

TwoStroke, LLC



Executive Summary

Summarize your company, and why

<GRAPHIC, typically a sales projection>

Objectives

<Bulleted list of objectives>

Keys to Success

<bulleted list of keys to success>

1. Plan Overview

[This is the 'mini-plan' and is a summary of the rest of the business plan. This part of the plan needs to be two pages – this is business plan assignment #1. If you have a trademark, you should use it when referring to your company name (the first time).]

1.1 Mission

TwoStroke, LLC strives to produce sensor-assisted high-visibility protective equipment to assist motorcyclists everywhere. These products increase the rider's visibility to other motorists and may provide the rider with additional safety information. From simple reflective strips or vests to wearable blind spot detection systems, TwoStroke aims to provide motorcyclists with a wide variety of equipment to suit their individual needs. TwoStroke cooperates with the National Highway Traffic Safety Administration to promote motorcycle safety and awareness by creating unobtrusive safety equipment that allows motorcyclists to always enjoy the ride.

1.2 Objectives

Measureable objectives, give one product oriented, one company oriented.

The HaloHelmet team's main product-oriented objective is to provide HaloHelmet to the world without having to expand outside of the original team members plus a handful of others. This means that all manufacturing will be done in-house instead of going through a different manufacturer. The reason for this objective is to keep HaloHelmet original and it provides a tunnel vision towards improving the product to ensure safety to users. As a company, the main objective is to advertise and market for as cheap as possible, which will be through social media and company expos. This not only cuts down on the cost of advertising, but it also keeps our marketing ideas and actions original. Without using other influencers or companies to market for us, we ensure that the things we want to show all potential customers are the ideas that the team produced themselves. By participating in expos and events, we can grow the company and gain supporters by having one-on-one conversations with others. Both objectives can be measured throughout the year by looking at revenue versus cost of manufacturing and comparing the growth of the company from the past to present.

1.3 Keys to Success

These allow you to reach your objectives. This should be SPECIFIC to your mission, objectives, product. Things like "keep the customer happy", "build a good product" are worthless as they are just motherhood and apple-pie statements. Keys to success should not just focus on the product features (try to have only one that is product-featured oriented) – other keys relate to marketing, manufacturing, etc.

The team will go through avenues like social media for marketing as our target market will likely use social media as their main source of entertainment. This includes sponsoring various motorcycle-themed influencers. As for manufacturing, the team plans to assemble the product in-house. Due to the assembly nature of our helmet fixture, we should be able to get all parts together efficiently without the use of complex machines or more than a few people. Our final key to success is choosing inexpensive parts and keeping battery life long. We will go about this by adapting the LED to use enough power to easily be seen while not using unnecessary power.

1.4 Competitive Advantage

On the surface our product is an LED matrix for the back of your motorcycle helmet, but Halo Helmet is so much more than that. With Halo Helmet the main goal is to make driving safer for all motorcyclists on the roads across the United States. That is where our product stands above the rest. There are companies out there that offer helmets with built-in brake lights but none of our competitors offer blind spot detection and signaling for both the rider and other drivers on the road. Another key to Halo Helmets' dominance in the market is that our product is independent of the rider's existing helmet. Most riders already have a helmet that they like and that fits them comfortably so rather than wasting money on a new helmet with this technology built into it you can purchase Halo Helmet for a fraction of the cost and implement it into your preexisting equipment.

1.5 Target Market

The target market for our product would be motorcycle riders and the family or friends of motorcycle riders who may be concerned for their safety on the roads. Some states do not have a helmet law for riders but based on peer-to-peer conversations and observation, regardless of a helmet law there are safety conscious people in every state and only those that would willingly wear a helmet are going to willingly take advanced preventative measures regards to safety. That said, even in states where helmets are optional, we do not expect sales to decrease. We would simply target those that are safety conscious. This tends to be younger riders or inexperienced riders so our target age group would be 16- to 30-year-olds.

1.6 Basic Strategies

Describe basic strategies for startup funding, marketing, product manufacture/distribution, future company growth in terms of new products, new markets.

