



SIMON FRASER UNIVERSITY
ENGAGING THE WORLD

The ChopBox

Elevator Pitch

For the consumers who live in small, one to two person households, and have a passion for cooking at home, The Chop Box is a revolutionary kitchen appliance that provides seamless convenience to complete multiple tasks from a single cutting board. We know how cramped a studio apartment feels like and the importance of maximizing every inch available. That's why our all-in-one bamboo cutting board is designed with 2 knife sharpeners, a digital timer, UV-C sterilizing light, and a weighing scale! In addition, this product is environmentally sustainable due to the recyclable bamboo that we use, along with all the components being replaceable. The Chop Box will allow you to unlock more space in the kitchen, while fitting all your cooking needs in one small and green package.

Situational Analysis

Internal Factors

Company

- a. Our total product cost comes out to approximately \$51.56 CAD. Given this estimate, we believe that a starting markup of 75% is reasonable. This prices our product at around \$90.00 CAD, which is over \$40.00 CAD less than our estimated average spending per consumer of \$133.54 CAD (Appendix A1).
- b. No easily accessible method of acquiring necessary resources to create our product; our team does not include anyone who possesses existing relationships with any component suppliers.
- c. Our team's experience in social media marketing is a valuable asset, as our target market heavily utilizes online media to learn about goods and services.

External Factors

Consumers

- a. Our target market consists of people living in one to two person households. This gives us an estimated market size of approximately 14,149,632 people, living in 9,138,304 one to two person households. The estimated spending per consumer for products equal to the features our product offers is \$133.54 CAD (Appendix C).
- b. Consumers are becoming more conscious of the impact that their purchase decisions are having on the environment, resulting in trend that shifts towards the purchases of more eco-friendly products (Onurlubaş, 2017).
- c. Ecommerce usage worldwide has been on an upward trend for the last five years; this increased global revenue by 264% from 2014 to 2019 (eMarketer, 2019). The sales numbers in Canada showed similar growth, with a 203% increase in consumer revenue from 2012 to 2017 (StatCan, 2019).

External Factors

Competition

- d. The Cutting Board Company offers basic cutting boards, but allows for size customization, while our product is one size. Additionally, consumers who choose this competitor will need to find alternatives to the other features we offer in our product (The Cutting Board Company, LLC, 2014).
- e. Totally Bamboo is a leader in the bamboo cutting board industry, having developed the first commercially available bamboo cutting board in 1999. As a result, they have many pre-established sales channels through ecommerce sites and physical stores, as well as existing relations with suppliers (Totally Bamboo, 2017).
- f. Brands such as Gourmia and FIREDISC offer bamboo cutting boards with additional features such as scales and knife sharpeners, but there is no brand that makes a bamboo cutting board that includes all the features we offer (Gourmia, 2016; FIREDISC, 2019).

Insight #1

Internal	External	Insight
< b >	< e >	<p>Our lack of existing relations with manufacturers/materials suppliers puts us at a disadvantage compared to other brands that have established existing relations with their suppliers. While our end product is a unique concept, our team will need to allocate more resources to initial R&D in order to find and source materials that are high quality. Without this step, there is a higher chance of us encountering delays in our product cycle, including, but not limited to errors in manufacturing and quality control.</p>

Insight #2

Internal	External	Insight
< c >	< a, c >	Social media and online presence plays a large role in our target market/demographic. This increased usage of the world-wide web has led to a constant increase in Canada's ecommerce revenue in the past few years, with a forecasted growth rate peak of 10.1% in 2019 (Statista, 2018). As a result, with a team experienced in social media marketing, and our target market primarily utilizing online shopping, we can infer that our primary sales channel should be online, at least in the early stages of our product release.

Insight #3

Internal	External	Insights
< a >	< a, f >	Our manufacturing and material costs are low enough to allow us to make a profit on our product by pricing our product at a 75% markup, while still keeping the final sale price less than the combined cost (\$133.54) a consumer would have to spend to buy each separate item (Appendix A1, C).

