Droneceuticals

DroneTech Team Assignment #1
Team: Kingslayer
PM: Jessica Smith
Members: James Canter, Gardner Reid, Taylor Rembos

Contents

Project Overview Statement

Problem Statement

Facilitate Wilmont's pilot project for drone delivery of drugstore products and prescriptions in the San Francisco Bay area.

Project Goal(s)

To work with Wilmont to develop a customized prototype system that fits the needs of their company within the given time frame and budget

Project Objectives

1. Develop a project plan with detailed costs as well as a contract and payment plan
2. Customize piloting of drones and delivery of the products
3. Ensure customers see Wilmont's and DroneTech as one company with seamless enhancements
4. Create four drones with a temperature controlled bagging system and a bubble-type cushioning system
5. Ensure a safety of all those involved in the process of developing and maintaining the drones, as well as the safety of the customers and the general public
6. Maintain the integrity of Wilmont's security of their business information, the customers privacy, and the proprietary information about how Wilmont's will use the drones for delivery
7. Provide the four participating pharmacies with all the information needed on the drone delivery technology, ensuring they are fully comfortable to load products into the drone and engage in this prototype by first time for flight
8. Interface DroneTech's systems to Wilmont's enhanced online order entry process to allow customers to register their willingness to have a drone deliver their orders, and allow management to run customer approvals

Success Criteria

1. The project should be well under $750,000
2. First customer delivery flight should take place no later than November 30, 2017
3. The project should begin on January 5th, 2017
4. Successful delivery of 99.4% of products, at required temperatures, when applicable.
5. Creation of four new drones that will be painted in Wilmont's corporate colors and logo

Assumptions / Risks / Obstacles

1. Technological

Customized special technology will be needed for delivery and drone control, such as adapting a temperature-controlled product bagging system with a bubble-type cushioning system for delivery.

2. *Environmental*

Successful integration of DroneTech and Wilmont staff.

3. Interpersonal

The DroneTech and Wilmont's staff have never worked with each other before and may have different cultural behaviors.

4. Cultural

Assuming a statistically significant portion of the San Francisco population will participate in the pilot program.

5. Causal Relationships

Assuming a successful pilot project in San Francisco will accurately predict the success in other areas of the United States.

Project Requirements

Requirements Table			
Requirements definitions	**Functional**	**Global**	**Constraint**
Create a safety culture		X	
Create a drone temperature controlled bagging system and a bubble-type Cushioning system	X		
Interface DroneTech's systems to Wilmont's enhanced online order entry process to allow customers to register their willingness to have a drone deliver their orders, and allow management to run customer approvals	X		
Interface communications about deliveries with customers electronically	X		
Maintain the integrity of Wilmont's security of their business information, the customers privacy, and the proprietary information about how Wilmont's will use the drones for delivery		X	
Create a perception that customers do not see these as two separate companies		X	
Ensure that quality is checked continuously at every level of the project and that employees have a sense of responsibility towards the quality of the product with approval points, testing, and quality control		X	
Specify user training and system implementation		X	
Maintain the project to be well under $750,000			X
Have first delivery flight by November 30th			X
Begin the project on January 5th			X

Project Scope

As a general scope of work, the project hopes to:

1. Ensure a safe environment
2. Sign a contract with Wilmont -- make sure the legal team is on the same page and that the right people from DroneTech Engineering and Flight operations are involved in the development of the legal requirements for the relationship
3. Conduct regular meetings with the team, stakeholders, and cross-impacted areas of the company
4. Create points at which to refine cost and staffing requirements
5. Create a schedule for approval points as needed through the project sequence
6. Create testing, quality control and checkpoints for issues that may develop
7. Create a system for user training and prep for system implementation
8. Customize the processes that handle order entry, delivery confirmation, and the mobile app so the customer's see the delivery system as one company
9. Complete the project under the $750,000 budget
10. Customize piloting of drones and successful delivery of the products within the proposed timeline as detailed in the high-level project milestones
11. Develop a project plan with detailed costs as well as a contract and payment plan
12. Customized special technology piloting of drones and delivery of the products completed
13. Created a temperature controlled bagging system and a bubble-type cushioning system
14. Successfully integrate all modifications to drone flight operations
15. Received approval from all four of Wilmont's pharmacies to participate in the prototype delivery system
16. Ensured security of business information, customer privacy, and proprietary information
17. Interface DroneTech's systems to Wilmont's enhanced online order entry process
18. Complete the project under a budget of $750,000
19. Begin the project on January 5th
20. Run first customer delivery flight no later than November 30

