

Brendan Hukill

Wake Tech CC

User Interface/User Experience (2021SP.GRD.240.0001)

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Device Interface Review Project

Device Description

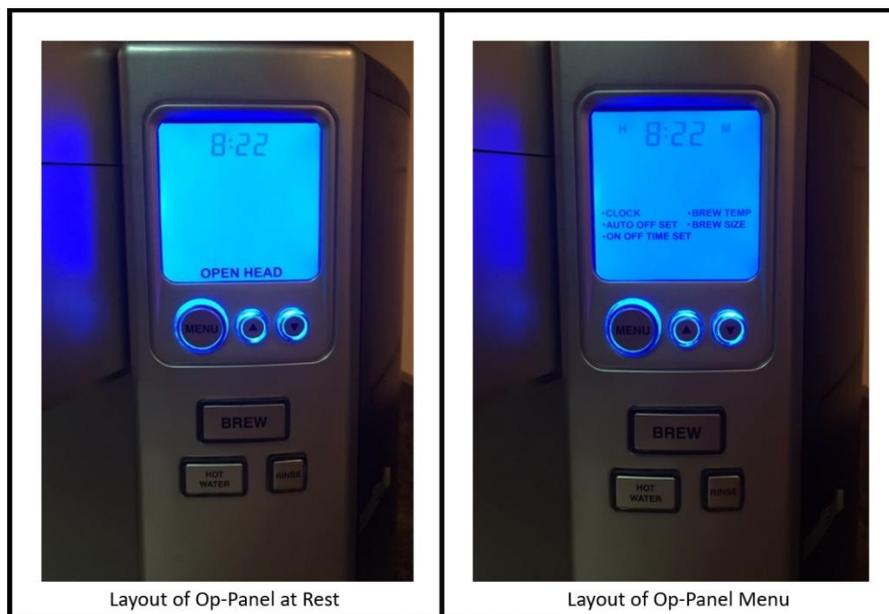
This device interface project is based on the Cuisinart® Premium Single Serve Brewer. Its purpose is to serve gourmet coffee, in a quick and easy manner. The Target Market for the device are any coffee or tea drinkers who prefer the use of coffee and/or tea dispensers which use “K-Cups” to dispense their coffee or tea. After a user buys a K-Cup of his/her choice, he or she is able to make a cup of tea or coffee by opening the top of the unit, inserts the K-Cup, navigates the device’s menu within the device’s operation panel, sets his/her desired coffee setting, then clicks “Brew.”

Per Cuisinart’s website (“Cuisinart® Premium Single Serve Brewer”), the main features of the Premium Single Serve Brewer include: Compatibility with any brand of single cup pod including Keurig K-Cup pods, Beverage sizes: 4–12 oz.1 Removable 72-ounce water reservoir, Hot water button lets you enjoy instant coffee, soup, tea and hot cocoa, Rinse feature instantly cleans the inside of the brew chamber, Fully programmable with a full spectrum of features, including Auto On/Off and adjustable temperature control, Backlit blue LCD displays settings, Removable drip tray for travel mugs, Includes HomeBarista™ Reusable Filter Cup for ground coffee or tea, Charcoal water filter, and a Limited 3-year warranty.

User Interface Description

The LCD display features a backlit blue background. It is hard to say what font the letters on the screen, outside of having a black and digital appearance. What the LCD screen says about the device, is that the device features a user interface that is typical of most legacy devices that will probably be tricky to use, when compared with the user interface of the average smart device. The layout of the Cuisinart® Premium Single Serve Brewer's user interface includes the previously mentioned LCD display at the top of the Op-Panel, which is positioned above "Menu" and arrow buttons, which are positioned above "Brew," "Hot Water," and "Rinse" buttons, as shown in the diagram below:

Diagram of Cuisinart® Premium Single Serve Brewer's User Interface



Navigating through the menu of the Cuisinart® Premium Single Serve Brewer's user interface involves clicking the "Menu" button to move from one menu option to another. The data / information presented – i.e.: the user's current menu option or menu option setting within the

menu, is indicated by whichever selection is blinking. Once the user's desired menu position is reached, the setting for the menu option is changed by using the up and down arrows.

