

The Family Washer

A washing machine designed for novice washers while maintaining control and accuracy for moms.

The Problem:



The Temp/Water Level controls rely entirely on poor semantic cues. What does the thickness of lines have to do with Water Level?

Knobs afford turning, but don't relate to washing. They provide no feedback or feedforward. What happens when you use a lot of warm water versus a small amount of cold water.

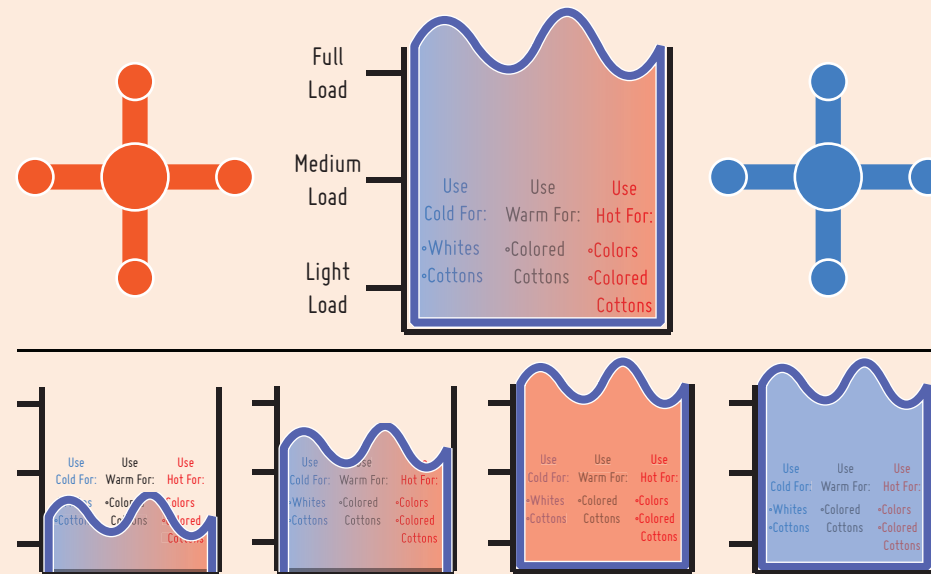
The controls offer no feedforward of what the different modes do, or what happens when you select one versus the other.

The default state of the dial is pulled out. In order to turn the dial you have to push it in. The wash starts when you pull the dial out. How do you return the machine to its default state? If you pull the dial out, the wash will start.

The semantic cues of the different modes blend into each other requiring precise movements.

The "start/stop" knob is consistent with the other knobs in that it can be pushed and pulled. Dials themselves do not afford pushing or pulling.

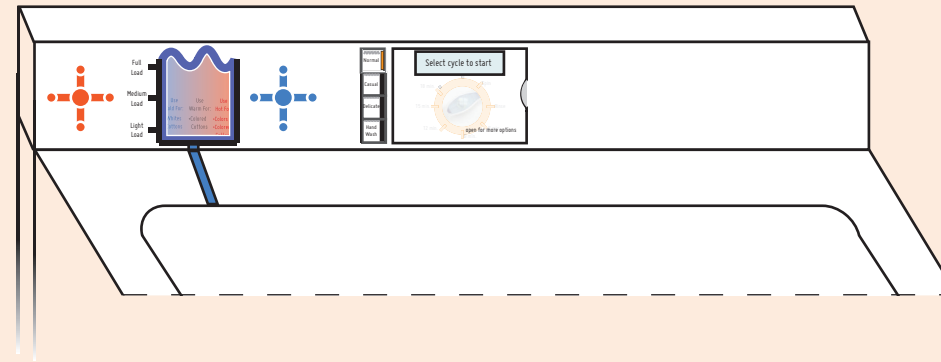
The Solution:



Written cues aid novices, describing when certain temperatures should be used.

Knobs afford **direct manipulation** of the water level and temperature using familiar controls.

The mechanism provides **visual feedforward** by displaying both the temperature and water level.



Novice Mode allows one button cycle starting for maximum efficiency.

Buttons have increased **haptic feedback** coupled with the mental model of wash-boards; the rougher the button, the more agitation in the cycle.

Mechanical display **connects the state** of the washer with the controls.

Mom Mode gives moms the precision they need to clean the toughest stains and **maximize wash efficiency**.

Turn the dial in Mom Mode to start the wash. The dial affords turning and provides resistance to indicate movement once let go, similar to old fashioned microwaves.

The dial limits update mechanically based on wash cycle. The layout does not change to **maintain consistency**.

