Hyperboost

Mission Statement

Create the fastest and safest automobile experince

User Goals

To get to a destination in half of the time

Project Goals

Improve traffic in cities.

Project Brief

This project aims to improve traffic and safety in cities with a system for autonomous cars.

Design Hypothesis

New physical and digital infrastructure for autonomous vehicles will improve traffic conditions.
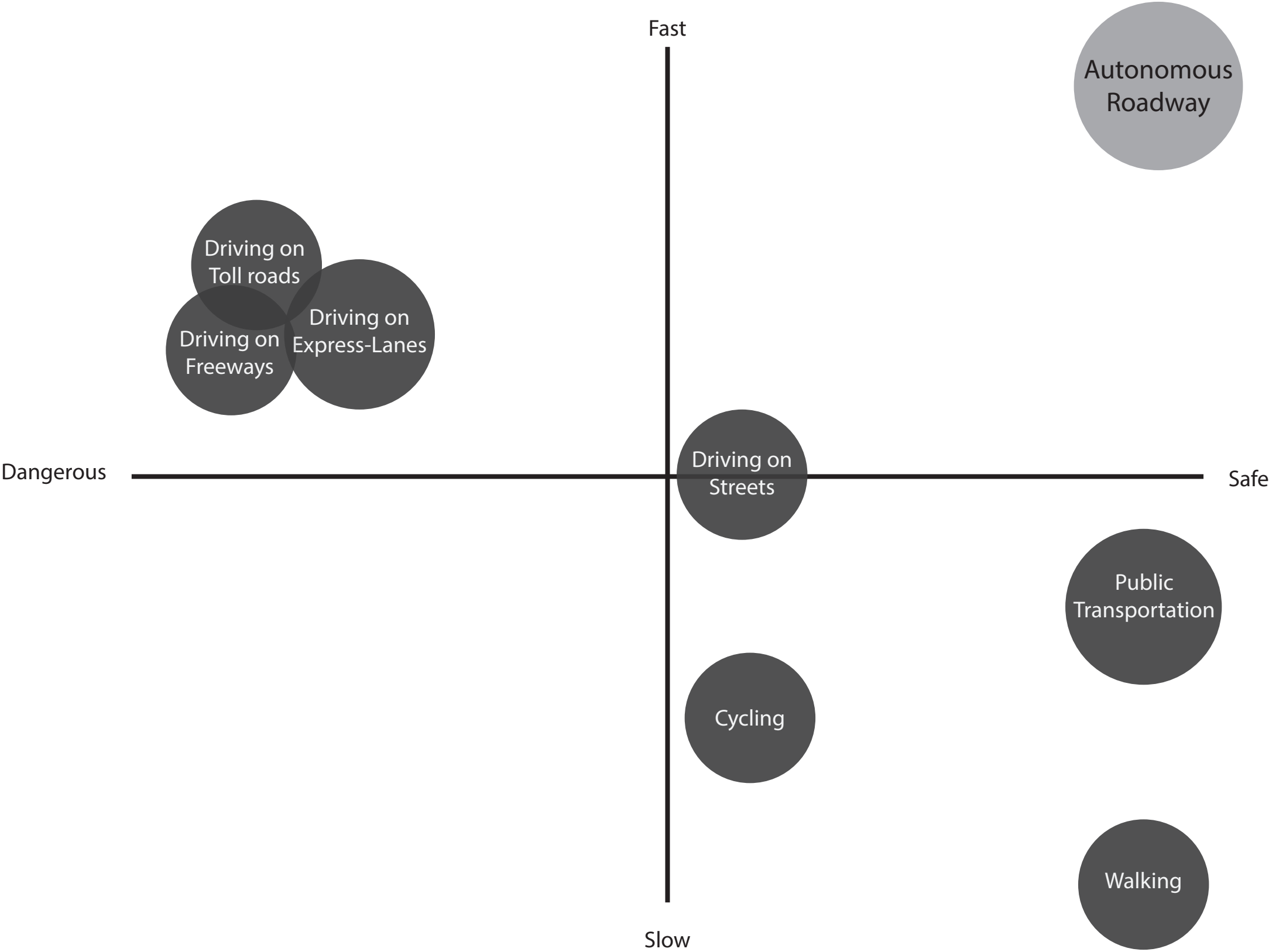
Position Statement

For city drivers, this product will give them an option to avoid freeway traffic while legally reaching triple digit speeds. This product will also be safer than most freeways.

Value Proposition

Fastest and safest automoible experience

Positioning Matrix

Fast

Autonomous Roadway

Driving on Toll roads

Driving on Freeways

Driving on Express-Lanes

Dangerous — Safe

Driving on Streets

Public Transportation

Cycling

Walking

Slow

Target Market

People between the ages of 28-49 who live in cities and drive an autonomous vehicle.

7-8 million new car's are sold in the US ever year

There are over 260 million vehicles are registered in the US

The largest portion of the new car market and most likely to purchase a car.

Table 1. Share of New Light Vehicles Purchased by Age Group (Percent)

Year	Age group: 16 - 34 years	Age group: 35 - 49 years	Age group: 50 - 54 years	Age group: 55+ years
2000	28.6	39.2	11.1	21.2
2005	24.3	36.6	11.5	27.4
2010	19.8	31.4	12.2	36.5
2015	22.6	29.9	11.2	36.4

Source. Power Information Network – PIN, a business division of J.D. Power and Associates.

35-55 year olds make up 42% of new car market.
If only have of those people buy an autonomous car that can still be 21% of the market.

Maximum level of automation drivers would be comfortable with?

		16-24	25-34	35-44	45-54	55-64	65-74	75+
2016	None	12%	8%	10%	6%	5%	4%	3%
	Emergency Only	18%	11%	16%	16%	15%	12%	17%
	Actively Help	27%	25%	21%	41%	44%	56%	52%
	Partial Control	16%	15%	19%	13%	17%	14%	15%
	Full automation	26%	40%	34%	23%	19%	14%	13%

More comfortable with full automation   Comfortable with active assist, but not with giving up control

		16-24	25-34	35-44	45-54	55-64	65-74	75+
2017	None	0%	3%	4%	3%	2%	2%	1%
	Emergency Only	24%	15%	11%	13%	10%	10%	10%
	Actively Help	46%	43%	49%	55%	63%	64%	69%
	Partial Control	16%	19%	15%	14%	13%	14%	10%
	Full automation	14%	20%	21%	15%	12%	10%	10%

As compared to 2016, all age groups are less interested in full automation. Effects are particularly pronounced among younger respondents.