User Persona

Based on a relatively quick Google search, my design team agreed that our Cuisinart Premium Single Serve Brewer user persona is best described by a fictional character by the name of Dwight, who: is in his mid-30s, is an avid but not too picky of a tea/coffee drinker in terms of taste, is very logical as well as practical, and prefers quick serve convenience since he has a busy schedule and is always on the go.

Dwight is relatively tech-savvy, but strays away from advanced technology for his kitchen appliances and therefore prefers his/her tea/coffee dispenser to remain simple and inexpensive. Dwight's primary goals are to quickly make a cup of tea and/or coffee, while not having to think too hard in the process. Dwight has been using the Cuisinart® Premium Single Serve Brewer for years, and while he does not mind the overall quick-serve convenience which it provides and is comfortable with using an op-panel which he has grown familiar with, he is in the market for one which features a slightly more intuitive button layout which can help him avoid the occasional early morning and/or late-night operator error, which can sometimes occur when he is not completely awake.

Dwight is therefore interested in a tea/coffee dispenser that comes with a simple user interface that includes buttons which are responsive to the touch which exhibit a "Push effect," similar to other traditional interfaces which he is already used to with the other devices that he uses around the house (Ex: such as his TV controller, thermostat, alarm clock, etc.). Because Dwight is very logical, he is also interested in using a coffee maker which has labels that

intuitively indicate what functions they will perform without having to look through a manual, and do not perform secondary functions which their labels do not directly imply.

User Interface Issue

The operation panel of the Cuisinart® Premium Single Serve Brewer features a user interface that lacks an intuitive design. The interface is designed to have the user scroll through each of the menu options by clicking the “Menu” button. This is not intuitive, since my first instinct has always been to click the arrow buttons to scroll through the menu options, not the menu button, which has caused me to have to reset the time every time I make this mistake. To compound this issue, correcting the time after making this mistake is also made difficult, since the user has to find out via trial and error that the up arrow controls the hours, and the down arrow controls the minutes – requiring the user to cycle around the minute of hour and/or hour of day loop with the respective hour or minute buttons if/when he/she forgets about this built-in logic, until he/she reaches the correct time of day.

Potential Solution to User Interface Issue

The interface and steps to accomplishing the user’s task of selecting the desired brew settings for dispensing a coffee or tea could be improved with a simple change to the device’s logic. The Cuisinart® Premium Single Serve Brewer would need to be re-programmed to have the arrow buttons control the menu navigation, and to be able to select from AM or PM in the “Clock” menu option. Once re-programmed, I believe a simple “Enter” button, as shown in the diagram below, would be all that would need to be added to the Op-Panel’s set of buttons, to both: confirm which menu option is selected without having to confusingly use the menu button

to do so, and confirm the “Clock” menu option’s AM or PM time without having to cycle through the minutes in an hour and the hours in a day before reaching the correct time.

Diagram of Potential Solution
to Cuisinart® Premium Single Serve Brewer’s User Interface



The minor adjustments to the existing Cuisinart® Premium Single Serve Brewer fit the goals and interests of the best fit Quisinart Premium Single Serve Brewer user persona that was put together by our Design team, which included:

- An ability to quickly make a cup of tea and/or coffee, while not having to think too hard in the process.
- Maintaining the user persona’s Op-Panel familiarity.

- Providing a Brewer which features a slightly more intuitive button layout which can help our Design team's user persona avoid the occasional early morning and/or late-night operator error.
- Providing a simple user interface that includes responsive buttons which: exhibit a "Push effect," similar to other traditional interfaces which he is already used to with the other devices that he uses around the house (Ex: such as his TV controller, thermostat, alarm clock, etc.).
- Providing a Brewer which features logical buttons that intuitively indicate what functions they will perform without having to look through a manual, while avoiding buttons having secondary functions which their labels do not directly imply.
- Staying within the user persona's desired low-cost price point for a quick-serve tea/coffee dispenser, by focusing on making the desired minor adjustments while keeping production costs down.

Sources

"Cuisinart® Premium Single Serve Brewer." *Cuisinart®*,

https://www.cuisinart.com/shopping/appliances/coffee_makers/ss-10p1. Accessed 23

February 2021.