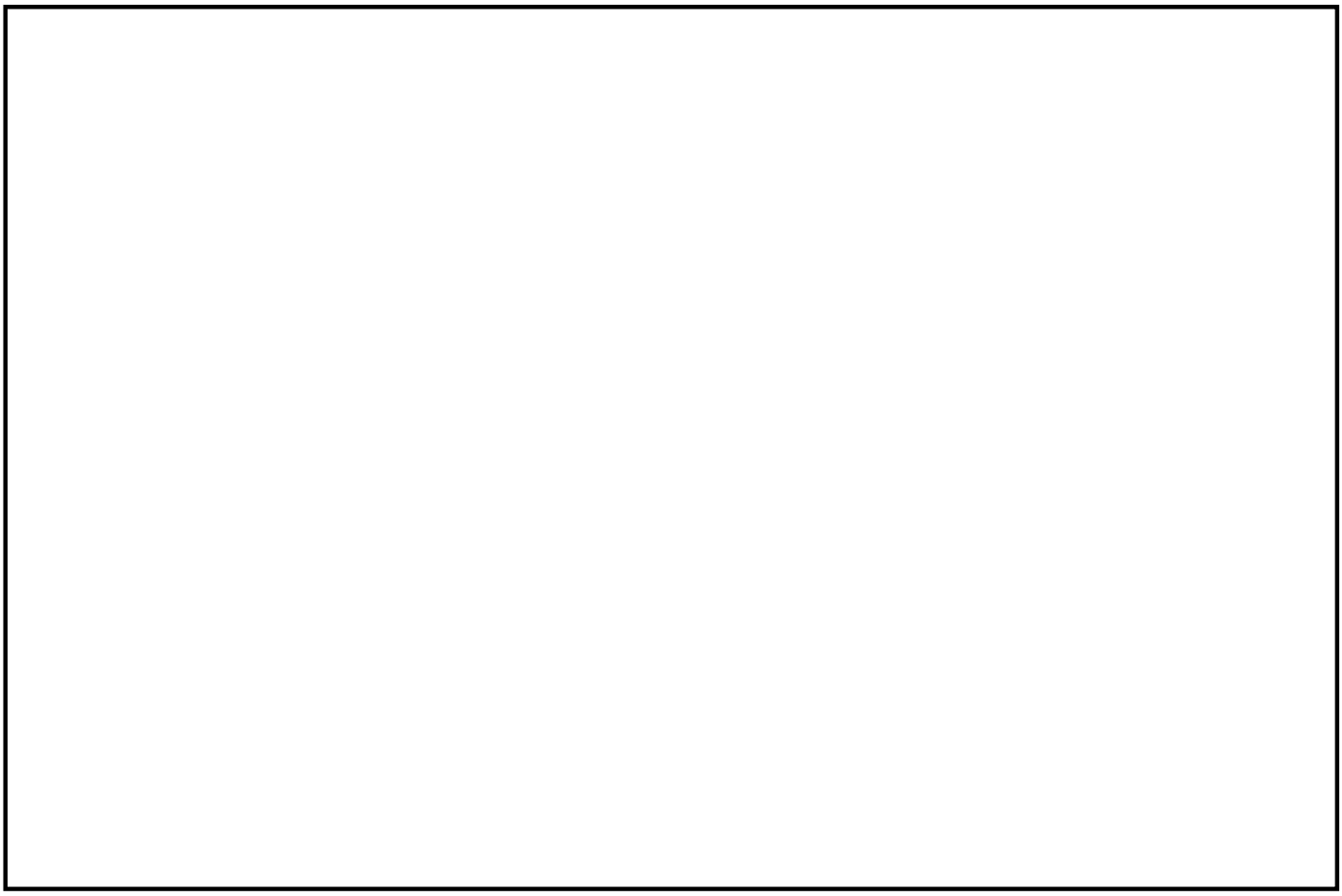
Fast-Food Kiosk

No waiting in the line anymore



CS5340 Assignment 4

Team members:

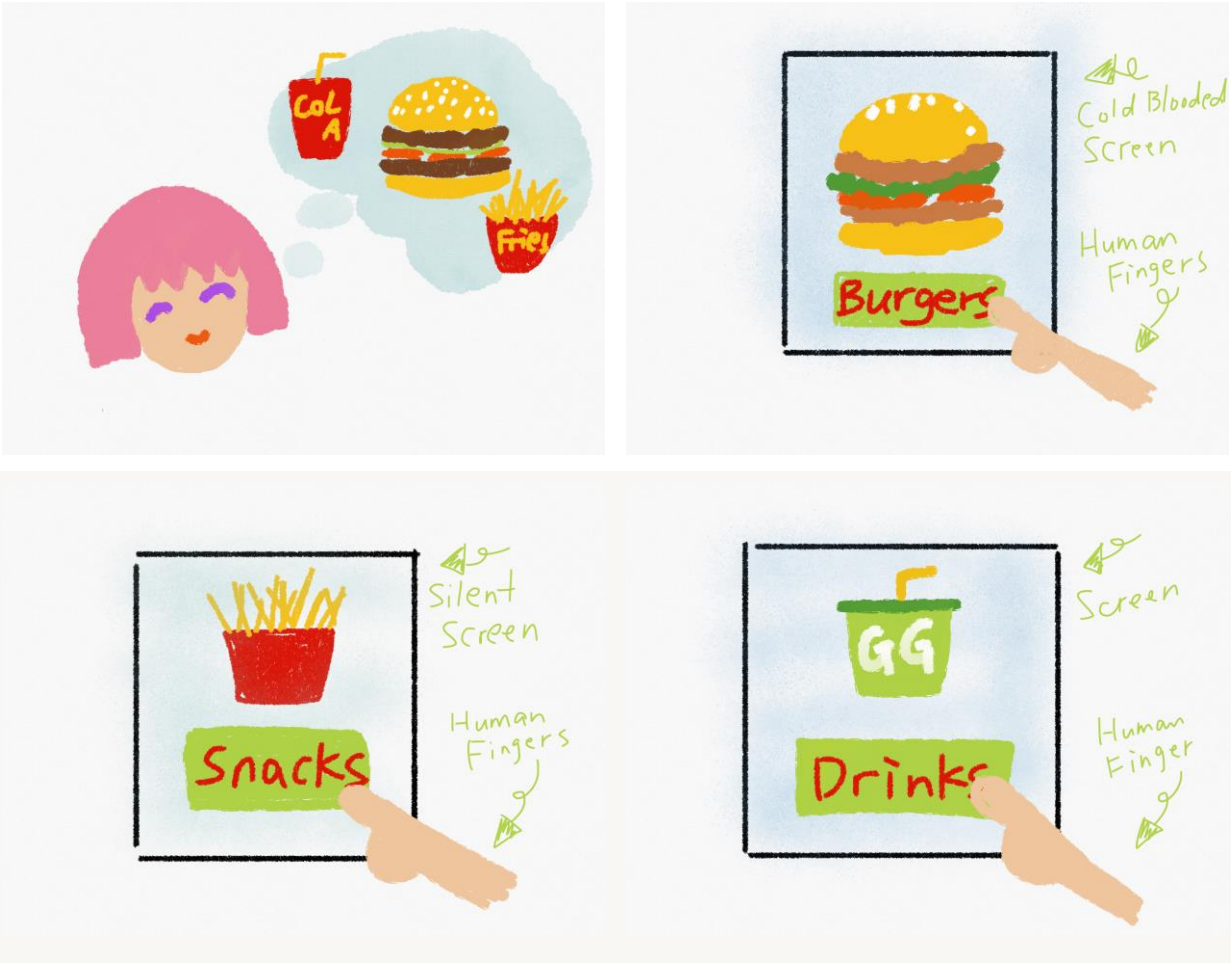
Yuzhou Kang - kangyuzhou
Wei Liu - wliu616
Jingqi Guo - jingqi
Jinyang Zheng - pagenotfound91

Storyboards

- **Function: Ordering Food**

Scenario 1:

Tiffany is a 28 years old ordering food on the kiosk. Her favorite combination is a burger, fries and coke. She clicks into the “Burgers” category on the kiosk, chooses the burger she wants; jumps to the “Snacks” page, adds a cheese fries into her shopping cart, and then go to the “Drinks” category and adds a Coke.

