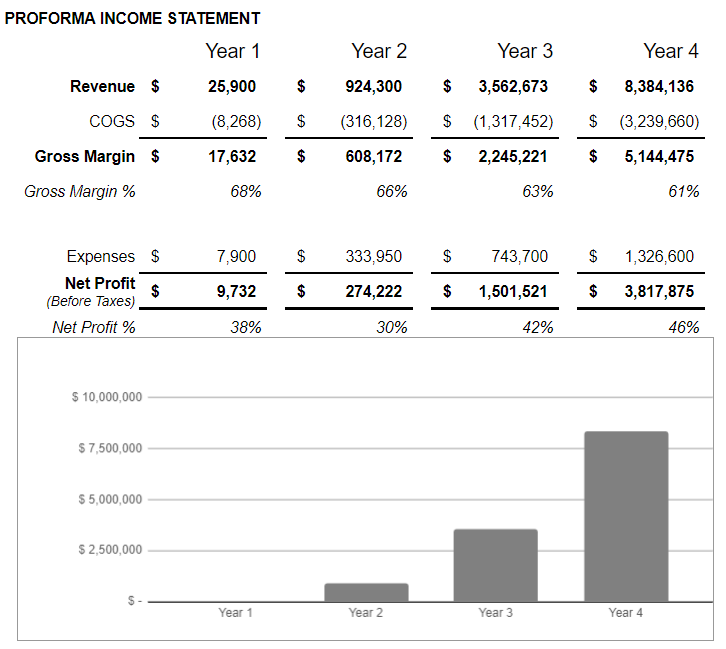
## **Executive Summary**

IntelliRoast is an in-home coffee roasting solution. By providing a companion smartphone app, a completely automated process, and the selection of custom roasts, IntelliRoast brings high-quality coffee to the masses. The smartphone app allows for a centralized place for different coffee roasts while also allowing the user to start their automated coffee roast. IntelliRoast provides an entry point into any type of coffee roasting difficulty, from beginner to expert. The combination of a companion smartphone app and complete automation allows for a mass appeal to customers.



**Objectives**

* Easy to use
* Size comparable to average kitchen appliance
* Companion app to control roast profiles

**Keys to Success**

* Featuring IntelliRoast at conferences for target markets
* Household name
* Continually updating and optimizing through software updates

## **1. Plan Overview**

## **1.1 Mission**

Today, in-home coffee roasting is an art popular with coffee enthusiasts because of commercial coffee’s low quality. This process is intricate and the science of coffee roasting is precise with a small margin of error. IntelliRoast aims to streamline this process by automating the coffee roast while affordably combining features to enhance the quality of their coffee.

IntelliRoast’s mission is to provide an entry point to specialty coffee through affordable equipment with intuitive controls. By combining technology with proven designs, IntelliRoast aims to make high quality, freshly roasted coffee the new standard.

## **1.2 Objectives**

IntelliRoast as a design aims to make an easy-to-use, in-home coffee roaster. About the size of a standard kitchen appliance, the roaster will interface with a phone application to provide intuitive controls. A user will choose their preferred roasting profile from a provided list in the application. Once chosen, IntelliRoast will load the roasting profile after green coffee beans are introduced to the roasting chamber. The chaff will be collected and the beans deposited in a safe-to-handle receptacle. The user then has freshly roasted coffee beans ready to brew.

IntelliRoast, as an entity, aims to become a household name in the coffee roasting industry. By providing means to produce high quality, freshly roasted coffee to the everyday coffee enthusiast, IntelliRoast will achieve this goal. Using its technological advantage, IntelliRoast will lead the coffee roasting market to a new, higher standard of excellence.

