



Final Business Plan
Business Name: WayTray, Inc.
Business Idea: Portable & Collapsible Mechanic Tool Tray

Keep your stuff right where you need it.
www.waytrayinc.com

Team Members:

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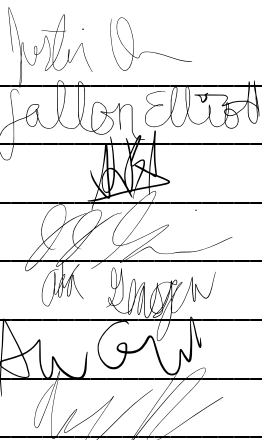
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Handwritten signatures of the team members, each written above a horizontal line. The signatures are: Justin Dehghan, Fallon Elliott, Alba Fernández Almagro, JJ Garcia, Ada Glasgow, Ali Gull, and Andrew Page.

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Executive Summary

WayTray, Inc.
 JJ Garcia
 7611 Kempwood Dr.
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Management: General Manager

Industry:
 337127: Institutional Furniture Manufacturing

Number of Employees: 8

Amount of Financing:
 Total: \$500,000
 Common Stock: \$200,000 (40%)
 Bank Loan: \$300,000 (60%)

Investment Sources: Common Stock, Bank Loan

Use of Funds:
 Product Development, Marketing, Operational Expenses
 (Rent, Salaries, Wages, Equipment, Raw Materials)

Product/service selling price:
 Year 1: \$249.99 (Retail)
 Year 2: \$259.99 (Retail)
 Year 3: \$279.99 (Retail), \$190.00 (Wholesale)
 Year 4: \$289.99 (Retail), \$200.00 (Wholesale)
 Year 5: \$299.99 (Retail), \$210.00 (Wholesale)

Business Description: WayTray, Inc., based in Harris County, TX, will develop and manufacture a portable, collapsible tool tray for use in mechanic shops and various DIY settings. Our goal is to offer consumers a product that will make their tools more accessible in any situation.

Product: The WayTray is a plastic, 18x12" plastic molded tray with compartments for different tools. The tray is fixed to the top of a scissor lift mechanism, which is operated by a hand crank. There is a rectangular metal frame at the bottom of the unit with four caster wheels on each corner.

Competitive Advantage: We plan on investing in our employees and creating an engaging work environment. Additionally, we will focus our resources on creating an exceptional customer service experience to build customer loyalty.

Markets: Our primary target market for the WayTray consists of homeowners over 55 years old. This market includes nearly 3.1 million Americans in suburban and metro-mix areas. This target market has an estimated growth rate of 2% to 3.5% over the next 5 years. These households are the most likely to engage in vehicle and home maintenance, due to their relatively high income and surplus of free time.

Distribution Channels: For the first year of operation, we will sell the WayTray through our website. In the second year, we will incorporate Amazon. In year 3, we will begin distributing the product to retail hardware stores.

Competition: Our primary competition is made up of well-established mechanic shop hardware manufacturers (Torin, Craftsman, Milwaukee). Although these firms do not currently offer a product similar to ours, they have the resources necessary to begin a line of products to serve a common purpose.

Financial Projections (Unaudited):

	2023	2024	2025	2026	2027
Revenue:	\$1,173,203	\$2,346,410	\$2,660,378	\$3,458,839	\$3,741,287
EBIT:	(\$66,039)	\$310,643	\$(96,164)	\$173,805	\$284,287



Elevator Pitch

The WayTray is the most effective way to carry and organize your tools. Simply raise the tray to your desired height, and never bend down again. The height-adjusting feature also allows the WayTray to collapse and store easily. Use the WayTray your way.

Product Description

The WayTray is a height-adjustable tool cart with a plastic molded tray designed to keep your tools organized and accessible. The tray is fixed to a manual scissor lift mechanism that allows it to be positioned from 12" to 42" off the ground. The height of the tray can be adjusted using the manual hand crank. Four premium caster wheels make the WayTray easy to roll around the workspace. Each WayTray is fitted with compartments for smaller items and hooks to hang tools. The WayTray costs \$249.99.

Competitive Advantage

Trust, reliability, and safety, our three core values, provide the foundation to our sustained competitive advantage: workplace environment. By using the Human Resource strategy Loyal Soldier, we will focus on providing education incentives for our employees because it leads to increased retention and employee satisfaction. Thus, translating over to our customer base, creating an exceptional customer experience and trusted customer relationship.

Value Proposition

WayTray's appeal to the public, instead of specialized spheres of work, provides value through marketability, and thus, market share. The derivative form of the WayTray, the lift table, is a proven product in alternative industries. The momentum created from its established market development will be used to sell to the new, more profitable, and more marketable demographic of homeowners.

Business Strategy

WayTray will follow a differentiation business strategy by providing our customers with unique and distinct features in our product and company. By investing in our employees and



creating a positive work environment so they can perform at their absolute best, we will stand out from what our competitors are offering in the marketplace increase our competitive advantage and become a trusted brand among consumers.

Business Location

Our facility is located 19 miles away from the Port of Houston, allowing for easy access and lower transportation costs from suppliers. The proximity of local universities such as Rice University and the University of Houston will be valuable for providing highly qualified employees. Another advantage of being in Texas is the absence of state income taxes. This allows us to invest more money in our employees. We have selected a 10,750 square foot facility that satisfies all the company's requirements with 8,000 square feet for manufacturing and storage, and 2,000 square feet of office space for management and administration functions. WayTray is based outside of Houston, Texas

Outsourcing

Since the company has a small number of employees, financial operations such as bookkeeping will be outsourced to local financial firms. The product is manufactured entirely in our own facility, so we will have no need to rely on outsourcing for assembly operations. However, outbound transportation will be outsourced to reduce transportation costs.

Financial Performance

In 2023, the company has sales totaling \$1,173,203 and will grow to \$3,741,287 by year 2027. WayTray will experience a net loss of \$93,039 in year 2023 because of startup cost, but net income will grow to \$204,408 by year 2027. The net profit margin is below the industry average, but trends in a positive direction with the ratio being 5.46% by 2027. Return on equity is negative for 2 out of the first 3 years and starts to make a positive return in year 2026 at a ratio of .36. As the business becomes more cost efficient and sales increase, the company will start to generate a growing profit consistently.