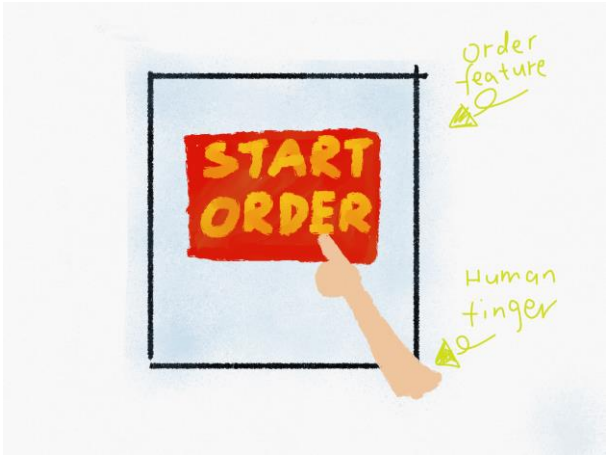


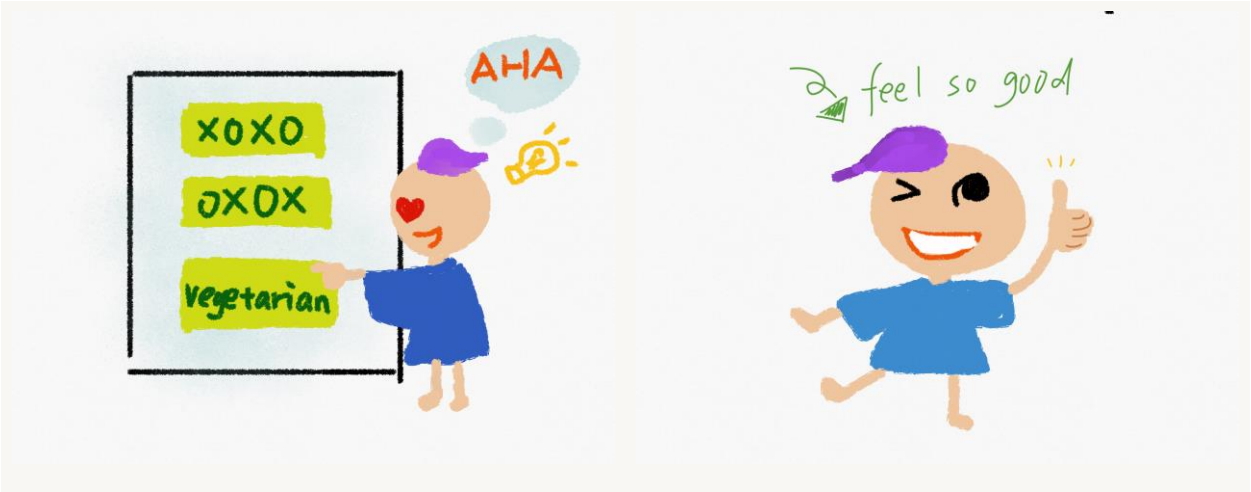
Scenario 2:

John is an 8 years old boy choosing what he wants to eat on a kiosk. A regular combo is too much for John to finish. He sees the kid's meal's picture on the menu. The yummy Mac and Cheese, fries and strawberry flavored yogurt looks very attractive to him. He clicks the picture and a kid's combo is added to their order.

Scenario 3:

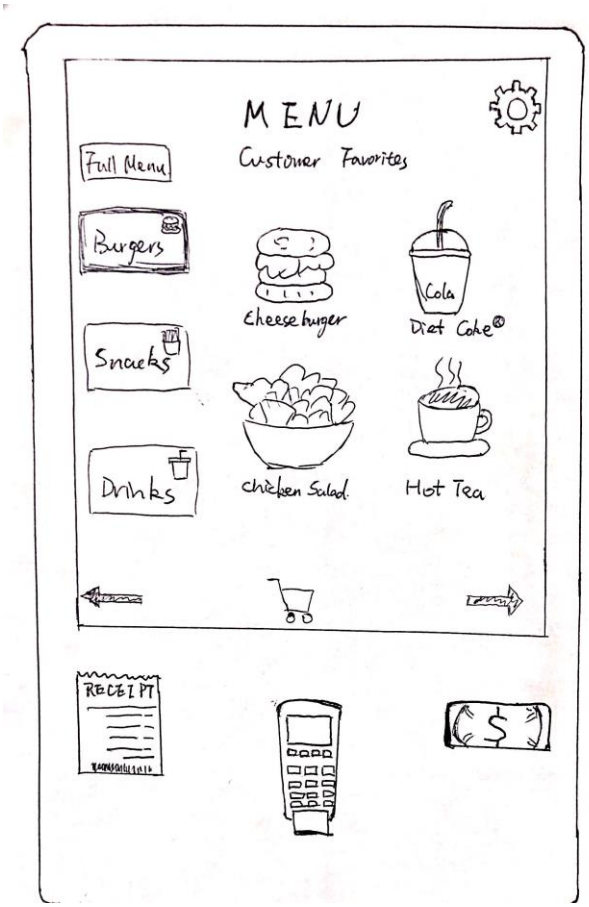
Andrew may not be very familiar with the food the restaurant provided. Therefore, it is good that we provide a “Vegetarian food” category. We may also count the most popular vegetarian food people ordered, and list it on the top of the screen, so we can reduce the mental actions required.

