

breakfast kit

for people living away from home

Diversity of Indian cuisine

Change in urban breakfast habits

The British influence

9-5 jobs people compromise their breakfast to match their office timings.

Excellent distribution of breakfast foods like bread and eggs

More and more young people staying away from home

Breakfast is the most important meal of the day.



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Intent

Provide for a variety of breakfasts that are made in India

Simplify the process of making breakfast for a target user group consisting of young people staying away from home



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Do our users need a product to make breakfast?



User profile

Age group 18-28 years

Not completely settled in life

Unmarried

Ready to take on challenges, travel to any place away from home for their career

Open mind... Ready to experiment with new things

Live an independent life

Fast paced lifestyle

Don't mind spending on their comfort



Two types of surveys

Quantitative

To find out preferred breakfast menu across India considering a context of home and breakfast is provided for.

Qualitative

To understand the lifestyles and breakfast habits of our user group

The questionnaire

User's information

Cooking equipment used

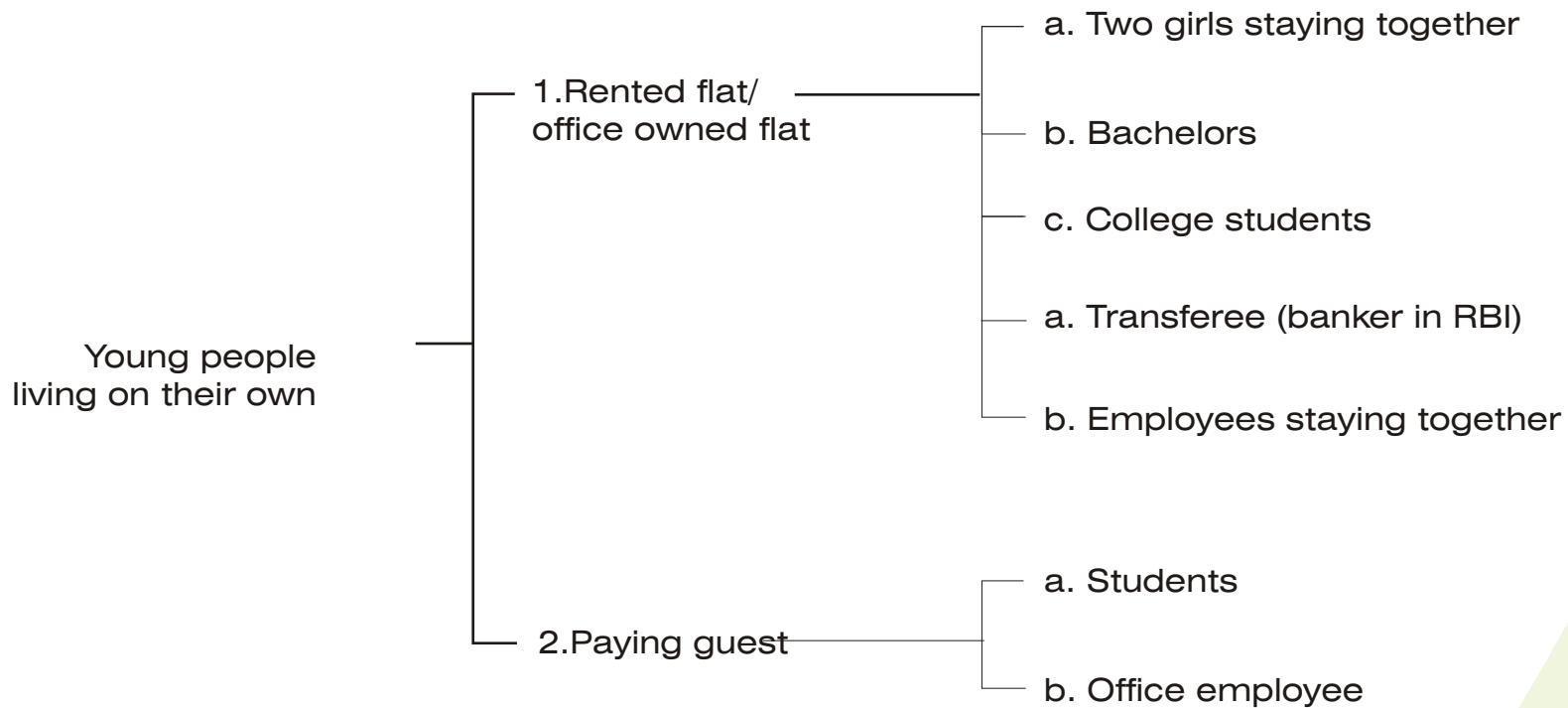
Understanding the context

Activities during breakfast time

Understanding their food habits



User Survey Tree





Case study 1

Two girls staying in a rented place

Company provides food...

But it gets monotonous

Menu not to their liking

Have to wait to reach office for breakfast

Prefer to have tea as soon as they get up

Prefer to reheat the previous nights food rather than wasting it. This also saves money for breakfast.



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The kitchen platform



Washing is done in sink



LPG burner is common in most rented places



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Refrigerator ensures that food can be stored and reheated.



The lpg cylinder is replaced on a weekend. If it runs out in the mid week then one tends to pull on without it for the week.



The cost of appliances is shared between the two.

Currently eat bread, eggs, cornflakes and milk, pohe made on sundays.

Fruits are popular as they can be eaten on the go.

Managing breakfast and parrallely getting ready is difficult.



Case study 2

Students in a rented flat

Leave for college early

Grab a bite at the canteen but it is junk food.

They currently use hot plate for cooking but it is very slow.

Essentially they don't eat much till afternoon... This affects health

Their two main needs

Making breakfast

Basic cooking aid



They buy any breakfast item that does not take any time to prepare and also which can be eaten as a snack at any time of the day.



Case study 3

Bachelors in a rented flat

LPG burner runs out and so they have an extra small cylinder.

Replacing the cylinder is easy nowadays but our users don't have two cylinders as in a home.

Breakfast eaten while watching television even if it is for five minutes.

Everyone has their own timings of leaving for work. (Unlike dinner or lunch breakfast is dependant on individuals timings)

Servant comes for cleaning the vessels



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Case study 4

Transferee in office owned flat

For men transferees the cooking need is very basic.

Lunch and dinner is eaten outside but breakfast is to be prepared.

Occassional Sunday brunch

Something that cooks really fast but does not require supervision

They don't mind spending on basic neccesities aslong as they know they are going to be living away from home.

The kitchen is the most boring place. "Breakfast should happen while reading newspaper and breakfast news."



Case study 5

Employee in office owned flat

After six months of eating out he feels like making breakfast at home. Its inconvenient to go out to a restaurant and have breakfast.

Need for healthy food

Has all his earnings to spend on his new found independence

Wants to maintain a certain level of lifestyle



Case study 5

Student as a paying guest

Lunch eaten outside, dinner with flat owners family, but breakfast is not provided for as this girl had to leave at 6 30 for college.

Dependant on owner for cooking purpose.

Hot plate is inefficient and the electric kettle is a dedicated device. So is a toaster.



