EyrChill™

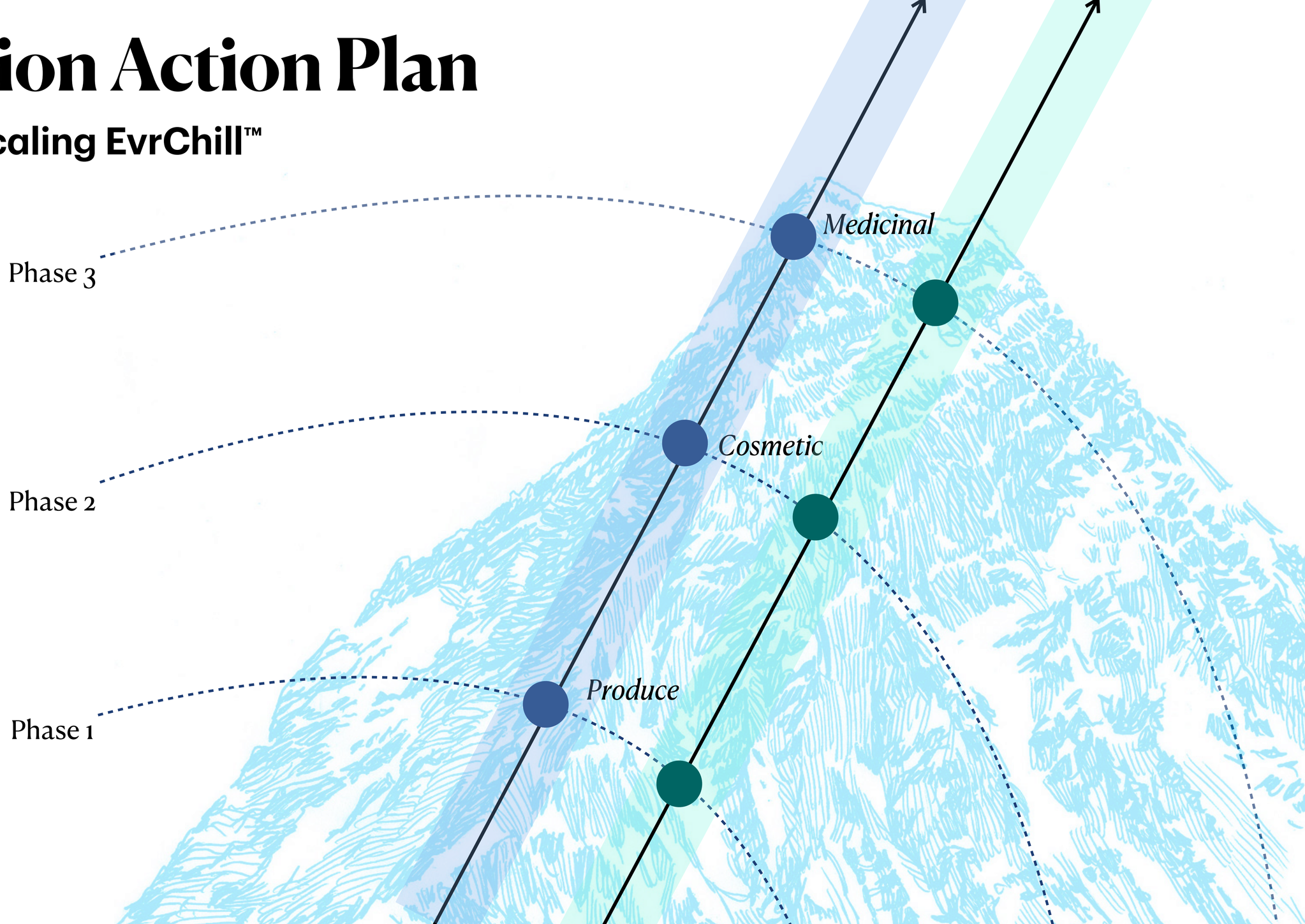
DSGN407 Making Things

Remy Tabano // Winter 2021

An ecosystem of tabletop chilling devices for consumer and commercial use.

Expedition Action Plan

Scaling EvrChill™



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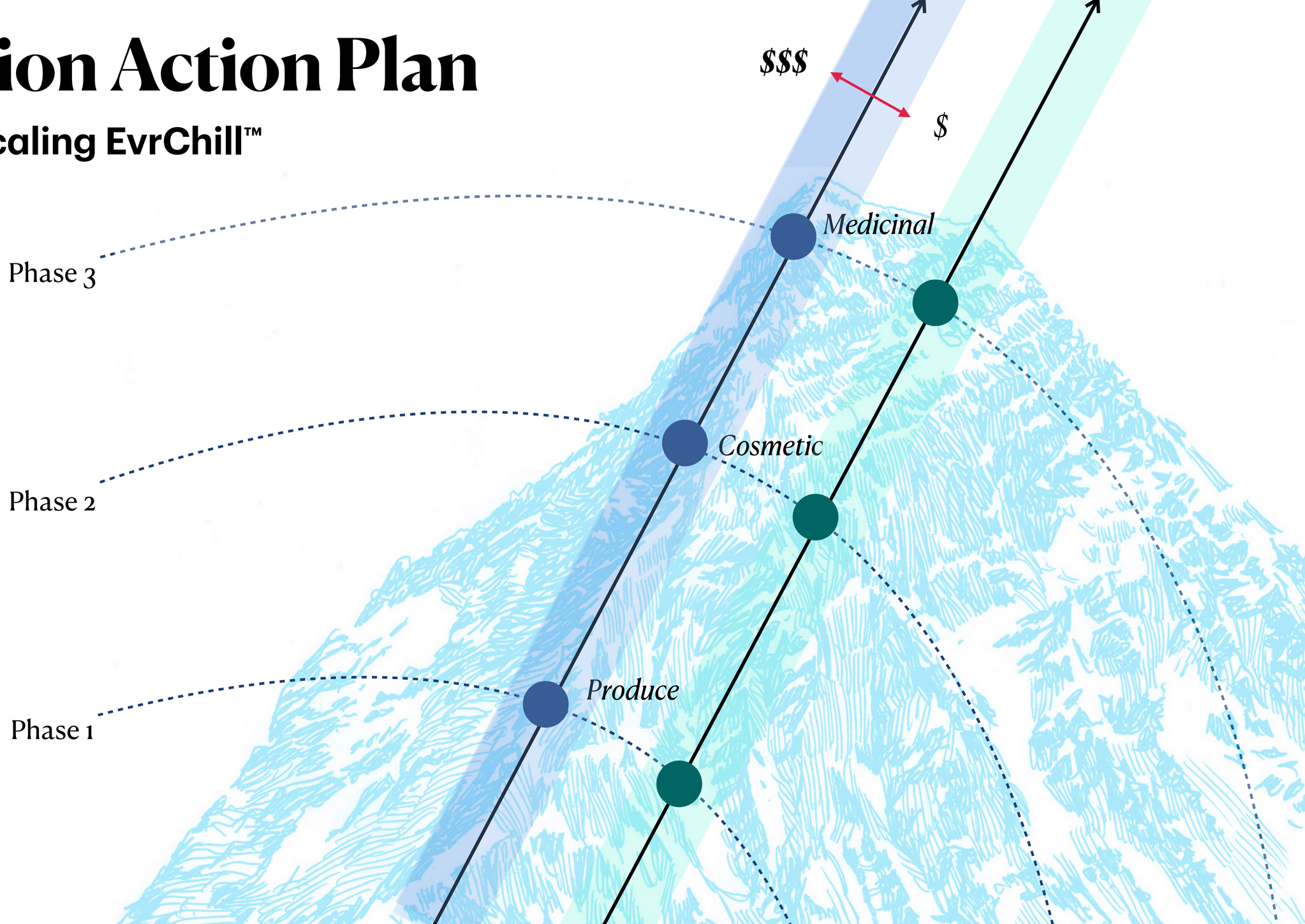