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How much would you consider paying for a car that completely drives itself?
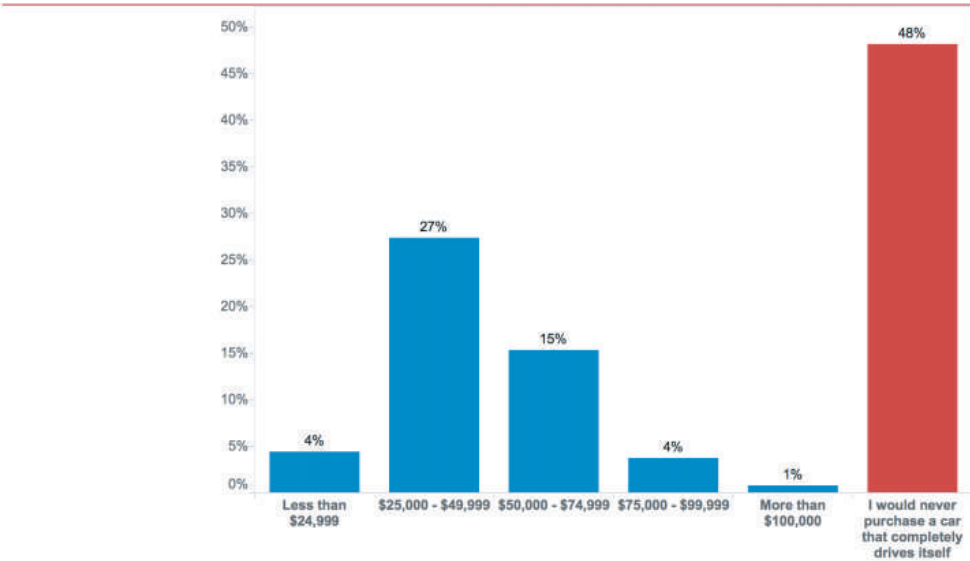
Nearly half of survey respondents reported they would **_never_** purchase a car that completely drives itself

MIT AGELAB | MIT

http://www.wbur.org/bostonomix/2017/05/25/mit-study-self-driving-cars
https://www.statista.com/statistics/199974/us-car-sales-since-1951/
https://www.statista.com/statistics/183505/number-of-vehicles-in-the-united-states-since-1990/

Design Criteria

Speed

Must be a faster alternative than freeway or toll roads

Safe

Safer than regular freeways

Convinient

The system must not create extra issues for the commuter

Accurate

Users should not worry about sudden rushes of traffic flooding their estimated comutes.

Intigrate

The system should be widely available for all autonomous vehicles from luxurious to economical
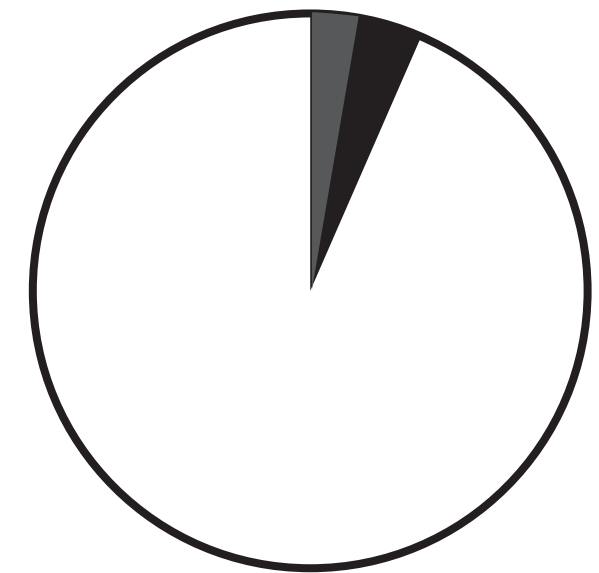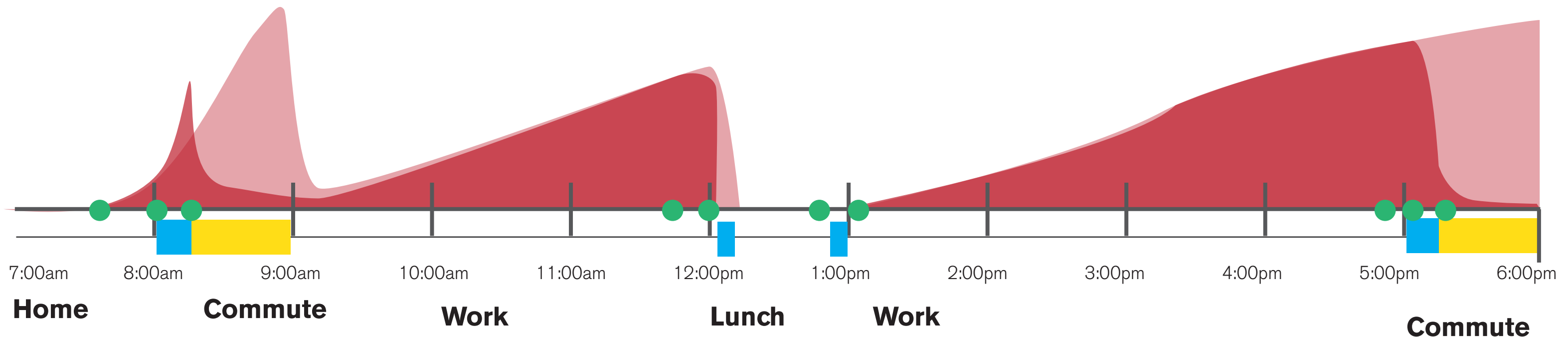
Abraham Lopez

31 years old | Lawyer

- **Lives in Los Angeles, California**
- **Looking for new car between $30,000 and $45,000**
- **Favorite car brands are Toyota, Nissan, and Tesla**
- **Doesn't trust young drivers**
- **Considers space and safety for children**

"It shouldn't take me an hour to get to work everyday."

Home ————————▶ Work

50 Miles

Spends up to **two hours** a day in traffic
Wants to spend **one hour** or less in traffic

7:00am 8:00am 9:00am 10:00am 11:00am 12:00pm 1:00pm 2:00pm 3:00pm 4:00pm 5:00pm 6:00pm

Home **Commute** **Work** **Lunch** **Work** **Commute**

Abraham wakes up to shower and get ready for work in the morning. It's raining and he doesn't want to be in traffic so schedules a trip on the system. He gets in his car and lets the system take him to work. He makes in time to get coffee before meeting with his client. Abraham hasn't seen his girlfriend in a couple dates and wants to go on a date. He checks the system's prices are cheap so he plans a soup date with his girlfriend. Abraham takes the system and make it to his date and back to work on time. For the rest of the work day Abrahams stress levels rise as he get anxious to go home. A reminder goes off a couple minutes before his trip to remind him of the trip he scheduled for the drive home earlier. After work he makes it home fast and avoids the stresses of rush hour traffic on a rainy day.