Insight #4

Internal	External	Insights
< c >	< e >	<p>All of our competitors list their products for sale on multiple e-commerce platforms such as Amazon and Wayfair to maximize their online market share. However, the majority of them also sell their products on their own website. From this, we can infer that selling on a company's personal website is more profitable, as the merchant fees associated with selling on online marketplaces are cut out. However, because we are releasing a new product, our aim should be to initially establish and grow our market share by releasing our product on as many e-commerce platforms as possible, rather than limiting our sales to our personal website.</p>

References

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<https://www.census.gov/popclock/>

Appendices

Appendix A1: Cost of Product

In order to find the price of the components we require to make our product, we contacted suppliers overseas to get the costs of ordering parts in bulk (Appendix A2-3). Our component costs are as follows:

- Bamboo cutting board (17."x11"x1.2", 6lbs = same approximate specifications as our product) = \$3.62 CAD/board
- Timer = \$4 CAD
- Scale = \$4 CAD
- 254nm UVC Light = \$11.77 CAD
- Diamond Stone and Ceramic Stone Knife Sharpeners = \$1.06 CAD
- Packaging = \$1.33 CAD

Our final component costs come out to approximately \$25.78 CAD. For the purpose of estimating our final sale price, we are going to use a baseline split of 50% between component costs and labour/manufacturing costs. This gives us a total product cost estimate of \$51.56 CAD. With our estimated spending per consumer at \$133.54, this gives us a margin of over 250% to mark up our product. Given this data, we believe that a beginning markup of around 75% is reasonable, which would price our product at about \$90.00 CAD.

Appendix A2: Supplier Info for Bamboo Cutting Board Cost

	上饶市曼娅实业有限公司 Shangrao Manya Industry Co.,Ltd NO.307, North Xuri Road, Luojiao Town, Shangrao County, Jiangxi Province, CHINA Website: manaygift.en.alibaba.com Email: brandon@manaygift.com Tel: 867938618419 Cell: 8613817187429			
	有效期 Invalid Time	30 Days	报价日期 Quotation Date	2019-10-8 10:24
	產品尺寸 Size	L18" X W12" X T 3/4" Inch L45.5 X W30 X H1.8CM	產品圖片 product image	
	材料 Material	Durable & Eco-friendly High Moutain Bamboo		
	Single Weight	Around 1.70KG		
	Unit Price 单价	FOB NINGBO USD2.72/PC		
	数量 Qty	10,000PCS		
包装资料 Paking Details	1 pc/shrink Wrap, 10 PCS/CTN			
淨毛重 N.W./G.W.:	17.0KGS/18.0KGS			
箱規 Carton Size	47.5 X 31.5X 21CM			



Appendix A3: Supplier Info for UV-C Light Cost

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Appendix B: Cutting Board Sales Data

Average growth of retail sales of cutting boards in the United States from 2010 to 2018:
\$2,575,000 (HomeWorld Business, 2019)

2019 Forecasted Sales for cutting boards in USA = 2018 sales + average growth = \$134,200,000
+ \$2,575,000 = \$136,775,000

21.3% of customers in the United States preferred bamboo cutting boards as of 2019, second to only hardwood cutting boards at 36.1% (HomeWorld Business, 2019).

Estimated spending on bamboo cutting boards in USA in 2019 = \$136,775,000 x 0.213 =
\$29,133,000

Population of United States in 2019 = Approximately 329,800,000 (United States Census Bureau, 2005)

Estimated spending per customer on bamboo cutting boards in USA in 2019 =
329,800,000/\$29,133,000 = \$11.32 USD
\$11.32 USD x 1.35 CAD = **\$15.28 CAD**

Appendix C: Target Market and Spending per Consumer

According to a 2016 census done by Statistics Canada (2016), 98% of the 35.2 million people in Canada lived in private dwellings (34,496,000 people). The 35.2 million population consisted of 14.1 million private dwellings (40%~), with approximately 28% of those private dwellings being one person households, and 34% being two person households (Statistics Canada, 2016).

