February 12, 2013

ENGR110/210
Perspectives in Assistive Technology

David L. Jaffe, MS

Professor Drew Nelson

Krystal Le

Questions?

Mid-term Project Presentations

- Order of presentation (1 – 8)
- Eight minutes (will be timed)
- Submit PowerPoint slides & videos by Wednesday @ 5pm
- If you choose to use your own laptop, your setup time is a part of the eight minutes
- Evaluate other team presentations
- Respond to no more than two questions

Presentation Tips & Suggestions

- Practice your presentation with your team and friends
  - Choreograph where you stand – foreground & background
- Use laser pointer to focus audience attention
- Prepare the audience for what you plan to present
  - Agenda slide
  - Big picture items first – details later
- You don’t have time to present everything you have done in any detail

Presentation Points

1. Introduction of team members including team and project names
2. Background: statement and magnitude of problem
3. Interviews with project suggestors and users who would benefit from a solution
4. Identification and determination of need
5. Research of existing solutions and discussion of their limitations
6. Brainstorm activities: description and visualization of design concepts considered and prototypes built
7. Description of designs: technical feasibility, engineering difficulty, estimated cost, user acceptance, functionality, performance, safety considerations, tradeoffs, etc
8. Current project activities and status, including challenges encountered
9. Plans for the remainder of the quarter

Judging Metrics

- Process: problem identification, background research, design concepts brainstormed and prototyped, project progress
- Presentation: clarity, organization, and completeness of the information presented
- Design: creativity, originality, functionality of the design concepts and the likelihood they will meet the user's needs

Comments

What did the team learn, what are your LIKES and WISHES about what they did, and what are your recommendations, suggestions, and advice for the team?