To achieve startup funding, the Halo Helmet team will take advantage of the VentureCatalyst program provided by the Mississippi State University E Center. Through this program, the Halo Helmet team will pitch the idea through multiple events to judges consisting of local business owners and entrepreneurs so the team may be awarded seed money. With this seed money, marketing, manufacturing, and growth can begin to be explored. Marketing will consist of a three-stage program that coincides heavily with Halo Helmet's sales strategy. Stage one of this program consists of creating original social media content utilizing targeted hashtags to reach Halo Helmet's niche more effectively to increase organic

traffic to Halo Helmet's website to generate sales. The second part of the first stage consists of attending trade shows, expos, and events to generate positive in-person interaction and sales. The second stage of this three-stage plan includes creating paid and sponsored ads on social media and other websites. Influencer marketing will also be utilized to establish notoriety and trust with potential customers. Also in this stage, search engine optimization will allow web traffic to be directed more adequately to Halo Helmet's sales channels, which may include larger vendors like Amazon if the demand can be reached. The final stage of this three-stage plan includes establishing sales partnerships with physical retail locations where Halo Helmet will utilize strategic packaging to further appeal to the customer in the physical store. Potential brand licensing is also a valid strategy at this point whereby Halo Helmet may license the brand rights of Harley Davidson, Honda, Kawasaki, or other popular motorcycle manufacturers to create special editions to continue appealing to the niche. Manufacturing will take the form of homemade units for initial product testing with those in the Halo Helmet team's network that fit into the target market. Upon certifying validity of the design, a presale campaign will be held through kickstarter to generate working capital to move the product towards production. The production entails PCB / FPC production and sourcing of bulk parts, most likely through Chinese manufacturers. As the consumer installs the product into an existing helmet, there is no labor-intensive manufacturing process. Much like was mentioned in stage three of the marketing and sales plan, certain special editions would be the next logical step, which will be able to fund the creation of a more advanced version of Halo Helmet. New products and new markets may be found in other safety products for bicyclists, drivers, racers, and motorcyclists.

2. Company Summary

2.1 Company Description

Halo Helmet's company, TwoStroke, LLC, will be incorporated as an LLC partnership during its founding for simplicity while the company is still small. The founders are Ben Brooks, Gregory Smith, Judson Cavanaugh, Kyle Russell, and Lucas Fisher. TwoStroke, LLC strives to develop safety equipment that alerts and protects motorcyclists in various situations.

2.2 Company Location and Facilities

Initially, TwoStroke, LLC will be housed in a building owned by one of the founders. This location will be sufficient to sustain the beginnings of production and online sales. Because PCB and component construction for Halo Helmet is mostly outsourced, the final steps, including waterproofing and inspection, will not require large facilities. A small location owned by one of the founders will provide an area to perform these tasks. It will also include Internet access to allow access to the company website and to fulfill online orders. Once the company begins to grow, TwoStroke, LLC can consider obtaining a small shop and work area. This would allow customers to inspect the product in-person and create a space for in-person demonstrations.

2.3 Company Strategy

TwoStroke, LLC will provide customers with affordable systems that greatly increase the safety of motorcycle riders. The initial product, Halo Helmet, is simple and easy to use. It is also priced competitively compared to other similar systems. Halo Helmet also provides the company with a distinct competitive edge in the market: the "similar systems" to Halo Helmet are actually not that similar. Competitors provide blind spot detection systems or additional turn signals for motorcycles that mount directly onto the motorcycle. Halo Helmet provides a single system that incorporates a blind spot detection system and turn signals into the rider's helmet. This unique product provides an edge in the market. This situation also leads to having a head start over any competitor companies that may begin producing similar products.

2.4 Startup Costs

Expenses		Assets	
Legal	\$1,000	Cash Requirements	\$15,000
Prototype Dev.	\$5,000	Other Short-Term Assets	\$5,000
Initial Advertising	\$500	Total Short-Term:	\$20,000
Expensed Equipment	\$3,500	Long-Term Assets	\$0
Total Expenses:	\$10,000	Total Assets:	\$20,000

Total Startup Requirements:	\$30,000
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Legal: The cost of creating an LLC can range from \$50 - \$500. A legal budget of \$1,000 covers that cost and allows some flexibility.

Prototype Development: The initial prototype for Halo Helmet should be less than \$1,000. A \$5,000 budget allows for further development of Halo Helmet variations or other potential products.

Initial Advertising: Initial advertising will focus on creating original content featuring new products. \$500 will cover simple recording and editing equipment.

Expensed Equipment: As most construction will be outsourced, \$3,500 covers simple tools and equipment for product inspection and general office work.

