

**iPRO 334**  
**Robotics for Elderly**  
**Living Environments**

Midterm Presentation  
03.02.09



## Problem Statement

Less than 100 years ago, life expectancy was between 30 to 40 years. Today, close to 800 million citizens are 60 and over\*.

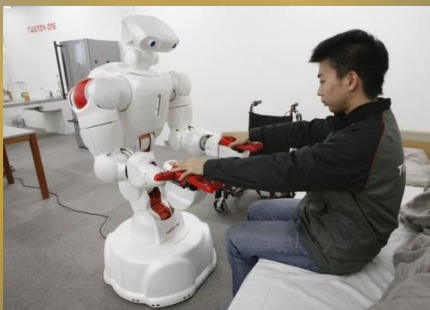
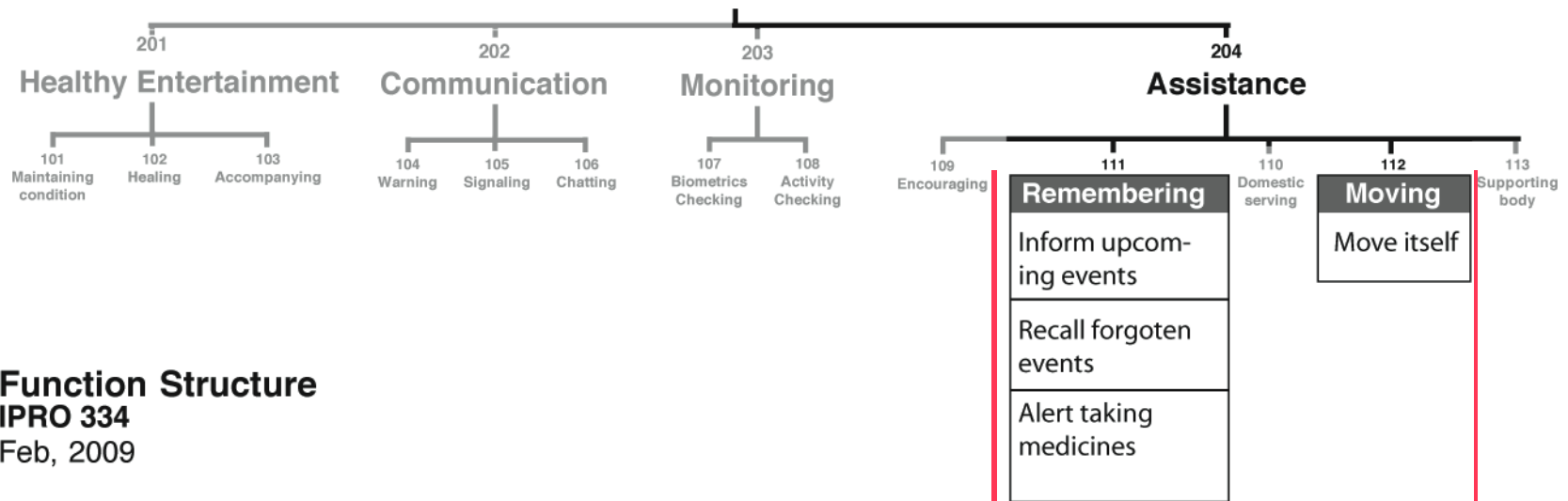
As we age, our physical and health condition decline demanding assistance. The high costs of home health services and the shortage of caregivers are part of the future scenario for elder's population.

The intention of this project is to **create a robot to assist elderly & disabled patients in a long-term care facility or at home.** The ultimate goal of the team will be to develop a full-scale working prototype of the robot that will be able to move and interact with the surrounding area.

\* [www.sharpbrains.com/blog/2008/11/13/the-future-of-the-aging-society-burden-or-human-capital/](http://www.sharpbrains.com/blog/2008/11/13/the-future-of-the-aging-society-burden-or-human-capital/)

