Business Plan for the Solar Recycl-o-Sort

by

David O. Kalk

SUBMITTED TO THE DEPARTMENT OF MECHANICAL ENGINEERING IN PARTIAL FULLFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

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Submitted to the Department of Mechanical Engineering
on May 9, 2008 in partial fulfillment of the
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as recommended by the Department of Mechanical Engineering

ABSTRACT

There exists much room for growth in recycling participation with almost 1 in every 4 Americans still not recycling at all. In many communities this fraction is significantly higher, with low awareness of the benefits of recycling. A group of MIT students developed a product called the Solar Recycl-o-Sort as part of their senior design class 2.009: Product Engineering Process. This solar-powered stand-alone recyclable sorter is able to differentiate and sort between glass bottles, plastic bottles, aluminum cans, and trash. The ability to watch the sorting and distributing, as well as an LED feedback display makes recycling fun and interactive. This product makes recycling exciting and will also educate users about recycling, resulting in increased community participation.

Transitioning from the developmental stage into the stages of marketing and sales requires a business plan. This document serves as that plan and helps to organize the engineering work of the team into a document, while combining it with business discussion and strategy. Necessary financial projections and analysis were added in order to assist the team in obtaining outside funding.

The product will be marketed to communities and municipalities primarily as a means of recycling promotion, but also as a way of combating neighborhood trash problems. As the premier product of its kind, it faces little competition and has the potential to become further competitive in waste collection industry if a crushing mechanism is introduced.

Financial forecasting has determined a funding need of $125,000 in order to prepare the product for mass production. Such financing would be in return for a 49% equity stake in the company, and this investment would return a 36% ROI over the first five years.

Thesis Supervisor: Maria C. Yang
Title: Assistant Professor of Mechanical Engineering and Engineering Systems

Author's note:

The goal of course 2-A at MIT, as stated by the Mechanical Engineering Department , is to allow students an opportunity to tailor a curriculum to their own needs, starting from a solid mechanical engineering base. In this spirit, I have tailored my thesis in order for it to be a more appropriate capstone project of my course 2-A studies at MIT. More specifically, I conducted a study which combined the business and engineering sides of product development. I was able to draw on knowledge from business classes I had taken in marketing, entrepreneurship and financial analysis to prepare a thorough business plan for project called the Solar Recycl-o-Sort which I helped to develop in a senior product design course.

This document will also serve to tie together all of the thinking and planning on the project by the team throughout the development process. It is a crucial step in moving the entrepreneurial venture forward, and will likely be used in the upcoming MIT IDEAS competition as well as for alternative means of obtaining funding.

Executive Summary

This business plan has been developed for the development team of the Solar Recycl-o-Sort who is seeking funding of $125,000 in return for a 49% equity stake which will be used to launch the venture into stages of mass production.

The Team

The product was developed in the Fall of 2007 by a group of 15 undergraduate Mechanical Engineering students at MIT as part of a senior design class. The goal was to brainstorm and produce an alpha prototype of a new product which could help to reduce the human global footprint.

The Product

The Solar Recycl-o-Sort is a stand-alone recyclable sorter. Using only the energy provided by the sun, it has the ability to differentiate between a glass bottle, a plastic bottle, an aluminum can, or any trash and then sorts the items appropriately. After determination it also provides the user feedback in the form of an LED display. This product provides an exciting and interactive way to promote recycling in any community, as well as combat neighborhood trash problems.

The Recycling Industry

23% of people living in the U.S. still recycle nothing at all. There also exist several significant disparities in recycling participation between different demographics in the

U.S. such as geography, age, and income. With these things in mind, the promotion of recycling is an important issue to be addressed in many communities. Without any real competitors in the market, the Solar Recycl-o-Sort has potential to capture much of the demand from communities looking to promote recycling.

Strategy

With the presence of the BigBelly, a solar-powered trash compactor, we will market our product primarily as a means of promoting recycling. With the introduction of a crusher, we could be more competitive in the market of combating neighborhood trash problems. There is further potential if the unit could be marketed to low-technology municipalities as a substitute for manual labor.

Financing

The product will settle at a retail price of $2,100 per unit. This amount is within the range of stated interest. Financial forecasting has estimated the Return on Investment at 36% for the first five years on a $125,000 investment. This 49% equity stake would also be entitled to the fraction of all future profits after these five years. Positive cash flows are expected to begin sometime during the third year.

