

INNOVATIVE SOLUTIONS FOR URBAN COMMUTING: THE
DEVELOPMENT AND FEASIBILITY OF THE STORMRIDER
LONGBOARD FENDER

by

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A THESIS

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Executive Summary

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Title: Innovative Solutions for Urban Commuting: The Development and Feasibility of the
Stormrider Longboard Fender

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Problem

During discussions with longboarders, two common pain points emerged: getting splashed by water on wet roads and feeling unsafe when riding at night. Stormrider attempts to solve these issues through a universal longboard board fender that fits on any wheel between 68mm and 96mm.

Solution

The Stormrider fender is designed to solve this problem. Stormrider is made from a durable Nylon 6/12 (PA) material which deflects the water and mud from contacting the longboarder. There is also a built-in light feature with three brightness settings: 50, 150, and 300 lumens, providing a battery life of 2-20 hours, depending on brightness. The accessory can be easily installed on the longboard using a standard skate tool, a common tool familiar to most longboarders.

Traction

Currently, Stormrider has raised \$12,500 from collegiate pitch competitions and grants. Throughout the past year, Stormrider has used these funds to create multiple iterations of the

fender; the most functional prototype being created in collaboration with the Knight Campus Additive Manufacturing Lab at the University of Oregon. This thesis presents the extensive research conducted to develop Stormrider's business model and Kickstarter campaign and insights from interviews with longboarders and industry professionals.

Opportunity

Stormrider is uniquely positioned to gain traction in the longboard accessories market due to the lack of direct competitors in the US offering a similar product. We believe that Stormrider's success will enable the company to expand its product line and become a well-known brand in the industry. The global longboard market is projected to reach USD 5.9 billion by 2025, providing a significant opportunity for Stormrider to capture a share of the market (Grand View Research, 2019). With its practical and stylish design, including a rechargeable light feature for improved visibility at night, Stormrider is set to become a leader in the longboard accessories market.

Acknowledgments

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Table of Contents

Business Model	8
Value Proposition	8
Customer Segments and Channels	9
Customer Relationships	11
Key Activities, Resources, and Cost Structure	13
Key Partners	19
Revenue Streams	20
Financial Forecast	21
Kickstarter Campaign	35
Stormrider: The Ultimate Longboard Fender with Built-in Light	35
My Story	35
About	36
Features	36
Pledge Tiers and Rewards	37
Production Timeline:	39
Risks and Challenges:	40
Join the Community!	40
Additional Visual Content	42
Appendix A: Primary Research Interview Notes	44
Interview Summary: Value Proposition Customer Interviews	44
Interview Summary: Customer Segments and Channels	45
Interview Summary: Customer Relationships	47
Interview Summary: Key Resources, Key Activities, and Cost Structure	49
Interview Summary: Key Partners	51
Interview Summary: Revenue Streams	53
Appendix B: Market and Industry Analysis	55
Bibliography	57

List of Figures

Figure 1: Global skateboard market share by end-user, 2018 (%). Data from "Skateboard Market Size, Share: Industry Trends Report, 2019-2025" by Grand View Research, Inc., https://www.grandviewresearch.com/industry-analysis/skateboard-market .	10
Figure 2: Build-Measure-Learn Feedback loop.	12
Figure 3: The set of Stormriders attached to a Boosted Board Stealth.	14
Figure 4: Stormrider getting printed on Ender 3 S1.	16
Figure 5: First Stormrider prototype with the light feature.	16
Figure 6: Stormrider logo with slogan.	18
Figure 7: Stormrider logo without slogan.	18
Figure 8: Stormrider Product Mockup 1	35
Figure 9: Stormrider Product Mockup 2	42
Figure 10: Stormrider Product Mockup 3	42
Figure 11: Stormrider Product Mockup 4	43
Figure 12: U.S. Projected Skateboard Market Size and Share from 2019-2025. Data from "Skateboard Market Size, Share: Industry Trends Report, 2019-2025" by Grand View Research, Inc.	55
Figure 13: Survey responses on the likelihood of riding a longboard in wet weather conditions. Created by Riley Farrell.	56

List of Tables

Table 1: Sales Schedule	21
Table 2: Production Model	24
Table 3: Operating Cost Model	26
Table 4: Capital Budget	28
Table 5: Cash Budget – Year 1	30
Table 6: Cash Budget – Year 2	31
Table 8: Balance Sheet	33
Table 9: Financial Forecast Analysis Ratios	34

Business Model

The primary research interview notes related to the following sections of Stormrider's business model can be found in Appendix A. This business model serves as a strategic plan and showcases the progress and effort put into developing Stormrider during my undergraduate degree.

Value Proposition

During discussions with longboarders, two common pain points emerged: getting splashed by water on wet roads and feeling unsafe when riding at night. Stormrider attempts to solve these issues through a universal longboard board fender that fits on any wheel between 68mm and 96mm. The accessory can be installed with any skate tool. The fender fits over the wheel connected at the bearing of the board, which serves as a barrier between the rider and the road, preventing water and mud from making contact. There is also a rechargeable light feature that is attached to the fender that allows the skater to be seen more accessible by cars and offers greater visibility in the dark. Additionally, it provides a unique style to the longboard; in the appendix interview, Ronan Armstrong stated, 'I like the way it makes the board look like it is hovering' (Appendix A, [Value Proposition Customer Interviews](#)).

The Stormrider fender is designed for rugged durability. The challenge of creating a longboard fender that could withstand harsh conditions led to the discovery of Nylon 6/12 (PA) as the ideal material, thanks to its low water absorption, strength, heat resistance, chemical resistance, wear resistance, and lubricity ("Polyamide 6/12"). The built-in light features three brightness settings: 50, 150, and 300 lumens, providing a battery life of 2-20 hours, depending on brightness. And with its waterproof design, the Stormrider is ready to weather any storm.

Customer Segments and Channels

Introduction

The longboarding community encompasses a variety of segments, including commuters who use their boards as a means of transportation. Our product, designed to enhance the commuting experience, features a universal board fender that serves as a barrier against water and mud and a rechargeable light that provides added safety for riders. Our target market comprises longboarders looking for stylish and functional accessories to add to their board. By offering a solution for a safer and more enjoyable commuting experience, even in wet conditions, we aim to cater to the needs of this segment of longboarders. The product will be available directly to consumers and online retailers, catering to business-to-consumer and business-to-business markets.

Customer Segments

Our product targets longboarders who use their boards for commuting purposes, whether with an electric or non-electric longboard. Our survey discovered that most longboarders avoid commuting when the road conditions are wet (Figure 2 in Appendix B). Additionally, through customer interviews, we discovered that many longboard commuters were interested in using the Stormrider to enable them to ride even when the roads were wet. They were also attracted to the added safety feature provided by the built-in light (Appendix A, Interview Summary: Customer Segments and Channels). As one interviewee, Jason Elder, stated, "I've been wanting to buy lights and fenders for my board."

Grandview Research conducted a study revealing that teenagers, specifically those aged 12-17, constitute the largest demographic in the skateboarding market, accounting for 44.1% of its global revenue in 2018, as stated in their report "Skateboard Market Size." This underscores

the substantial interest and purchasing potential within this age group for skateboard-related products, establishing them as a crucial target market for our product. Nevertheless, the advent of electric longboards has brought about a new customer segment in the longboarding arena. Many enthusiasts of these e-boards were drawn to the trend by the popularization of the iconic Boosted Board by Casey Neistat through his YouTube channel, as cited in Holt's report. Furthermore, from a series of interviews, it emerged that many college students rely on longboarding for commuting to their classes and navigating around town. These students also expressed an appreciation for adding a unique style to their longboard. Consequently, our primary target market comprises longboarders who are keen on elevating their style and protection from the elements during their commuting journeys.

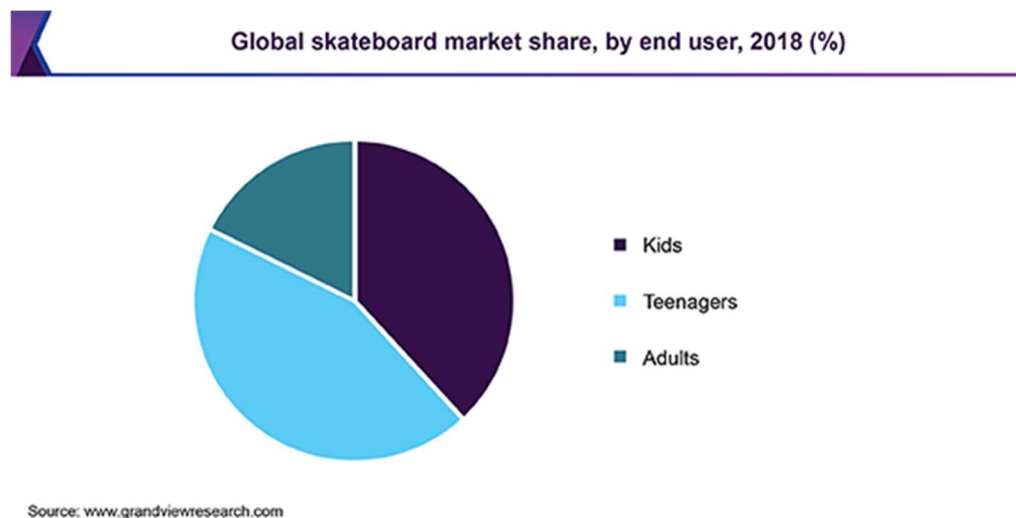


Figure 1: Global skateboard market share by end-user, 2018 (%). Data from "Skateboard Market Size, Share: Industry Trends Report, 2019-2025" by Grand View Research, Inc., <https://www.grandviewresearch.com/industry-analysis/skateboard-market>.