- 🔴 **Scenario Stress levels**
- 🔴 **Current Stress levels**
- 🟡 **Current commute time**
- 🔵 **Scenario commute time**
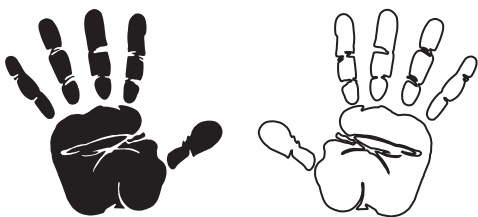- 🟢 **Touch points**

Waking up
7:20 am

User is waking up from sleep and laying on his bed.

He lays in his day as the day begins viewing news and messages that may have happened while he slept. He also glances at traffic for his commute to work.

Physical Limitations

- User operates phone one handed as his other hand supports his head or is off to the side
- User is lazy to get up will only get up to shower or strt dressing up for work.

Environmental Limitations

- Lighting can vary
- User is alone in a quiet room

Cognitive Limitations

- Brain is still waking up from sleep
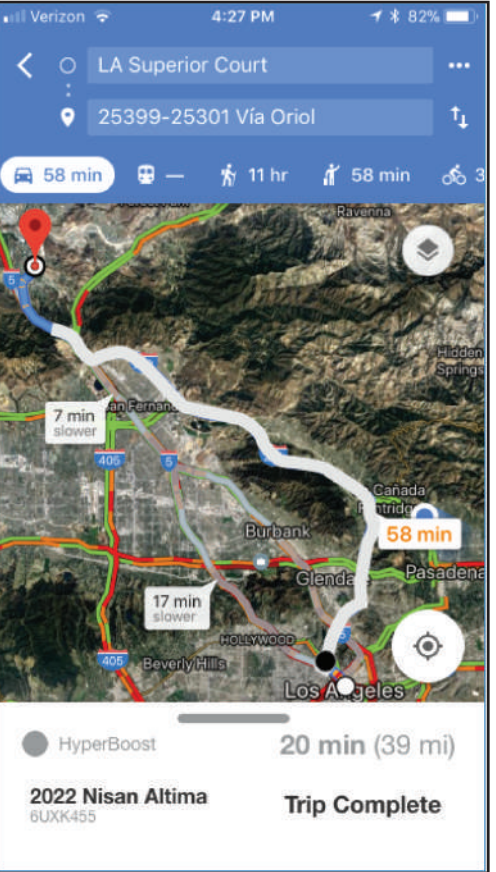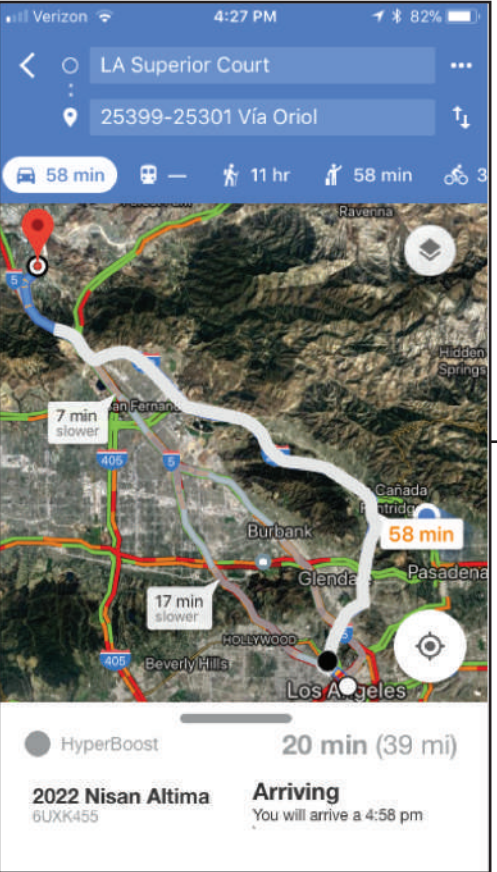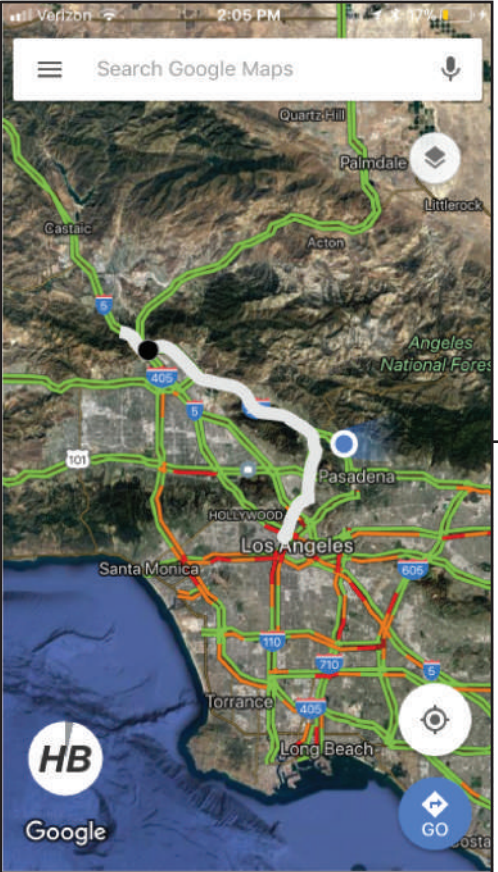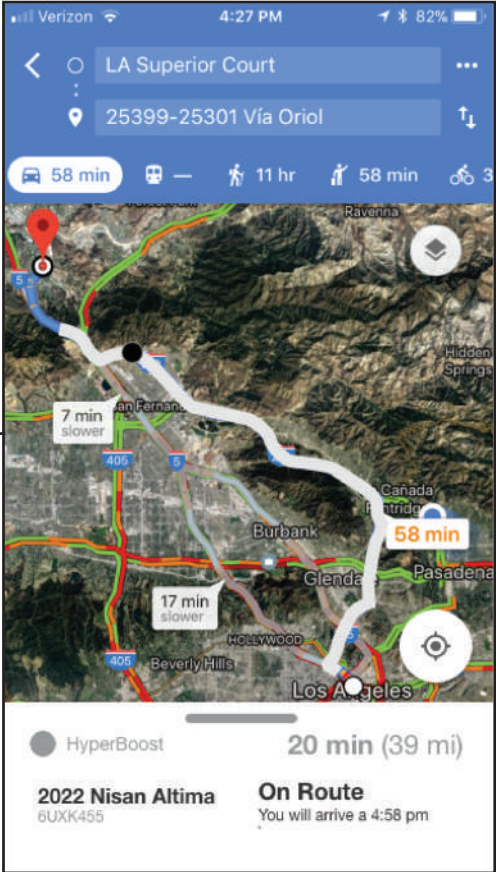- He is giving his full attention to the content on his phone and the time.

