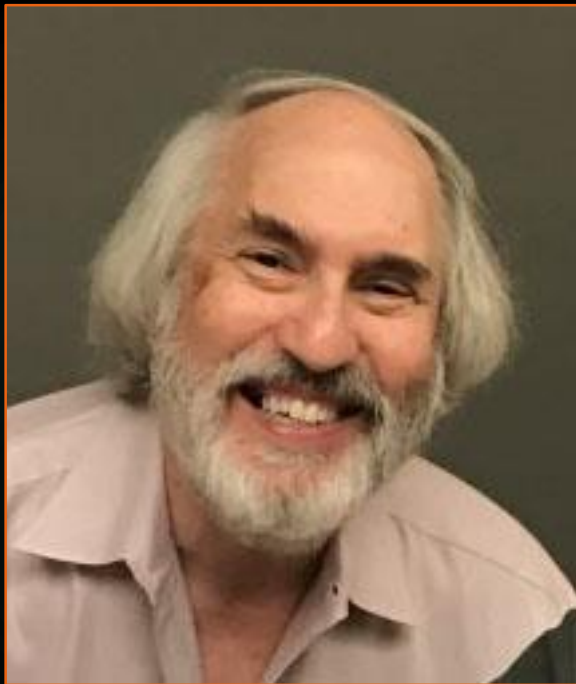February 3, 2022
*Accessible Making: Designing Makerspaces for Accessibility*

# ENGR110/210
# Perspectives in Assistive Technology

David L. Jaffe, MS

Instructor

# 16
# Years

# Questions?



Please notify me of your comments, suggestions, and concerns so I can explain / address / correct them.

# ATTENDANCE

- Let me know if you are unable to arrive on time or must leave early

- Review slides and watch Zoom video of missed portion of the class session

- Make up missed class sessions

# Reminder - Work with Diligence

- Time is your most precious resource
- Five days until Mid-term Team Project Presentations - Tue, Feb 8th
- Practice your presentation!

# Upcoming class sessions



▶ Mid-term Student Project Presentations - Tue, Feb 8th

▶ Assistive Robotics - Thu, Feb 10th
Monroe Kennedy III, PhD



▶ VA Palo Alto Health Care System - Tue, Feb 15th
B. Jenny Kiratli, PhD & Jeffrey P. Jaramillo, DPT

▶ Virtual Assistive Technology Faire - Thu, Feb 17th (by Zoom)
Various Vendors

# Students working on Team Projects

- ► Connect with project partner
- ► "Understand the Problem"
- ► Brainstorming
- ► Select Design Concept(s)
- ► Sketches, low resolution prototypes
- ► Prepare for Mid-Term Presentation and Report
- ► Contact me if you have questions about your project direction
- ► Weekly - Meet with me or Bennett to discuss project progress, submit reports to both Bennett and me
- ► **Mid-Term Reports due Tue, Feb 15th**

# Students working on Team Projects
## Mid-term Presentations in 5 days!

▶ Mid-term presentations will be 7 minutes

▶ Project title, background, problem, aim, design criteria, "understanding the problem" & brainstorming activities, and selected solution, with **low resolution prototype**

▶ Send slides to me, **to be run from my laptop by <u>Tuesday at noon</u>**

▶ **Don't embed videos - supply YouTube link on slide**

▶ Strive to be professional

▶ Include feeling & emotion

▶ Presentation tips on course website

▶ Practice your presentation for timing

# Students working on Team Projects
## Mid-term Report

- ▶ Mid-term report - 10 to 15 pages of narrative - text and images
- ▶ Suggested format different for fabrication vs non-fabrication projects
- ▶ Include sketches and photos
- ▶ Goal: short, concise, well-written, and highly readable report with few grammatical and spelling errors.
- ▶ Report Writing Tips documents **suggested** report features

# Students working on Individual Projects

- **Meet with me to approve your project, get information**
- Submit project name
- Contact me if you have questions about your project direction
- Weekly - Meet with me or Bennett to discuss project progress
- Submit progress reports to both Bennett & me

# Steve Jobs' Quote

▶ "Things don't have to change the world to be important."

