

Title: EZ Cookin': A redesign of a microwave accessible to all

Team Members:

Alissa Garman
Mike Keller
Aaron Kroner
Alan McMillan

Client:

The Trace Center (www.trace.wisc.edu)
Dr. Gregg C. Vanderheiden

Date: 3/28/01 - 4/3/01

Background: It is estimated that between 30 to 35 million individuals in this country have disabilities that makes it difficult or impossible to do the everyday tasks the rest of the country can do. Disabilities vary from visual impairments, cognitive impairments, hearing impairments, and other physical impairments. Most products, especially home appliances, are not designed to be accessible to all individuals. Some are available, but they are custom made and therefore very expensive. Today's appliances can and should be redesigned not only to be accessible and easy to use for individuals with disabilities, but also so that they are easy to use for everyone. With this in mind, it is the goal of this team to create a microwave that incorporates ease of use and accessibility for all, in a single model that is competitively priced microwave and sold wherever a microwave can be bought.

Problem Statement: The goal of this project is to make modifications to the design of an existing microwave to make it so easy to use that individuals of all abilities can use the machine. Major brand name designs have few or no accessibility features for less-able individuals, making it difficult or impossible for these people to use a microwave without buying an expensive, custom microwave. The purpose is not to design a microwave specifically for disabled individuals, but rather a microwave that is so easy to use and competitively priced, everyone will want to own one.

Restatement of Last Week's Goals:

finish computer simulation
perform cost analysis

Summary of Accomplishments:

worked on computer simulation
worked on cost analysis

This Week's Goals:

finish computer simulation
finish cost analysis

Important Dates:

currently none

Project Schedule:

Week of:

Feb. 12 - finish gathering information and begin conceptualizing design - done
Feb. 19 - brainstorm design - done
Feb. 26 - finalize design alternatives - done
Mar. 5 - prepare for presentation and present preliminary design - done
Mar. 12 - Spring Break - done
Mar. 19 - perform cost analysis and develop computer simulation - done
Mar. 26 - perform cost analysis and finish computer simulation - done
Apr. 2 - perform cost analysis and finish computer simulation
Apr. 9 - continue usability testing, revise design
Apr. 16 - finish usability testing, contact major manufacturers
Apr. 23 - contact major manufacturers
Apr. 30 -
May 7 - final presentation

Difficulties:

learning new software to develop a high quality simulation in 2 weeks

Activities:

Aaron, Mike, Alan - working on simulation - 2 hrs
Alissa - cost analysis - 1.5 hrs