**Smart Garden’s Business Plan**

**Executive Summary**

Smart Garden is a plant monitoring and auto watering system that integrates easily into your existing garden as a smart pot or stick. Both packages monitor common variables in gardening, – proper sunlight, temperature, and watering – alert the user when it senses improper conditions for the plant and can water the plant automatically. In doing so it can teach a new user how to care for the most basic plants, assist busy travelers maintain their gardens while away, and aid an experienced hobbyist how to care for an exotic plant they “just haven’t had luck with.” As the gardening market continues to grow in the US, new hobbyists are getting involved and experienced hobbyists are diversifying their gardens. This creates a need for a better gardening aid than word of mouth and a more versatile system than “set it and forget it” hydroponic pod systems. The hardware used will also be hardened to survive outdoor use as well, meaning that the automation systems are not restricted to indoor herb gardens. Our venture is seeking $640,000 to bring the product to market and run our operations, with no long-term obligation in the contract. Within three years we expect to be netting $3.1 Million and maintaining a cash balance of $4.6 Million. To state it simply: Smart Garden is here to make gardening fool proof.

**Value Proposition**

Gardening is the largest hobby in the world. Yet, we all know someone who desperately wants a garden but doesn’t know where to start. And how many people do you know that just throw up their hands in frustration after killing their plants because they “just don’t have a green thumb”? Smart Garden not only helps you take care of your plants via automatic watering, but it also teaches you how to take care of your plants through its companion app. Its ability to monitor temperature, sunlight, and soil moisture allow it to give the user real time feedback on the proper environment for the plant. Using the soil moisture reading, the pot can auto-water the plant to proper conditions so over/under-watering the plant is properly managed from the rainy season to the dry season. Our product is more than just your average set-it and forget-it hydroponic system. It is versatile enough to serve many consumers, while being reliable enough to care for the plant even when the owner cannot. The smart pot will be able to help grow the student’s gardening expertise while working within the confines of their limited space. For the common problems of the businessperson, the Smart Garden toolkit will eliminate the time spent on caring for a variety of plants in their busy schedule. It reduces trial and error while helping people learn about proper care for their plants in real time. And by far the best feature, this model can be applied to nearly every common gardening plant that exists today, providing the user with a tool that can teach them how to master a variety of different plants, from rosemary, to red peppers, to roses. Smart Garden will be the first tool a person uses to learn about gardening and a reusable tool to experiment with different plants thereafter. After growing only 5 plants, the system pays for itself in potential dead plants. By this time, the user will have enough knowledge to start the beautiful garden they’ve always wanted and can purchase new plants and materials directly from their phone through our app.

**Company Overview**

* Smart Garden is a privately owned company started on the grounds of the University of Florida by a group of students passionate about solving everyday problems with innovative solutions. The company is currently operating out of a small privately owned lab to develop and test new prototypes and assemble products. The entire product is designed in the USA using the most reliable and tested materials from across the globe. Utilizing partnerships with national home improvement and department stores our product reaches consumers online and on shelves.
* At the project’s inception, Eric Maltz was just getting involved in gardening and while he loved the homeliness his garden brought him, he spent much time and money learning about and accidentally neglecting his plants. After wasting nearly $150 on plants promised by department stores to be durable, he sought to create a way to organize the lessons he learned into a package reliable enough to teach others how to garden. He pitched his idea to four of his closest friends and Smart Garden was born. The original concept started out as a standalone pot run off of battery power with small LEDs that would signify to the user when the plant was outside of its comfort zone. As it turns out, we would’ve needed to put six lights on the pot which increased complexity and was generally considered to be a nuisance. So, we utilized the diversity of our team to create a companion app that does the same thing and can show the user trends and real time data. The benefits of the app are that it can develop quickly with the additions of capability to the sensors in the smart pot/stick.
* The initial goals of the company will be to develop relationships with key research partners to gather data on several household plants and test our early prototypes. While the initial goal of the Smart Garden will be to teach users how to garden via real-time assistance, the key technologies used in our basic product will be scaled up to care for larger home gardens. More innovative features will be added to serve the specific needs of small and large farms by adding sensors for nitrogen levels and syncing with new drone surveying technology to collect and organize data into a more useful package.