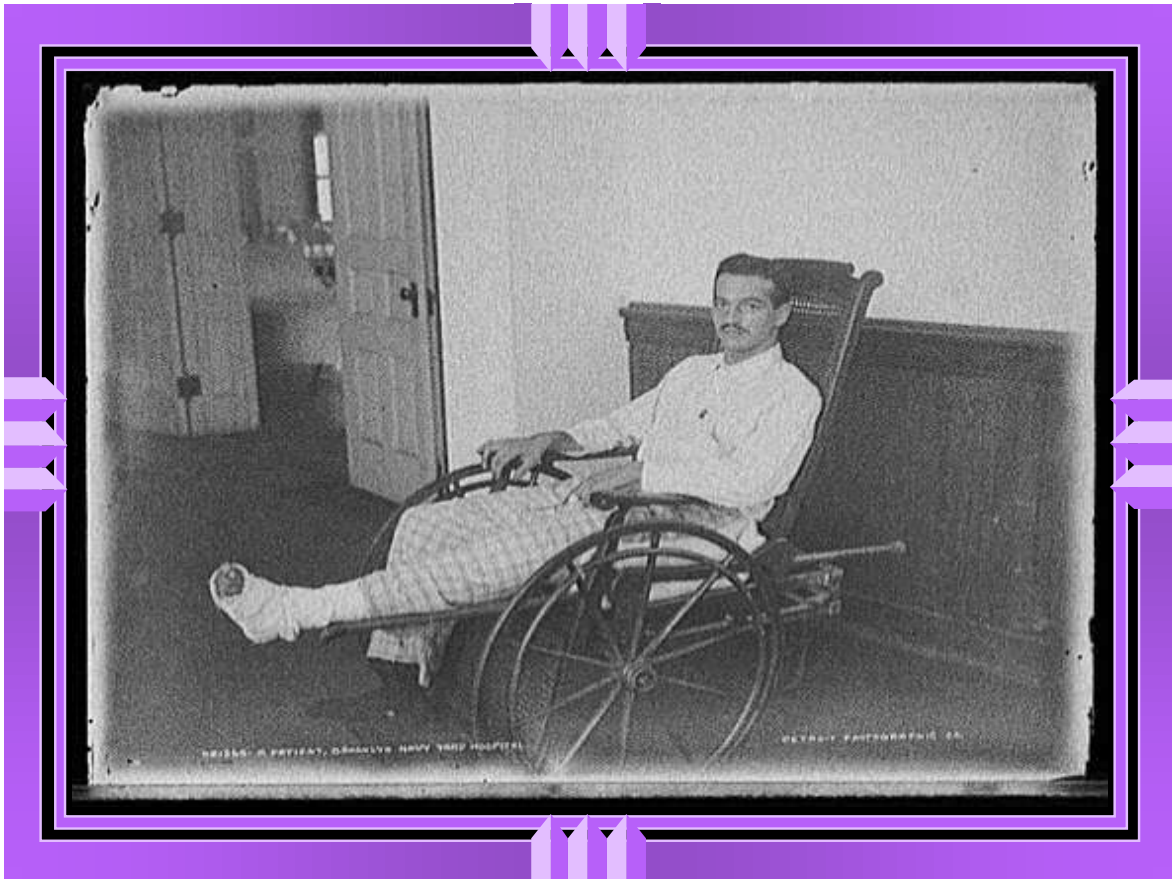
Mid-term Report

1. Due Tuesday, February 19th
2. Emailed to me
3. At least 5 pages
4. See http://engr110.stanford.edu/assignment1.html#report

Agenda

- Antique assistive technology devices
- Presentation - Memories, Lost & Found: Engaging Families, Caregivers & Those with Memory Loss – Rita Ghatak & Philip von Stade

