DASH MILE

Your Magical Copilot

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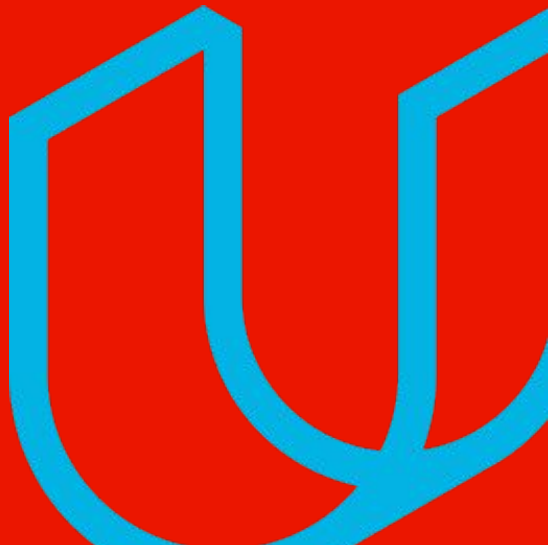


Background

Why Are We Here?

*Have you anytime got your food delivered **a bit delayed** and felt you are no more hungry ?*

*or received on time but food was **damaged** ?*

Speed and reliability of the food delivery is one of the most important challenges faced. To keep up with the demand and competition.

Business Case

Initial Focus

Where are we starting?

- Market size for online food delivery to **increase to $483.9 billion** by 2032.
- Dashers won't be able to complete low paying deliveries and despite explosive growth, online food delivery platforms are **still struggling to make a profit**.
- Platforms' current economics are driven largely by **fees and commissions** paid by restaurants and customers, as well as delivery costs[1]. As per report an average contribution margin of around 3 percent, or roughly $1.20 on the average order.
- Delivery platforms are poised to generate profits at scale if they can **unlock the logistics, operational requirements, and challenges of last-mile delivery**.
- Using **Dash mile**, extensive use of **technological robots is our step forward** to stay ahead of rivals in the race to satisfy soaring demand for fast delivery

Opportunity

What's the problem?

Doordash is looking to automate food delivery using self-driving robots for ***trips that are less than 2 miles in order to reduce its operating costs and provide more reliable delivery times.***

It is already invested in an dynamic dispatch engine "**Deep Red**" optimised model to make the best tradeoff between dispatching right away or waiting to find the right Dasher to deliver each order from the merchant to the customer.

Total Addressable market - $483.9 billion * 50% of delivery within less than 3 miles = $242 billion in 8 years

Market Growth[2] - The Delivery Robots Market is expected to grow at a CAGR of approximately **33.7%** from 2023 to 2028.

Proposal

Moving from Dashers to Dashmile copilot for short distance deliveries

To use the self driving robots as dashmile copilots for short distances so Deep Red can assign dispatch and estimate estimated time for long distance greater than 2 miles to human dashers

- Restaurants can have leased dashmile copilots assigned to them depending on the predictive orders, peaktimes, seasons.
- Dashers can have more mileage in their avg per week to gain more tips and earn more
- Doordash can bring the commission fee and service fee for short distance to very competitive pricing model.

Operations team *need a better real time tool for the tracking performance of copilots to gradually improve and deploy the bots timely for better speed and reliability.*

Return On Investment

Key Factors affecting the costs

Infrastructure - Bot development , software development, maintenance & support

Human Resources - Skilled remote pilots, specific skills, training, rewards

Marketing - Promotion & campaign

Merchants - Workshop & robot assessments

Administrators can see ROI of up to 124%[3] in the first three years.

Measurement

How will we know if we're successful?

Decrease in average delivery time for short distance orders

Reduce in costs for the Doordash

Meal rating (customer satisfaction)

- How customers rate their experience with the food
- How customers rate their experience with the delivery Dashmile
- How customers rate their experience with the delivery UI to resolve issues

Order volume

- Increase in average orders per restaurant from nearest neighbourhood
- Increase in average orders per restaurant from long distance as well.

