

January 13, 2015

ENGR110/210

Perspectives in Assistive Technology



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Instructor

Questions?



Individual Projects

- Consider the these options:
 - Assistive technology topic
 - Paper design of an assistive technology device
 - Work of art
 - Aftermarket aesthetic, functionality, usability design
- Interview an individual with a disability. This could include: a family member, a friend, a classmate, a community member attending class, or others that I can suggest
- Report on their lives, challenges they have faced, successes they have achieved, desires for their future, assistive technology they use, and problems they have experienced with them.
- Meet with Dave to agree on project

Team Projects

- Ok for more than one student team to work on some of the popular project suggestions
- Ok for teams to share background tasks
 - Driving to the facility
 - Interviewing project suggestors
- Each team must address a separate problem or pursue a different solution

Team Project Selection

- Consider project offerings or suggest a student-defined project
 - Freshmen & Sophomores must work in teams of 2 or 3
- Contact project suggestor for more information & access to users
- Check website for students' project preferences
 - <http://engr110.stanford.edu/preferences.html>
- Inform me of team members (no more than teams of 3) - Friday
 - Project name
 - Team members
 - Name of your team
 - Name of your project
 - Name of your device (after it develops a “character”)
 - Catch phrase
 - Logo

Team Project Selection

Since there is no guarantee that other students will have the same project interests, you should be prepared to do one of the following:

- convince others to work with you on one of your selected projects
- consider working with another student on a project he/she has chosen
- work on a project you selected as a team of one

Team Member Solicitation

- Teams looking for an additional member
- Student looking for a team

Engineering Design Process

- Understand the problem (empathy & ethnography) and how it affects the person experiencing it
- Determine the need (a judgment)
- Research what has already been done and why it hasn't fully solved the problem
- Brainstorm many design concepts
- Select a few concepts
- Fabricate, test, evaluate, **quickly** repeat
- Report and present results
- Reflect on your experience

Engineering Design Process

- Does not include:
 - Building to another's vision
 - Making incremental improvements
- Utilize project resources and team skills
 - PRL and Room 36 (equipment and TAs)
 - Person who suggested project
 - Course resource people
 - Dave
- Make and justify your project decisions

Project Documentation

- Lab notebooks not required
- Diary for your Individual Reflection
- Photos and short videos strongly suggested
 - Working with a person with a disability
 - Illustrating your design process
 - Prototypes

Work with Diligence

- What is the most precious resource?
- 7 weeks of class left to work on your projects
- Mid-term team presentations in 4 weeks

Miscellany



1. Weblinks and photos added to lecture webpages
2. Student Expectations - Suggestion Box for comments and rhetorical questions
 - <http://enr110.stanford.edu/suggestion.html>
3. PRL Safety Orientation & Shop passes
4. Last bits:
 - Remembering names
 - On your team
 - On your side
 - Good grades
 - Ammunition
 - Test questions

Project Teams

- **Far East Entertainment**
- **Therapy Game for Stroke Survivors**
 - Sukhi Gulati
 - Andrea Stein
 - Michael Vela

Project Teams

- **The Dukes of Hazard**
- **Improved Hand Controls Project**
 - Thomas Grojean III
 - Stuart Johnson
 - Andreas Pope
 - Dan Berschinski

Project Teams

- **Triple J**
- **Educational Design Kit for Children with Disabilities**
 - James Bui
 - Jaih Hunter-Hill
 - Jeanny Wang

Project Teams

- **No Team Name**
- **Knee Extension Assistance for Sports**
 - Marshall Haltom
 - Susan Nitta

Project Teams

- **Disability Heroes**
- **Educational Design Kit for Children with Disabilities**
 - Cassie Janakos
 - Alessia von Erb

Project Teams

- **No Team Name**
- **Jar Opener for Grandmother**
 - Vincent Becerra

Course Composition

	2015	2014	2013	2012	2011
1 CR/NC	8	6	5	6	22
1 Letter	3	5	3	3	3
3 Team	23	32	15	13	12

What Matters?

- Black lives matter

What Matters?

- Black lives matter
- Everyone's lives matter

What Matters?

- Black lives matter
- Everyone's lives matter
- The lives of persons with disabilities matter
- The lives of older adults matter
 - Everyone has something to contribute

Thursday, Jan 15th



Deborah E. Kenney, MS, OTR/L

**Bridging the Gap between Consumers
and Products in Rehabilitation
Medicine**

Tuesday, Jan 13th



Gayle Curtis - UX Design Consultant

**Needfinding and Context Discovery for
Assistive Technologies**

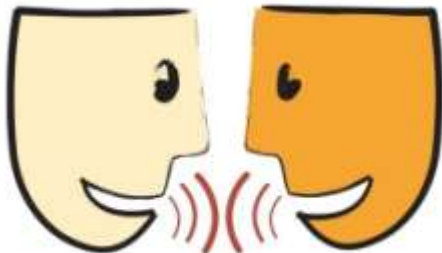
Short Break



Break Activities



- Stand up and stretch
- Take a bio-break
- Text message
- Web-surf
- Respond to email
- Talk with classmates
- Reflect on what was presented in class



Short Break



Laptops Galore