Channels

My strategy for introducing Stormrider to the market is to launch a Kickstarter campaign. If the campaign meets its funding goal and receives positive feedback, Stormrider plans to sell the product directly to consumers through its website and Amazon, as well as distribute it

wholesale to popular online e-tailers like Daddies Board Shop. According to Robin McGuirk, the founder of Eastside Longboards (Appendix A, [Key Partners](#)), having a quality product and a proven sales record dramatically increases the chances of online retailers being interested in collaborating with you. The Kickstarter campaign will help establish a track record of pre-sales, enabling us to prove ourselves to other distribution channels such as Amazon and Daddies Board Shop.

Customer Relationships

Stormrider plans to launch the product on Kickstarter initially. Based on the research in the article "Community Support or Funding Amount: Actual Contribution of Reward-Based Crowdfunding to Market Success of Video Game Projects on Kickstarter," community support and feedback are essential factors for the market success of a product, and the Kickstarter campaign can be a means of building this support. For Stormrider, a successful Kickstarter campaign will provide funding, help establish customer relationships, and gather valuable feedback from the community. This information can be used to refine the product and build a loyal customer base, which is critical for long-term success.

After reaching our campaign goal, Stormrider plans to maintain engagement with our loyal customer base through social media and in-person interactions. Our strategy for building the Stormrider brand and product will be guided by the validated learning model, which is, according to Eric Ries in his book 'The Lean Startup,' 'the process of demonstrating empirically that a team has discovered valuable truths about a startup's present and future business prospects' (Ries 48, 2011). We plan to implement the validated learning model through a Build-Measure-Learn feedback loop. This will consist of three phases: Build, Measure, and Learn (Figure 2). The build phase will consist of building a minimal viable product (MVP), which is "a version of

a new product which allows a team to collect the maximum amount of validated learning about customers with the least effort" (Ries, "The Lean Startup," 2011, p. 75). MVPs aren't supposed to be the end quality product; they serve as a starting point for receiving customer feedback and ensuring we fulfill their needs. The next phase is the Measure Phase, during which we plan to conduct a split test between two groups and measure their interactions with the MVP. Finally, in the Learn phase, we will evaluate the positive or negative metrics from the split test and decide to either continue with the feature or product (preserve) or make changes (pivot) based on the feedback received. We aim to optimize the Build-Measure-Learn loop to improve customer service and relationships.

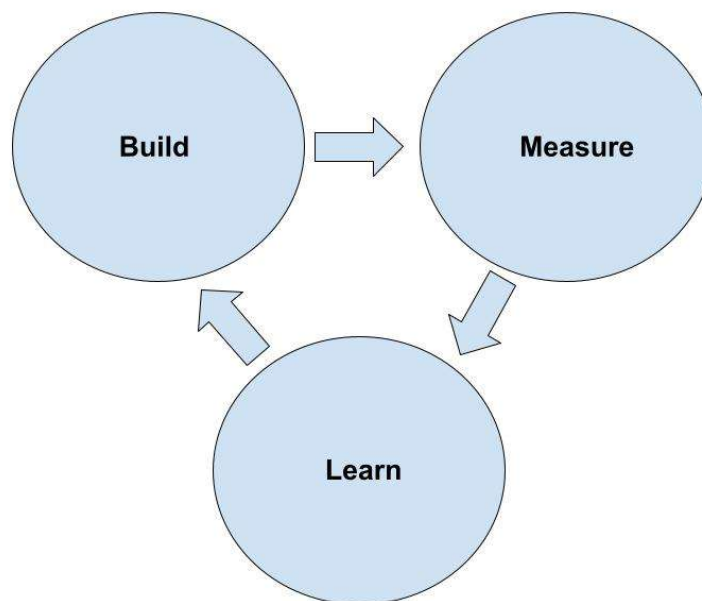


Figure 2: Build-Measure-Learn Feedback loop.

Stormrider plans to maintain engagement with our loyal customer base through social media and in-person interactions to improve customer relationships further. Social media platforms allow us to receive customer feedback and release polls to determine what features or

products they want from Stormrider. Additionally, we discovered through customer interviews (Appendix A, Customer Relationships) that social media can be a powerful tool for building a community. We plan to share the experiences and stories of our customers enjoying their Stormrider products with the rest of the community.

In-person focus groups will also be critical in our product development process. These focus groups will enable us to conduct split testing of MVPs, such as new website designs, Stormrider features, or merchandise designs. By using these methods, we can continue to improve our products and services, build a loyal customer base, and establish ourselves as a leader in the industry.

Key Activities, Resources, and Cost Structure

Product Design Status:

The Stormrider has gone through multiple iterations. Initially, we used polylactic acid (PLA) filament to make the original prototypes because it was cheap and could be 3D printed to test the dimensions in real life. The first functional design was made in the Phil and Penny Knight Campus for Accelerating Scientific Impact (Knight Campus) Additive Manufacturing Lab with Kazi Rafizullah, the lab manager. The functional design (Figure 3) was made with solid-filled Onyx material, a blend of Nylon and Carbon Fiber. The cost per fender was \$131.25 per fender. However, I got a set of 4 for a discounted \$431.25 total (\$107.81 each). The structural integrity of this prototype was the best out of every last prototype, and the additive 3D Printer could produce higher-end materials with a better-quality result at the Knight Campus than the inexpensive 3D printer at my apartment. However, as one may notice, the costs of working with Knight Campus were far too much for a college student like me. So, I had to pivot towards a less expensive alternative. I discovered it was possible to modify my 3D printer, Ender 3 S1,

to print a more affordable alternative carbon fiber-filled nylon filament; this material costs approximately 7 dollars to print at a 20% infill. This still needed improvement as my 3D printer did not print the results with the same functional quality as the Knight Campus set, although it was good enough to ride with for a minimal timeframe.



Figure 3: The set of Stormriders attached to a Boosted Board Stealth.

Produced by the Additive Manufacturing Lab in Phil and Penny Knight Campus for Accelerating Scientific Impact.

The next iteration involved improving the locking mechanism of the board. There needed to be more space for electric longboards to have two jam nuts on the axle due to their typically larger wheels and motors on the backside of the board. I discovered that a FLEXLOC could improve the connection point between the Stormrider and the axle. FLEXLOC self-locking nuts are one piece that can be inserted into an injection mold and fused to the Nylon material. Paul Somerscales, a Mechanical Engineer, suggested, "By incorporating a metal nut insert in the mold, you could potentially reduce costs by eliminating the need for a post-molding process." This cost reduction not only makes the overall product more cost-effective but also provides a

competitive advantage by streamlining the production process and improving the final product's reliability and performance.

Finally, I made a PLA prototype of a Stormrider with the light feature (Figures 4 & 5). The light inside can reach a maximum brightness of 300 lumens and is diffused through a scratched acrylic sheet with 280-grit sandpaper.



Figure 4: Stormrider getting printed on Ender 3 S1.

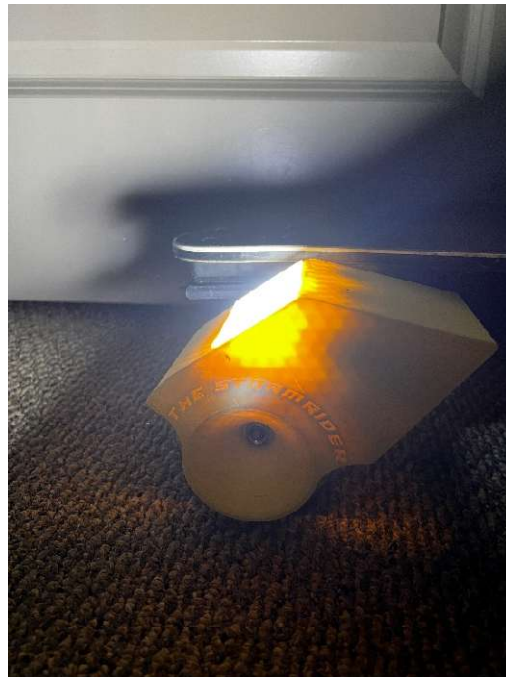


Figure 5: First Stormrider prototype with the light feature.