Assets: The initial cash balance of \$15,000 allows for the beginning of production and sale of Halo Helmet. Because production costs are relatively inexpensive, this pricing should be sufficient to support the company until product sales become profitable. The additional \$5,000 is safety padding for the possibility of slow initial sales.

This initial funding will be pursued through the VentureCatalyst program provided by the Mississippi State University E-Center. This allows startup companies to obtain funding for their ideas or products. Additional funding could be obtained through independent investors and the team's own investments. Supplemental cash can be obtained through crowdfunding platforms.

3. Product Summary

These headings are self-explanatory

3.1 Product Description

Halo Helmet is an attachable system for motorcycle helmets to display indicator signals from the motorcycle. The idea of the product is to display indicator lights at a more visible location for other drivers, while still displaying the signals through the indicator lights of the bike. The system consists of a flexible LED matrix on the rear side of the helmet to output brake and turn signal lights along with ultrasonic sensors on each side of the rear of helmet to detect vehicles in the blind spot. The detection of a vehicle in the blind spot is displayed through simple LEDs inside of the helmet in the rider's periphery. The system is lightweight, maintaining comfortability for the rider and keeping stress on the neck at a minimum. The power source for the product is a long-lasting, portable, and rechargeable power bank, making for an easy fix when Halo Helmet gets low on charge and needs a break. Halo Helmet is the portal to a safer and more motorcycle-friendly world.

3.2 Customer Needs and Benefits

A study in 2021 shows that 14% of all traffic fatalities were motorcyclists. While that does not seem like a major percentage, only 3% of all registered vehicles are motorcycles. With motorcycles being difficult to see already, it does not help that the indicator lights on the bikes are low to the ground, usually below waist level. We believe that Halo Helmet will eliminate the difficulty of seeing these riders and their indicators. With that being said, the customer need for this product is more than we can imagine. Our goal is to significantly reduce the percentage of fatalities along with non-fatal accidents involving motorcycles. With Halo Helmet, the customers will be the biggest beneficiaries. Using our product will allow riders to have confidence when getting on their bike and getting in the mix with other motorists. Our product will also reduce the stress on the ones who have always had trouble seeing motorcycles and their driver. Halo Helmet is a win-win situation for everyone.

3.3 Future Products

While Halo Helmet is everything one could want, there is still room for improvement in the future. Rather than creating new products, we will just improve and fine-tune Halo Helmet. One improvement that is being considered is voice commands to initiate turn signals rather than having to press buttons

and switches on the bike. While Halo Helmet is being advertised and shared with the world, future products or improvements will be considered based off feedback from customers.

3.4 Competitive Comparison

With Halo Helmet being an original idea, there is not much competition yet. There are a handful of products similar but nothing with all the features included in Halo Helmet. The biggest competition right now is an actual helmet being sold with brake lights on the back of the helmet. Since Halo Helmet is a system that attaches to a helmet, it is universal for all size and shape helmets. We believe that with our system being universal for all helmets, we have the advantage over any competitors.

4. Market Summary

Summary of the market, marketing strategy in / with which TwoStroke, LLC will enter with the product “Halo Helmet.” This section also includes a three-year sales forecast, and manufacturing and distribution strategy.

4.1 Market Analysis

The major market that will be attempted to enter is the motorcycle safety market. The average consumer for Halo Helmet will be those who are more safety conscious while riding motorcycles. Those who are poised to be a part of this demographic, based on brief market research, are young professionals who ride recreationally or young college students, as these groups of people are more likely to understand the safety dangers of riding a motorcycle, but are typically enthusiast riders or are forced to ride a motorcycle due to cost or space considerations.