The population estimate for Canada in 2019 is approximately 37.6 million (Statistics Canada, 2019). Applying the percentages from the 2016 census, we can estimate the following:

- Number of people living in private dwellings in Canada in 2019 = $37,600,000 \times 0.98 = 36,848,000$
- Number of private dwellings in Canada in 2019 = $36,848,000 \times 0.40 = 14,739,200$
- Number of one person households in 2019 = $14,739,200 \times 0.28 = 4,126,976$
- Number of two person households in 2019 = $14,739,200 \times 0.34 = 5,011,328$
- Number of one to two person households in 2019 = $4,126,976 + 5,011,328 = 9,138,304$
- Total number of people living in one to two person households = $(4,126,976 \times 1) + (5,011,328 \times 2) = \mathbf{14,149,632}$
- Average number of people per household = $14,149,632 / 9,138,304 = \mathbf{1.55}$
- Estimated spending on bamboo cutting boards per household in Canada in 2019 = $\$15.28 \text{ CAD} \times 1.55 \text{ people per household} = \mathbf{\$23.66 \text{ CAD}}$

Our target market consists of people living in small, one to two person households that can take advantage of an all in one cutting board, as opposed to having multiple items in the kitchen. As a result, we can estimate our average spending on bamboo cutting boards per households consisting of one to two people in Canada to \$23.66 CAD.

Because our product includes a scale, timer, knife sharpener, and UVC sanitization light, we went on a worldwide ecommerce site (Amazon) to find the average price that a consumer who purchases a bamboo cutting board would also need to spend in order to match the features that our product offers. We primarily looked at the top 10 best-selling items in each category, with the exception of UVC sanitation lights, which are a more specialized commodity.

- Average price of kitchen timers was approximately \$25.10 CAD (Amazon, 2019)
- Average price of compact knife sharpeners was \$11.35 CAD (Amazon, 2019)
- Average price of kitchen scales was \$20.50 CAD (Amazon, 2019)
- Average price of UVC sanitation lights was \$52.93 (Amazon, 2019)

Adding up all of these costs gives us an estimated spending per consumer of **\$133.54 CAD** (\$157.20, if we take into account the fact that our product consists of two separate cutting boards).


Appendix D1: Competitor – The Cutting Board Company

Bamboo Cutting Boards

SORT BY:

Featured Items

2" Thickness




2" Thick Amber Bamboo Custom Cutting Board - Natural Edge Grain

\$0.23

BUILD YOUR BOARD

3/8" Thickness




3/8" Thick Amber Bamboo Custom Cutting Board - Natural Edge Grain

\$0.12

BUILD YOUR BOARD

1/2" Thickness




1/2" Thick Amber Bamboo Custom Cutting Board - Natural Edge Grain

\$0.14

BUILD YOUR BOARD

3/4" Thickness




3/4" Thick Amber Bamboo Custom Cutting Board - Natural Edge Grain

\$0.18

BUILD YOUR BOARD

Appendix D2: Competitor – Gourmia



Gourmia GKS9140L Cutting Board Scale Bamboo Food Prep Board With Removable Bamboo Kitchen Scale 17.5" x 12.0" x 1.5" Great for Cheese, Charcuterie & Veggie Prep

BUY NOW FROM Amazon

M.S.R.P. \$65.99

- MULTIPURPOSE CUTTING BOARD - Premium Bamboo Cutting Board Features Extra Large Food Prep Platform With Slide-Out Scale for Weighing Ingredients
- DIGITAL KITCHEN SCALE - Removable Electronic Scale Provides Highly Accurate Readings in 2 Units [Grams or Ounces] Up to 6kg Capacity [11lbs.]
- DIGITAL INTERFACE - Small But Powerful Scale Runs on Lithium Battery & Includes Easy Read

Appendix D3: Competitor – FIREDISC



360°



BAMBOO CUTTING BOARD WITH KNIFE SHARPENER (LIMITED EDITION)

★★★★★ 12 REVIEWS

ASK A QUESTION

\$49.99

IN STOCK

QTY 1

ADD TO CART

SALES

This eco-friendly bamboo cutting board is made from 100% natural bamboo and comes equipped with a built-in knife sharpener on the corner edge, so you'll always have a sharp knife. Bamboo is a very durable material and provides a harder surface than most wood cutting boards. Plus, the natural bamboo grain pattern adds a special look that will stand out. Natural finish is carbonized, with no dyes or stains used.