What it means

System can appeal to user's natural laziness and lack of energy from waking up

Waking up

7:20 am

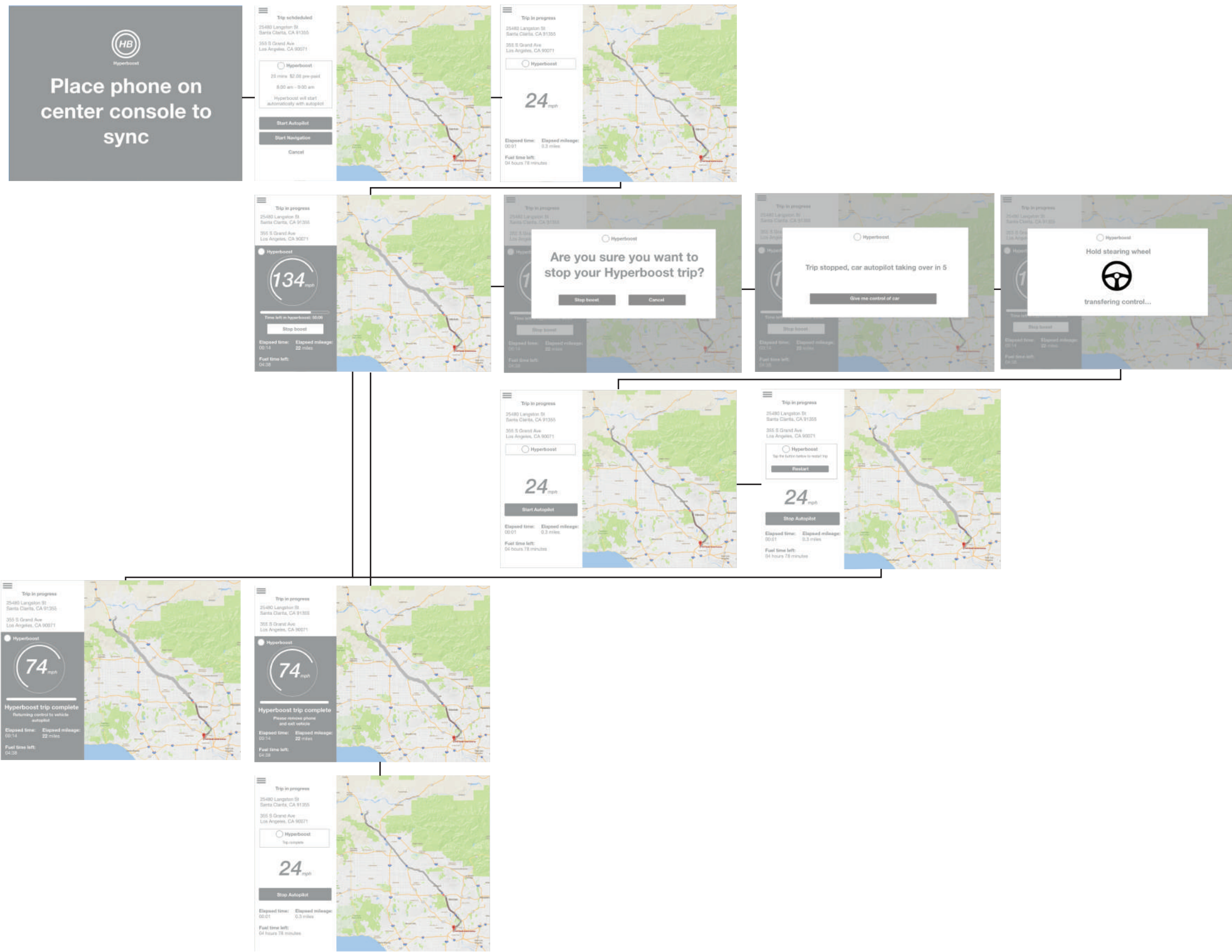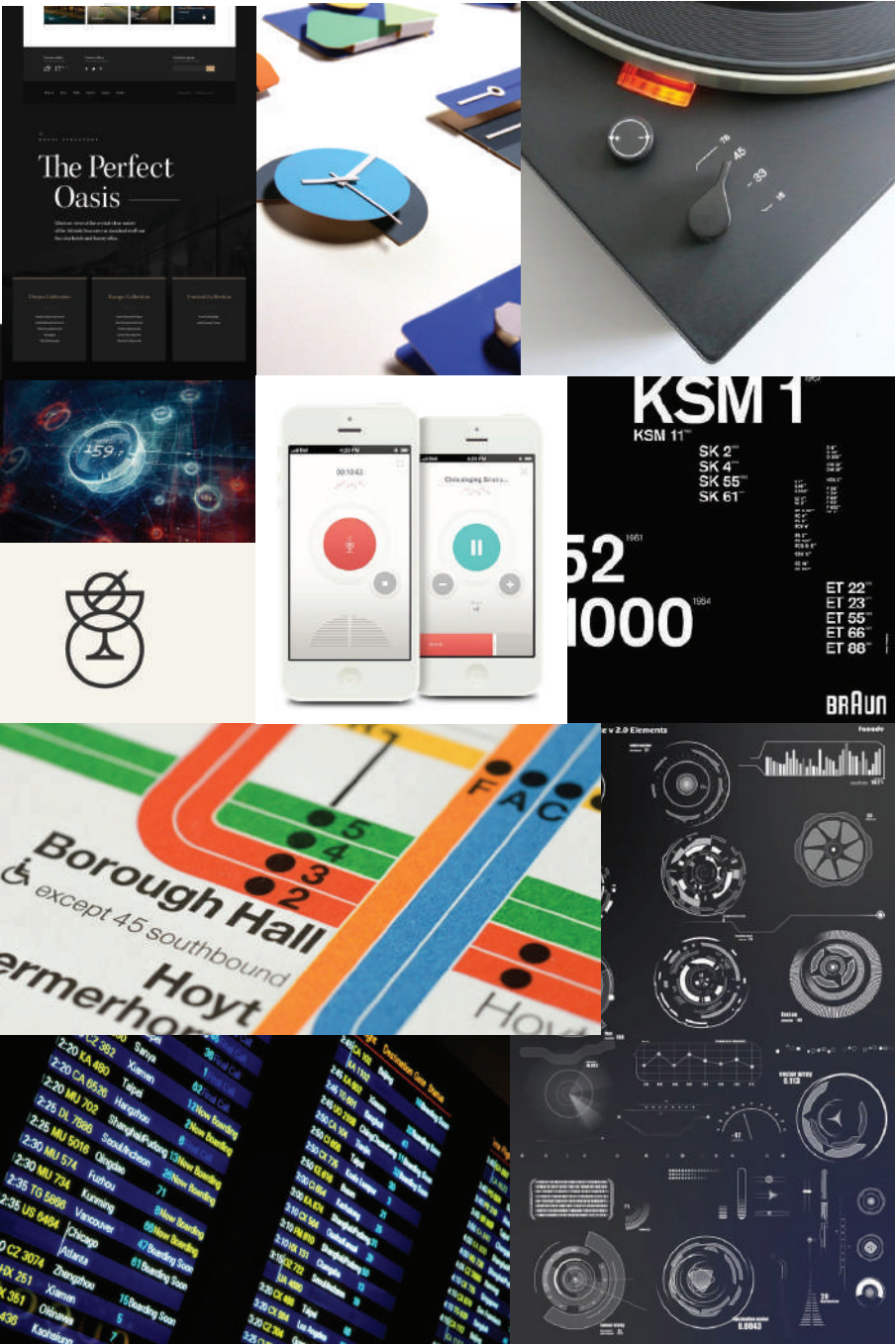The rental feature is being