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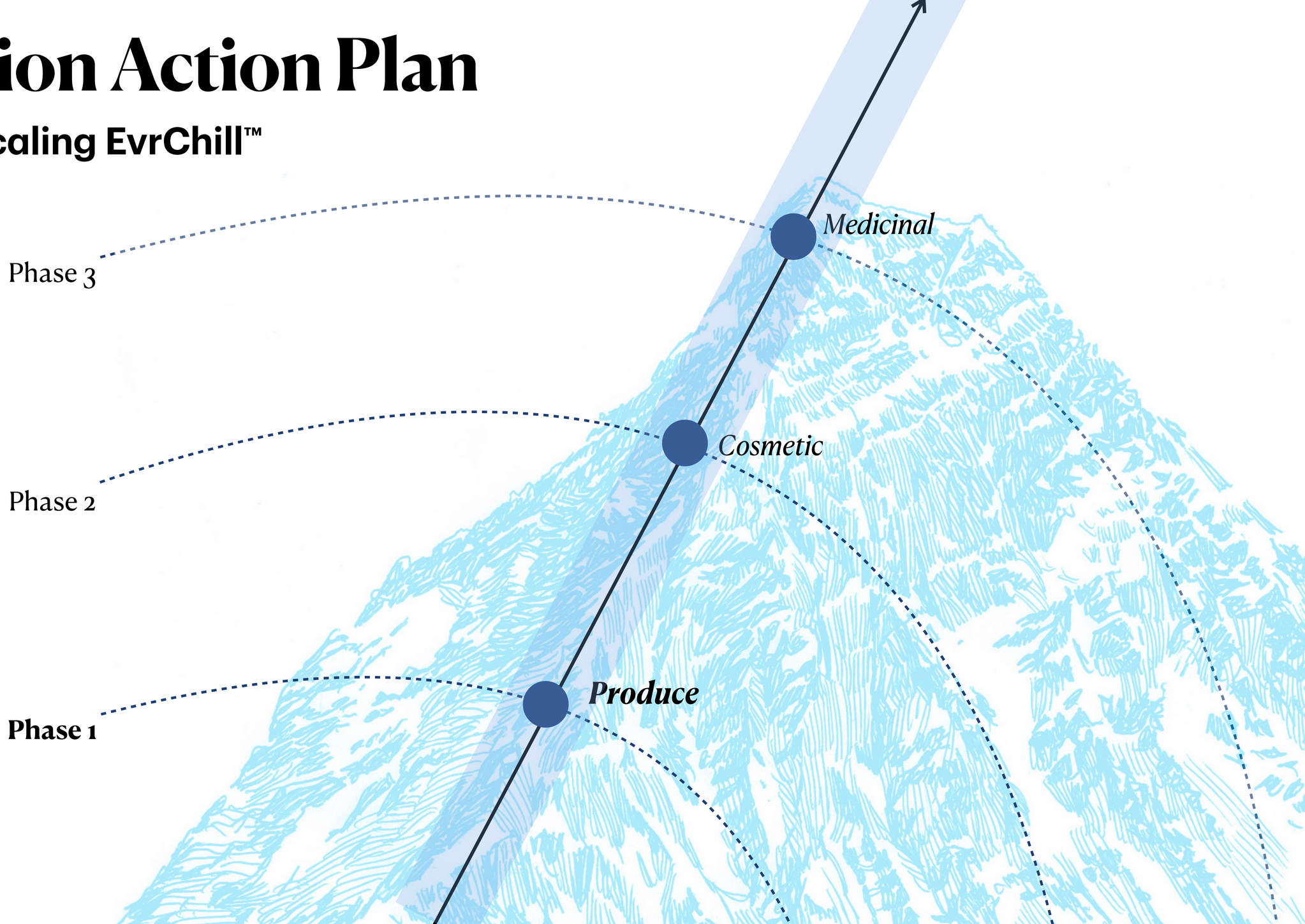


A chilled fruit bowl with *display worthy* design.

Healthy Habits

“They grab a lot of unhealthy snacks. But they do love when I put out fresh produce; I would buy more but it just gets wasted.”

Ashley T.
Mom of three children, aged 2-10

Identifying the Root Problem

Preservation

Aesthetic

Organization

Accessibility

STORAGE

Identifying the Product Purpose

- **Values**

  Busy parents that believe in providing their children with healthy sustenance. Willing to splurge on products that help them maintain a clean aesthetic, and seamlessly integrate into their lifestyle.

- **Emotional Needs**

  Sleek, elegant *display-worthy* design that is engineered to effectively *maintain cool temperatures*.



