Pitch Competition Successes

In the winter of 2022, I conceived the product concept for Stormrider while brainstorming group project ideas for my Launching New Ventures class with Dr. Murray. This

project helped me develop a vision for Stormrider and led me to realize that it could be a viable solution to unmet needs that longboarders like myself have been experiencing. Soon after, I participated in my first pitch competition, The Provost Innovation Challenge, which provided mentorship to students with entrepreneurial ideas and allowed them to compete for cash prizes. As a finalist in the competition, I received \$2,000 and an additional \$500 through the Spark Grant.

Through the Provost Innovation Challenge, I was invited to participate in the Invent Oregon collegiate pitch competition. The competition encourages college students to create new, innovative, and tangible solutions to current issues. Students receive grants of up to \$2,500 to develop working prototypes and learn about commercialization. The competition is sponsored by organizations such as the Lemelson Foundation, Business Oregon, The Oregon Community Foundation, and PSU's Center for Entrepreneurship. With the initial grant, I purchased a 3D printer and filament materials, developed the foundation for the Stormriders design, and created the brand logo and slogan (Figures 6 & 7). The competition evaluated not just the pitch but also the progress made within a 60-day timeframe. I successfully created a fully functional prototype and could attach the Stormriders to the board as I longboarded onto the stage, while impressing the judges with the progress I made on the venture. Having my twin brother assist me during the pitch competition proved advantageous as it helped make our presentation more engaging and dynamic. As a result, Stormrider was awarded a \$7,500 check and achieved second place among 44 other student ventures.



Figure 6: Stormrider logo with slogan.

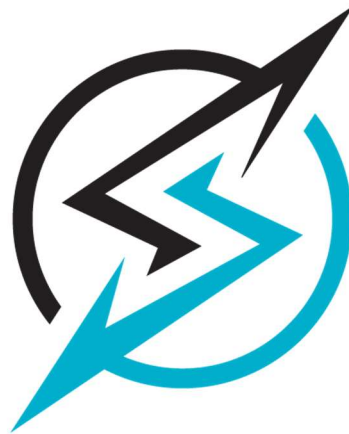


Figure 7: Stormrider logo without slogan.

Next Steps

Currently, Stormrider has \$9,500 in capital from the pitch competition successes. The next step is to use the current capital to create a successful Kickstarter campaign to raise enough capital to expand Stormrider's production capabilities from a 3D printer to a manufacturer's injection mold. I received a quote for an injection mold and a sample quantity of 25 units from PROTOLABS. The quote for the injection mold was \$12,140 and \$481.25 for the samples,

totaling \$19.25 per fender. PROTOABS is a low-volume manufacturer that is known for its rapid lead times. This quote estimates what to expect for an injection mold that prints in a nylon material. However, the price per fender will likely drop significantly if I purchase a product from a different manufacturer that produces large volume orders. Paul Somerscales, a mechanical engineer, said he believes I can get the cost down per set of fenders to 10 dollars (\$2.50 per fender).

Securing Intellectual Property Rights

Before launching the Kickstarter campaign, securing a provisional patent for the Stormrider is crucial. Obtaining a provisional patent will help protect the product's unique features during the funding stage, ensuring that the innovation remains exclusive to the project (source: (United States Patent and Trademark Office, 2023). Also, the filing fee is 65 dollars for the provisional patent, which would be more affordable than the non-provisional patent.

Once the Kickstarter campaign goal is reached, the funds raised can be used to obtain a non-provisional patent, further strengthening the intellectual property rights of Stormrider. Securing patents is essential for any innovative business, as it establishes a strong market position and protects the invention from being copied by competitors (World Intellectual Property Organization, 2021).

By obtaining both provisional and non-provisional patents, Stormrider can safeguard its unique design and features, allowing the business to focus on expanding production capabilities and reaching a broader market.

Key Partners

One key partner that could play a significant role in the success of Stormrider is the Kickstarter community. Building a solid relationship with the Kickstarter community could

allow Stormrider to gather valuable customer feedback and support, which can help refine its product and build a stronger brand. Additionally, the Kickstarter campaign can test the product's viability and generate pre-orders that can help fund the initial production run.

However, depending on the outcome of the Kickstarter campaign and whether it achieves its funding goals, additional resources may be required, including financial support. In this scenario, Stormrider may consider applying for an SBA loan. To do so, Stormrider would need to demonstrate the viability of the business and present a well-developed business plan. I have already met with Chris Hemmings, Senior Vice President, and Chief Operating Officer at Summit Bank, who expressed that Stormrider could qualify for an SBA loan with a solid business plan and proof of viability.

In regard to selling our product, I spoke with Robin, the founder of Eastside Longboards, located in Portland, OR. Robin mentioned that they primarily sell their longboard products through Daddies Board Shop, the largest online longboard retailer in the area. We plan to validate the viability of our accessory through Kickstarter pre-orders and then aim to sell it wholesale to Daddies Board Shop. Additionally, Amazon will be a valued partner as Stormrider plans to sell our product directly to consumers through the Amazon Marketplace.

Revenue Streams

Pricing

Stormrider's revenue streams will begin with a Kickstarter campaign to raise sufficient capital for injection molding costs and the initial order from the manufacturer. Following this, the Stormrider will be sold wholesale to Daddies Board Shop and directly to consumers via Amazon and our website.

Typically, the wholesale price is listed at 50% of the retail list price, according to Robin, the founder of Eastside Longboards. Based on customer feedback, we have determined that a fair retail price for the Stormrider is \$80 per set, resulting in a wholesale price of \$40 per set.

Financial Forecast

The financial forecast below is for two years and assumes that Stormrider did not receive funding from Kickstarter. Instead, it takes that the company had to borrow funds through a loan to cover the necessary costs.

The inputs to the model are based on my assumptions of reasonability and the information I have learned from industry professionals (such as the number of units sold, cost of goods sold, equipment costs, etc.).

Sales Schedule

I have set the sales schedule to start with a reasonable estimate of 100 units at the beginning of the fourth month of production. Given the size of the longboard market, I then placed a growth rate of 30 additional units per month, which I believe is conservative. Since we will primarily be selling directly to consumers, I have set credit sales to account for 20% of our sales and cash and credit card sales to account for the remaining 80%.

Sommer											
Sales and Cash Receipts	January	February	March	April	May	June	July	August	September	October	November
Ruby Fare											
Sales Schedule:											
Units Sold:	100	130	160	190	220	250	280	300	340	370	400
Average Sales Price per Unit:	\$ 80										
Total Revenue (Sales):	\$ 8,000	\$ 10,400	\$ 12,800	\$ 15,200	\$ 17,600	\$ 20,000	\$ 22,400	\$ 24,800	\$ 27,200	\$ 29,600	\$ 32,000
Credit Sales:	\$ 1,600	\$ 2,080	\$ 2,560	\$ 3,040	\$ 3,520	\$ 4,000	\$ 4,480	\$ 4,960	\$ 5,440	\$ 5,920	\$ 6,400
Card & Credit Card Sales	\$ 6,400	\$ 8,320	\$ 10,240	\$ 12,160	\$ 14,080	\$ 16,000	\$ 17,920	\$ 19,840	\$ 21,760	\$ 23,680	\$ 25,600
Card Collection Schedule:											
Card Sales Current Month	\$ 6,400	\$ 8,320	\$ 10,240	\$ 12,160	\$ 14,080	\$ 16,000	\$ 17,920	\$ 19,840	\$ 21,760	\$ 23,680	\$ 25,600
100% of Last Month's Credit Sales	\$ -	\$ 1,600	\$ 2,080	\$ 2,560	\$ 3,040	\$ 3,520	\$ 4,000	\$ 4,480	\$ 4,960	\$ 5,440	\$ 5,920
Total Cash Collected in Month	\$ 6,400	\$ 9,920	\$ 12,320	\$ 14,720	\$ 17,120	\$ 19,520	\$ 21,920	\$ 24,320	\$ 26,720	\$ 29,120	\$ 31,520
Accounts Receivable at end month end:	\$ 1,600	\$ 2,080	\$ 2,560	\$ 3,040	\$ 3,520	\$ 4,000	\$ 4,480	\$ 4,960	\$ 5,440	\$ 5,920	\$ 6,400
Credit Card Fees	2%										

Table 1: Sales Schedule

Production Model

The input for the cost of goods is based on my conversation with Paul Somerscales, a mechanical engineer, for the nylon 6/12 material with additional labor costs. The production

model is set to begin producing inventory in month one and follow the growth estimates for demand throughout the rest of the model. We decided to build production early to have safety stock to prevent a shortage from happening. Keep in mind that each unit is a set of 4 fenders.