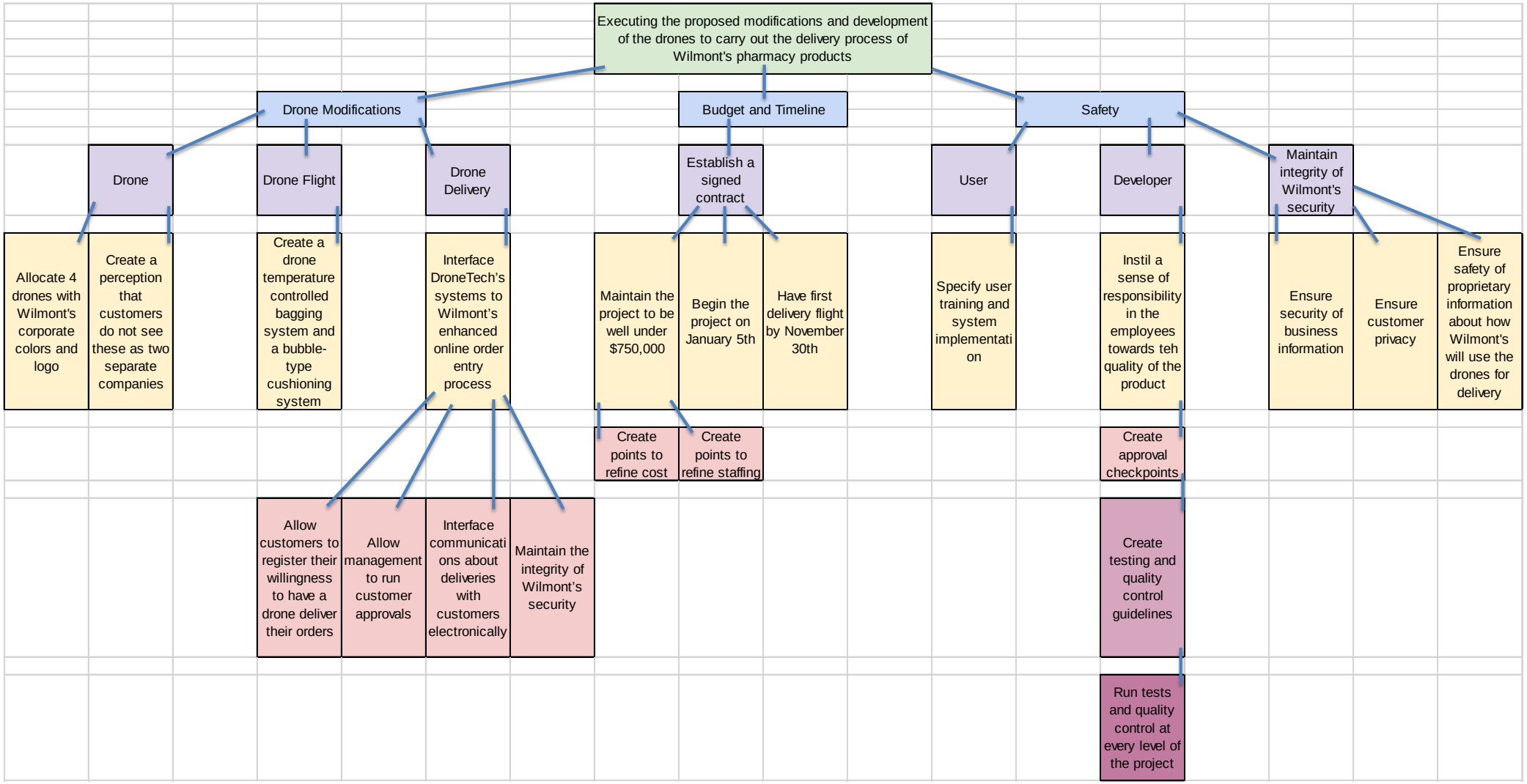
High-Level Project Milestones

- Develop a project plan with detailed costs as well as a contract and payment plan
- Customized special technology piloting of drones and delivery of the products completed
- Created a temperature controlled bagging system and a bubble-type cushioning system
- Successfully integrate all modifications to drone flight operations
- Received approval from all four of Wilmont's pharmacies to participate in the prototype delivery system
- Ensured security of business information, customer privacy, and proprietary information
- Interface DroneTech's systems to Wilmont's enhanced online order entry process
- Complete the project under a budget of $750,000
- Begin the project on January 5th
- Run first customer delivery flight no later than November 30