# Vintage Technology



46 years ago!

# Vintage Computer Technology

# Vintage Assistive Technology
## Old Wheelchair Designs
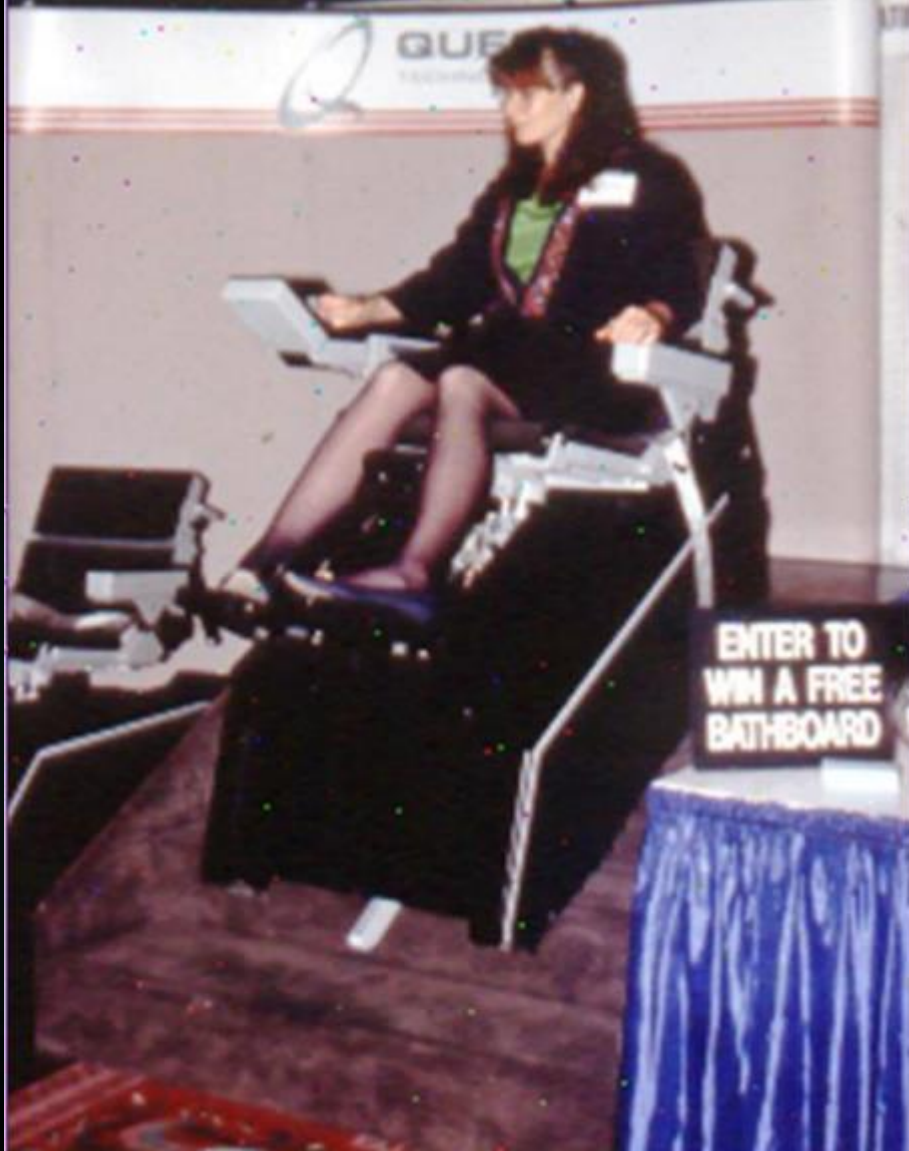
# Old Wheelchair Designs



