# **US Robotics:**

# **A Comprehensive Compilation of Communication Materials**

Jai Vang

ENG 2116-10 – Introduction to Technical Writing

Professor Intawiwat

January 19, 2002 - April 24, 2002

This report represents a comprehensive compilation of various documents produced as part of the US Robotics project undertaken by a team of students and myself over the course of the semester. It encompasses a wide range of communication materials, each serving a distinct purpose in addressing different aspects of the project.

Included within this report are documents such as:

- Bad News Letter: A communication addressed to a dissatisfied customer regarding their experience with one of our products, aimed at addressing their concerns and seeking resolution.
- **Incident Report:** Detailed documentation of an accident or incident that occurred during the project, providing an account of what transpired and any subsequent actions taken.
- Proposal: A formal proposal letter addressed to our CEO outlining strategies for handling the identified issue and implementing preventive measures to avoid similar incidents in the future.
- **Key Card Instructions:** Concise instructions on the proper use of key cards for accessing the facility, designed to ensure security protocols are followed effectively.
- TriFold Brochure: A compact brochure introducing our company to local businesses, outlining our mission, services, and offerings.
- US Robotics Flyer: An informative flyer distributed to the public, highlighting various tech job opportunities available at our company and inviting potential candidates to apply.

- Progress Report: A report submitted to the CEO detailing the current progress and status of the project, including updates on measures taken to address the incident and prevent recurrence.
- Letter of Inquiry: A formal inquiry letter addressed to the CEO, expressing US

  Robotics' interest in partnering with vendors who align with our ethical vision and can

  contribute to our mission of providing ethical services to society.
- US Robotics Final Report: A comprehensive PowerPoint presentation summarizing the accident, its findings, and the strategies implemented to mitigate future incidents, providing a holistic overview of the project's outcomes.

Each of these documents plays a crucial role in documenting our efforts, addressing challenges, and charting the course of action for US Robotics, reflecting our commitment to professionalism, transparency, and continuous improvement.

### **Bad News Letter**

U.S Robotics 985 Friendship Lane Greensboro, North Carolina 27401 (828) 238-5700 jvang29@uncc.edu

January 30th, 2022

Jane Smith
111 Main St.
Charlotte, North Carolina 22222
JaneSmith@workinfo.com
704-666-7777

# Dear Jane Smith:

It has been brought to our attention that you were unsatisfied with your product because it was damaged prior to opening the box. U.S Robotics is extremely sorry for the inconvenience it may have caused you. We pride ourselves on our products, and we create and expect nothing but the best for our customers. Your satisfaction is our number one priority.

After investigating the situation, we discovered that United Parcel Service (USP) handled the shipment poorly; because of that, the product was damaged during the delivery. A full refund will be compensated immediately. USP has agreed to a free shipment for the next product since they are at fault with the shipment. A free new product and a discount coupon will not be given since the freight company damaged the product.

Again, we are extremely sorry for how this inconvenienced you. We take great pride in our products and expect nothing but the best for our customers. We will work with the USP to deliver the product out to you as quickly as possible on the next order.

Best regards,

Jai Vang Director of Robotics Engineering

# **Incident Report**

# **MEMO**

TO: Alexander the Great, CEO of US Robotics

FROM: U.S Robotics team

DATE: 2/2/2022

Subject: Floor Room Accident

# **Introduction:**

Dear Alexander the Great:

We are writing to inform you of an incident that occurred to Mary Lerbottle, an Occupational Safety and Health Administration (OSHA) Inspector. The accident was not fatal; however, the individual was injured. In this report, U.S Robotics Safety Team will provide a narrative of the incident, challenges of the situation, possible solutions, and cost analysis solutions.



### Narrative of the Incident:

At 9 am on the morning of February 6th, 2022, Lerbottle was conducting an inspection at U.S Robotics facility. Lerbottle had never been to a manufacturing company before and, because of that, she asked if we could take her on a tour before she conducted her inspection to gain a better understanding of the floor layout. We agreed and proceeded with the tour. When we arrived at section 7, a forklift operator drove around the corner at approximately five miles per hour, a speed that is not recommended for forklifts in confined spaces. The forklift ran over Mary's right foot. Even though we were within the yellow walking lines, the forklift came into the lines and ran over her right foot. Her right foot was the only body part that was injured. We immediately contacted the local emergency team, and an ambulance arrived within ten minutes. Upon arrival, we cleared the accident's location of personnel and machinery, and the emergency team took over the situation.

# Challenges of the Situation (WHY/HOW):

The incident involving the forklift this morning simply occurred due to the forklift driver being a little careless. This mistake came at the cost of the OSHA inspector's foot and below are some proposed solutions to make sure that something like this never happens again.