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I. Team Profile

A. Team Information and Current Status

The development team is made up of 15 MIT undergraduates, each of whom worked in the Fall of 2007 to brainstorm and prototype the Solar Recycl-o-Sort. The students were placed on the team in preparation for the course 2.009: Product Engineering Process. This course is a capstone design class taken by almost all final-year Mechanical Engineers at MIT, and the goal is to design and build a working alpha prototype of a new product. The names of the members of the team (in random order) are as follows: Ali Alhassani, Amanda Poteet, Barnett Koryan, Jack Vivian, Joyce Gallagher, Nancy Diaz, Sam Jasinski, Ellen Chen, Ben Pope, Cynthia Lin, David Kalk, Jon Schechter, Kate Weston, Mark Spadafora, Rosita Rodriguez, and Diana Wang.

B. Description of Project and Mission

The design course annually has a theme for which the students are able to focus their design process around. In the Fall of 2007 the theme was aimed at reducing a global footprint, concentrating on recycling, reducing, and reusing. After a considerable brainstorming process which included several iterations of sketch models and mockups, the team decided to prototype the Solar Recycle-o-Sort.

The initial customer for the team was Cynthia Loesch of Codman Square, whose organization was interested in a product they could introduce into their community. The community was largely unaware and uninvolved in recycling, and they were interested in a product which could promote recycling within the community and encourage participation. It would also hopefully help to combat the problem of trash overflow,

which had been affecting the streets of the community. Ms. Loesch originally said they were interested in spending around $1000 on such a product.

The team developed several prototypes each with its own complete redesign, the most recent and final prototype was almost fully functional. The team feels confident in their design and integration, and believes that with more professional programming and electronics development the Solar Recycl-o-Sort will be very marketable.

C. Current Financial Situation

The developmental progress completed up to this point, has been funded by the $6,500 budget allotted by MIT course. Additional money is attempting to be obtained via the MIT IDEAS competition. This competition awards more than $40,000 in cash to allow members of the MIT community to develop their creative ideas for projects that make a positive impact in the world.

D. Current Intellectual Property Owned

A patent is in the process of being filed with the MIT Technology Licensing Office under Case No. 13128 "Stand-Alone Solar-Powered Recyclables Sorting Mechanism and Algorithm". The licensing officer for the case is Daniel Dardani.

II. Product

A. Features

Solar Panel:

The upper module containing the solar panel and battery is designed to rotate freely in order to capture the path of maximum direct sunlight. It also provides additional flexibility of bin placement in urban areas where buildings can obstruct the sunlight.

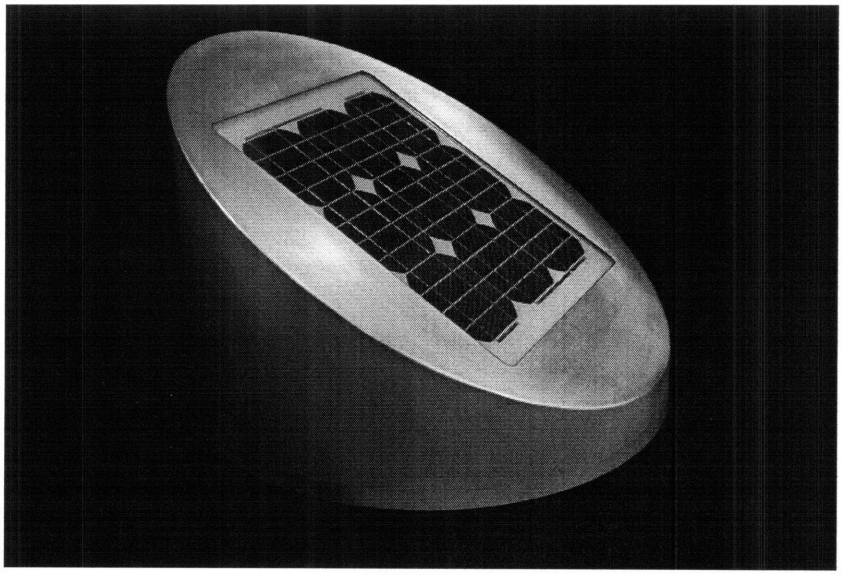

Figure 1: Upper module with 20W solar panel

Recycling Promotion:

In order to make recycling attractive to users, we have included several exciting features. A recycling symbol LED (Light Emitting Diode) display alerts the user to which type of recyclable has just been deposited. This feedback makes recycling fun and interactive. The middle module has also been made of clear lexicon almost completely

around the body in order to provide a near 360-degree viewing angle for users to watch the fast and exciting stages of sensing, sorting, and distribution. Additional recycling facts and information will be presented on the lower module, further promoting recycling by educating members of the community.