**Products/Services**

Many people want plants in their home for decoration or as a hobby, but they don’t have the time or knowledge to take care of potted plants. People who are constantly traveling for work or just the average busy person can’t keep track of which plants need to be watered when, if there’s too much sun, time to repot, etc. Smart Gardens has dedicated their time and resources to develop two different products that can assist the average at home gardener. The first product is called The Smart Pot. The Smart Pot can monitor moisture, sunlight exposure, soil temperature, and soil pH. This product is a 6-inch ceramic pot which has all the built-in censors, including built in Arduino with WIFI capabilities. Once the user purchases The Smart Pot, they will have access to our application via their cell phone. The user can go onto the application and chose which type of plant is going into The Smart Pot, which allows for the correct amount of sunlight and water to be calibrated. Once the plant is potted in the Smart Pot; the user will be able to monitor the data on the application. Whenever the plant needs water, more or less sunlight, more nutrient, or if the soil’s pH is becoming unhealthy, the user will get a notification sent to their phone. This application feature is what truly differentiates our products in the gardening market because no other company provides this push notification feature. By using The Smart Pot, it takes all the guess work and complications out of owning an indoor plant because Smart Garden ensures the user will be notified whenever the plant needs anything, therefore guaranteeing a healthier and longer plant life.

An additional product Smart Garden sells in called The Smart Stick. The Smart Stick is like The Smart Pot however, it is used in outdoor applications. The Smart Stick can be inputted into the soil surrounding vegetables or flowers. The Smart Stick also comes with a pH, moisture, and temperature sensor. The Smart Stick differs from the Smart Pot because the stick has solenoid valves that can be connected to an irrigation system. This allows the stick to sense the soil moisture, and if the moisture is too low, the plants will be watered automatically. Also, users can analyze the data independently and monitor their garden through an application on their phone which will control the automatic watering of their plants, suggest better locations for their plants, and suggest new plants that will grow well in their region. Like the Smart Pot, this guarantees a healthier and longer life for their plant, and also permits the user to have a hands-off approach to gardening. Users of The Smart Stick may travel away from their homes without worrying about watering their garden. One may ask, why not just use an automatic sprinkler system when traveling? Our product is more advantageous because it senses soil moisture, and then decides if the plants need water. This is helpful in times when it has recently rained. The Smart Stick will sense the moisture in the soil and therefore it will not turn on. An automated sprinkling system does not have this ability and can potentially overwater the user's plants.

Through much research and careful consideration, the Smart Garden team has calculated that each product will be sold commercially for $99.Our main revenue stream will be through assets sales. Our revenue model predicts sales for the first 3 months of our first year to sell approximately 300 of each unit. Sales are predicted to spike in the spring and summer months, falling back down towards the end of the year. Total revenue for our first year is predicted to be at $900,000. After the first year, our revenue model shows an increase in overall sales, with the pattern still remaining in which we sell more units in the spring and summer months for a total revenue of $4,000,000 at the end of our second year, and $9,400,000 at the end of our third. Another revenue stream Smart Garden has planned is utilizing advertising fees. On the Smart Garden application, when the product senses the plant needs more nutrients, or the pH of the soil is getting too extreme, different gardening products that can be used to fix the issue at hand will be presented to the user. In return for advertising such products, we will be taking fees from those companies. In order to maintain our intellectual property, The Smart Garden team plans to spend $17,000 the first year to patent our technology for both The Smart Pot and The Smart Stick. We will also spend $5,000 the following years to create patents for updates on our next gen products.

