



BUSINESS PLAN

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Executive Summary

Zing is a drone delivery platform enabling businesses to access new customers who were previously out of reach by transforming off-the-shelf drones into delivery drones. We build autonomous flight software and plug-n-play drone delivery hardware products. Our mission is to expand the reach of businesses across the United States, provide opportunities for licensed drone pilots, and make an environmental impact. Our vision is to give every business across the United States access to drone delivery.



The global autonomous last mile delivery market is expected to grow from \$11.2 billion in 2017 to \$75.64 billion in 2023 at an average annual growth rate of 23.7%.

Zing is the only company offering a drone delivery platform and products which are compatible with consumer level DJI drones, lowering the barrier to entry for businesses who need to utilize local pilots to make deliveries. One of our main competitive advantages is that we enable licensed drone pilots to start making deliveries.

We plan to have a strong social media presence, participate in influencer marketing, and utilize social media advertisement to grow brand awareness and increase product sales. We will grow partnerships and promote deliveries with well-known restaurants to increase brand awareness. We are building a strong community within our customer base via our Zing Pilots Slack channel which allows our pilots to interact with one another.

While drone deliveries are restricted to flying within Visual Line of Sight (VLOS), Zing will seek to partner with riverfront and waterfront businesses seeking to expand their customer base. During the coming year, Zing will seek to test Beyond Visual Line of Sight (BVLOS) operations through membership of the exclusive BEYOND program in Kansas.

Company Overview

Brief Description

Zing is a drone delivery platform enabling businesses to access new customers who were previously out of reach by transforming off-the-shelf drones into delivery drones. We build autonomous flight software and plug-n-play drone delivery hardware products.

Mission

Our mission is to expand the reach of businesses across the United States, provide opportunities for licensed drone pilots, and make an environmental impact.

Vision

Our vision is to give every business across the United States access to drone delivery.

Values

Transparency - We will always be forthcoming with information about our deliveries.

Automation - We will automate anything that can be automated.

Communication - We will respond to one in a timely and efficient manner.

Iteration - We will make the minor mistakes fast so we can have success down the road.

Innovation - We will push the bounds of what is currently possible.

Integrity - We will uphold a high standard of character within all aspects of the business.

Simplicity - We will focus on simplicity in our products to enhance our user experience.

Management Team

Ian Annase - *Founder & CEO* - MS Entrepreneurship, FSU

Oward Cadenas - *Head of Engineering* - BS Computer Engineering, FIU

Lauren Tarpley - *Head of Marketing* - BA Advertising, UNC Chapel Hill

Grayson Bertaina - *Head of Flight Operations* - Certified Flight Instructor.

Samuel Hall - *Full Stack Engineer* - Zing Xact Landing software creator.

Company Timeline

February 2019 - Completed a successful Kickstarter campaign.

August 2019 - Attended DJI AirWorks in Los Angeles as an exhibitor.

November 2019 - Raised \$25,000 angel investment.

December 2019 - All members of Zing team receive Part 107 certification.

January 2020 - Attended NASA UTM conference in Silicon Valley.

February 2020 - Zing reveals autonomous drone delivery kit product.

March 2020 - Launching Contactless Delivery Platform in 20 Cities.

April 2020 - Completion of the Xact Landing software for precision landing and drop-off.

May 2020 - Completion of a delivery to the top of a Miami skyscraper.

October 2020 - Zing joins BEYOND in Kansas to expand drone delivery operations.

January 2021 - Zing receives scholarship to Domi Station startup incubator in Tallahassee.

February 2021 - Provisional patent application filed for the attachable winch device.

Industry Overview

In June of 2016, the Federal Aviation Administration (FAA) released new regulations, known as the Part 107 rules, allowing drone operators to fly commercially in the United States airspace. It outlined a pathway for the everyday drone pilot to get licensed and confirm that they understood how to safely operate alongside manned aircraft. Since then, over 190,000 drone pilots have paid \$150 to receive their Part 107 license.