### **Possible Solutions:**

- · Solution 1: We suggest that the company should provide more safety equipment for the employees to avoid any incidents that can be occurred in the future. The vests will protect the employees from the extreme weather conditions outside the warehouse and as well as the chemistry in the working environment. Moreover, this is a must do action to take care for the safety of employees.
- Solution 2: In order to prevent something like this from ever happening again, we recommend that every single warehouse should be re-organized and better managed so that forklift operators know where everything is. Not only that, but guides should be written and left inside every forklift so that forklift drivers only have to look down at the guide and they'll immediately know where they should go. If we were to implement these two solutions, it'll help towards the company mission to keep everyone safe. Another safety precaution that we could take would be to make sure our forklift drivers are trained better and are more aware of what's going on around them.
- Solution 3: It's recommended that we establish better training for our forklift drivers and make it tougher to become one. Not only that, but we also should establish a set of rules that all drivers should follow and drivers with <6 months of experience should be closely monitored at all times. This'll allow for newer drivers who are a liability to the company to gain experience under proper supervision. These improvements to our training and management of our forklift drivers will help to prevent something like this from happening again.

# **Cost analysis of solutions:** (HL)

<u>Solution</u>	Proposed Cost
	\$40 per vest
	X <b>1,000,000</b> orders
	Total Cost: <b>\$40,000,000</b>
Organization	No Cost
Training	No Cost

# **Your Recommendations:**

My best recommendation would be to simply re-organize the warehouses to improve visibility. This would help in terms of flow of the work environment and allow us to more efficiently maneuver through the warehouse. On top of this, and most importantly, it will lower the risk of similar accidents to the one that previously happened. This is also something that can go into effect much more immediately and will not cost nearly as much as we would benefit.

# **Conclusion:**

We genuinely appreciate you Alex for taking the time to read this report. This incident has caused some of our workers to become anxious about their safety while performing duties. We hope to hear from you soon with a possible decision on this matter, so that we can begin working to pacify employee's issues. Thank you!

Sincerely,

US Robotics Safety Team

# **Proposal**

# **U.S** Robotics

Planning Team: Thomas Zbodula, Hayden Le, Jai Vang, Dylan Anderson

# Accident Prevention Plan

**Project Period:** March 2022 - June 2022

Estimated Cost: \$180 Million USD

# **Cover Letter**

US Robotics Planning Team
US Robotics Corporation
4526 US Robotics Street,
Baskervilles, North Carolina, 24156

February 20, 2022

Dear Alexander the Great:

We want to thank you for allowing the Planning Team at U.S Robotics to plan and come up with solutions to make the company effective in all areas of operation. The U.S Robotics Planning Team has worked tirelessly and has put together this proposal, as you requested. In this proposal, you will find a wealth of information regarding the goals, objectives, benefits, feasibility report, a plan of the work, task breakdown, problem analysis, personnel qualifications, and a budget.

We look forward to the approval of the proposal. The planning team can be contacted by 555-486-8752 or by email at <a href="mailto:planningteam@us.robotics.com">planningteam@us.robotics.com</a>.

It is our belief that this proposal will enhance U.S Robotics in all areas of operation. We are excited to see how the company will transform in the coming months and years as the proposal is approved and executed.

Thank you,

U.S Robotics Planning Team

# **Project Summary**

Within the bounds of this project we have certain goals that we wish to ascertain. Most notably...

- Lower chance of Driver error
- Increase visibility for both ground workers and drivers
- Training to provide a base expectation
- Equipment that will assist in protection and safety



Although very simple, accomplishing these goals will allow us to become a better organization as a whole. As we progress in this ever expanding world we need to also change with it. This entails accommodating new and older workers in that process. To accomplish these developments, we will be fixing all of the warehouse issues first. As a company we will overhaul these changes expediently and allow for our workers to become comfortable with these differences through our training scenarios, which will be talked about later. The second of our changes will be a combination of operator training, how to maneuver throughout the warehouse safely, and the essential equipment that is required to be worn. These will all be a part of our weekly training meetings.

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# Introduction

The revenue of U.S Robotics has increased rapidly over the past five years. With the increase in revenue, this also means an increase in the workforce. New employees are joining the manufacturing teams every week. The ratio of new workers to veterans is 5 to 1. With new workers entering the workforce, this also means that there are numerous team members on the floor who are not fully trained on the safety and correct procedure of U.S Robotics.

After countless discussions, meetings, and plannings, the U.S Robotics Planning Team has created this proposal that consists of plans and execution of those plans. The projects in this proposal will solve many of the complex issues that have occurred or may occur in the future. The accident that took place with Mary Lerbottle right foot (see figure 1), an Occupational Safety and Health Administration (OSHA) Inspector, on February 2, 2022, is a good example of not having the correct safety procedure in place for prevention.

Figure 1



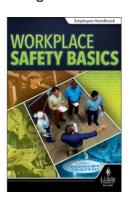
Our Planning Team believes this proposal will aid in the prevention of future accidents and will point U.S Robotics in the right direction of increasing revenue, safety, and productivity.

# **Goals/Objectives**

We have three goals we would like to accomplish, which are regulatory compliance, employee compliance, and improved performance.