**Management Team**

The Smart Garden management team consists of five visionary and experienced young adults. The companies Chief Executive Officer (CEO) is Eric Maltz. Maltz is a second year Master’s Student in Mechanical Engineering at the University of Florida (UF) specializing in solid mechanics, design, and manufacturing. After an inside look on how the aerospace industry promoted a more collaborative workforce, he became a strong team player, committed to the idea that a successful project is the result of cooperative teamwork, leadership, and innovation. As CEO of the company Eric uses his passion for teamwork and innovative solutions to generate value for the company and its stakeholders. Next, Smart Garden’s Chief Financial Officer is Blayke Polselli. Polselli is a Geologist at Wood Environment and Infrastructure Solutions, Inc. His work involves a variety of field-testing services in the Geotechnical, Environmental, and Construction services industry. He has managed these projects for several large public and private clients, including the South Florida Water Management District (SFWMD), Florida Turnpike, and Miami Dade Public Works. His experience managing projects and working within the environmental field will allow him to manage capital structure and manage financial risks. Another member of the Smart Garden management team is our Chief Operations Officer, Alexandra Rubin. Rubin is a second year Environmental Engineering graduate student, who’s focus is on ecology and wildlife conservation. She has interned with multiple engineering firms where she worked on projects such as noise mitigation, environmental planning, and reverse osmosis research. For the past two years, Alexandra has been involved in ecological research at the University of Florida. These experiences have provided her with the skillset she needs to plan and implement strategies the company will complete in order to succeed. Additionally, her intensive background in ecology and plant science will serve as an asset to the Smart Garden team. Next is the Chief Technology Officer, Abhishek Jha. Jha is a final year graduate student in the department of Electrical and Computer Engineering. He is majoring in Computer Engineering and has sizeable experience in Software Quality Assurance and Test Automation. He has worked with several IT service-based organizations as well as successful startups based in India such as Infosys, Paytm and Rivigo. He has worked on different software systems such as Data Warehouse applications, Middleware Testing as well as on microservices-based architecture. This line of work experience has provided him with the skillset of evaluating software products in addition to designing robust and scalable systems, which will be useful when designing the electrical components of the Smart Garden products. The team's final management member is another Chief Technology Officer, Marcus Christiansen. Christiansen has been working with United Launch Alliance (ULA) for 4 years as a systems test engineer. Prior to ULA Marcus worked as a mechanical engineering associate at Mitsubishi Hitatchi Power Systems Americas specializing in the repair of gas turbine generators. His hands-on experience of manufacturing and system integration will be beneficial to the team in generating an estimated cost of bringing the product to market.

In order to ensure the success of our company, the role of our top management team will be crucial. The top management team is responsible for creating the company by designing the products and the software that will be used and creating a business model that will ensure the company’s success. Once the company has a solid foundation, our management team will still play a vital role in maintaining the long-term success of Smart Garden. First, our management team will establish expectations for company culture through the policies we practice. Our companies’ culture will encourage innovation, risk taking, and creative thinking. The management team will have continuous communication with our employees as we grow, and it is vital that our employees know they always have the top managements support. Our management team will always lead by example and have continuous involvement, even when the company grows out of the small business scale. In Smart Garden’s first three years, the management team will do most of the work. We will hire two employees to assist us in mailing out our products, but we have decided to keep the team rather small at the beginning in order to save money. Once the company is well established and our product demand has grown, the management team will meet in order to decide how many more employees we will need to bring on. These new employees will assist in market research, customer care, and mailing products.

**Market Analysis**

The gardening market has continued to grow in the 21st century and is still expected to grow according to the most updated projections. The market has an overall spending amount of approx. 47.8 Billion of U.S. dollars a year and that is a huge jump over 36.1 Billion in 2016. This will create a very suitable market for the product that we are trying to introduce. With a mark of 47.8 Billion that will equate to about $500 per household in the United States. The cost of our product falls well within that budget that is expected to be spent by most Americans. Of the total dollar amount in the market there is 29% that can be accounted for by 18 to 34-year-olds. This is portion of the market that our product will be directly be targeting. The primary factor behind targeting this age group is because they will be the most technologically savvy. They will understand the process of procuring the app and how to properly set up the app with the devices. Of course, this will be expected to be simple regardless, but older age groups are expected to become not as familiar with the software on the phone. Also, this age group will not be nearly as bothered by notifications on their phone to help them remember to take care of the plant. There will be people over the age of 34 that will have the technological experience and patience to use the app that comes with the hardware and to use it to help monitor the plant. The older age group is expected to be less susceptive to the notifications pop ups that will help the customer remember to take care of the plants. It is also important to note the portion of market share we are targeting is also going to be the least experienced in gardening and will be the most susceptible to needing help.