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Most commonly eaten breakfasts

South Indians- idli, dosa, appam, puttu, idiappam

North Indians- parathas with dahi, mathri with pickle, lassi

Gujaratis- sev, gathiya, upma, sheera, faafda and jalebi.

Maharashtrians- pohe, upma, sheera, idli, chapatti bhajee

Parsees, Christians -2 cornflakes and milk, bread/toast, all kinds of eggs, cheese, bacon and ham, sausages



Common observation was that only people coming from urban areas accepted breakfast habits from the west. In non urban India people still enjoy a traditional breakfast.

Its mainly to do with availability of time



Appliances

most common breakfast appliances purchased by our user group

- 1.toaster
- 2.sandwich maker
- 3.tea/coffee maker



They are dedicated appliances and work well in home context.

They don't provide desired variety.

They don't cater to Indian breakfasts.



A large number of appliances means much more weight to carry.





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Appliances

Why would someone buy this product as a breakfast maker when they might be owning a LPG burner?

Time

Overcoming constant surveillance

Would the users make elaborate Indian breakfasts?

Availability of ready mixes for a lot of breakfast items

+

Appropriate appliance

Will make it possible for our users to have an Indian breakfast rather than surviving on bread, eggs and cornflakes

Technology

Breakfast is a parallel activity

Electric appliance

Elimination of constant attention
(Milk boiling over, toast burning)

Controlled heating possible

Safety - auto switch off

Can have preset controls for fixed menu list

Gas cylinders can get over.

Gas leakage in hurry.



Technology

Radiant heaters

Induction hobs

Quartz halogen cooking

Microthermal oven



Reasons for choosing microwave technology

Time saving

Doesnt require frequent stirring as compared to lpg burner

Crocery used inside can be directly used for eating in or packing and eating on the go. This reduces cleaning

Complete control of cooking time.

Why our users don't buy microwave?

Too large for carrying.

Baai cant operate a microwave.

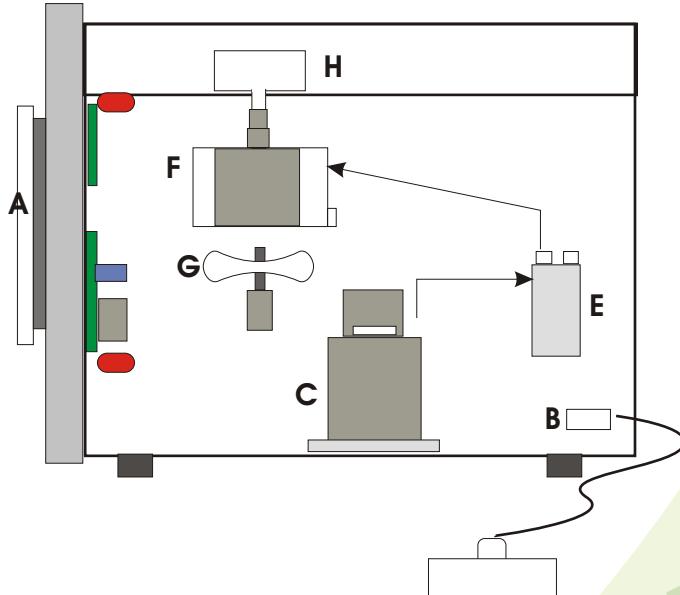
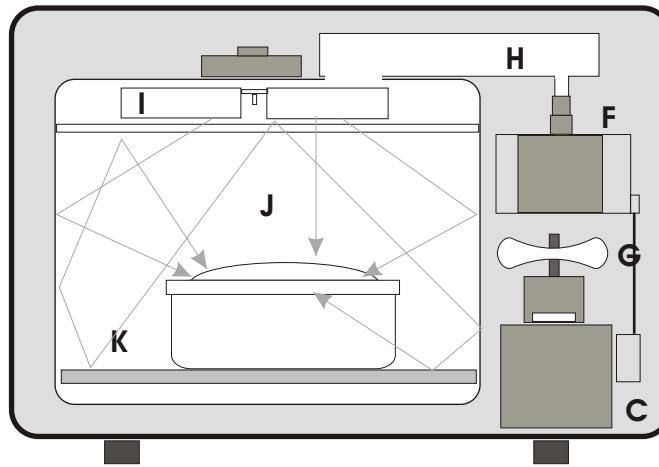
Fixed mindset that one cannot cook in microwave exists in regular homes **but in case of users they are open to the idea of microwave cooking**

The fixed mindset comes because in India we are lucky to have someone prepare food.



Parts of a microwave

- A - The **digital timer**
- B - The **power relay**
- C - A **power transformer**
- D - The **power rectifier**
- E - A **capacitor**
- F - The **magnetron**
- G - **Fan.**
- H - The **wave-guide**
- I - a metallic fan blade
- J - The **cooking chamber**





Time activity analysis

The time activity analysis has been done on the basis of calculating the amount of time it requires to make a particular breakfast item on a typical working day.

	Microwave	LPG gas Burner
Toast	N.A	4-5 minutes
Milk	20 seconds	5 minutes
Precooked parathas.	30 seconds	3 minutes
Previous day's sabji	1 mint	3 minutes
Tea/ coffee	20 seconds	4 minutes
Eggs- omelets,	2 minutes	2 minutes
Scrambled,	2 minutes	3 minutes
Boiled eggs	2 ½ minutes	8 minutes
Pohe	6 minutes	10 minutes
Upma	6 minutes	10 minutes
8 Idli	3 minutes	10-12 minutes





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Inferences

Inferences from data collection:

1. The common breakfast menu and the need for variety

It should provide a range of breakfast items.

Provide for rushed weekday and also leisurely weekend breakfasts

Users from different places and cultural backgrounds have different preferences.

2. The time constraint

20 minutes allowed

Constant supervision consumes time

It is rush time... So typically milk boils over... Toast gets burnt

Breakfast is sometimes eaten on the go



Inferences

3. Portability

It should be compact in size

One main heating unit with a number of accessories will let the user buy only the items which she needs thus reducing weight and size It should be light weight

Will increase usage time of product as user will conveniently carry the product to new place

4. Cleaning

The product should be easy to clean

Number of vessels should be reduced

Spillage / burning should be avoided as it is time consuming to clean

Typically servant comes to clean...it should be servant proof



I n f e r e n c e s

5. Safety

Accidents happen in rush

Gas is left on

A product with a timer will ensure that accidents are avoided even before cooking starts

An audio input in the product will help to announce the end of a cooking process.

6. Quantity

Less quantity means less time in microwave

Also will lead to smaller sizes improving the portability of the product



I n f e r e n c e s

7. Flexibility

Can be used instead of LPG burner when it runs out

Can be standalone cooking equipment also

This attribute will also make the user use it after marriage

8. Cost

Understanding user psyche- comparison of product... order of preference of purchase



Product brief

Breakfast items possible

Toasts (2 Nos.)

