

# Door Dash

Design Sprint

Product Manager: Amit Balasaheb Gholap



# Set the stage

Set the stage for the Design Sprint by framing the problem

# Initial PRD

<https://docs.google.com/document/d/1rr7YlQf2QTIZuBnFT8JoieKes9Ti10is/edit?usp=sharing&ouid=109774132959066649207&rtpof=true&sd=true>

# Understand

Create a shared understanding of the space, problem, and goals

# How Might We Stickies

How might we know the charging status of the robot?

How might we detect in case of battery failure?

How might we introduce return to home feature?

How might we detect the obstacles?

How might we let customer to check live status of their order

How might we tracker order delivery status?

How might we introduce predictive maintenance for robots?

How might we navigate side walks for robots automatically?

How might we provide notification to operations team in case of failure?

How might we reduce the operations team efforts?

How might we use customers to navigate the robots to deliver their order?

How might we re-route if delivery got cancelled by customer?

How might we use AI/ML, so robot can take intelligent decision?

How might we deliver order faster?

How might we automate the delivery process?

How might we reduce the operations cost?

# Routing and delivery

How might we mitigate accidents between robots and pedestrians?

How might we confirm that the robot is at the right address?

How might we use AI/ML, so robot can take intelligent decision?

How might we make routes more efficient?

How might we teach robots to avoid obstacles?

How might we move robots to a safe place before stopping?

How might we introduce return to home feature?

How might we allow robots to detect real-time traffic patterns?

How might we establish preferred routes?

How might we see real-time traffic on the route?

Routing

How might we detect the obstacles?

How might we teach robots to avoid trouble?

How might we tracker order delivery status?

How might we program robots to address delays in deliveries?

How might we have robots signal distress when something goes wrong?

How might we let customer to check live status of their order

Issues on route

How might we deliver order faster?

How might we automate the delivery process?

How might we use customers to navigate the robots to deliver their order?

Delivery

Order Status and Tracking

# When things go wrong

How might we share robot progress with consumers?

How might we enable robots to detect missing items in the order during pickup?

How might we know the charging status of the robot?

How might we detect in case of battery failure?

How might we alert operators of need for robot intervention conveniently?

How might we handle edge case issues that may arise?

How might we deal with accidents that might occur?

How might we allow users to help us with tracking and feedback?

How might we program robots to address customer returns?

How might we address a sudden power outage?

How might we introduce predictive maintenance for robots?

How might we keep robots odor free, even when carrying smelly food?

How might we overcome technical glitches during a delivery?

How might we ensure food gets delivered without incident?

How might we get food to people quickly when the robot fails?

How might we alert consumers if their delivery is delayed?

How might we re-route if delivery got cancelled by customer?

How might we determine when to recharge robot batteries?

How might we anticipate mechanical failures?

How might we provide notification to operations team in case of failure?

How might we detect when a robot needs help?

How might we build redundancy into our system?

Delays, Missing  
Items, and  
Cancellations

Maintenance and  
mechanical  
issues

Incident Prevention and Recovery

# Human/Robot Interaction

How might we control robots?

How might we track each robot?

How might we monitor robot progress?

How might we navigate side walks for robots automatically?

## Remote Control

How might we have robots entertain customers at delivery?

How might we give robots a personality?

How might we use robots to make people excited about our brand?

How might we make interacting with robots more fun?

## Delight

How might we help robots talk to people?

How might we communicate with humans around the robot?

How might we teach users to interact with humans?

How might we teach robots manners?

## Communication with people

How might we make our robots act like people?

How might we teach empathy to robots?

How might we enable "emotion" modes in robots?

## Human-like

How might we reduce the operations team efforts?

How might we reduce the operations cost?

## Others



# Sprint Focus

<b>Focus</b>	Routing and Delivery
<b>Slide #</b>	slide 5
<b>I selected this theme because</b>	Initial problem which needs improvement or innovation attention is routing and delivery. These focus is very important in terms of business strategy and success. Resolving priority problems makes path for further improvement.

