



# **DESIGN GOAL**

To design a product for a domestic setting, to promote alternative & healthy methods of cooking

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Safe | Simple | Efficient

Homecooked | RESEARCH

# WHAT IS DOMESTIC COOKING?

The experience of preparing food within a domestic kitchen or homely environment

### **OT RESEARCH PHASE**

From detailed user studies and field research, our analysis and insights led us to our global directions, to take forward for ideation







# **OBSERVATIONS**

Field research helped us obtain insights into the cooking process. Understanding these problems first-hand, was the crux to finalizing an environment and setting for development









### **USER PERSONA**



- ·Working professional
- •Nuclear family with children
- ·Balances personal & professional life
- ·Health conscious
- Cooks regularly

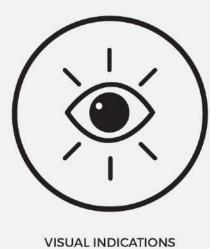


- ·Homemaker
- Nuclear family with young kids
- ·Lives abroad
- •Spends most of her time in the house
- •Experiments with new dishes

# **GLOBAL DIRECTIONS**







# **02 CREATIVITY PHASE**

Taking our insights forward, we began ideation, to come up with concepts that suited our brief





# **POST-IT IDEATION**

100+ Post-Its encompassing our global directions and more were done in one session to get all the ideas out





