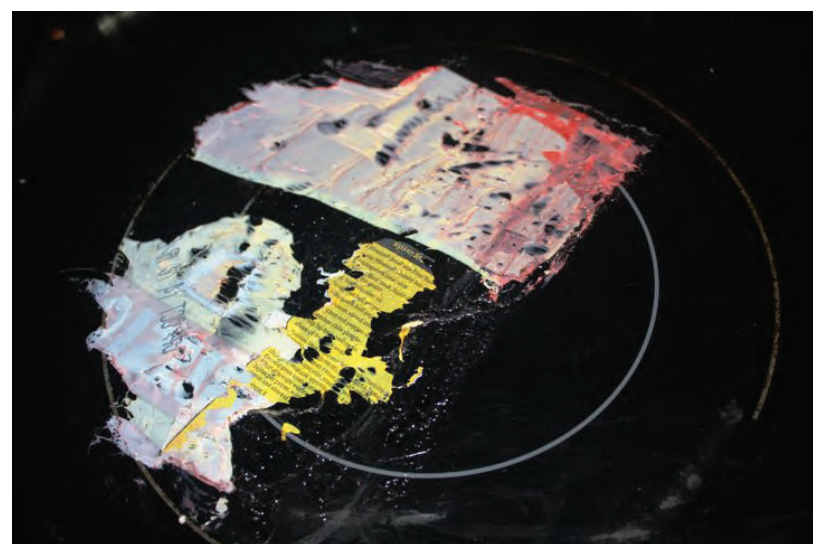


That's Hot!

Intuitive stove top keep users from burning

Technological advances have given us highly efficient appliances intended to save us time and money. However, as these appliances become more and more complex they tend to become less and less intuitive to use.

The kitchen stove top is one of these appliances but because it is often



Plastic on a deceptively hot stove top.

Process

The design process starts by gaining empathy for the user through interviews then digging deeper to understand the user's thoughts, emotions, and motivations, determining how to innovate for him or her. By understanding the choices the user makes and the behaviors he or she engages in, the needs can be identified and designed for.

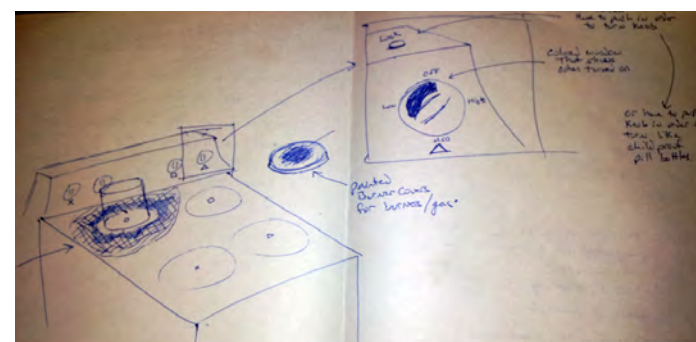
Inferences from what was heard become insights about the user's feelings and worldview to leverage in the design. A problem statement is then defined. The

a convenient location to prep or place food before adding it to the cooking pot as well as a convenient location to set groceries before putting them in cabinets this lack of intuitive use becomes a danger. For instance, the typical new stove top has a multitude of dials, lights, and switches intended to help us cook and keep us safe yet we still seem to burn or melt utensils, ingredients, burner covers, pot holders and even ourselves (or our friends).

With this cognitive ergonomics redesign, I show three different applications of color specifically intended to reduce these stove top accidents and continue to allow the stove top to be a convenient location to place items.

problem statement for this project is; "Interviewee, who likes to use the stove top to prep or store food needs a way to not burn or melt their utensils, ingredients, burner covers, or themselves and others because of the convenience of the location is important."

This statement was used to generate ideas that meet the user's needs. These possible solutions were shared with the user, their feedback was captured before further ideation to generate a new solution and ultimately the prototype.



Comparative Analysis

The main concern with the operation of the stove top is knowing which burner is in operation. All three modifications of this cognitive ergonomic redesign assist users to immediately know which burner is in operation without the use of power.

First, the dial has a red slider that becomes visible once it is turned from the off position. This slider is much more visible from a distance of about 20 feet or from across a room. Second, the four circle icons are replaced by simple colored shapes which coincide with various burners. These shapes are commonly used codes to differentiate similar items like those of a game system's controller buttons. The colors used are all cool colors to contrast with the third modification. This last change is the most important one for making sure that nothing is melted or burned onto the stove top. Using layers of thermochromic paint, which becomes invisible to expose the surface underneath, heat intensity is visually indicated showing exactly what areas of the stove top are safe to touch.



Conclusion

Through the use meaningful application of color the safety of the stove top has been improved by taking advantage of the contrast, the emotional aspects, and the meaning of warm and cool colors. Visual indicators of which dial operates a certain burner, which dials are on, and what areas of the stove top surface are unsafe to touch provide a safer and convenient place to prep and store food items.

Cognitive Ergonomics

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