Idli

Pohe

Upma

Heating up precooked food, left overs

Making scrambled eggs, omelet's, boiled eggs

Making 2 cups tea/ coffee/

Heating milk $\frac{1}{2}$ liters



product brief

Accessories to be incorporated

Idly maker, unit for heating, unit for steaming, toast rack, egg boiler

Time consideration

Typically 15 minutes

Simultaneously make tea/ coffee along with breakfast item

Features

Safety

Process completion signal

Automatic switch off after cooking is done

Settings for different breakfast items



Portability

Fits into a suitcase along with other belongings while moving from rented place.

Cleaning

Accessories can be given to servant for cleaning

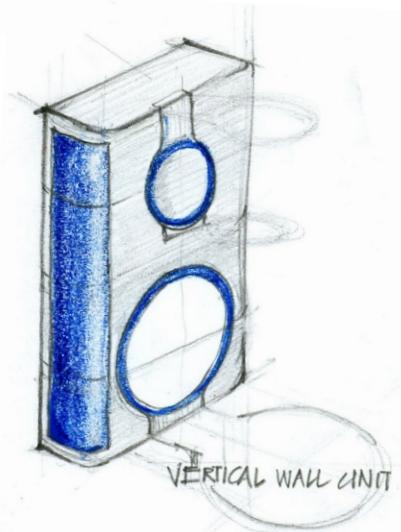
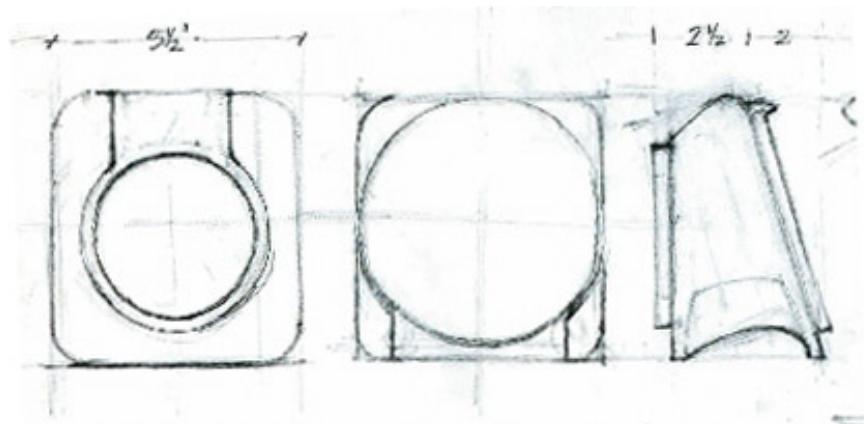
Can be used in place of LPG gas or when cylinder is to be replaced



Concepts

There were **two** approaches that were considered in **the concept development** stage.

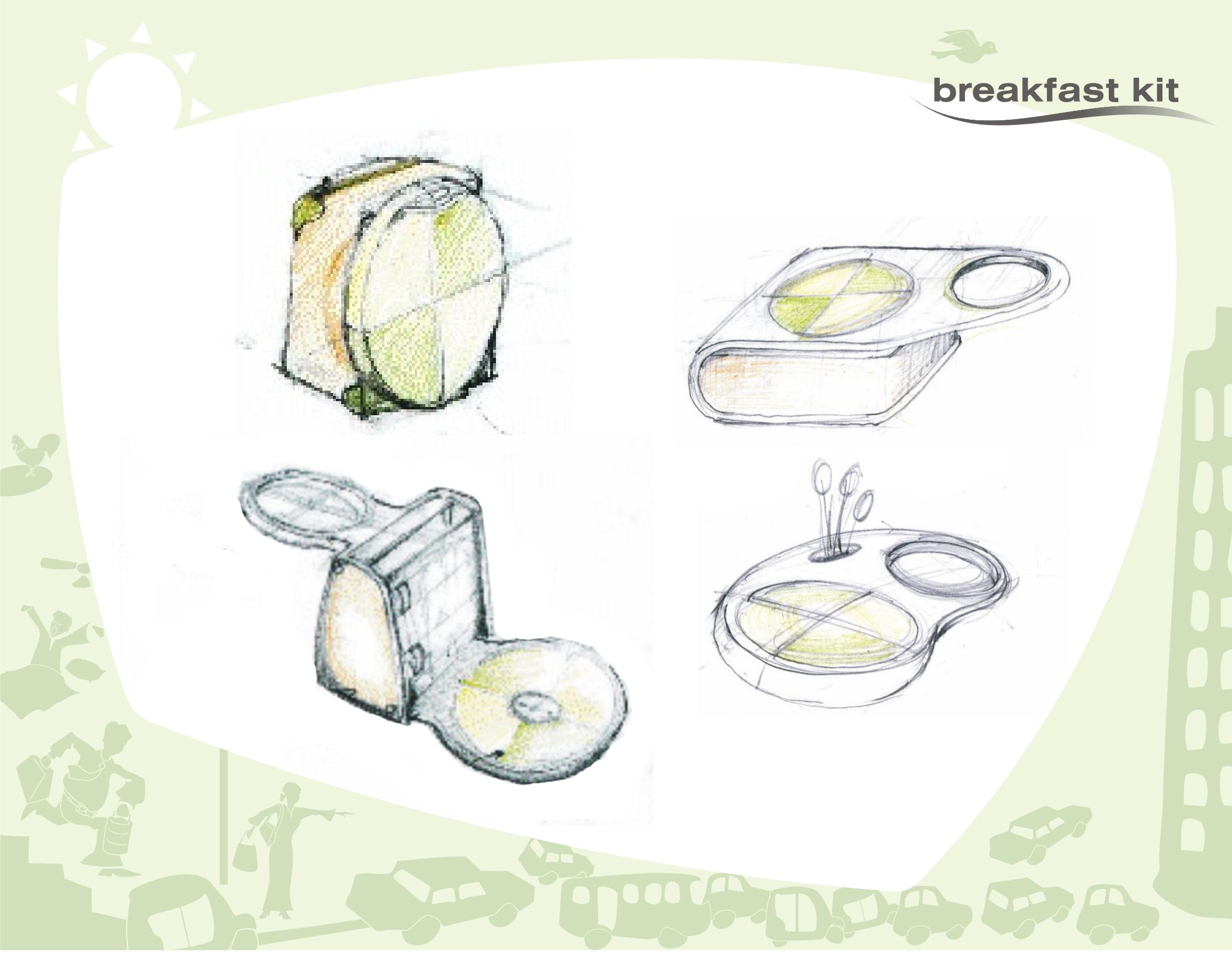
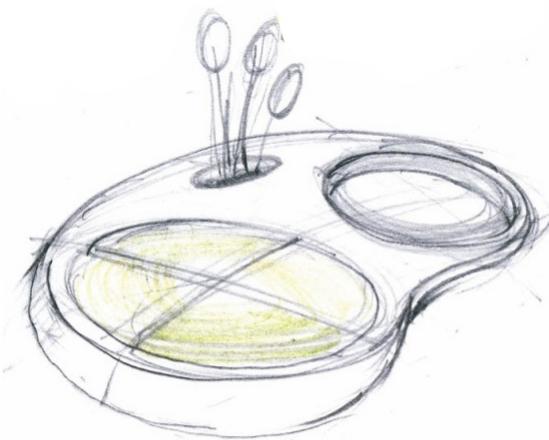
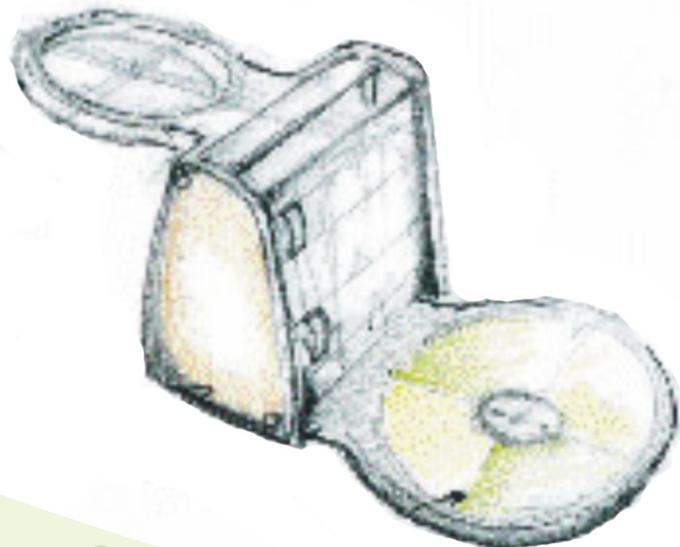
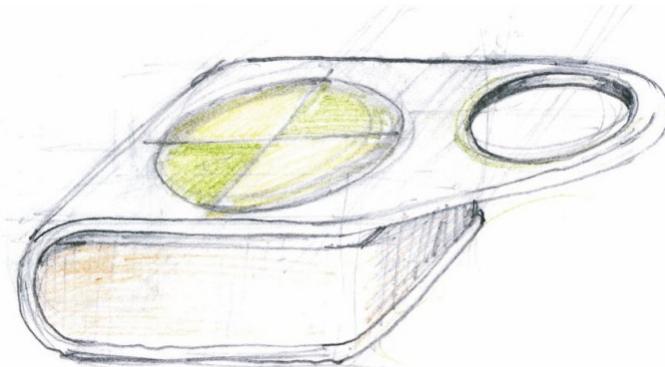
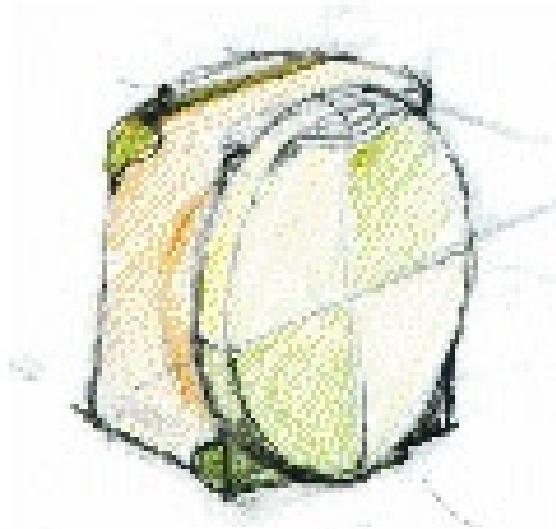
- A. The Linear approach**
- B. Approach involving accessories**