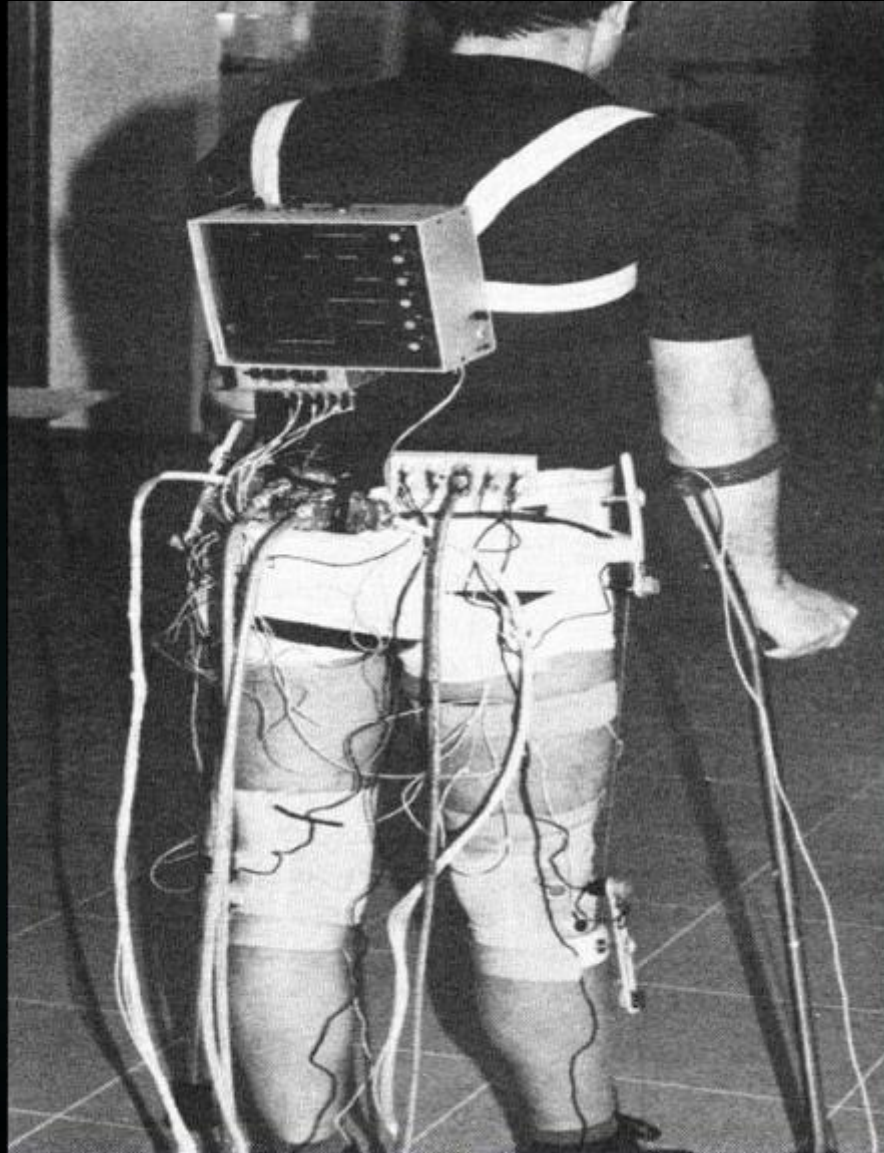Garden party for Wounded men at the White House 