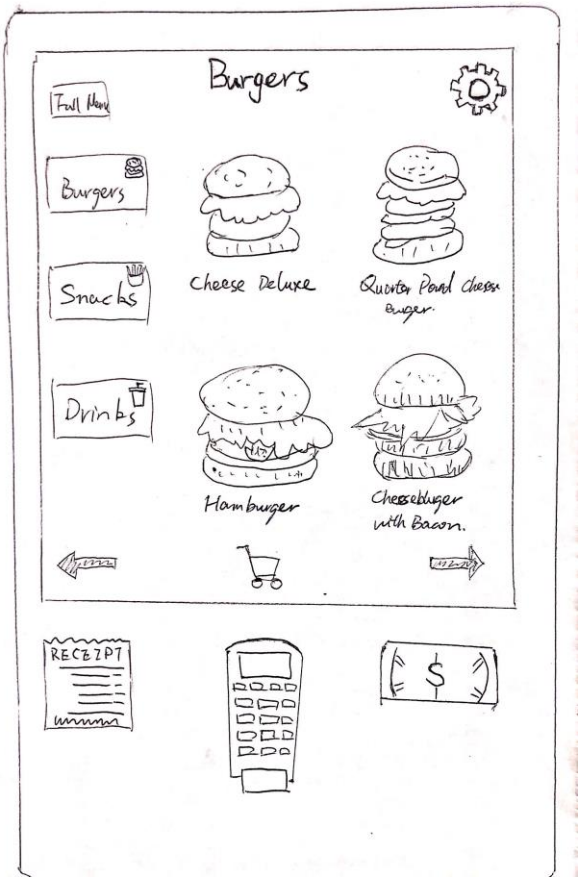


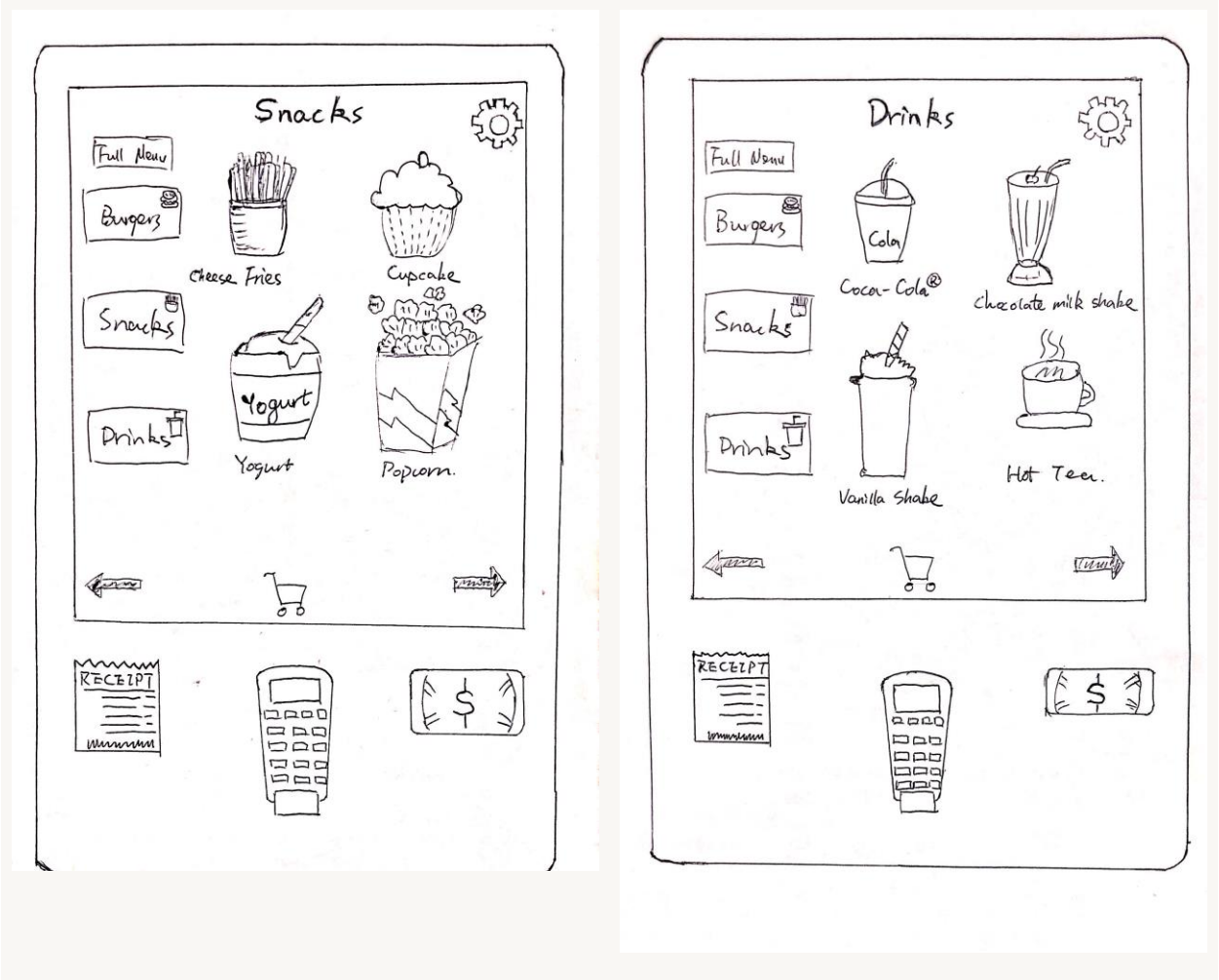


Paper Prototype

- **Screenshots:**







- **Paper prototype in action video link:**

https://drive.google.com/open?id=1i9U1DgHbtARHjkM_sj9v3IfNP5VVsK-E

Usability Testing Plan

- **Metrics for Success**

1. Efficiency: The time a customer spent on finishing one order with the kiosk should be less than the time they spent ordering with a staff.
2. Easy to use: The system needs to be very easy to learn and use. The UI must make the functionality and content locatable.
3. Universal: The system will be understandable to all users regardless of their age, gender, nationality and education background.

- **Data to Collect**

1. The amount of time users spent on finishing one order.
2. The number of times each user asking where to find a specific functionality.
3. The number of times a user encounters an error.
4. The demographic information of the users.
5. Previous experience of users with similar system.
6. Any suggestions from test users.

- **User Analysis**

The kiosk is designed for users who want to save time and skip the lengthening lines in front of registers. People who are in a hurry will be more likely to use this kiosk. It provides “Combo” and “Recommendation” category to help users conveniently choose their meal.

The kiosk also creates a more comfortable platform for users who want to order their meal. Creative customers who want to order

customized food will be satisfied with the kiosk's accuracy and are more likely to use it because it reduces potential frustrations.

People of all ages can be easily familiarized with the kiosk due to its widespread use in other venues, for example, airport check-in kiosks and subway ticket machines. Senior citizens who may have limited ability with technology will not find it difficult to use this kiosk. Although the kiosk includes advanced technology, it does not require any sophisticated skills, and will have a simple interface to help customers navigate the ordering process. The kiosk will also attract children because it has a section designed specifically for kids that promote their interactive engagement.

- **Testing Strategies**

Our main testing strategy will be hallway testing. Since this product is designed for anyone that orders in a fast food restaurant, we don't need to find anyone with specific skill set or specific knowledge to do the test. Anyone who knows how to use a touch screen is our target test users. We will ask our test users to fill a background form to provide their age, gender, education background and previous experience with similar machine. We will also have a worksheet to record the testing data.