removed to focus more on car analytics.
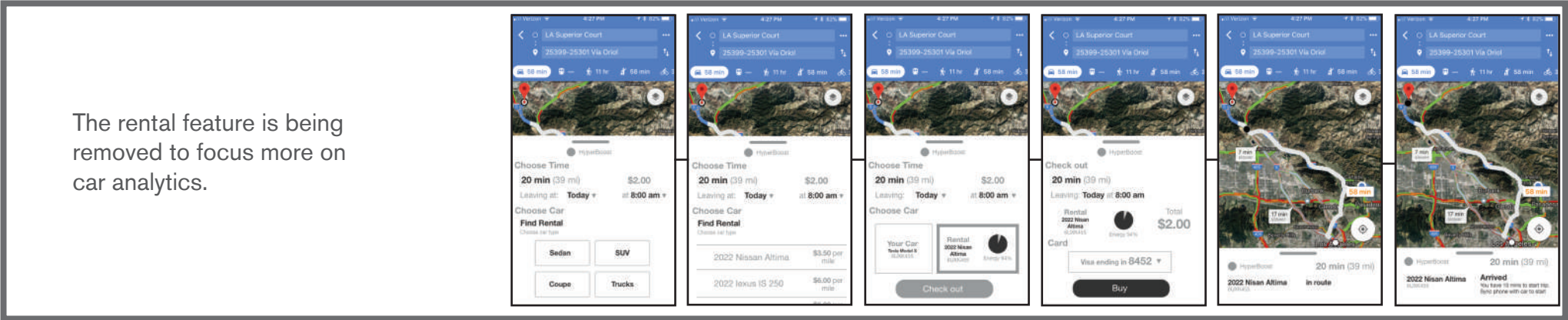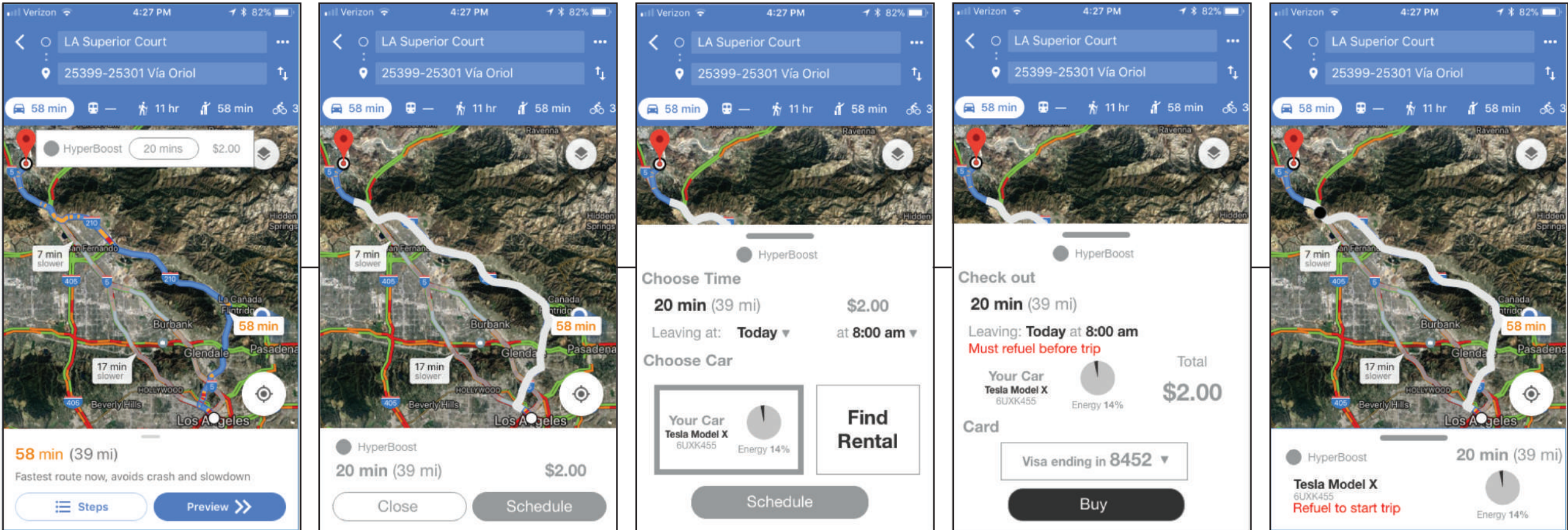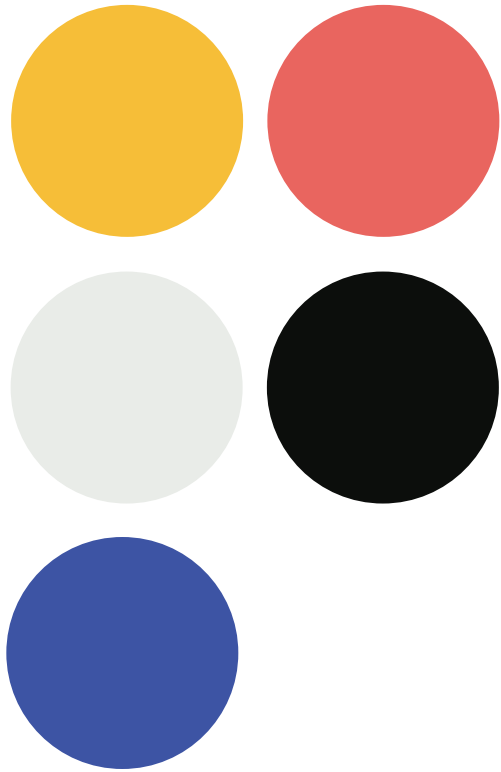
In the car
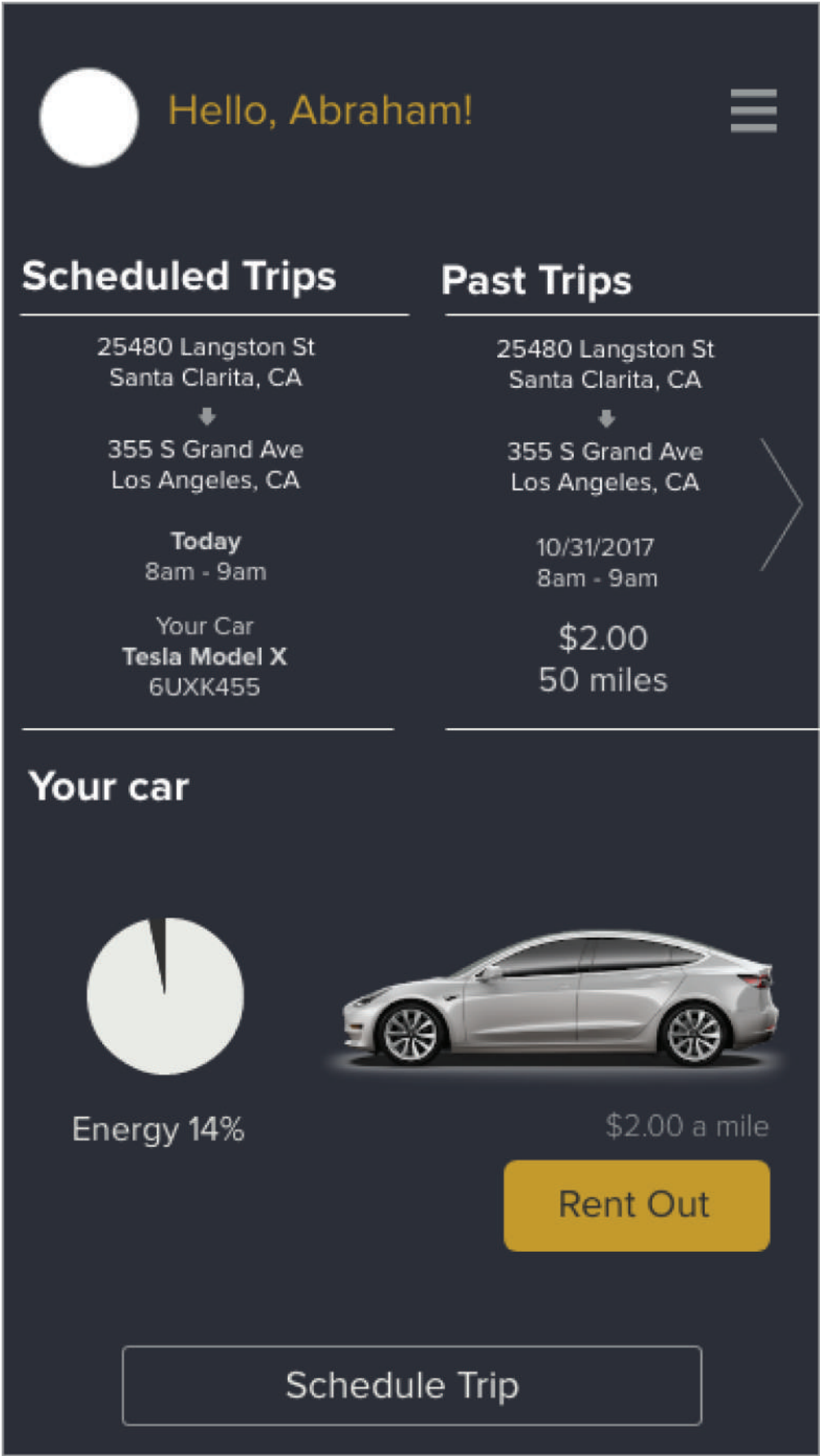8:00 am