6/5/24    30963
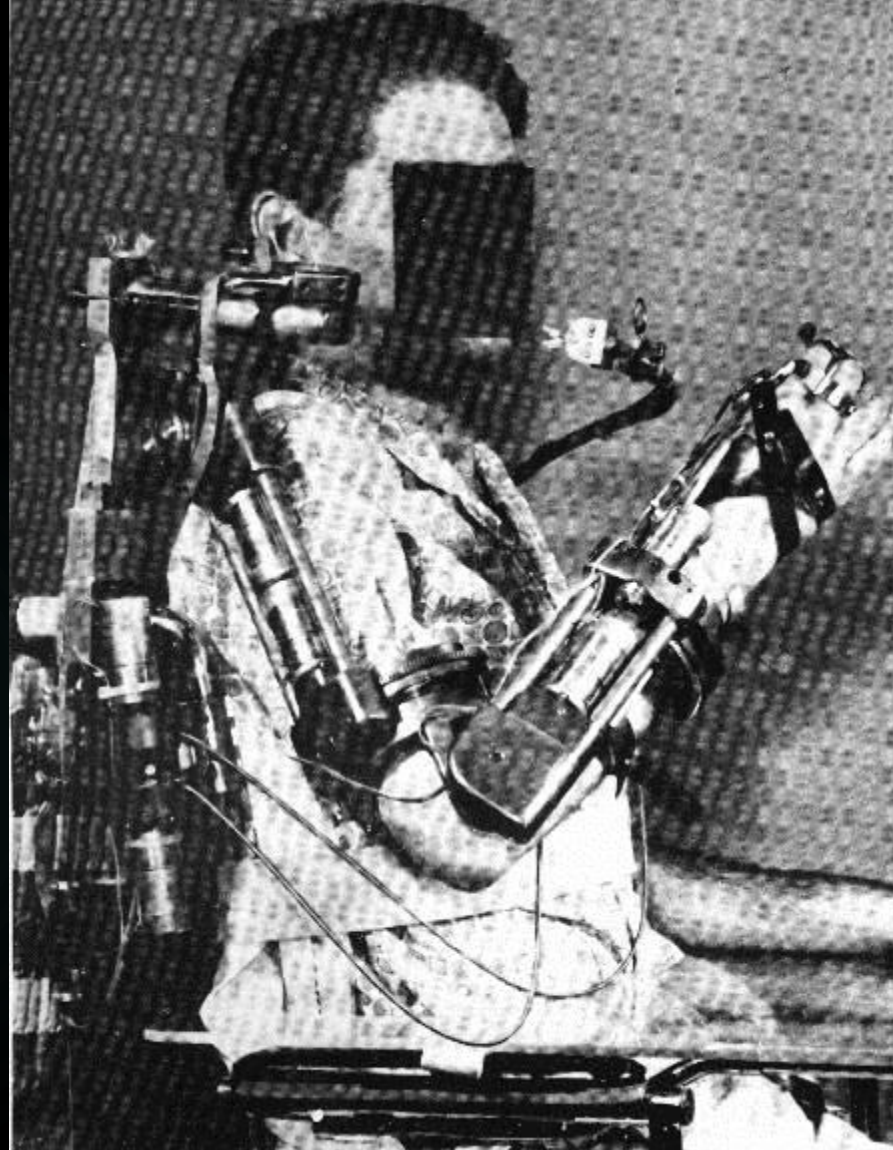
# Old Wheelchair Designs