With only 29% of the market being a part of the target for the product that means that we are targeting a market share of that 29%. This will leave about 13.9 Billion of that initial market share for our product to target initially. This means that in the first 3 years we can convince 15 to 20% of this market to adopt our product then we will end up with direct access to 2.1 Billion dollars. This is still about 4.2 million household in the U.S. That we would have access to, and even in our current projections we would only sell 148,000 units in the first 3 years and that will be enough to turn a healthy profit. This means of our target market we would only need to capture <4% of our target market assuming one sale per household. This means that our targets and goals are extremely achievable for the first 3 years and we would run a greater risk of expanding too quickly and keeping product quality while ramping up production and sourcing material. It is also important to note that we would need the adequate server space to support this kind of growth. Both would have to be managed as we expand. All these assumptions are for the residential market and make no assumptions that we can break into the commercial farming market. This is not our current market target and we would struggle to meet the demands of the market. The commercial market would be much more elusive for us to track and begin to tackle after we create a positive cashflow from the residential market. The commercial market would take slightly different techniques and tactics that we would have to explore

**Competitive Analysis**

The competition for the indoor garden market can be quite stiff. There are a lot of competitors that focus on small herbal plants that have a utilitarian use in the kitchen. Our market would not necessarily be targeting that market. This market would be particularly difficult to complete in and we would be well behind the other products that are available. These products are also designed to be a part of kitchen décor and would be placed on the kitchen counter. Also, the primary market contenders provide their own UV light to the plants. Our market would be single pot plants for primarily decorative purposes indoors. The products that we design would be for indoor or outdoor use in the plants and pots. They also would not have the ability to provide UV light for the plants but would be able to sense the amount the plant has received. The pots would be available in different sizes in order to accommodate different plants but would always need to be near a window as required for UV light. The primary advantage that our product would have over the ones in the market is the ability to be used for our side plants. The weather hardened product we would provide would mean that these can be used to help keep products alive on porches and balconies for potted plants. For the more ambitious customer we would have our stick product that can be used to help monitor a whole garden for our customers. These sticks could be inserted into the soil and would be able to help monitor the status of the plants and help water the plants as required with a standard drip line. There is nothing in the smart garden market that has been hardened for outdoor use. Also, a lot of the products on the market are completely self-sustaining with systems that are designed to be bought from the manufacturer and used with their product. Our plan would be a little different. We intend for the customer to plant whatever plant they want and use our app-based program to help find information required for that plant. Also, the app would help create an interactive personality for the plant. The idea is that the lant would become more of a pet or a friend than just a decorative item. There is no known product on the market that can provide this interaction with the plant. The app will also be able to provide push notifications the status and needs of the plant. As the needs are expressed some of the needs can come with suggestions that will help with those suggestions. For a price point we are a little high in the market because we are targeting around $100 per product. Now for the potted version that would be rather expensive to help take care of one or two plants. The only advantage we have here is that the pot would be decorative as selected from us. For the outdoor version to be placed in gardens it could help sustain much more than one plant, but a different model would be advised for each different species of plant in the bed. All these things considered we would have great place in the market for all the outdoor items. Anyone who wanted to grow a small garden in their backyard would have a home with us. When it comes to back porches and balconies, we would have a place there as well keeping things beautiful. Inside the home there are better options for small plants, but for large decorative plants we will be at the forefront. Of course, our major leg up will be the plant with personality.

**Marketing and Sales Strategy**

This section outlines the Marketing, Sales, and Distribution arm of Smart Garden. As our product specializes in automating the essentials required for healthy plant growth, it would provide a sense of ease to those who are busy, on the go, and for those who have little time in their schedule to look after their plants/garden. Moreover, learnings based on the current pandemic scenario around the world reflect an increasing need for people to start being self-sufficient, to be able to grow their fruits and vegetables, and our product makes that easy at an affordable price without the need to maintain a daily up-keep. The annual national garden survey estimated American Gardeners spent nearly 48 billion dollars, expecting this number to grow as high as 60 billion dollars over the next five years. The average spending on gardening amounted to 500 dollars per household.

