HMI EXPERIMENT 5

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Date of Experiment:	Date of Submission:
Grade:	

AIM

Design an interface for any machine which you found troublesome to use and want to change its interface like automatic washing machine, microwave oven, etc.

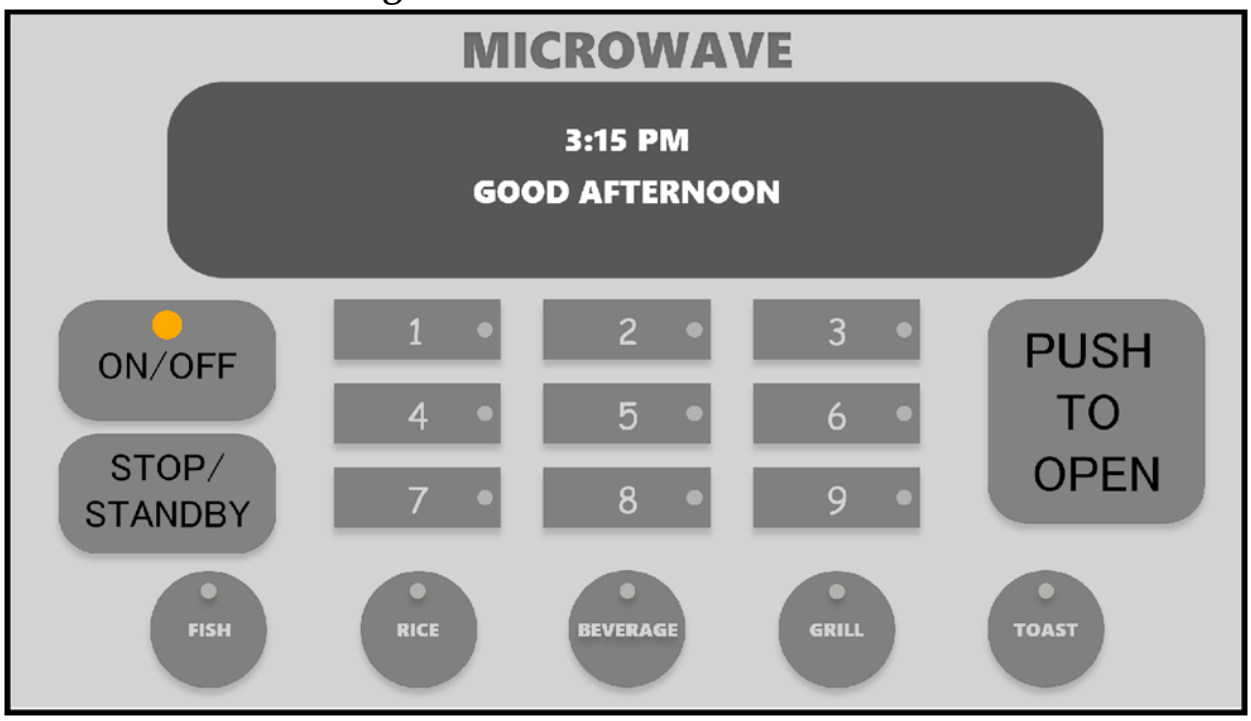
B.1 Machine selected for the interface design:

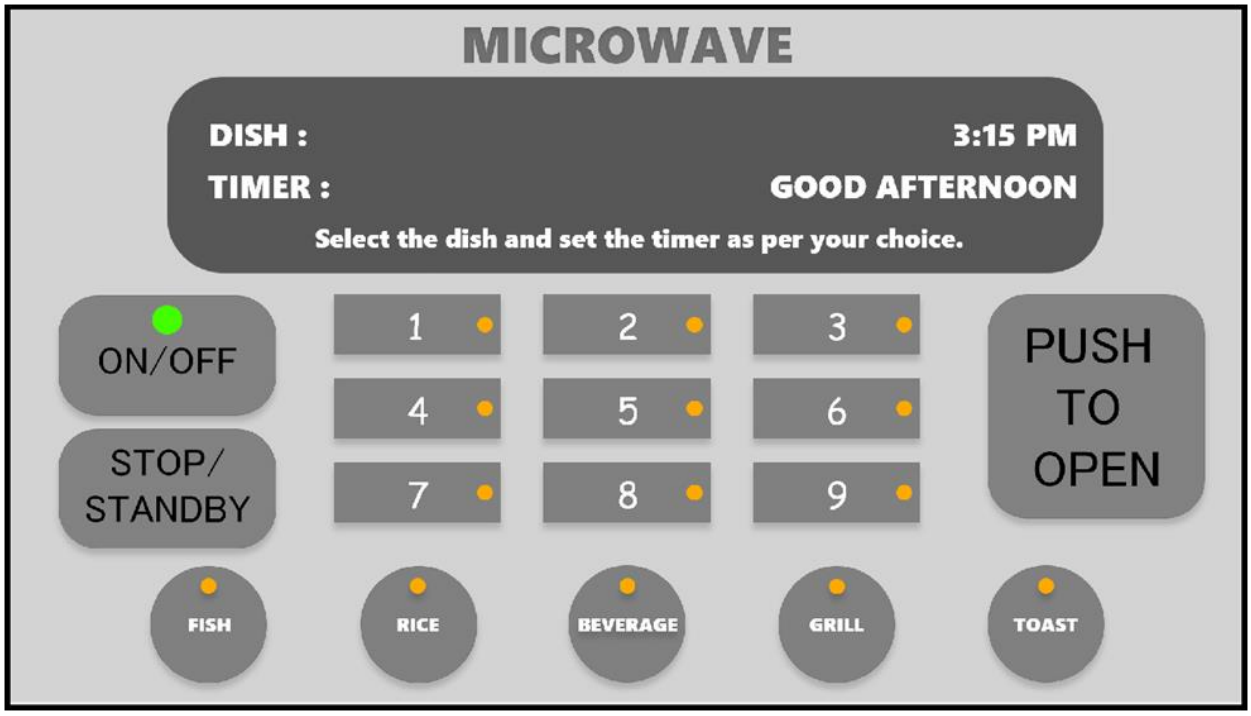
Machine Selected: Microwave
Microwave ovens use microwaves, a kind of electromagnetic energy akin to radio waves, to heat food. Microwaves have three properties that enable them to be employed in cooking: they are reflected by metal, they travel through glass, paper, plastic, and other similar materials, and they are absorbed by meals.

B.2 Choice of User Interface Elements:

This Interface is designed on Adobe XD.
1. Microwave display with the bare minimum of information
2. Buttons and their positioning for ease of use
3. Microwave functions and their uses.
4. The user interface is simple and clear.
5. For improved readability and comprehension, choose basic fonts.
6. Minimal colors so that the interface is pleasant to the eyes.

B.3 User Interface Designs





B.4 Comparison:

Because today's microwaves feature a crowded user interface, consumers make more mistakes and may wind up ruining their food.
My user interface is straightforward and minimal because the primary function of a microwave is to heat any type of food.

B.5 Explain the importance of Human-Centered Design?

- A designer must first obtain an in-depth understanding of the target user as well as the aims of utilizing the equipment or product in order to create successful interface design.
- The greatest interface designers take the time to learn not just the user's identity, but also the user's skill level, potential environmental influences on the machine, and the most significant primary and secondary functions for the user.
- For the end-user, the interface must be simple to understand and use, as well as consistent. For engineers, this is one of the most difficult parts of interface design.
- One of the most essential aspects of interface design to keep in mind throughout the design and engineering process is that the interface should be simple to comprehend and simple to use on the first usage, with minimum training and onboarding.

- It is also critical to avoid overly broad definitions of the intended user group.
- This frequently results in overlooking the varied demands of diverse subgroups who are likely to utilize the equipment.
- Always keep in mind the subtle differences and variances across various end-user subgroups, as well as how each target end user will utilize the product. Make critical functions as simple as possible for each of these users.

B.5 Conclusion:

After completing this experiment successfully, we will be able to examine existing complicated interface designs and offer adjustments based on user-centric interfaces, as well as use HMI Principles to create a good GUI.