# Define

With an understanding of the problem space, create focus and align on specific outcomes for the Design Sprint

# Witnessing Smarter Delivery System with Smart Robots

*Published by: Amit Balasaheb Gholap*

Now, you will not be getting your food/ order delivered late. The reasons of delayed delivery is soon going to fly away with our Automated Food/order delivery system. You heard it right. DoorDash is a well known for his automated delivery system and it is a competitive player among other similar products with huge market share in this industry. From 2017 DoorDash has tested last-mile delivery with a number of robotics companies like Cruise, Marble and Starships. The primary focus of introducing this automated delivery is to ensure the food should be delivered on time with the desired temperature, taste and quality what customers are expecting.

With this automated delivery system customers would be able to experience the quality food what they used to experience in restaurants. From an engagement perspective, customers can control the robots who will be delivering the order. Dashdoor undoubtedly is a disruptive product in its segment, apart from reducing the operational cost and the on-time delivery of the order, Dashdoor robots makes intelligent decisions in real time and are well equipped to auto heal itself, in worst case scenario the robot shall reach out for help to the customers.

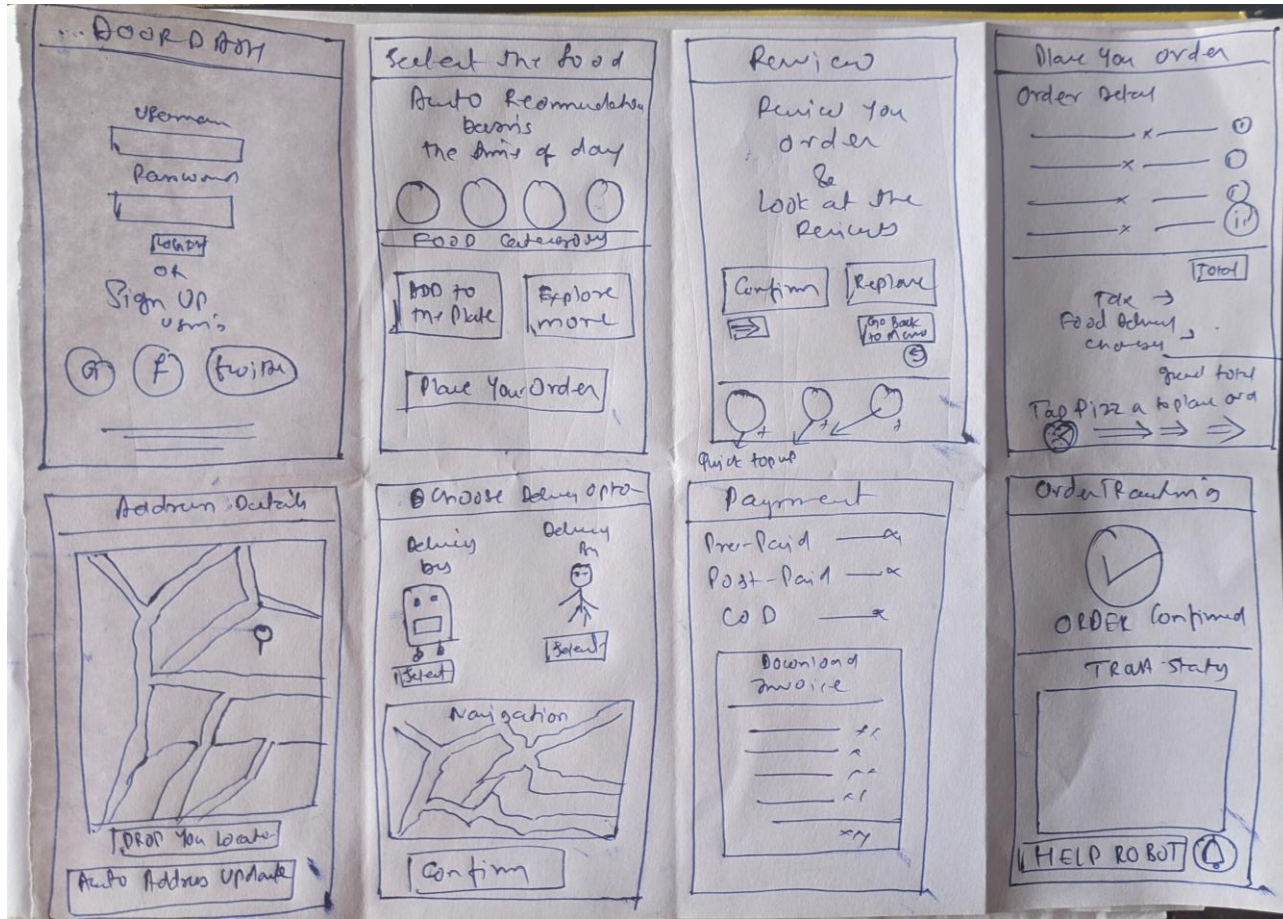
# Success Metrics

	Goals	Signals	Metrics
Happiness	Interactive Application design On time food delivery	Customer Surveys User Interviews Recorded Conversation	NPS CSAT Avg delivery time
Engagement	Order Food	Food ordered online with options chosen as robots	No. of orders
Adoption	Share with friends Subscribe to premium services Free 30 Days Trial	Refer a friend Referral Bonus	Referral % Conversion ratio from trial period
Retention	Super Saver Scheme Free Delivery with premium service	No. of people subscribing to super saver scheme	Subscription rate Free trial adoption rate
Task Success	Accurate route deliveries, obstacle and traffic detection	Shortest route calculation and obstacle identification happens Self bootstrap activation	Delivery Accuracy %