Project Component 1 --- Individual Homework

Appendix E1: Nicholas Individual Homework

A Preliminary Product Idea

A one-touch vacuum system that utilizes food storage containers rather than plastic bags, etc. Integrates amazon alexa, which can replace the need for a smart speaker in the kitchen, and also provides easy access to online answers about certain products/produce etc.

<https://www.kickstarter.com/projects/simplifyfreshness/your-remarkably-simple-one-touch-connected-vacuum?ref=discovery&term=drink%20container>

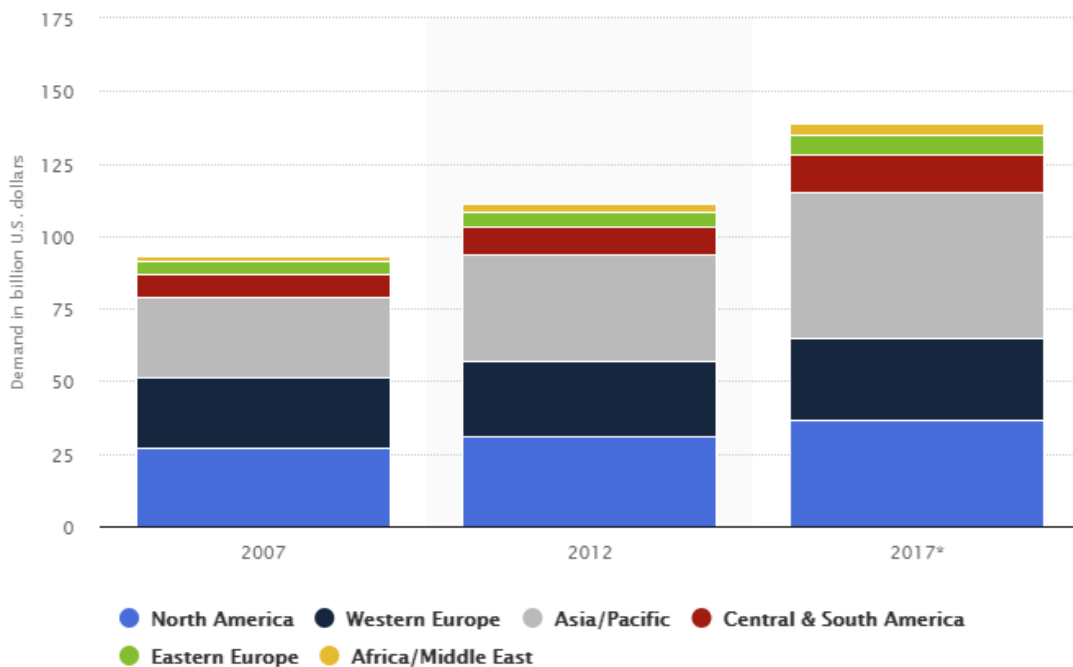
External Facts (Consumers)

Fact 1:

Food container packaging demand worldwide from 2007-2017

<https://www-statista-com.proxy.lib.sfu.ca/statistics/498618/food-container-demand-worldwide-by-region/>

Packaging Digest. (March 5, 2014). Food container packaging demand worldwide from 2007 to 2017, by region (in billion U.S. dollars) [Graph]. In *Statista*. Retrieved October 03, 2019, from <https://www-statista-com.proxy.lib.sfu.ca/statistics/498618/food-container-demand-worldwide-by-region/>