# Old Wheelchair Designs

# Omni-directional Wheelchairs
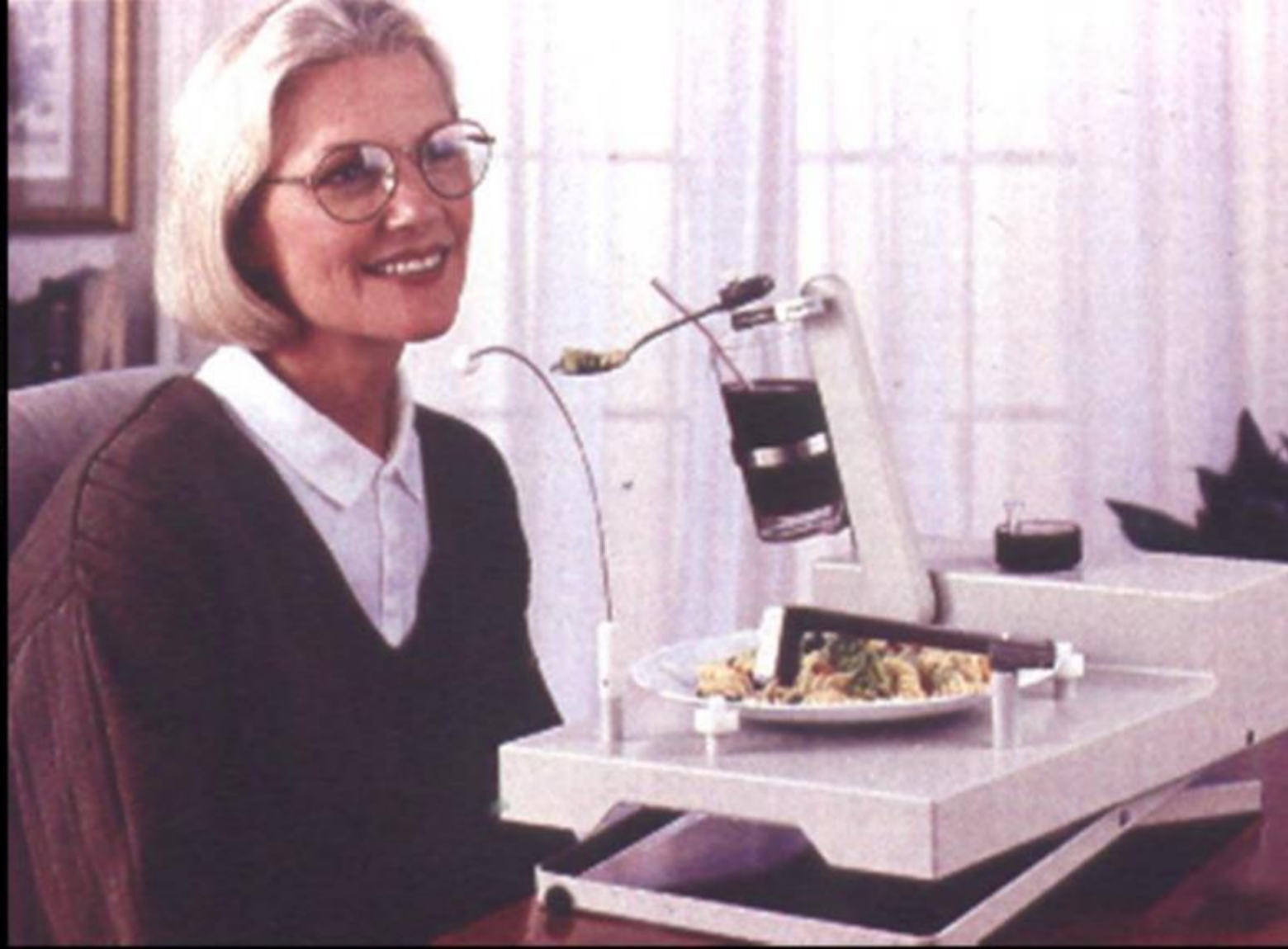