Exhibit #1: Organizational Chart

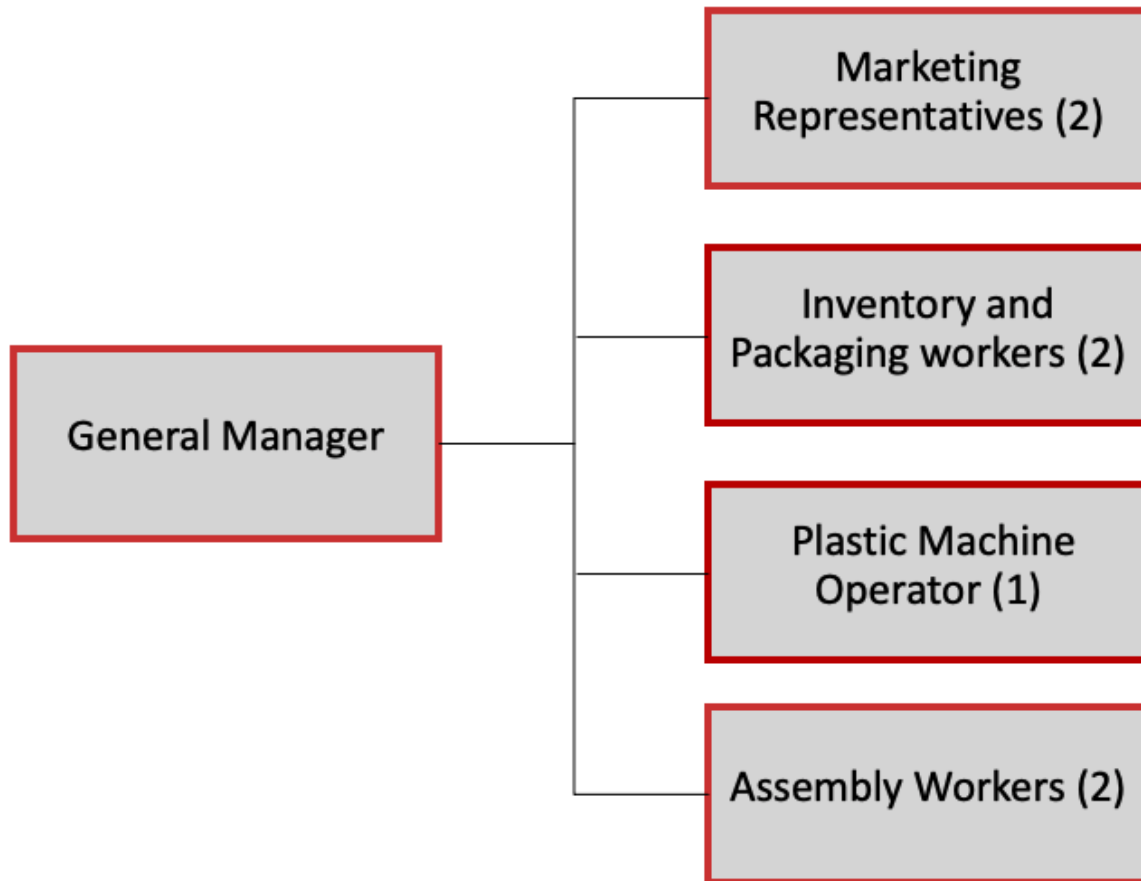


Figure 1: Year 2 Horizontal Organizational Chart. By Year 3, 2 Sales Representatives, 1 Customer Service Representative, and 1 additional Assembly Worker will be hired (increasing the staff from 8 employees to 12 employees).

Exhibit #2: Pay, Deductions, Benefits, Knowledge, Skills, Abilities & Motivation Table

Position	Salary/Wage	Number of employees	Social Security	Medicare	*Total FICA Deductions	Benefit - Retirement & Savings	Benefit – Insurance	Benefit - Work Compensations	Benefit –Paid Leave	**Total Benefit
General manager	\$59,800	1	\$3,707.60	\$867.10	\$4,574.70	\$3,049.80	\$4,963.40	\$657.80	\$4,425.20	\$13,096.20
Marketing Representative	\$38,800	2	\$4811.20	\$1125.20	\$5,936.40	\$3,957.60	\$6,440.80	\$853.60	\$5,742.40	\$16,994.40
Inventory Worker	\$12.75/h	2	\$2341.36	\$547.24	\$2,888.60	\$1,924.74	\$3,132.42	\$415.14	\$2,792.76	\$8,265.06
Plastic Machine Operator	\$13.46/h	1	\$1,235.80	\$288.85	\$1,524.65	\$1,015.96	\$1,653.43	\$219.13	\$1,474.14	\$4,362.66
Assembly worker	\$15.68/h	2	\$2877.00	\$672.98	\$3,549.98	\$2,367.06	\$3,852.26	\$510.54	\$3,434.54	\$10,164.40
Totals	<u>\$ 241,473</u>	8	<u>\$ 9,958.18</u>	<u>\$ 3,501.37</u>	<u>\$ 18,474.33</u>	<u>\$ 12,315.16</u>	<u>\$ 20,042.31</u>	<u>\$ 2,656.21</u>	<u>\$ 17,869.04</u>	<u>\$ 52,882.72</u>

*Federal Insurance Contributions Act tax calculated based on Social Security tax rate of 6.2% and Medicare tax rate of 1.45% on wages.

**Benefits: Retirement and savings based on 5.1% of the salary; Insurance based on 8.3% of the salary and includes life, health, and short-term and long-term disability; Workers Compensation's based on 1.1% of the salary; and Paid Leaves based on 7.4% of the salary includes vacations period of 30 days, holidays (14 days), sick and personal (10 days) (In year three, two Sales Representatives with salaries of \$29,660, one Customer Service Representative with a salary of \$23,860, and an additional Assembly Worker are added to staff.)

Job Title	Knowledge	Skills	Abilities
General Manager	Minimum of an associate's or bachelor's degree. Minimum 3 years of experience in management.	Forecasting, capacity planning, scheduling, managing inventories, assuring quality, deciding location and layout of facilities	Decision making, interpersonal, leadership, motivational
Marketing Representative	Minimum of an associate's or bachelor's degree. Minimum of 3 years sales experience.	Determine market size, determine pricing, produce materials for promotional campaigns, report to management, budgeting, graphic design	Interpersonal and communication
Inventory Worker	Minimum of high school diploma or equivalent OSHA Certification mandatory upon employment	Reviewing orders, locating, preparing, and packaging items, manage inventory and conduct accurate inventory counts	Able to lift at least 50 pounds Organized, detail oriented, exceptional communication skills
Plastic Machine Operator	Minimum of high school diploma or equivalent OSHA Certification mandatory upon employment	Must be able to operate injection molding equipment and understand basic properties of ABS plastic Read and execute blueprint and component plans	Must be safety oriented, detail oriented, and have exceptional communication skills
Assembly Worker	Minimum of high school diploma or equivalent OSHA Certification mandatory upon employment	Produce components by fastening and welding Ensure each component is assembled correctly Able to operate power tools, read assembly blueprints, and view specifications	Must be able to stand for an entire shift, lift at least 50 pounds

Raises, Bonuses, & Incentives: All employees will receive an *annual raise* of 4.5% to combat inflation and cost of living. General Manager and Marketing Representatives will be compensated with an *annual performance-based bonus* of 4.5% and 2% of the company's Net Income, respectively. Inventory Workers, Plastic Machine Operator, and Assembly workers receive a \$5,250 *tuition reimbursement incentive* for perusing a degree related to company positions to be promoted within the company by furthering their education. They will also receive a 10% semi-annual *retention bonus* of their income for each period they stay with the company. In year three, two Sales Representatives are added to our staff, their incentive is a 1% *commission* of half of wholesales.

Exhibit #3: Market Segmentation

Segment Name	Size (# of Households in Segment)	Growth Projection	Description	Priority level for targeting	Justification for Targeting
Toolbelt Traditionalists	3,096,492 people	2-3.5% over the next 5 years	Mostly homeowners of 55 years of age or older with some with college educations. Mainly empty nesters, they live in Metro Mix areas. Their median household income averages \$68,831. Their psychographic traits include owning Lincolns, watching NASCAR events, going on Carnival cruises, listening to Gospel, and visiting AARP. These individuals are primarily active on Facebook, but social media usage is generally less frequent among this age group, therefore using Local TV ads for this segment will be more effective.	1	This segment is a high priority because it consists of individuals with more free time, due to being empty nesters and around retirement age. Their surplus of down time makes them more likely to do more at home projects and/or work on their vehicles. Also, they are clearly into cars because NASCAR is one of their hobbies. Of the three segments that have been identified, this segment is the largest. Additionally, the growth rate of this segment indicates that the market for our product will continue to increase over the next 5 years.
Rural Transmissions	2,665,330 people	2-3% decrease over the next 5 years	Mostly owners between 45-65 years old with high school education and an average midscale income of \$66,553. Distinguished for not having kids and living in rural locations where they enjoy hunting, fishing, wildlife, and four-wheeler/ATV magazines. In addition, when it comes to technology, they are conservative consumers who have a satellite Internet connection, have tv subscriptions via DISH Network/EchoStar being this a great approach for marketing, keep landline due to poor cell service, have satellite DISH feature: Broadcast TV, and browse NASCAR.com. Social media usage among this segment is generally less frequent than that of younger consumers, but Facebook usage is common.	2	This segment is a higher priority because, on the first hand, it comprises a high household size, and on the other hand, living in rural areas encompasses certain attitudes and behaviors such as being used to do things on their own, using their hand as their main tool, as well as when they engage on country activities. Also, the fact of not having kids influences their lifestyle, meaning more free time to invest somewhere else, especially in their hobbies which according to their descriptions, they are quite interested in motor vehicles, either cars or four-wheelers. Although slightly smaller than the first market segment listed, the growth rate and size of this segment make it an attractive portion of the population to market the product to.
Kid Country, USA	1,462,269 People	4% increase over the next 5 years	This segment is made up of upper-middle class households that are located in small towns. The families and individuals that are included in this segment typically range from 25 to 44 years of age and most commonly have children. These people are interested in outdoor sports, American vehicles, and motorsport events such as monster trucks. Social media usage in this segment is higher than the first two segments, especially Facebook usage, despite the young and influential target market.	3	This segment is similar to the first two that have been selected in multiple respects: they are in small towns, they are likely to perform their own vehicle maintenance, and they have children living their households. However, the younger age range of this market segment is expected to lead to less time spent on DIY projects. For this reason, this segment has less priority in our marketing strategy.
Young and Influential	1,158,998 people	4% increase over the next 5 years	This segment can be summarized as college educated upper-midscale younger families, mostly without kids. Ages in this segment fall between 25 and 44 years old, and the median household income in this portion of the population is \$70,774. This segment mainly consists of families living in suburban environments. These households can be characterized by ownership of Infiniti vehicles and tendencies to shop at HomeGoods. These individuals are highly active on social media, especially Instagram.	4	Many of these households are heavily involved in social networks, so marketing campaigns that take place on social media platforms would be effective in reaching this portion of the market. Many of these individuals live in apartments in suburban locations, so an organizational tool would be useful in a small living space. Despite being smaller than the other segments, this portion of the market has the highest rate of growth. Additionally, social media marketing will be particularly effective among this age group.