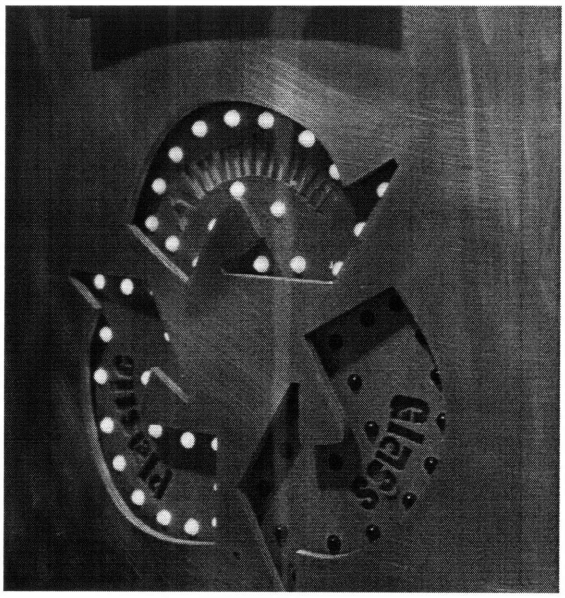

Figure 2: Recycling symbol LED display

Storage Flexibility:

Different environments and communities have different preferences for capacities of the different items once sorted. The division of sections is easily customizable to provide the bin with maximum capacity for any combination of items. Additionally, the lack to rigid walls between the sections eliminates empty space and helps the bin to fill up as efficiently as possible.

Easy Collection:

The locking door makes collection user-friendly and easy, yet secure. Only the holder of the key will have access to the recyclables, in order to prevent unauthorized access. Enclosing an easily-removable storage container inside of the main unit provides collectors with a simple and safe method of removing the recyclables.

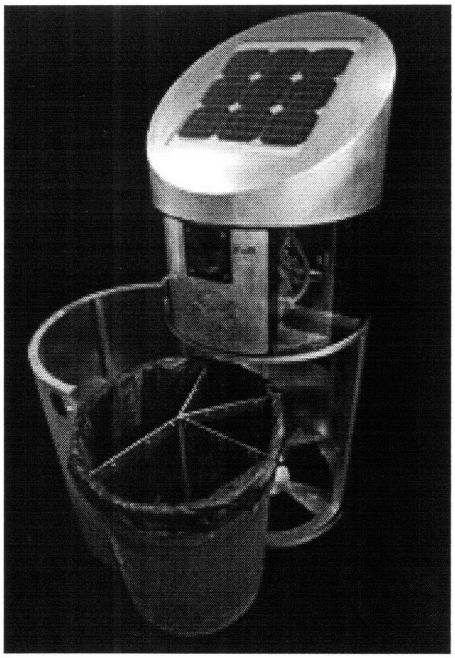

Figure 3: Collection door ajar with storage container

Sensors:

A very accurate system of three sensors works simultaneously in less than two seconds to accurately determine whether the deposited item is an aluminum can, a glass bottle, a plastic bottle, or it defaults to trash .

Safety:

We understand that showcasing the moving parts to the user promotes interest in potentially harmful interaction. With this in mind we have designed the entrance to

eliminate such activity. The door has been mounted so that sorting and sensing can not begin unless the flap door is closed. After an item has been deposited and the flap closes, the door locks to prevent entrance until sorting has been completed. To ensure the safety during collection, the entire machine shuts down while the collection door is open. Additionally, the entrance has been designed so it is impossible to reach any of the valuable parts while the system is idle.

Robust:

The solar panel, as the most valuable part of our system, has been protected with a poly-carbonate cover which can be cheaply replaced if damaged or worn. Many of the sensors are protected behind walls, and the ones which are slightly accessible can be easily and cheaply replaced over time.

Cost

Over our 5 year time horizon we believe we can reduce COGS (cost of goods sold) per unit all the way down to $650. This will be accomplished via purchasing and assembly economies of scale as well as expected savings created by our R&D investments.