We do not need any additional machines or equipment for our test. There is no specific location requirement for the test.

Although generally we are looking for users with any background, we also target some specific users.

1. Children: We will target on people with kids. We will observe when the test users ask their kids to pick food they want, whether the kid can find something they are interested in.
2. Vegetarians: We will go to the vegetarian restaurants and ask customers to do the test. We will test if they can easily find the food they want, and

they are able to modify their order to exclude the ingredients they don’t want.

3. People who don’t speak English: We will test with users who don’t speak English. We will see if they can finish the order only based on the structure of the UI and the indications of the icons.
4. Seniors: We will invite seniors to use our machine and see if it is obvious to them that they can modifies the picture and font size in the UI, and the brightness of the screen.

Discussion and Analysis

- **Description**

Fast-food kiosks are self-order machines which allow the customers to navigate the menu of items, customize the food, place their order, and pay without the need to interact with cashiers. Fast-food kiosk helps to reduce wait time, make the ordering process more efficient, and improve the customer experience. It can potentially replace the cashier registers.

- **Metaphor**

The menu page is organized like a physical menu for user to choose. All of the ordered items will be in the “shopping bag”, if user taps the “shopping bag” icon, items user chose will be displayed on the pop-up window. Like in real life, users can choose the payment method they prefer. This design enables the user to get familiar with the machine in a short time because the whole setting is similar to a real ordering action in daily life.

- **The Product does well in**

1. Implements promotion feature to offer customers more food options.
2. Customizes the food ingredients more accurately.

- **Potential Improvement**

1. If the users need more instructions during the test, the product should provide more hints such as voice prompt.
2. Customizes the food ingredients more accurately.
3. To help users better find the food they may enjoy, the kiosk can have a short survey to get what the user likes. A similar function can be found: https://www.winc.com/palate-profile