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## 1 Introduction

This product is designed as a new type of food container, with the more esoteric term being meal prep container. The meal prep space has lacked any evolution over the past few decades. The problem this container solves is that all meal prepping today is a situation where the food is designed around the container rather than the container being designed around the food. Meal prep containers are nearly definitionally composed of three sections. A large section composing half of the available space and two additional sections composing a quarter of the container. This new design turns this notion on its head where the container has dividers that are capable of moving all around making each section a customized size. The divider slides into place making countless combinations of sectioned off areas. A user could take the dividers out entirely to have a single large section. Split the container into halves. Split it into quarters. Maybe even into twelfths. I could keep going but my point is clear. Having the capability to divide food while prepping for the day, tomorrow, or the whole week is crucial. No one likes having their pasta mix with their brownie which mixes with their green beans. As an initial point of inspiration, the subreddit r/mealprepsunday has millions of active followers and following the 90/10/1 rule has had tens of millions of redditors visit the subreddit. This subreddit is dedicated to meal prepping and as I was scrolling through it there seemed to be a recurring problem in all of these posts. The containers they use are incredibly miscellaneous, nonfunctional, and unstandardized. A typical hard core meal prepper (one who preps the majority of their meals) uses hundreds of types of containers, ones with different sized sections, containers that are round or sometimes square or maybe rectangular, are 2 inches high or sometimes 4 inches high, with dimensions that are all completely out of whack. Why is this? Because the minute a meal prep decides to have a uniform collection of containers they lose the versatility in what they can cook when meal prepping. They would then have to cut their slices of chicken to fit their 12 fl oz section, or decide brownie OR pasta because the foods would inevitably mix. The consumer does not want a house filled with 20 different types of containers and they don’t want to limit what they eat by the limited capabilities of a singular container. This product disrupts this. And maybe, if this product line can be expanded to other types of containers(both types of containers glass vs plastics and rectangular vs circular containers), could solve the problem in its entirety.

## 2 Definitions

Containers = Units, cases = packages

## 3 Planning

My past assumption was that writing down the steps and a business plan in general is a poor use of time. It is now clear that this step not only has value but is crucial. Writing down obvious things somehow provides immense clarity and frees mental space trying to remember every detail. With that, here I plan to write the plan of each step. I should really consider a mechanism or method to organize/contain loose leaf parts (like slots on the lid where dividers can rest when not in use).

## 3.1 CAD plan

I have an existing CAD, the problem is that the design is somewhat incomplete. Some alterations need to be made. The lid still needs to be designed or at least be ready to be usable with an existing lid design. I need to make sure the container capacity is set and standardized. I do not know whether these alterations need to be made in order to have it manufactured, but I certainly need this as well as a technical drawing in order to file for IP protection.

## 3.2 IP plan

Do I need a lawyer or can I just file a Provisional Patent Application (PPA)? Do I need to file for an application in just the US or abroad too? I need to discuss this with a law consultant. I believe there are free resources available with SBA or another organization. This step is ready once CAD is finalized.

**3.3 Prototyping/ Proving Concept/Manufacturing**

Once IP is decided as possible or not I can proceed forward. I may have to abandon the product without IP protection because I would be paying immense up front costs just for the design to be stolen by someone else, perhaps even the manufacturer I am working with. Must control mold use.

In the case I can move forward whether because going to market is still feasible or because IP is realistic I can then market the design on platforms, centrally reddit or perhaps kickstarter to get some funding and exposure as well.