Old Wheelchair Designs



Old Wheelchair Designs

Old Wheelchair Designs

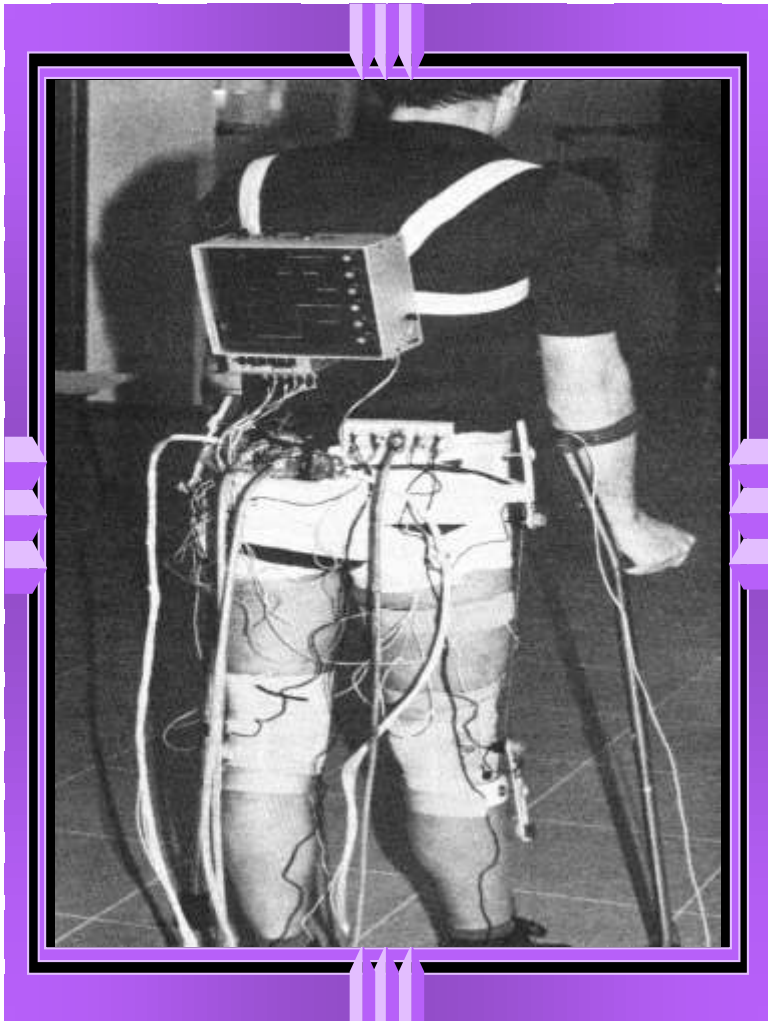
Old Wheelchair Designs

Old Wheelchair Designs

Old Wheelchair Designs

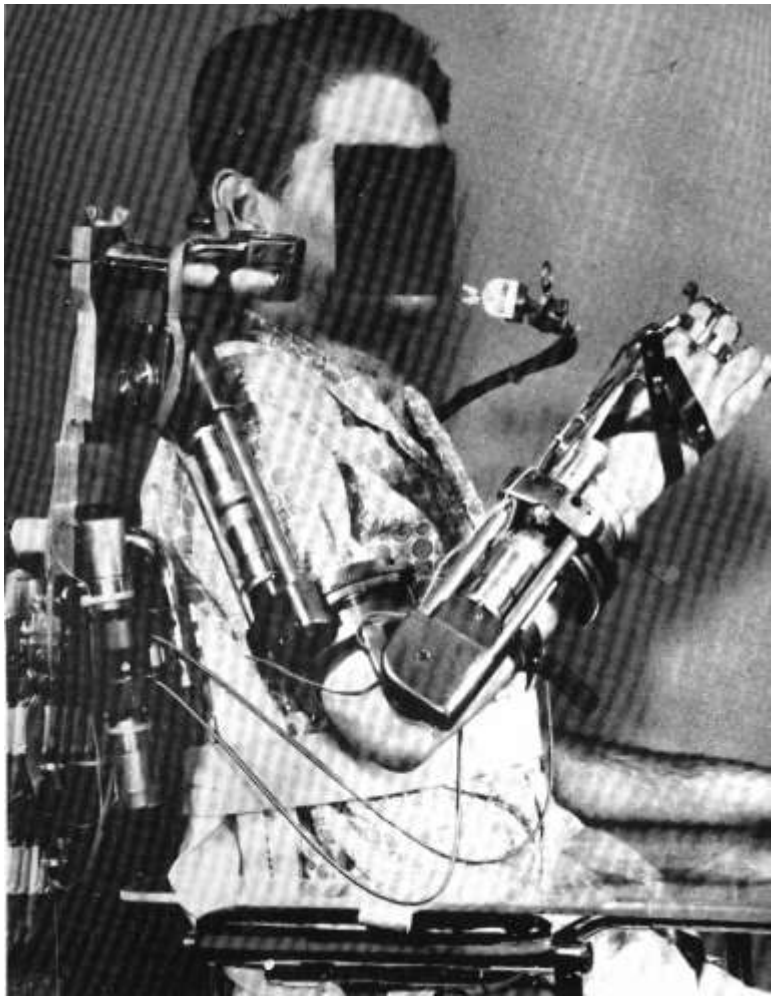
Old Wheelchair Designs

FES Walking



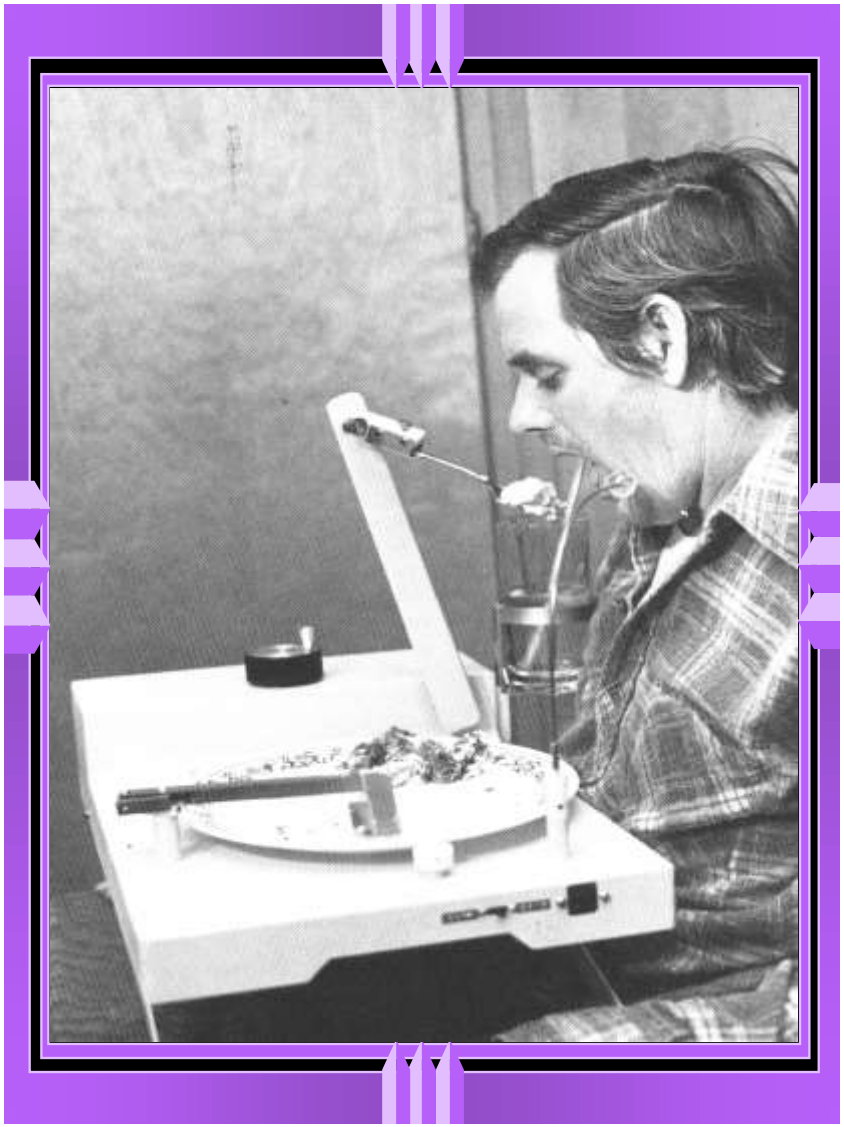
FES Walking

Chin Controlled Arm Exoskeleton



FES Grasp Control

Robotic Feeding Aid



Robotic Feeding Aid

Early Environmental Control System

Environmental Control System

Voice-Recognition Environmental Control System

Eye-Gaze Control

Eye-Gaze Control

Switches

Augmented Communication System

Augmented Communication System