Demand for food packaging containers reached \$31.3 billion US dollars in 2012

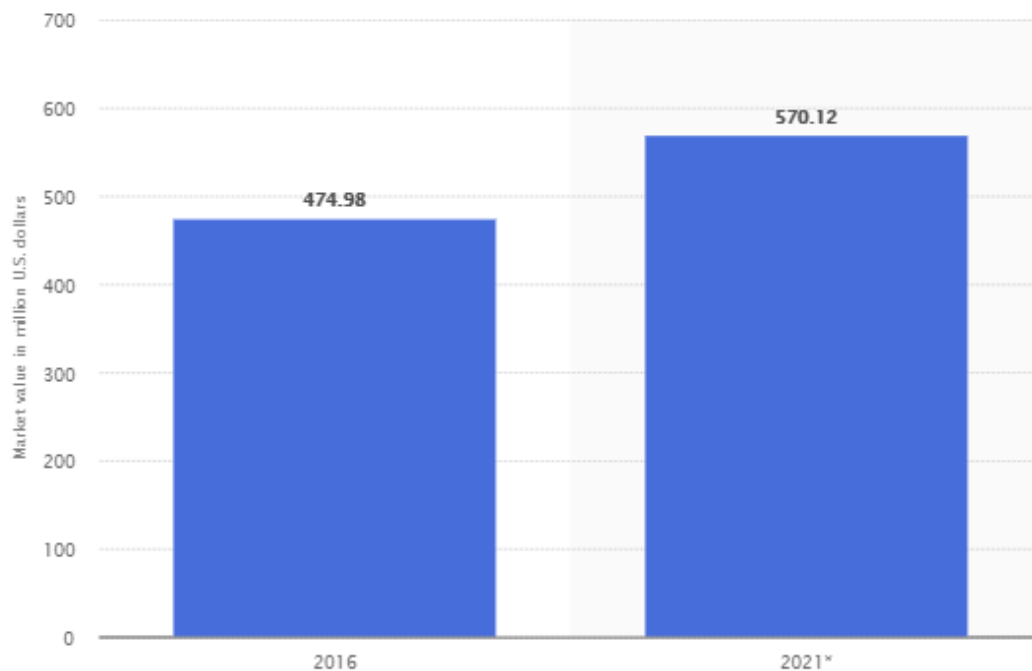
Project Component 1 --- Individual Homework

How many of those also use vacuum sealers?

Fact 2: Value of food storage container market in US in 2016 and 2021

<https://www-statista-com.proxy.lib.sfu.ca/statistics/967094/food-storage-container-market-value-us/>

Business Wire. (March 8, 2017). Value of the food storage container market in the United States in 2016 and 2021 (in million U.S. dollars) [Graph]. In *Statista*. Retrieved October 03, 2019, from <https://www-statista-com.proxy.lib.sfu.ca/statistics/967094/food-storage-container-market-value-us/>



Fact 3: Number of small electrical kitchen appliances in Norway in 2016

<https://www-statista-com.proxy.lib.sfu.ca/statistics/746739/number-of-small-electrical-kitchen-appliances-sold-in-norway-by-type-of-product/>