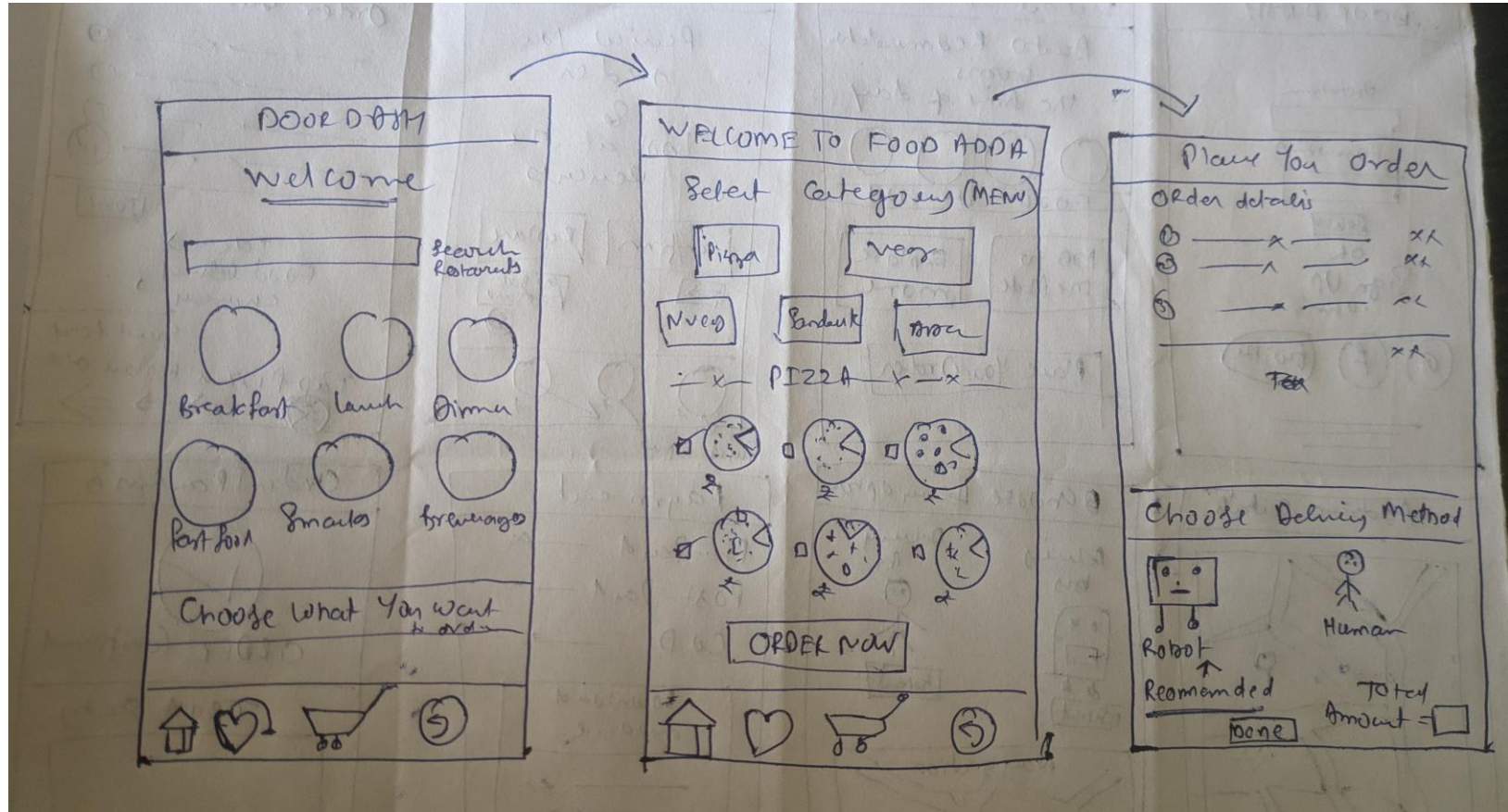
# Sketch

Generate tons of ideas, then narrow them down to two in depth solution sketches

# 8 Sketches

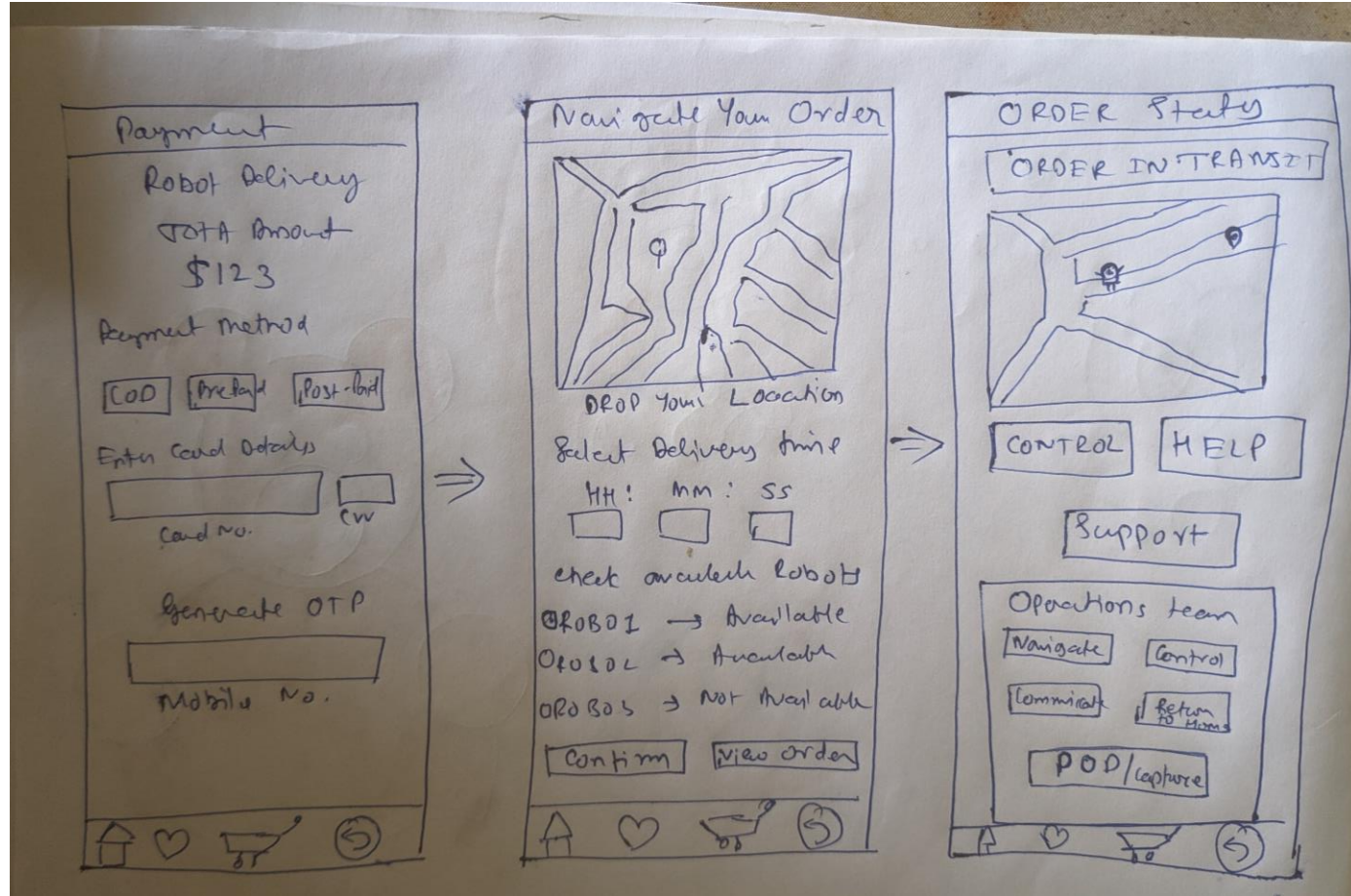


# Solution Sketch 1- Order Management





# Solution Sketch 2- Order Tracking and Status





# Decide

Pick the final concept that you develop into a prototype

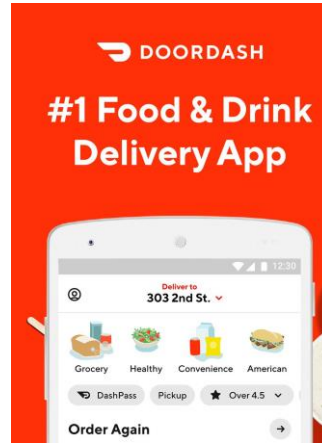
# Decision

<b>Decision</b>	Order status and Tracking
<b>Rationale</b>	Doordash has already well developed application for ordering food and for placing an order. The main concern of Doordash is if there is any problem with robots while navigating the delivery, there should be control in placed with operations team. Order status and tracking is a crucial part when in comes to control the robots.

# Prototype

Turn your concept into a realistic, interactive prototype that you will use to validate your assumptions and ideas

# Storyboard

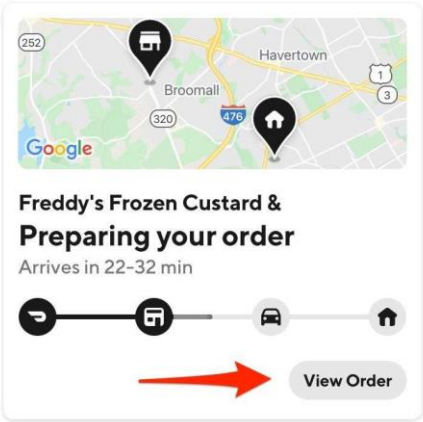