After the accident with Mary Lerbottle, the Occupational Safety and Health Administration is auditing U.S Robotics to determine if we have safety procedures we are not in compliance with. With that, we are revisiting every safety procedure in our books (figure 2). We want to make sure all safety rules and topics are covered in pre-employment and post-employment training. An outline of any training we provided is copied and scanned into our computers to ensure topics were covered.

Figure 2



For employee compliance, every week, we will hold safety meetings for employees on all shifts. We will go over safety topics as part of our educational programs. Employees in all departments are required to comply with these safety regulations. Failure to comply may result in disciplinary action. These workers are important people to our company so it is not our desire to release them from employment if they fail to comply. A verbal warning will be given at first, followed by a coaching session, a written warning afterward, and if the employee continues not to safety regulation, suspension or termination may occur.

It is our belief that when the first two compliances are taking place, the overall performance of U.S Robotics will improve and reach a new pinnacle. With the decrease of accidents and injuries, the company will save money. This money can be rewarded to employees through quarterly bonuses or through monthly safety meals. The morale of the workers will increase, thus resulting in the overall performance.

Overall, the employees of U.S Robotics are the most important aspect of the business. Without them, we would not be able to accomplish anything. We want to provide a safe work environment for all personnel.

# **Benefits & Feasibility**

All production activities have potential risks and dangerous factors affecting labor productivity and workers' health. We cannot predict those factors, but by applying occupational safety measures, we can minimize the risks arising. Ensuring occupational safety helps to prevent occupational accidents and diseases, thereby limiting illness and reducing workers' health, thereby contributing to the protection and development of the production force, increasing productivity. labor and environmental protection, thereby bringing economic and social benefits.

There are 3 solutions that we believe will help our company to create a safer working environment for our employee:

- Reorganization of warehouses: Warehouse organization is the process to manage the warehouse professionally and is important in business. With a scientific arrangement of goods, we will bring maximum efficiency to our company by increasing storage capacity. Besides, it also makes finding goods more convenient.
- 2. Safety equipment: Labor protection equipment is a prerequisite to ensure the health and safety of employees. Specifically, depending on each production job, employees are responsible for providing full safety equipment.
- 3. Proper training: Effective training can help enhance employees' inherent skills and increase their understanding of the skills that they lack. Multi-skilled employees can perform a variety of tasks and they are more easily transitioned to different roles within the organization. As a result, training will make the employees more confident and motivated. In addition, the situation of employees changing jobs is increasingly common, so our company should have a backup plan. Organizing training courses for employees is an effective way to help our company not be disordered when there are changes in personnel or changes in the production and business environment. With training activities, enterprises have prepared skilled human resources as well as meet the requirements of the new situation

# **Plan of Work**

- 1. Reorganization of warehouses: The simplest way to quickly pick up items in stock is to sort products by SKU and in alphabetical order.
  - a. Example: 1 shelf only stores items with SKUs that start with the letter A, another shelf holds products with SKUs that start with the letter B
  - b. Warning:
    - i. Each shelf we should only put 1 SKU code, if the warehouse is too tight and needs to take advantage of space, the solution is to arrange them in rows. For example, if there are 5 SKUs on the same shelf, arrange so that all 5 SKUs can be seen from the front and the rest of the products will be located behind the product.
    - ii. The guidance and control of loading and unloading of goods in the warehouse is the responsibility of the warehouse manager, and must ensure that the tools and handling methods used are appropriate and do not damage the product. Only the warehouse manager has the right to bring goods into or move them from locations in the warehouse, except for authorized individuals. Before importing goods, the warehouse manager is responsible for keeping the premises clean and tidy.
    - iii. Goods in the process of moving must be light and avoid collisions and breakage. Goods after being exported must be neatly arranged, in order to have a place to display other goods, excess goods must be placed in a separate area.
- 2. Safety equipment: Depending on the characteristics and management effects, safety equipment will be provided for our employees at specific times.
  - a. Helmet: As a general guideline, most hard hat manufacturers recommend replacing hard hats every five years regardless of outside appearance. Based on our company workplace environment we suggest that we will provide new helmets for employees every 3.5 years.
  - b. Safety vest: With proper care, safety vest should last between 5 and 7 years. It is important to check safety vests frequently for rips, tears, or wear to maintain optimum protection. Based on our company workplace environment we suggest that we will provide a new safety vest for employees every 5 years.
  - c. Safety boots: Generally, worker's safety shoes can last between six and twelve months in a normal work environment. Based on our company workplace environment we suggest that we will provide new safety boots for employees every year.
- 3. Proper training: This is a long-term strategy to build an elite and equal capacity team