“Redneck Inventions”

“Redneck Inventions”

Steampunk Professor Xavier Wheelchair Project

Video

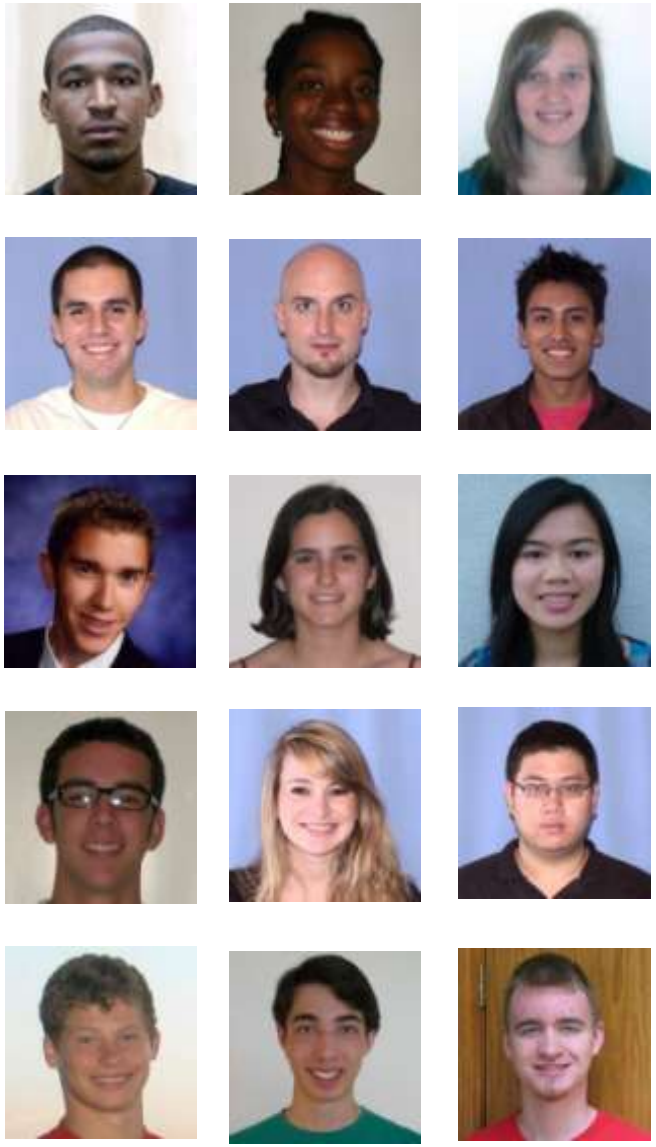
Howe and Howe
Rip Chair

Video

Orange County Chopper

- Christopher & Dana Reeve Foundation

- Video



Thursday

Mid-term Team Project Presentations

- NeuroSky Project
- Wheelchair Wheel Washer
- Flat House Project
- Inhaler Appearance
- Monkey Bar Prosthetic
- Sock Donning Aid
- Students with Autism
- Dressing Aids

Today

Memories, Lost & Found: Engaging Families, Caregivers & Those with Memory Loss

Rita Ghatak, PhD & Philip R. von Stade, Jr.

Short Break

Class
Dismissed!