## **1.3 Keys to Success**

To succeed in a competitive market, IntelliRoast will be featured at conferences to showcase the product to target markets. Additionally, IntelliRoast will develop and update roasting profiles so that users always have up-to-date profiles to choose from. Continuous research and development into roasting processes will allow IntelliRoast to continue successfully. IntelliRoast will always stay at the forefront of coffee roasting technology through awareness of new market competitors and their missions. Customer reviews will give IntelliRoast new insight into possible design improvements as the product becomes more popular.

## **1.4 Competitive Advantage**

IntelliRoast is an automated coffee roaster which turns the highly manual coffee roasting process into a hands-free operation. The user will insert a predefined amount of coffee beans and start a coffee roast through its companion smartphone app. Here, the user can monitor their coffee roast from start to finish, and the end result is a batch of roasted coffee beans with a dedicated filtration system to separate chaff, a paper-like waste flaking off the beans, from the finished product. IntelliRoast’s advantage lies in the complete automation of the coffee roasting process in the home. Similar products on the market include a combination of hands-free coffee roasting and real-time monitoring, but these products either cost far too much or are too large for home roasting. Additionally, IntelliRoast’s chaff filtration system separates the chaff from the roasted beans during the roasting process, enabling complete automation not offered with similar products.

## **1.5 Target Market**

Designed for existing coffee enthusiasts and hobbyists, IntelliRoast is the next step in the coffee making process, replacing the purchase of pre-roasted coffee for unroasted beans the user will roast themselves. Coffee enthusiasts that would benefit the most from the IntelliRoast will be those that already grind and brew their coffee themselves. This product is best suited for users that are looking for complete control of their coffee making process from green bean to cup, as the IntelliRoast system provides active monitoring and control of the roasting of coffee beans. Currently, IntelliRoast is designed with the 110-volt power line in mind.

## **1.6 Basic Strategies**

Startup funding will be supplied through Mississippi State University’s E-Center. For IntelliRoast’s marketing, the team will use our website to establish a centralized place for information about the product. Additionally, online advertising will be leveraged to attract positive attention to IntelliRoast. Finally, IntelliRoast will form partnerships with coffee shops and coffee distributors to spread information directly to potential customers.

The head-quartered location will be the initial production site, but as the business expands, IntelliRoast will explore other options for production such as contracting out work or moving production to an offsite facility. In terms of new products, the focus will remain on methods for small-batch in-home roasting, but different models of the IntelliRoast product will be explored at varying roasting chamber sizes to cater to different uses. The market for specialty coffee is large in its current form, so IntelliRoast plans to establish a foothold in the coffee roaster market before potentially expanding.

## **2.** **Company Summary**

## **2.1** **Company Description**

IntelliRoast is a manager-managed limited liability company (LLC) founded by Chaise Farrar, Noah Siano, Rebecca Siciliano, Drake Bolland, and JR Jamora. Chaise Farrar and Noah Siano will be the managing members over the business. As founders of IntelliRoast, the ownership of the company breaks down as follows:

* Chaise Farrar - 22%
* Noah Siano - 21%
* Rebecca Siciliano - 19%
* Drake Bolland - 19%
* JR Jamora - 19%

These percentages reflect the initial responsibilities attached to each member. Members with a higher ownership percentage are expected to contribute more work during the initial stages of the company but are not significantly higher than the other members. Additionally, these percentages do not allow for any ties when it comes to company decisions if a member is absent during voting.

## **2.2** **Company Location and Facilities**

IntelliRoast is currently located in Starkville, MS at an apartment near Mississippi State University. While the company operates through its initial startup period, IntelliRoast will operate from this location until a more permanent location is found. It is essential for the facility to have a reliable internet connection, as most of the initial business will be conducted over the internet.

## **2.3** **Company Strategy**

IntelliRoast must establish its name by networking with companies in similar fields. This will allow IntelliRoast to meet potential customers, collaborators, and stay up to date on technological advances in the coffee roasting industry. Additionally, the company will conduct further market research to establish which features the initial customer base would want. This also keeps IntelliRoast in touch with customers and allows the company to directly address customer satisfaction. From here, the company will continue to refine the product for initial launch by redesigning critical parts to IntelliRoast’s operation as well as explore additional features. After the product is successfully tested and approved, the final packaging will begin.