A. The Linear approach:
repetition of a heating element
negating any possibility of a variety



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B. Approach involving accessories

Making the heating element used for cooking as a common platform.

The product was conceived as something that would give a variety of menu to the user by means of providing accessories and the user would buy these accessories depending on his or her preference of food preparations.



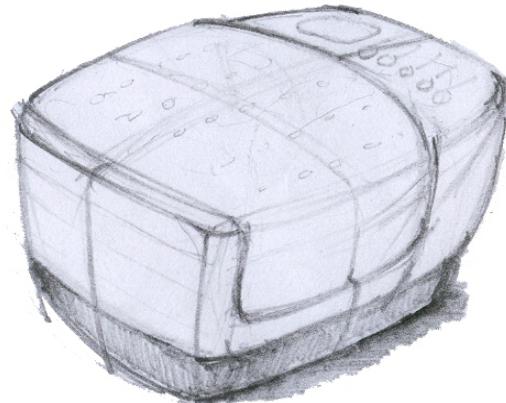
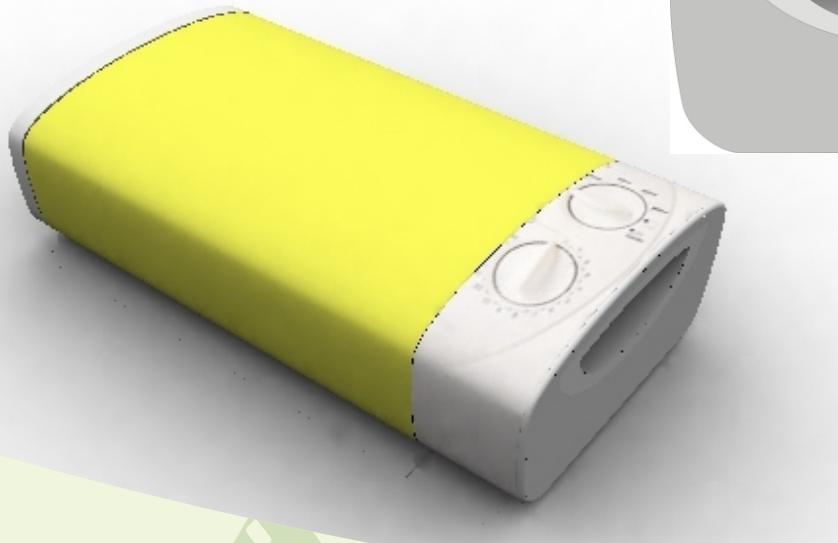
Concept 1

Form developed after seeing how Indian food is cooked

lid from a vessel is removed and the masalas are added from the top adapt this activity (of opening the lid) into the product form.