The cost breakdown is as follows:

Sensors..... $40

Electronics..... $50

Raw building materials..... $75

Solar Panel..... $150

Battery.....$90

Motors..... $20

Labor..... $225

Total Unit Cost..... $650

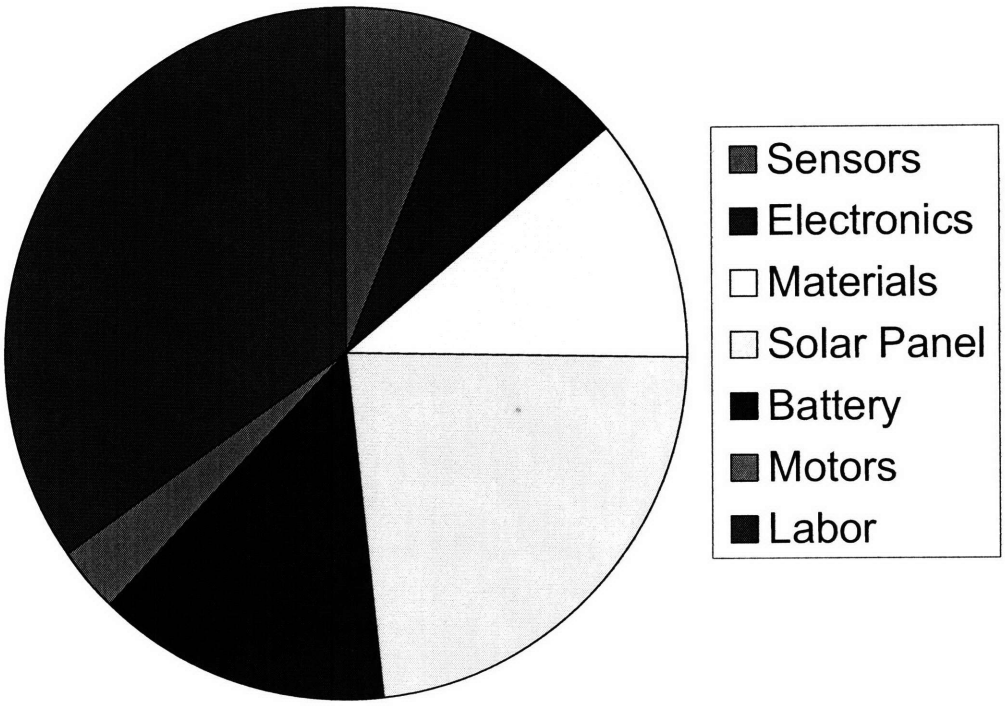

Figure 4: Pie chart of cost breakdown

B. Remaining R&D Necessary

The main goal of our initial R&D is to write some high-level programming which could help the unit to function more efficiently and robustly. Such programming would help to make the sensing more accurate, eliminate stalling, and help the different modules

to cooperate seamlessly with each other. Further R&D would also look into additionally ways the mechanical parts of the unit could be designed more efficiently and accurately.

There is also a significant potential for the incorporation of a crushing module. Initially this was not included because the development team was faced with a limited amount of time and resources, and had to prioritize the modules which were to be included. Crushing was not determined to be one of the most critical needs of the original customer, but we recognize that such technology would make the product more competitive with a higher capacity for recyclables. Crushing could be accomplished with a large-scale compactor within the storage unit, or a small-scale crusher integrated with the sensing unit. A solid model of a proposed design for single unit crusher is shown in Figure 5.

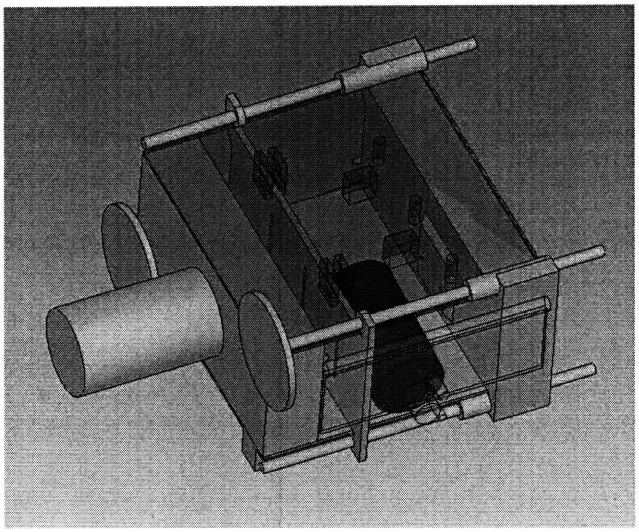

Figure 5: Single unit crusher design

C. How Technology Works

The technology for the Solar Recycle-o-Sort can be broken down into four functional areas: power, electronics, sorting/sensing, and distribution.