# Project Goals

## Elderly Assistant Robot



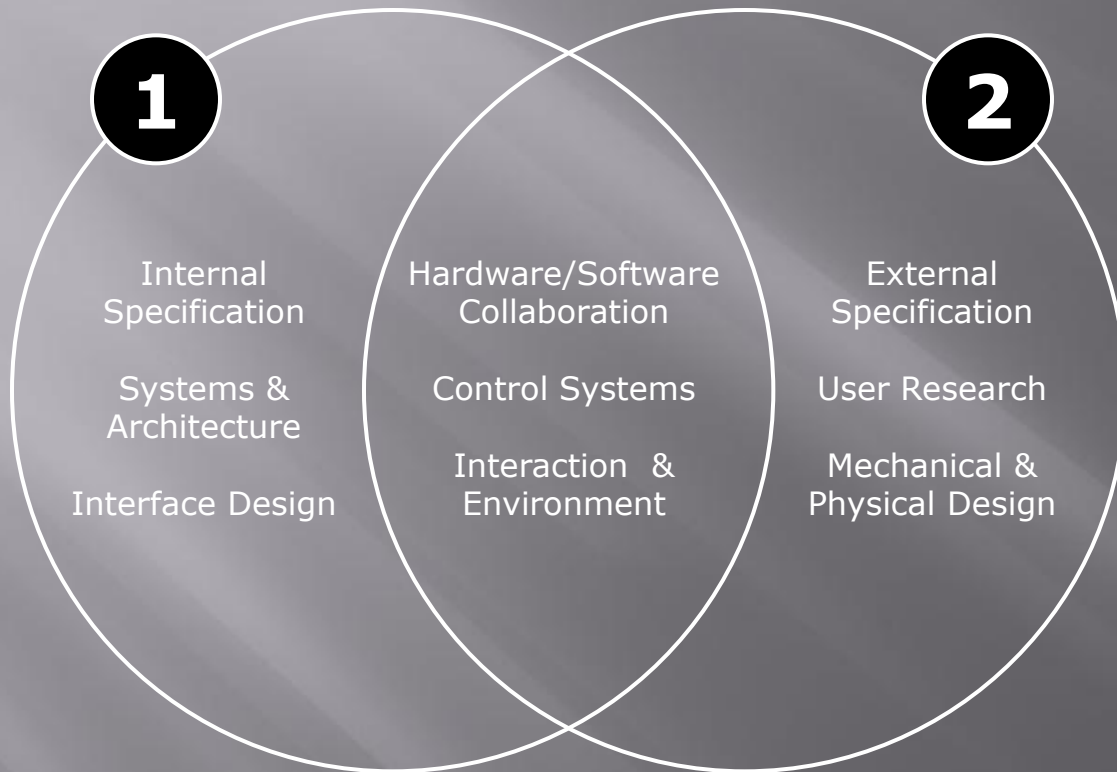
- Full-scale modular-architectural structure

- Environmental simulation and user testing

- Working graphical interface

- Full-scale working mobility

# Team Organization



## 1. Electrical & Software

Computer science, electrical engineering, mechanical engineering.

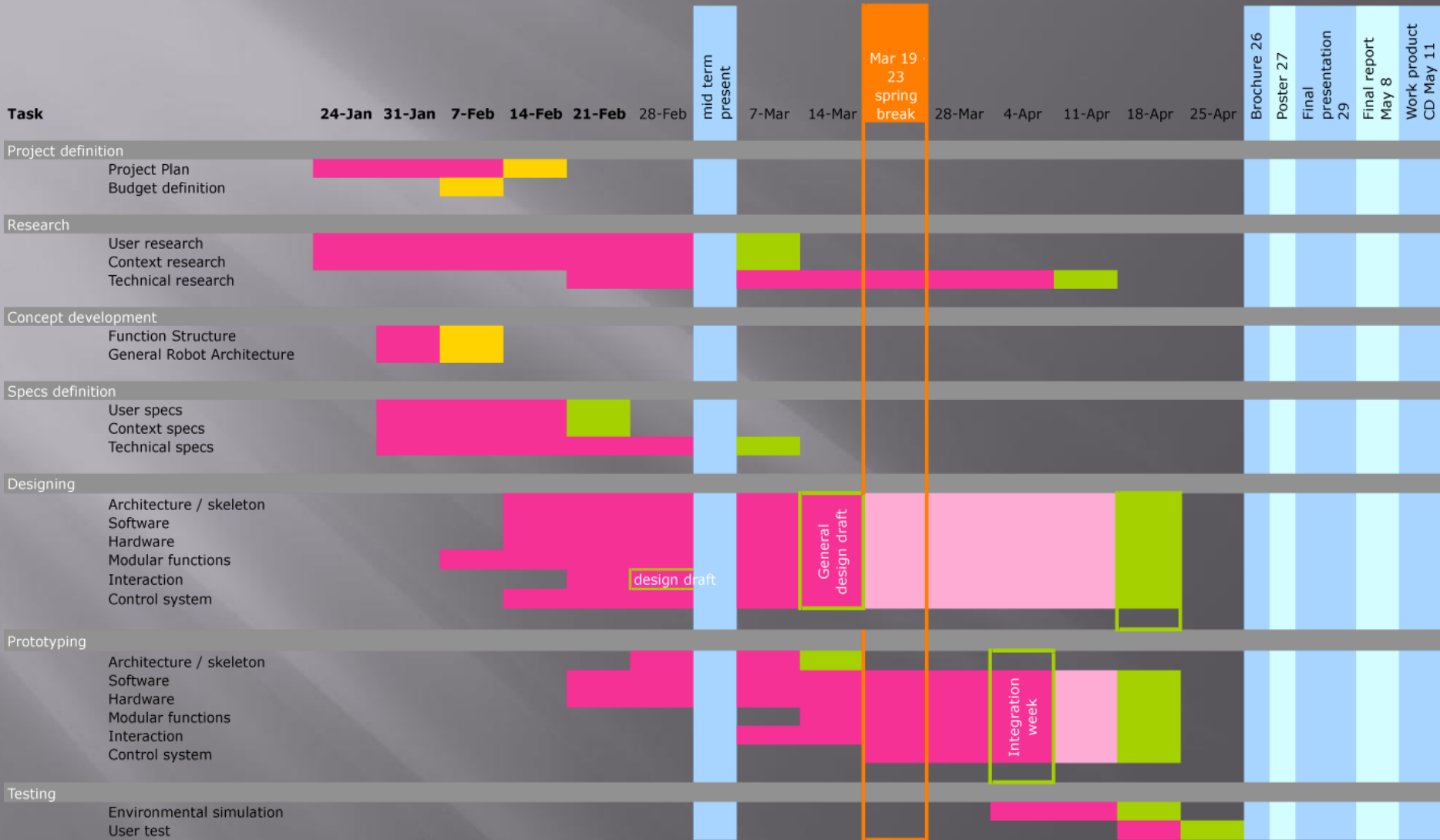
Harmony Clauer  
Brent Frey  
Kevin Mooney  
Harshil Parikh  
Prashanthan Surendran