# **CONCEPT GENERATION**

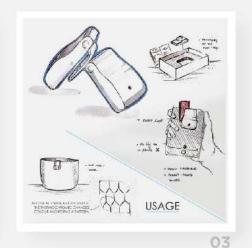


# CONCEPTUALIZATION

### 10 concepts out of the initial 30, were taken forward.

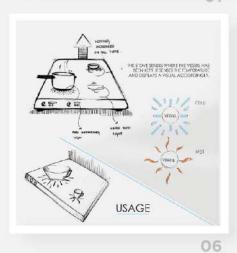




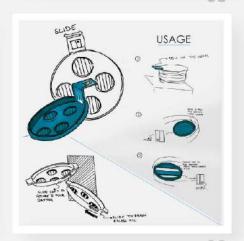




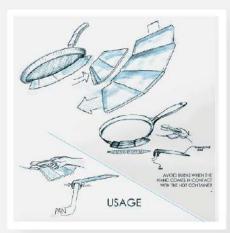








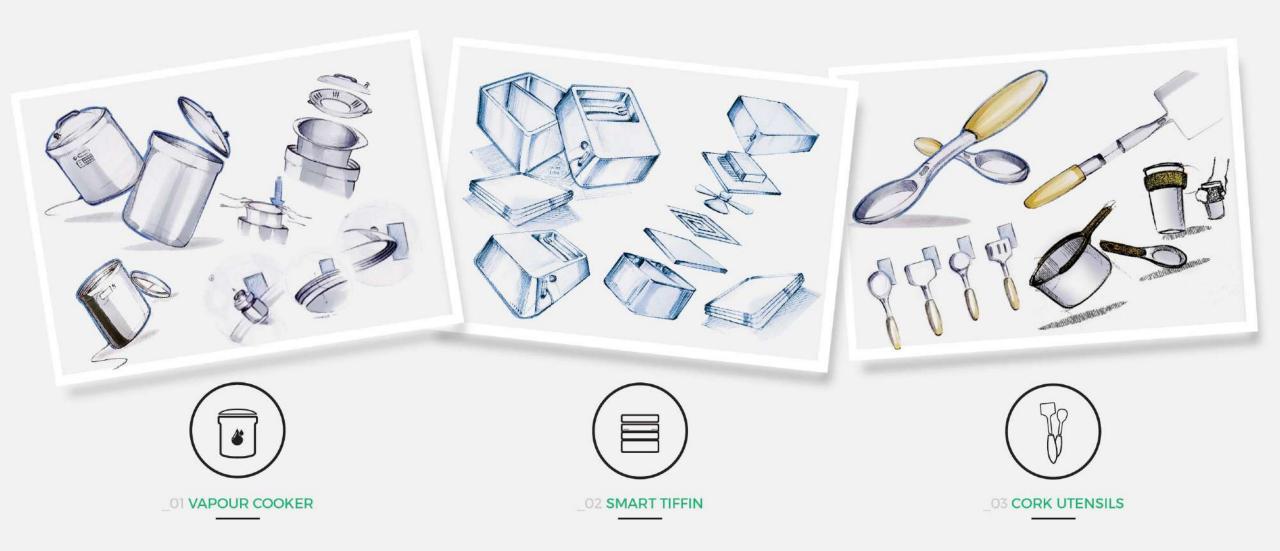




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# **FINAL CONCEPTS**

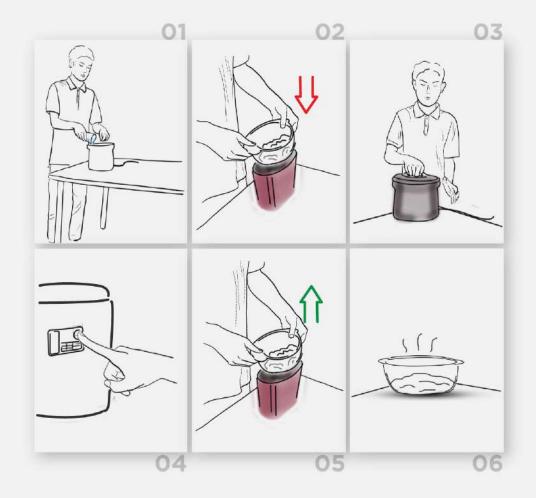
With the brief in mind, 3 were taken forward for further creativity



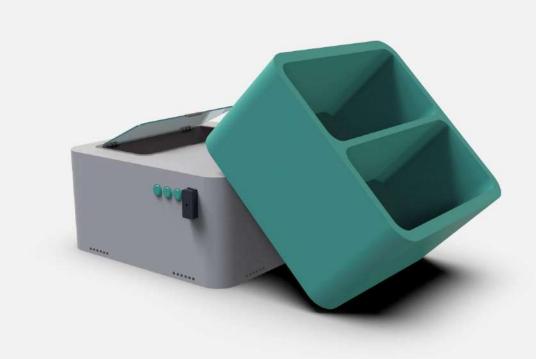
# 01 VAPOUR COOKER



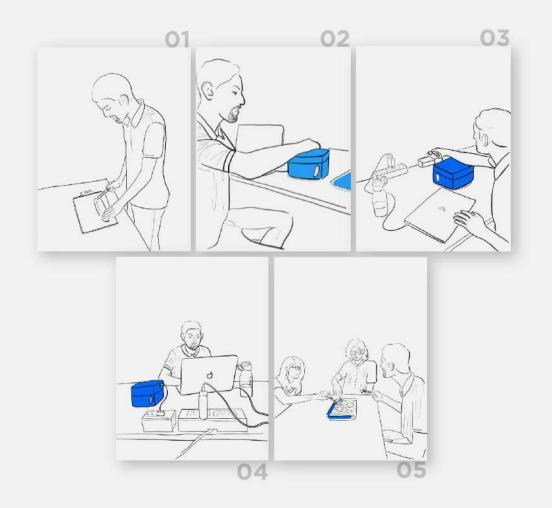
An electric cooker, it utilizes principles of steam cooking and sous-vide cooking, using water as the primary medium to cook food within the cooker



# **02 SMART TIFFIN**



A new take on a tiffin box, it makes the most out of the least, utilizing the concept of air frying, to cook food using electricity



# \_03 CORK UTENSILS





A range of utensils and tools made primarily from cork, that doubles as a source of moisture to enhance the flavour of food being cooked

### **CONCEPT EVALUATION**



VAPOUR COOKER

Nersatile Solution
 Requires validation through testing
 Could be a good way to promote slow cooking



#### SMART TIFFIN

Not a all-round solution to pack lunch
 Fitting the mechanism could be difficult
 Nice personal element of sharing included



#### **CORK UTENSILS**

Allows only fixed amounts of water
 Too small a problem to solve with the range
 Requires more human effort

# **FINAL CONCEPT**



VAPOUR COOKER

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Safe | Simple | Efficient

### **CURRENT PROBLEM SCENARIO**

Current cooking methods have their shortcomings.
Overcooking or undercooking of meats, burning of ingredients, loss of nutrition due to water solubility, human error and lack of temperature control are just a few problems that we observed



### **03 DEVELOPMENT PHASE**

Getting into the validation of the concept, form study, details and mechanisms behind the product along with quick prototyping sessions





### **VALIDATION OF CONCEPTS**



Setting the potatoes in a sealed bag to ensure vacuum, and placing it inside a pan filled with water



As the water reaches the desired temperature, heating is stopped, and pressure is allowed to build up within the pan



The vacuum sealed bag restricts heat from escaping from within and ensures the contents are cooked the same temperature as the water

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## **VALIDATION OF CONCEPTS**



After some time, the steam is allowed to dissipate naturally, which allows for wholesome preparation



Once completely cooled, the contents can be removed from the sealed vacuum bag



The food is cooked perfectly throughout, at your preferred temperature, and you can enjoy your dish!