Exhibit #4: Market Quantification

Year	Total Market Potential (No. of Customers)*	Market Share**	Annual purchase amount***	Annual Unit Sales	W/Sale Price†	Retail Price†	Annual \$ Revenue
2023	3,096,492	1.06%	0.143	4,694	-	\$249.99	\$1,173,369
2024	5,790,631	1.09%	0.143	9,026	-	\$259.99	\$2,346,632
2025	7,006,254	1.13%	0.143	11,321	\$190.00	\$279.99	\$2,660,474
2026	8,511,401	1.16%	0.143	14,118	\$200.00	\$289.99	\$3,459,014
2027	8,550,681	1.20%	0.143	14,673	\$210.00	\$299.99	\$3,741,534

* The first year is taken from our first target market identified using Claritas. The total market potential of 2024 is a .5% increase from Toolbelt Traditionalists population in 2023 (Claritas). In 2025, Toolbelt Traditionalists and Rural Transmissions, the addition of our second target market, are increased by 1%, and our third target market, Kid Country USA, is added. In the fourth year, our fourth and final target market segment, Young & Influential, is added. Toolbelt Traditionalists and Rural Transmissions increase by 0.5% from the previous year in 2026, while Young & Influential increased by 0.8%. In the final year, all segments reach their growth projection rate.

** We found our awareness by finding the annual industry average percentages of ecommerce market penetration for our industry on IBIS World, 28.04% in the first year (IBIS World). The assumptions made to identify our market share include the percentage of survey participants who voted a seven for likelihood to try our product, 21%. As well as the percentage of our annual target market population, we will reach given our marketing budget, 100% in each year. Lastly, the assumption that consumers will buy our product once every 7 years, determined by looking at substitution products repurchase amounts on RykerHardware.

*** On average, users are supposed to renew their tools at least every 5 years (Ryker). Assumingly, our customers will not need to buy our product until around 7 years after they have purchased their first one to improve efficiency and maximize the value of our product. Using these assumptions we calculated our annual purchase amount through the ratio 1 unit per 7 years, which is .143 units.

† For the first year of operation we are assuming that 100% of our sales originate from web-based purchases. In year 2, 50% of sales are from our website and the other 50% are from Amazon. From 2025 on, we assume that 50% of sales are from retail stores because our product and name will grow with our target market population. Hence, retailers like Home Depot and Lowes will be more interested in carrying our product. The other 50% will remain web-based sales.

Break-Even Analysis

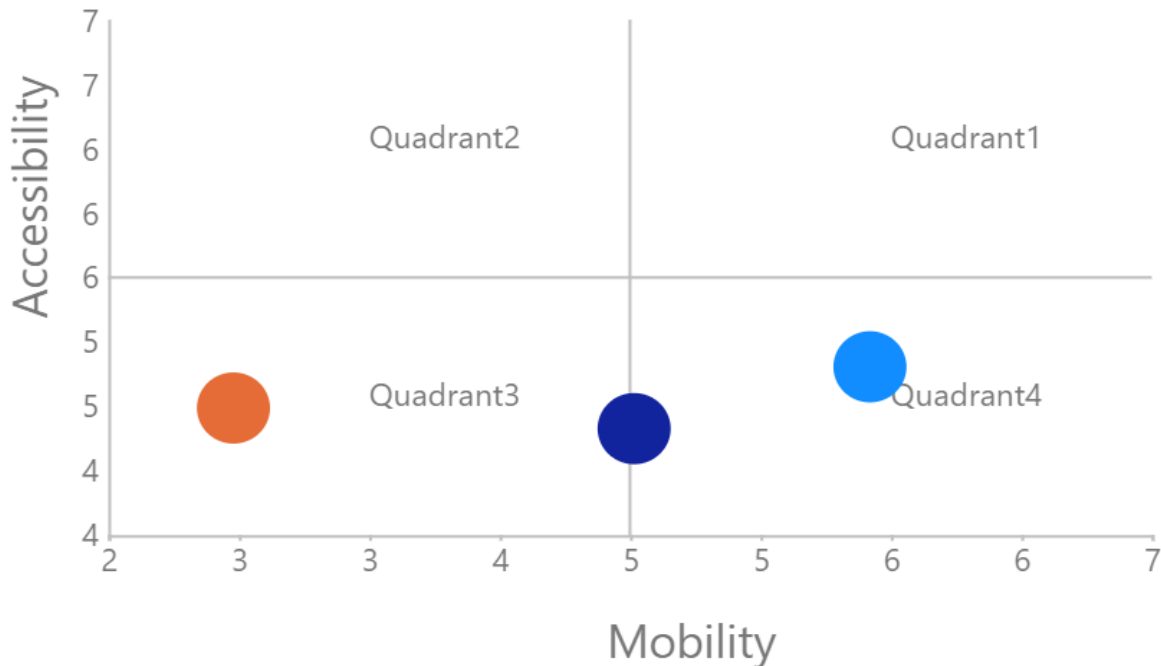
Year	Average Price	Total Fixed Costs	Unit Variable Cost	BEP in Units
2023	\$249.99	\$585,159.95	\$153.49	6,063
2024	\$259.99	\$697,492.42	\$151.23	6,414
2025	\$235.00	\$765,364.85	\$170.22	7,671
2026	\$245.00	\$808,008.85	\$170.89	9,068
2027	\$255.00	\$825,233.15	\$173.96	9,591

To determine our break-even point, several assumptions were made to conclude our average price, total fixed costs, unit variable cost, and BEP in units. Average price and BEP in units were found based on our annual average units sold. We compared our assumption to our BEP in units when changing the profit margin amount in BEP equation. Therefore, we adjusted our profit margin to give us a break-even quantity to match our unit sales. We researched to determine total fixed costs and unit variable costs, using the resources provided in the COB 300 Guide on the JMU Library website, Alibaba, and IBIS World.