Aspirational Home Decor

EvrChill™

Fruit Bowl


BAZZINI

Materials & Manufacturing Methods

Bill of Materials

PART	PART DESCRIPTION	QUANTITY	CRITICAL DIMENSIONS	MATERIAL
Bowl	Basin with depth for fruit (produce) storage.	1	**L** 4”H x 9.5”D **M** 3.5”H x 6.5”D **S** 2.5”H x 5”D	6061 Aluminum / 18-8 SS
Cover	Lid for bowl cut to match exactly to ensure temperature seal.	1	TBD	Acrylic
Power Supply with DC Support Panel	12V AC / DC power adapter cord.	1	6 ft. Long	
Thermoelectric Cooler	Generate temperature differentials by transferring heat between two electrical junctions.	TBD	TBD	
Heat Sink	Passive heat exchanger to dissipate away, mounted with thermal conductive adhesive tape.	TBD	TBD	6061 Aluminum / 18-8 SS

$75-150

Preliminary Estimate of Suggested Price Range

33%

of Respondents Would “Definitely Purchase”

Marketing Opportunity

Exploring & Identifying White Space

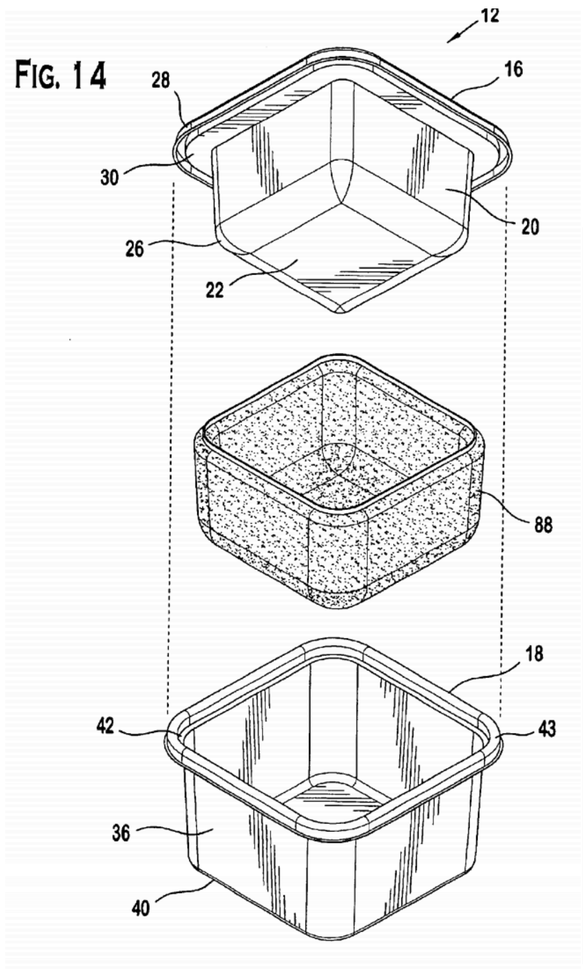
Marketing Opportunity

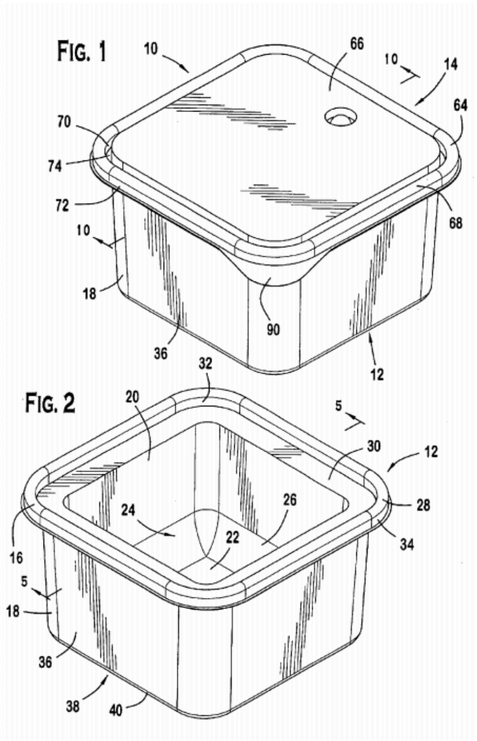
Exploring & Identifying White Space

Users identified as *willing to display*

Marketing Opportunity

Existing Patent Research





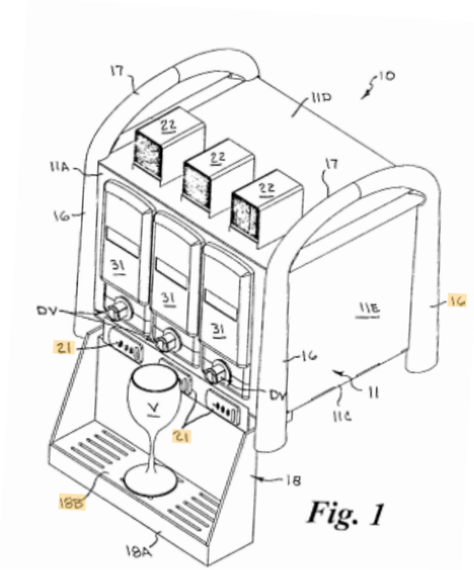


Fig. 1

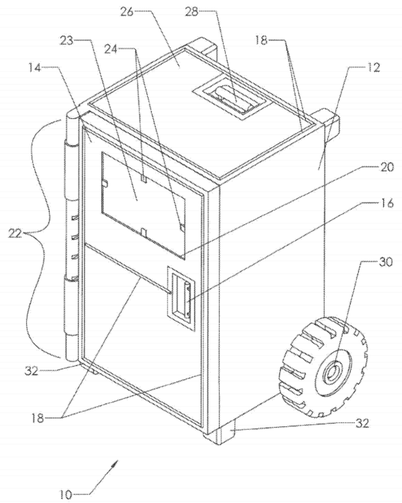
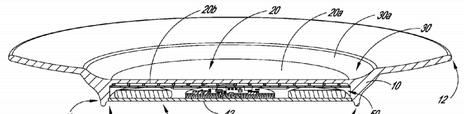


FIG. 1



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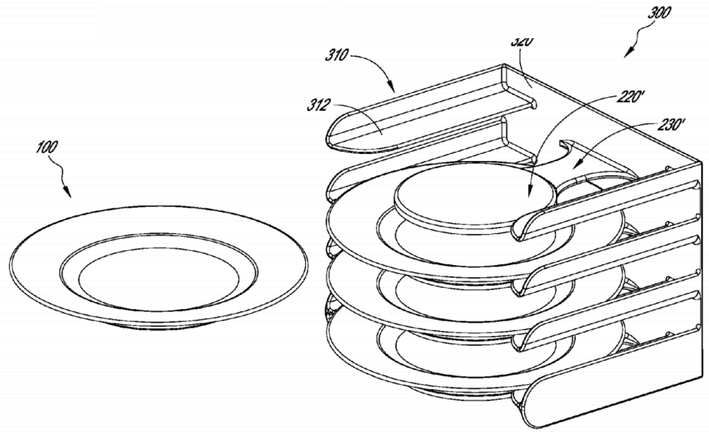