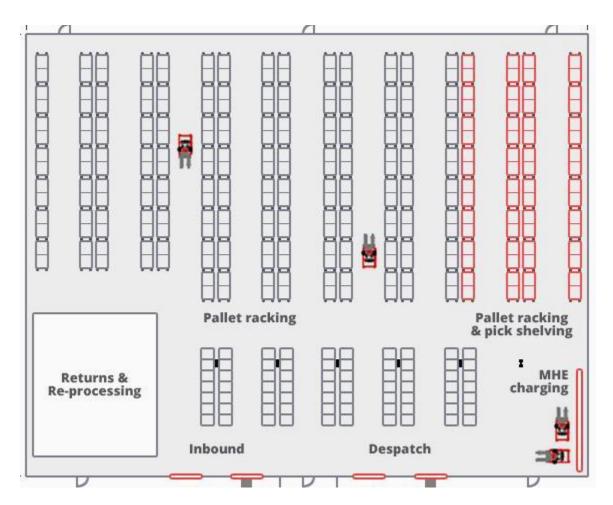
- a. Internal session: Training through enterprise-wide or group meetings. This meeting usually takes place on a weekly, monthly, or weekly basis. It will be good for individuals to improve their capacity, practice soft skills to know how to coordinate between departments. Businesses often use this type of training to coach on a specific topic, skill that many employees need to know
- b. On-job training: Our employees will be trained by learning through actual work. This form needs to ensure that there is a separate time for the trainer and the apprentice so that the work progress is not affected.
- c. Mentorship: The form of tutoring training is the timely monitoring, guidance and support for employees. This will make it easier for an experienced manager or person to pass on knowledge and skills to inexperienced employees.

# Task Breakdown/Schedule

*Safety equipment:* With the bulk orders, our company will receive a 20% discount from the suppliers.

Item	Supplier	Quantity	Order date	Guaranteed delivery date	Total cost
MSA Full Brim, Hard Hats	MSA Safety	1,500,000	03/01/2022	03/16/2022	\$35.1 Million
GSS Safety 1701, Class 2 Heavy Duty Safety Vests	GSS Safety	1,500,000	03/01/2022	03/16/2022	\$20.9 Million
Wolverine Gambrel 6" Steel Toe Boots	Wolverine	1,500,000	03/01/2022	03/16/2022	\$100 Million

Reorganization of warehouses: When our proposal get approval, this process will be done within 3 days according to the warehouse arrangement chart below



# Warning:

- Storekeepers must master the information and location of stored goods through this diagram. In case there are any changes (changing location, importing more goods, exporting all goods, ...) it is necessary to immediately update and disseminate to the warehouse staff
- It is necessary to accurately represent the actual storage location in the
  warehouse in the storage diagram. Storekeepers must master the information
  and location of stored goods through this diagram. In case there are any changes
  (changing location, importing more goods, exporting all goods, ...) it is necessary
  to immediately update and disseminate to the warehouse staff.

# **Proper training:**

DEPARTMENT	ASSIGNMENT	GOAL/DESIRED OUTCOME
Production  Start date: 03/01/2022  End date: 03/19/2022	Internal session  Monday, Wednesday  10:00AM – 11:30AM FRET 219	Improve the efficiency of the production line to achieve the set output targets and ensure the best value and quality of the finished products.
Research and Development  Start date: 03/01/2022  End date: 03/19/2022	Internal session  Monday, Wednesday  1:30AM – 3:00PM FRET 219	Researching all factors related to products and services of the business such as properties, efficiency, ability to improve, to come up with the most appropriate development plan to meet the needs of customers.
Purchasing  Start date: 03/01/2022  End date: 03/19/2022	Internal session Tuesday 10:00AM – 11:30AM FRET 219	Advising for planning purchasing and building purchasing processes. Quality control of goods and materials, manage and direct the activities of purchasing studio staff.
Marketing  Start date: 03/01/2022  End date: 03/19/2022	Mentorship  Monday, Wednesday  10:00AM – 11:30AM FRET 330	Market forecasting research. New product development program implementation. Market segmentation, targeting, brand positioning. New product development. Develop and implement a strategic marketing plan.

		Establish effective relationships with the media.
Human Resource Management  Start date: 03/01/2022  End date: 03/19/2022	Mentorship  Monday, Wednesday  10:00AM – 11:30AM FRET 330	Management of labor contracts, employee records, personnel scheduling. Guide new employees to understand the labor contract, clarify salary, bonus, welfare policy at the company. Monitor and implement the leave and contract expiration regimes as prescribed.
Accounting and Finance  Start date: 03/01/2022  End date: 03/19/2022	On-job training Tuesday, Thursday  10:00AM – 11:30AM Main Warehouse	Complete financial and accounting related tasks according to State regulations. Complete, accurate and timely accounting of capital and debt. Accounting for revenues and expenditures and business performance according to company policies. Make financial and business plans by month, quarter, year.

# **Problem Analysis**

# **Difficulties in training**

One of the first hurdles that we will come across is the dedication and attention to detail when it comes to training our employees. With newer employees it will be extensive and gruuling, but in the end it will be some of the first things that they will enter with and expect. With older employees it will be sort of a retraining which will come with its own set of difficulties. They will have to forget and relearn newer policies and more.

