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Mini Portfolio 4

During my brainstorming session for the initial stages of this project, I realized something rather important. There isn't a lot of ways to fix the problem of water damage from leaks in a water heater without completely redesigning the water heater itself. After a decent amount of thinking, I figured the only way to reduce damages from leaks was early detection and quick fixing. The purpose of my solutions was to help users in detecting the leaks in their system before they could cause any serious damages. To do this, I added additional components to the water heater including a touch interface, a wall mount, and a mobile phone application all with the purpose of notifying users of problems when they occur.

In my design, the primary consideration was put into Visibility and Signal/Noise Ratio, as I wanted the interface to properly convey easy to understand information without confusing users as to their meanings. To accomplish this, I made use of color and Iconic Representation in the menu design and warning labels. These graphics will aid users tremendously in comprehending the output of the system. Adding confirmations to solutions including turning off and draining the system decreases the level of control that novice users have on the system. The use of Natural Mapping and Mental Models of common household thermostats in the overall design of the wall mount increases the level of understanding and reduces the cognitive load on users. The temperature gauges on the device make use of garbage in garbage out and constraints in restricting users from setting their water temperature to potentially dangerous levels.

I chose to pursue the wall mount design (4B: The Droplet Water Heater System) for my final wireframe. I chose this because it was by far my more creative solution to the problem. I enjoyed being able to use other products such as the Nest in creating a reasonable solution for this problem. In my final design, I used aspects of both of my designs to create a well-rounded product. The addition of the touch interface on the water heater itself as well as additional aesthetic changes in the wall mount (ex. the wall mount dimming when the heater is shut off.) help users with Destination Recognition which was admittedly quite lacking in my original design.