Exhibit #5: Positioning & Competitive Analysis

Positioning

Brand ● Toolbelt ● Toolbox ● Workbench



Positioning Statement

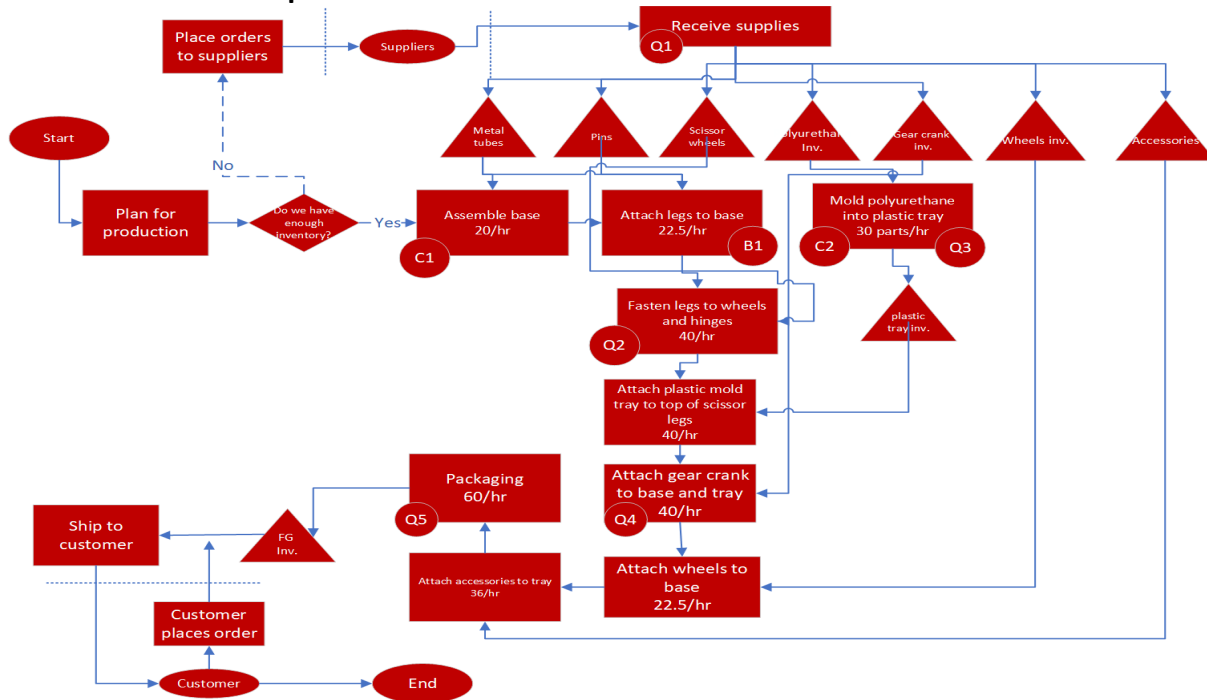
WayTray aims to satisfy the market’s needs for both accessibility and mobility, which are not addressed by existing products. Consumers are satisfied with their toolbelts mobility, but not the accessibility of their tools. Both toolboxes and workbenches lack both aspects of mobility and accessibility. WayTray brings an innovative product to market to satisfy safety, which includes all the stated consumer needs. The organizational compartments on the top of the WayTray allows for tools and equipment to be readily accessible, while it’s horizontal and vertical movements improve mobility. Another aspect of our company that will stand out to consumers is our promise of excellent customer service, the main source of our competitive advantage. The WayTray app is our main future innovation and will control all other changes to the product; motorized vertical and horizontal movement, lights, and tray lift top compartments.



Exhibit #6: Marketing Mix

Product/Service Branding						
The WayTray is based on the idea of accessibility and simplicity, so its branding will reflect those values. This theme is illustrated in the company's logo, which is presented in a simple font. Maintaining the theme of simplicity, the company's slogan will be used to demonstrate that the product is meant to make the user's job easier: <i>"Keep your stuff right where you need it."</i>						
Pricing						
	2023	2024	2025	2026	2027	
Unit Variable Cost:	\$153.49	\$151.23	\$170.22	\$170.89	\$173.96	
Wholesale Price:	-	-	\$190.00	\$200.00	\$210.00	
Retail Price:	\$249.99	\$259.99	\$279.99	\$289.99	\$299.99	
Our selling price is determined by our break-even analysis, survey results, and cost-plus pricing strategy. By comparing our break-even in dollar amounts to our projected sales, we adjusted our profit margin so that the selling price stayed within our survey participants selected price range. An Odd-even marketing strategy was also implemented to give a perception of a lower price. We used the penetration pricing strategy because we wanted our initial price to be lower and within the range that survey respondents favored the most.						
Distribution/Location Strategy						
For the first year, we will sell our product exclusively online through our website, however, we will incorporate in the second year, Amazon sales. Starting in year 3, we will distribute the product to retail stores, including Lowe's, Home Depot, and other hardware stores. Our decision to sell the product online initially is based on our strategy to penetrate the market and create awareness. To accomplish the second phase of distribution, a team of sales representatives to assist with the integration of the product into retail stores will be required.						
Promotional Strategy						
	2023	2024	2025	2026	2027	
Total IMC Budget:	\$30,970	\$95,625	\$99,626	\$109,603	\$109,603	
Local TV Ads (CPM)	\$30,970	\$33,675	\$37,858	\$32,881	\$32,881	
TV Programming (CPM)	-	\$41,951	\$30,794	\$26,305	\$26,305	
Facebook Ads (CPM)	-	-	\$30,974	\$27,401	\$27,401	
Instagram Ads (CPM)	-	-	-	\$23,016	\$23,016	
Local TV Ads is the most affective wat to reach our first target market, which is why all our total IMC budget is used for that promotion in the first year. In 2024, 44% of our budget is allocated to TV Programming because of the addition of our second target market, the rest is used for Local TV ads. Similarly, in 2025, Facebook ads are implemented, accounting for 34%, with 38% for Local TV, and 28% for TV Programming. Finally, in year 2026, we add Instagram ads to reach our fourth target market; percentages are in order of the chart list: 30%, 24%, 25%, 21%.						
No. of Salespeople:	-	-	2	2	2	If applicable
Compensation Method:	\$29,660 salary + 1% commissions in the first year; commission percentage is subject to increase.					
Management of professional sales begins with setting the expectation that growth potential exists for a salesperson. Increased pay occurs with an individualized sales goal in which commission percentage increases once the salesperson reaches a certain personal sales quota, rather than a periodic evaluation for a raise. This system is driven by the principle of customer experience, as salespeople will be encouraged to work at a pace that works for them to produce a higher percentage of satisfied customers.						

Exhibit #7: Process Map



**Entire process being carried out by one worker in Year 1*

For each major quality step:

Quality Step	What is measured?	How often?	How will you ensure quality?
Q1	Receiving supplies – functionality and appearance of each resource	Every time inventory is ordered and received, a sample from the batch will be randomly selected for quality inspection.	We will inspect the dimensions, material condition, and quantity of each shipment of supplies. Cracks, scratches, and broken components.
Q2	Testing level of function of scissor lift mechanism	Random sampling used to select an item between task 2 and task 3.	We will test the scissor lift mechanism by extending and compressing it repeatedly, around 10 times, to ensure pins are bolted well, yet legs move fluidly, while attached to the base.
Q3	Material condition of plastic tray finished product	Every time one mold is produced.	As each mold is ejected, the worker operating the injection molding machine will inspect for any deformities and handle the object to ensure that rigidity standards are met.
Q4	Functionality of gear crank and shaft, in context of system	Every time gear crank and shaft are retrieved from inventory, before feeding into assembly	Test if gear system works to push an object forward by testing hand crank until full extension, and reverse crank to ensure extension collapses.
Q5	Functionality of the final form	Using random sampling to select products, inspection will occur every time products are finished, before being stored in inventory.	Test all major aspects of the WayTray: scissor lift mechanism, gear system, material quality.

For each critical resource:

Critical Resource	Brief Description	Unit Cost (in appropriate unit)	How many?
CR1	Welding laborer	\$15.68 / hour	1
CR2	Plastic injection molding machine	\$88,345 / machine	1

Briefly describe your main facility - provide information about layout and dimensions.

The facility will utilize a flow-shop layout. Incoming supplies will be moved to storage areas in the back of the facility. Each station will have inventory hubs, temporary storage areas for easy access of supplies, near or at the station and its workers. The final station producing the finished product will be near the outbound transportation for shipping. The facility has dimensions of 96 feet by 50 feet and a clear height between 16 and 22 feet.