Preliminary List of Project Deliverables

- Budget under $750,000
- First flight Nov 30
- Project begins Jan 5
- Combining both companies
- Creation of enhanced online entry process, featuring an approval process
- Creation of customer alerts upon delivery
- Develop proposed contract and payment plan
- Develop secure network protecting clients' privacy as well as business secrets
- Create extra drone modifications, including temperature-controlled product bagging and bubble-type cushioning system
- Test drone modifications
- Fully educate 4 pharmacies involved of the drone delivery technology
- Create 4 new drones in Wilmont's colors and logos
- Provide Wilmont with technology needed for delivery and drone control
- Provide a project plan with detailed costs in final contract

Initial Project Organizational Structure



Initial Summary of Risks and Mitigation Approaches

Risk Identification	Risk Statement		Probability [%]	Impact [$]	Exposure [$]	Mitigation	Contingency	Triggers	Assignee
	Condition	Consequence							
Lawsuit	Person injured by drone, or expensive pharmaceuticals lost/stolen	Legal fees would be incurred, as well as the fee to replace to replace the lost product or pay the medical bills	2%	$400,000	$8,000	Ensure that every drone meets the quality and safety standards; maintain a no-cost replacement policy for lost products, and deliver needed prescriptions as soon as possible	Attempt mitigation outside of the court and resolve any issues without too much damage to the company name	Were we to incur a lawsuit	Jordan Kempler
Weather (launching, flying in the rainy season, wind)	The drones are not adequately built to be protected against strong wind and rain	The drone will be delayed, resulting in prescriptions failing to reach their destination in a timely manner - additionally the drones that are exposed to the weather could be damaged or destroyed or lost	10%	$50,000	$5,000	The drones would have to be designed to be water resistant	Any damaged drone would have to be repaired and the undelivered products would have to be delivered as soon as possible	If the drones were experiencing any damages or delays and if the weather appeared to be too severe for the drones to fly	William Holt
Wilmont's data compromised (Business information, customer data, proprietary info on drone use)	Insufficient security measures which makes the data susceptible to hackers	Ruined public image, loss of customers	1%	$500,000	$5,000	Hire a third party to audit our security system	Determine the cause, tighten the security system, reestablish a good public image	If there were any signs of a breach in our security system	William Scott
Project exceeds budget	Unable to complete project for less than $750k (find out before or after Project Plan)	The project will either be cancelled and Dronetech will lose the contract, or Wilmont's will agree to an increased budget	6%	$70,000	$4,200	Cut costs and make appropriate budgeting decision so as to not exceed the budget	Analyze the budget and determine ways to cut costs	If the project first appears to exceed the budget	Jessica Smith
Project duration exceeding agreed upon endpoint	Not completed within allotted time	Depending on contract, could pay fee, or lack of revenue gain from other contracts on DroneTech's part	4%	$75,000	$3,000	Create several charts (i.e Gantt or critical path method, etc.) to determine the project schedule and stick to this schedule	As soon as a deadline is not met at any point in the project, allocate more resources so as to increase production and limit any delays	If the project was behind schedule	Jessica Smith

