Project 01 ExtraSensory Perception Appliance

Project Goals and Overview

"...all technologies are extensions of our physical and nervous systems…" (Mcluhan 1964).

tl;dr: Students will design an appliance that increases or extends their sensory perception using the Arduino, sensors, code, etc.

This is an investigation of the concepts that dovetail with the ideas of tools and technologies as an extension of the human. Marshall McLuhan's Understanding Media is a seminal work of theory underpinning many contemporary hegemonic concepts. Were ideas like the Google Glass, geo-fencing, and Skype an obvious/natural progression of the Information and Communications Technologies (ICTs) that blossomed in the mid-Twentieth Century? Or is there more at play in the realm of assumptions, fashion, and science fictions.

Students are allowed to work individually or collaboratively in a team of two to develop a system of human-machine interface that adds extra-sensory perception. Projects must:
1. be built upon the Arduino microcontroller ecosystem (your choice of the board)
2. include one or more sensors
3. deliver output for the user of the system which extends their sensory perception.

Learning Outcomes

- will be able to perform critical research into HMI;
- will be able to identify similar projects in technology, read a diagram, fabricate electronics;
- will be able to effectively communicate a coherent narrative on a proposed design in written, image, and physical prototype;
- and present a polished professional product at the deadline

Process

Research phase

- Readings and other media will be assigned to assist in the development of a critical framework thinking about the extension of our senses. Reading/Media Responses will be assigned to reflect on the topics.
- Students research and document three (3) different projects that seek to extend human sensory perception. Document each of these projects with a descriptive and observational paragraph, links, attributions, embedded videos/audio/etc.

- Students will begin a series of workshops to practice the skills of basic electronics.
- Students will begin a series of workshops to practice the skills using the Arduino microcontroller development environment, code, and prototyping
- Students will develop a prototype and presentation that will identify the extension of the user's senses in class as a public discussion/critique. This will outline the inspirations, plans, and technologies for the project. It should include at least one photoshop mockup or illustration showing the physical characteristics (dimensions, materials, etc.) and the way a user interfaces with the appliance (attached to head, worn like armor or clothing, held with hands, others)

Work phase

- Students will use in-class work periods to breadboard, code, and build the interface for their extrasensory appliance.
- Students will use the Fab Lab, other art department labs, or UWF to design and fabricate the interface for the appliance
- Students will take time to document the process carefully as they proceed to develop a good package of documentation which they will publish as part of the project.

Delivery and Presentation

- Demonstration of a complete and resilient project on the critique day. Plan your demo! No adjusting of wires, last minute battery changes, delaying class to 'suit-up'. Such projects will incur a 'late' penalty regardless if they are shown working on the critique day.
- Thorough documentation of the project in a published Instructable that meets high standards for communicaton and clarity.
- Documentation on the artist(s) blog(s). Good images/video of the project clearly demonstrating the fuctions/use and an artist statement for the project.