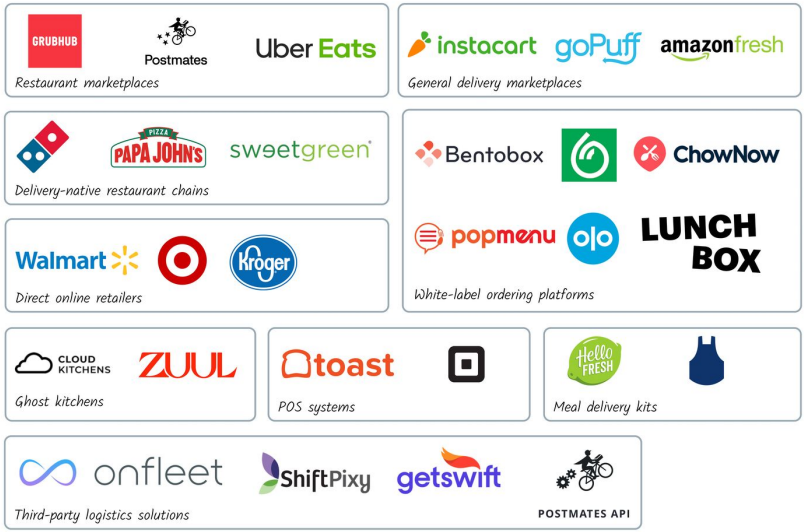
Delivery logistics

- Increase in average distance from restaurant X to end customer
- Decrease in average delivery time from restaurant X to end customer
- Increase in deliveries for long distance by dashers

Competitors

Overview

DoorDash's various competitors in different marketplaces.



Some of the prominent market players in robot delivery include **Starship Technologies**, Yandex, Kiwibot, Nuro, Teleretail, **Serve Robotics**, Robby Technologies, Amazon Scout, Ottonomy, Segway Robotics, Cleveron, and COCO.

GRUBHUB

Subsidiary of Just Eat Takeaway

- Grubhub and Starship Technologies Partner to Bring Robot Delivery Services to College Campuses.
- Partnered also with cartken.
- Current partnered 25 out of 270 schools across the United States
- Those robots do on average 80 to 90 deliveries per day
- It provides both Mobile app or kiosk ordering system.
- The robots can travel up to 4 mph, carry the equivalent of three bags of groceries and operate in various weather conditions, including rain and snow

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Uber Eats

Subsidiary of Uber Technologies inc

- Serve Unveils Commercial Deal with Uber to Enable Scaling of Robotic Delivery. Serve's robotic deliveries have grown over 30% month over month since deliveries began in 2022, with over 200 restaurants in Los Angeles now participating.
- It has already 2000 fleet of robots.
- It is in partnership with Motional in Santa Monica, and a 10-year deal with AV driving startup Nuro for deliveries in Houston and Mountain View, California.
- Current feature, it gives selected users can get option to get the food delivered by autonomous vehicle and it can be tracked similar to normal human with an estimation time. Unlocked using the uber eats app.

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Independent Players

Robotics delivery companies (non-exhaustive list)

Company Name	Type of Delivery	Self Apps	Partners	Features
Nuro	Food + Beverage, Retail, Cleaning Services		Uber eats	
Robomart	Food + Beverage			Self-driving grocery stores (Bakeries, icecreams, restaurants, pizza, chicken, sandwich)
Segway robotics	Food + Beverage, Retail		Coco delivery	Robot E1 - 44 lbs, -10c - 50 c, ROS compatible, Nvidia Jetson platform
Starship technologies	Food + Beverage, Retail	✅	Grubhub	Starship's robots can carry items within a four-mile radius and weigh no more than 100 pounds
Teleretail	Industrial, Urban, Rural			
Udelv	Food + Beverage, Retail, Automotive			

Our Advantages

Why are we better?