Risk Identification	Risk Statement		Probability [%]	Impact [$]	Exposure [$]	Mitigation	Contingency	Triggers	Assignee
	Condition	Consequence							
Lost or damaged equipment sent to stores	Store workers fail to properly pack drones, mishandling or tampering with drones	The product or drones may be damaged	15%	$20,000	$3,000	Ensure the store workers receive adequate training	Inspect the stores, monitor how employees are packaging the products and shipping them out, eliminate any employees who continuously do not follow the standards	If we receive complaints from customers about the state of their products or notice any tampering with the drones	Philip Greenberg
Product goes outside of temp limits during delivery	The thermal insulation is insufficient for the current ambient conditions	The product once delivered could be harmful to the customer, delivery would/could be rejected	5%	$50,000	$2,500	Add a digital thermometer to the packaging which would send the data back to the drone operator	Cancel the delivery of the product, conduct testing on the system, and determine another way to deliver the product to the customer in a timely manner	If the temperature were to exceed of the required limits	Ashish Nehra
Third party tampering with the drones or attached package while they're being delivered	Third party criminals looking to steal valuable pharmaceutical products	Damage or destruction of the drone, loss of a valuable product	4%	$60,000	$2,400	Add a security system to the drones so that if the drones were tampered with someone without the correct credentials could not steal the product	Monitor the flight pattern of the drones and where the highest occurrences of theft are so as to modify the flight schedule	If there was an increasing pattern of drone theft	Ashish Nehra
Contract does not get signed by one or both parties	Unresolvable difference	The project ultimately fails	2%	$60,000	$1,200	Compromise throughout negotiations	Re-open negotiations with a new contract that benefits both parties	If the parties do not seem to come to an agreement	Jessica Smith

Risk Identification	Risk Statement		Probability [%]	Impact [$]	Exposure [$]	Mitigation	Contingency	Triggers	Assignee
	Condition	Consequence							
Unable to develop adequate thermal insulation	The technological capability is not sufficient enough to adequately keep the products at the required temperature	Wilmont's is limited to the types of drugs that they can deliver, or contracting a third party to create the packaging would be required	3%	$30,000	$900	Allocate enough time into researching and developing the thermal insulation	Determine which products can and cannot be delivered and ensure that the employees at the drug stores are aware of this	If the thermal insulation was not up to the quality standards	Gerald Peritoni
Drone regulations enacted by the city or FAA, limiting or restricting flight	Restricting regulations as well as public resistance	Drones may have to follow a specific flight path which could result in delivery inefficiencies, or legal trouble if they fly through the restricted zone; all drone flight flight in SF could be banned	1%	$80,000	$800	Research the regulations, speak with any officials about the project	Speak with FAA officials, redesign the flight path	If we receive any warnings or fines from the FAA	Gerald Hasper
Loss of drone	Drone is lost or stolen	A new drone would have to be created, products replaced, must determine liability between Wilmont's and Dronetech as to who would incur the cost	5%	$15,000	$750	Install a tracking gps on all drones	increase drone monitoring and enact more procedures	If a drone becomes lost or stolen	Gerald Hasper
Damage of drone during/after delivery	Depreciation of the drone overtime that occurs through the regular usage of the drone as well as from added weight	The drones could malfunction mid-flight, or require a higher frequency of maintenance which could add additional costs	5%	$10,000	$500	Require maintenance checks at the beginning and end of each day, as well as periodically throughout the day	Continuously maintain the drones	If the drones were breaking down more frequently	William Holt
Unable to develop adequate bubble packaging	The technological capability is not sufficient enough to adequately protect products in the packaging	Certain products may be too sensitive to be delivered, or contracting a third party to create the packaging would be required	2%	$20,000	$400	Allocate enough time into researching and developing the bubble packaging	Certain products would have to be tested to ensure that they would be safely delivered	If the bubble packaging was not up to the quality standards	Gerald Peritoni