The Summider Production & COGS											
Riley Farrell		January	February	March	April	May	June	July	August	September	October
Cost of Production											
Units Produced:	1 units = 4 Fenders	30	50	70	90	120	150	180	210	240	270
Materials:	10	\$ 300	\$ 500	\$ 700	\$ 900	\$ 1,200	\$ 1,500	\$ 1,800	\$ 2,100	\$ 2,400	\$ 2,700
Labor:	3	\$ 90	\$ 150	\$ 210	\$ 270	\$ 360	\$ 450	\$ 540	\$ 630	\$ 720	\$ 810
Total Cost to Produce:	13	\$ 390	\$ 650	\$ 910	\$ 1,170	\$ 1,560	\$ 1,950	\$ 2,340	\$ 2,730	\$ 3,120	\$ 3,510
Cost of Goods Sold:											
Units Sold	13	0	0	0	100	130	160	190	220	250	280
Cost of Goods Sold					\$ 1,300	\$ 1,680	\$ 2,060	\$ 2,440	\$ 2,820	\$ 3,200	\$ 3,580
Inventory:											
Beginning		\$ -	\$ 390	\$ 1,040	\$ 1,590	\$ 1,820	\$ 1,690	\$ 1,950	\$ 1,430	\$ 1,300	\$ 1,170
Additions		\$ 390	\$ 650	\$ 910	\$ 1,170	\$ 1,560	\$ 1,950	\$ 2,340	\$ 2,730	\$ 3,120	\$ 3,510
Good Available		\$ 390	\$ 1,040	\$ 1,950	\$ 3,120	\$ 3,380	\$ 3,640	\$ 3,900	\$ 4,160	\$ 4,420	\$ 4,680
Cost of Goods Sold:		\$ -	\$ -	\$ -	\$ 1,300	\$ 1,680	\$ 2,060	\$ 2,440	\$ 2,820	\$ 3,200	\$ 3,580
Ending Inventory Value		\$ 390	\$ 1,040	\$ 1,950	\$ 1,820	\$ 1,690	\$ 1,560	\$ 1,430	\$ 1,300	\$ 1,170	\$ 900
Ending Inventory units:		30	80	150	140	130	120	110	100	90	80
Debitments:											
Purchases:		\$ 390	\$ 650	\$ 910	\$ 1,170	\$ 1,560	\$ 1,950	\$ 2,340	\$ 2,730	\$ 3,120	\$ 3,510
Cash Paid for Last Month's Purchases	0.5	\$ -	\$ 195	\$ 325	\$ 455	\$ 585	\$ 780	\$ 975	\$ 1,170	\$ 1,365	\$ 1,560
Cash Paid for This Month's Purchases	0.5	\$ 195	\$ 325	\$ 455	\$ 585	\$ 780	\$ 975	\$ 1,170	\$ 1,365	\$ 1,560	\$ 1,755
Cash Disbursement for Inventory		\$ 195	\$ 520	\$ 780	\$ 1,040	\$ 1,365	\$ 1,755	\$ 2,145	\$ 2,535	\$ 2,925	\$ 3,315
Payable at end of the Month		\$ 195	\$ 325	\$ 455	\$ 585	\$ 780	\$ 975	\$ 1,170	\$ 1,365	\$ 1,560	\$ 1,755

Table 2: Production Model

Operating Cost Model

The wages and commission inputs in the operating cost model may require adjustment. I assumed that Stormrider could operate with three employees working 160 hours a month each for the first two years at 22 dollars per hour. Other key assumptions include the rental cost of a building at \$1,000 per month and a website development cost of \$1,000. Although the building cost may seem low, I am confident that the production process can be effectively carried out in a compact space, such as a leased section of a warehouse or even a full-sized garage.

The Stormider												
Employee, Operating and Cash Disbursements												
Riley Farell	January	February	March	April	May	June	July	August	September	October	November	December
Wages and Commission												
Employees		3	3	3	3	3	3	3	3	3	3	3
Paid hours per Month	180											
Average hourly rate	\$ 22											
Wages Paid	\$ 10,560	\$ 10,560	\$ 10,560	\$ 10,560	\$ 10,560	\$ 10,560	\$ 10,560	\$ 10,560	\$ 10,560	\$ 10,560	\$ 10,560	\$ 10,560
Bonus (Based on a 4 out of 5 feedback)	5%											
Total Wages	\$ 10,560	\$ 10,560	\$ 10,560	\$ 10,560	\$ 11,080	\$ 11,200	\$ 11,320	\$ 11,440	\$ 11,560	\$ 11,680	\$ 11,800	\$ 11,920
Disbursements												
Cash Paid for Last Month's Wages	50%	\$ -	\$ 5,280	\$ 5,280	\$ 5,280	\$ 5,400	\$ 5,500	\$ 5,600	\$ 5,720	\$ 5,780	\$ 5,940	\$ 5,900
Cash Paid for This Month's Wages	50%	\$ 5,280	\$ 5,280	\$ 5,280	\$ 5,400	\$ 5,500	\$ 5,600	\$ 5,720	\$ 5,780	\$ 5,940	\$ 5,960	\$ 6,020
Total paid		\$ 5,280	\$ 10,560	\$ 10,560	\$ 10,760	\$ 11,020	\$ 11,400	\$ 11,380	\$ 11,500	\$ 11,620	\$ 11,740	\$ 11,860
Wages Payable at month end			\$ 5,280	\$ 5,280	\$ 5,480	\$ 5,540	\$ 5,600	\$ 5,660	\$ 5,720	\$ 5,780	\$ 5,840	\$ 5,900
Other Operating Cost:												
Building Expense	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
Utilities	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100
Shipping (per unit sold)	\$ -	\$ -	\$ -	\$ 300	\$ 600	\$ 900	\$ 1,200	\$ 1,400	\$ 1,600	\$ 1,800	\$ 2,000	\$ 2,150
Marketing	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
Cost of Card Fees	From Silver Ink	0	0	128	166.4	204.8	243.2	281.6	320	358.4	396.8	435.2
Website Fees (\$1000 to build then maintenance)	\$ 30	\$ 1,020	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30
Total Other Operating Costs:		\$ 3,120	\$ 2,120	\$ 2,120	\$ 2,796	\$ 4,246	\$ 3,126	\$ 3,322	\$ 3,512	\$ 3,700	\$ 3,888	\$ 4,077

Table 3: Operating Cost Model

Capital Budget

I intentionally increased the injection mold and machinery budget beyond what PROTOLABS quoted, which was \$12,140, to err on the side of caution and avoid

underestimating costs. This model shows the accumulation of depreciation of equipment over time.

[illegible]

Table 4: Capital Budget

Estimated Financing

During the first seven months, our total available cash was lower than our cash needs, which required us to take out loans. The highest loan balance occurred in month seven, totaling \$98,577, with an 8% interest rate. However, Stormrider generated more cash than the disbursements after this point, enabling us to make repayments. By maintaining a cash balance of only \$30,000, we could aggressively repay the loan balance until the middle of year two and fully pay it off by the end of July year two.

	January	February	March	April	May	June	July	August	September	October	November	December
Beginning Cash Balance												
Cash Receipts:	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 35,300	\$ 55,412	\$ 77,227	\$ 100,742	\$ 125,960
Collections from Customers												
Total Cash Available before Financing	\$ 29,120	\$ 31,520	\$ 33,920	\$ 36,320	\$ 38,720	\$ 41,120	\$ 43,520	\$ 45,920	\$ 48,320	\$ 50,720	\$ 53,120	\$ 55,520
Cash Disbursements:	\$ 59,120	\$ 61,520	\$ 63,920	\$ 66,320	\$ 68,720	\$ 71,120	\$ 73,520	\$ 81,220	\$ 103,732	\$ 127,947	\$ 153,862	\$ 181,480
Production Costs												
Wages and Commissions	\$ 4,485	\$ 4,875	\$ 5,265	\$ 5,655	\$ 6,045	\$ 6,435	\$ 6,825	\$ 7,215	\$ 7,605	\$ 7,995	\$ 8,385	\$ 8,775
Operating Costs	\$ 11,980	\$ 12,100	\$ 12,220	\$ 12,340	\$ 12,460	\$ 12,580	\$ 12,700	\$ 12,820	\$ 12,940	\$ 13,060	\$ 13,180	\$ 13,300
	\$ 4,454	\$ 4,642	\$ 4,830	\$ 5,019	\$ 5,207	\$ 5,396	\$ 5,584	\$ 5,772	\$ 5,961	\$ 6,149	\$ 6,338	\$ 6,526
Equipment Purchase	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Disbursements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Minimum Cash Desired	\$ 20,919	\$ 21,617	\$ 22,315	\$ 23,014	\$ 23,712	\$ 24,411	\$ 25,109	\$ 25,807	\$ 26,506	\$ 27,204	\$ 27,903	\$ 28,601
Total Cash Needed	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
Excess of Total Cash	\$ 50,919	\$ 51,617	\$ 52,315	\$ 53,014	\$ 53,712	\$ 54,411	\$ 55,109	\$ 55,807	\$ 56,506	\$ 57,204	\$ 57,903	\$ 58,601
	\$ 8,201	\$ 9,903	\$ 11,605	\$ 13,306	\$ 15,008	\$ 16,709	\$ 18,411	\$ 25,412	\$ 47,227	\$ 70,742	\$ 95,960	\$ 122,879
Financing												
New borrowing												
Repayments												
Loan Balance	\$ (17,632.46)	\$ (19,384.94)	\$ (11,149.11)	\$ (112,925.04)	\$ (14,712.80)	\$ (16,512.49)	\$ (13,024.31)	\$ -	\$ -	\$ -	\$ -	\$ -
Interest @8%	\$ 77,709	\$ 68,324	\$ 57,175	\$ 44,250	\$ 29,537	\$ 13,024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Effects of Financing	\$ 569	\$ 518	\$ 455	\$ 381	\$ 295	\$ 197	\$ 87	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Balance	\$ (8,201)	\$ (9,903)	\$ (11,605)	\$ (13,306)	\$ (15,008)	\$ (16,709)	\$ (13,111)	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 35,300	\$ 55,412	\$ 77,227	\$ 100,742	\$ 125,960	\$ 152,879