- DoorDash has **56% market share in the US**, despite starting their delivery business long after the first entrants.
- Doordash have in house technology and team from acquired Scotty Labs and Lvl5
- Operating a **three-sided marketplace** involves dynamic variables and distinct challenges, and makes both our problem and solution unique. Doordash is been in unique position to bring the Dashmile leveraging the Doordash labs with different pilot programs ran with starship technologies etc.
- It is known for its **transparent pricing fee model**, typing the direction of flywheel in unit economics.
- Our **dynamic dispatch system** is already ready to accommodate robotic integration.

Roadmap and Vision

Roadmap Pillars

Where do we go from here?

We provide you with a best-in-class **botnet management tool** to track Dashmile copilot in real-time. You can view incoming orders, access logs, and view camera feeds in real time.

Predictive AI algorithm & Tele operation services

User (Customer, Dasher) **support**

Botnet management tool

Where Everything happens in real, your magical copilot console for Business Managers

	Q1	Q2	Q3	Q4
Infrastructure	Leasing agreement of the robots from Starship	Gather the scanned sidewalk / footpath data from satellite or already existing maps	Ability to collect the Battery level,CPU, memory, localisation, telemetry data of bot and show in dashboard for better reliability to the managers	
Software		Customise the software with Maps and Doordash data	Create a UI for the Business managers (for ordering systems of food and Bots), Dashmile managers (for better tracking of performance and inventory)	Integrate the Dashmile tracking in the user mobile app and website
Marketing & research	Identify the city to start the Service	Identify the merchants in the city		Monitor the rolling to see the User feedbacks and increase iteratively the bot count
Testing			Test the UI of both business manager and Dashmile manager	Roll out 100 bots in selected city
Legal & privacy	Understand the legal constraints per city	Identify the gaps with current Infra and software to make the amendments		

Predictive AI Algorithm

Proactive placing of the demand and supply of Dashmile with remote control access for DoorDash

	Q1	Q2	Q3	Q4
AI/ML	Identify the data from Deep Red dispatch model to create a dispatch model integrated with robot to assign for shorter distance	Create a predictive model of the robots demand to procure proactively for the restaurant depending on the top sales & customer base	Install security measures in the robots using the sensor and LiDar technology based on the already reports of the selected city streets	Update the pricing model with new ML dispatch
Tele Operation Service	Have the leased bots integrated to doordash pilot remote control system	Train the pilots	Ability to troubleshoot: - Rerouting - Camera feedback - Escalating to IT	Have the FAQ updated in the website and create videos on support to users and merchants
Sales		Understand the sales per region in selected city to provide the numbers	Ability to integrate the sales numbers in the Business manager report to make better decisions	Provide the sales advice to the Merchants

User Support

Interactions with Customer or Dasher

	Q1	Q2	Q3	Q4
User	Ability to choose between Bot and dasher during check out If selected bot ability to track in the app itself	Provide ability to talk to Bots in case of issue - Send the image of location to identify the current entrance etc.,	Ability to see the fee that is saved if use Bot for shorter miles	Ability to have the escalation with bot issue if not resolved easily and directly talk to pilot who is remotely controlling the bot
Dashmile/ Dasher	Automate Alert system to Backoffice if customer did not show for pick up			Ability to provide notifications to users - Such as arrived - Call customer

Where do we go from here?

Widening the scope

"We see autonomous vehicles playing a major role in the future of delivery as consumer behaviors continue to shift online, and we are confident Cruise's leading technology will help us scale to meet growing consumer demand," DoorDash CEO Tony Xu said in a statement.

***'Hub to hub model'** - In this instance, we would aggregate orders in an area with high merchant density, like a shopping mall or DashMart, and have a robot ferry the order to a consumer hub––thus moving the Dasher pickup location closer to the delivery point.*

Last mile delivery challenges is not going to stop at shorter distance it is the next generation technology which we can widen the scope for dashmiles in the **everyday markets of retail, pharmacies, groceries** etc..,

DOORDASH