DJI drones are the most common commercial drones on the market in the United States today, with over 200,000 being registered between June of 2018 and 2020. We believe these same drones are technologically capable of making last mile deliveries. However, regulations that were put in place by the FAA have limited all drones to operating within Visual Line of Sight (VLOS). The main challenge in the drone delivery industry today is getting past this regulatory hurdle. The good news is that the FAA, with the help of NASA, are well into the process of building the platform required to make scalable commercial operations such as delivery a reality. The FAA has laid the pathway for drone delivery, giving companies the ability to get a Part 135 Air Carrier certificate, effectively enabling them to make autonomous, long-range deliveries via drone.

The FAA launched the three-year Integration Pilot Program (IPP) in October of 2017. The program was started through a presidential mandate meant to accelerate the integration of drones into the United States airspace. Over 150 state, tribal, and local governments applied to be in the program but only 10 were accepted. These governments partnered with companies in the industry to explore use cases such as package delivery. When the IPP ended in October of 2020, the FAA launched an extension to the program called BEYOND. The BEYOND program is focused on quantifying the economic impacts of operations such as drone delivery as well as implementing and scaling them nationwide. Zing is now a part of the exclusive BEYOND program in the state of Kansas through the Kansas Department of Transportation (KDOT).

NASA is handling another part of the equation. Air traffic controllers operating in towers near airports don't have the bandwidth to handle the millions of flights that could be taken place at any given time with drones. NASA has been working on a system called Unmanned Traffic Management (UTM) which serves as a database that can authorize, deconflict, and keep track of all drones throughout the airspace. The first stage of UTM, Low Altitude Authorization Notification Capability (LAANC), has already been rolled out throughout the entire United States. It allows drone operators to fly within five miles of airports as long as they stay beneath specified altitudes. The second stage of UTM, Remote ID, is being tested and implemented today. It pinpoints the exact location and path of each drone. NASA is completing the rollout and testing in phases through the UTM Pilot Program (UPP).

Industry Timeline - Regulations

July 2015

NASA holds conference to explain Unmanned Traffic Management (UTM).

June 2016

FAA Part 107 final rule is released, enabling commercial operations.

October 2017

FAA begins the Integration Pilot Program (IPP).

January 2019

NASA launches Phase 1 of the UTM Pilot Program (UPP).

October 2019

Wing and UPS Flight Forward receive the first Part 135 certificates.

January 2020

NASA launches Phase 2 of the UTM Pilot Program (UPP).

August 2020

Amazon receives a Part 135 air carrier certificate.

October 2020

FAA launches the next phase of the IPP called BEYOND.

November 2020

FAA releases the final rule on Type Certification.

December 2020

FAA releases the final rule on Remote ID.