Inspiration moodboard

Aesthetics

I was inspired to mess everything up by taking the list of trips out of it's traditional list format. Also moving the car feature away from the logical top position

Proxima Nova
Proxima Nova Light
Proxima Nova bold

Hello, Abraham!

Scheduled Trips

25480 Langston St
Santa Clarita, CA
⬇
355 S Grand Ave
Los Angeles, CA

Today
8am - 9am

Your Car
Tesla Model X
6UXK455

Past Trips

25480 Langston St
Santa Clarita, CA
⬇
355 S Grand Ave
Los Angeles, CA

10/31/2017
8am - 9am

$2.00
50 miles

Your car

Energy 14%

$2.00 a mile

Rent Out

Schedule Trip

Hello, Abraham!

Tesla Model X
6UXK455

Energy 14%
$2.00 a mile

Rent Out

Scheduled Trips

25480 Langston St
Santa Clarita, CA 91355

355 S Grand Ave
Los Angeles, CA 90071

Today
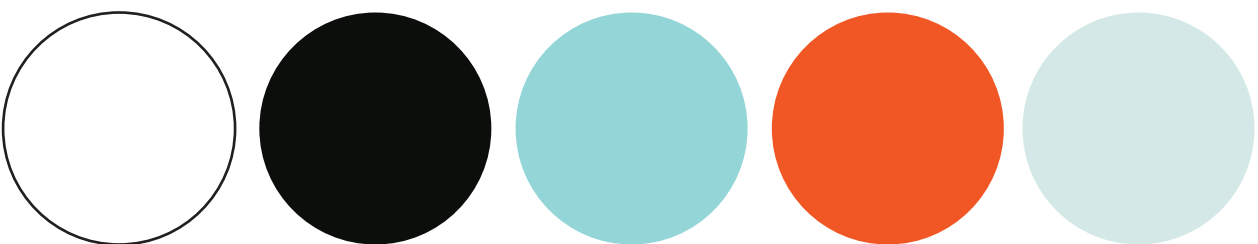8am - 9am

Your Car
Tesla Model X
6UXK455

Schedule Trip

Past Trips

25480 Langston St
Santa Clarita, CA 91355

355 S Grand Ave
Los Angeles, CA 90071

10/31/2017
8am - 9am

$2.00

25480 Langston St
Santa Clarita, CA 91355

355 S Grand Ave
Los Angeles, CA 90071
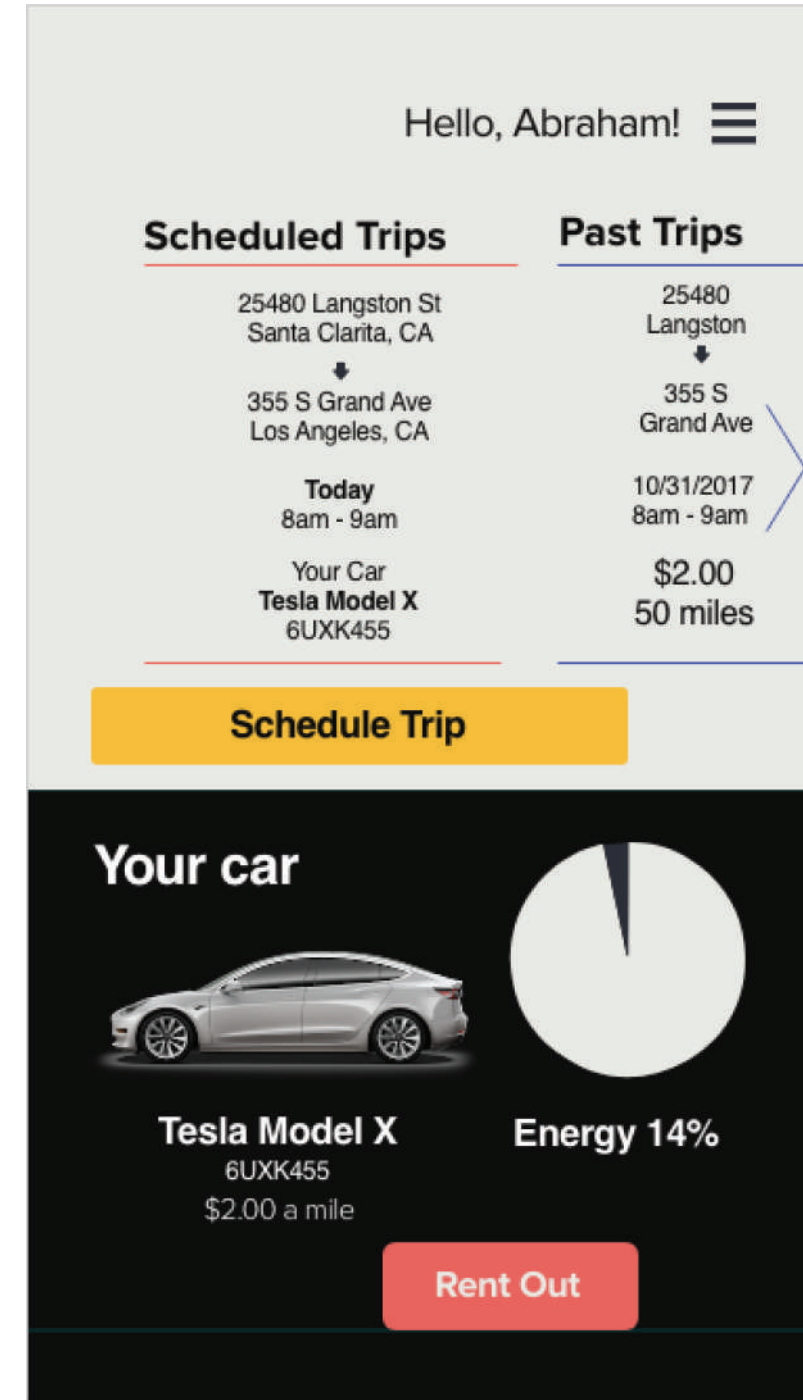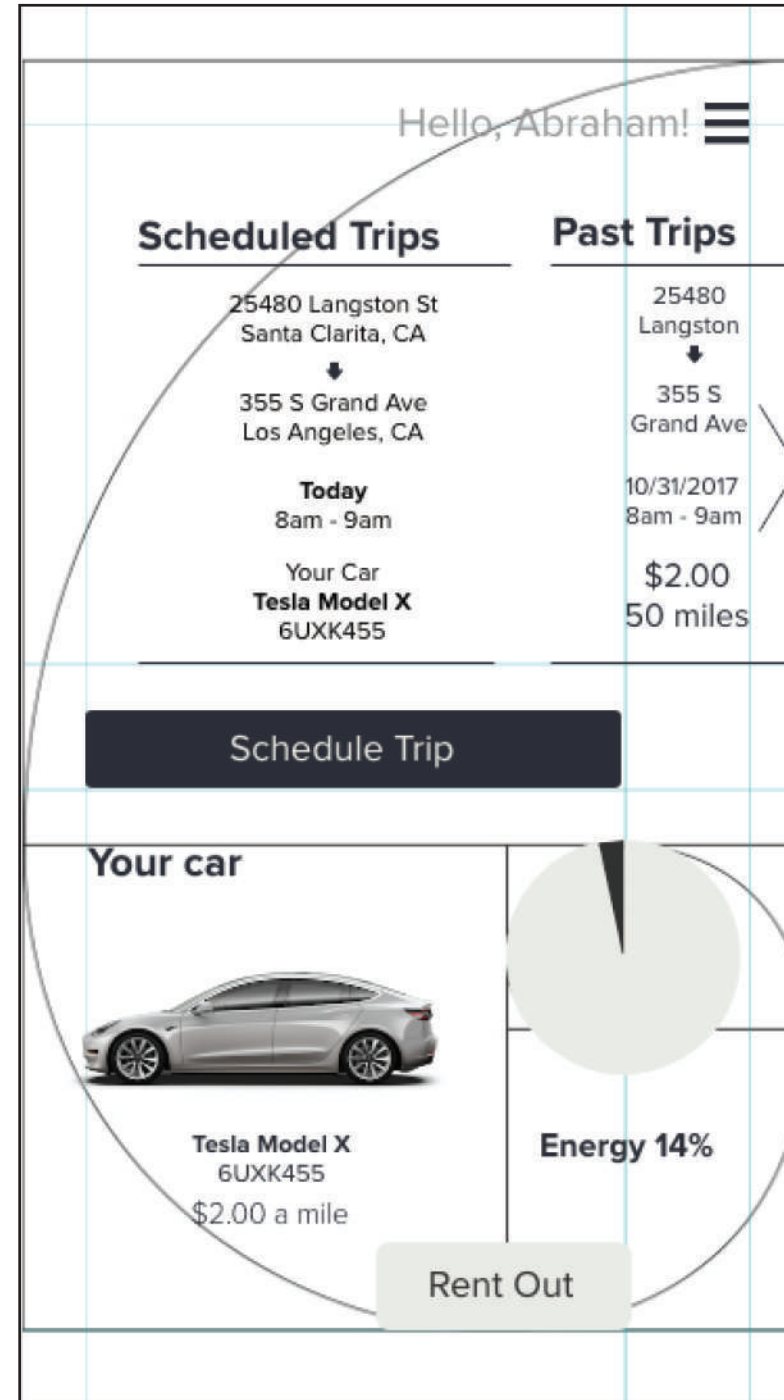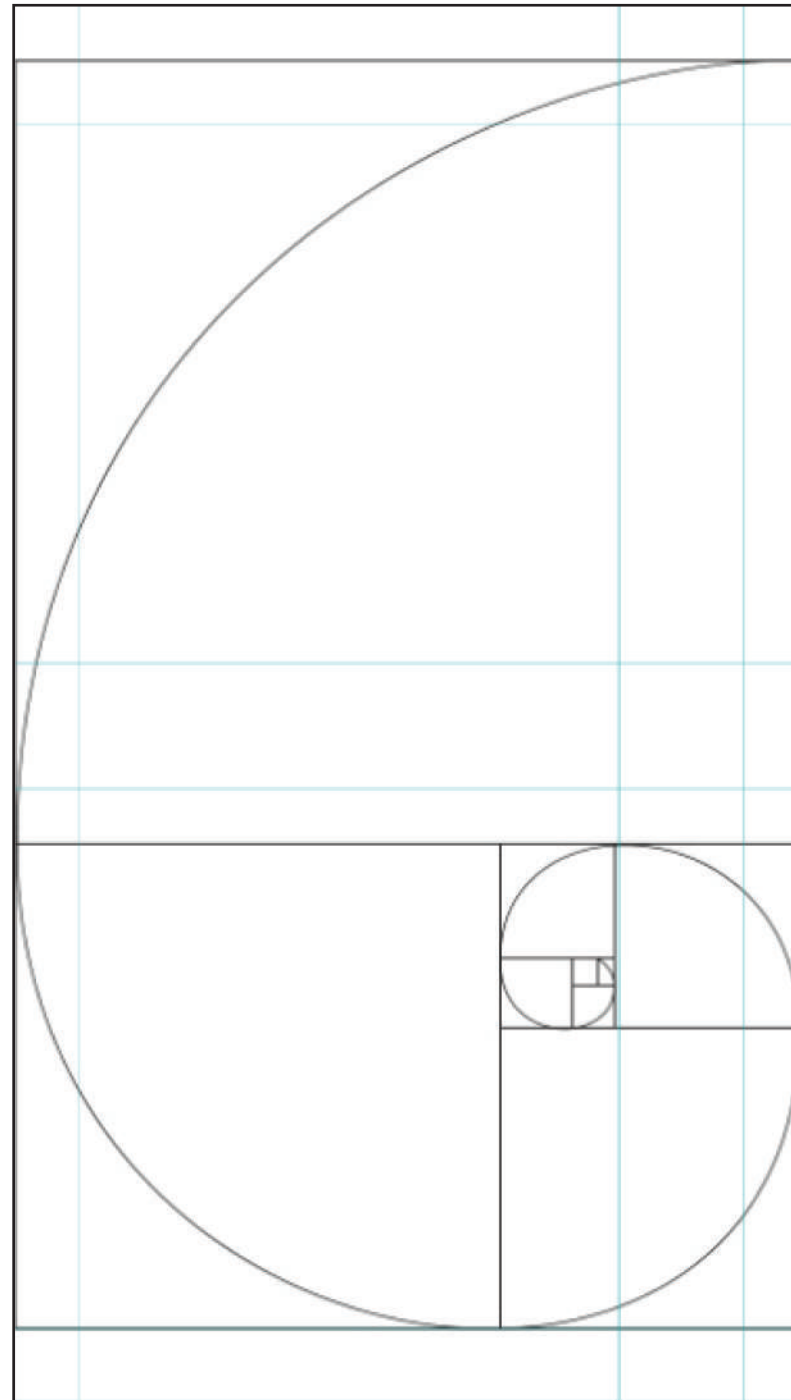
10/31/2017
8am - 9am