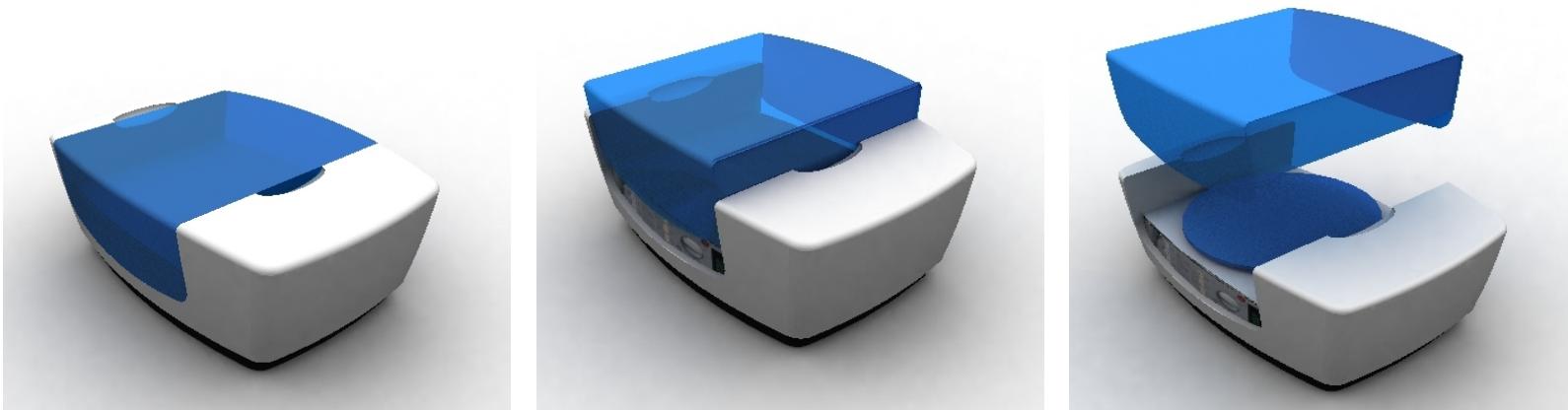
Compactness

Cleaning





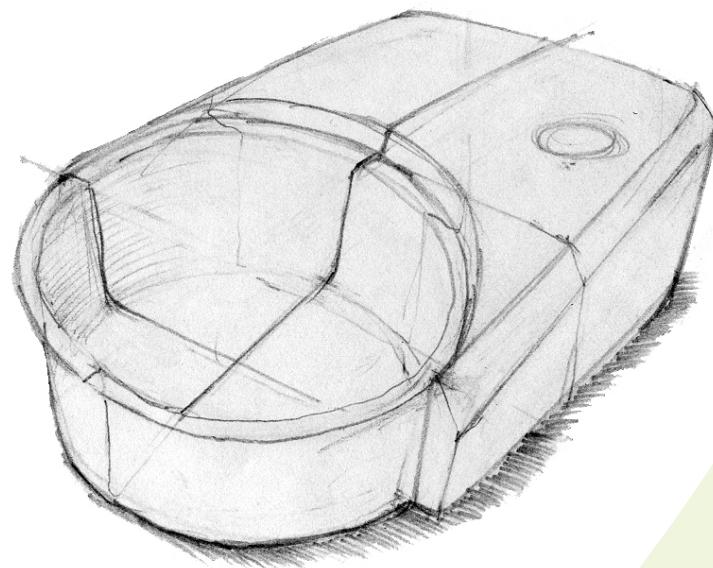
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Concept 2





Concept 3

This idea took the metaphor of a butler and how he would come and serve the food as if you were the most important person in the world. That's where the idea of the tray was generated.

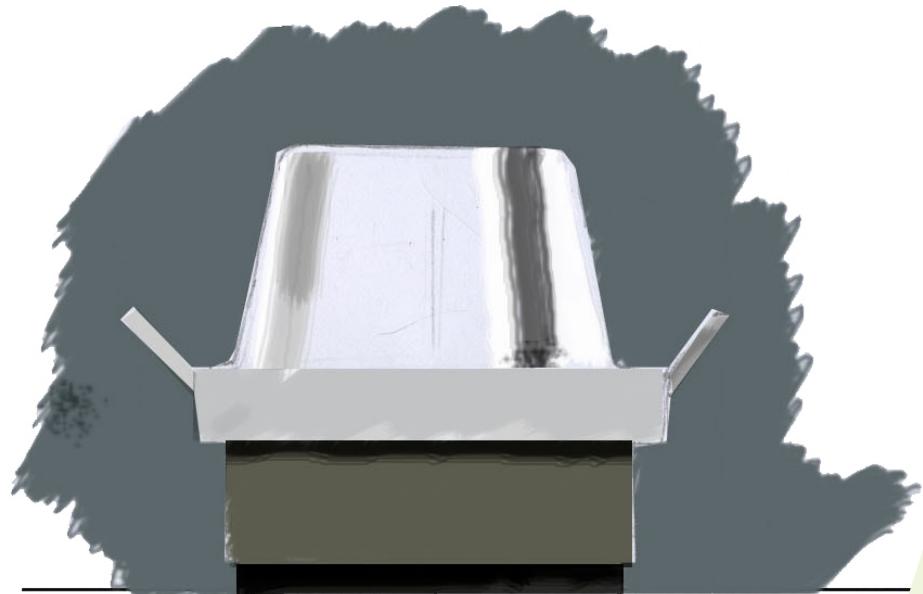
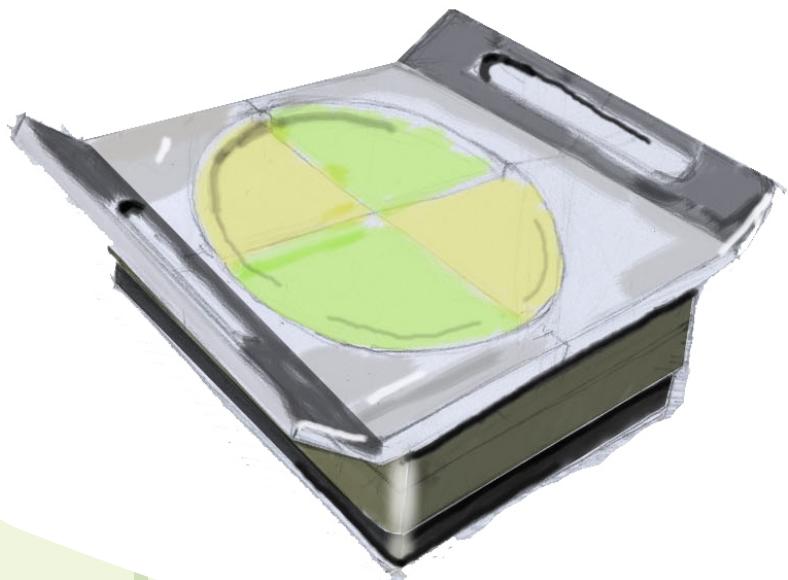
In this stage of the concept generation a need was felt to design looking at the activity of breakfast as a whole rather than looking at the activity just as cooking or just eating.