Exhibit #8: Quality Assurance

Indicate the Dimensions of Quality on which you will focus.	Why is this dimension important, given your industry & target market?	Identify the Quality Step(s) on the Process Flowchart / Service Blueprint to which this corresponds.
Reliability	WayTray requires mechanical input from the consumer. It should be guaranteed that the consumer's input will always generate the intended output, as motion and mechanics are an integral function of our product. Within the home equipment industry, safety-of-use for large-sized appliances and tools is prioritized due to the nature of the products' functions. Focusing on reliability allows the WayTray to be better suited as a competitor among similar home appliances that also prioritize safety as a dimension of quality.	Q2, Q4
Performance	At each step where functionality is tested, the mechanisms are also tested to their maximum, regarding how far and quickly the system can extend and become compacted. This assurance becomes a selling point in the home equipment industry, where reliability is the sole dimension of quality of an equipment's functionality. DIYers, home/car improvement are savvy, thrifty people who depend on the performance of their tools to accomplish their goals.	Q2, Q4
Perceived Quality	The component unique to our manufacturing process of a standard lift table, a plastic compartmentalized tray, requires attention to detail to become a differentiating feature among competitors. The attention to detail is ensured through the cosmetic appeal of the tray's material, that being a high-quality plastic. Our company's logo will be engraved onto the tray, adding a sense of luxury to the product's perception.	Q1, Q3
Special Features	The WayTray's utilization of magnetic strips, cup hooks, and compartments in the top tray provide a point of differentiation for the modes of the tool cart's application within shops and homes.	Q3

Use the space below to describe any additional Proactive Quality Assurance Plans that are not connected to a specific activity on your Process Flowchart / Service Blueprint.

Our focus on employee training is crucial to the consistency of output and quality during the initial years as a small number of assembly workers will control the process design. Employee training works as a proactive plan for quality as it will ensure that the worker understands the benchmark for the product's appearance and functionality at each step. The manufacturing process is designed with quality checks being completed as the product moves through most key stages. With respect to Additionally, our product will follow a trajectory of innovation to expand on reaching new target markets and to address possible shortcomings in design and function. Motorization of the gear crank system and scissor lift mechanism will be prioritized in innovation to provide easier operation of the WayTray. Subsequently, the integration of a mobile application to control the motorization and movement of the WayTray will come into effect through production to appeal to younger target markets that we will look into adding.

Describe any reactive quality assurance plans. Include a recovery plan should a customer receive poor quality goods and/or services.

Since our process likens to a flow-shop layout with a simplistic order of assembly, scanning the core tasks of production will not require much time. Therefore, our main reactive quality assurance plan will be to abruptly pause operations to target the location of the breach in quality to analyze and resolve issues. If a customer receives a malfunctioning or deformed product, the option between a full refund or a free replacement of the WayTray will be offered. This interaction will be handled by a customer service representative who will solely work with unsatisfied customers through one-on-one communication to ensure understanding and trust between WayTray and customers.

If you will utilize a quality/process improvement methodology, indicate which:

NA TQM Six Sigma ISO Benchmarking Other (specify what):

Provide a specific explanation of how your chosen quality methodology relates to your business and how it will be applied:

Our company will implement the Total Quality Management methodology. Customer feedback on the quality of our product is crucial to take into consideration, especially in the early stages of the production and delivery of the WayTray. Customer focus aligns with our focus strategy in pulling a specific target market into becoming buyers by committing to considering product design changes based on such feedback, to tailor the product even more so for individuals in our specific target markets. Ensuring the reduction in the variability of our production will be key to WayTray's success, as the appropriate goal to standardize the manufacturing process will allow a smoother ramp-up in production and room for innovative changes. Finally, ensuring commitment from every job position increases feedback and input from multiple perspectives, thus creating a more positive work culture to be a part of.

Exhibit #9A: Inventory, Suppliers, and Distribution

Item(s)	Supplier Name & Location	Reason for selecting this supplier	Supplier lead time	Frequency of Replenishment	System of Management	Mode(s) of Transportation
Rectangular Aluminum Tubes (scissor legs and base)	Grainger & Texas, U.S.	Being close to the assembly plant, the transportation costs will be minimal. They offer strong American made aluminum that will ensure the product's durability. They had a fair cost of \$59.25 for 11 feet of aluminum. (grainger.com)	10 Days	60 days	Fixed Interval System	<input checked="" type="checkbox"/> Highway <input type="checkbox"/> Rail <input type="checkbox"/> Waterway <input type="checkbox"/> Air
Hinge Pins	Wuxi Zhuo Cheng Mechanical Components CO., LTD & China	These are the cheapest hinge pins on the market while being up to quality standards. The demand per product is high so it is important to order in bulk. If the order is more than a thousand pins, the price per unit will be \$0.02 including shipping. (alibaba.com)	15 Days	60 days	Fixed Interval System	<input checked="" type="checkbox"/> Highway <input type="checkbox"/> Rail <input checked="" type="checkbox"/> Waterway <input type="checkbox"/> Air
Swivel Wheels for Base	Zhongshan Dajin Caster Manufacturing & China	This company offers affordable and reliable supplies. Bulk orders are required so it is important to outsource this material overseas to minimize costs. The cost is \$2.55 per product for 500 or more parts. (alibaba.com)	30 Days	60 days	Fixed Interval System	<input checked="" type="checkbox"/> Highway <input type="checkbox"/> Rail <input checked="" type="checkbox"/> Waterway <input type="checkbox"/> Air
Wheels for Legs	Tianjin Shouoya Machinery Parts CO., LTD & China	Outsourcing the material overseas allows us to minimize costs for bulk orders. The quality is up to standard. The price per wheel is \$2.50 with orders larger than 1000 pieces and this meets our company's demand. (alibaba.com)	21 Days	60 days	Fixed Interval System	<input checked="" type="checkbox"/> Highway <input type="checkbox"/> Rail <input checked="" type="checkbox"/> Waterway <input type="checkbox"/> Air
Large Hex Nut for Crank	Grainger & Texas, U.S.	The supplier is close to the assembly plant, which will decrease transportation costs. They offer reliable and affordable goods. The price is \$140.97 for a bulk order of 3,000 pieces. (grainger.com)	7 Days	60 days.	Fixed Interval System	<input checked="" type="checkbox"/> Highway <input type="checkbox"/> Rail <input type="checkbox"/> Waterway <input type="checkbox"/> Air
Threaded Rod	Grainger & Texas, U.S.	There is only a need for one piece per final good for this material. Having a supplier close to the assembly plant will decrease transportation costs. The material is durability and reliable. The cost is \$24.10 per piece. (grainger.com)	7 Days	60 days	Fixed Interval System	<input checked="" type="checkbox"/> Highway <input type="checkbox"/> Rail <input type="checkbox"/> Waterway <input type="checkbox"/> Air
Plastic Pellets for Base	Hebei Jilixi International Trading CO., LTD & China	This material is cheap overseas. In the U.S. it is seen as not environmentally friendly, so finding a supplier in China is the better choice to keep up good relationships. The price is \$0.175 per tray. (https://jilixicable.en.made-in-china.com/)	21 Days	60 days	Fixed Interval System	<input checked="" type="checkbox"/> Highway <input type="checkbox"/> Rail <input checked="" type="checkbox"/> Waterway <input type="checkbox"/> Air
Hand Crank	Shenzhou Beilhu Huakai Machinery Fitting CO., LTD & China	When comparing the price between American and Chinese made, buying the product from a foreign supplier was better. The price is \$0.12 with an order greater than 100 pieces. (alibaba.com)	21 Days	60 days	Fixed Interval System	<input checked="" type="checkbox"/> Highway <input type="checkbox"/> Rail <input checked="" type="checkbox"/> Waterway <input type="checkbox"/> Air
Magnet Strip	AMC Group Limited & China	Massive quantities of this material are required for the final product. An overseas supplier is cheaper for basic goods. The price is \$0.125 per meter. (alibaba.com)	45 Days	60 days	Fixed Interval System	<input checked="" type="checkbox"/> Highway <input type="checkbox"/> Rail <input checked="" type="checkbox"/> Waterway <input type="checkbox"/> Air
Hooks	Ningbo Xuma Cargo Lashing CO., LTD & China	Massive quantities of this material are required for the final product. An overseas supplier is cheaper for basic goods. The price is \$0.10 per piece. (alibaba.com)	21 Days	60 days	Fixed Interval System	<input checked="" type="checkbox"/> Highway <input type="checkbox"/> Rail <input checked="" type="checkbox"/> Waterway <input type="checkbox"/> Air