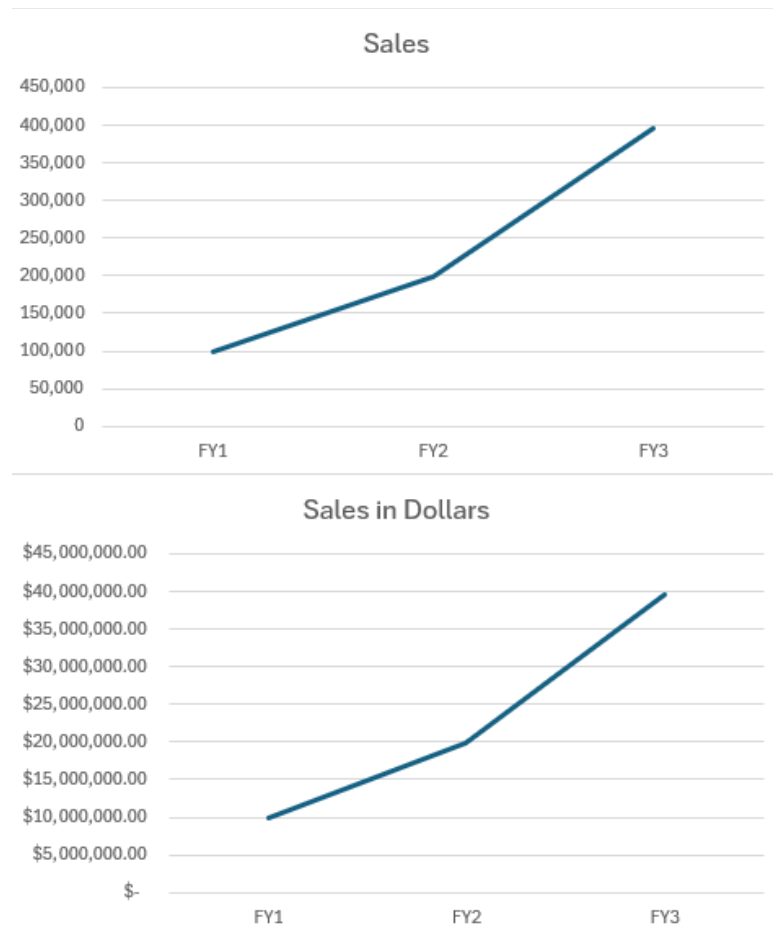
4.2 Marketing Strategy

Marketing strategy will be executed in a three-stage process. This three stage marketing strategy scales with company growth. Initially, the marketing strategy will consist of low-cost social media content using original content and user generated content (UGC) tagged with targeted hashtags to further reach Halo Helmet’s niches and drive customer engagement and organic sales on Halo Helmet’s website. Still within the first stage, the Halo Helmet team will attend tradeshow, events, and expos to further drive customer interaction to create a positive in-person image to further drive sales and notoriety. The next stage of the marketing strategy comes around as the company is more able to scale. This second stage includes the use of paid and sponsored ads through multiple mediums to continue reaching Halo Helmet’s niches and build brand awareness. The next step of the second stage is to use influencer marketing to build brand reputation and notoriety within Halo Helmet’s niche and market, that being the safety conscious motorcycle rider. Influencer marketing can be conducted via giving test units to motorcycle influencers, or launching paid influencer delivered advertisements through midroll ads, pre -

video ads, or image and short content based social media posts. Many motorcycle vloggers can be leveraged to execute this influencer marketing strategy. Lastly in the second stage, search engine optimization will be utilized to ensure that Halo Helmet's offerings are readily available with minimal searching. This will be done with built-in tools on website-based shopping platforms, such as the tools available through Shopify. Finally, the last stage of the marketing strategy as the company still continues to scale will consist of brand and logo licensing, sales partnerships, and strategic packaging. Brand and logo licensing will utilize the existing branding and logos of current well-established brands that are in, or are adjacent to, the niche that Halo Helmet will reach. One example may be the creation of a Harley Davidson, Kawasaki, Honda, or etc. branded version of Halo Helmet under license from those companies. This will help Halo Helmet further appeal to the target niche. Secondly in this stage, sales partnerships will be leveraged to get Halo Helmet into brick-and-mortar locations such as Harley Davidson stores, specialty bike shops, and large retail locations where motorcycle helmets are readily available. Lastly, to assist in the ability to market and sell upon reaching these brick-and-mortar locations, strategic packaging will be leveraged to draw the potential customer's eye towards Halo Helmet on the shelf. This strategic packaging will, again, appeal to the niche that Halo Helmet will reach and assist in attracting sales within brick-and-mortar locations.

4.3 Sales Projection

Assuming a 1% market share of all motorcycle riders in the US (9.89 million) nets a total initial achievable market size of 98,900 riders [?]. This number of riders is based on the number of motorcycles registered in the United States. Assuming Halo Helmet is priced to compete with competitors and will sell for \$100, this nets a total revenue of \$9.89 million for the first year. Assuming market growth is doubled year over year, this results in a three-year sales projection in dollars and sales in the figure below:



According to the graph made using the previously mentioned assumptions, Halo Helmet is able to achieve nearly \$40 million dollars in gross revenue a year in financial year 3.