Table 6: Cash Budget – Year 2

Results

If my inputs are accurate, Stormrider is projected to have a net loss of \$49,893 in the first year and become profitable in the second year with a bottom line of \$144,685. In the first year, my working capital is negative, typical for a new startup without net current assets. However, it is projected to become positive in the second year. Similarly, the current ratio is 0.39 in year one, indicating potential difficulty in meeting short-term obligations, but it rises to 2.23 in year two, indicating ample liquidity. The debt ratio is 1.47 in the first year, relatively safe, and 0.39 in the second year, showing a risk-averse approach. There was no return on assets (ROA) or return on equity (ROE) in year one, but in year two, the ROA was 77%, and the ROE was 126%, which is highly positive.

The Stormrider					
Income Statement					
Riley Farrell					
				Year 1	Year 2
			Sales	\$ 158,400	\$ 513,600
			Cost of Sales	\$ 25,740	\$ 83,460
			Gross Profit	\$ 132,660	\$ 430,140
			Employee Expenses	\$ 134,640	\$ 152,400
			Other Operating Expenses	\$ 38,994	\$ 65,878
			Depreciation	\$ 2,667	\$ 2,667
			Operating Expenses	\$ 176,301	\$ 220,944
			Operating Income	\$ (43,641)	\$ 209,196
			Interest Expense	\$ 6,252	\$ 2,502
			Income Before Taxes	\$ (49,893)	\$ 206,693
			Income Taxes		\$ 62,008
			Net Income	\$ (49,893)	\$ 144,685

Table 7: Income Statement

The Stormrider					
Balance Sheet					
Riley Farrell					
				Year End 1	Year End 2
			Cash	\$ 30,000	\$ 152,879
			Receivables	\$ 5,440	\$ 11,200
			Inventory	\$ 780	\$ (780)
			Current Assets	\$ 36,220	\$ 163,299
			Equipment	\$ 30,000	\$ 30,000
			Accumulated Depreciation	\$ 2,667	\$ 5,333
			Net Equipment	\$ 27,333	\$ 24,667
			Total Assets	\$ 63,553	\$ 187,966
			Accounts Payable	\$ 2,145	\$ 4,485
			Accrued Liabilities (wages)	\$ 5,960	\$ 6,680
			Income Taxes Payable	\$ -	\$ 62,008
			Loan	\$ 85,341	\$ -
			Total Liabilities	\$ 93,446	\$ 73,173
			Owners Equity	\$ (29,893)	\$ 114,793
			Total Liabilities & Equity	\$ 63,553	\$ 187,966
			Proof	\$ -	\$ -

Table 8: Balance Sheet

Ratio's				
Working Capital			Debt Ratio	
Year 1	Year 2		Year 1	Year 2
\$ 36,220	\$ 163,299		\$ 93,446	\$ 73,173
\$ 93,446	\$ 73,173		\$ 63,553	\$ 187,966
\$ (57,226)	\$ 90,126		1.47	0.39
Current Ratio				
Year 1	Year 2			
\$ 36,220	\$ 163,299			
\$ 93,446	\$ 73,173			
0.39	2.23			
Return on Assets			Return on Equity	
Year 1	Year 2		Year 1	Year 2
\$ (49,893)	\$ 144,685		\$ (49,893)	\$ 144,685
\$ 63,553	\$ 187,966		\$ (29,893)	\$ 114,793
-79%	77%		0%	126%

Table 9: Financial Forecast Analysis Ratios

Kickstarter Campaign

Stormrider: The Ultimate Longboard Fender with Built-in Light

The all-in-one longboard fender keeps you dry, enhances nighttime visibility, and ensures a safer, more enjoyable ride in any condition.

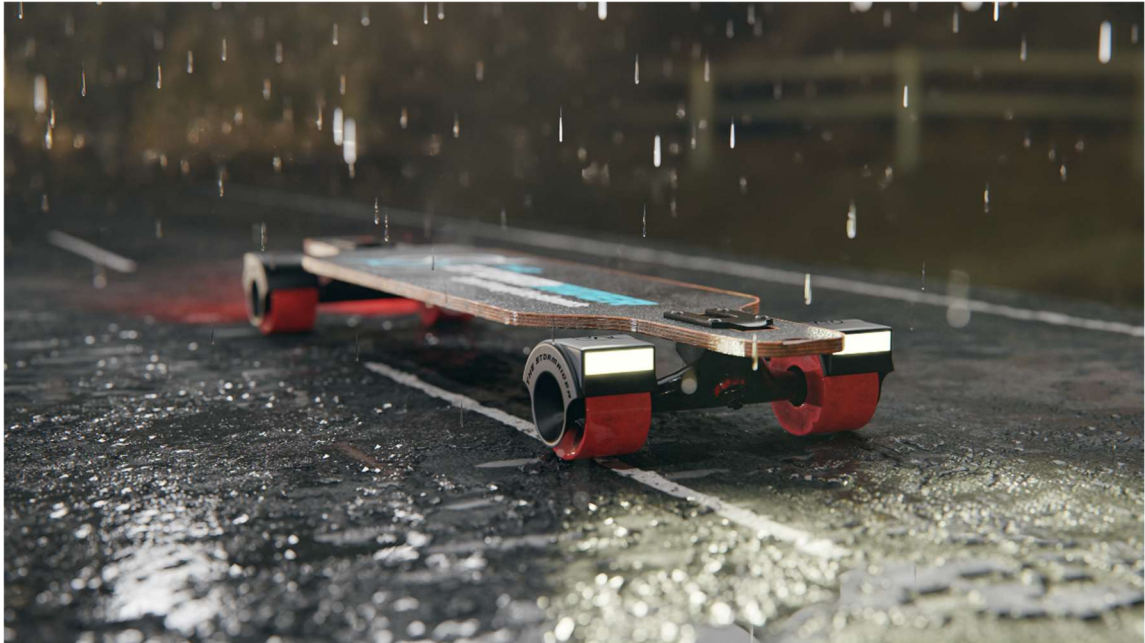


Figure 8: Stormrider Product Mockup 1

My Story

Hi, I'm Riley, the creator of Stormrider. As a student at the University of Oregon, I spent much time commuting to class on my longboard. I loved the convenience and freedom it provided, but I couldn't ignore the downsides. When the weather was wet or the streets were dirty, I would end up soaked and covered in debris. Riding at night was also challenging, as the lack of proper lighting made me feel unsafe.

One rainy day, I decided it was time to find a solution. I set out to create a longboard fender that would keep me clean and dry and improve my visibility during nighttime rides. It was a challenging journey, but I was determined to make it happen.

After countless design iterations and hours of testing, I finally developed Stormrider—a sleek, functional, and easy-to-install longboard fender with an integrated light system. This innovative accessory addresses my issues and makes longboarding safer and more enjoyable, no matter the weather or time of day.

Stormrider is a practical solution to the problems many longboarders face. By supporting this project, you're not just helping to bring this innovative accessory to life, but you're also joining a community of fellow longboarding enthusiasts who strive for a better and safer riding experience.

I'm excited to share my journey with you and make Stormrider a reality for longboarders everywhere.

About

Stormrider is a one-of-a-kind longboard accessory developed to tackle two frequent challenges longboarders face: water splashes on damp roads and poor visibility during nighttime rides. This versatile fender is compatible with any wheel size between 68mm and 96mm and can be effortlessly installed using any skate tool. Stormrider incorporates a rechargeable light to enhance your visibility to vehicles while also illuminating your path. Crafted from sturdy Nylon 6/12 material, this accessory is designed to endure and resist harsh conditions.