## **2.4** **Startup Costs**

Table 2.1 depicts IntelliRoast’s estimated startup costs.

**Table 2.1 Startup Balance Sheet**

|  |  |  |  |
| --- | --- | --- | --- |
| **Startup Expenses** |  |  |  |
| Legal |  | 4,000.00 |  |
| Prototype Dev |  | 5,000.00 |  |
| Initial Advertising |  | 2,000.00 |  |
| Market Research |  | 500.00 |  |
| Insurance |  | 2,000.00 |  |
| Rent |  | 0.00 |  |
| Expensed Equipment |  | 6,500.00 |  |
| Other |  | 1,000.00 |  |
| **Total Startup Expenses** |  | 21,000.00 |  |
|  |  |  |  |
| **Startup Assets needed** |  |  |  |
| Cash Balance on Starting date |  | 15,000.00 |  |
| Startup Inventory |  | 4,000.00 |  |
| Other Current Assets |  | 7,000.00 |  |
| Total Current Assets |  | 26,000.00 | Total Capital |
|  |  |  |  |
| **Total Startup Requirements** |  | 47,000.00 |  |
|  |  |  |  |
| **Funding** |  |  |  |
|  |  |  |  |
| **Investment** |  |  |  |
| Angel Investor |  | 30,000.00 |  |
| Additional Investors |  | 10,000.00 |  |
| E-Center |  | 7,500.00 |  |
| **Total Investment** |  | 47,500.00 | Investors have covered total costs |
|  |  |  |  |
| **Current Liabilities** |  |  |  |
| Accounts Payable |  | 0.00 |  |
| Current Borrowing |  | -500.00 | no liabilities to start |
| Other Current Liabilities |  | 0.00 |  |
| **Total Current Liabilities** |  | -500.00 |  |
|  |  |  |  |
|  |  |  |  |
| Long-term Liabilities |  | 0.00 |  |
| **Total Liabilities** |  | -500.00 |  |
|  |  |  |  |
| **Left To Finance** |  | 0.00 |  |
|  |  |  |  |
| Loss at Start-up |  | 21,000.00 | total investment-total capital = startup expense |
| Total Capital |  | 26,500.00 | total assets - total liabilities |
| Total Capital and Liabilities |  | 26,000.00 |  |
| Checkline |  | 0.00 | Should always be zero |

It costs $50 to start an LLC in the state of Mississippi. Additionally, legal aid reviewing our operating agreement costs around $500. Finally, IntelliRoast plans to apply for a provisional patent which is estimated to cost around $3,000. This leaves $450 for miscellaneous legal expenses. Prototyping development is expected to cost around $5,000 for custom parts, materials, and multiple revisions as the design undergoes iteration.

Initial advertising costs will come from targeted ads, trade show attendance, and sending pre-release units for product reviews on various video and social media platforms. Market research will be used for gathering data from target customers to fill the niche IntelliRoast is aiming. Insurance costs are set to $2,000 for liability insurance to cover a home appliance that creates a large amount of heat like IntelliRoast. Rent will be zero as the company will be housed out of a member’s residence until revenue can sustain the additional costs of a dedicated location. Expense equipment will be used to buy tools needed to manufacture prototypes and includes the costs of licenses for EDA and CAD programs to continue the physical development of the device. Finally, “Other” expenses account for the various unforeseen costs of starting a business.

Under the “Startup Assets needed” section, IntelliRoast foresees $27,000 needed in cash and inventory. This cash will primarily be used for the costs of spinning up manufacturing, supply chains, packaging, and other expenses need to bring IntelliRoast to market.

