



Parking Meter Interface

Challenge

Some new touchscreen parking meters are being installed throughout your city. There is one meter for every 6 parking spots. Design the touchscreen interface so that drivers can pay for their parking spot for a certain duration, and parking attendants can give tickets to cars who do not pay, or whose parking has expired.

My Role

User experience designer from research to creating wireframes

Project Time

5 days

Stage #1

Information Gathering

My first step was to collect and review the various types of Parking meters, watch different videos related to parking meters and how people use them, and read news about new and old ones. Since I had limited time, I only talked to a few people and asked them for their opinion about the parking meters in the city.

Findings

People feel confused when using a parking meter

Inadequate information and contradictory signs on the street and parking meters often led to confusion.

People feel a lot of wasted time

A relatively modern parking meter had a giant bug. If a car left the parking lot before the due time, other drivers could not get a parking permit for that place, or people park without paying for the parking permit.

The elderly experience more problems

In many cases, older people accustomed to the old parking meters were more involved with the complexities of the new devices.

Non-functional capabilities of parking meters

I looked at each parking meter in more detail and how they work. Some of the parking meters had a lot of capabilities, but they might not be suitable for every parking space. The purchase price of each was different based on their functionalities.

Technical and design constraints

When I put all my observations together, I added some more constraints so that the final answer would be closer to the most practical and workable solution.

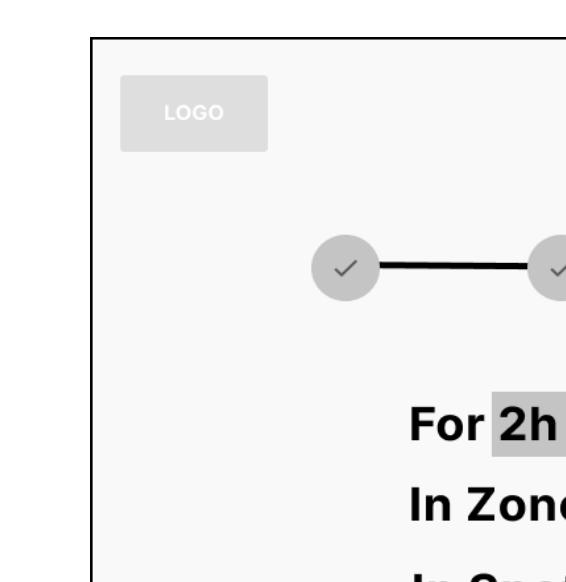
- The machine has a single touchscreen, and there isn't any pinch and zoom, hard press or advanced touchscreen functionality.
- The parking meters can accept credit card payments.
- The Parking meters are not connected to the Internet and are not equipped with Bluetooth.
- It is not possible to install the sensor next to the parking lot.
- The Parking meters will be installed to manage on-street parking spaces.
- It is not possible to use the monthly park permit.
- It is possible to print a parking permit.
- The parking meters are located in Montreal.

Stage #2

Building empathy

Personas

Based on my observations and findings, I defined the four target groups.



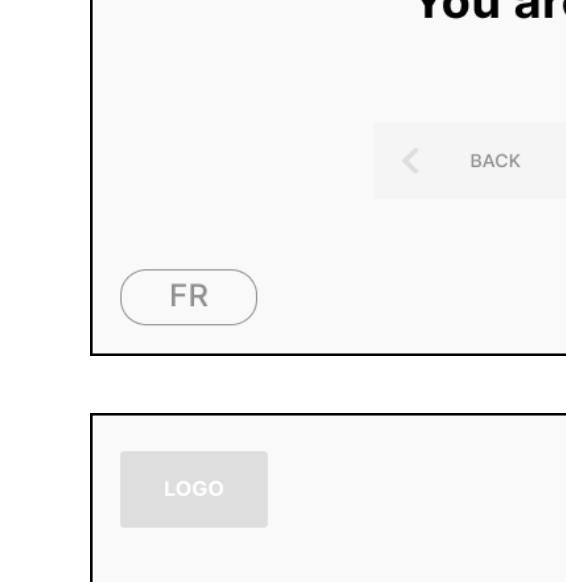
Emma

age: 25
Location: Montreal

She has just learned to drive, and because she finds it challenging to find a parking space, she prefers to drive. She has experienced several times being fined for parking in inappropriate places.