Aarti is a foodie girl and she always like to try different cuisines and food type present across her area. But due to current pandemic situation she does not want to take any risk in order to avoid people connecting, but she also wants to have taste amazing food

One of her friends told her about an amazing food delivery application "Doordash". She opened up that application and signed up with her Google account

Post successful sign-up, she entered her location and confirmed the same.

# Storyboard

<p><b>Orders</b></p>  <p><b>Freddy's Frozen Custard &amp;</b> <b>Preparing your order</b> Arrives in 22-32 min</p> <p>View Order</p>	 <p>OR</p> 	
<p>She search for available restaurants and she also order her favouiraite pizza.</p> <p>Once she made payment for the order there were two different option came to her on screen</p>	<p>Automated Dasher and Human Dasher. When she read the description of automated dasher, she was very happy because her food was going to delviered by Robot but not by any human. She was feeling risk free while ordering food.</p>	<p>She selected Automated Dasher which was showing lesser delivery time. She was also able to track her order and control the robot. She navigated the robot to her place</p>

# Storyboard



When the robot was arrived at her place, she placed the QR code in front of Robot screen and trunk was opened.



Her ordered food was in expected condition and safe and also the food was delivered on time. She was so happy.

# Prototype

## Description

- High level overview of the prototype
- What does it do?

Shows an overview of the app screens and use case for Order placement, Tracking, controlling the robots, check status of robot etc .

## Assumptions

- Any assumptions within the prototype

- Check Battery Level
- Delivery within certain mins
- Robot battery health is good

## Tasks

- What are the tasks that a user can complete in the prototype?