To fund IntelliRoast, investments will be key. As the company will not have enough assets to use as collateral for borrowing money, angel investors through the MSU E-Center will cover the majority of the startup costs in exchange for interest in the company. Additionally, by participating in the MSU VentureCatalyst™, a total of $7,500 in grants can be awarded to help fund the beginning of the company up until the point at which an angel investor or investors can be found.

## **3. Product Summary**

## **3.1 Product Description**

IntelliRoast is an intelligent in-home coffee roasting solution. By providing a companion smartphone app, a completely automated process, and the selection of custom roasts, IntelliRoast brings high-quality coffee to the masses. The machine uses a controlled heating element and centrifugal fan to quickly and accurately adjust the temperature of the coffee beans to match the roasting profile. The user will load a specific profile for their desired coffee roast using the companion smartphone application. After the roasting cycle, the machine will automatically initiate a cooling cycle to quickly cool the beans to 30 degrees Celsius. Additionally, IntelliRoast collects chaff, a paper-like substance that comes off of coffee beans during the roasting process.

## **3.2 Customer Needs and Benefits**

IntelliRoast targets coffee drinkers who want better tasting coffee but also don’t want to spend the time to manually roast their own coffee. Roasting coffee at home is a difficult and time-consuming process. Most consumers settle for buying stale, pre-ground coffee in bulk from large suppliers, but they sacrifice a lot of flavor. Many consumers pay more money to buy freshly roasted coffee from specialty coffee roasters, but IntelliRoast would allow them to make the same fresh coffee at home. These customers also value access to different roasts, and with IntelliRoast they can customize the roast or select predefined profiles for variety in their coffee roasting. Customers can roast their own coffee at home without the skills or expensive equipment required to manually roast coffee. IntelliRoast allows consumers to enjoy fresh-roasted, flavorful coffee on a regular basis without having to pay the premium to specialty coffee roasters. Consumers will no longer need to settle for the stale coffee sold at grocery stores.

## **3.3 Future Products**

As the first product from IntelliRoast, the IntelliRoast machine is being designed to hold at least 120g of unroasted coffee beans. This initial design will be iterated upon to improve the total capacity and time needed to roast. The next product IntelliRoast would look to produce is a coffee roasting machine with the ability to roast upwards of one pound of unroasted coffee beans while maintaining a similar small form factor. Additionally, IntelliRoast would like to improve its roasting capabilities by implementing a proprietary algorithm to improve the roasting process. Finally, IntelliRoast will scale to manufacture industrial grade coffee bean roasters. These industrial roasters will have the capacity to roast upwards of 15 pounds of coffee per roast.

## **3.4 Competitive Comparison**

IntelliRoast does have a competitive advantage in the in-home coffee roasting market. There are a few in-home coffee roasters available with prices ranging from $370 to $1600. These prices vary in correlation with the feature set provided by the device. For example, the Ikawa roaster currently available for around $1600, has the most advanced feature set. The Ikawa provides advanced features providing a fully automated roast and boasts technology developed by Dyson for their cyclone separator. Contrastly, Behmor provides a roaster for around $370 and includes very little advanced technology features. This requires its users to have more manual involvement in the roasting process. IntelliRoast would provide a similar feature set to the Ikawa roaster, but at a more reasonable price.

## **4. Marketing Summary**

### **4.1 Market Analysis**

IntelliRoast will begin by marketing its products to young adults in the United States that drink “gourmet” coffee and have disposable income. 41% of Americans drink specialty coffee daily according to the 2017 U.S. Specialty Coffee Consumption Trends published by the Specialty Coffee Association. Using demographics published by the CIA World Factbook, This amounts to ~92 million adults drinking specialty coffee daily. Of this, about ~30 million are young adults between the age of 25-35 years old. Even at 0.1% market saturation, It is more than enough to sustain and grow IntelliRoast. are willing to buy our product at $1,000, that amounts to $30,000,000 in revenue for our first product.