# **Shipping and Quality of Equipment**

This portion of our worries is not necessarily something that is completely within our control. But nevertheless, it is at the forefront of our minds. Whether that be how long the equipment will take to ship and be dispersed across our locations, or even if the equipment will maintain quality over the course of transportation. Quality control is one of the biggest factors that we value here and it will not be sacrificed. There is always the possibility that we will end up needing to switch providers.

# **Redesign and Clarity**

With this new redesign of our warehouses, we need to make sure that everyone have individually studied their sections properly and have overall knowledge of how things will move forward. The new design will obviously throw not only the workers off, but also the overhead staff. Going over these changes and making sure that everyone understands will help us stay safe. This also comes with the clarity of changes. Workers need to understand exactly why the new design is the way it is as well.

# **Personnel Qualifications**

# **Program Officer**

- MBA from an accredited university
- Certified Business Analysis Professional (CBAP)
- Project Management Professional (PMP)

# **Research Administrator**

- MBA from an accredited university
- Certified Business Analysis Professional (CBAP)
- Certified Business Process Associate, Professional, or Leader (CBPA)
  - Professional Certification in Team Leadership

# Chair member(s)

- MBA from an accredited university
- Certified Business Analysis Professional (CBAP)
- Association of International Product Marketing and Management (AIPMM)
- Percentage of business ownership

# **Budget**

The total budget for this project is **\$180 Million** USD.

Here's how the budget will be spent to make sure that we no longer have an accident within the warehouses.

Item	Cost
MSA Full Brim, Hard Hats	\$35.1 Million
Wolverine Gambrel 6" Steel Toe Boots	\$100 Million
GSS Safety 1701, Class 2 Heavy Duty Safety Vests	\$20.9 Million
Warehouse Organization / Move Product A	\$2.8 Million
Warehouse Organization / Move Product B	\$3.1 Million
Warehouse Organization / Move Product C	\$2.5 Million
Warehouse Organization / Move Product D	\$3.4 Million
Warehouse Organization / Move Product E	\$2.2 Million
Warehouse Organization / Move Product F	\$2.9 Million
Warehouse Organization / Move Product G	\$2.7 Million
Warehouse Organization / Move Product H	\$4.1 Million
Warehouse Organization / Move Product I	\$1.3 Million
Warehouse Organization / Move Product J	\$2.8 Million
Warehouse Training: 2-3 Years of Experience	\$50 Thousand

Warehouse Training: 1-2 Years of Experience \$350 Thousand

Warehouse Training: <1 Years of Experience \$800 Thousand

Total cost \$180 Million USD

# **Conclusion**

To conclude, we here at US Robotics are willing and able to do everything in our power to make sure that our teams have a safe and peaceful working environment. This at first obviously comes at a cost to us as an organization, but overall we believe that it is of the utmost importance. Moving into the future with these changes in mind will breed an ecosystem that is one for all. We plan to implement all of these changes in any further expansion of our company and if more issues arise we will do our best to solve them. We hope that this calms the mind of many and allows for our team to work better. Thank you for taking the time to read through this proposal.

# References

Fig 1. "Warehouse & Industrial Safety Topic." Accessed February 23rd, 2022. <a href="https://www.istockphoto.com/photo/warehouse-industrial-safety-topic-a-female-worker-with-her-foot-under-the-wheel-of-a-gm1154071822-313666142">https://www.istockphoto.com/photo/warehouse-industrial-safety-topic-a-female-worker-with-her-foot-under-the-wheel-of-a-gm1154071822-313666142</a>

Fig 2. "Workplace Safely Basic: Employees Handbook." J.J Keller & Associates, Inc.. Accessed February 23rd, 2022. <a href="https://www.jjkeller.com/shop/Product/Workplace-Safety-Basics-Employee-Handbook">https://www.jjkeller.com/shop/Product/Workplace-Safety-Basics-Employee-Handbook</a>

Freedesignfile. "Smiling woman with thumbs up". Retrieved March 2, 2022, from https://freedesignfile.com/331842-smiling-woman-with-thumbs-up-stock-photo/

Gambrel 6" steel toe boot. Wolverine. (n.d.). Retrieved February 28, 2022, from https://www.wolverine.com/US/en/gambrel-6-inch-steel-toe-boot/47288M.html?dwvar 47288M color=W080016&ref=gambrel#q=gambrel&start=1

*MSA V-Gard full brim hard hats: MSA Safety: United States*. MSA Safety. (n.d.). Retrieved February 28, 2022, from https://us.msasafety.com/pn/475369

*Premium class 2 Hyper-Lite Vest.* GSS Safety. (n.d.). Retrieved February 28, 2022, from https://www.gsssafety.com/prod-21-1-12-19/premium-class-2-hyper-lite-vest.htm

# **Key Card Instructions**

# **U.S Robotics**

### Memo

TO: All employees

FROM: U.S Robotics Planning Team

DATE: Sunday, March 20, 2022

SUBJECT: Key Card Instruction for U.S Robotics Employees

Good afternoon,

### Introduction

Regarding the safety and well-being of the employees of U.S Robotics, key card doors had been installed to all facilities of U.S Robotics. The Planning Team of U.S Robotics had sent this instructional memo this afternoon to inform you of how to use the key card and to enter buildings. Please read carefully through each step in the instruction. If you have any questions or need any clarifications, please ask your team leaders, or email us at planningteam@us.robotics.com.