4.4 Manufacturing and Distribution Strategy

The manufacturing strategy will rely upon outsourced PCB construction. Upon completing a prototype, the PCB will be recreated and designed for assembly. Upon redesigning the PCB for assembly, it will be sent to an overseas manufacturer where it will be constructed and soldered with the needed components. Upon the PCB and related wired accessories being shipped to the US, it will be packaged in the United States. As this product is made to be flexible with multiple types of helmets, the general assembly and placement of each component is at the user's discretion. This user-based assembly limits the necessity of assembly by the Halo Helmet team, save for quality checks, waterproofing, and packaging which will be done in the US by Halo Helmet employees. Upon these aforementioned steps being completed, Halo Helmet is shipped congruent to the sales channel strategy that is heavily related to the marketing strategy which experiences similar growth as the company scales. The first stage of the

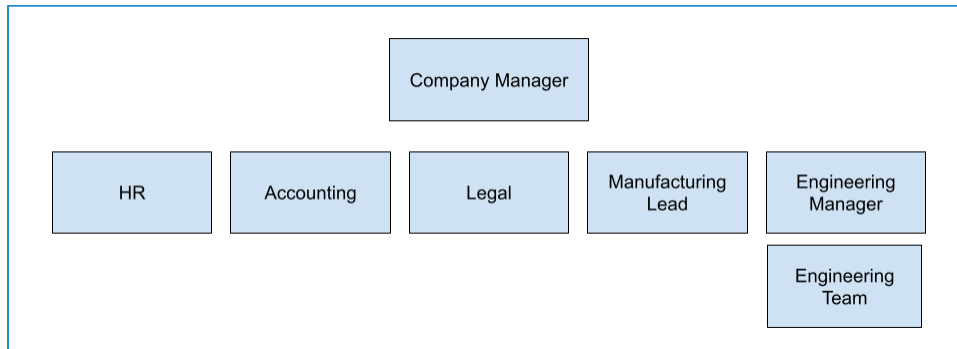
sales and distribution strategy relies heavily on online sales through Halo Helmet's website. This cuts down on profit taken by other sales channels such as retailers that would be inaccessible due to the relatively low demand at this stage. These sales would be supplemented by in-person sales at tradeshow, events, and expos. When utilizing Halo Helmet's online sales channel, regular ground-based shipping will be used due to the simplicity in auto-generating shipping labels and costs from customer orders, but also the fact that lithium batteries must legally be shipped via ground. The next stage continues the use of Halo Helmet's direct-to-consumer website, but as the demand increases, other online sales channels like Amazon will be leveraged to reach a larger audience. Fulfillment of Halo Helmet's products then shifts from solely Halo Helmet's responsibility to partially Amazon's responsibility. This step still includes the previous ground-based shipping method, though ground freight may have to be considered for bulk orders from Amazon if Amazon is the fulfillment agency for the customer, not just a sales channel. The final stage of the sales and distribution strategy incorporates all prior sales and distribution steps with the addition of brick-and-mortar locations, which requires the added scalability of Halo Helmet, which is why it is the last stage. This stage would most definitely require the usage of bulk ground-based freight, riding the line between less than truckload (LTL) freight shipping, and full truckload freight shipping to satisfy the distribution across the sales chain of these large brick-and-mortar locations. Orders, though, would still be simple as each brick-and-mortar order would come from the one brick-and-mortar buyer, solely a business to business (B2B) transaction.

5. Organization Overview

TwoStroke will have five different branches to assist in business planning. There will be an engineering, HR, sales team, accounting, and legal department. While the team has knowledge of these respective disciplines, it will be more appropriate to have specialized people on board as soon as possible.

5.1 Company Structure

The company structure is as follows: an individual assigned to each of the departments, a company manager overseeing everyone, and an engineering team under the engineering manager.



5.2 Personnel Plan

The initial personnel will consist of the 2-stroke team. After the initial years that require us to bootstrap the business, we will have to add some assembly workers to our manufacturing line and a few engineers as support. As we grow we will add more people such as human resources personnel and an accountant for the business we will also need dedicated salesmen and someone to lead the group.