A “tray”

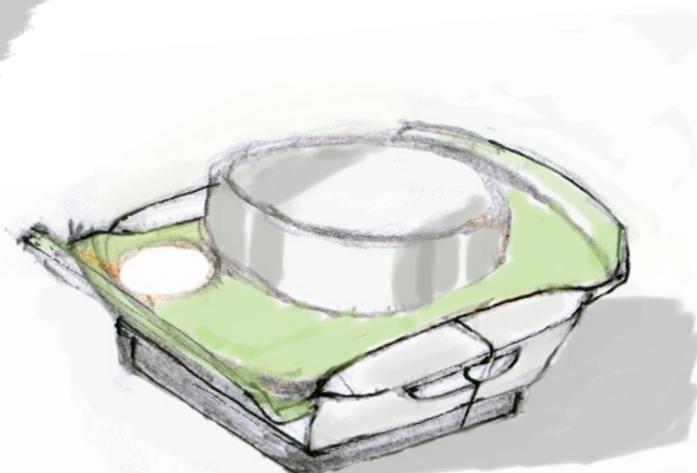
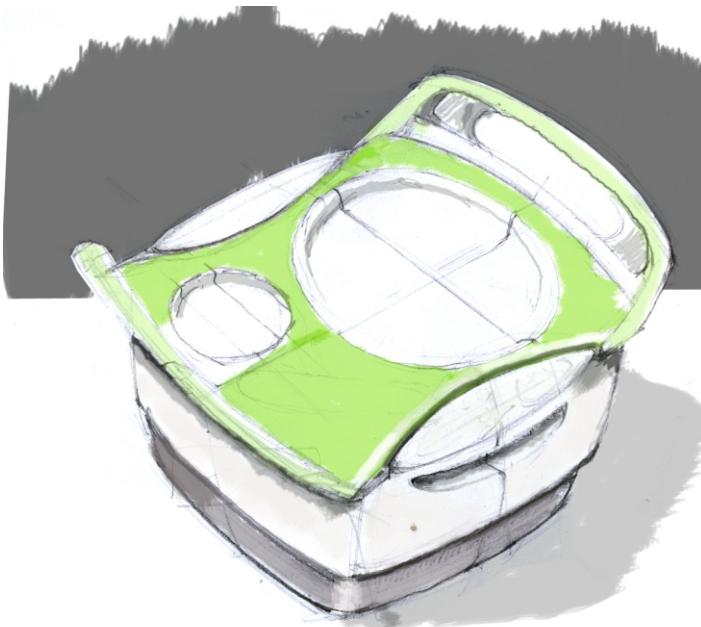


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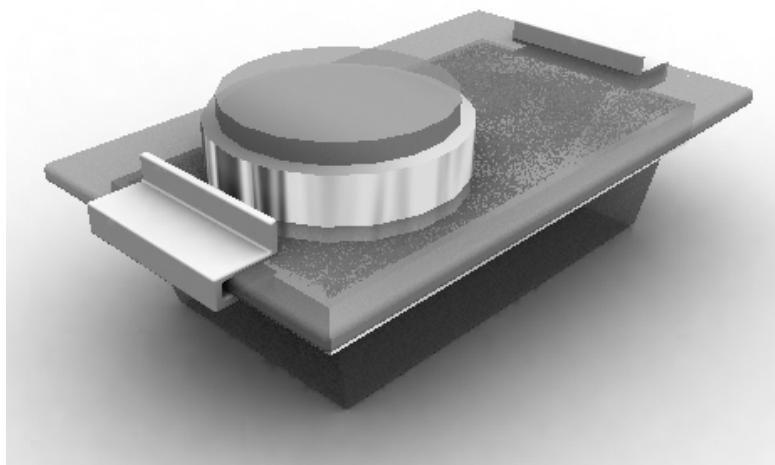
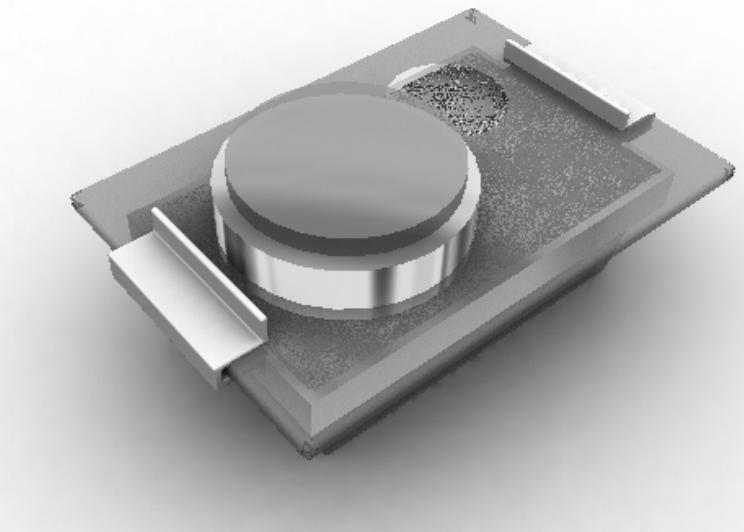


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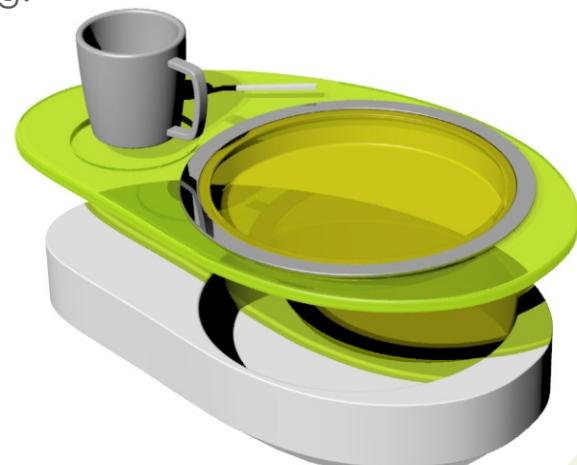
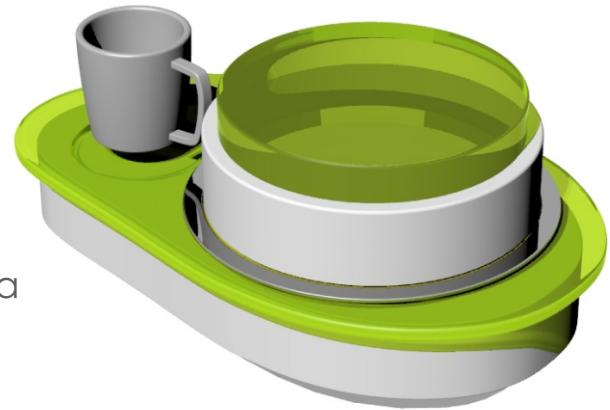
Final concept development

The third concept was chosen for further development.

The tray was developed further as a means of **eating on** rather than just carrying.