### Instructions

- **1. Step one:** To enter the facilities, scan the barcode located at the back of the key card under the scanner.
- 2. Step two: Enter the last four digits of your I.D number into the keypad after scanning.
- 3. Step three: As the door unlock, enter, and shut the door behind you.



# \*The keycard looks like this\*



WARNING: Replacement of card cost around \$200.

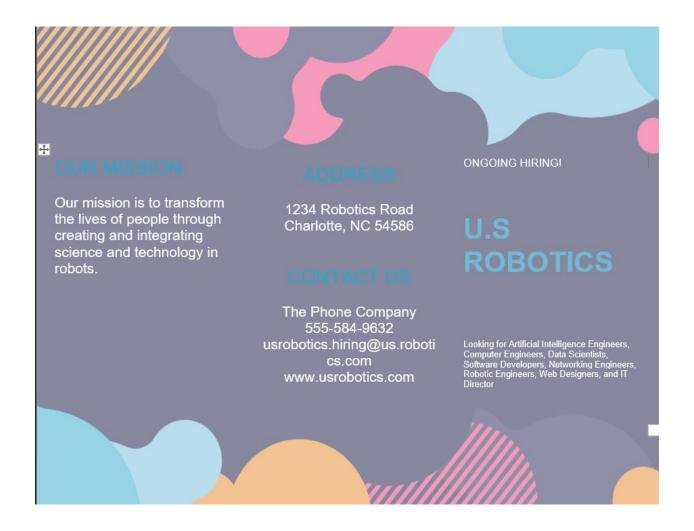
# Conclusion

It is our hope that the provided information will serve as a guild on how to properly use the keycard. The safely and well-being of the employees are our top priority.

Thank you,

Planning Team

# **Trifold Brochure**





# Join U.S Robotics

# Now Hiring!





Monday, March 21, 2022 9:00am – 3:00pm

# **Available Positions**

IT Director
Web Designers
Networking Engineers
Data Scientists
Software Developers

U.S Robotics 1234 Robotics Road Charlotte, NC, 54586 555-584-9632

# **Progress Report**

# Memo

TO: Alexander the Great, CEO - U.S Robotics

FROM: Thomas Zbodula, Dylan Aderson, Hayden Le, Jai Vang - Planning Team of U.S Robotics

DATE: April 3, 2022

**SUBJECT: Progress Report** 

Dear Alexander the Great,

I am sending you this progress report to let you know of the progress on our new "WareSafe<sup>TM</sup>" training program that we began after the injury to the OSHA inspector. The training program was proposed 9 months ago, and we are incredibly pleased with the results overall. The training program was mainly focused on shrinking the learning curve that new employees must go through in order to become a safe and reliable warehouse worker. To prevent any future incidents, we optimized and tuned the program to produce the best results in order to suit everyone's needs. Below is a summary of what exactly the training program entails

# **Summary of the project**

To begin the building process for the training program, we sat down with our warehouse management and the employees who have the most experience here at US Robotics and we discussed how to devise a program that was simple, yet effective towards eliminating the risk of potential accidents going on inside our warehouses. We ended up coming up with a rough draft for WareSafe, which was a 6-week program that all new warehouse employees must go through in order to become warehouse certified and are allowed to continue to work. The 6 weeks are divided into 3 different sections listed below.

Section 1 - Employee Safety
Week 1: Introduction, how to operate different machines and how to apply for various licenses such as forklift drivers.
Week 2: Instructions on what to do in an emergency situation such as imminent weather, fire, equipment failure, etc.
Section 2 - Warehouse Safety
Week 3: Instructions on where everything is located, all employees must get 90% on a quiz that asks questions about where our products are located in the warehouses.
Week 4: Instructions on keeping everyone safe, all employees must get 90% on a quiz that asks questions about warehouse safety and proper protocol.
Section 3 - Drill Week
Week 5: This is to test an employee's ability to handle various common workplace situations that will require them to respond and act accordingly
Week 6: This is to test an employee's cognitive ability to handle various fast-reacting situations such as someone running out in front of a forklift

As you can see, the program is evenly distributed and almost everything that we had proposed we were able to make happen with the program. There were a couple arguments here and there that caused delays, but for the most part everything ran incredibly smoothly.