Risk Identification	Risk Statement		Probability [%]	Impact [$]	Exposure [$]	Mitigation	Contingency	Triggers	Assignee
	Condition	Consequence							
Failure to reach compromise between two or multiple parties	Two dominant or type A personalities unwilling to back down from an idea	Neither party is willing to do their own work or works independently on what they think is best; essentially, time is lost	2%	$20,000	$400	Create a culture where team members feel free to communicate their ideas with one another and where compromise is achievable	Bring both parties into mitigation to resolve the issues	If two members of the team were to act antagonistically towards each other and was causing negative impacts on the project	Jessica Smith
Inability to control drone, or have drone return autonomously	Communication problems between the drones and the operators due to radio or weather interference	The drone could be damaged or become lost as well as the failure to deliver the products, or it would have to be retrieved	3%	$10,000	$300	Compete adequate field testing of the drone	Determine what is causing the interference and analyze ways to fix this	If communication issues seemed to be a recurring issue	Ashish Nehra
Application/software failure	App or software fails to accept submissions or produce notifications	Displeased consumers, product or consumer base loss	2%	$8,000	$160	Thoroughly complete testing of the application to ensure that it will work on any platform	Redesign application and fix any failures	If the customers give negative feedback about the application	Shravani Sinha
Unsuccessful integration of the mobile app	Mobile app shows DroneTech in some aspect, instead of just showing Wilmont's	Customers would see that DroneTech is somehow involved in with the application	2%	$5,000	$100	Conduct field testing of the application through selected beta testers	Determine the faults of the application and release a new update	If the customer's stated any confusion about the use of the app	Stephanie Williams
Required flight paths blocked	No flight zones or newly erected structures	Increasing the duration of the flight, could increase wear and tear of drone as well as increase the waiting time for the customers	3%	$3,000	$90	Accurately and consistently record all areas that are no fly zones	Redesign the flight path	If we receive any warnings or fines from the FAA	Gerald Hasper
Customers who live in apartments accepted into pilot program	Inadequate restrictions for housing type	Potential damage to drone while attempting to enter apartment building, or loss of product/package by it being left outside the apartment building	1%	$6,000	$60	Clearly determine the housing type of the customers	Conduct more research and increase restrictions on which houses the drones can deliver to	If the drones were not able to complete their delivery	Linda Thorton

Project Delivery Strategy

There are certain key items the team needs to perform to make this project successful. These key items are the background but foundational aspects to ensuring the key deliverables are executed properly. Our project delivery strategy is, first and foremost, to develop a positive and close relationship with Wilmont. We want them to know that we are devoting our time to them, listening carefully and understanding their needs, building trust, doing what is best for them and the customer. This will establish a trusted relationship which facilitates change. The people of DroneTech will be easily accessible, Wilmont will be our top priority, and we will follow through in a timely manner so there are no surprises.

DroneTech's legal team will work with Wilmont's legal team to assist in negotiations and be involved in the development of the legal requirements for the relationship. A constant flow of consistent, scheduled information and communication will be exchanged between the members of Wilmont and DroneTech to ensure approval points are met and quality control, training, and system implementation is taken care of by all departments so a cohesive, successful project will be produced in a timely manner with a collaborative effort. This will also ensure that the customer's see this delivery system as one company and not two separate companies.

An intermixing of responsibilities between Wilmont's Mary Pearson, James Conner, Phillip Greenberg, and William Scott and DroneTech's Eileen Seymour and Gerald Hasper will be the main collaborative effort of the drone's flight operations and delivery of the products. DroneTech's programmers, systems engineers and technicians will work closely with Wilmont's testing specialists to deliver a working product by the project flight date. Approval checkpoints will be made so the project is sent up the ladder to be approved and move forward with more modifications, ensuring that the project is on track and meeting all of Wilmont's requirements, such as security, registration, interface connections, and modifications to the flight operations. In these checkpoints, the current budget and projected budget will be watched closely to ensure the project comes in under $750,000.

Team Charter Agenda

Team and Members:

DroneTech and Wilmont

Project Manager (Jessica Smith), Jordan Kempler, Stephanie Williams, Gerald Hasper, Eileen Seymour, Katie O'Ryan, Rohan Shah, Shravani Sinha, William Holt, Ashish Nehra, George Cranston, James Connor, Mary Pearson, William Scott, Julie Green, Steve Haskell, James O'Donnell, Wilma Marcy, Phillip Greenberg, Johnathan Perry, Linda Thorton, Gerald Peritoni, Elizabeth Walton, Shirley Johnson, Alan Swanson

Purpose

Vision (why does this team exist?): To execute the proposed modifications and development of drones and to carry out the delivery process of Wilmont's pharmacy products

Mission (work to be done): Customize piloting of drones and successful delivery of the products within the proposed timeline

Boundaries (limits of the work): To be within the budget and schedule and to not add extra features to the dones that the client did not specifically state

Critical Success Factors (what has to happen for this team to be successful?): The work must be done in a timely and safe manner; there must be a consistent amount of communication between all team members