What differentiates us from the rest of our competitors is the price point that we offer which is significantly less expensive than other, coupled with much more functionalities such as a mobile app to track plant status. Also, very few companies provide solutions for outdoor gardens, but our product The Smart Stick aims to solve that niche area of the problem. What makes it great is that with enough sticks it is possible to automate the maintenance of a small farm. Next, we look at the customer segments that we aim to target and the opportunities that lie in that area. As per the national survey, the percentage of older gardeners was affixed at 35 percent, however, younger households, the ones between the age of 18-35 covered about 30 percent. This presents an interesting opportunity for us where the young tech-savvy generation might invest in a product like this, given they are busy people and they might not have the time necessary to maintain a garden.

Now that we have established our target customer segment, the question arises how do we reach them? The fastest and most efficient way is to target advertisements on popular social media platforms such as Facebook, YouTube, and Instagram. It is possible to segment the users with interests such as indoor gardening, gardening, and people who own similar products. It will be effective to find potential customers with a higher probability of buying our product. Another important strategy to keep the customers coming back for repeat business is to have an interesting line of products specializing in different varieties of attractive plants, herbs, and flowers which are higher on the popularity index. This could be done using our smart garden app where we show recommendations or a new line of products to keep the customer aware and interested in our product.

We maintain a fixed pricing strategy pricing both our products at 99 dollars per unit. The cost of assembly in our first iteration costs around 55 dollars on wholesale, so we earn about 80% or 44 dollars per unit sold. As we evolve further in our product and we have had all systems working in synchronization and as the product development phase nears closure, it is possible to create a printed circuit board tailored to our requirements which will reduce the manufacturing cost by half. Coupled with increasing our target sales by aggressive online marketing we aim to increase profit substantially then, which will provide us with additional cash flow to experiment with our products and come up with innovative solutions for large scale farms, plants requiring unusual weather conditions as well as building solutions to handle potential hazards such as torrential downpour or extreme drought conditions.

As far as our distribution channels go, in the short term, to have our product accessible quickly, we plan to partner with retail giants such as Walmart, Amazon, and home improvement stores such as Home Depot, Lowe’s to have our products available to customers. In the long run, we aim to partner with logistics partners such that we can save the costs there, allowing the customers to explore our website and buy items directly from us without any intermediary.

**Key Milestones**

This section will help us visualize the significant planned events that are supposed to happen to take place during the first three years of establishment of this company. First, we must take a look at the important technology infrastructure that we need to set up throughout the lifecycle of our product. Also, we must look at the key business partnerships that will be effective in getting our product across potential customers.

To completely realize our product, we need to focus on building our technology iteratively. In the initial timeframe, the first nine months, we should build a working prototype which would mean writing code to have our Arduino chip working in synchronization with all the sensor subsystems, setting up the automated watering system, have the light systems working and perform testing on the prototype. Additionally, we must start building web services that will be used to carry information about the plant to the user app and build APIs that will periodically save plant health metrics. Moreover, we must partner with universities on sourcing the data for different plants, we shall reach out to renowned botanical experts for help and consult, which in a manner they'll be acting like subject matter experts for this product. With this knowledge, the Arduino will use to set up watering times, lighting times, and setting up nutrition systems for different species of plants.

In the subsequent iteration of the product, we must focus on building capabilities that will allow us to move our product from our warehouse to anywhere in the country. We will have to establish a company website and a mobile app with all the different product listings, services, and capabilities within. The goal will be to have 20 different products ready for sale. Moreover, we need a payment gateway integrated into our website. In this timeframe, we need to integrate the backend system developed before with the mobile app.

In the final iteration, we should re-use the learnings acquired from the first two years of the product, and re-design our product with the help of design experts and come up with a more exquisite line of products, expecting to add support for more plant types. We should then raise the price, and keep targeting new potential customers using online advertising. Another important technology infrastructure to create in a later phase of the product lifecycle is to build data warehouse systems or data lakes to store the plant data over time. Also, we can explore the possibilities of creating products that cater to small farms to acres of land.

