan** (2-4 pages) to along with your Progress Report.
- E-mail your 2nd **Team Review** to me a week before your demo (I’ll send out an e-mail shortly):
  - Ensure you completely fill out, save, and correctly name the file (*TeamX_Lastname_Firstname*.pdf).
  - Some teams appeared to have minor issues (3 workload equity, 1 personality issues). I’m most concerned about workload equity – ensure that you are doing your fair share of the work).
- Bring your **Engineering Journals** to the demo (see rubric).
- Send me .pdfs of your **Post-Mortem** (with **Meeting Minutes** as an Appendix) and your **PowerPoint Slides** by 11:59 PM on the day of your demo.
Post-Mortem

The post-mortem is a more informal document than the previous ones. Raid your earlier docs for the material for the post-mortem.

- **No** LofT required
- **Title page** is required
- **No** Abstract required
- **TofC & LofF if needed**
- **Introduction** (general background, motivation, need for system, organization of the document – a written version of presentation material)
- **High level description of how system works and problems/challenges encountered**
- **Comparison of estimated and actual timelines and budgets**
- **Description of team organization and roles that you assumed**
Your post-mortem should contain a work breakdown as illustrated in the following table:

<table>
<thead>
<tr>
<th>High-Level Task</th>
<th>Member #1</th>
<th>Member #2</th>
<th>Member #3</th>
<th>Member #4</th>
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</thead>
<tbody>
<tr>
<td>Comm Protocol Design</td>
<td>xx</td>
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<tr>
<td>Comm Protocol Implementation</td>
<td>xx</td>
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<tr>
<td>Sensor Module Circuit Design</td>
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<td>Sensor Module Programming</td>
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<td>Server Module Programming</td>
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<td>Active Module Programming</td>
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<td>GSM SMS Module Programming</td>
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<td>SD Card Shield</td>
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<tr>
<td>Data Analysis Scripts</td>
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<tr>
<td>Data Stream from CPU to GPU</td>
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<td>xx</td>
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<tr>
<td>Module and System Testing</td>
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<td>Packaging</td>
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<td>Parts Sourcing</td>
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<td>Documentation</td>
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<tr>
<td>Administrative Tasks</td>
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</tr>
</tbody>
</table>

Where xx = primary responsibility; x = some responsibility

You can elaborate upon your specific contributions in the individual 1 page descriptions.
Post-Mortem (cont’d)

- What would you do differently if you were to undertake a similar project again?

- Individually written 1 page description of your contribution to the project and what you learned from the experience:
  - Not a place to vent your anger with other team members.
  - Keep it professional (but 1st person is OK).
  - Keep it real and be honest; reflect upon your experience.
  - The quality of this section is important to your 305W grade (and I don’t mean the quality of your grammar and style ;-) )

- Conclusion (future plans for the system, recommendations)
- References (if needed)
- Meeting Agendas/Minutes as Appendix
Conclusion

- Read the rubrics for the presentation, post-mortem, and journal
- Start planning early
- Review some presentations from previous years
- Consider audience carefully (Andrew, Steve, TAs, ??)
- Edit presentations for spelling, graphic, and media glitches
- Use alternative presentation methods when appropriate
- Bring some gizmos or a handouts
- Make a video the device/system working (just in case)
- Read the presentation/demo grading rubric again
- Practice, practice, practice
- Wow us!

¿Questions?
Course Evaluations

- Your evaluation will be used for tenure, promotion, and performance evaluation of the faculty, and for assessing teaching assistants.
- It is also used by instructors and TAs to improve their teaching.
- Please complete the evaluation forms in an honest, responsible, and thoughtful manner.

- Andrew Rawicz (440W Instructor)
- Steve Whitmore (305W Instructor)
- Jamal Bahari, Lukas-Karim Merhi, Shaun Fickling, Mahssa Abdolahi (TAs)

Best of luck with your demos!