6. Financial Plan

The initial financial plan for producing halo helmet is to keep overall costs to a minimum. The initial funding will come from private investors, the founders, and any startup capital we can obtain from the the Mississippi State University E-Center and their VentureCatalyst program. The first year of business we will build our product out of a location owned by a founding member. This will allow us to work closely with our product to ensure quality control and the ability to quickly resolve any of the inevitable issues associated with a new technology startup. In addition to working closely with the new product we will also save money on manufacturing and be able to allocate that money to areas that we feel could make a larger impact in the long term such as marketing and sales. In the following years as our sales grow there will not be enough space in the original facility to manufacture and house all the supplies, we will need to meet the demand for Halo helmet so at that point we would consider moving to a more permanent manufacturing facility or alternatively getting a third party manufacturer to assemble products for us. This would include hiring a few employees for the assembly process as the five founders moved into more of a director role in the company to move forward with improving our existing product and staying current with our safety technology to ensure we are creating the best possible product and maintaining our market dominance in motorcycle safety technology.

6.1 Profit and Loss

Operating Expenses:

	Total Income	Loss	Profit
Year 1	\$9,890,000	\$7,722,300	\$2,167,700
Year 2	\$19,780,000	\$7,603,000	\$12,177,000
Year 3	\$39,560,000	\$14,808,000	\$24,752,000

See 6.2 for a further breakdown of the expenses.

Manufacturing facility – Initially the manufacturing will be done out of a building a coworker owns so our facility costs are mostly utilities and upkeep. The following years, the quantity we seek to produce will outgrow the initial facility, and we will need more room for raw materials and finished goods and an area for an assembly line and office space for our rapidly expanding team. This will require a moderate sized building running about \$5000/month in rent. The third year of operation we will need to expand our warehousing space and that along with the initial manufacturing facility should set us back \$8500 a month or \$102,000 that third year.

Personnel – The first year we are keeping things simple and hiring a minimal number of employees we will bootstrap the company so many of the roles we will fill in future years will be done ourselves and we will be delaying a payout ourselves until the company turns a profit. To produce our required number of

Helmet and bring them to market we will need to make 47 helmets an hour and we can do that with 5 full time employees. We estimate our year 1 total will be \$ 300,000 in paid out wages. The second year we will be profitable and need to prepare for a higher number of orders. To accomplish this, we need to expand our team. By our best estimates we figure that we will be able to bring on an administrative assistant to handle the legal, the accounting, and the human relations duties. We also need to bring on a team of 3 engineers to improve the initial product and to overcome manufacturing hurdles that come with producing the high quantities we aim to produce. In the third year we will try to break up the administrative duties and hire more professionals to handle those tasks. We will also expand our engineering team in that third year.

Materials – Material cost currently sits at around \$80 when you consider shipping and handling. Initially, that is more than we can manage while remaining profitable. When we begin to buy wholesale, we can cut our material cost in half and once we begin to engineer the next iteration that cost can be reduced to as little as \$20 a board. The first year's material costs will eat into our budget quite a bit but by year three there will be plenty of money left for overheads.

Shipping – Once the product is created, we need to be able to send it to our customer. Our customer base is all online with very little being shipped in bulk to retail stores. Each one is small and can be shipped for around \$5. I do not expect that to change much throughout the first couple of years until our product can be sold in retail stores.

Sales – Sales are complex, but we will need to do substantial marketing to meet our target in sales. Without having any partners in stores our sales should be at least \$10 per unit sold for the first few years before our product gains popularity.

6.2 Projected Cash Flow

	Year 1	Year 2	Year 3
Manufacturing facility	\$4800	\$60,000	\$102,000
Personnel	\$300,000	\$620,000	\$860,000
Materials	\$5,934,000	\$3,956,000	\$7,912,000
Shipping and Handling	\$494,500	\$989,000	\$1,978,000
Sales	\$989,000	\$1,978,000	\$3,956,000
Total Burden occurred	\$7,722,300	\$7,603,000	\$14,808,000

6.3 Projected Balance Sheet

Initial investment

- MSU Innovation center \$1,000
- Small business loan \$10,000
- Personal investments \$50,000

Liability

- Tools to manufacture our product \$500
- Building overhead \$5000

Equity

- Raw materials \$1,000
- Accessible Capitol \$50,000

References:

[?] <https://www.statista.com/statistics/191002/number-of-registered-motorcycles-in-the-us-by-state/#:~:text=U.S.%20motorcycle%20registrations%20by%20state%202021&text=The%20number%20of%20publicly%20owned,9.89%20million%20units%20in%202021.>