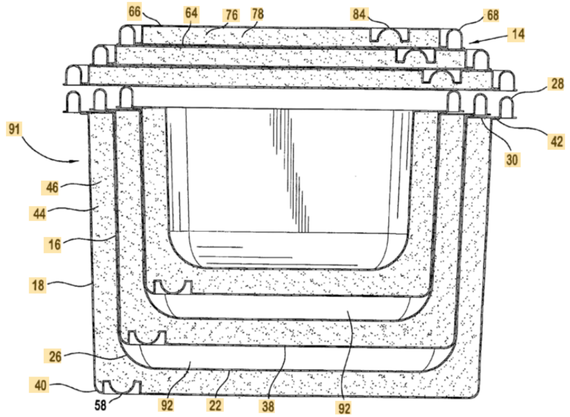

Next Steps

- I am filing a **provisional patent** in consideration of the white space opportunity
- Technical **engineer consultant** for thermochip specifications
  - Further define manufacturing and material considerations
  - Consideration for heat technology (?)
- Scale up **user research** for targeted demographic
  - Make CMF and aesthetic considerations
  - Explore further interest in extension line

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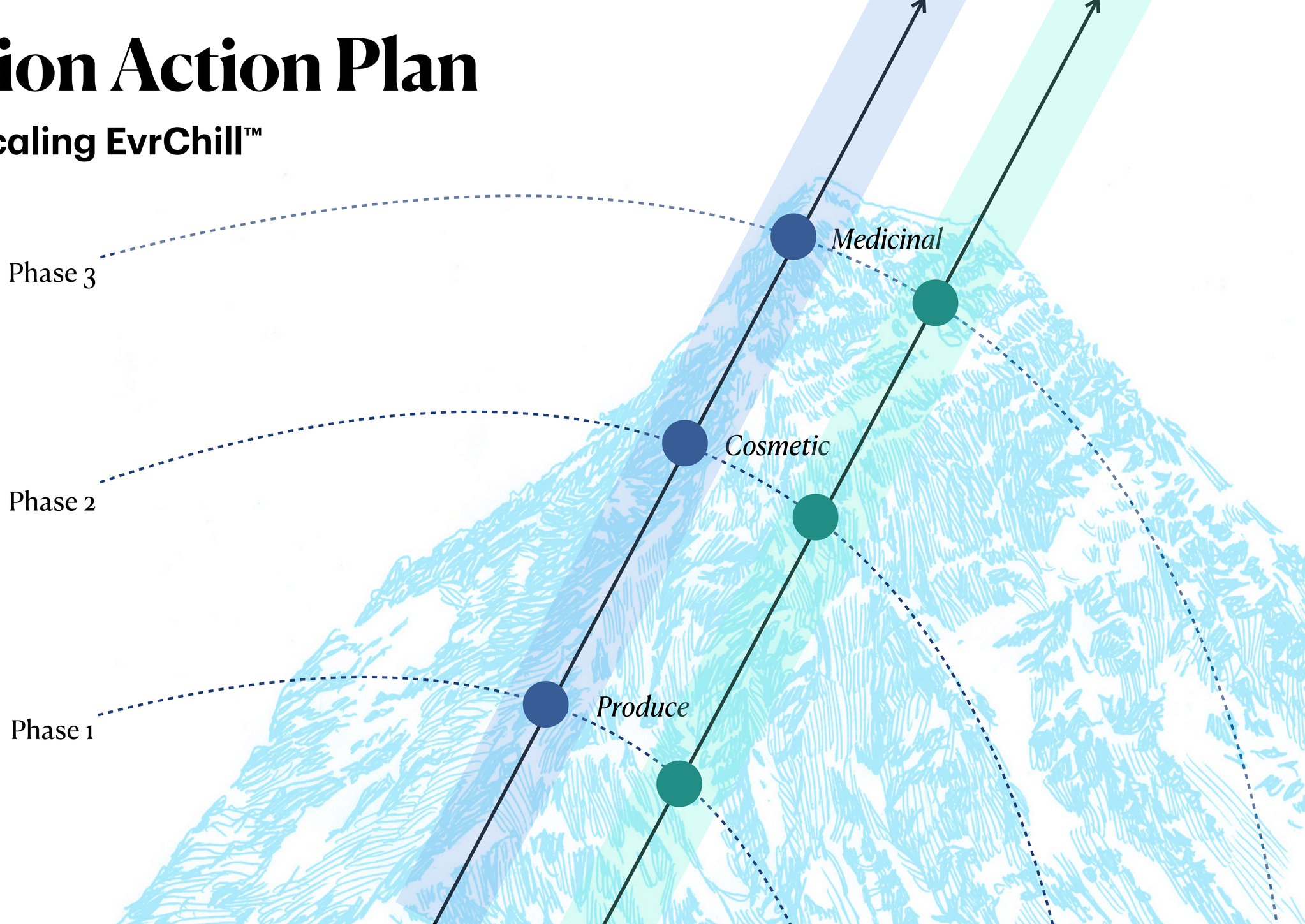
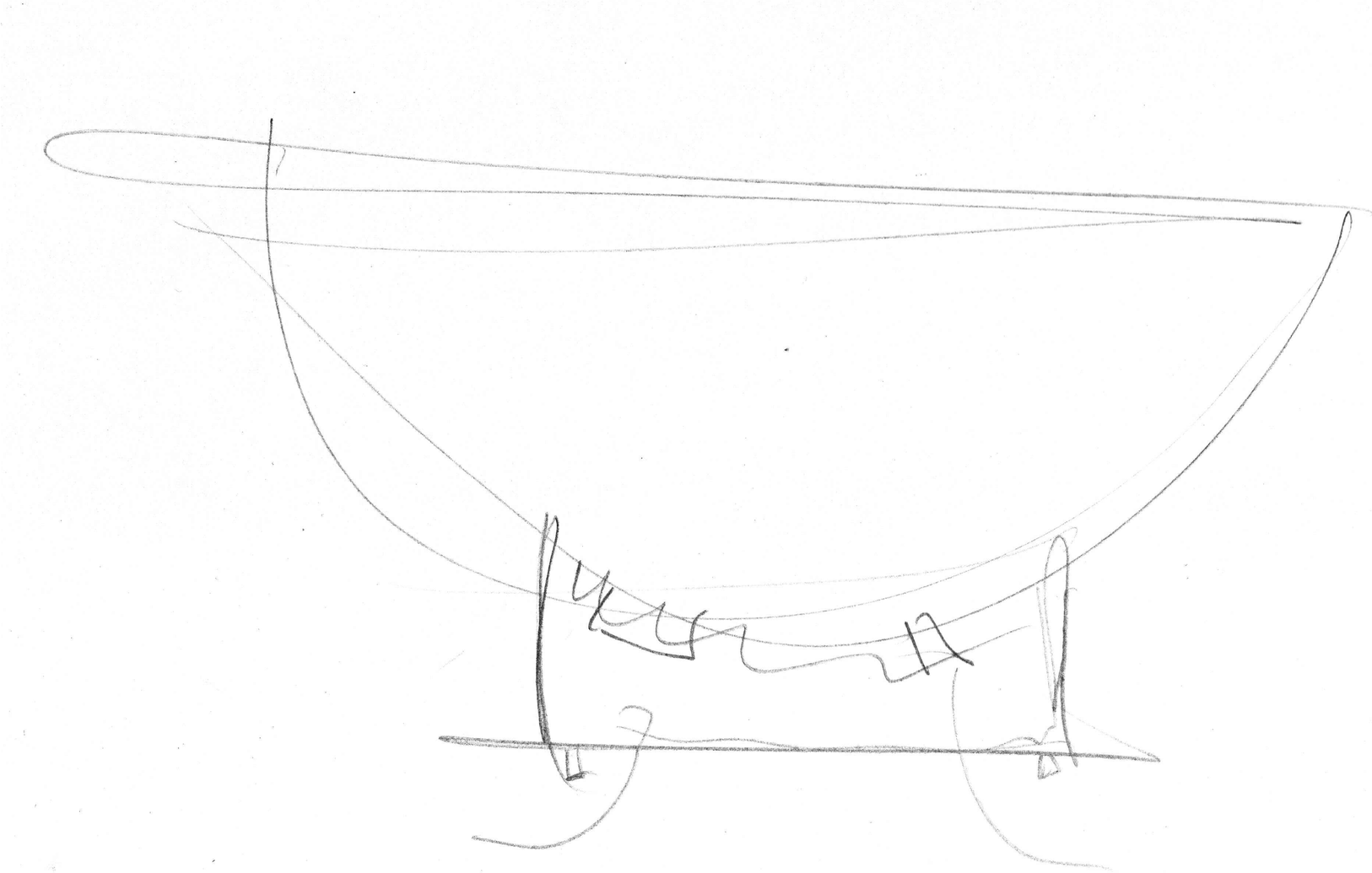