Features

1. Universal fender for longboard wheels (68 mm-96 mm).
2. Simple installation using standard skate tools.
3. Robust, long-lasting Nylon 6/12 construction.
4. Integrated rechargeable light featuring three brightness levels (50, 150, and 300 lumens).

5. Waterproof design to withstand wet environments.

Pledge Tiers and Rewards

1. Pledge \$10 – Cruiser Supporter
 - i. Thank you email
 - ii. Your name listed on our website as a supporter
2. Pledge \$60 - Early Bird Shredder
 - i. One set of 4 Stormrider fenders with built-in lights (limited to the first 100 backers)
 - ii. Exclusive Stormrider stickers
 - iii. Thank you email
 - iv. Your name listed on our website as a supporter
3. Pledge \$80 – Solo Rider
 - i. One set of 4 Stormrider fenders with built-in lights
 - ii. Exclusive Stormrider stickers
 - iii. Limited edition Stormrider t-shirt
 - iv. Thank you email
 - v. Your name listed on our website as a supporter
4. Pledge \$150 - Downhill Duo
 - i. Two sets of 4 Stormrider fenders with built-in lights
 - ii. Exclusive Stormrider stickers
 - iii. Limited edition Stormrider t-shirt
 - iv. Thank you email
 - v. Your name listed on our website as a supporter
5. Pledge \$350 - Custom Carve

- i. Four sets of 4 Stormrider fenders with built-in lights
- ii. Custom color option for your fenders
- iii. Exclusive Stormrider stickers
- iv. Limited edition Stormrider t-shirt
- v. Thank you email
- vi. Your name listed on our website as a supporter

6. Pledge \$400 - Ollie Alliance

- i. Six sets of 4 Stormrider fenders with built-in lights
- ii. Exclusive Stormrider stickers
- iii. Limited edition Stormrider t-shirt
- iv. Thank you email
- v. Your name listed on our website as a supporter

7. Pledge \$1,000 - Stormrider Shredder Insider

- i. Ten sets of 4 Stormrider fenders with built-in lights
- ii. Custom color option for your fenders
- iii. Video call with Riley, the creator of Stormrider, to discuss the project and future ideas
- iv. Exclusive Stormrider stickers
- v. Limited edition Stormrider t-shirt
- vi. Your name listed on our website as a supporter
- vii. Thank you email

Production Timeline:*June 2023:*

1. Kickstarter campaign launch.
2. Offer the Stormrider longboard to popular social media influencers in the longboarding community for promotional purposes.
3. Participate in longboarding tradeshow and downhill longboard events to actively promote the Kickstarter Campaign.

July 2023:

1. Kickstarter campaign ends.
2. Evaluate the financial success of the campaign by examining its achievement of funding goals and analyzing feedback from backers.

August 2023:

1. Finalize product design based on feedback from Kickstarter backers.
2. Identify and secure manufacturing partners for injection molding and assembly.

September 2023:

1. Begin the manufacturing process.
2. Develop packaging and shipping materials.

October 2023:

1. Receive the first batch of Stormriders from the manufacturer.
2. Quality control and testing.

November 2023:

1. Ship the Stormriders to Kickstarter backers
2. Launch sales on Amazon and our website
3. Approach Daddies Board Shop for wholesale opportunities

Risks and Challenges:

There are several risks and challenges that Stormrider may face during the Kickstarter campaign and product launch:

Manufacturing delays

There could be unexpected delays in the manufacturing process, affecting the delivery timeline of the Stormrider to Kickstarter backers and customers.

Cost fluctuations

The cost of materials or manufacturing may increase, impacting profit margins and potentially the product's retail price.

Market competition

New competitors may emerge, offering similar products or additional features that could affect Stormrider's market position.

Quality control

Ensuring consistent quality across all Stormrider units may be challenging, especially during the initial production run.

We plan to mitigate these risks by maintaining strong communication with our manufacturing partners, regularly monitoring costs, staying updated on market trends and competition, and implementing strict quality control measures.

Join the Community!

Join the Stormrider community and be part of a longboarding revolution. By supporting our Kickstarter campaign, you'll not only be among the first to experience Stormrider's unique

benefits, such as protection against water and mud, enhanced visibility with the built-in light, and added style to your longboard, but you'll also become a valued member of a growing community of passionate longboarders.

As a member of the Stormrider community, you'll have the chance to connect with like-minded enthusiasts, share your experiences, and collaborate on ideas for the future of longboarding. Your support for Stormrider will contribute to our goal of making longboarding safer, more enjoyable, and more stylish for all.

Take advantage of this opportunity to be part of a vibrant and innovative community shaping the future of longboarding. Support Stormrider now and join us in bringing this revolutionary product to longboarders worldwide!

Additional Visual Content

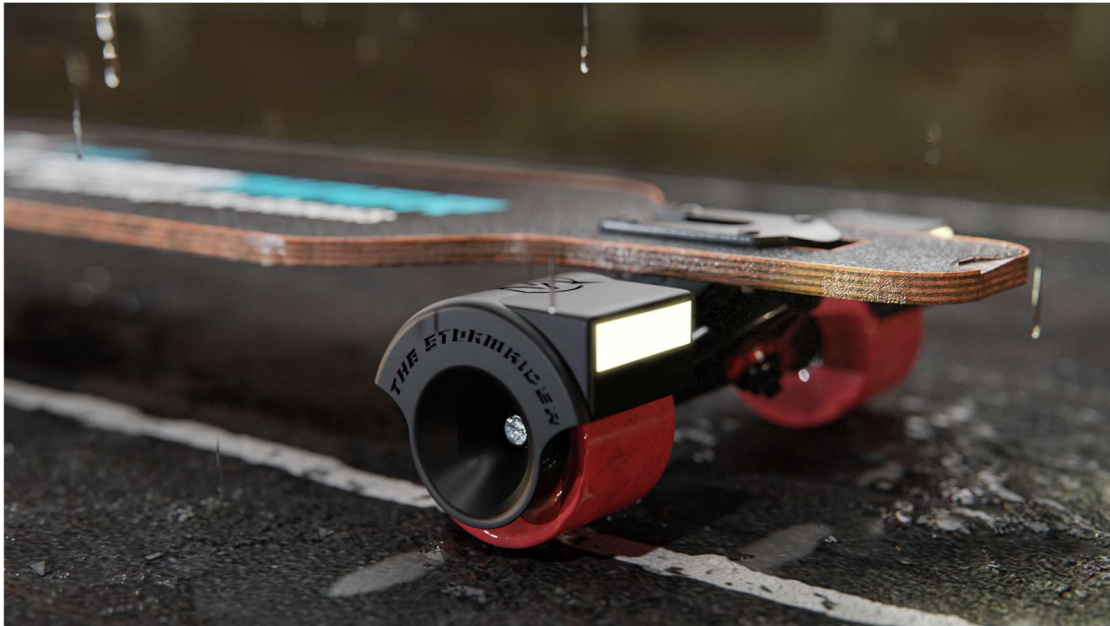


Figure 9: Stormrider Product Mockup 2



Figure 10: Stormrider Product Mockup 3



Figure 11: Stormrider Product Mockup 4

Appendix A: Primary Research Interview Notes

Interview Summary: Value Proposition Customer Interviews

Value Hypotheses:

4. Longboarders experience people getting splashed while riding their longboard.
5. Longboarders want to avoid riding their longboard when the roads are wet.
6. Longboarders are not satisfied with their visibility at night when riding.
7. Longboarders are worried about their safety due to a lack of visibility.

Solution Assumption:

1. Stormrider can provide a product that gives longboards splash protection and greater visibility.

Individual Interviews:

2. Alex Davis

"I wiped out with the smallest turn when it was wet before, so I usually don't ride when it is wet outside."

"The hardest part about longboarding at night is I can't see the pebbles."

"I also worry if cars could see me at night."

"I usually flash my phone light so cars can see me."

3. Nick Graber

"We have fun in the rain, although it is not good for the bearings in the board."

"I don't let them (his kids) ride in the dark because cars might not see them."

"Every once in a while, I'll ride my board to work, although I usually just drive because it's faster, and I avoid getting dirty from riding."

4. Ronan Armstrong

"I never get to ride in the winter because I get super wet."

"Yeah, I occasionally ride at night. It's just sus with all the cracks in the road."

"This is dope; I like the way it makes the board look like it is hovering."

Summary of Findings & Business Model Updates:

1. Not all longboarders experience the problem of getting splashed while riding, but all interviewees expressed concern about visibility at night and safety.
2. The Stormrider prototype was well received by all interviewees, with all expressing that it enhanced the longboard's style.
3. Next steps include investigating the market size for this problem and adding a visibility aspect to the product, such as a light or reflective paint.