Challenges

- She gets stressed.
- She forgot the parking ID (even her license plate).
- She is always hesitant whether she have gone to the proper parking meter or not.



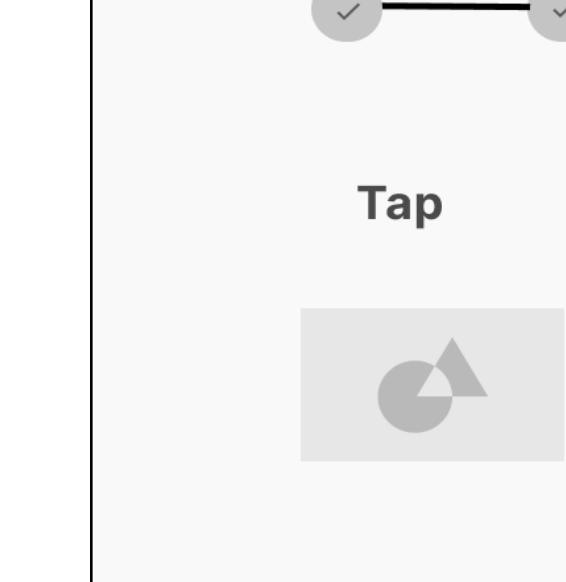
Kelly

age: 64
Location: Montreal

She is used to old and coin parking meters, and it is difficult for her to use touch parking meters. She is often confused as to whether she entered the parking number correctly.

Challenges

- Getting parking permission is a long and complicated job for me.
- Sometimes I check the parking ID several times with confidence.
- It doesn't feel nice to be slow to use these devices.



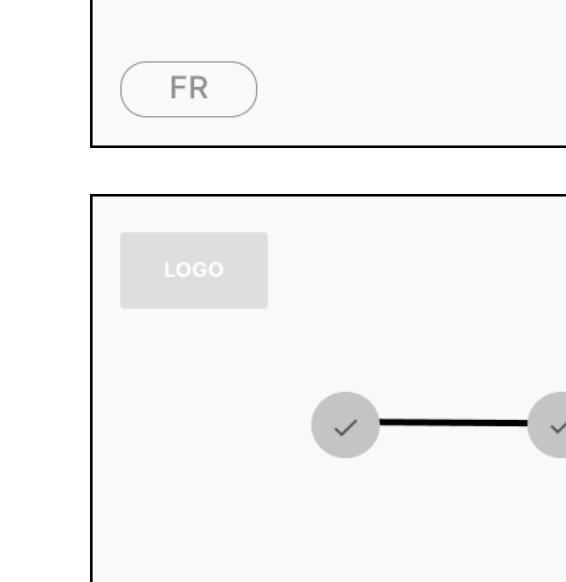
Istvan

age: 35
Location: Montreal

He is colour blind and has recently had trouble using touch parking meters several times because he has not detected enough distinct parking spaces. These spaces were distinct without numbers, but he can only distinguish them with colour. Since then, he has not had enough confidence to find a parking space in crowded places like the city center.

Challenges

- I feel confused.
- I need to ask someone else to help me.
- Doing this easy work with uncertainty makes me mad.



Evan

age: 28
Location: Montreal

He is a student and goes to the university by car every day. University parking lots are free until 11 a.m. on some days, and we have to go to another lot again in the middle of his work to receive a ticket so as not to be fined. He has failed to get to the parking lot on time several times and was fined.

Challenges

- I have a lot of wasted time.
- I have to travel a long way to get a new ticket from the device.

User Flow

Once I've known the people who may use parking meters. I made a user flow map to see the process better.

(<https://www.figma.com/file/ScTIVZpkCaq1S1lp509TH1/Parking-meter>)



Stage #3

Ideation

Whiteboarding