	Finished goods produced (per hour)	Frequency of shipping finished goods	Average level of Finished goods inventory on site	Amount of safety stock on site
At the end of Year 1	3.17	Biweekly	126.8 + 32 = 158.8	32
At the end of Year 2	6.10	Weekly	122 + 43 = 165	43
At the end of Year 3	7.65	Weekly	127 + 54 = 181	54
At the end of Year 4	9.54	Weekly	164 + 67 = 231	67
At the end of Year 5	9.91	Weekly	170.2 + 70 = 240.2	70

What is the lifespan of your finished goods inventory?	<input type="checkbox"/> NA	We expect the lifespan of our finished goods to be 7 years because according to averages of substitutable products, they have a lifespan between 5 to 15 years.
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Name of transportation provider/carrier	Reason(s) for selecting this provider/carrier	Frequency of Pick Up / Drop off
FedEx LTL Freight	They allow for a quality control with shipment tracking, provide packaging materials, and have a broad reach within the U.S. as they are well integrated nationwide. (fedex.com)	Weekly

Exhibit #10: Capacity

	Demand (per hour)	Capacity (per hour)	Utilization (%)	Hours of Operation	Bottleneck name and description	How will you manage /adjust the bottleneck to ensure you can appropriately serve or supply your customers?
At the end of Year 1	3.17	3.87	81.93	9 AM – 5 PM	Entire process; all tasks manned by one worker	The entire process from assembling the base to packaging the product will be handled by one worker. The bottleneck of the process will be based on the total amount of time it takes the one worker to produce a finished product.
At the end of Year 2	6.10	7.2	84.70	9 AM – 5 PM	Attachments/ worker 2: adding mechanics and features	The addition of a second worker will come into effect by splitting the production in half. The first worker will work from assembling the base to fastening the legs and wheels together. The second worker will start at the fourth station, attachment of the tray, and carry on to producing the finished good.
At the end of Year 3	7.65	10.59	72.23	9 AM – 5 PM	Assembly worker 1 – base and legs assembly	A third worker is added into the assembly line, dividing tasks into three stages. The first worker handles the first two stages, the second worker handles the next three stages, and the third worker handles the final three stages. The time taken by the first worker will be the bottleneck of the process.
At the end of Year 4	9.54	10.59	90.08	9 AM – 5 PM	Assembly worker 1 – base and legs assembly	No adjustment of the bottleneck is made as neither workers nor machines are added or changed.
At the end of Year 5	9.91	10.59	93.62	9 AM – 5 PM	Assembly worker 1 – base and legs assembly	No adjustment of the bottleneck is made as neither workers nor machines are added or changed.

Show your calculations for the following parameters at the end of Year 1.

Hours of operation/month	Demand/month	Demand/hour	Capacity/month	Capacity/hour	Utilization
$(37 \text{ weeks} * 40 \text{ hours}) / 12 = 123.33$	$4,693.66 / 12 = 391.11$	$391.11 / 123.33 = 3.17$	$(3.87 * 1480 \text{ hrs}) / 12 \text{ months} = 477.3$	$477.3 / 123.33 = 3.87$	$3.17 / 3.87 = 81.93\%$

Additional resources (beyond your bottleneck) must be allocated appropriately to support operations. Identify which resources have a significant impact on capacity at start up and describe why these are appropriate amounts of resources at start up.

Outside of the bottleneck, equipment essential to the production process at start up includes three dollies to transport inventory throughout the warehouse, four moving work tables used for a functional assembly line, and five inventory shelves to stock raw materials and purchased parts. The tools needed for assembly of the WayTray are the welding gear needed to produce scissor legs and bases, a band saw to cut aluminum tubes to needed lengths, and a drill press for steel pins to be integrated. Human resources beyond the bottleneck will solely be the plastic injection molding machine operator, who is needed for machine operations and oversight for quality control.

Describe adjustments you will make as resource requirements vary with time. Be specific regarding which key resources (beyond your bottleneck) will be adjusted, when and how. If you will make multiple adjustments, explain each.

Besides the adjustment of the number of workers across the five years, the plastic injection molding machine will have to increase its output only after the bottleneck among the stages from start to stage 4 is lower than the rate of output of the molding machine. Such adjustments do not need to be made in the early years of production as, in all five years of production, each stage will remain to be manned by one worker and no stage will be worked on by two or more workers simultaneously. Thus, the bottlenecks of such stages remains the same. The change in the inventory of plastic raw material ordered also follows the same decision rule. The machine operator will work to produce more trays per hour to be sufficient for plastic tray inventory to feed into the main assembly line without inventory level issues. If the production rate of the machine cannot be adjusted, the purchase of a new molding machine will be considered and completed. Drills, saws, and moving equipment integral to the production process will not need adjustments within the five years of increasing sales, as simultaneous work will not be done within that time period.

How will you manage seasonality? *If your organization does not have seasonal demand, please check this box:* NA



Exhibit #11: Income Statement

	2023	%	2024	%	2025	%	2026	%	2027	%
Sales Revenue	\$1,173,203	100.00%	\$2,346,410	100.00%	\$2,660,378	100.00%	\$3,458,839	100.00%	\$3,741,287	100.00%
Materials Cost	491,873	41.93%	967,029	41.21%	1,237,272	46.51%	1,566,251	45.28%	1,657,202	44.29%
Direct Labor Cost	106,162	9.05%	141,407	6.03%	178,226	6.70%	186,251	5.38%	194,644	5.20%
Total Cost of Goods Sold	598,036	50.97%	1,108,436	47.24%	1,415,498	53.21%	1,752,502	50.67%	1,851,847	49.50%
Gross Profit	\$575,167	49.03%	\$1,237,974	52.76%	\$1,244,880	46.79%	\$1,706,338	49.33%	\$1,889,440	50.50%
Operating Expenses										
Indirect Labor Expense	\$129,442	11.03%	\$186,204	7.94%	\$303,781	11.42%	317,452	9.18%	331,737	8.87%
Advertising and Promotion Expense	30,970	2.64%	95,265	4.06%	99,626	3.74%	109,603	3.17%	109,603	2.93%
Rent Expense	103,296	8.80%	105,630	4.50%	107,743	4.05%	109,866	3.18%	112,063	3.00%
Utilities Expense	22,575	1.92%	23,085	0.98%	23,547	0.89%	24,011	0.69%	24,491	0.65%
Commissions Expense	-	0.00%	15,152	0.65%	10,755	0.40%	21,602	0.62%	30,833	0.82%
General Insurance Expense	\$9,371	0.80%	9,685.50	0.41%	9,879	0.37%	10,074	0.29%	10,275	0.27%
Freight-In Expense	147,548	12.58%	290,154	12.37%	371,216	13.95%	472,106	13.65%	500,462	13.38%
Freight-Out Expense	-	0.00%	-	0.00%	182,834	6.87%	232,382	6.72%	246,343	6.58%
Depreciation Expense	9,151	0.78%	9,151	0.39%	9,151	0.34%	9,151	0.26%	9,151	0.24%
Other Operating Expense	183,718	15.66%	187,870	8.01%	191,627	7.20%	195,402	5.65%	199,310	5.33%
Maintenance Expense	5,135	0.44%	5,135	0.22%	5,135	0.19%	5,135	0.15%	5,135	0.14%
Tuition Reimbursement Expense	-	0.00%	-	0.00%	15,750	0.59%	15,750	0.46%	15,750	0.42%
Travel and Entertainment Expense	-	0.00%	-	0.00%	10,000	0.38%	10,000	0.29%	10,000	0.27%
Total Operating Expenses	\$641,206	54.65%	\$927,331	39.52%	\$1,341,044	50.41%	\$1,532,533	44.31%	\$1,605,153	42.90%
Earnings Before Interest and Taxes	\$(66,039)	-5.63%	\$310,643	13.24%	\$(96,164)	-3.61%	\$173,805	5.02%	\$284,287	7.60%
Interest Expense	27,000	2.30%	26,681	1.14%	26,334	0.99%	25,955	0.75%	25,543	0.68%
Earnings Before Taxes	\$(93,039)	-7.93%	\$283,961	12.10%	\$(122,498)	-4.60%	\$147,849	4.27%	\$258,744	6.92%
Income Tax Expense	-	0.00%	59,632	2.54%	-	0.00%	31,048	0.90%	54,336	1.45%
Net Income (Loss)	\$(93,039)	-7.93%	\$224,329	9.56%	\$(122,498)	-4.60%	\$116,801	3.38%	\$204,408	5.46%



