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### **Background**

The rise of online ordering utilizations and food deliveries over the years has drastically skyrocketed. Over the years, the emergence of food delivery services has been adopted by many businesses with a conscious deliberate effort to improve delivery time, reduce operations costs and increase customer satisfaction.

In this age of Artificial Intelligence, machine learning is a hot topic. Computer vision and predictive analytics are breaking new ground that no one could have foreseen. We are increasingly seeing both in our daily lives, such as facial recognition in smartphones, language translation software, and self-driving cars. What may appear to be science fiction is becoming a reality, and Artificial General Intelligence is only a matter of time before we achieve it.

### **Problem**

With the demand for improved customer satisfaction across multiple facets of businesses, our objective at DoorDash is not just to satisfy the customer but to amaze them. The operational costs and fees charged per delivery by businesses to dashers must be drastically cut down hence the birth of the autonomous delivery cars. The short-term goal is to design a robot capable of making deliveries within a two-mile radius with the capabilities to view the status of deliveries and remotely take control of robots that need intervention (i.e., rerouting) whereas the human dashers focus on a radius over two miles.

### **Goals**

* Build an autonomous delivery robot that delivers services to customers within a two-mile radius.
* Drastically reduce operational costs and fees associated with using human dashers.
* Increase customer satisfaction through the prioritization of prompt deliveries of services.
* Build capabilities to view the status of deliveries and remotely take control of robots that need intervention.

### **Key Features**

|  |  |  |
| --- | --- | --- |
| Priority | Feature | Description |
| P0 | Sign-in with operator credentials | The operator should be able to login with the necessary credentials verified and saved within the database. |
| P0 | All active tasks should be displayed on the main dashboard for the operator to monitor. | The main dashboard should provide a list of organized tasks for the operator to complete to ensure the product/service is delivered promptly. |
| P0 | Status delivery check | The operator should have the option to enter the customer’s information to retrieve the status of their order. |
| P0 | Order tracking in real-time | An option ought to be created to enhance real-time tracking of the order using GPS tracking. |
| P2 | Option to read and update order logs | The operator should have the option to read and update the job order of the RoboDash while en route to deliver orders. |
| P3 | Customer feedback and rating option | The customer should be able to enter feedback and rating post-delivery. |
| P1 | Assign jobs to robots | The operator should have the option to assign a job to any RoboDash by entering the business name/ID with the time order will be ready for pick up. |
| P0 | Customer sign in/sign-up with credentials. | The customer should be able to log in with the necessary credentials verified and saved within the database upon sign up |
| P0 | Services provided | After the order has been selected, the customer should have the option to select either HumanDash/RoboDash. |
| P1 | Option to process payments with multiple methods. | The user/customer should have the option to complete payment processes with either debit/credit/PayPal/Apple-Pay/Google-Pay. |
| P3 | Make order more than 10 | The customer should have the option to make orders of more than 10 instead of the traditional maximum of 10. |
| P0 | Option to reroute RoboDash. | The operator should have the option to reroute or take control of the RoboDash in times of emergency. |

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### **Success Metrics**

* Prompt delivery time – This metric will track how prompt orders are delivered to enhance customer satisfaction.
* customer satisfaction ratings – This will track how happy the customer is with the product/service. It will entail a rating of 1-5 with one being a minimum and 5 a maximum.
* % Of customers with auto RoboDash service – This metric will track the number of customers opting for the RoboDash option.
* click-through rate (CTR) – This metric will track the number of users actively engaged with the website.
* webpage open rates – This metric will track the number of times customers/users access the webpage.
* % Of successful navigation – This metric will track the number of successful navigations of the RoboDash.
* % Of customer engagement – This metric tracks the number of successful customer engagements.

### **Target Market** The audiences we are targeting are students, millennials, and busy professionals who are tech-savvy and fascinated about using multiple means to balance their busy schedules and save money on unnecessary fees and tips

### **Core UX Flow**

[Prototype](https://www.figma.com/file/Kv2h50hMlAJCTB9QgsVLRo/DoorDashPJ?node-id=0%3A1)

**Total Addressable Market (TAM)**

* The average cost to deliver food with DoorDash ranges between $1.99-$5.99(average is $4) = a
* The operation cost of robots per delivery is $2.00 per meal. = b
* The amount saved with the robotic service = a – b = $4 – $2 = $2 = c
* Number of deliveries annually is 816,000,000 = d
* The percentage of order delivery with the robots will be 80% = e

Hence TAM = c x d x e = 2 x 816,000,000 x 80% = $1,305,600,000

**REFERENCE**

### <https://www.ridester.com/doordash-fees/>

<https://earthweb.com/doordash-statistics/>

### **Return On Investment (ROI)**

* The average fee paid to door dashers ranges from $2 - $10 per order (average 6) = a
* Fuel Price currently is $4.07/gal = b
* Operations cost of robots per delivery is $2.00 per meal = c
* Number of deliveries annually is 816,000,000 = d
* Cost of total investment of robotic cars and operations = $6,000,000,000.00
* Net Return on investment = (a + b - c) x d = (6 + 4.07 - 2) x 816,000,000 = $ 6,585,120,000.00
* ROI = (Net Return on investment /Cost of total investment of robotic cars and operations) X 100 = (6,585,120,000.00 x $6,000,000,000.00) x 100 = 109.75%

### **Competitors**

**Uber:** Uber Eats is an online food ordering and delivery platform launched by Uber in 2014. Users can read menus, reviews, and ratings, order, and pay for food from participating restaurants using an application on the iOS or Android platforms, or through a web browser. Users are also able to tip for delivery. Delivery is rendered through humans and drones (In operational some Cities). The company is doing well with a gross booking of 4.4B, 10.1B, and 13.4B for FY19, FY20, and FY21 respectively.