Responsibilities

Individual:

DroneTech:

Jordan Kempler (CEO and Founder)

Jessica Smith (Project Manager) - interface DroneTech systems to Wilmonts so customers only see one company (WIlmont) instead of two

- Interface communications about Wilmont's deliverables as the customer requests
- Develop project plan with detailed cost involving special technology needed for delivery
- Manage budget of $750,000
- Ensure first flight Nov 30, and Project begins Jan 5

Stephanie Williams (Senior Business Analyst)

Gerald Hasper (Flight Operations Manager)

Elleen Seymour (Project Lead IT Systems) - oversees data interface team, point of contact for IT

Katie O'Ryan (Corporate Attourney)

Rohan Shah (Programmer)

Shravani Sinha (Senior Programmer)

William Holt (Done Systems Engineer) - create 4 new drones for this prototype project.

Ashish Nehra (Drone Systems Technician)

Wilmont:

George Cranston (Operations VP)

James Connor (CIO)

Mary Pearson (Project Lead IT Systems) - leads information systems development

William Scott (Project Lead, Security Team)

Julie Green (Pharmacy Manager)

Steve Haskell (Pharmacy Manager)

James O'Donnell (Pharmacy Manager)

Wilma Marcy (Pharmacy Manager)

Phillip Greenberg (Project Manager Business Ops)

Jonathan Perry (Retail Operations Assistant)

Linda Thornton (Online Customer Process Analyst)

Gerald Peritoni (Testing Specialist)

Elizabeth Walton (Senior Testing Specialist)

Shirley Johnson (Change Management Coordinator)

Alan Swanson (Attorney - Legal Dept)

Shared:

Jessica Smith (PM) (Primary) /Phillip Greenberg (Project Manager Business Ops) (Secondary): organize Wilmont's resources to interface with DroneTech flight operations controlling the drone delivery systems

Jessica Smith (Primary) / Jordan Kempler (Secondary) / George Cranston(Secondary) / Katie O'Ryan (DroneTech Attorney)(Secondary) / Alan Swanson (Wilmont Attorney)(Secondary) : Develop proposed contract and payment plan

Jessica Smith (Secondary) / William Scott (Project Lead, Security Team) (Primary) : Ensure that during this project, Wilmont's business information, customer privacy and proprietary information about drone delivery techniques are secure.

Gerald Hasper (Flight Operations Manager) (Primary) / Gerald Peritoni (Testing Specialist)(Secondary) : adapt a temperature-controlled product bagging system and cushioning system for delivery packaging.

Jessica Smith (Primary) / Julie Green (Pharmacy Manager)(Secondary) / Steve Haskell (Pharmacy Manager)(Secondary) / James O'Donnell (Pharmacy Manager) (Secondary) / Wilma Marcy (Pharmacy Manager)(Secondary) : Communicate with each manager the drone delivery technology so that drone deliverables are seamless and reflect Wilmont's top notch quality

Operating Guidelines

Goals and Metrics: To start the project on January 5th and begin the first delivery flight by November 30th while remaining within in the allotted budget of $750,000.

Decision-Making: George Cranston and Jordan Kempler will have overriding power over any major changes that will occur in the project. The PM of DroneTech will have authority of any decisions to be made regarding working operations of the project.

Communications: In person or through an online (i.e email, chat room, shared docs, etc.) interface due to the distance between the staff members in Wilmont's and DroneTech.

Interpersonal Behavior

Guiding principles: Integrity, honesty, active listening, non-judgemental.

Rules of Conduct: The staff shall act with respect with one another and shall not participate in any unsafe behaviors or disorderly conduct.

Conflict Resolution: Any conflicting behaviors or ideas should be reported to the PM which will result in a discussion in order to find a compromise.

Agreement & Sign-up

JMS (11/2/2016) *TK* *JC* *CR*

SMW	*GPH*	*ERS*	*KRO*	*RXS*	*SXS*	*WKH*	*AXN*	*JXK*	*GWC*	*JFC*	*MJP*
	WKS	*JRG*	*SLH*	*JLO*	*WPM*	*PAG*	*JSP*	*LET*	*GEP*	*EMW*	*SPJ*
	AES										