

IPRO 323

Home Energy Diet



Objective

IPRO 323 is the first step in the design of a residential home Occupant Engagement System. The purpose of the system is to monitor energy use and interface with the consumer in a way that encourages energy conserving behavior. This semester's IPRO is tasked with researching relevant topics to such a system and laying a foundation for future development.

Organization and Tasks

In order to cover all topics relevant to IPRO 323 three groups were formed to research existing hardware, marketing and human condition, and global/environmental concerns. Halfway through the semester in order to focus on topics that would more directly influence the specifications of the system the global/environmental group was split into the other two. The research of both teams was used to form the product criteria and their research was summarized in two compendiums.

Accomplishments

IPRO 323 effectively researched a diverse range of products and case studies relevant to a home energy monitoring system. With the accumulation of this knowledge informed decisions can be made to create a system that effectively monitors energy use and presents the information in a user friendly fashion.

Critical Obstacles

IPRO 323 started with a blank slate, and so our team had to decide how to define the broad specifications of the system. Throughout the semester it was necessary to continually compare our definition of the system with our research and adjust accordingly.

Conclusion and Next Steps

Significant progress was made in compiling research. Any features that could be included in the system are outlined in the existing hardware compendium, and the marketing and human condition compendium describes the effectiveness of certain features and interfaces through analytical case studies. The next step is to use the compendiums to narrow down the features of the system, create an interface, and form a prototype. The final portion of this project would be to research effective means of funding, production, and distribution.

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