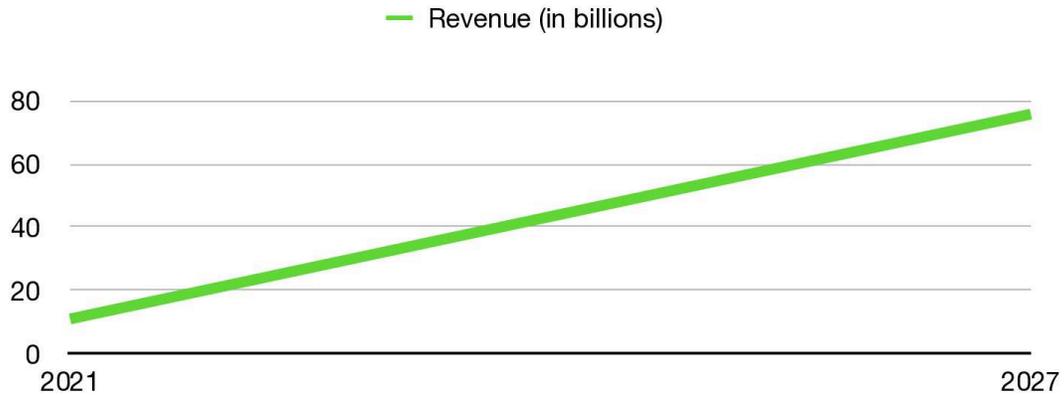


Market Analysis

Global Autonomous Last Mile Delivery Market

2021: **\$11.12 Billion** | 2027: **\$75.64 Billion**

CAGR: 23.7%

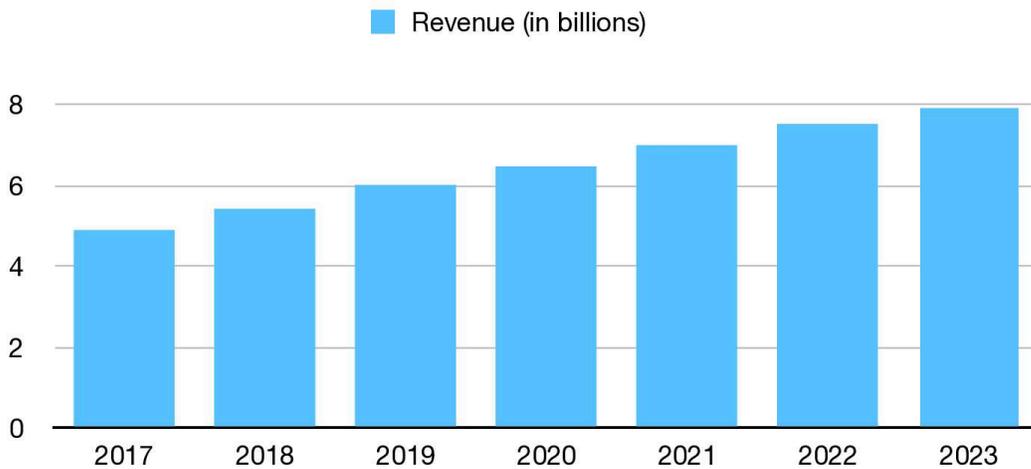


Source: Allied Market Research

Platform-to-Consumer Food Delivery Market Size

2017: **\$5.3 Billion** | 2023: **\$7.9 Billion**

CAGR: 11.2%



Source: Statista

Competitor Analysis

Zing is the only company offering drone delivery platform compatible with consumer level DJI drones, lowering the barrier to entry for businesses who need to utilize local pilots to make deliveries. We are the only company that enables licensed drone pilots to start making deliveries for compensation on a contractual basis. Another aspect of our business that differentiates us is our mobile application that enables drone pilots to make autonomous deliveries.

Deuce Drone began recently but has not been admitted into the BEYOND program, preventing them from testing Beyond Visual Line-of-Sight operations. They are utilizing a DJI Matrice 600 to perform deliveries in Alabama.

DroneUp recently started performing COVID-19 Test Kit deliveries from Walmart with DJI drones, proving that drone delivery is possible within the limitations of Part 107. However, they do not have an autonomous flight app, products, and they are not members of the BEYOND program.

Wing holds a Single-Pilot Part 135 certificate, effectively limiting them to operations at one location with a single named pilot. They are making drone deliveries in Christiansburg, Virginia. They have already made over 50,000 deliveries in Australia. They are not utilizing everyday pilots.

Flytrex and **Flirtey** are two drone delivery companies which have offices in the United States but have a majority stake held by citizens of Israel and Australia respectively. This prevents them from applying for a Part 135 Certificate to fly Beyond Visual Line of Sight (BVLOS) in the United States.

Amazon received a Part 135 certificate but will only be delivering their own packages. Zing will be making deliveries from local businesses.

UPS Flight Forward is utilizing **Matternet** and **Wingcopter** drones to perform deliveries from hospitals in North Carolina, and were the first to obtain a standard Part 135 certificate which enables them to make unlimited BVLOS flights. They will likely be utilizing their drones to make deliveries within the UPS logistics network.

Zipline utilizes a fixed wing system that has been used for middle-mile deliveries of critical supplies. They have made over 75,000 deliveries in Rwanda and are attempting to move operations to the United States.

Drone delivery companies based outside of the United States are severely limited to compete here due to their prevention from receiving a Part 135 air carrier certificate.