If sufficient demand is seen through the internet, I can then proceed to discussions with a few manufacturers. Cost wise this product almost certainly should be made in China, but since high quality manufacturing is required this may or may not be an option. Customers may also value a domestically produced product and if they are willing to pay a premium for that it should be done. This is not known at this time and some market research regarding this is still required. I will use a sourcing agent to do this effectively. At this point the decisions regarding the material (whether I will do just plastic or also glass) and what type of manufacturing will be done at scale (casting or injection molding) and whether the molding would be done abroad or domestically (if necessary). I then receive samples from the manufacturers I am considering. Provide updates to the internet. Pick manufacturer and begin production

I also must determine the number of units sold in each case. Will I have a range of case sizes with some having 3 units, some 1 units, some 10 units? How many dividers per case is critical, will users really want 6 dividers per unit (meaning a 10 pack will have 60 loose dividers lying around)? Stackability is crucial in the meal prep space while containers are actively used or are sitting in the cupboard.

**3.5 Selling**

Will I set up my own shopify store? Sell just on Amazon? A combination of the two? I will inevitably try both but where to start is an important decision at the moment and I do not know the answer quite yet. If successful I can consider selling in retail or licensing to another company but this cannot be part of the calculus as it is far from now.

Reiterating what was mentioned in the previous section, having the optimal divider to container and number of containers per case is key. Optimize based on customer and costs, not personal opinions.

Based on this being an improved design and by it definitionally having to be a thicker and sturdier material than competitors this must be a high end product. It must be manufactured with high quality and it must be marketed as such.

## 4 Niche

This step is evaluating the meal prep niche in order to best make decisions.

## 4.1 Competitors

***Ranked from popularity, left to right***

Manufacturing Location:

Material composition (by volume sold):

Container capacity:

Units per packages:

Amazon sellers by revenue:

Sellers most similar:

Sub-Niches:

Is copying others in industry a good idea? Perhaps breaking the mold to differentiate is a good thing (e.g. less units per case = higher perceived quality)?

How quickly would a competitor imitate my product?

Other notes?

**4.2 Evidence of customer demand**

To be filled in once IP is filed and step have been taken on Kickstarter/Reddit/Etc.

**4.3 Customer Demographics**

***Ranked from popularity, left to right***

\*these are guesses, future research needed\*

Customer Values: price, utility, aesthetics, safety (BPA), ease-of-use, environmental impact

Typical Customer demographics: income bracket, organized, health conscientious, gender, fastidious, race, age, location (state or country), location (urban, suburban, rural), use case (meal prep, B2C, portion control, food cost savings, time saving, forced nutrition), price sensitivity

## 5 SWOT analysis (competition)

Strengths: Being first.

Weaknesses: Lack of capital, lack of infrastructure, unestablished supply chain, poor negotiating power, large up front time and capital costs, underdeveloped marketing schemes, generally higher costs, no business reputation, no SEO, lack of industry knowledge

Opportunities: IP, expanding into other classes of containers and material types

Threats: Rejected IP, similar enough products, big learning curves, business mistakes

## 6 SWOT analysis (product design)

Strengths: Less containers needed, more dynamic choices, consistency of container shape

Weaknesses: People do not like unattached parts, confusing set up, needs product education, needs to be thicker than competitors

Opportunities: *same as 5. SWOT analysis (competition)*

Threats: *same as 5. SWOT analysis (competition)*

## 7 Manufacturing

This section discusses plans to navigate manufacturing based on the previous SWOT analyses, competitors, customer demographics, selling requirements, manufacturing requirements, IP conclusions, evidence of customer demand, and design updates/requirements.

15. next up circular design with same divider size

7.1 Method of production

Plastic version will almost certainly be polypropylene.

Most likely injection molding for everything save for the dividers which will likely be laser

or water cut

## 7.2 Material Composition:

## 7.3 Location

## 7.4 Units per package

## 7.5 Order quantity

## 7.6 Container size

## 7.7 Aesthetic packaging design

## 7.8 Shipping

## 8 Storage (necessary?)

## 9 Selling

## 9.1 Selling mediums

## 9.2 Pricing strategies

## 9.3 Marketing

## 10 Financial Planning

## 11 Costs

## 11.1 IP

## 11.2 Sample

## 11.3 Molding

## 11.4 Manufacturing

## 11.5 Shipping

## 11.6 Selling (Amazon or Shopify)

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## 11.8 Legal (LLC)

## 11.9 Insurance (trade, shipping, lawsuit)

## 11.10 Returns

## 12 Revenues

## 12.1 Sales forecast

## 13 Cash Flow

## 13.1 Cash flow forecast

## 13.2 Break even analysis

## 14 Other risks

## 15 Future expansions

## 16 Environmental Considerations

## 17 Appendix

Once completed, read through again. Make a to-do list. Compare it to the plan section. Do what's on the list. Consolidate section 1-2 & 3-6.