### **4.2 Marketing Strategy**

IntelliRoast will market the roaster using multiple strategies. Since the target customer of IntelliRoast generally frequents local coffee shops for their “gourmet” coffee, IntelliRoast would work with those coffee shops to have them showcase the roaster and emphasize its home use. In return, the coffee shops would use IntelliRoast for their shops and share their needs with the company.

Additionally, IntelliRoast will use coffee expositions and conferences to market directly to the target customer. Having a booth or table at local expositions with IntelliRoast showcased and providing roasting demos would allow the customer to see the roaster in action and visualize it in their own home. These expositions would also allow for exposure to the coffee industry on a larger level. With professional roasters and shops attending as well.

Finally, IntelliRoast will use online targeted advertisements which will be used on sites coffee enthusiasts frequent. These advertisements will emphasize IntelliRoast’s easy-to-use interface and its ability to fit in a common kitchen space.

### **4.3 Sales Projections**

IntelliRoast will use the first year to gather market data and further develop a product ideal for the target market. As a result, research and development will take precedence for the first year with little to no sales projections. Once a beta version of the roaster is developed and ready for testing, IntelliRoast hopes to sell a discounted beta version to local coffee shops and coffee professionals for testing and feedback. Sales projections for this stage is projected to be around 20 units. An official launch of the product is expected after the beta stage selling each unit for around $1000. Additionally, the beta versions sold in the previous period will be updated to the final product. With a general market of about 30 million individuals and market saturation of 0.1% willing to buy the product, IntelliRoast could see about $30,000,000 in total revenue over the lifetime of the product.

### **4.4 Manufacturing and Distribution Strategy**

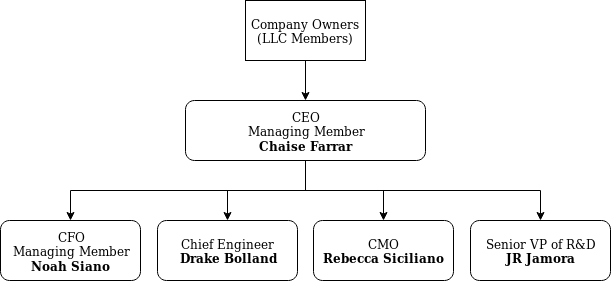
Currently, IntelliRoast will produce each coffee roaster in a small-scale setting, where the company engineers will then extensively test each machine before sending it to the customer. IntelliRoast’s website will contain all of the sales at this moment. Each coffee roaster will be individually packaged and shipped from the production location. IntelliRoast will utilize a private shipping company such as FedEx because of the glass in the prototype. Extra care will be necessary to prevent breaking. Software distribution will be costless for IntelliRoast. As the smartphone app is free-to-download, the QR Code and URL for the software app will be provided with every coffee roaster for easy distribution.

## **5. Organization Overview**

IntelliRoast, LLC is a company built on a combination of automated in-home coffee roasting and the team members making the product happen. IntelliRoast strives to bring an entry point into high-end specialty coffee to the average user. Members consist of Chaise Farrar, Noah Siano, Drake Bolland, Rebecca Siciliano, and JR Jamora. Each member is responsible for their own area, or division, within the company. These divisions do not limit the members in terms of inputting time and energy to each section. All members are welcome to contribute to any department where their experience and expertise could prove useful.

Chaise Farrar is the CEO of the company and is responsible for overall company operation and assisting with various engineering efforts. Noah Siano, acting as CFO, assists with the business and financial aspects of company operation. Additionally, Noah manages user interaction and application development. Drake Bolland is Chief Engineer and oversees the engineering efforts of the company and directly handles the mechanical and electrical designs for current and future prototypes. Rebecca Siciliano is responsible for sales and marketing. JR Jamora is responsible for research and development of new features and innovations to add to the current and future prototypes. All members are responsible for ensuring the success of the company; as IntelliRoast expands in the future, this will be separated into its own department and a manager will be assigned then.

