

EXECUTIVE SUMMARY

Going to the beach is one of the great luxuries people get to experience in this day and age. It is a time of relaxation and a time to remove yourself from the worries of daily life, but there are still moments when a beach vacation can become more of a hassle. Having to carry belongings to the beach front can be a troublesome task that can ruin the relaxing getaway one plans. Beach Mule is designed to fix just that, allowing the user to relax sooner worry free.

Beach Mule is an automated assisted drive cart designed to carry beachgoers' belongings across any type of beach terrain. Designed with offroad tires and its central motor, Beach Mule can plow through either the sandiest or the rockiest of beaches with no trouble. Beach Mule was designed with the user in mind, and that they want to be worry free going to the beach. Hence, the Beach Mule is outfitted with an autopilot feature that will follow the user and avoid obstacles that may come between the user and the cart. All of these components together help streamline one of the biggest issues for beachgoers, so they can worry less and relax more.

Approaching the problem of carrying items to and from the beach, there were multiple hurdles and problems that needed to be addressed to combat this problem. The first being the weight of all the items in the cart. Beach Mule needed to be sturdy enough to handle the weight of multiple items whether they be chairs, coolers, umbrellas etc. After designing Beach Mule with strength in mind, next it would need to have the power to move all the items once loaded. Outfitted with a motor to propel the car through the sand with regards to the weight, the final hurdle would be its automation. In order to track the user, Beach Mule needed to be outfitted with a bluetooth device to connect to a phone as well as a GPS module to understand the position of the cart with regards to the user. Both of those components would be able to communicate to the cart how to maneuver to get to the user's location, but what if something came in between the user and the cart like a child? Sensors were set to the front of the Beach Mule so that if something does come between, the cart can stop and maneuver accordingly to get back on course.

Every part of the Beach Mule works so that the main struggle of going to the beach is removed out of the equation entirely. The design focuses on all the cruxes of carrying items to and from the beach that beachgoers face. This is only the first step into solving this problem as there are some handicaps in the initial design we face such as bulky and confined to only one motor. Having found the hiccups in the design, The Beach Mule can be redesigned and restructured to make it even better for the user and much more user friendly.

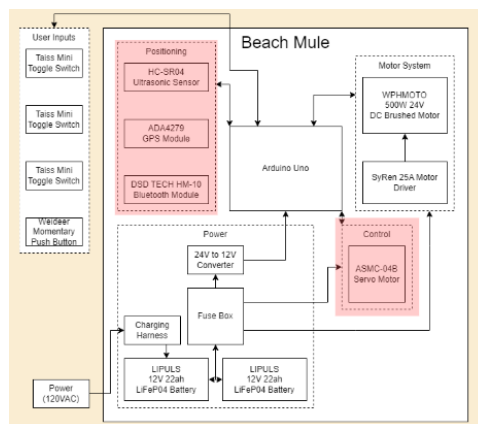


Figure 1: The Beach Mule Design Layout

1. Plan Overview

1.1 Mission

Enjoying the beach is one of the true pleasures of warm weather and that sublime summertime feeling. Our mission as the Beach Boys is to truly make that experience worry-free all the way down to the smallest of details and maximize that summertime beach experience.

1.2 Objectives

One of our all-time favorite things shared by all the founders of the Beach Boys is going to the beach. Though a relaxing experience, there are times when it can be so unnecessarily difficult, so we made it our goal to ease those troubles of all beachgoers in any way we can. Our main starting goals rest in these four points:

- Develop and launch the Beach Mule product line within the next six months.
- Establish partnerships with beach resorts and rental services for distribution.
- Build brand recognition and loyalty among beach enthusiasts.
- Achieve profitability while reinvesting in our own product.

Our flagship product, Beach Mule, is our first step in streamlining the beachgoer's experience. When looking for a place to start when approaching beach problems, the biggest point to stand out was how difficult it can be to traverse to and from one's car or beach residence to the shoreline with ease. We have made it our goal to help our fellow beachgoers truly experience their adventures on the coast by first tackling this issue.

1.3 Keys to Success

For the Beach Boys to succeed in our goal to make beachgoing easier, we must keep these three tenets at heart throughout all our work:

- Conduct thorough research to understand consumer preferences and needs.
- Design and manufacture high-quality, durable beach carts that are both functional and aesthetically pleasing to consumers.
- Forge partnerships with beach resorts and rental services to aid in widespread distribution and availability of our product.