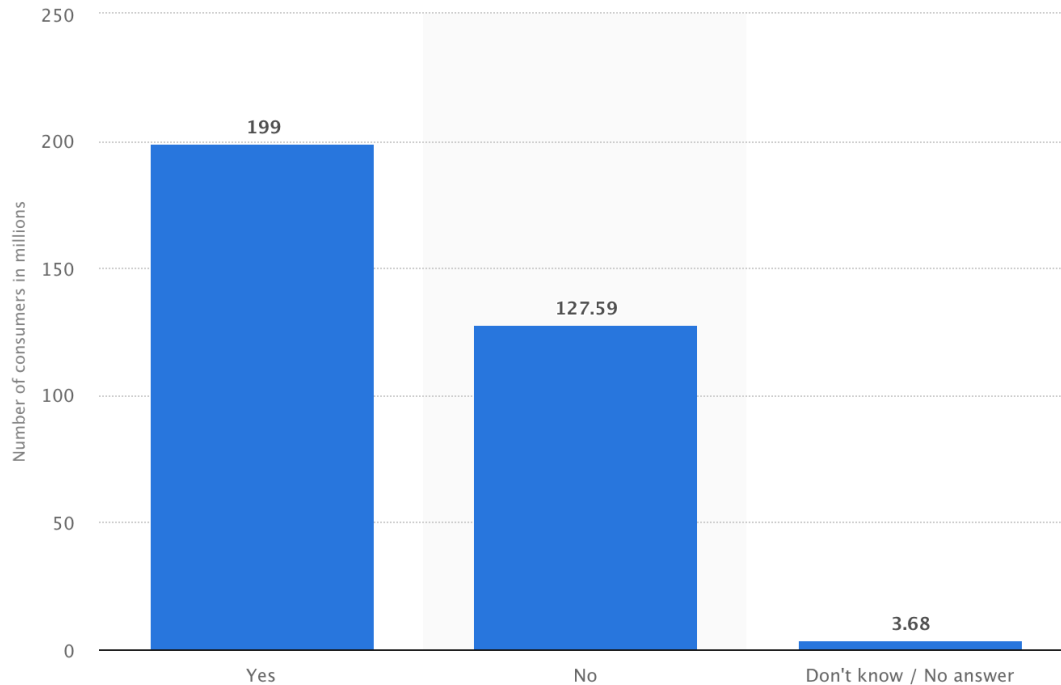
Stiftelsen Elektronikkbransjen. (February 1, 2017). Number of small electrical kitchen appliances in Norway in 2016, by type of product (in 1,000s) [Graph]. In *Statista*. Retrieved October 03, 2019, from <https://www-statista-com.proxy.lib.sfu.ca/statistics/746739/number-of-small-electrical-kitchen-appliances-sold-in-norway-by-type-of-product/>

Compare size of Norway and Canada, provide relevant linking information, and then make a rough estimate based on potential scaling.

Project Component 1 --- Individual Homework

Realistically, each household would only have one vacuum packaging device

Fact 3: US Use of disposable food containers in 2019 – 199 million in USA use them.



Statista. (July 26, 2019). U.S. population: Do you use disposable food storage containers? [Graph]. In *Statista*. Retrieved October 04, 2019, from <https://www-statista-com.proxy.lib.sfu.ca/statistics/275480/us-households-usage-of-disposable-food-storage-containers/>

External Facts (Competition)

Fact 1: Food saver vacuum sealers – utilizes plastic bags rather than containers to vacuum seal. Been around the industry for longer – established market share.

Fact 2: Airtight containers? No “direct” competition, as majority of vacuum sealers use plastic bags. If vacuum sealed is too narrow, go into market for resealable containers, not vacuum sealed

Internal Facts (Company)

Fact 1: Cost of new product.

\$80,000 funding goal on Kickstarter – raised \$1,424,565 total.

Project Component 1 --- Individual Homework

- Money for operations already secured from investors – money pledged via kickstarter campaign reserved for manufacturing only

Potentially find information about manufacturing/product costs for other vacuum sealers.

Project Component 1 --- Individual Homework

Appendix E2: Derek Individual Homework

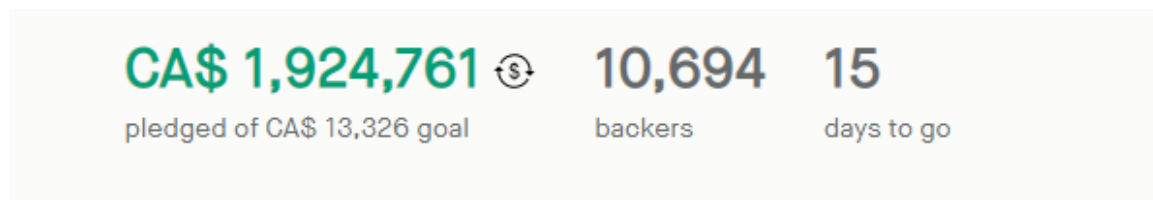
A Preliminary Product Idea

All-in-one high quality cutting board that replaces essential kitchen tools by having the features built into the board.