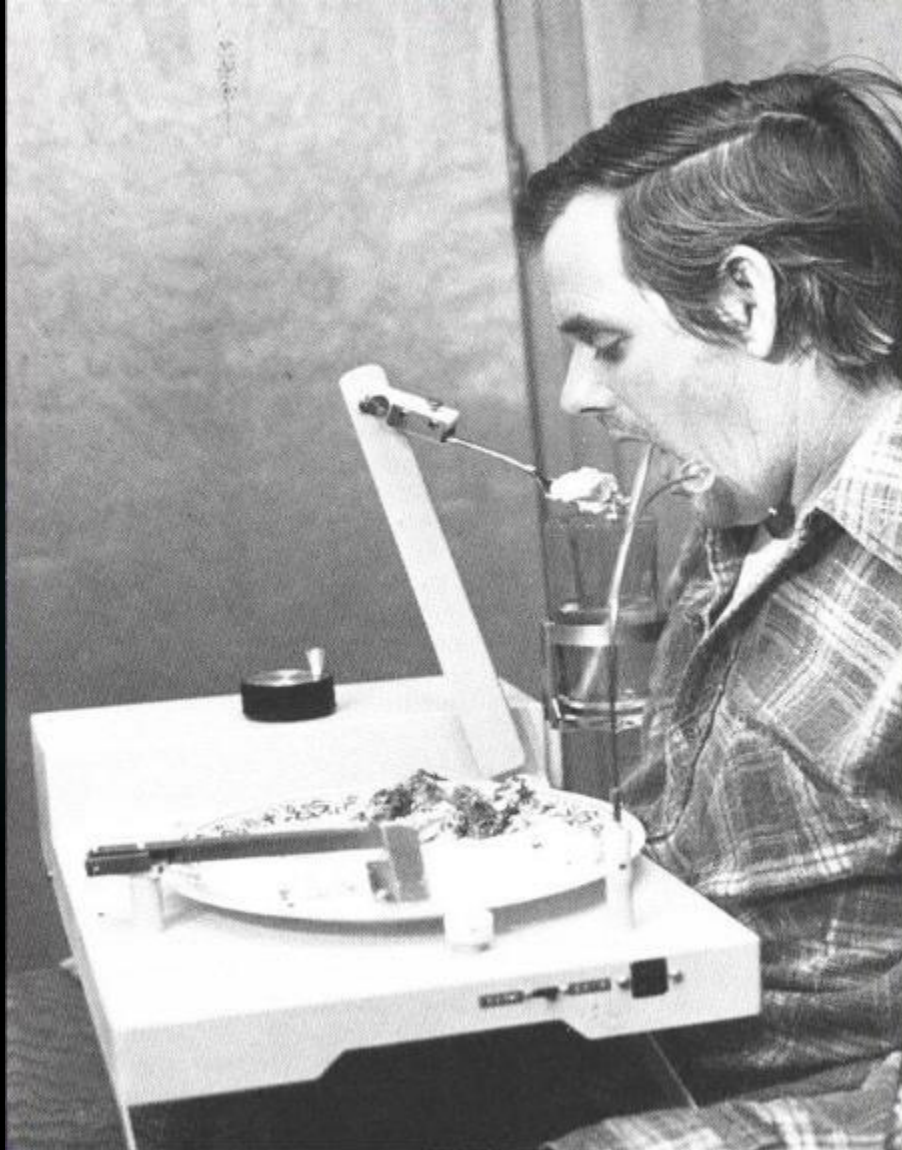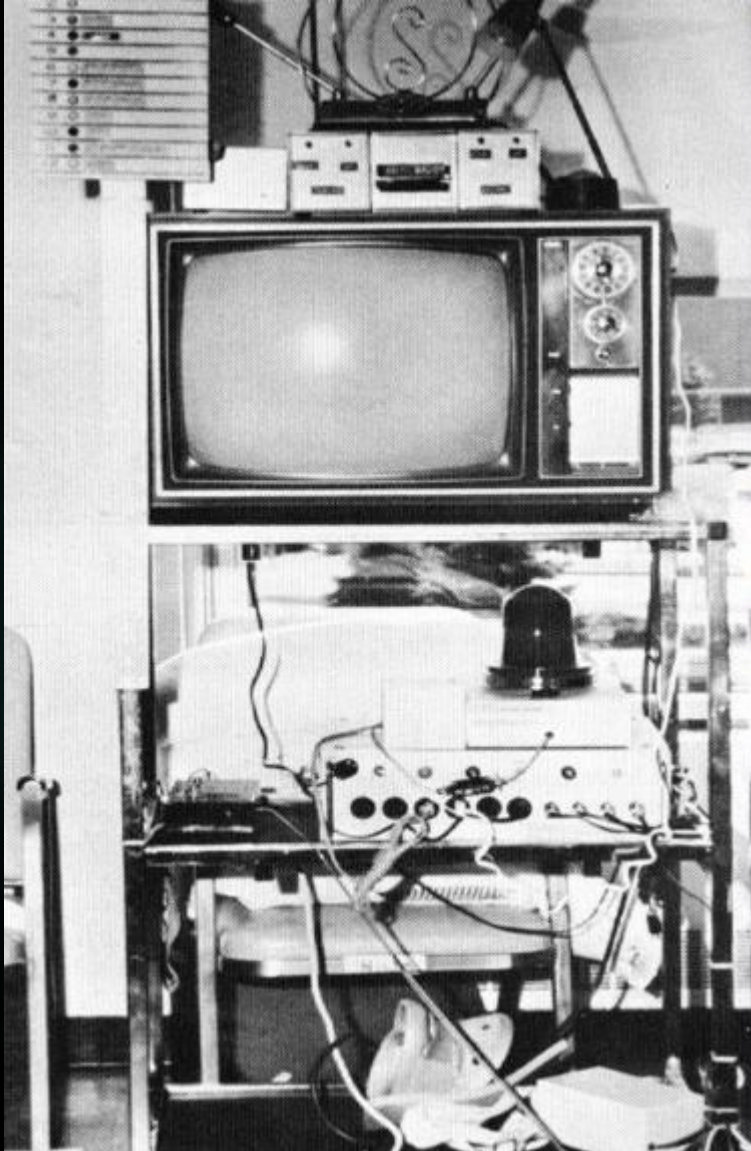
# FES Walking