1.4 Competitive Advantage

The Beach Mule stands out in the market due to its innovative design features, including:

- All-terrain wheels for easy navigation on sand.
- Autonomous tracking mode, which allows for hands-free control.
- Durability and weather resistance to withstand beach conditions.
- Substantially cheaper than other competitions.

1.5 Target Market

Our primary target market includes families, people with disabilities, beach cleaning organizations, and beach enthusiasts searching for convenient, cheap, and efficient solutions for transporting their belongings with ease during their trip to the beach.

1.6 Basic Strategies

Product Development: Continuously innovate and improve the Beach Mule product line based on customer feedback.

Marketing and Branding: Invest in marketing campaigns to raise awareness around our brand and product.

Distribution and Partnerships: Establish strategic partnerships with beach resorts and rental services to expand our reach and accessibility.

Customer Service: Provide exceptional customer service and support to build trust and loyalty among our customer bases.

Financial Management: Implement financial practices to ensure profitability and sustainable growth.

Through these strategies, The Beach Mule aims to become the go-to brand for beachgoers seeking convenient, simple, and reliable beach carts, which enhance their beach experience and enjoyment.

2. Company Summary

The Beach Boys are an LLC that caters to many different beach enthusiasts' groups. We create products that aim to alleviate the complexities of traveling to the beach. Our first product will launch in May 2024, and it aims to reduce the stress and hassle of carrying your belongings to the beach.

2.1 Company Description

The Beach Boys are a Limited Liability Company (LLC) and were founded by Ryli Cruz, Garrett McLaurin, Nick Gray, Saurav Josan and Christian Watson in 2023. Beach Boys chose an LLC because it protects us from personal liability.

2.2 Company Location and Facilities

The Beach Boys' headquarters is in Starkville, MS at Mississippi State University operating out of one of the founding member's apartments.

2.3 Company Strategy

Through innovation and Ingenuity, the Beach Boys plan to revolutionize the beach going experience. The products we produce are meant to make their customers' lives a little less stressful. Through providing quality products, service, and peace of mind, we plan to climb to the pinnacle of beach relaxation.

2.4 Startup Costs

Below is our spreadsheet for the Beach Mule. Our startup costs for the Beach Mule are carefully structured to maximize efficiency and minimize expenses. Research development, including prototyping, represent a total of \$20,000. Manufacturing, property protection, marketing, and initial operation expenses comes to a total of \$36,500. These costs are customized to ensure a great start for our journey with this new beach product.

Research and Development	
Hiring Engineers, designers, and technicians	\$12,000.00
Prototyping and testing materials	\$5,000.00
Software development	\$3,000.00
Manufacturing Setup	
Equipment and machinery	\$18,000.00
Facility lease and setup cost	\$5,000.00
Initial raw materials and inventory	\$1,000.00
Property Protection	
Patent filing fees and legal expenses	\$2,500.00
Marketing and Branding	
Marketing materials	\$1,500.00
Advertising	\$3,000.00
Operational Expenses (3 Months)	
Salaries	\$2,500.00
Utilities and supplies	\$1,500.00
Insurance and permits	\$1,500.00
Total:	\$56,500.00

3. Product Summary

Beach mule is a motorized beach cart that utilizes self-driving technology to carry personal belongings to the beach.

3.1 Product Description

Beach Mule uses Bluetooth, GPS, and ultrasonic sensors combined to make an autonomous beach cart that follows users for an easier way to navigate the hard terrain beaches. It has plenty of capacity, and it is durable and weather resistant. Promises reliable service for years.

3.2 Customer Needs and Benefits

Our product aims to help elderly and disabled people, beach cleanup organizations and people that enjoy traveling to the beach. People that are older or have disabilities may avoid traveling to the beach because they are not able to carry heavy items, such as lawn chairs and umbrellas. The Beach Mule solves this issue by creating a hands-free experience. Regardless of injury or age, The Beach Mule assists in every situation that involves carrying large amounts of items to the beach. Not only does it assist the previously mentioned groups, but it also helps organizations that clean the beach. Instead of carrying or manually pulling a cart that has heavy trash in it, the volunteers can simply fill up the bag and let The Beach Mule carry it.

3.3 Future Products

The Beach Mule has an appreciable amount of space for improvement, so we are looking into creating a more convenient and fashionable beach cart.