Appendix

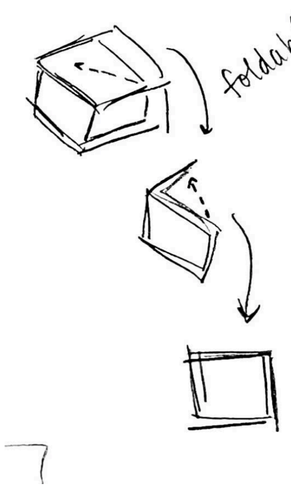
Supplementary Material for Consideration

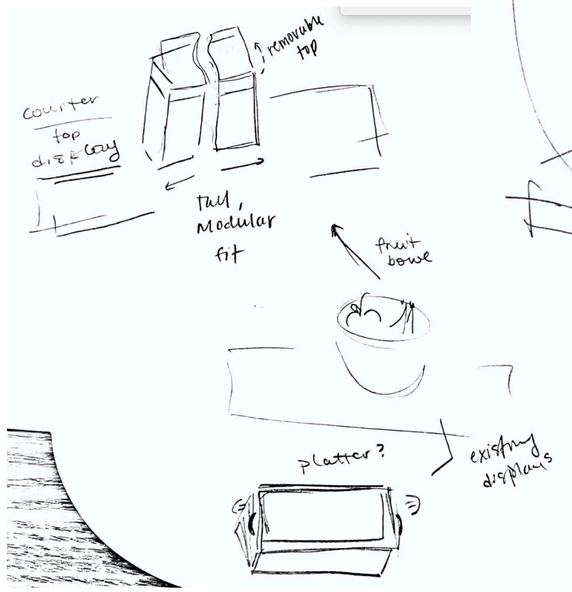
1. Concept exploration: Early prototype sketches
2. Product Research Document
3. Thermochip technology & preliminary testing
4. CMF studies