### **5.1 Company Structure**



**Figure 5.1 - Company Structure**

### **5.2 Personnel Plan**

The IntelliRoast team will initially be comprised of the founding members during the infancy of the company. During the first year of the company, the members will work without compensation, reinvesting profits into lowering manufacturing costs. Members will attend coffee roasting expos to conduct further research into marketing and product feature sets for the IntelliRoast products. Once a substantial profit for the IntelliRoast company is achieved, members will begin to work for the company full time, beginning with the CEO and CFO. Accountants and legal counsel will be contracted by the company to aid with financial and legal decisions.

As the company ages, IntelliRoast will produce additional roasters with different feature-sets such as larger roasting chambers. This expansion will be coupled with the hiring of a full-time Mechanical Engineer to aid in the optimization of the product designs for size and heat-transfer.

## **6. Financial Plan**

### **6.1 Projected Profit and Loss**

IntelliRoast projections for profit and loss are based on the sale of 50 units for the first year and the sale of 25 monthly green coffee subscriptions. The profit for each unit is $700, and the profit for each month of green coffee subscription is $20. Each unit is expected to cost an estimated $300 for parts, and the green coffee is expected to cost $12 per monthly subscription. During the first year, all units will be made without any paid employees, and as sales pick up in the second year, one employee will be paid a salary to start working full time. During the third year, as sales pick up more, a second employee will be paid a salary to start working full time.

Since IntelliRoast will be made from our own homes for the first two years, there will be no rent or utilities bills until the third year, when we plan to spend $10,000 per year for rent and $4,000 per year for utilities. The cost of renters insurance, general liability insurance, and other required insurance will cost an estimated $20,000 per year, starting in the third year. Travel costs will gradually increase each year to allow for team members to meet up and go to coffee trade shows, starting at $500 for the first year, rising to $1,000 for the second year, and rising to $5,000 for the third year. General building maintenance will have $500 per year set aside starting the third year. Since IntelliRoast is working on gaining startup funds from grants and potentially from investors, no loans are expected.

**Table 6.1 - Projected Profit/Loss Plan**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **2019** | **2020** | **2021** |
| **INCOME (cash in)** |  |  |  |
| Sales | $50,000.00 | $150,000.00 | $500,000.00 |
| Materials (cost of sales) | $15,000.00 | $45,000.00 | $100,000.00 |
| Wages (cost of sales) | $500.00 | $3,000.00 | $10,000.00 |
| **Subtotal (Cost of sales)** | $15,500.00 | $48,000.00 | $110,000.00 |
| **Gross Profit** | $34,500.00 | $102,000.00 | $390,000.00 |
| **Gross Profit (%)** | 69.00% | 68.00% | 78.00% |
|  |  |  |  |
| **OPERATING EXPENSES** |  |  |  |
| Recurring Salaries | $0.00 | $70,000.00 | $175,000.00 |
| Recurring Wages | $500.00 | $500.00 | $1,000.00 |
| Rent | $0.00 | $0.00 | $10,000.00 |
| Utilities(Elec/Gas/Phone) | $0.00 | $0.00 | $4,000.00 |
| Insurance | $0.00 | $0.00 | $20,000.00 |
| Bldg Maintenance | $0.00 | $0.00 | $500.00 |
| Travel | $500.00 | $1,000.00 | $5,000.00 |
| Advertising | $500.00 | $2,000.00 | $2,000.00 |
| Bank Finance Charges | $0.00 | $0.00 | $0.00 |
| Capital Expenditure | $0.00 | $0.00 | $0.00 |
| Loan Payments | $0.00 | $0.00 | $0.00 |
| Misc | $200.00 | $500.00 | $2,000.00 |
| Depreciation | $1,400.00 | $1,400.00 | $1,400.00 |
| **Total Operating Expenses** | $3,100.00 | $75,400.00 | $220,900.00 |
| **Operating Profit** | $31,400.00 | $26,600.00 | $169,100.00 |
| **Misc Income** | $7,500.00 | $250,000.00 | $0.00 |
| **Net Profit (before tax)** | $38,900.00 | $276,600.00 | $169,100.00 |
| Taxes | $11,670.00 | $82,980.00 | $50,730.00 |
| **Net Profit (after tax)** | $27,230.00 | $193,620.00 | $118,370.00 |
| **Net Profit/Sales** | 54.46% | 129.08% | 23.67% |