Power

A 20 watt solar panel is coupled with a 58 amp-hr battery to harvest and store energy for use when sunlight is and isn't available. Assuming deposit of 150 items per day, this system has the ability to generate enough power with just 6 hours of daily sunlight, and additionally can run without sunlight for up to 5 days.

Electronics

The electronics adhere to an algorithm which is implemented using embedded C in a Microchip PIC p24fj128ga010 16 bit processor. The conceptual diagram is shown in Figure 6.

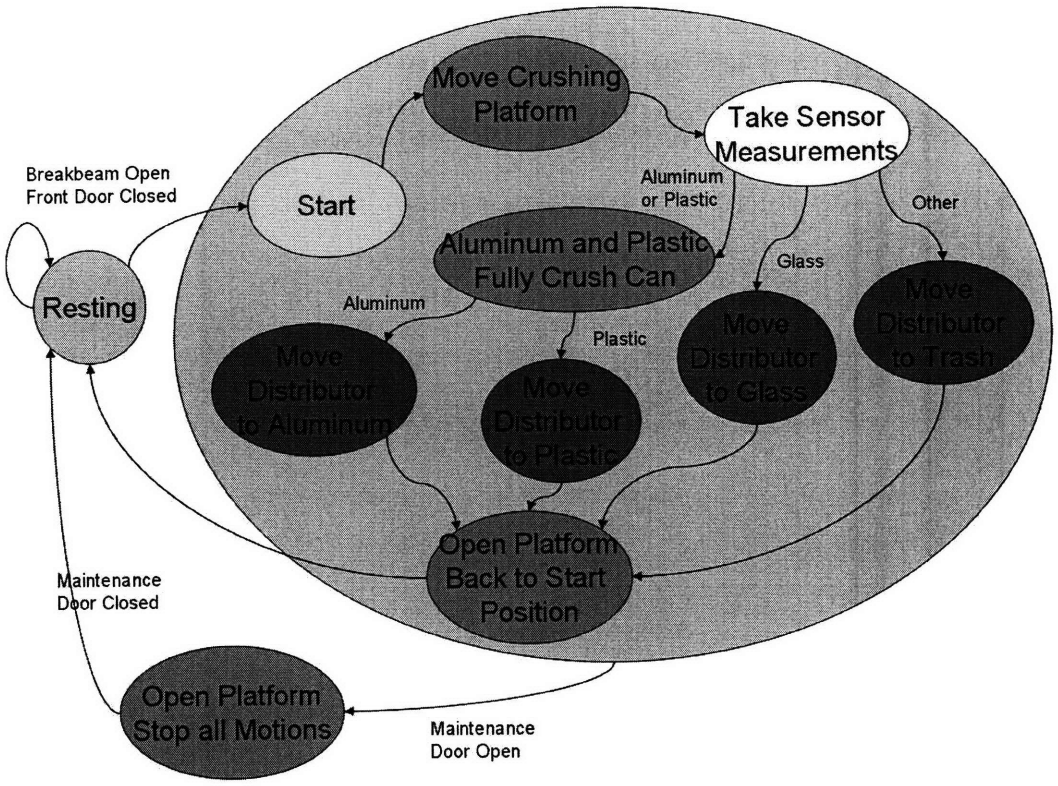

Figure 6: Conceptual diagram for electronic coding

Sorting/Sensing

There are three separate modules within the sensing system. They work simultaneously but independently to provide the information needed to determine the item's identity in less than two seconds. The feedback of the sensors is all binary in order to promote accuracy and minimize calibration. The sensors do not require a lot of power to operate and are only turned on when a break-beam sensor is activated by an item being deposited.

The first sensor is our compliance sensor which serves to determine between plastic and glass bottles. It is made by attaching a long skinny rod, which extrudes out of

and returns back into the fixed wall, to a set of pushbutton switches. The switch provides enough resistance so that when the adjacent moving wall pushes the bottle against the rod, only glass will deflect the rod and trigger the switch. Plastic will deform around the rod, not triggering the switch. Two rods were set up in parallel at a calculated distance to allow for different bottle shapes, sizes, and orientations. But the binary nature of the circuit means it only takes one of the pushbutton switches to trigger for the system to identify it as glass over plastic.

The second sensor is an inductance proximity sensor, used to determine whether the object is aluminum or not. These sensors can detect the change in the inductance from metal objects being placed within a small field. This sensor is placed directly below where the item will be sorted. When the sensor detects the change in its inductance field, it alerts the system that it is aluminum can is present.