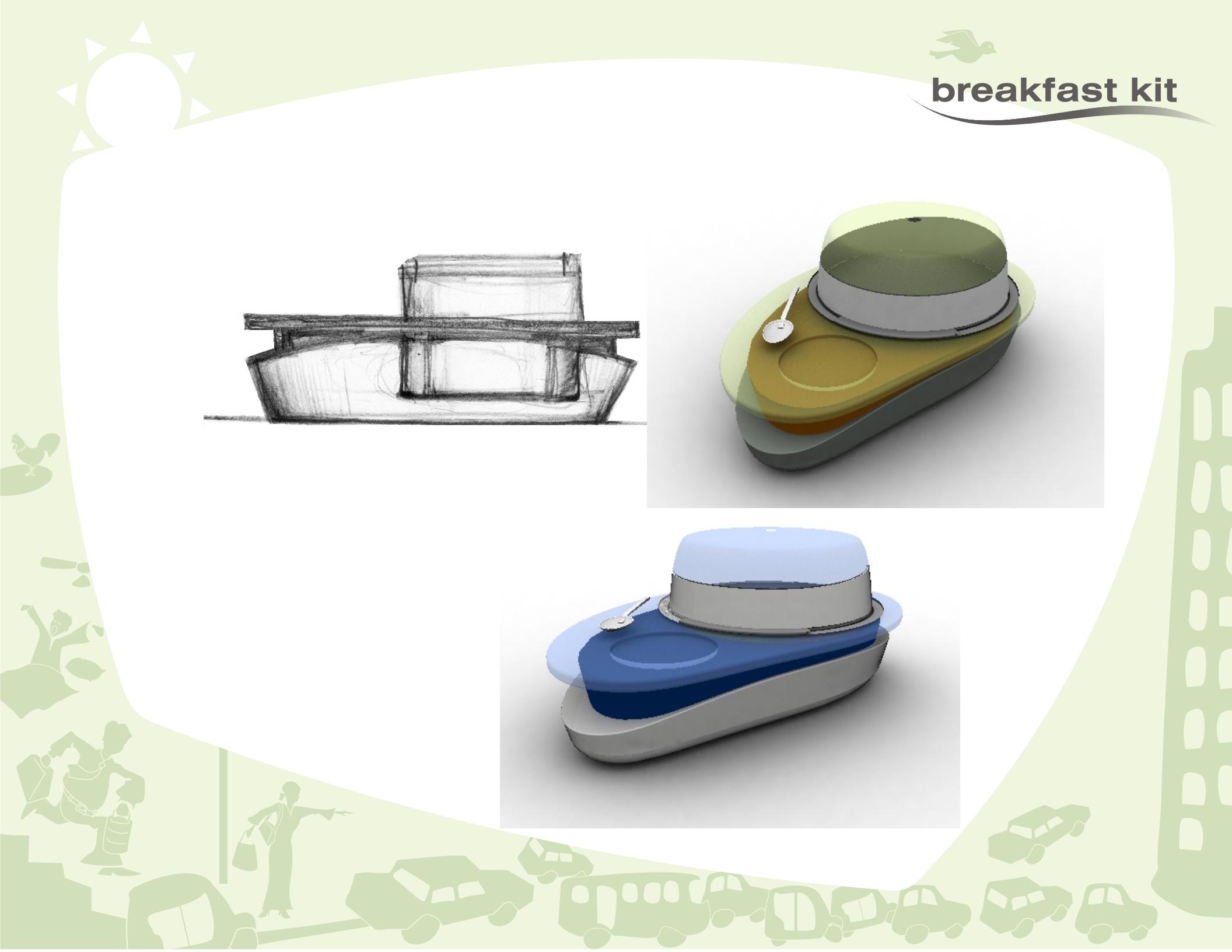
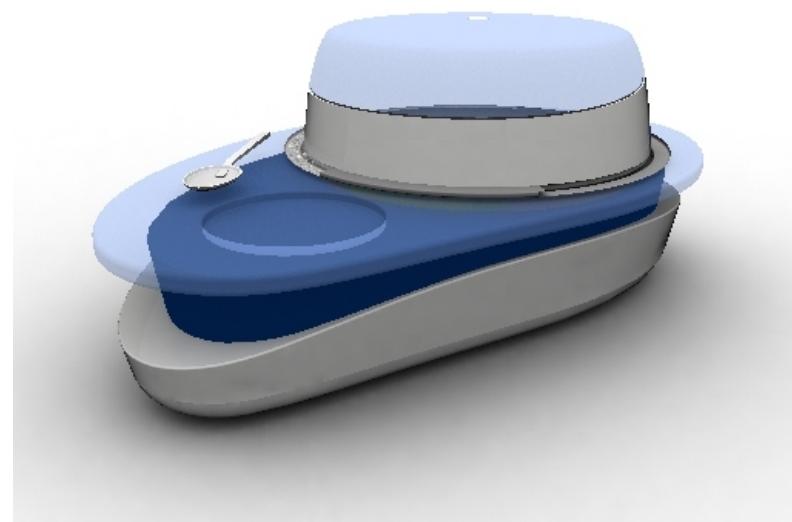
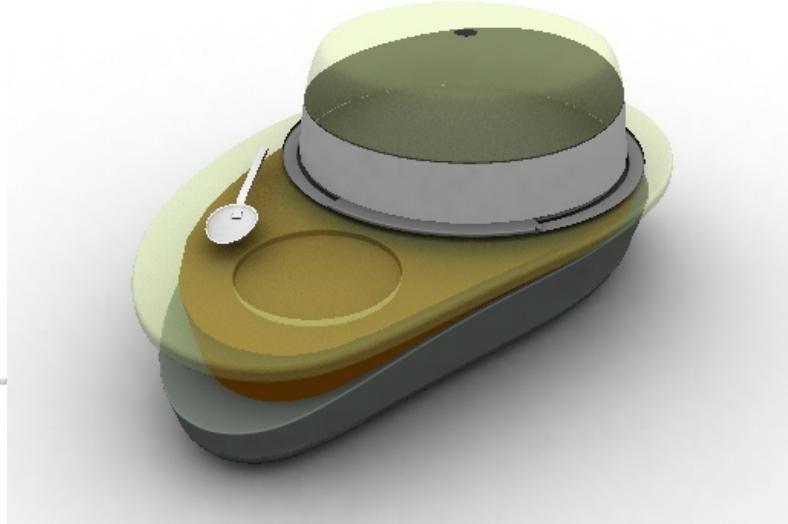
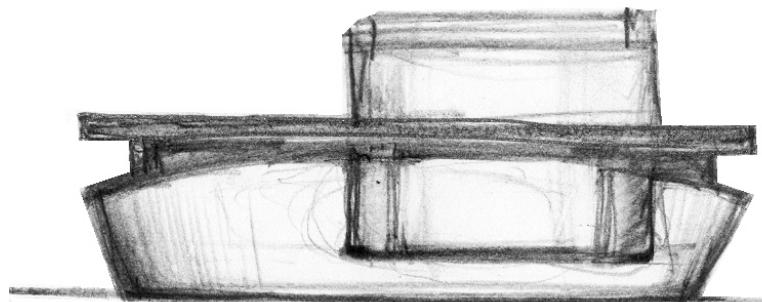
The form was thought about as a **banana leaf** which has a strong association with food in India.

There is a festive freshness about eating on this leaf. The third concept had prominent handles for carrying.