### **6.2 Projected Cash Flow**

**Table 6.2 - Projected Cash Flow**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **2019** | **2020** | **2021** |
| **INCOME (cash in)** |  |  |  |
| Sales | $50,000.00 | $150,000.00 | $500,000.00 |
| Capital Received/Loans | $0.00 | $0.00 | $0.00 |
| Other Income (investments) | $7,500.00 | $250,000.00 | $0.00 |
|  |  |  |  |
| **Total Inflow** | $57,500.00 | $400,000.00 | $500,000.00 |
| **EXPENDITURE (cash out)** |  |  |  |
| Materials (cost of sales) | $15,000.00 | $45,000.00 | $100,000.00 |
| Wages (cost of sales) | $500.00 | $3,000.00 | $10,000.00 |
| Recurring Salaries | $0.00 | $70,000.00 | $175,000.00 |
| Recurring Wages | $500.00 | $500.00 | $1,000.00 |
| Rent | $0.00 | $0.00 | $10,000.00 |
| Utilities(Elec/Gas/Phone) | $0.00 | $0.00 | $4,000.00 |
| Insurance | $0.00 | $0.00 | $20,000.00 |
| Bldg Maintenance | $0.00 | $0.00 | $500.00 |
| Travel | $500.00 | $1,000.00 | $5,000.00 |
| Advertising | $500.00 | $2,000.00 | $2,000.00 |
| Bank Finance Charges | $0.00 | $0.00 | $0.00 |
| Capital Expenditure | $0.00 | $0.00 | $0.00 |
| Loan Payments | $0.00 | $0.00 | $0.00 |
| Misc | $200.00 | $500.00 | $2,000.00 |
| Taxes | $11,670.00 | $82,980.00 | $50,730.00 |
| **Total Outgo** | $28,870.00 | $204,980.00 | $380,230.00 |
| Income less Expenditure | $28,630.00 | $195,020.00 | $119,770.00 |
| Cash Balance | $28,630.00 | $223,650.00 | $343,420.00 |

### 

### 

### **6.3 Projected Balance Sheet**

**Table 6.3 - Projected Cash Balance**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **2019** | **2020** | **2021** |
| **Current Assets** |  |  |  |
| Cash Balance | 28,630.00 | 223,650.00 | 343,420.00 |
| Merchandise Inventory | 4,000.00 | 9,000.00 | 40,000.00 |
| **Subtotal** | 32,630.00 | 232,650.00 | 383,420.00 |
| Capital Assets (can be depreciated) | 7,000.00 | 5,600.00 | 4,200.00 |
| Depreciation | 1,400.00 | 1,400.00 | 1,400.00 |
| **Subtotal** | 5,600.00 | 4,200.00 | 2,800.00 |
| **Total Assets** | 38,230.00 | 236,850.00 | 386,220.00 |
| **Liabilities** |  |  |  |
| Current Liabilities | 0.00 | 0.00 | 0.00 |
| Long Term Liabilities | 0.00 | 0.00 | 0.00 |
| **Total Liabilities** | 0.00 | 0.00 | 0.00 |
|  |  |  |  |
| **Totals** |  |  |  |
| **Capital, aka Net Worth (assets-liabilities)** | 38,230.00 | 236,850.00 | 386,220.00 |
| **Total Liabilities and Capital** | 38,230.00 | 236,850.00 | 386,220.00 |