$2.00

25480 Langston St
Santa Clarita, CA 91355

355 S Grand Ave

10/31/2017
8am - 9am

$2.00

Design is meant to reduce as much as possible. There are no photos just text. The buttons are rectangular. The interface also only uses 4 colors total.

Univers
Univers bold

Univers bold Condensed Oblique

Hello, Abraham! ☰

Scheduled Trips

25480 Langston St
Santa Clarita, CA
↓
355 S Grand Ave
Los Angeles, CA

Today
8am - 9am

Your Car
Tesla Model X
6UXK455

Past Trips

25480
Langston
↓
355 S
Grand Ave

10/31/2017
8am - 9am

$2.00
50 miles

Schedule Trip

Your car

Tesla Model X
6UXK455
$2.00 a mile

Energy 14%

Rent Out

Hello, Abraham! ☰

Scheduled Trips

25480 Langston St
Santa Clarita, CA
↓
355 S Grand Ave
Los Angeles, CA

Today
8am - 9am

Your Car
Tesla Model X
6UXK455

Past Trips

25480
Langston
↓
355 S
Grand Ave

10/31/2017
8am - 9am

$2.00
50 miles

Schedule Trip

Your car

Tesla Model X
6UXK455
$2.00 a mile

Energy 14%

Rent Out

Helvetica
Helvetica bold

This design utilizes a custom grid that is also intigrated with the golden ratio. Buttons are slightly round with 3 degree border radius.