Exhibit #12: Balance Sheet

Assets

Current Assets

	Inception	%	2023	%	2024	%	2025	%	2026	%	2027	%
Cash and Cash Equivalents	\$290,979	58.20%	\$224,283	42.28%	\$577,530	66.30%	\$294,335	36.19%	\$362,687	35.98%	\$554,293	45.04%
Accounts Receivable	-	0.00%	-	0.00%	-	0.00%	221,698	27.26%	288,237	28.59%	311,774	25.34%
Inventory	106,319	21.26%	212,639	40.08%	209,157	24.01%	222,077	27.30%	291,107	28.88%	307,585	24.99%
Total Current Assets	\$397,298	79.46%	\$436,921	82.36%	\$786,687	90.31%	\$738,110	90.75%	\$942,030	93.44%	\$1,173,652	95.37%

Long-Term Assets

Plastic Molding Machine	\$88,345	17.67%	\$88,345	16.65%	\$88,345	10.14%	\$88,345	10.86%	\$88,345	8.76%	\$88,345	7.18%
Dollies	687	0.14%	687	0.13%	687	0.08%	687	0.08%	687	0.07%	687	0.06%
Welding Gear	4,200	0.84%	4,200	0.79%	4,200	0.48%	4,200	0.52%	4,200	0.42%	4,200	0.34%
Band Saw	4,050	0.81%	4,050	0.76%	4,050	0.46%	4,050	0.50%	4,050	0.40%	4,050	0.33%
Assembly Tables	2,440	0.49%	2,440	0.46%	2,440	0.28%	2,440	0.30%	2,440	0.24%	2,440	0.20%
Drill Press	1,230	0.25%	1,230	0.23%	1,230	0.14%	1,230	0.15%	1,230	0.12%	1,230	0.10%
Shelves	1,750	0.35%	1,750	0.33%	1,750	0.20%	1,750	0.22%	1,750	0.17%	1,750	0.14%
Total Gross Fixed Assets	\$102,702	20.54%	\$102,702	19.36%	\$102,702	11.79%	\$102,702	12.63%	\$102,702	10.19%	102,702	8.35%
Less: Accumulated Depreciation	-	0.00%	9,151	1.73%	18,302	2.10%	27,453	3.38%	36,604	3.63%	45,755	3.72%
Net Fixed Assets	\$102,702	20.54%	\$93,551	17.64%	\$84,400	9.69%	\$75,249	9.25%	\$66,098	6.56%	\$56,947	4.63%
Total Assets	\$500,000	100.00%	\$530,472	100.00%	\$871,087	100.00%	\$813,359	100.00%	\$1,008,128	100.00%	\$1,230,599	100.00%

Liabilities & Stockholder's Equity

Current Liabilities

Accounts Payable	-	0.00%	\$122,968	23.18%	\$241,757	27.75%	\$309,318	38.03%	\$391,563	38.84%	\$414,301	33.67%
Accrued Labor Costs	-	0.00%	4,083	0.77%	5,439	0.62%	6,855	0.84%	7,163	0.71%	7,486	0.61%
Current Maturity of LT Debt	3,541	0.71%	3,859	0.73%	4,207	0.48%	4,585	0.56%	4,998	0.50%	5,448	0.44%
Total Current Liabilities	\$3,541	0.71%	\$130,911	24.68%	\$251,402	28.86%	\$320,758	39.44%	\$403,724	40.05%	\$427,235	34.72%

Long-Term Liabilities

LT Debt Less Current Maturities	\$296,459	59.29%	\$292,600	55.16%	\$288,394	33.11%	\$283,809	34.89%	\$278,811	27.66%	\$273,363	22.21%
Total Liabilities	\$300,000	60.00%	\$423,511	79.84%	\$539,796	61.97%	\$604,567	74.33%	\$682,535	67.70%	\$700,598	56.93%

Stockholder's Equity

Common Stock	200,000	40.00%	200,000	37.70%	200,000	22.96%	200,000	24.59%	200,000	19.84%	200,000	16.25%
Retained Earnings	-	0.00%	(93,039)	-17.54%	131,291	15.07%	8,792	1.08%	125,593	12.46%	330,001	26.82%
Total Stockholders' Equity	\$200,000	40.00%	\$106,961	20.16%	\$331,291	38.03%	\$208,792	25.67%	\$325,593	32.30%	\$530,001	43.07%
Total Liabilities and Stockholders' Equity	\$500,000	100.00%	\$530,472	100.00%	\$871,087	100.00%	\$813,359	100.00%	\$1,008,128	100.00%	\$1,230,599	100.00%



Exhibit #13: Cash Flow Statement

	Inception	2023	2024	2025	2026	2027
Cash Flows From (For) Operations						
Net Income	\$-	\$(93,039)	\$224,329	\$(122,498)	\$116,801	\$204,408
Depreciation	-	9,151	9,151	9,151	9,151	9,151
Changes in Current Assets						
Increase in Accounts Receivable	-	-	-	221,698	66,538	23,537
Increase in Inventories	106,319	106,319	(3,482)	12,920	69,029	16,479
Changes in Current Liabilities						
Increase in Accounts Payable	-	122,968	118,789	67,561	82,245	22,738
Increase in Accrued Labor Costs	-	4,083	1,356	1,416	309	323
Net Cash Flow From (For) Operating	\$(106,319)	\$(63,155)	\$357,107	\$(278,989)	\$72,938	\$196,604
Cash Flow (For) From Investing Activities						
Fixed Asset Purchases/Sales	(102,702)	-	-	-	-	-
Net Cash Flow (For) From Investing	\$(102,702)	\$-	\$-	\$-	\$-	\$-
Cash Flow From (For) Financing Activities						
Issuance of Common Stock	\$200,000	\$-	\$-	\$-	\$-	\$-
Long Term Debt Borrowings/Repayments	300,000	(3,541)	(3,859)	(4,207)	(4,585)	(4,998)
Dividends Paid to Stockholders	-	-	-	-	-	-
Net Cash Flows From (For) Financing	\$500,000	\$(3,541)	\$(3,859)	\$(4,207)	\$(4,585)	\$(4,998)
Net Change in Cash	\$290,979	\$(66,696)	\$353,247	\$(283,196)	\$68,353	\$191,606
Beginning Cash Balance	-	\$290,979	\$224,283	\$577,530	\$294,335	\$362,687
Net Change in Cash	\$290,979	\$(66,696)	\$353,247	\$(283,196)	\$68,353	\$191,606
Ending Cash Balance	\$290,979	\$224,283	\$577,530	\$294,335	\$362,687	\$554,293

Exhibit #14: Financial Statement Notes**Assumptions**

The following assumptions are made in the development of the financial statements:

- All sales in the first two years are cash sales from online retail; half of all sales will be on account (sales from wholesale) with n/60 terms from year three onward
- Three months of inventory will be purchased on account that will be due the following year
- There will be accrued labor at the end of the year that accounts for two weeks of pay to all employees
- Our company uses straight-line depreciation for all our assets
- Corporate income tax is 21%

Funding

We are receiving funds from two sources: issuance of common stock and a bank loan. We are raising a total of \$500,000 because it provides enough capital for startup costs and buying the necessary inventory for production. With 7 owners, everyone will issue \$28,571.43 in common stock to provide a total of \$200,000. We are sourcing an additional \$300,000 from a small business 7(a) bank loan. The loan is an installment note with an APR of 9% and has a term length of 25 years. The yearly payment is \$30,540.57.