Similar to the above section, now we consider the key business areas and partnerships that we need to get into to fully realize the potential of our product. In the beginning, we need to partner with retail companies and home improvement stores to see our product through to potential customers and have a presence in the starting days. Next up, we need to partner with a logistics arm which enables us to get our product around. We also need to partner with good plant nurseries which will provide us with a supply of good quality plant saplings. Another major expenditure will be to spend enough in online marketing to attract potential customers and get the idea of our product across to mainstream consumers and hobbyists. In the last phase, when the company has been in business for about two years, we should focus on b2b selling. Then we must identify businesses that regularly use plant pots and try selling it directly to them in bulk if possible. It can also help to explore possibilities to sell the product overseas.

**Financial Analysis**

Smart Garden as a start-up is not intended to be profitable in its first year as a new company. Instead, we as a company are focused on using our first year to reduce overhead costs while maximizing and growing our sales to consumers. As defined earlier there is a 47.8 Billion dollar per year market in the home gardening market (AeroGrow). Within the market, our highest profile competitor is AeroGrow International, Inc. which owns and sells the AeroGarden. Within the 4th quarter of 2019, AeroGarden had sales of 9.1 million dollars, and a gross margin of approximately 35%. While our product has some significant differences from the AeroGarden as described in our products section, their success has proven that there is a substantial market for smart gardening appliances.

At the end of year 1, year 2, and year 3, we anticipate that we will have a gross revenue of $905k, $4.31M, and $9.44M. These are from sales of our two products, the Smart Pot and the Smart Stick. Based on interviews with potential buyers, we found a slight preference for the Smart Pot. This in conjunction with an estimated 17% of Americans living in a condo or apartment with limited outdoor space, leads us to believe that the Smart Pot will be about 33% more popular than the Smart Stick despite the same price point (O’Malley). Additionally, variation among the seasons has been anticipated with a higher volume of sales in the spring/summer as opposed to the fall/winter seasons. As such we estimated that the peak sales in May/June will be about 100% - 133% higher than the winter months.

Cost of Goods Sold will be $600k, 2.61M, and 5.63M with a gross margin of 33.7%, 39.6%, and 40.4%. We are certain that we have a reasonable estimate of our cost of goods, as research from our CTOs determined that the parts needed for construction will be about $57 for the Smart Pot and $59 for the Smart Stick including Manfacturing cost (See Table 1 and 2 below) when assuming a bulk discount of of 15% for the Smart Pot and 20% for the Smart Stick. Manufacturing will make up most of the cost of getting the product to market. The manufacturing cost was calculated based on the standard manufacturing rate in India in conjunction with the overall cost of all the parts needed to manufacture the product. The cost estimated per hour will be $1.72/hour for manmade manufacturing for a person in India. It is assumed that the smart pot can be assembled in 4 hours and the smart stick can be assembled in 5 hours.

**Table 1: Cost of Smart Pot Per Unit Build**

|  |  |  |
| --- | --- | --- |
| **Per Unit Build (Smart Pot)** | | |
| **Item** | **Number** | **Cost (USD)** |
| PH, Moisture, Temperature, Sensor | 1 | $ 4.00 |
| Moisture Content Sensor | 1 | $ 2.00 |
| Sunlight exposure Sensor | 1 | $ 0.95 |
| Data Logger | 1 | $ 7.00 |
| Temperature Sensor | 1 | $ 3.00 |
| Arduino w/ Wi-Fi | 1 | $ 35.00 |
| 10 ft Wire (22 Ga) | 1 | $ 1.50 |
| Ceramic Pot | 1 | $ 4.99 |
| Assembly (1.72/hour) | 1 | $ 0.60 |