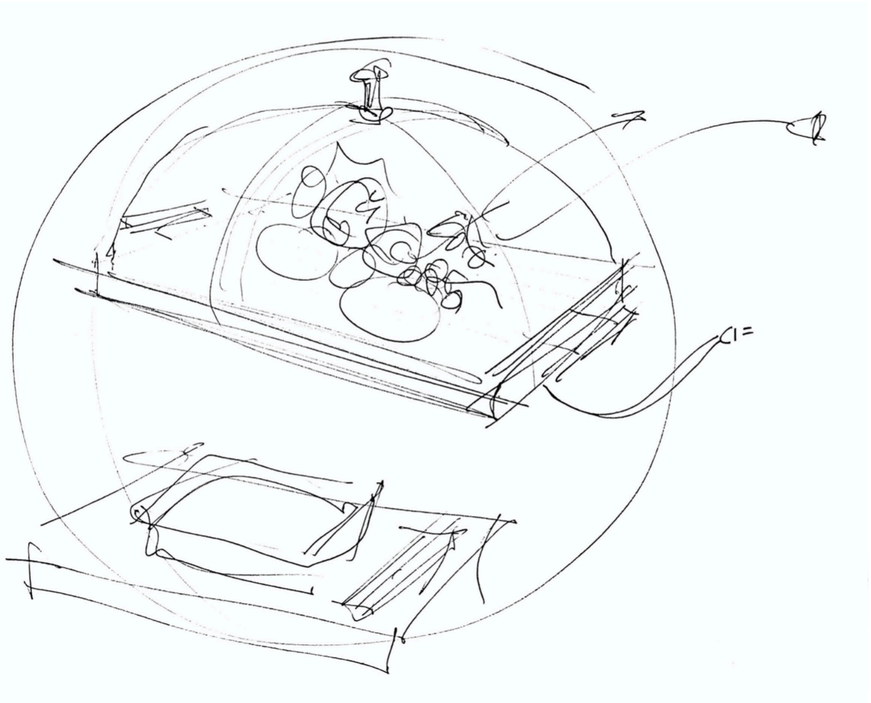
1. Concept Exploration



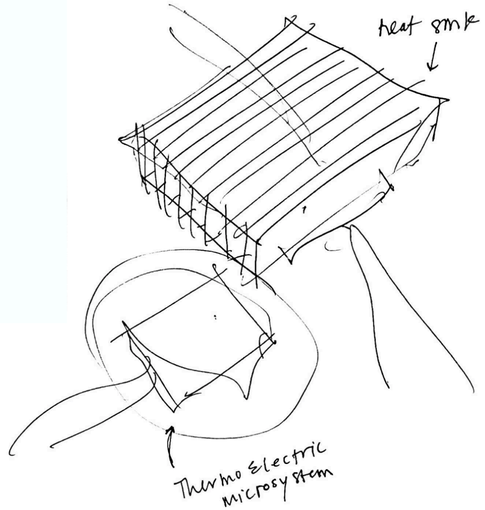
1. Concept Exploration *cont.*



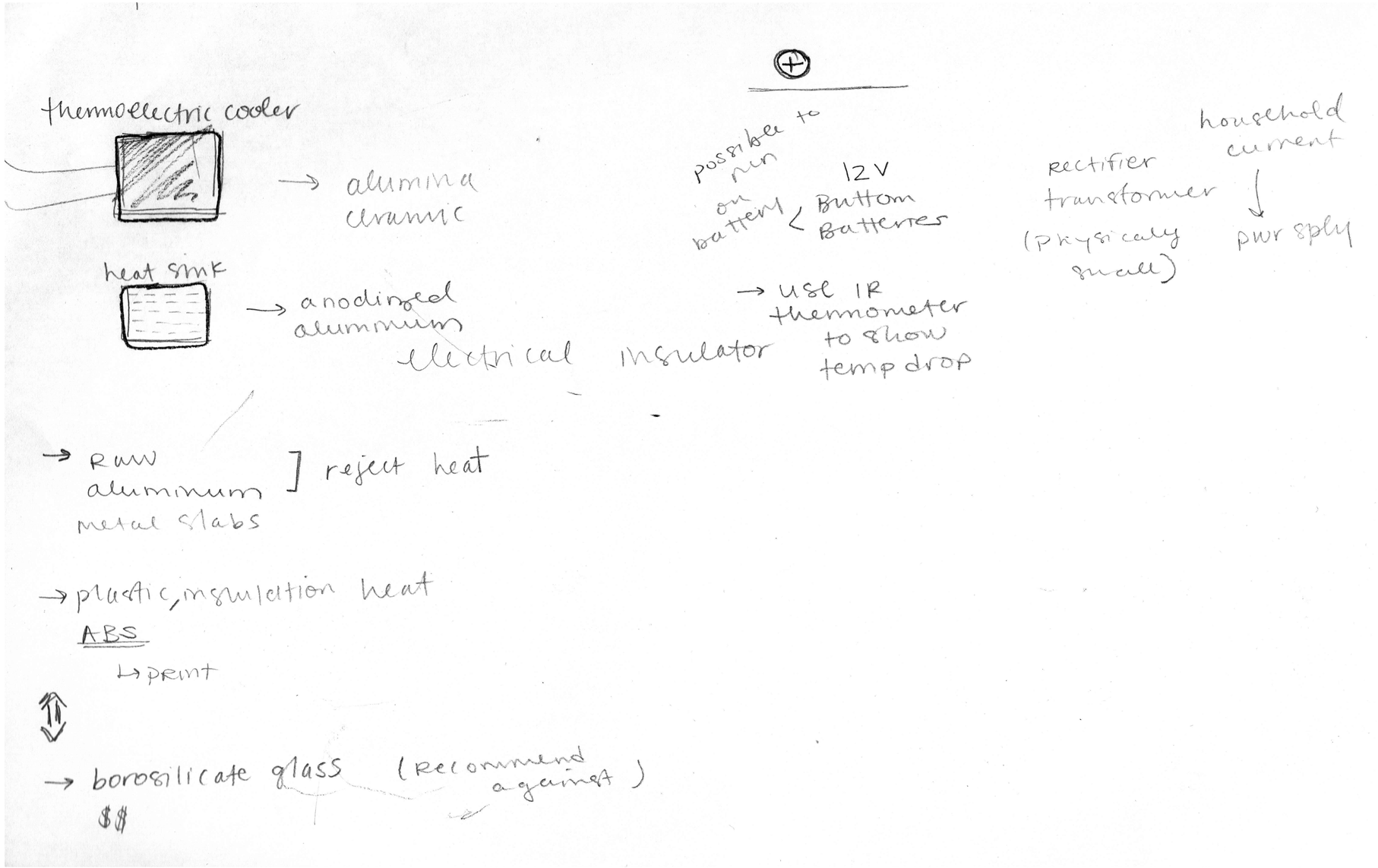




design considerations
① Area to collect condensation?
② Alternating current (household) → restore w/ support pained for direct current.



1. Concept Exploration *cont.*



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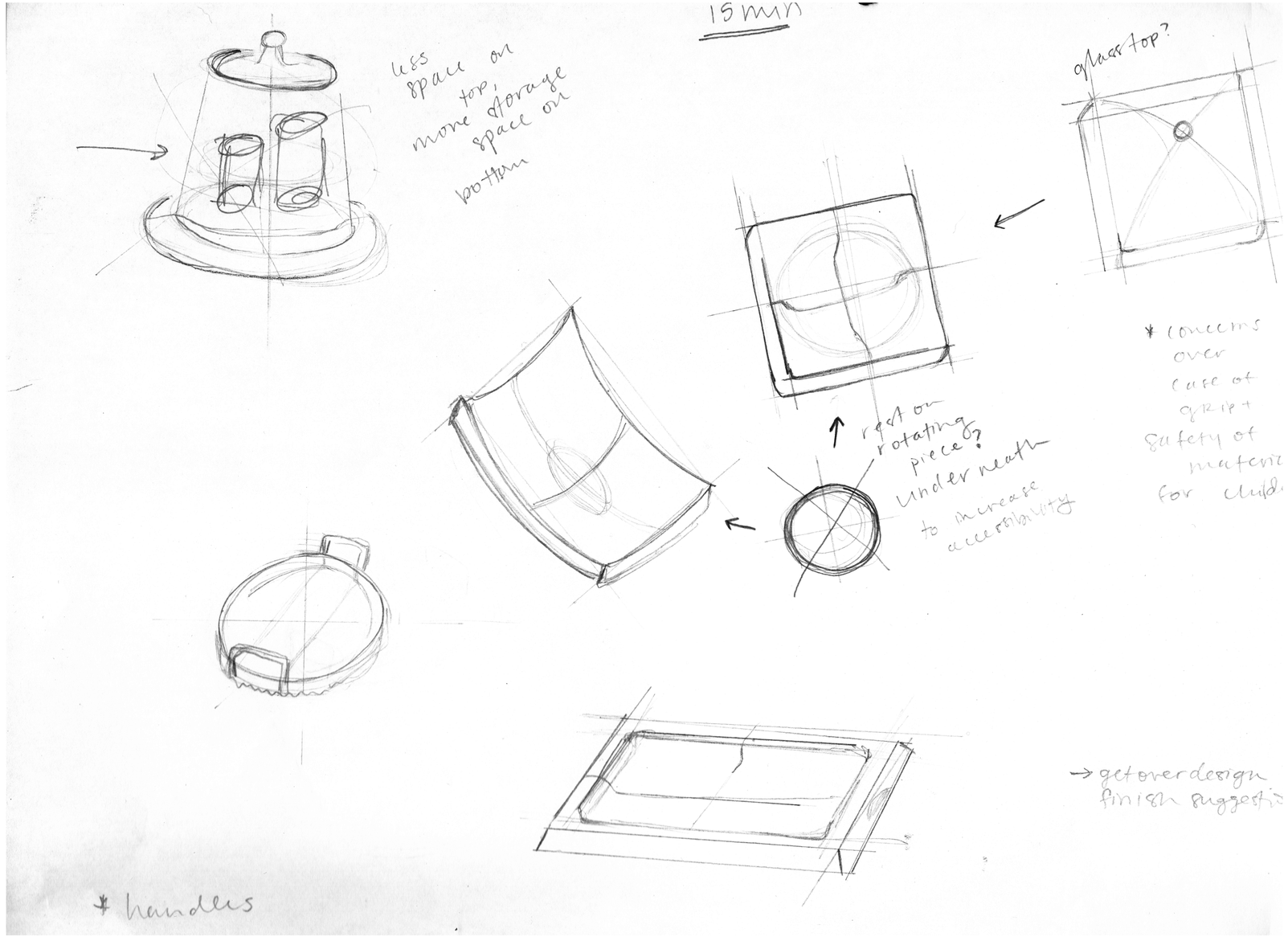