The final sensor is an opacity sensor, used to differentiate a plastic or glass bottle from trash. This system coordinates a series of LEDs with an adjacent photoresistor. The photoresistor alters its internal resistance based on the amount of light present. As the moving wall pushes the object against the photoresistor, the LEDs are activated. The amount of light from the LEDs which is able to pass through the object is read by the photoresistor. It then relays this information to the system. Using a threshold value for determination, the opacity of a bottle is enough information to differentiate it from opaque trash. The threshold is set at a level where it is accurate at identifying even dark colored bottles.

	Aluminum	Glass	Plastic	Trash
Compliance	**Yes**	**No**	**Yes**	**Maybe**
Inductance	**Yes**	**No**	**No**	**No**
Opacity	**No**	**Yes**	**Yes**	**No**

Figure 7: Feedback table for each sensor when determining item

Distribution

The distributing module is made up of a circular turn-table which spins on bearings allowing easy motion of the entire system. The sensing platform is attached at a predetermined angle to the distribution system allowing the deposited item to slide down using only gravity into the storage container. The entire coupled system is turned by a servo and a system of gears. Upon determination of where the item should be distributed to, the servo spins the system to aim into the correct bin of the storage container. A second servo is used to open and close a gate allowing the item to release into its applicable bin.

III. The Recycling Industry

A. Competitors

As the first product of its kind, there are no direct competitors who currently aim to sell stand-alone recyclable sorting units. While there are similar technologies employed by recycling centers across the U.S., they are on a much larger scale and cost millions of dollars. We have identified two alternative competitors. In the solar powered waste bin industry there is a relatively new product called the BigBelly made by Seahorse Power. Additionally we will compete with other stand-alone recycle bins already commonly found in public places.

The BigBelly advertises itself as "the world's first and only solar-powered, cordless trash compaction system." The unit has the ability to compact and hold five times the capacity of an ordinary trash can, also functioning on solar power. Reducing the frequency of trash collection trips by 80% it promises to add value through savings in money spent on truck maintenance and fuel[1]. It is priced somewhere between $3,600-$3,900 depending on quantity and configuration of the order[2]. There is the potential threat that Seahorse Power could release a similar product as their BigBelly targeted at recyclables. We hope to defend ourselves against this by following through with our patent in a timely manner to protect our intellectual property.

Standalone recycle bins are already common in many public places including parks, beaches, and other community places. But there are no standalone bins on the market which offer our features such as recycling promotion or sorting technology. These static bins typically retail for around $200, and so find themselves in a much different pricing position. There does not seem to be a serious threat from the companies

that make these products, as the relevant technology in our product involved is not aligned with their businesses.

B. How Recycling Works

Recyclables are generally picked up by material recovery facilities that sort the items and then make money by selling the sorted items to manufacturers. According to the EPA, the majority of material recovery facilities are predominantly sorted manually. Other high technology facilities sort recyclables using eddy currents, magnetic pulleys, optical sensors, and air classifiers. These technologies are very expensive on a large scale, and as previously mentioned are priced in the millions of dollars. Additionally there are few mixed waste processing facilities which receive waste in a similar fashion as waste is received into a landfill. The waste is then loaded onto conveyors, and using manual or mechanical methods recyclables are removed from the waste for processing.[3]

C. Recycling in the U.S.

A Harris Poll taken in July of 2007 found that 23% of Americans still recycle nothing at all. Even worse is that 30% of those aged 18 to 30 do not recycle at all. With the younger generation recycling less than the older generations, it is evident that we are doing a poor job of educating our youth about the rewards of recycling. There are also regional differences in recycling participation with only 12% and 14% of the population not recycling in the East and West respectively, while 32% of the South and 30% of the Midwest not recycling[4].

The poll also found that around 30% of those who said they didn't recycle responded with reasons not related to convenience or effort such as "I don't believe it makes an impact or difference" and "Don't know how" [4].

Based on these statistics, it is clear there are differences in recycling awareness among different demographics. Additionally this provides evidence that more people would recycle if they better informed or promoted.

D. Interesting Recycling Facts[5]

The following facts are included as background information on the effectiveness of recycling for the reader, and are also some of the messages which this unit could promote if included as graphics:

- There is no limit to the number of times aluminum can be recycled.
- The energy required to recycle aluminum is only 5% of that used to produce aluminum from its original source.
- Recycling reduces energy consumption, and saves 95% of the greenhouse gases associated with primary production.
- More than 50% of new aluminum can is made form recycled aluminum.
- The 36 billion aluminum cans land-filled last year had a scrap value of more than $600 million.
- Most glass bottles and jars contain at least 25% recycled glass.
- Glass can be recycled forever.
- If recycled glass is substituted for half of raw materials, waste created from mining and transportation would be cut by more than 80%.