## 2. System Integration

Institute of Design, psychology, mechanical engineering

Sarah Bowes  
Jefferey Cink  
Faye Garfinkle  
Payaal Patel  
Juan Salamanca  
Grant Shindo

# Progress Towards Goals



**KEY**

- In progress
- Can continue
- Done
- Due

# Major Obstacles & Resolution

## Defining Scope

Concept sketch session

Dimension specification diagram

Groupthink



# Anticipated Challenges

## **Prototype**

Translating concepts to articulated prototypes

Budget Constraints

Demonstrating working modules

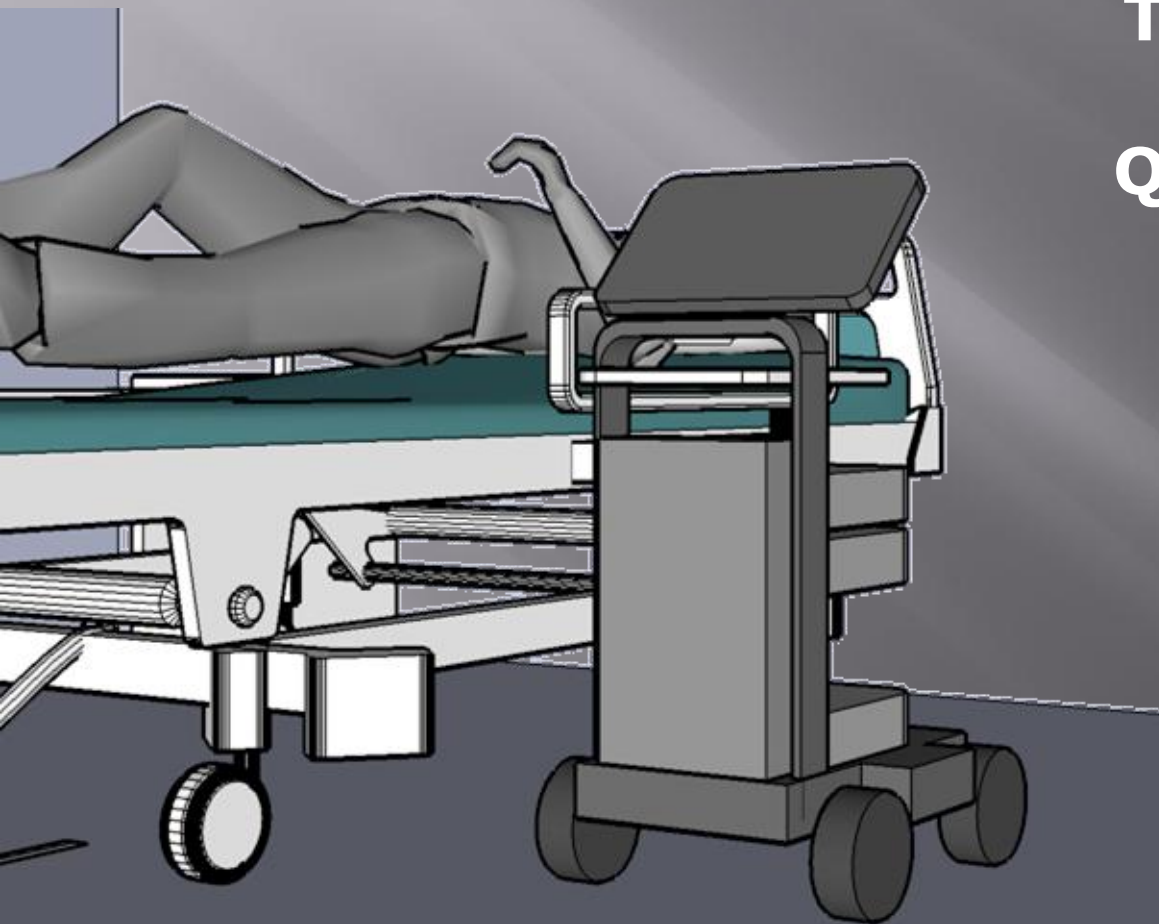
## **Team**

Integrating ideas from both teams

Relaying information between teams to meet a shared goal







**Thank You  
Questions?**