Use of Funds

The small business loan we are taking on is to be used for short-term and long-term working capital. The capital raised will be utilized as capital to cover operating expenses, cost for direct and indirect labor, marketing expenses, and costs of acquiring inventory. Also, it will be used for the initially high costs of machinery and equipment that include a plastic molding machine, dollies, welding gear, band saws, assembly tables, drill presses, and shelves.

Business Risks

- As we are sourcing certain raw materials and parts overseas, there are risks of supply chain issues due to various global trends of social, political, and environmental factors.
- There are environmental risks tied to the location of our plant, specifically flooding and severe weather.
- There are safety risks associated with the type of labor required for the assembly of our product, due to welding, assembly of heavy parts, and operation of power tools as a viability of labor supply exists.
- In terms of production, there is a risk of relying on one machine to produce a critical resource, thus leaving little room for flexibility should a malfunction of the machine occur.

Valuation

WayTray's valuation is \$2,693,726.64 in 2027 (Y5), calculated by the method of Multiples Approach using the Price/Sales Ratio. The industry average Price/Sales Ratio is 0.72.

Exhibit #15: Financial Ratios

	2023	2024	2025	2026	2027	Industry Avg.
Liquidity Ratios						
Current Ratio	3.34	3.13	2.30	2.33	2.75	2.28
Quick Ratio	1.71	2.30	1.61	1.61	2.03	1.42
Operating Cycle	64.89	69.45	70.81	80.35	88.27	72.55
Leverage Ratios						
Debt/Equity	2.74	0.87	1.36	0.86	0.52	1.01
Times Interest Earned	-2.45	11.64	-3.65	6.70	11.13	17.73
Asset Management Ratios						
Inventory Turnover	11.03	11.13	12.34	13.48	12.50	11.19
Receivables Turnover	0.00	0.00	24.00	13.57	12.47	9.14
Fixed Asset Turnover	12.54	25.08	35.35	45.97	65.70	10.67
Profitability Ratios						
Gross Profit Margin	49.03%	52.76%	46.79%	49.33%	50.50%	34.25%
Operating Profit Margin	-5.63%	13.24%	-3.61%	5.02%	7.60%	9.13%
Return on Assets	-18.61%	25.75%	-15.06%	11.59%	16.61%	16.59%
DuPont Analysis						
Net Profit Margin	-7.93%	9.56%	-4.60%	3.38%	5.46%	6.80%
Total Asset Turnover	2.21	2.69	3.27	3.43	3.04	2.44
Equity Multiplier	4.96	2.63	3.90	3.10	2.32	2.01
Return on Equity	-0.87	0.68	-0.59	0.36	0.39	33.3

Exhibit #16: Financial Analysis**Liquidity**

Our current ratio and quick ratio are stable over the five periods staying around the industry averages due to a steady increase in current liabilities, specifically money owed to our employees and suppliers. Current assets steadily increase over the years too, emphasizing the positive correlation the two have when compared together. Also, our quick ratio is stable because our inventory has steadily increased over the years. On the opposite side, our operating cycle increases every year, exceeding the industry average, as our accounts receivable increase (specifically in the years 2025, 2026 and 2027) due to the introduction of wholesale sales and the increase in demand.

Leverage

Our debt-to-equity ratio is above the industry in the first year and presents a decrease in the second year because of a large increase in stockholders' equity produced by an increase in our retained earnings, however, a decrease in retained earnings happens in 2025 entailing a decrease in stockholder's equity from a net loss, and eventually, increasing this leverage ratio for that year. In the last two years we experience an increase in retained earnings again from a net profit that decreases the ratio below the average. Our Times-Interest-Earned ratio is lower than the industry average because our total operating expenses increase every year, decreasing our EBIT, and therefore, our TIE, meaning we will struggle to meet interest payments every year.

Asset Management

Our inventory turnover in the first two years is right around the industry average as we are utilizing our inventory more frequently. However, it increases above the average from year 2025 to 2027 because the average inventory on hand levels out while cost of goods is increasing more year-to-year. Receivables turnover ratios are only computed beginning in 2025. Our credit sales do not start until we sell to wholesalers. Our company's fixed asset turnover ratio increases exponentially from 2023 to 2027 as we are using the same machine and equipment to produce an increasing number of sales over the listed years.

Profitability

Our gross profit margin is above industry averages because our gross profit is about half of our total sales each year. It is stable over time because the cost of goods sold and our sales in revenue are both increasing equally. This shows that our pricing strategy positively affects our gross profit margin every year. We experience a negative operating profit in the first and third year because we incur a loss before interest and tax. In year two, when we have exponential growth in demand and sales that increases operating profit exponentially. In the last two years we are moving towards the industry average. This means that the operating costs to run the business are extremely high at first but become significantly lower than the revenue we receive in later years. The return on assets is negative in years one and three because we have an operating loss. We are not generating any profit from our sales in these years. However, in year 2026 and 2027 we move towards the industry average because our costs for goods and operating expenses are lower compared to revenue generated.

Dupont Analysis

The net profit margin starts extremely negative in 2023 because of high start-up costs associated with starting a manufacturing business. The net profit margin sharply increases in 2024 when we introduced a second target market (increasing revenue), and the following two years (2026, 2027) stabilize and move towards the industry average because of increasing revenues. The total asset turnover and equity multiplier stay around the industry average because of annual increases in sales that increase total assets between 2023 and 2027. Our return on equity is negative during 2023 and 2025 indicating we are not using equity efficiently to produce income. The year 2024, 2026, and 2027 has a positive return on equity since that was when we introduced new target markets and increased our prices to compensate for entering wholesale. Our return on equity is well below the industry average because our net income is significantly lower than shareholder's equity.

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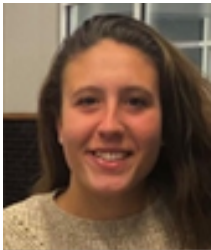
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Section 6, Team 1**Justin Dehghan**

I am a Junior Accounting Major from McLean, Virginia. My passions include personal achievement, building relationships, and physical wellness. I am the treasurer of my fraternity, Alpha Sigma Phi, and I have been a member since Freshman year. Fun fact: I have worked at a start-up software company for four summers.

**Fallon Elliott**

Currently, I am pursuing a major in accounting and a minor in the Music Industry. I have worked part-time in many different industries, including food service, retail, and leasing. My free time typically consists of finishing my multitude of craft/DIY projects. After college I plan to work towards earning an Accountant position at a production company.

**Alba Fernández Almagro**

I am from Barcelona, Spain. I am double majoring in Finance and Business Management while I am student-athlete in the JMU Women's Soccer Team. In my free time, I am a tutor and I also invest my time in learning about my interests such as trading and cryptocurrencies.

**JJ Garcia**

I am from Haymarket, Virginia, and I'm a marketing major with a music industry minor. I am a member of the American Marketing Association at JMU. After graduation, I hope to utilize the experience that I have gained from the College of Business in a marketing career within the music industry. My interests include car maintenance, baseball, and music.

**Ada Glasgow**

I am from Moorestown, New Jersey. My current major is marketing, and I would like to minor in Computer Information Systems. Outside of class I am an active member of the sorority Phi Mu where I am part of the recruitment team. I enjoy spending time with my friends and gaining new experiences.

**Ali Gull**

I am from Harrisonburg, Virginia. I am currently pursuing my BBA in Computer Information Systems with a concentration in Business Analytics. I am interested in graduate school to obtain a degree in data science or data analytics. In my free time, I enjoy playing and watching football and basketball and helping other students in various subjects.

**Andrew Page**

I am from Ellicott City, Maryland. I am working on getting my bachelor's and master's degree in accounting. Also, I would like to minor in computer information systems. I plan to take the CPA exam when I reach all the educational requirements. I am an active member of the fraternity Delta Sigma Phi.