Competitor Map

	Primary Citizenship	Copter	DJI Enterprise	DJI Consumer	Part 107	BEYOND	Part 135	Products
Zing	USA	Copter	Yes	Yes	Yes	Yes	Applying	Yes
DroneUp	USA	Copter	Yes	Yes	Yes	No	Applying	No
Deuce	USA	Copter	Yes	No	Yes	No	Applying	No
Zipline	USA	F-Wing	No	No	No	Yes	Applying	No
Wing	USA	VTOL	No	No	No	Yes	Yes	No
UPS	USA	Copter	No	No	No	Yes	Yes	No
Amazon	USA	VTOL	No	No	No	No	Yes	No
Aquiline	USA	Copter	No	No	No	No	Yes	No
Flytrex	Israel	Copter	No	No	Yes	Yes	Prevented	Yes
Flirtey	Australia	Copter	No	No	No	Yes	Prevented	No
A2Z	USA	Copter	Yes	No	No	No	No	Yes
Matternet	USA	Copter	No	No	No	Yes	No	Yes
Volansi	USA	VTOL	No	No	No	Yes	No	Yes
Workhorse	USA	Copter	No	No	No	No	No	No
Ehang	China	Copter	No	No	No	No	Prevented	No
Everdrone	Sweden	Copter	Yes	No	No	No	Prevented	No
Manna	Ireland	Copter	No	No	No	No	Prevented	No
F-Drones	Singapore	Copter	Yes	No	No	No	Prevented	No
DDCanada	Canada	Mono	No	No	No	No	Prevented	No
Fli	Bahamas	VTOL	No	No	No	No	Prevented	No
Fling	Thailand	Copter	No	No	No	No	Prevented	No
Antwork	China	Copter	No	No	No	No	Prevented	No
Speedbird	Brazil	Copter	No	No	No	No	Prevented	No
Wingcopter	Germany	VTOL	No	No	No	No	Prevented	No
Swoop Aero	Australia	VTOL	No	No	No	No	Prevented	No

Marketing Plan

Social Media Promotions and Posts

We utilize promotions through giveaways and contests in order to drive traffic and build brand awareness. We have ran successful contests in the past and have allocated a small amount of inventory towards these campaigns.

Social Media Advertising

We are currently utilizing Facebook and Instagram ads to drive traffic and product sales to the website. This method has proven effective towards driving sales however we are still experimenting to make this method profitable.

Influencer Marketing

We have successfully partnered with influencers such as YouTuber 51 Drones to create paid campaigns to sell drone delivery kits. These promotions build great, positive brand awareness. We also offer the influencers a percentage of the sales in order to align our interests.

Email Marketing

We have an email list of over 3,000 Part 107 certified drone pilots who we send regular updates to. We include sales material for our drone delivery kits in these updates.

Slack Channel Community

When a pilot joins our network, we invite them to an exclusive Zing Pilots Slack channel where they can share their ideas and deliveries with the Zing community. This gives us content to add to our social media channel among other benefits including pilot referrals and motivation.