Interview Summary: Customer Segments and Channels

Customer Segment Hypotheses:

1. There is sufficient demand among longboarders for the utility provided by the Stormrider.
2. Local retail skate shops will be interested in carrying the Stormrider once it has been established as a viable product.

Channel Hypotheses:

1. Longboarders purchase accessories through online channels, including Amazon, brand homepages, and other e-commerce platforms.
2. Most of the customers interviewed have purchased a skate product through an advertisement or post on social media.

Questions for Customers:

1. Have you ever purchased accessories for your longboard?
2. If so, what methods do you typically use to discover and purchase these accessories?
3. Do you currently desire any specific accessories for your longboard?
4. Are there any longboard accessories you feel are currently unavailable but would like to see on the market?

Questions for Eastside longboards:

1. Can you describe the process for selecting new products to stock in your store?

2. How significant is the demand for longboarding products suitable for riding in water, such as the H2O wheels you currently carry?
3. May I show you my Fender product and briefly explain its unique features and benefits? How do you believe a product like this would perform in the market?

Question for Tactics Skate Shop:

1. Can you tell me about the criteria and process your store uses when considering new products to carry?

Individual Interviews:

1. Grant Joyner

“I followed Shredlights on Insta before I bought their lights.”

“But I usually buy my stuff on Amazon, except for my Orangatang Wheels because they don’t sell there.”

2. Jason Elder

“I buy my bearings and spacers off Amazon.”

“I’ve wanted to buy my board lights and fenders.”

“These are dope! I would definitely want these.”

“It sucks riding in the rain, and it would be sick to have something to help with that.”

3. Aaron Georis

“I follow a lot of downhill longboarders and get a lot of their promoted products.”

“I buy my Seismic wheels off Amazon.”

4. Tactics Assistant Manager

“Our brand manager typically deals with that. From what I have heard, they want you to show why your product could sell in our store.”

“This is a cool idea.”

Summary of Findings and Business Model Updates:

The findings from this week's research support the identified customer segments and channels for the Stormrider fender, a longboard accessory designed to provide water protection. The study revealed that customers purchase skate products online and follow longboard brands

and riders on social media. Retailers are interested in products that have already been sold, so it is essential to prove their viability. The research also found that more customers valued the Fender for its water protection properties. This could be due to the increase in university students who use longboards for commuting. From my conversation with Robin (founder of Eastside Longboards) about their H2O wheels, they confirmed a market for their product. This further solidifies the need for products catering to the specific needs of longboarders in wet conditions.

Interview Summary: Customer Relationships

Customer Relationship Hypotheses:

1. Quality customer service and experiences determine a customer's likelihood to refer a product to others.
2. Brands that engage with customers through various interactive means, such as social media, will foster stronger customer relationships.
3. Most potential customers will positively perceive the Stormrider name, slogan, and logo.

Questions for Customers:

1. What is your favorite brand?
2. What makes you like this brand?
3. Why do these things make you like the brand?
4. Have you ever referred a friend to this brand and why?
5. Do you follow this brand on social media?
 - i. Why or why not?

Individual Interviews:

1. Grant Joyner
 “I think Stormrider is good.” (Referring to the name)

2. Jason Elder

"I appreciate how Nike SNKRS regularly releases new products."

3. Aaron Georis

"Yes, I follow them because sometimes they will give discounts on their products."

4. Megan Guske

"I like their clothes because they are handmade and high-quality."

"No yeah, I like your logo!"

5. Sophia Somerscales

"I love the friendly cast members at Disneyland."

"I appreciate the fully immersive experience that Disney offers."

6. Braden Buerk

"Yes, I follow them (The Olympics) because it excites me for the next games."

7. Donovan Muniz

"I guess I refer people because I wear it often, and people ask me where I got it from."

"I follow the brand Seek Discomfort because they are connected to the Yes Theory YouTube channel, which features inspirational stories and exciting adventures."

Summary of Findings and Business Model Updates:

This week's findings support the idea that customer satisfaction and experience are crucial for referral marketing. A minor adjustment was made to the Business Model Canvas to focus on achieving viral growth. The goal is for customers to be satisfied with the product and refer it to their peers. Brands that provide positive experiences and high-quality products were preferred. Social media was a valuable tool for delivering unique opportunities such as giveaways. All interviewees had positive feedback on the Stormrider name, slogan, and logo.

Interview Summary: Key Resources, Key Activities, and Cost Structure

Key Resources Hypotheses:

1. Using PROTOLABS to design and manufacture the Stormrider's injection mold and small batch production run will be the most cost-effective option.
2. Plastic materials will provide enough durability and strength and better temperature resistance than metal materials for the Stormrider.

Key Activities Hypotheses:

1. The exceptional customer service offered by Stormrider will significantly enhance the overall customer experience and drive customer loyalty.
2. By explicitly targeting customers who experience the problem that Stormrider solves, my niche marketing strategy will effectively connect with and meet the specific needs of my target audience.

Cost Structure Hypotheses:

1. The production and material costs for the Stormrider will account for approximately one-third of the retail price of 80 dollars.
2. The injection mold from PROTOLABS will cost less than 20,000 dollars.

Questions to Paul Somerscales:

1. What material would be the most suitable for a longboarding product in terms of durability and impact resistance?
2. In your opinion, what materials would be the most cost-effective for this product?
3. Are you familiar with PROTOLABS? If so, what are your thoughts on them as a manufacturing option?
4. How much would an injection mold for this product cost roughly?

Quote Requested from PROTOLABS:

1. The cost for on-demand manufacturing of an injection mold using Nylon 6/12 material and producing a sample quantity of 25 units.

Questions to Customers:

1. Can you name companies that offer exceptional customer service?
2. In your opinion, what makes the customer service provided by these companies stand out?
3. How do you feel about receiving targeted promotions on social media?
4. Can you explain the reasons behind your opinion on targeted promotions on social media?

Cost Analysis and Customer Feedback:

1. Paul Somerscales (Mechanical Engineer)

“A nylon could work.”

“If you add an insert for the metal nut in the mold, it could decrease your costs because you could avoid a post-molding process.”

“I am not too sure. I imagine with the insert, it could be roughly 15 thousand dollars.”

2. PROTOLABS (Short Run Manufacturer)

I received a quote for an injection mold and a sample quantity of 25 units from PROTOLABS. The quote for the injection mold was \$12,140 and \$481.25 for the samples, totaling \$19.25 per fender. However, after considering the pricing structure for my product, there are more viable options than a set of four fenders for \$80, using PROTOLABS as a manufacturer. The cost per fender needs to be lowered and would not allow a profit margin within the desired price range. Additionally, PROTOLABS stated that the price per fender would decrease to \$10 for an order quantity of 10,000 units, but this quantity is not feasible for the current stage of my business. Therefore, I have decided to pivot from using PROTOLABS as a short-run production manufacturer and re-evaluate other options for my manufacturing needs.

3. Braden Buerk (UO Student)

"The Disneyland employees are consistently friendly and nice."

"I don't mind targeted promotions as long as they are for products or services I am interested in."

4. Donovan Muniz (UO Student)

"They (referring to Amazon) always let me return my items or refund me."

5. Megan Guske (UO Student)

"Madewell is my favorite jean brand because they are always very friendly."

"Despite it being creepy, I do like it when the ads are personalized to something I want."

6. Olivia Lashley (UO Student)

"REI's employees are very knowledgeable and helpful when I need some help."

"I like it (referring to targeted promotions)."

Summary of Findings and Business Model Updates:

I received a quote for an injection mold and 25 samples from PROTOLABS; the costs were too high for the Stormrider's four fenders per set pricing structure. I will update this cost in my production plan but not use PROTOLABS as my short-run production manufacturer.

Additionally, I consulted with a mechanical engineer who recommended using nylon as a suitable material for the Stormrider and suggested using an insert for the injection mold to improve the durability of the connection point to the longboard. I also found a potential solution for connecting the fender to the axle using FLEXLOC nuts.

Interview Summary: Key Partners

Key Partner Hypothesis:

If I can prove a market demand for the Stormrider longboard accessory, I will likely secure an SBA loan from Summit Bank and collaborate with Daddies Board Shop, the leading online retailer for longboards.

Individual Interviews:

1. Chris Hemmings (Summit Bank)

“You have to prepare and present a lot of information on your business as well as your personal background.”

“We haven’t invested in any skateboard companies yet.”

“A 7a loan does not require you to put down collateral.”

“We would check your personal credit.”

“We want to see you know how much assistance you need and have a plan for how it will be used.”

“To be eligible for assistance, you typically have to contribute personal assets towards the business.”

2. Robin (Founder of Eastside Longboards)

“We didn’t partner with Daddies until two years since we started.”

“A lot of it was we just made really good boards.”