# **Objectives:**

The objective of our proposal is to provide the best training for all employees and to create a safe working environment for everyone in the facility. The employees are the most important aspect of our

business. Without them we would not be able to carry out the day to day task. We believe these proper training will educate all employees in all areas of their job duties. Our visitors are also important as well. First appearance is very important, and we want the interior and exterior of the facility to reflect the company. Just as important in making the working environment safe for all the employees, we gave the same goal for the visitors also.

# Scope (or limits):

After a few training sessions, some employees submitted their willingness to skip the training. When working, family life, and other demands are draining employees' energy, training sessions make them have more stress. Moreover, intruding on employees' personal time with training sessions is a surefire way to get them to object to training. To solve this problem, we used a microlearning approach and delivered useful and relevant content in small chunks. Short videos, checklists, infographics, and even gifs were simple microlearning formats that made training easier. We also communicated several concepts at once with clever graphics. They were a valuable time saver for learners, as well as a great time reading text in emails, reports, and newsletters. We prioritized short, simple reviews where possible. This provided the staff with a quick opportunity to feedback on their learning progress. In addition, we optimized our training for mobile. Mobile features allow learners to access LMS and training materials anywhere, anytime - including on the train to work or during their lunch break. As a result, this made training a lot more convenient.

# **Completed Work:**

The new training program, "WareSafe<sup>TM</sup>", is complete and is already being implemented starting on April 1st, 2002. The new training program consists of , Section 1 - Employee Safety, Section 2 - Warehouse Safety, and Section 3 - Drill Week. We will continue our new training program with all new employees and current employees, as needed.

### In Progress Work:

At the moment, we are painting new yellow traffic lines in the facility. The old lines are worn out and need a new paint job. Since the consumer demand is increasing, we decided to hire an outside contractor to come to the plant and repaint the lines instead of having the employees paint the floor. Once this project is completed, all employees and visitors will be able to walk within the yellow lines safely. Furthermore, we are in the process of ordering a mirror reflector so we can put it up in blinds spots in the plant. We should receive these mirrors by April 10th, 2022.

# Work that remains to be done:

After evaluating 4 potential investors, we concluded that Elon Musk would be the best partner for our company but we want to have more time to assess the opportunities of making profit with the partnership agreement.

- Musk's fortune depends on the value of the companies he runs: Tesla a \$1 trillion business, and SpaceX which are valued at more than \$100 billion. However, the above valuation is mainly based on investors' beliefs about the company's relative revenue and profit, not business results. Tesla's sales and profits are still a fraction of those of other established automakers.
- Since its IPO, Tesla has only had seven profitable quarters for the company. However, this does not discourage Tesla shareholders. The company's greatest value seems to be Elon Musk's foresight. It can be said that it is thanks to his plans, statements and announcements that the stock price can increase by thousands of percent. Although the company struggled to make a profit, it still ranks among the top 10 largest companies in the world, ahead of Facebook, and Elon Musk has become the richest person in the world, far ahead of Jeff Bezos (Amazon) or Bill Gates (Microsoft) behind.

Problems/Unexpected Issues: (Hayden)

There are two unexpected issues that weren't in our plan but our team already have the solutions for them, we just need to have a least 3 days more to solve those problems

- 1. We were not not be able to determine the periodic inventory level. Consequences, we are not providing enough products for distribution agents; warehouse operations are delayed.
  - Our solution: we will apply first-in-first-out method, goods that are entered first will also be output first and vice versa. The advantage of this method is that it will avoid defective goods and expired goods. We will also use management software to support the import and export more accurately.
- 2. The electricity of the warehouse of our supplier for the safety helmet was shutdown due to the storm last week, so the shipment will be delayed but for the next order, our company will receive 30% discount as compensation

### **Cost report: (Dylan)**

Everything has been implemented very well with our staff and has most certainly been effective. One of the issues that caused us some worry were the initial inventory levels, but in the end it did not end up costing us anything besides a few days of delays. Which ended up costing around 50,000\$. This was more than made up for by the discount compensation from the helmet order that we received due to a storm. This discount comes in at around 10.5 million in savings. We are currently over 10 million in the green from our first projection.

### Personnel Report:(Dylan)

As our mission continues and will forever become a part of us here at US Robotics, we see extreme greatness in our future. Our team has done nothing but the best in their attempts to conform to the new standards and learn new procedures to further their safety. As well as the staff that is being taught, our staff that are the teachers are going above and beyond to make sure that everyone is on board and able to help each other out.

Marco is our data analyst and collector and he has been taking notes in our facilities across the country. He is the main point of contact when we need new statistics and help. He recently said that our warehouse accidents have already fallen 15% in such a short time and are projected to rise very heavily. Our team is everything and it shows true that we can be better.

# **Conclusion: (Thomas)**

Overall, I am very pleased with how our more experienced warehouse workers along with our highest ranking officials were able to come together and make something that benefits everyone. With the project being proposed and for everyone to be willing to help out almost immediately was truly something special. I know that we need to have the right people in place to make sure that the WareSafe program is something that will stick around for a very long time and I'm confident that we have the right men and women for the job. With the right leadership, we were able to cut down on monthly warehouse accidents by an astonishing 85% in just 6 months of usage so far. As the year ends, we will be sure to send you another progress report with hopefully even better results.