# Chin Controlled Arm Exoskeleton

# Robotic Feeding Aids

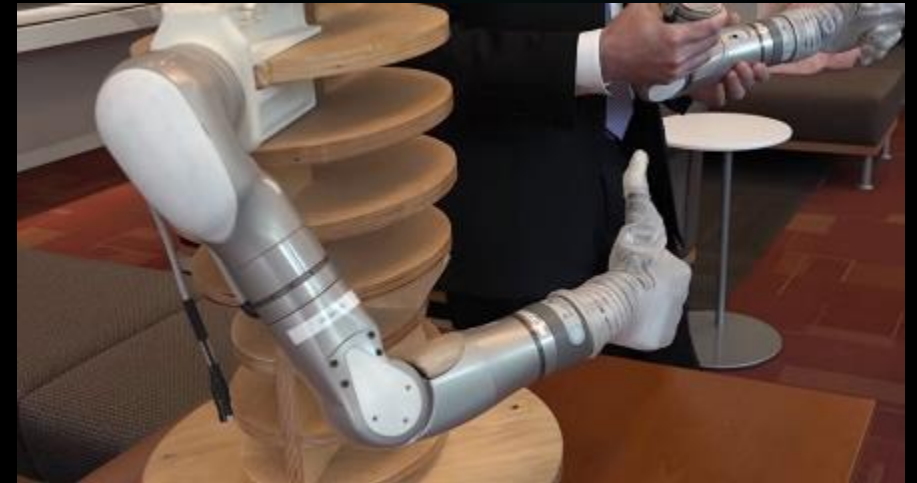# Early Environmental Control Systems

# Eye Gaze Control

# Augmented Communication System

# Augmented Communication System

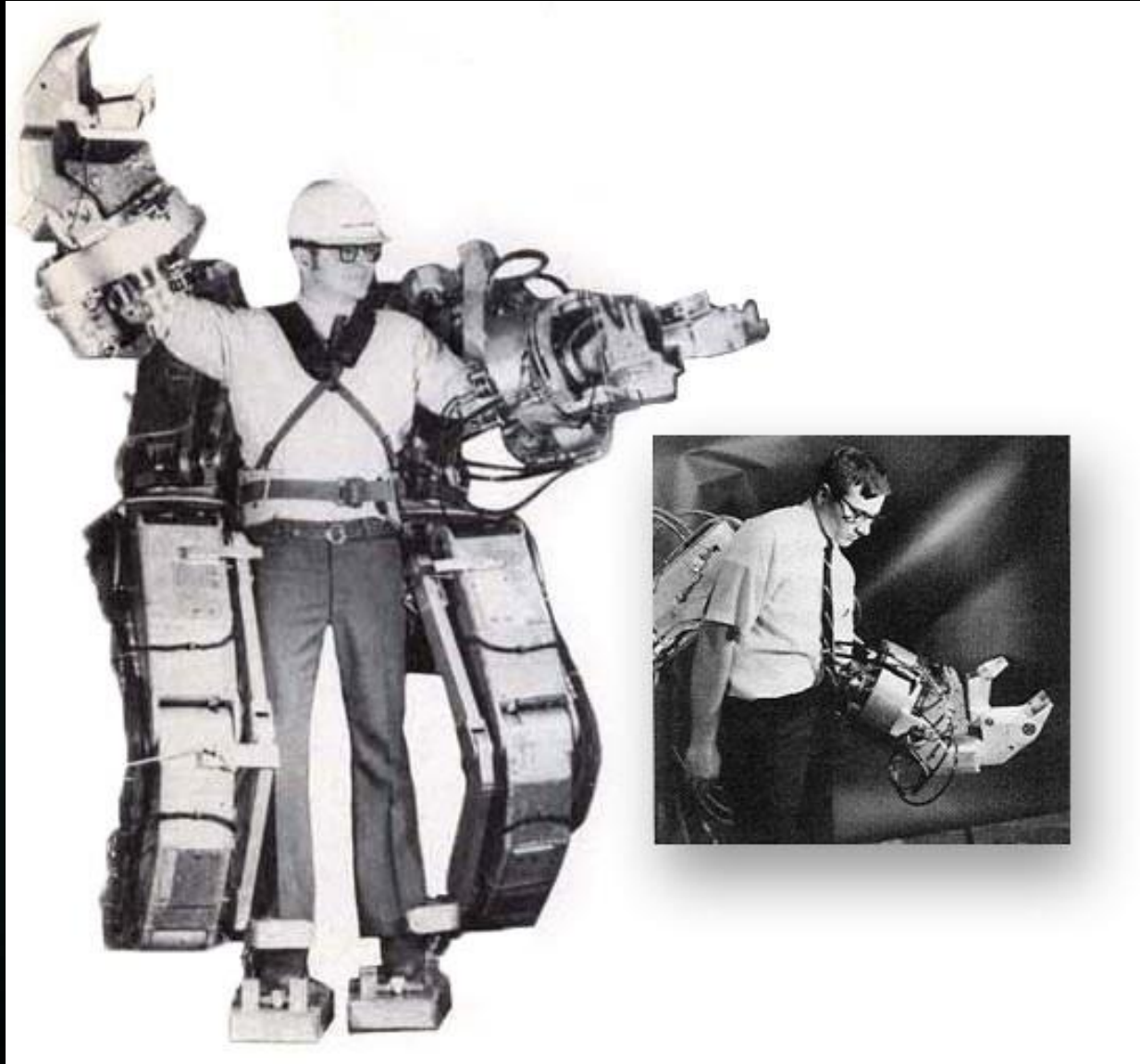# Artificial Arm from 1560 - 1600

# Peg Leg Bates

# Wooden Prosthetic Legs

# Hardiman Prototype - 1950s

# Student Exoskeleton Arms

# Ultimate Exoskeleton

# Ultimate Hand Orthotic

Space,
Time,
Reality,
Mind,
Soul,
and
Power.


Thanos' Infinity Gauntlet

# Steampunk Professor Xavier Wheelchair Project



Steam Punk Professor Xavier's Wheelchair