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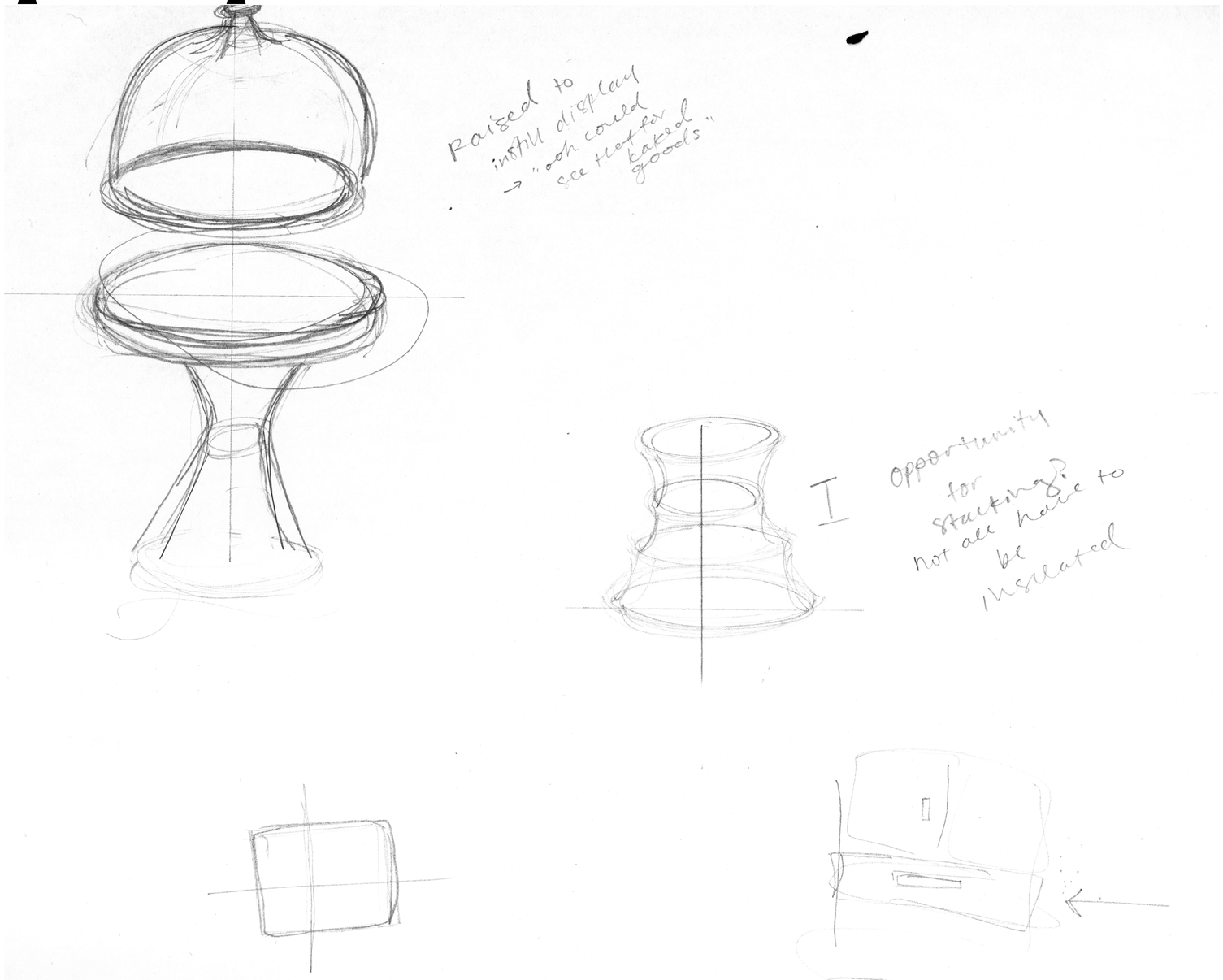
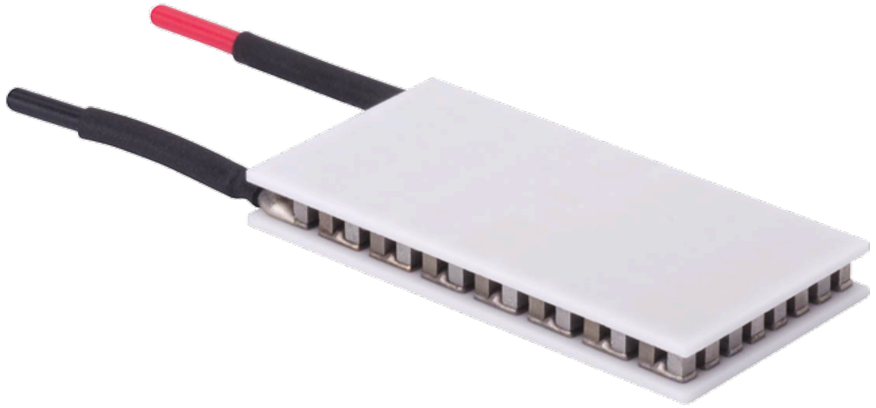
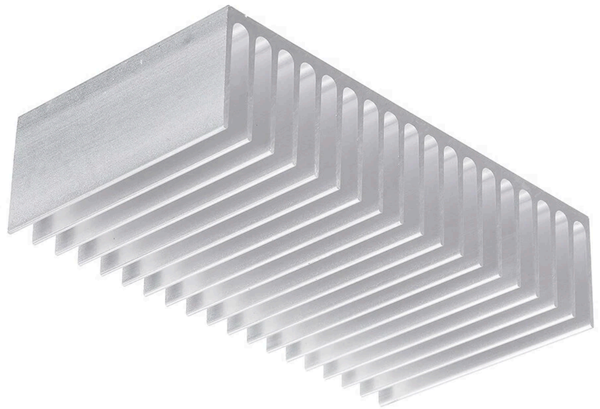