# **Letter of Inquiry**

Jai Vang 985 Friendship Lane Greensboro, North Carolina 27401 (828) 238-5700 jvang29@uncc.edu

January 20th, 2022

Tom Bucky, Owner ABT Corporation 584 Nimbus Drive Charlotte, North Carolina 28223

Dear Tom Bucky:

U.S Robotics is searching for vendors that provides robotics manufacturing for domestic purposes. We are writing to ABT Corporation to see if such production is available.

Exterior surfaces, internal manipulator, endeffector, and locomotion, controllers, sensors, and computer chips are needed for the robotics products of U.S Robotics. Engineers and designers of U.S Robotics have created the blueprints needed for the products. However, U.S Robotics needs a supplier that can manufacture such products.

U.S Robotics are looking for vendors that can help carry out this vision so that we can provide ethical services to society. Thank you for taking the time to review our request. We hope to receive a written response to this inquiry by February 10th, 2022.

Best regards,

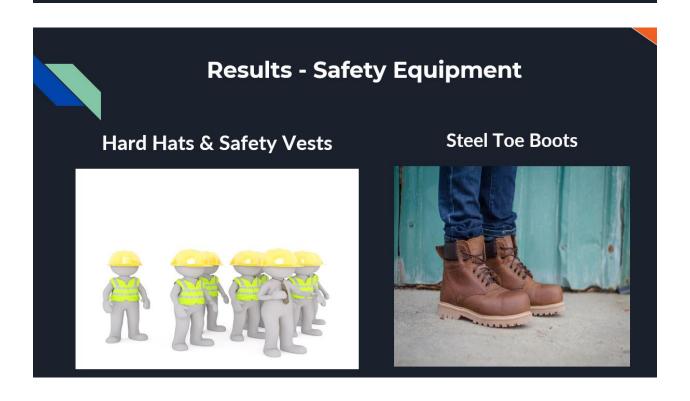
Jai Vang Director of Robotics Engineering

# **US Robotics Final Report**



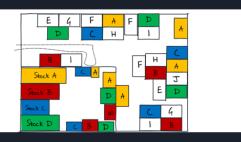
# Issue - What Happened?

# Proposed Solution - Safety Equipment Hard Hats Safety Vests Steel Toe Boots The same of the safety Equipment of the safety E



# Proposed Solution - Warehouse Organization

In order to cut down on any potential future incidents, U.S Robotics re-organized our main warehouses to make everything as easily accessible as possible.





# **BEFORE LAYOUT**

# **AFTER LAYOUT**

I: Personal Use II: Commercial Use

This was a key component in making sure our workplace remained a safe one.

Stock A: Electronics | Stock B: Gears | Stock C: Circuitry | Stock D: CPU/RAM | Stock E: Arms

Stock F: Cables I | Stock G: Cables II | Stock H: Al/Logic | Stock I: Completed | Stock J: Completed II

# Result - Warehouse Organization

Reorganizing the warehouse helped way more than we could ever imagine. Not only did it help out with accident prevention, it did everything listed below

- Cut down on all workplace accidents in 2021 by 67%
- II) Forklift drivers spent an average 1hr and 33 minutes less moving product around
- III) This increase in speed allowed for \$1,524,390 in extra revenue in 2021
- IV) Warehouse workers now focus only on particular sections of the warehouse (instead of traveling)
- V) New workers showed a 34% increase in warehouse productivity in 2021
- VI) U.S Robotics veteran employees completed warehouse tasks 57% faster in 2021

# Proposed Solution - Proper Training

Internal session: Training through enterprise-wide or group meetings. This meeting usually takes place on a weekly, monthly, or weekly basis. It will be good for individuals to improve their capacity, practice soft skills to know how to coordinate between departments. Businesses often use this type of training to coach on a specific topic, skill that many employees need to know

On-job training: Our employees will be trained by learning through actual work. This form needs to ensure that there is a separate time for the trainer and the apprentice so that the work progress is not affected.

Mentorship: The form of tutoring training is the timely monitoring, guidance and support for employees. This will make it easier for an experienced manager or person to pass on knowledge and skills to inexperienced employees.



# Investors

Elon Musk is looking to invest into our company. His proposal was a 30,000,000 dollar investment for a 15% stake in the company. With the new arrangements and training schedules we have yet to formally deny or accept any offer, but we have had our team send over a sort of counter proposal. This proposal includes that within his acquisition of a portion of our company, we would like for him to integrate some of his energy producing products



# **Current Work**

After all of our locations complete the warehouse overhaul by the end of 2022, we will turn our heads towards our original goals of producing a highly efficient core for our robots. These cores will become the spearhead of our company and will soon after become a standard for robotics of the future.