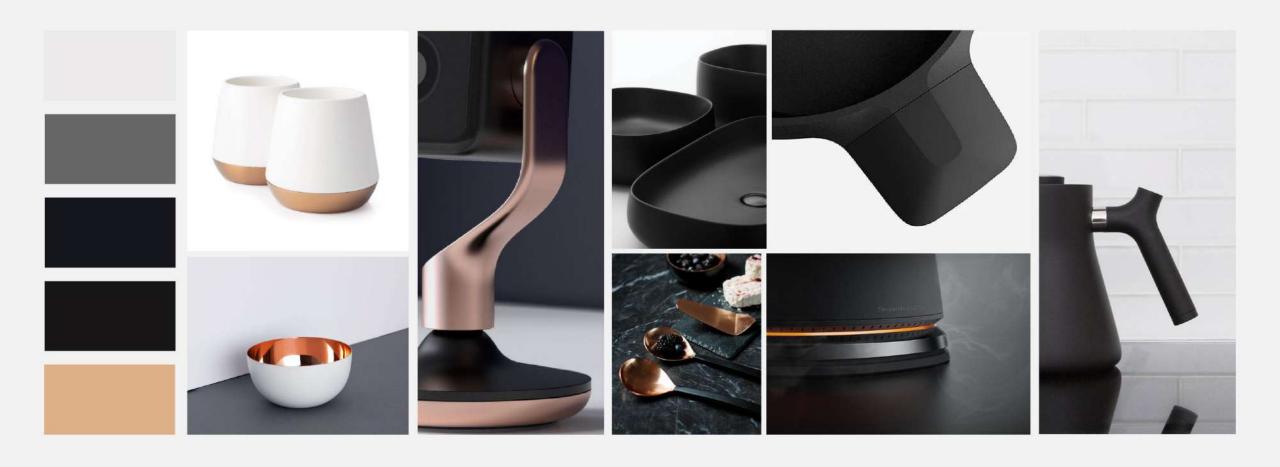
## FORM IDEATION

Quick form sketches were done to differentiate the product from a regular appliance. With the help of 3D mock-ups, we were able to finalize on a slightly tapered cylindrical form.



# COLOUR / MATERIAL / FINISH

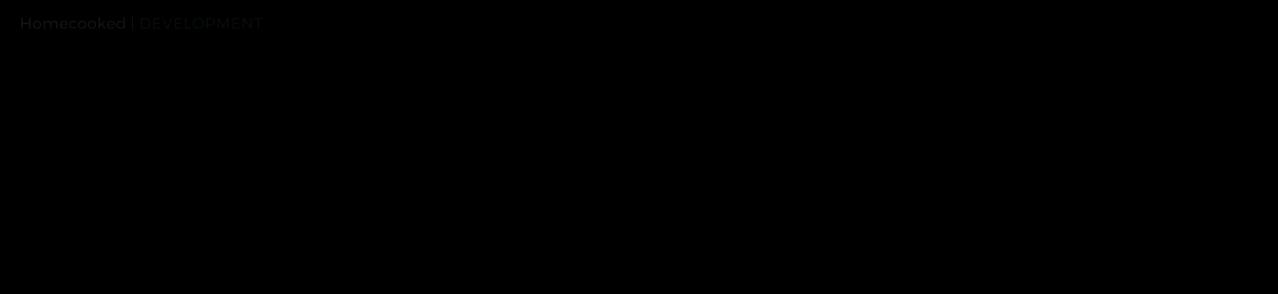
CMF Studies and multiple references were taken into consideration



### **PROTOTYPING**

A big step towards getting to our final product was creating mock-ups and a final prototype, and this was done through Foam modelling, Vacuum-forming and other processes



















#### **USER INTERFACE**

A simplified touch interface, with a tactile start button, coupled with a backlit LED panel, replacing a traditional screen allows the user to set the time and temperature with the simple action of sliding

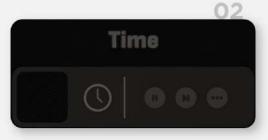




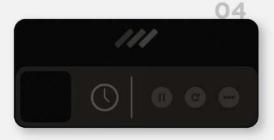
Start-up screen with 3 options, Time, Temperature and More, and the logo appearing on the backlit panel



The slider allows the user to set the timer according to the recipe in mind and the same can be done with temperature