3.4 Competitive Comparison

The only product that is like Beach Mule is the My Sandhopper. My Sandhopper is a motorized beach cart, but it does not have tracking technology. The user must pull it with the assistance of a motor, which makes it a hands-on experience. It cannot track and follow the user on its own. Also, there are many expensive add-ons to upgrade My Sandhopper. Beach Mule utilizes tracking technology for a hands-free experience, it does not require expensive add-ons and is overall cheaper. Not only does The Beach Mule deliver more features, but it does it at a much lower cost.

4. Market Summary

This section discusses the marketing strategies used for analysis, sales, manufacturing, and distribution of Beach Mule.

4.1 Market Analysis

Beach Mule looks to appeal to those who value comfort, ease, and relaxation. This demographic includes senior citizens, children, teenagers, young adults, and everyone in between. This product has a broad range of applications and can be utilized by numerous organizations or individuals. Resorts can utilize this product as an added amenity for guests, and retirement homes can use it to assist the less abled. The strategy is to raise awareness of the product through placement, advertising, and utilizing large retailers.

4.2 Marketing Strategy

Beach Mule will utilize the use of social media through regular posts on company-run social media accounts. These accounts will alternate between traditional advertising posts and humorous posts. Using the Beach Mule in different ways to amuse possible customers will encourage users to share our posts,

reaching larger audiences. When the users then visit the page they will be met with informative posts about the product to entice customers to purchase and humorous to drive interaction. We will also utilize influencers by sending free products for them to promote to their following.

4.3 Sales Projection

Over the next three years, the Beach Mule anticipates a steady increase in sales as we establish our brand and product in the market. In the first year, we aim to generate \$500,000 in sales through targeted marketing efforts and outreach to beach enthusiasts. Building on this momentum, our projections for the second year show sales reaching \$2,050,000 as we secure partnerships with beach resorts and rental services and expand our customer base. By the third year, we expect to solidify our position as a leading beach cart brand, with sales projected to reach \$7,000,000 as we continue to innovate our product line and capture a larger share of the market. These sales projections provide a roadmap for growth, guided by our commitment to product excellence and customer satisfaction.

4.4 Manufacturing and Distribution Strategy

Our manufacturing and distribution strategy for The Beach Mule revolves around ensuring efficient production processes and widespread availability of our product. We plan to establish partnerships with reputable manufacturers capable of producing high-quality beach carts at scale while adhering to our design specifications and quality standards. Additionally, we will implement a multi-channel distribution approach, leveraging both online platforms and physical retail outlets to reach our target audience effectively. Through strategic partnerships with beach resorts, rental services, and retail stores, we aim to maximize the visibility and accessibility of The Beach Mule to beach enthusiasts worldwide. Furthermore, we will prioritize logistics optimization to streamline the supply chain and ensure timely delivery of products to customers. By combining efficient manufacturing practices with a robust distribution network, we are poised to meet the growing demand for innovative beach accessories and drive sustained growth for The Beach Mule brand.

5. Organization Overview

Beach Mule LLC is structured as a Limited Liability Company (LLC), providing liability protection for its founders while offering flexibility in management and taxation. The company's organizational structure is designed to facilitate efficient operations, product development, and market expansion.

5.1 Company Structure

The company is founded by its five founders. They have taken a democratic approach to the company structure. All five of the founders wield equal influence and vote on things such as marketing and product ideas. They oversee every aspect of the company and they make decisions together.

5.2 Personnel Plan

The personnel plan for the Beach Mule start-up revolves around assembling a multifaceted team to spearhead various aspects of the business. At the executive level, a CEO drives overall strategy, complemented by key roles such as CTO, CMO, COO, and CFO, each responsible for technology, marketing, operations, and finances, respectively. This core team provides strategic direction, ensuring that the Beach Mule achieves its objectives efficiently and effectively.

Further down the hierarchy, specialized teams tackle critical functions such as research and development, manufacturing, sales, marketing, and administrative support. These teams include engineers specializing in mechanical, electrical, and software aspects, alongside manufacturing, supply chain, sales, and marketing professionals. Administrative and support staff handle day-to-day operations, HR, IT, and customer support. Together, this comprehensive personnel structure lays the groundwork for the successful launch and growth of the Beach Mule, fostering innovation, operational excellence, and customer satisfaction.

6. Financial Plan

For our first year of operation, we will obtain a loan of \$70,000. \$60,000 will be spent on producing Beach Mule while the other \$10,000 will be invested. We will create accounts on multiple social media websites/apps to advertise freely to a large audience.

