### Need and Industrial Relevance

**There is a need for Products that Respond to Target Audience Needs**

More intuitive and usable product and interface designs that better meet user needs through the use of physical, social, emotional, behavioral and motivational data are made.

**Improves User Satisfaction through Better Perceived Quality and Better Usability**

Better quality design and ease of usability have been shown to improve user perceptions.

### Approach and Methods

**The Connectivity Model as a Product Affect Design and Testing Framework**

Connectivity Model is based on activity theory that assesses the context of an activity and combines Kansei Engineering techniques to measure levels of user satisfaction and identify the optimal solution zone for a product or interface.

**Mixed Methodology to Measure Emotional and Physiological Responses**

Collects target audience data through interviews, observations, and physical measures such as eye tracking or video data to design, prototype and test solutions.

### Project Goals

**Develop Methodology to Identify and Measure User Perceptions of Products**

Create a design and testing method that can be used in early design development.

**Verify Effectiveness of New and Existing Products Through a Reliable Testing Method**

Create a method for evaluating the appropriateness of products for specific applications.

### Objectives

**Identify Unique Design Needs for Specific Target Audiences**

Determine critical factors in the design and evaluation of a specific product that lead to greater user satisfaction and improved usability.

**Create a System for Designing and Evaluating Products**

Create a rubric of design specifications that can be used to reliably evaluate the perceived value and effectiveness of products and interfaces.

### Impact

**Improved Target Audience Perceptions of Quality and Usability**

By designing to the physical, social, behavioral and emotional needs of a specific Target Audience a product will have better usability and overall user satisfaction.

### Project Duration

**One year**

The initial three phases of the project will take place over one year. Additional product refinement and testing could be done in year two.

### Proposed Budget

$25,000 Direct Costs for one year