- Recycling plastic saves double the energy as burning it in an incinerator.
- 25,000,000 plastic beverage bottles are thrown away every hour.

IV. Competitive Strategy

A. Customer Needs and Solutions

The two critical customer needs for a product like this are the ability to promote recycling as well as to provide a way for customers to combat community trash problems. In order to promote recycling, we have designed the unit to be fun and exciting. This is mainly accomplished with the novelty of the sorting process, but also with the promotional material which will dress the unit. We have added the LED display to make the experience interactive, and left the middle section of the bin clear so the fast-moving parts are visible to users.

The unit also serves as a receptacle for recyclables to help keep the surrounding areas clean. The provided storage flexibility means items will be packed very efficiently. Additionally, the potential for introduction of a crushing mechanism would greatly increase the storage capacity over any standard waste bin.

Additional needs include the ability to run self-sufficiently. The coupling of the solar panel and battery eliminate the need for any external power or human interaction. Another need is to make collection easy and exclusive. For collectors it is easy remove the storage container, making collection simple. The lock and key also help to prevent unauthorized access to the recyclables within.

B. Potential Buyers

Potential buyers can be classified into two categories: Commercial or community groups, and municipalities. Currently, the only buyers which have been solicited and responded with interest are the commercial and community groups such as our initial

customer of Codman Square. These customers would be interested in our product mainly for its promotional qualities as well as its inherent ability to act as a receptacle for recyclables. With the sorting technology, the customer could also have easy method of collecting refunds for the sorted items in the participating states which offer refunds for turning in recyclables. This could translate to roughly $250 per year if only 100 items were collected and brought for refund each week. There is also significant potential if crushing were implemented, thereby reducing collection trips. This would create value to the customer similar to that by the BigBelly, with decreases in collection costs.

An unexplored potential buyer includes municipalities who are interested in purchasing several units for collection as well as sorting purposes. This interest is only relevant for those municipalities served by low technology recovery facilities that use manual sorting techniques, and are unable to finance an expensive larger scale system. If enough are bought, cost savings from reduced labor could offset the purchase price.

C. Market Positioning

Without the ability to crush items and the presence of the Big Belly, we will market ourselves predominantly as a product used to promote recycling. While our product should also help to quell neighborhood trash problems with it holding items normally placed in overflowing trash cans, this problem could be solved cheaper by an ordinary standalone recycle bin. We will also gauge interest from low-technology municipalities and see if it would be worthwhile to market ourselves to them as a substitute for manual labor. The Solar Recycl-o-Sort will have the ability to sort

recyclables on site, as well as provide communities with a product which can be used in recycling promotion.

D. Expressed Interest

The following commercial entities are interested in Solar Recycl-o-Sort:

Codman Square

Cynthia Loesch

ckl32000@yahoo.com

(617) 905-3914

Family Inc.

Harold L. May, M.D.

haroldmay@familysystem.net

80 Waban Hill Road

Newton, MA 02467

(617) 969-1454

Boston Harbor Association

374 Congress Street, Suite 307

Boston, MA 02210

617-482-1722

mail@tbha.org

Big Belly Inc.

50 Brook Road

Needham, MA 02494

(781) 444-6002

V. Financial Plan

A. Financial Projection Calculations

Financial forecasting presents a difficult challenge for a product still in its developmental stages. It can be useful to turn to competitors in the industry or products in similar markets to estimate figures such as operating costs and margins. A useful resource in constructing this business plan was the business plan of our most comparable product the BigBelly. Fortunately this plan was made publicly available after it won a student business plan competition[6].

The retail price will settle at $2,100 per unit, which with COGS of $650 is on par with the standard 3:1 markup. This price is well within the range of $1000-$4000 gathered from the initial customers.

The demand was estimated under the assumption that sales would be low in the first couple years as the product first became marketed, and would grow to a level where around 150 customers were buying 3-4 units per year.

B. Funding Needs

We are looking for an investment of $125,000 in return for a 49% stake of the company. The money will be used to fund operational expenses and production costs for the first two years. As we enter the third year, we should be running a sustainable business which will additionally start to make a profit. As a 49% owner, the investor will be entitled to 49% of all profits as long as that ownership is maintained.