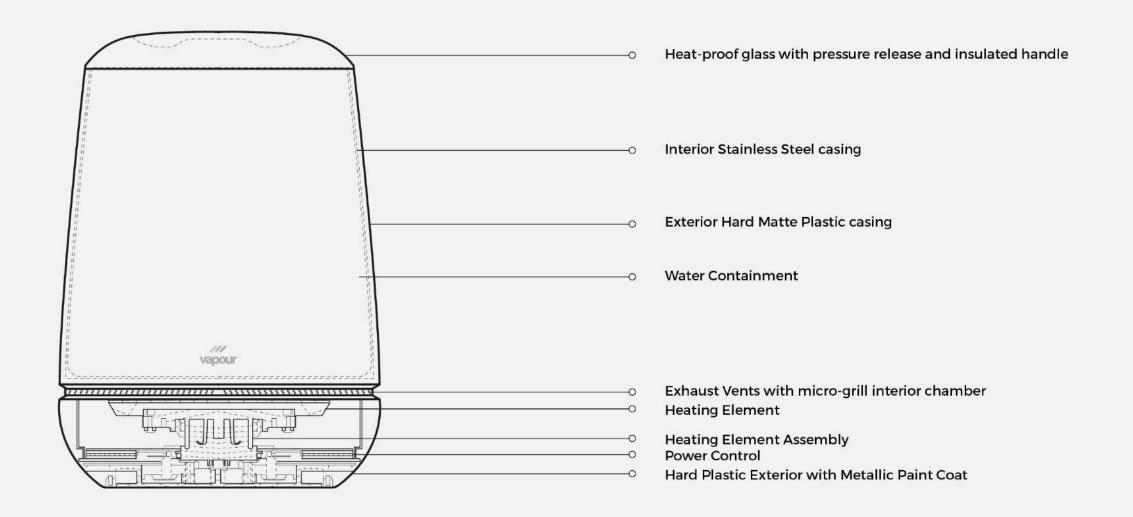


Going into Time, options allow for setting of Hours, Minutes or Custom, for other options and more control



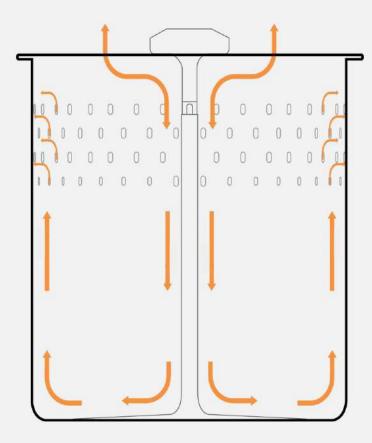
Pressing the start button begins the cook, and allows for pausing, restarting and more

### **TECHNICAL DETAILING**



# **CIRCULATION**

Circulation of water, and air within the container is crucial for the food to cook, hence, giving the modules and the appliance their respective forms





The kids are finally back from college to spend their vacations at home



The mother feels that its time to prepare them a special dish, but at the same time make them eat healthy!



She prepares the ingredients, and puts them into the module of her choice



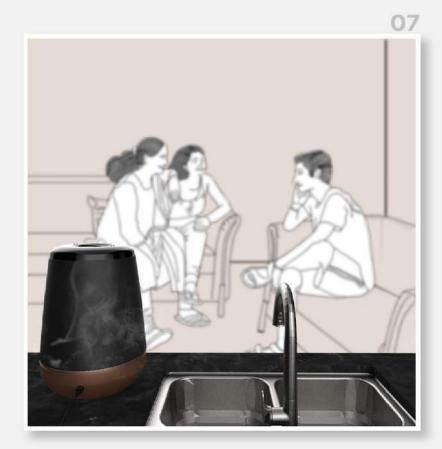
Now comes the main ingredient, water, which goes into Vapour, to be heated



The module is then placed within Vapour using the centrally located handle, making it very easy to lift it, both in and out



Once the module is in, the lid is sealed, and Vapour powers up. Using the interface, the mother sets the required time and temperature for cooking



Vapour cooks silently in the kitchen as the family enjoys a lively conversation



After the meal is done, it is served and the kids know what they've missed at college - mom's special, homecooked food!



# **ELEGANT PACKAGING**

A matte-finish cardboard box is used to package the cooker, along with the 2 modules, adapter, user manual as well as a complementary recipe book.



#### THE LEARNING CURVE

A complementary pocket-sized recipe book, specialized to the product, as a way to acquaint the user with Vapour and some delicious new recipes, while also improving the cooking experience in the long run



# WHAT CAN YOU COOK?

With the usage of multiple modules, it will be possible to cook a variety of dishes, ranging from dense meats, to vegetables, and even rice





- 1. Promotes slow and wholesome cooking
- 2. Chance of safety-related issues are minimized
- 3. Minimizes human error involved in cooking