Add inspection section if doesn't exist yet

15. next up circular design with same divider size

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To do list:

1. Get in communication with a lawyer to see IP viability networking through (SCORE, SBDC, Law School Clinics, LegalShield, SBA, EDC, chamber of commerce). I am rather convinced a patent is not worth pursuing until mass production has begun and there is a very clear proof of demand and until that point a provisional patent to get a filing date is likely the best scenario. Research leads me to come to the conclusion that booking a consultation (that likely costs money) would be worth it for the clarity, understanding, and for the sake of creating a sophisticated game plan. The patent attorney/agent should have a background relevant to the product, so in my case mechanical engineering, manufacturing, CAD. “Keep in mind that patent searches must be completed by the skilled search specialist, not the agent or lawyer. Insist on getting a knowledgeable person to present a patentability opinion in writing. They will write a written opinion that states and evaluates the claims for your invention while also reviewing and mentioning applicable past related patents found in a search.” It is better in almost every way to work with a professional that works for themselves rather than working for a firm. Make a short list of professionals to work with then set up initial interviews (usually free). Patent agents seem to be much cheaper and more specialized when creating the patent but a patent lawyer is necessary to pursue litigation against infringers.The absolute minimum cost for a patent is 10k with big ranges on the more expensive side.

Other advice that seems logical but also seems to be a big price increase and difficult to find:

“Pick one that does more than preparation and prosecution. One that has business acumen, look for things like start up law experience on their website”

1. Reach out to manufacturers to see about doing a test run and to see how necessary working with a design studio is
2. Make design public by posting on reddit, kickstarter, etc. gather information for evidence of customer demand, suggested tweaks, and start building a network of future customers or maybe funders.
3. Work with a design studio to optimize dimensions to the micron, optimize angles, add any corrugations, design accompanying lid, determine ideal materials used, importance of test run and product testing in general, determine doming, design to be ergonomic, design for injection molding, drafting, number of units per package, number of dividers per package, exact volume
4. Find a mold creator, likely abroad. Determine mold material, any guarantees regarding mold, 3rd party inspector to ensure quality

* Notes: Injection molders sometimes make molds themselves and other times they use a mold specialist. Different injection molders have different machinery and a mold will work better at some facilities rather than others. There is a difference between the injection molding facilities and the injection mold maker but again sometimes an in house. Mold creators can be found domestically or overseas. It takes about 6-8 weeks to make molds. (I am still unsure whether the dividers would be molded, laser cut, water cut, or something else). Key point: the tooling and molding costs are astronomical so there must be complete certainty about every part of the design (extra renders and designs to be certain), quantity to be created, mold material, number of cavities per mold, specificity of mold, production or prototype focused mold basically, production material, sizing, shape, variety of the two, etc. you never want to pay for a mold to be retooled. Injection molding is really just for runs of 100,000 units or more.

1. Determine where to manufacture once mold is procured. Doing a full cost benefit analysis.
2. Figure out packaging. Use a co packer, have the manufacturer do it, etc.
3. Determine method(s)/platform(s of selling
4. Determine shipping and freight strategy
5. Determine marketing strategy, creating website, shipping timeframes, return policy, and ad campaign
6. More publicity, add more variations, do shit like shark tank. Revisit IP considerations.

Find out IP options, hire a design studio to design for injection molding and doming,do a small production run to get a final proof of concept, post on subreddit, consider a go fund me,