

Project #3 Architectural Robotics for Aging in Place

Deadlines:

Oct. 24.	In-class brainstorming on project ideas
Oct. 26.	Submit initial project idea for feedback in class (bring printed copy to class)
Nov. 16.	Mid-project Review
Dec. 7.	In-class demonstrations for grading
Dec. 13.	Written report due. Submit to Blackboard.

For Project #3, the target user is the adult who wants to age in place. The aging adult may have disabilities or not. In any case, the aging user may live with others who do not have disabilities or other limitations. Consider the needs of the household in your design. The project might focus on adaptability that adjusts to those with and without disabilities, or might provide assistance to a family caregiver who is also aging, or something else of your choosing.

The project must satisfy the following requirements:

1. Include a physical design with sensors and actuators
2. Include software that links the sensors and actuators together
3. Fulfill a functionality that suits aging adults. Be sure to specify what that is and who your target user group or audience is. You will need to support your design and intended use.

The projects will be done in teams. You will receive the same grade for the in-class demonstration. Each student will turn in a report which will be graded individually.

Reports should include the following information:

- Introduction
- Photo(s)
- Design progression
 - Details on the final design
 - Support for how your design meets the intended functionality
 - Solutions tried and rationale for the chosen solution
- Code logic and code

Grade points: 50 points for the in-class demonstration + 50 points for the written report
Project #3 will be worth 38% of your semester grade for ECE 4001 and 34% for ECE 7001 students. *Note that this is a change from the syllabus, to make the grading more balanced between projects #2 and #3.*

Grading criteria include:

Creativity of the design and whether it meets the general project requirements

How well the design is implemented

How well the functionality meets the needs of the target users