DoorDash Project PRD

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STATUS: DRAFT

Background

DoorDash, a leading on-demand food delivery service, is exploring innovative solutions to enhance operational efficiency and improve delivery reliability. In pursuit of these objectives, DoorDash aims to automate food deliveries for short-distance trips (less than 2 miles) using self-driving robots. By leveraging autonomous delivery robots, DoorDash intends to significantly reduce its operating costs and provide customers with more consistent and predictable delivery times.

The envisioned delivery robots will navigate sidewalks and other pedestrian pathways autonomously. However, in the initial phases of deployment, the technology may require human intervention in certain scenarios. This could include situations where the robots encounter obstacles, unexpected detours, or other challenges that necessitate manual control and rerouting.

To support this initiative, our team has been tasked with developing a comprehensive tool for the operations team. This tool will serve as a centralized platform to monitor the status of ongoing deliveries and provide remote control capabilities for robots requiring intervention. The tool will enhance the operations team's ability to ensure smooth and efficient deliveries, even when manual adjustments are needed.

By integrating this tool into DoorDash's operations, the company aims to:

- Optimize delivery routes and reduce travel times
- Minimize operational costs associated with human delivery drivers
- Enhance the reliability and consistency of delivery times for customers
- Provide a scalable solution to support future expansion of autonomous delivery zones

The successful implementation of this project will position DoorDash at the forefront of technological innovation in the food delivery industry and pave the way for widespread adoption of autonomous delivery solutions.

Problem

Opportunity:** DoorDash has the chance to lead the food delivery industry with autonomous delivery robots for short trips (under 2 miles). This innovation aims to enhance operational efficiency and set a new industry standard.

Benefits to Users:
1. **Cost Savings:** Reduced reliance on human drivers lowers operational costs, which can lead to more competitive pricing for users.
2. **Improved Delivery Reliability:** Autonomous robots ensure consistent and reliable delivery times with fewer delays.
3. **Enhanced User Experience:** Real-time tracking and faster deliveries improve the overall user experience.
4. **Safety and Convenience:** Contactless deliveries promote health and convenience, eliminating the need for direct human interaction.
5. **Scalability and Future Potential:** The system can expand to cover larger areas and more deliveries, offering future growth and innovation for users.

This initiative promises to provide users with a more efficient, reliable, and convenient food delivery service.

Goals

1. **Monitoring Tool:** Develop an advanced tool to monitor autonomous deliveries in real-time.
2. **Remote Control:** Implement features for operators to manually control delivery robots when needed.
3. **Efficient Deliveries:** Optimize the delivery process to reduce delays and enhance reliability.
4. **Cost Reduction:** Decrease dependency on human drivers to lower operational costs.
5. **Scalability:** Create a system that can expand to accommodate more delivery zones and robots.

****Success Criteria:****
1. **Autonomous Deliveries:** Robots operate with minimal human intervention.
2. **Operational Efficiency:** Reduced costs and increased efficiency.
3. **Customer Satisfaction:** Higher ratings from improved reliability and faster delivery times.
4. **Effective Tools:** Real-time insights and control for the operations team.
5. **Scalability:** Solution can be expanded to additional areas.

Key Features

Real-Time Delivery Monitoring:

- Enables the operations team to track delivery robots in real-time, ensuring timely and efficient deliveries.

Remote Control and Intervention:

- Allows operators to manually control robots when they encounter obstacles, maintaining reliable service and customer satisfaction.

Optimized Route Planning:

- Uses advanced algorithms to determine the most efficient delivery routes, reducing travel time and operational costs.

Success Metrics

Delivery Time Reduction: Measure and reduce average delivery times.
Operational Cost Savings: Analyze and decrease operational costs.
Delivery Reliability: Track and increase on-time deliveries.
Customer Satisfaction: Collect feedback and improve satisfaction scores.
Intervention Frequency: Monitor and decrease manual interventions.
System Scalability: Evaluate and expand to new areas.

Target Market

DoorDash Customers:

- Individuals who order food via DoorDash and benefit from faster, more reliable, and contactless delivery services.

DoorDash Operations Team:

- Team members who monitor and manage the autonomous delivery system, ensuring smooth operations and handling manual interventions.

Restaurant Partners:

- Restaurants that partner with DoorDash, benefiting from efficient and consistent food delivery services, leading to satisfied customers and potentially increased orders.

Core UX Flow *(optional)*

https://www.figma.com/proto/MDNcSycprqmTKUQgefXQpd/Doordash?node-id=2-233&node-type=canvas&t=LhU2OK9kFDB0KOFo-1&scaling=scale-down&content-scaling=fixed&page-id=0%3A1&starting-point-node-id=30%3A104&show-proto-sidebar=1

Total Addressable Market

TAM = Average revenue per user X total number of potential users in the market

7.8 billion people on Earth
330 million people in the US
1 meal per day
$2 per meal
(330 million people)*(1 meal per day)*($2 per meal)*(365 days per year)= $241B

Competitor Analysis

1. **Uber Eats:**
    - **Users:** Uber Eats operates in over 6,000 cities across 45 countries, serving millions of users globally.
    - **Sales:** In 2021, Uber Eats generated $8.3 billion in revenue.
    - **Data Sources:** Public financial reports, market analyses, and company announcements.
2. **Grubhub:**
    - **Users:** Grubhub connects customers with a vast network of local restaurants across the United States.
    - **Sales:** Grubhub reported revenues of approximately $1.3 billion in 2021.
    - **Data Sources:** Public financial reports, market analyses, and company announcements.