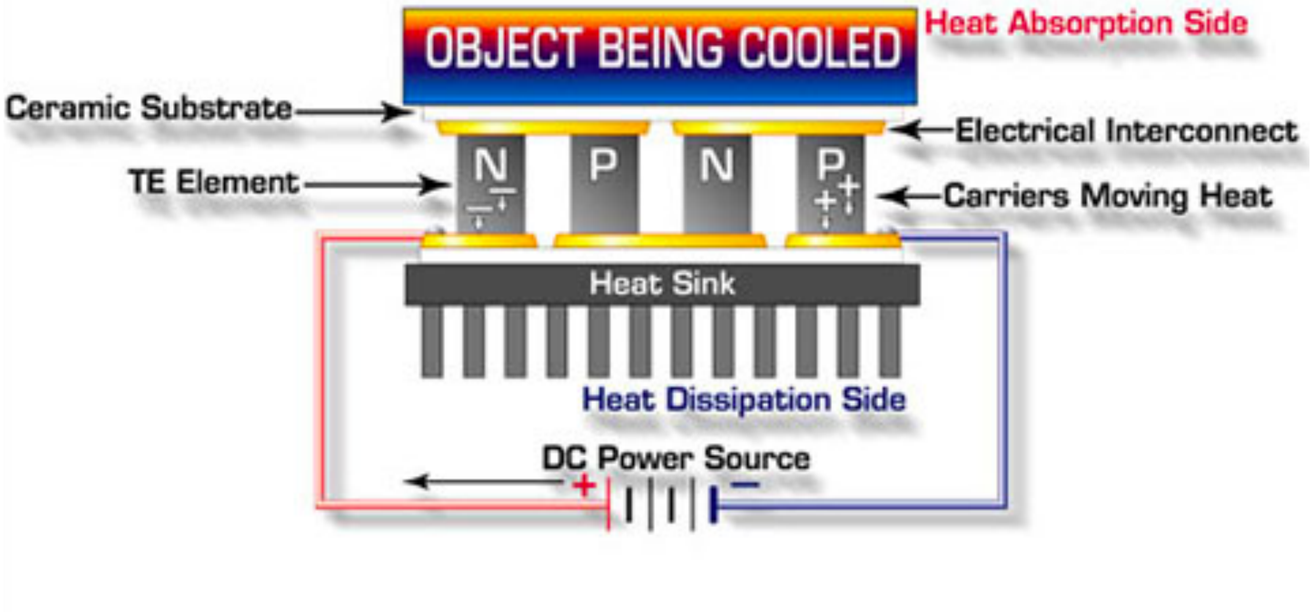
2. Product Requirements Document

- Develop ideations for self-cooling containers, that may include existing patents
- Easy on/off switch to activate thermal condition
- Safe to use for food storage but can also be used for makeup, etc.
- User group for personal needs may include adults and professionals, students, children
- User group for commercial needs may include quick service food industry, cosmetologists, aestheticians, astronauts
- Materials should provide insulation and support (thermoelectric chip) technology
- Materials should be easily cleaned
- Materials should be durable
- Product should be aesthetically pleasing, perhaps using a unique and customizable material finish to satisfy a wide variety of users
- Display should be worthy to bypass needing hidden storage
- Product should be offered in a variety of (modular) shapes and sizes to meet different use cases
- Opening and closing of the product should be simple and intuitive, possibly having a connected bottom and lid
- Product should seal reliably
- Fresh/neutral odor should be considered
- Features that afford portability should be considered
- Manufacturing, production, and assembly processes should be feasible with the use of novel technologies but affordable for a competitive market

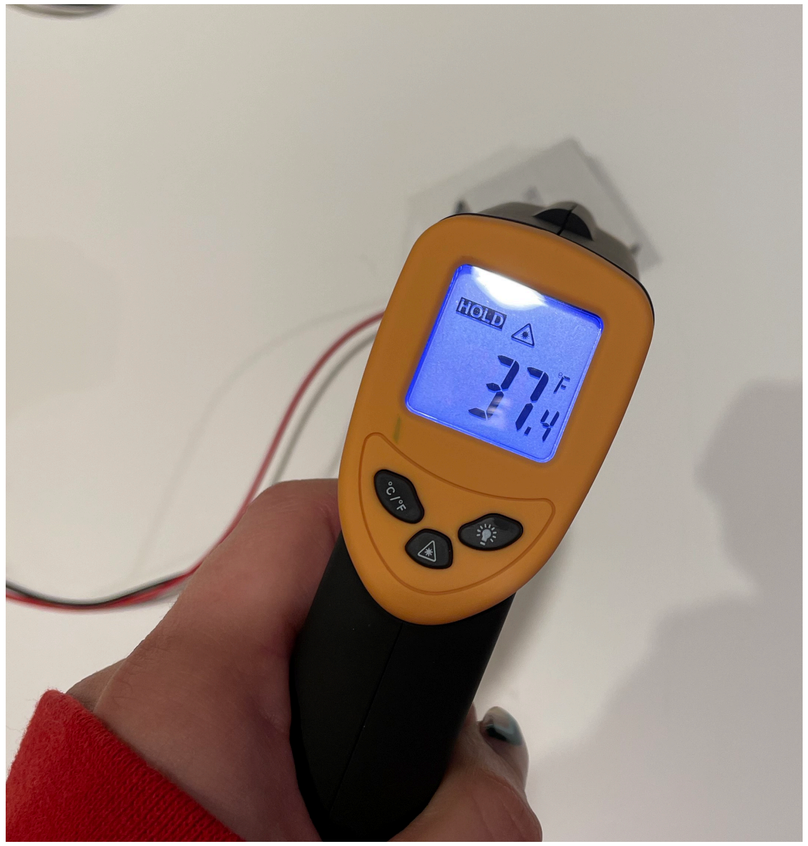
3. Thermochip Technology Overview







3. Small Scale Thermochip Test



4. CMF studies