<https://www.kickstarter.com/projects/theyescompany/chopbox-a-new-way-to-cook/description>

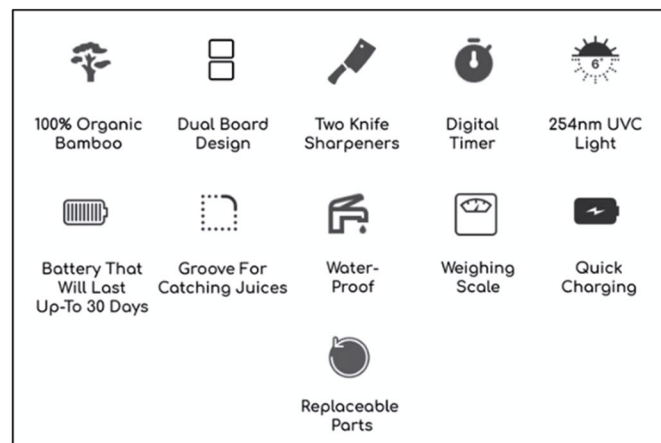
External Facts (Consumers)

Fact 1: [Minimum 10,000 consumers.](#)



Source: <https://www.kickstarter.com/projects/theyescompany/chopbox-a-new-way-to-cook/description>

Fact 2: Like a regular cutting board, but it comes with a 2nd board and additional features that replaces the need for separate equipment. This board provides all your essential cooking tools in one workspace.



Source: <https://www.kickstarter.com/projects/theyescompany/chopbox-a-new-way-to-cook/description>

Fact 3: Great for 1 bedroom and studio apartments due to their small living space.

Project Component 1 --- Individual Homework

Fact 4: Keeps your family healthy and free from sickness! 254nm UVC light kills 99.99% of germs in just 1 minute.

Fact 5: Super cost-effective product!

	Timer	Sharpeners	Board	Sanitizer	Scale	PRICE
	✓	✗	✗	✗	✗	\$15
	✗	✓	✗	✗	✗	\$20
	✗	✗	✓	✗	✗	\$40
	✗	✗	✗	✓	✗	\$70
	✗	✗	✗	✗	✓	\$20
	✓	✓	✓	✓	✓	\$99

External Facts (Competition)

Fact 1: Competing cutting boards don't have a self-sterilization system which means it is building up bacteria over time. Even if you try cleaning it yourself, the grooves created by knives create the perfect space for bacteria to hide and grow.

Fact 2: Most cutting boards are made from plastic or wood (i.e. maple, cherry). Plastic boards are typically easier to clean, but there's no way to avoid deep grooves and scratches. High quality traditional wood boards are tougher, but need regular maintenance (beeswax or oil) to prevent cracking in the board.

Fact 3: The United States Department of Agriculture (USDA) "recommends using a bamboo cutting board because it is harder and less porous (so it absorbs less moisture) than hardwoods and is easy to clean"

Source: https://www.canr.msu.edu/news/cutting_boards_and_food_safety_1

Project Component 1 --- Individual Homework

Internal Facts (Company)

Fact 1: \$100/board. This is the current price on Kickstarter.

Fact 2: Could be expensive to produce if we don't have a close relationship with manufacturer. Would need to contact suppliers (i.e. Alibaba) for quotes.

Fact 3: We can easily market our product over social media to increase product awareness. The Kickstarter campaign hasn't been actively promoted by their team on social media.

- They have 3 posts on Instagram; The last post was on Aug 18.
- They don't have a public Facebook page

Project Component 1 --- Individual Homework

Appendix E3: Christina Individual Homework

A Preliminary Product Idea

<https://www.indiegogo.com/projects/the-moss-lawn-save-the-planet#/faq>

The moss lawn: the objective is to make lawns sustainable by using moss to replace grass. As moss does not require any mowing, watering or fertilizing, people can save tons of water, prevent air pollution and protect wildlife.

External Facts (Consumers)

Fact 1:

Occupied private dwellings and types of dwelling, by region, 2016

	Occupied private dwellings	Single-detached houses	Apartments in a building that has five or more storeys	Apartments in a building that has fewer than five storeys	Apartments or flats in a duplex	Other dwellings ¹
	number		percent			
Canada	14,072,080	53.6	9.9	18.0	5.6	12.9

Census shows that in 2016, 7542635 Canadian own single-detached houses.