**Table 2: Cost of Smart Stick Per Unit Build**

|  |  |  |
| --- | --- | --- |
| **Per Unit Build (Smart Stick)** | | |
| **Item** | **Number** | **Cost (USD)** |
| PH, Moisture, temperature, Sensor | 1 | $ 4.00 |
| Moisture Content Sensor | 1 | $ 2.00 |
| Sunlight exposure Sensor | 1 | $ 0.95 |
| Data Logger | 1 | $ 7.00 |
| Temperature Sensor | 1 | $ 3.00 |
| Arduino w/ Wi-Fi | 1 | $ 35.00 |
| 10 ft Wire (22 Ga) | 1 | $ 1.50 |
| Plastic Stick ($18.58/32) | 1 | $ 0.58 |
| Assembly (1.72/hour) | 4 | $ 6.88 |
| Solenoid Valves | 1 | $ 7.49 |
| 10ft | 1 | $ 0.60 |
| Casing | 1 | $ 5.00 |

Year 2 and 3 of our revenue models was established from our year 1 revenue and as stated earlier has a significant gross margin boost. The boost is due to a decrease in expenditures from local shipping and handling cost from our part time workers compared to the increase in cost/sales from our manufacturer. We accounted for this growth in sales by studying average industry growth of start-ups in sectors similar to ours (consumer products sector). Thus, we should anticipate a 376% growth in our second year, and a 119% growth in the following year (Girardi) for a revenue gross revenue of $4.41M and $9.44M. While our gross margins on goods sold is expected to increase, our other expenses are expected to rise despite a decrease in advertising and investment in market research and equipment after our first year. This increase of approximately $101k ($549k year 1, 602k year 2, and 650k year 3) is attributed to the expanding shipping cost as we continue to rapidly grow.

Based on our expected revenues, no loans are expected to be needed to stay afloat. With our investors investing approximately $640k we estimate that we will have positive cash flow in February of 2021. Our Net Income/Margin will be ($243,469)/-26.9% our first year. After sales begin to climb, we anticipate that we can raise our Net Income/Margin to a healthy $1.10M/25.6% and 3.17M/33.5% in years 2 and 3.

The cash flow analysis shows that Smart Garden will be able to provide a profit if assumptions are accurate. While Cost of Goods Sold is relatively well defined there can always be variations of our bulk discount assumption. Our biggest risk/assumption is our estimation of product sales. If there is significant variation from the expected product sales each month, the financial plan would shift in tandem. If there is an underestimation on projected sales, investment in advertising and marketing would be required to meet these targets which in turn would delay positive cash flow past the February 2021 target.

**Investment Opportunity**

As an investor for Smart Garden you will be able to invest in the ground floor at a company with a concise mission in a fast-growing market. We are looking to secure $640k in investments to keep our company sufficiently funded and make it through negative cash flow our first year. It will provide enough buffer to carry us through an unexpected underestimation on sales and will be able to cover slightly over a years' worth of no sales.

The funds will be directed to cover our initial startup costs and cover advertising. In addition, it will be used to cover travel expenses to attend trade shows and conduct market research to increase our sales. It is anticipated that the funds will help us rapidly grow by providing us with a large marketing budget to target consumers.

The ultimate end goal of our project is to continue to grow and expand our operations to return value back to our investors and founders. After year 3, we believe we will have sufficient market penetration and cash reserves to continue to grow with gross revenues past our $10M estimate. We will be able to cash out investors who are satisfied with their returns or continue to grow and return further value. In the future, we believe we complement several markets such as AeroGrow’s and are open to future acquisitions.

**Conclusion**

Overall Smart Garden will be a great investment opportunity for any prospecting investor. Our cash flow analysis leaves us more than 50% of runway for unforeseen expenses and they should be handled with ease when they arrive. With the investments given we expect to have a net cash of 3.1 Million and a closing cash balance of 4.6 Million. We are not reinventing the wheel with any of our marketing strategies and we are attempting to create hardened products for prolonged use indoors and outdoors. This combines with the app provided with the hardware to create a personality for the plants to help keep people interested in continuing to take care of their plants. The automated systems and the instrumentation monitoring should make gardening easier and more accessible for people to create or expand their hobby. All in all, this is a great opportunity for any investor and is expected to be a relatively safe investment in an already proven market with a slight deviation.

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