By: Daniel Valdez
http://www.smeeon.com/

Video

# Orange County Chopper

▶ Christopher & Dana Reeve Foundation

▶ [Video](#)

# Tuesday, February 8th

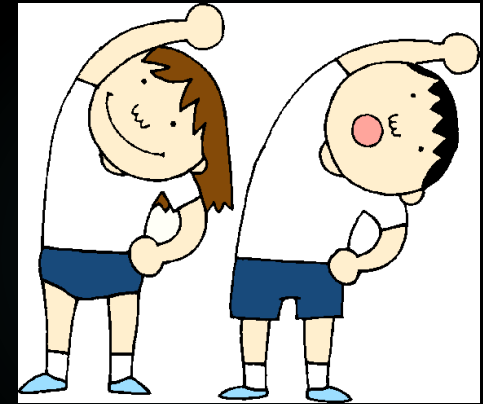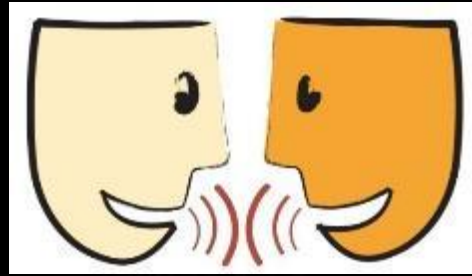*Mid-term Student Team Project Presentations*

10 projects

# Today



*Accessible Making: Designing Makerspaces for Accessibility*

Katherine M. Steele, PhD, MS

Assistant Professor in the Department of Mechanical Engineering – University of Washington

# Activities

- Attendance sheet
- Evaluation Form
- Cardinal Course Feedback
- 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