**HelloFresh:** HelloFresh is a food subscription company that sends pre-portioned ingredients to users’ doorstep. It offers an online platform that provides a variety of meals and recipes and enables users to order ingredients for them. The company had a revenue of 6.0B in FY 2021 with a Cost of Goods Sold at -1.9B and a gross profit margin of 67%. Their deliveries are primarily completed by humans.

**REFERENCE**

<https://www.doordash.com/en-US/about/>

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[https://backlinko.com/doordash-users#doordash-usage-statistics](https://backlinko.com/doordash-users)

<https://craft.co/uber/operating-metrics>

<https://craft.co/hellofresh/financials>

**Acquisition Channel Strategy**

**Social Media Channel:** The primary medium we will use to strategically communicate with our potential customers is the implementation of social media platforms. The world is digitized now and the quickest way to the mass is through online platforms. Meta, Twitter, Snapchat, Instagram, and TikTok are the world’s leading social media platforms, and the best part is it's free.

**Transportation Channel:** One of the quickest ways to reach our users is through transportation advertisements. Most college students and busy professionals use public transportation especially in big cities to commute. Mediums like busses, trains, and taxis can advertise our products through physical ads on the trains, on the busses, and taxis respectively.

**Radio and Television Channel:** The T.V and radio provide a massive source of communication with the public and the implementation of this channel will provide a great source of avenue to communicate with our product. With a moderately small fee monthly, we will be able to communicate our product to the world both at home and abroad!

**Marketing Guide**

[](https://docs.google.com/document/d/10G1eGx4UGw6wTB9dGTbojQv8fQi8moZJ/edit)

**Pricing Strategy**

**Pricing:** The platform is designed for inbound operators and customers hence it's free.

**Revenue Goal:** The product is designed to provide optimum service to customers who struggle to receive their food services on time with high fees. It’s a two-way prong where both our internal operators and customers both having access to the platform designed for the operator to aid the customer in receiving great services through monitoring and rerouting of the RoboDash. The services rendered will help decrease operational costs for the company and most importantly, save the customer money through unnecessary fees and tips to human dashers.

**Pre-Launch Checklist**

**Management/Leadership:** I will communicate with the leadership team on all progress made every step of the way to ensure we are following the company’s vision and mission.

**Engineering Team:** I will engage with the Engineering team to gain technical support on launch day.

**Operations Team:** I will engage with the Operations team to enquire feedback on features before the launch

**Customer Service:** I will enquire with the team on feedback about customer satisfaction and concerns.

**Technical Writer:** I will consult with the technical writers to ensure all the documentation and per the company’s policies.

**Marketing:** I will interact with the Marketing Team to understand the strategies we can implement for customer acquisition and retention.

**Legal Team:** The legal team will be consulted to ensure all legal issues and permutations are covered to prevent unnecessary consequences.

**Sales Team:** The Sales Team will be communicated with to ensure measures are in place to strategically sell the product.

**Risk Control**

**Technical network issues with customer/ operator platforms(app) with RoboDash**

* The team ought to ensure a high bandwidth with wider broadways of connection is established to optimize communication between operators and RoboDash.
* We will ensure communication of RoboDash to customers is standardized to ensure optimum delivery of services.

**Technical issues with the application go fully public**

* Engage with the Engineering team to validate that the application can withstand entire market scalable segmentation with infrastructure in place to hone the value and minimize risks.

**Technical issues when RoboDash is en route for delivery**

* We will also ensure we have technicians available for immediate deployment in case of an emergency.
* We should have the option to locate a nearby RoboDash to deliver service to the customer in case of an emergency

**Training Guide**

[](https://docs.google.com/document/d/1Xkzz0gdI0kOsrauAvh8AIN3_3NCHBacu/edit)

**User Guide**

[](https://docs.google.com/document/d/1hNCEpskMfGhGctkD1JFZd9qaKzfuXtTi/edit)

**Sales and Customer Support Guide**

[](https://docs.google.com/document/d/1EN8vycPCHAOG9isKklpWYcv6mF-G8Mez/edit)

**Post-Launch Iteration**

**Issue observed:** The customers have reported a 25% decrease in food deliveries by the RoboDash service.

**A/B Testing**

**Proposed solution**

The increase in customer complaints stems from their inability to properly use the application to select the right location for the service. They select a location further from their destination hence creating a differential in the delivery times. This can be resolved by implementing training videos on how to use the service accurately.

**Success metric**

The percentage of accurate navigation will be used to track this metric. Our objective is to increase it from 75% accuracy (due to the 25% from customer complaints) to 95% accuracy.

**Control group A (50%)**

This group will not be provided with training videos on how to accurately use the product and service.

**Variant group B (50%)**

This group will have access to the training videos on how to use the product and service successfully.

**Our Hypothesis**

There should be a drastic decrease in the number of customer complaints by approximately 70%.

**Launch Email**

[](https://docs.google.com/document/d/14OJ-NznHWcfJnoJLfEuW9Wb_PiMSs1v-/edit)