“Daddies knew about us before we came to them.”

“If you manufacture a quality product and have sales, I am sure they would work with you.”

Summary of Findings and Business Model Updates:

The key partner findings indicated that the assumptions made that week were primarily true. To secure an SBA loan with Summit Bank, I must run a Kickstarter campaign and prepare the necessary documents. The process may have been more challenging because I was a student and needed more business experience. However, achieving the funding goals through a Kickstarter campaign and securing all essential materials would have considerably improved the likelihood of obtaining approval for the loan. Additionally, a Kickstarter campaign was recommended as it would have been the best option for me to afford the necessary injection mold and minimum order quantity for my product to be sold through Daddies Board Shop. I updated my Business Model Canvas to include Daddies Board Shop and Summit Bank.

Interview Summary: Revenue Streams

Revenue Streams Hypotheses:

1. Customers will be willing to pay a retail price of 69.99 dollars for a Stormrider.
2. Retailers will be willing to purchase the Stormrider at a wholesale price of around 20 dollars.

Questions for Customers:

1. Can you tell me about your most recent longboard accessory purchase? (If they mention a small purchase such as bearings, ask them about their last more significant purchase.)
2. How much did you pay for it?
3. What is the typical range of prices you have paid for longboard accessories?

Questions for Eastside Longboards:

1. How successful are H2O wheels in terms of sales?
2. Does Eastside Longboards carry any other brands at their headquarters in Portland?
3. Can you provide information on the process for selling to other retailers on a wholesale basis?

I shared the value proposition of the Stormrider with Robin and solicited his opinion on it. Additionally, I sought his feedback on the product's proposed retail and wholesale price points.

Interviews:

1. Matt Bavaro

“I’ve paid up to \$140 for Cloud Wheels.”

“I would pay that for the light feature on its own.”

2. Ethan Rogers

“I try to buy my stuff cheap.”

“I think it’s cool, but I wouldn’t feel a need to buy that.”

“If it was 50 dollars, I might (reference to purchasing the Stormrider).”

3. Alex Davis

“I bought a new deck for \$170.”

"I prefer larger Orangatang wheels, and I am willing to pay around \$100 for them."

4. Robin (Founder of Eastside Longboards)

“Our wholesale is ½ of our purchase price.”

“Yes, I think that it has merit” (referring to my product).”

“I think 70 dollars would be a low price if it lasted for a few years.”

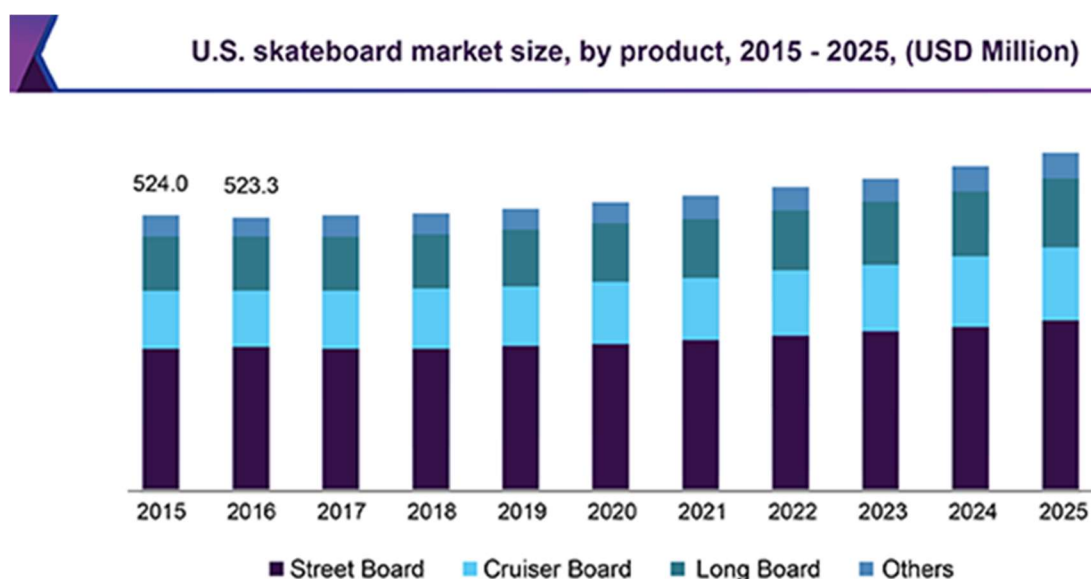
Summary of Findings and Business Model Updates:

This week's research on revenue streams led to the realization that the Stormrider's list price and wholesale price could be increased. Eastside Longboards' H2O wheels had a seasonal demand, but the Stormrider's light feature may have been less affected by seasonality. The recommendation was made to increase the list price to \$80 and set the wholesale price at 50% of the list price, \$40. It was also learned that Eastside Longboards primarily sold its product through online retail sites and retail stores in the Pacific Northwest, including Canada. Most of their sales came from Daddies Board Shop, the first shop in Portland to introduce longboard skateboards to the city, which is now the most prominent online retail shop for longboards in the world. The significance of Portland as a hub for longboarding was not previously known.

Appendix B: Market and Industry Analysis

Following is a detailed analysis of the longboard accessories industry in this appendix, including information on market size, growth, and customer segments.

The longboard category is the fastest-growing product category, growing at a compound annual growth rate (CAGR) of 3.8% from 2019 to 2025. The skateboard market size value in 2020 was 2 billion dollars, with North America being the largest regional market, accounting for 31.7% of global revenue in 2018 ("Skateboard Market Size").



Source: www.grandviewresearch.com

Figure 12: U.S. Projected Skateboard Market Size and Share from 2019-2025. Data from "Skateboard Market Size, Share: Industry Trends Report, 2019-2025" by Grand View Research, Inc.

Furthermore, the global longboard market is projected to reach USD 5.9 billion by 2025, driven by the growing popularity of longboarding as a sport and recreational activity (Grand View Research, 2019).

In the past decade, there has been a premiumization in the longboard industry, with electric longboard companies such as Boosted Board offering longboards to go faster and further

than ever before by attaching a battery and motor to the board (Calore, 2014). This premiumization has allowed new accessories to come into the market, such as lights, fast chargers, and bash guards, as well as adaptations to existing accessories to be better suitable for e-boards, larger wheels, more suspension on trucks, and charging wall racks.

My target market is longboarders interested in providing a new style to their board and who live in areas where the roads are frequently wet. From my survey, I observed that most longboarders avoid riding when the road is wet. These skaters reported they would not ride because they did not want to get wet (Farrell, Riley. Longboarding in wet conditions survey. 2022). The primary function of the Stormrider is to prevent longboarders from getting splashed on the damp road; my target market is also longboarders who live in wet climates.

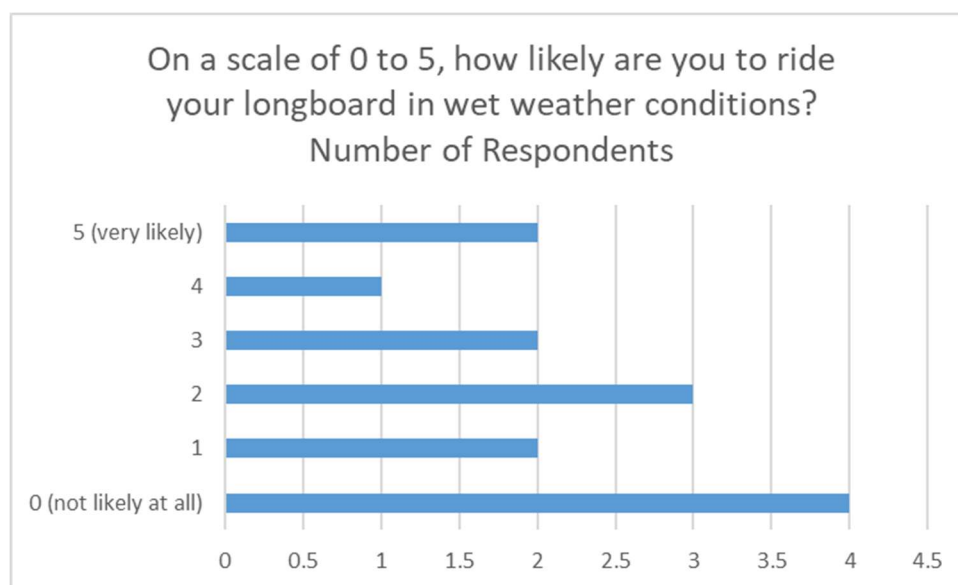


Figure 13: Survey responses on the likelihood of riding a longboard in wet weather conditions.
Created by Riley Farrell.

Considering that approximately 40% of the global population lives in coastal areas, which are generally more prone to wet weather conditions (NOAA Office for Coastal Management), there is a significant potential market for Stormrider among longboarders who live in these regions.

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