CSE 477 – Hardware/Software Capstone

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Class logistics

- “Lecture”: Wed 1:30-3:20pm
  - EEB 045
- “Lab”: Tue 2:30-5:20pm
  - CSE 003E

- Class website: http://abstract.cs.washington.edu/~shwetak/classes/cse477

What are we going to do? (Aka Syllabus)

- Project capstone (hardware, software, and the interface between the two)
- Very different from a traditional class
  - You get to drive most of the agenda!
  - Give you an industry-like experience
- In short, to have fun.

What to get out of this class?

- Learn to work on a project end-to-end
- Project for your resume
- Experiences and techniques not found in traditional classes
The real world

- Demanding CEOs and managers
- Ill defined requirements
- Lots of rock turning and prototyping
- Lots of documenting
- Selling your idea

About Me

Let's learn about you

Index cards

- Name
- Major (CS, EE, ME, etc)
- Year
- Software (1-5)
- Digital hardware (1-5)
- Analog hardware (1-5)
- Applications areas (user interfaces, dev world, health, energy, etc)
**Class specifics**
- Groups of 3-4
  - Assigned based on skill set
  - Will entertain requests for partners (put on index card)
- Team project webpage
- Weekly lab notebook (on your project website)
- "Kickstarter style" webpage
- Peer reviews
- Demo

**Grading**
- ½ - effort
- ½ - quality
- "The mother of all demos"
  - Peer reviews
  - My observations
  - Tien’s observations
  - Mentor observations

**Project website**
- Put everything here
- Document everything throughout your project!
  - Take pictures, videos, etc
- Weekly lab notebooks

**Project Proposals**
- Due Next Wednesday!
  - Put proposal on website (basic website should be up and running)
  - 10 minute presentation for feedback
- Start coming up with ideas early!
  - Start today
  - Send me email, talk to Tien, bounce off ideas soon!
Resources

- Seek out technical or domain mentors
  - I can help you find them
- Look online for ideas
- Check out what folks have done in the past

Project requirements

- Hardware/Software
- Must have a design and implementation component
- Must have a clear goal
- Must be completed within the quarter
  - Balance between going big and trying to bite off too much

“Lectures”

- New platforms
- 3d printing
- PCB layout
- Software radios
- FCC/UL
- Etc.

Next Steps

- Brainstorm project ideas
- Let me know of potential group requests (on index cards)
- Form group, setup website, initial project proposal
  - Tien will meet with teams on next Tuesday
Questions?