Assume 50% Canadian are willing to try the moss lawns, and the average spending per household is \$265 (the amount to buy a medium moss kit), the total revenue would be \$886,259,612.

Source:

<https://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016005/98-200-x2016005-eng.cfm>

Fact 2:

Frequently Asked Questions

Moss is already growing in my lawn. Why buy your clusters and kits?

We encourage anyone with moss growing in their lawns to accommodate and promote its growth. Our Solar moss is beautiful, and it shatters the conventional belief of what moss should look like. Our moss is like little a carpet of mini trees - it's full, tall (at about 3" high), vibrant, and basically like a velvet carpet for your lawn. It's also extremely hardy, has fast growth, and has a strong sun tolerance. Basically, it perfectly combines aesthetic and function.

Many people hate moss in their lawns. The difficult part of encouraging people to build a moss lawn is to convince them that the solar moss is beautiful in fact, and saves people a lot of time and money from taking care of the lawn.

Source: <https://www.indiegogo.com/projects/the-moss-lawn-save-the-planet#/faq>

Fact 3:

There are lots of rules and restrictions on the lawns. People definitely spend huge amount of time on taking care of their lawns.

Project Component 1 --- Individual Homework

Government of Canada's tips on maintain the lawn: <https://www.canada.ca/en/health-canada/services/home-garden-safety/maintaining-lawn.html>

External Facts (Competition)

Fact 1:

Moss is relatively easy to care for once it is established. No fertilizers or pesticides will be required to encourage growth or keep unwanted visitors away. Omitting these chemical treatments makes your lawns safer and more ecologically beneficial to the wildlife (pictured Sooty Grouse) that use them.

Moss is easy to take care of. They require no watering, no mowing, nor fertilizing. While having lawn maintenance once costs hundreds of bucks, people are more likely to choose a moss lawn. Besides, no other plants are perfect substitutes for moss. Therefore, the market competition is not that intense.

Source: <http://content.yardmap.org/learn/benefits-ecology-moss-lawn/>

Internal Facts (Company)

Fact 1:

Each group member has their own skills and advantages. We grew up under different culture backgrounds and know well about our own countries. Therefore, if the product goes to globalization, we have the insight of potential opportunities or challenges when it comes to different cities or countries.

Appendix E4: Erwin Individual Homework

Product: Solar Curtain

First, there is the solar panel, then there is the solar car. I am introducing the solar curtain which provide every homeowner the ability to generate their own power.

Internal & External Factors

Internal Factors	External Factors
<ol style="list-style-type: none">1. Renewable energy2. Sounds fancy, a product from future.3. Reduces use of fossil fuels4. Good homeowner investment5. CO2 free6. Low maintenance7. Reduces energy import	<ol style="list-style-type: none">1. With technology improvement reducing the implementation cost of solar curtain, it will be a trend for society to use this product.2. Combats global warming3. Prevent Destruction of Habitats4. Generate jobs

Internal fact 1

Renewable energy is the trend in our society. There is a significant increase in household usage on solar energy where many home owners are limited by only able to buy solar panels. With the introduction of solar curtain which is easily accessible, there will be a dramatic increase in usage of solar energy product

<https://www.seia.org/solar-industry-research-data>

External fact 1

Reducing the use of fossil fuels is something that the new generation are fairly aware of. By using this product, we can slow down global warming and prevent destruction of habitats. It plays a important role of combating greenhouse gas emission

<https://www.eia.gov/energyexplained/renewable-sources/>

Internal fact 2

Solar energy is a great home investment product. The technology is slowly decreasing the manufacture cost of solar energy. From the data and graph, we can clearly see that homeowner can save money in the long run by using solar panel.

<https://ourworldindata.org/renewable-energy>

External fact 2

A new product like this which can easily attract millions of consumer can easily generate a series of job. With the increase in population and home building, solar curtain can be a stable industry.

<https://www.thesolarfoundation.org/national/>