The second year, ideally, we will have gained a large following on social media through strategic ads. The money that we have made will be reinvested into the company. We will continue to build more Beach Mules and sell them to our followers.

By year three, we will continue to advertise on social media but we will expand the company by hiring more workers. We will look into a factory so that we can begin to mass produce Beach Mule. Most of the money will continue to be reinvested into the company until we have begun to consistently sell more products. We will also look into building new products. These products can be accessories for the Beach Mule or new beach products entirely.

6.1 Profit and Loss

The projected profit and loss statement for the Beach Mule provides a comprehensive overview of our financial performance over the next three years. In the initial year, we anticipate a moderate net loss as we make significant investments in product development, marketing, and operational setup to establish our brand and penetrate the market. However, as sales begin to ramp up in the second year, we project a swift transition to profitability, driven by increasing revenue streams and operational efficiencies. By the third year, we expect to achieve sustained profitability as the Beach Mule solidifies its position in the market and benefits from economies of scale. Our profit and loss projections account for various factors, including sales forecasts, cost of goods sold, operating expenses, and strategic investments, ensuring a clear roadmap for achieving our long-term financial goals while delivering value to our stakeholders.

6.2 Projected Cash Flow

The projected cash flow for Beach Mule over the next three years reflects our strategic approach to managing finances and achieving sustainable growth. In the initial year, we anticipate a moderate cash outflow as we invest in product development, manufacturing setup, and marketing initiatives to establish our brand presence in the market. However, as sales begin to ramp up, we project a positive cash flow trajectory, driven by increasing revenue streams from product sales and strategic partnerships. By the second year, we expect to see a significant improvement in cash flow as sales continue to grow and operational efficiencies are realized. This positive momentum is projected to continue into the third year, with a steady increase in cash flow as the Beach Mule solidifies its position as a leading beach accessory brand. Our financial projections account for potential challenges and market fluctuations, ensuring that we maintain adequate liquidity to support ongoing operations and strategic investments in future growth opportunities. Below is the expected cash flow for the first year.

Months	Cash In	Cash Out	Net Cash
January	\$0.00	\$20,000.00	-\$20,000.00
February	\$0.00	\$15,000.00	-\$15,000.00
March	\$0.00	\$10,000.00	-\$10,000.00
April	\$0.00	\$8,000.00	-\$8,000.00
May	\$30,000.00	\$15,000.00	\$15,000.00
June	\$40,000.00	\$15,000.00	\$25,000.00
July	\$40,000.00	\$15,000.00	\$25,000.00
August	\$30,000.00	\$15,000.00	\$15,000.00
September	\$20,000.00	\$15,000.00	\$5,000.00
October	\$10,000.00	\$15,000.00	-\$5,000.00
November	\$5,000.00	\$10,000.00	-\$5,000.00
December	\$10,000.00	\$10,000.00	\$0.00

6.3 Projected Balance Sheet

The projected balance sheet for the Beach Mule outlines our financial position over the next three years, reflecting both assets and liabilities. In the initial year, our balance sheet will primarily consist of investments in inventory, equipment, and marketing assets to support our product launch and market entry. As sales increase and revenue streams grow in the second and third years, we anticipate a steady increase in assets, driven by higher inventory levels, expanded manufacturing capabilities, and increased cash reserves. Concurrently, liabilities such as accounts payable and accrued expenses may also rise as we scale up operations and invest in strategic partnerships. However, we are committed to maintaining a healthy balance sheet by effectively managing our liabilities and optimizing our asset utilization to support sustained growth and profitability for the Beach Mule.

Assets	Amount		Liabilities and Equity	Amount
Current Assets			Current Liabilities	
Cash and Cash Equivalents	\$10,000.00		Accounts Payable	\$5,000.00
Inventory	\$5,000.00		Other Current Liabilities	\$5,000.00
Accounts Receivable	\$0.00		Total Current Liabilities	\$10,000.00
Other Current Assets	\$0.00			
Total Current Assets	\$15,000.00		Long-Term Liabilities	
			Long-Term Loans	\$70,000.00
Fixed Assets			Other Long-Term Liabilities	\$5,000.00
Equipment and Machinery	\$40,000.00		Total Long-Term Liabilities	\$75,000.00
Lease	\$5,000.00			
Total Fixed Assets	\$45,000.00		Total Liabilities	\$85,000.00
Total Assets	\$60,000.00			
Total Liabilities and Equity	\$60,000.00			