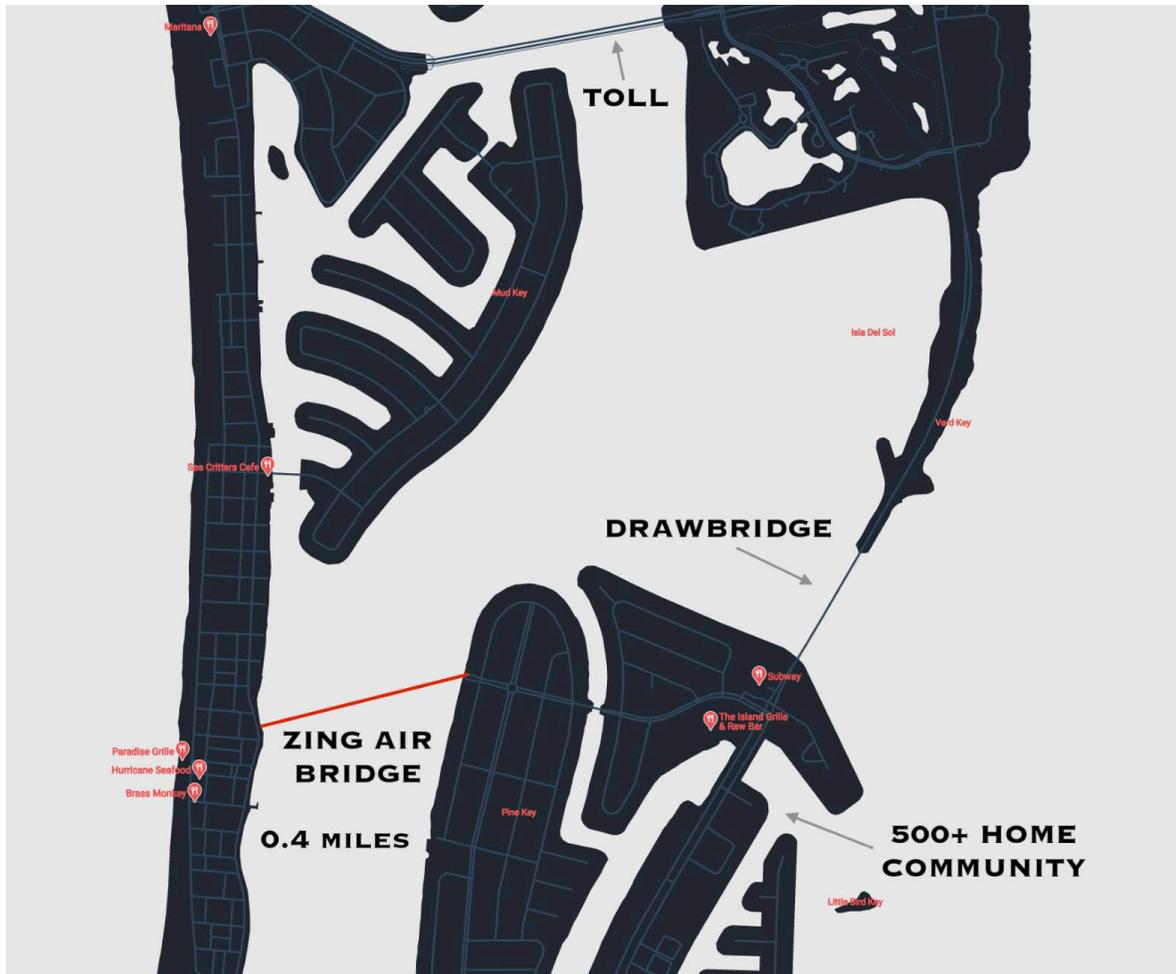
Delivery Partnerships with Restaurants

It is common in the industry for drone delivery companies to partner with restaurants who are aiming to create a viral marketing campaign via drone delivery. Our name will be on these marketing campaigns and we have personnel on our team who are highly proficient and creating and editing video content.



Operations Testing Plan (Part 107)

While drone deliveries are restricted to flying within Visual Line of Sight (VLOS), Zing will seek to partner with riverfront and waterfront businesses seeking to expand their customer base. The example below shows one of the locations we have performed a delivery from in Tierra Verde, FL. The three restaurants that can be seen on the right are missing out on business due to the 20-30 minute drive time from the community on the right. Our Zing Air Bridge connects these two areas and we can complete round trips within five minutes.



Zing will seek to test Beyond Visual Line of Sight (BVLOS) operations through our membership of the BEYOND program in Kansas. We will also be seeking a Part 135 air carrier certificate within the coming year which will enable us to perform these deliveries nationwide.

In the very near term, we will be locating Zing Access Points where Part 107 deliveries can be completed over waterways. We will be able to test our drone delivery system as well as determine the best pricing during these case studies.

Scaled Operations Plan (Part 135)

In order to fly Beyond Visual Line of Sight (BVLOS) we will need to first acquire a Part 135 Air Carrier certificate and utilize a Type Certified (TC) drone. Since we are now members of the BEYOND program in Kansas, we will have direct access to the resources required to get us to that point. Members of BEYOND even have the ability to receive an exemption from Type Certification (Section 44807 exemption) in order to perform Part 135 operations before receiving their TC.

We have partnered with the law firm Adams and Reese, specifically Grant Guillot. He has direct contacts at the FAA and also currently represents three other drone delivery companies as they pursue their Part 135 certificate. He is well known within the industry and our founder Ian Annase has appeared on his podcast multiple times to discuss Zing. This inside knowledge and expertise will help to propel us forward through the process.