- Signup or Login
- View Restaurants' Menu
- Place an Order
- Select Delivery Mode
- Track Order
- Control Robot
- Help Center Access
- Go back to Home Page



[Link your prototype](#)

# Validate

Users will go through your prototype and provide feedback on your concept. This is also an opportunity to have an engineering feasibility discussion



# Doordash Research Plan

PM: Amit Balasaheb Gholap  
STATUS: DRAFT

## Objectives

- Are users okay Robots delivering their Orders?
- How does a user feel about the tracking feature in the app?
- How much time can a user wait for a robot to deliver?
- What do they think of the UI/UX of app?

## Methodology

- Interviews will be conducted one interviewer at a time.
- Questions focus from broad background information to some specific questions.
- The Q&A session will be followed by the user interacting with the prototype.
- And the interview will be done by participants giving overall feedback.

## Participants

- A 28 Year old working girl
- A data specialist

# Doordash: Interview Sessions

## Introduction

My name is Amit and I am a Product Manager at Doordash. The team's been working on some exciting new ideas about using self-driving robots to deliver food orders and we wanted to share some prototypes which we have created with you and get your feedback.

The interview plan is, I will ask a few background questions to get to know you a little better. Then, we'll switch gears and I'll show you a prototype that the team has been working on and ask for your feedback.

Do you have any questions before we get started?

Great! Is it ok if I record this session? The recording is only going to be used internally by the team to refer back to our conversation. It also helps to make sure that we don't miss anything in the notes.

## Background Questions

- Please can you tell a little about yourself?
- Have you used a food delivery service before?
- What type of Issues you have encountered?
- Have you heard about doordash before?
- Have you had a delivery from a robot before?
- Would you order if a robot is to deliver it?
- What is the maximum time you can wait for your delivery before getting very displeased with the service?

# Tasks

Now I'm going to show you a prototype that the team has been working on. Keep in mind that this isn't a test. And there's no right or wrong answer. We're trying to understand how well this idea works for you. And because it's a prototype, not everything you see in the app may work.

One more thing, As you start using the prototype, I'm going to ask you to think out loud. I'm interested in hearing what you are seeing on the screen, how you are interpreting it, and what you expect things to do. So let's start?

## Task 1

You can have a look around the app, Can you describe what you see?

Can you signup or login on the page?

Can you find restaurants?

## Task 2

Can you describe what you see right now on the screen?

Would you like to place order?

What are the different delivery types you can see?

Which one you will choose?

Would you like to give feedback?

# Wrap Up

Just a few more questions and we will be done here.

- Do you think this is something you would use?
- Is there anything we should work on?
- Can you tell us overall feedback for the team

Thank you for taking your time and helping us here! Your suggestions were something which we were looking for. Have a great day.

# User Testing: Participant 1 Key Findings



[Link your audio recording](#)

## What worked well

- The Login and sign up pages works perfectly and easy to create an account.
- The easy UI/UX flow was great and welcomed by the participant
- At 1st only user would be able to select her location

## Where participants got stuck

- Once the order was confirmed and participant was trying to control the robots, he was not very sure what was the next step that he wanted to perform
- He was also not aware about the how the robot trunk was going to open
- If the payment method was selected as COD, then what different options are available that was one of the questions asked by participant post interview

## Other observations

- QR Scan option was suggested by user in order to open the trunk

# User Testing: Participant 2 Key Findings



[Link your audio recording](#)

## What worked well

- The Login and sign up pages works perfectly and easy to create an account.
- User was able to confirm her location easily
- User was able to choose delivery type easily
- User was able to control the robot

## Where participants got stuck

- While selecting a food, participant got confused
- User was not able to locate Cash on delivery option
- User was not able to communicate with dasher

## Other observations

- Online robot finder (if lost)
- Conversation with Robot
- Cash on delivery option for robots

# Handoff

# Updated PRD

[https://docs.google.com/document/d/1dxQsLa7GvIAKgj\\_Vkfe-4V73fPxMO3uQ/edit?usp=sharing&oid=109774132959066649207&rtpof=true&sd=true](https://docs.google.com/document/d/1dxQsLa7GvIAKgj_Vkfe-4V73fPxMO3uQ/edit?usp=sharing&oid=109774132959066649207&rtpof=true&sd=true)