Using a conservative discount rate of 15%, the estimated NPV of this project is $345,729.64. A 49% share of that NPV is calculated at $169,407.52, corresponding with a 36% ROI for the requested $125,000.

C. Income Statement

	2009	2010	2011	2012	2013
Units Sold	20	90	210	400	550
Average unit price	$ 2,500	$ 2,400	$ 2,300	$ 2,200	$ 2,100
Net Sales	$ 50,000	$ 216,000	$ 483,000	$ 880,000	$ 1,155,000
Average COGS	$ 1,300	$ 1,100	$ 900	$ 700	$ 650
Net COGS	$ 26,000	$ 99,000	$ 189,000	$ 280,000	$ 357,500
Gross Profit	$ 24,000	$ 117,000	$ 294,000	$ 600,000	$ 797,500
Operating Expenses:					
Sales and Admin	$ 25,000	$ 86,400	$ 96,600	$ 146,667	$ 165,000
Research and Development	$ 20,000	$ 43,200	$ 48,300	$ 73,333	$ 82,500
Depreciation and Amoritization	$ 6,000	$ 6,000	$ 6,000	$ 6,000	$ 6,000
TOTAL	$ 51,000	$ 135,600	$ 150,900	$ 226,000	$ 253,500
Operating Income	$ (27,000)	$ (18,600)	$ 143,100	$ 374,000	$ 544,000
Income taxes			$ 50,085	$ 130,900	$ 190,400
Net Income	$ (27,000)	$ (18,600)	$ 93,015	$ 243,100	$ 353,600

D. Balance Sheet

	2009	2010	2011	2012	2013
Assets					
Current Assets					
Cash	$ 62,000	$ 8,400	$ 187,515	$ 437,925	$ 800,166
Inventories	$ 40,000	$ 40,000	$ (80,000)	$ -	$ -
Total Current Assets	$ 102,000	$ 48,400	$ 107,515	$ 437,925	$ 800,166
Property and equipment	$ 4,000	$ 9,000	$ 15,100	$ 22,410	$ 31,051
Total Assets	**$ 106,000**	**$ 57,400**	**$ 122,615**	**$ 460,335**	**$ 831,217**
Liabilities and Stockholders Equity					
Total Current Liabilities	$ -	$ -	$ -	$ -	$ -
Stockholders Equity					
Common Stock	$ 125,000	$ 125,000	$ 125,000	$ 125,000	$ 125,000
Retained Earnings	$ (19,000)	$ (67,600)	$ (2,385)	$ 335,335	$ 706,217
Total Stockholders Equity	$ 106,000	$ 57,400	$ 122,615	$ 460,335	$ 831,217
Total Liabilities and Stockholders Equity	**$ 106,000**	**$ 57,400**	**$ 122,615**	**$ 460,335**	**$ 831,217**

E. Statement of Cash Flows

	2009	2010	2011	2012	2013
Cash Flows from Operating activities:					
Net Income	$ (27,000)	$ (18,600)	$ 93,015	$ 243,100	$ 353,600
- Depreciation and Amoritization	$ 6,000	$ 6,000	$ 6,000	$ 6,000	$ 6,000
Inventories	$ (40,000)	$ (40,000)	$ 80,000	$ -	$ -
Net Cash from Operating activiites	$ (73,000)	$ (64,600)	$ 167,015	$ 237,100	$ 347,600
Cash Flows used in investing activities					
Purchase of PP&E	$ 10,000	$ 11,000	$ 12,100	$ 13,310	$ 14,641
Net Cash used in investing activities	$ 10,000	$ 11,000	$ 12,100	$ 13,310	$ 14,641
Cash Flows Used in Financing					
Issuance of stock	$ 125,000	$ -	$ -	$ -	$ -
Net Cash used in financing	$ 125,000	$ -	$ -	$ -	$ -
Net Increase in cash	$ 62,000	$ (53,600)	$ 179,115	$ 250,410	$ 362,241
Cash at beginning of period	$ -	$ 62,000	$ 8,400	$ 187,515	$ 437,925
Cash at end of period	$ 62,000	$ 8,400	$ 187,515	$ 437,925	$ 800,166

VI. Summary

As the first product of its kind, the Solar Recycl-o-Sort has the chance to face large demand. Recycling promotion is an interest of many communities, and our product effectively meets all customer needs.

With the $125,000 of requested funding, the product would be able to be mass produced and marketed. The potential rewards of such a launch will provide such an investor with significant rewards.

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