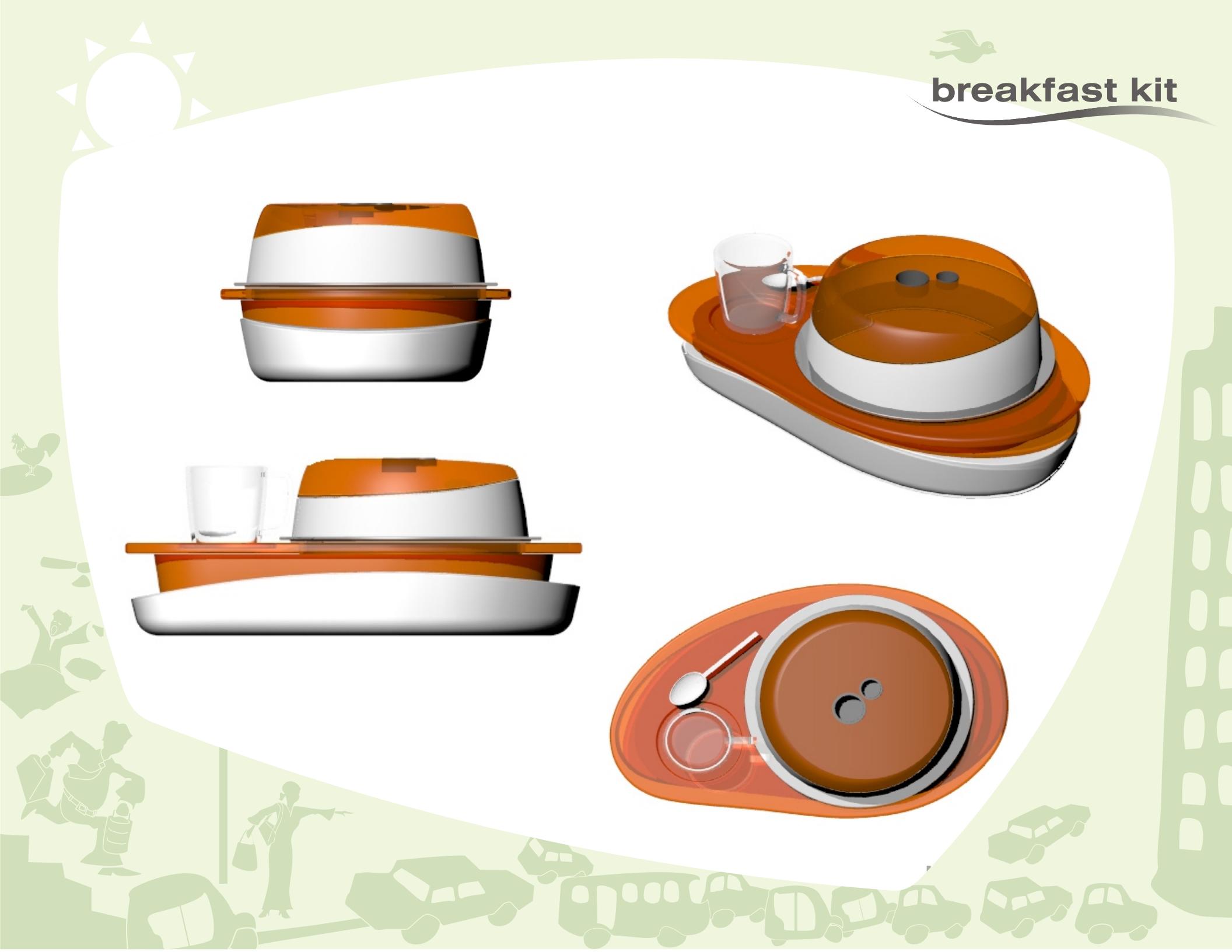
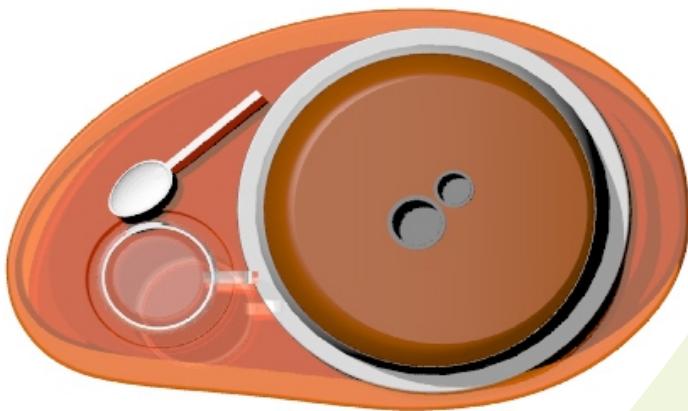
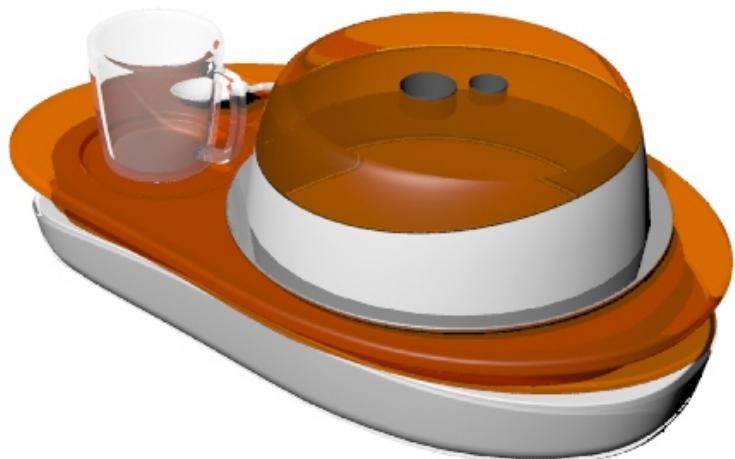


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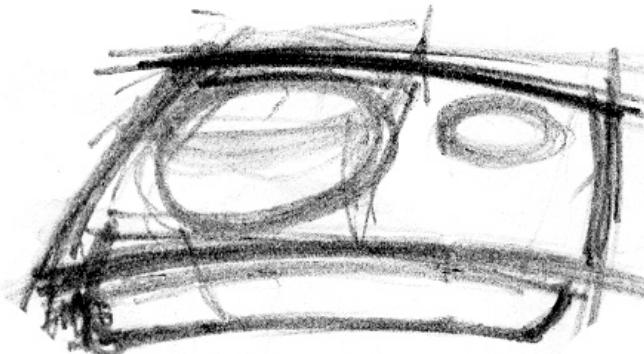
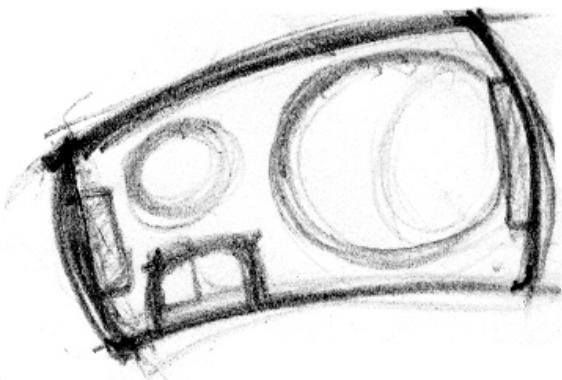
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Final concept

After evaluating the several made in the final concept development stage, it was found that the positive thing about the concepts was that they did not have the typical appliance kind of a look. It moved away from the conventional to something which suggested an activity. However the major drawbacks of the forms was that they lacked a degree of sophistication that would be necessary to relate to our users.





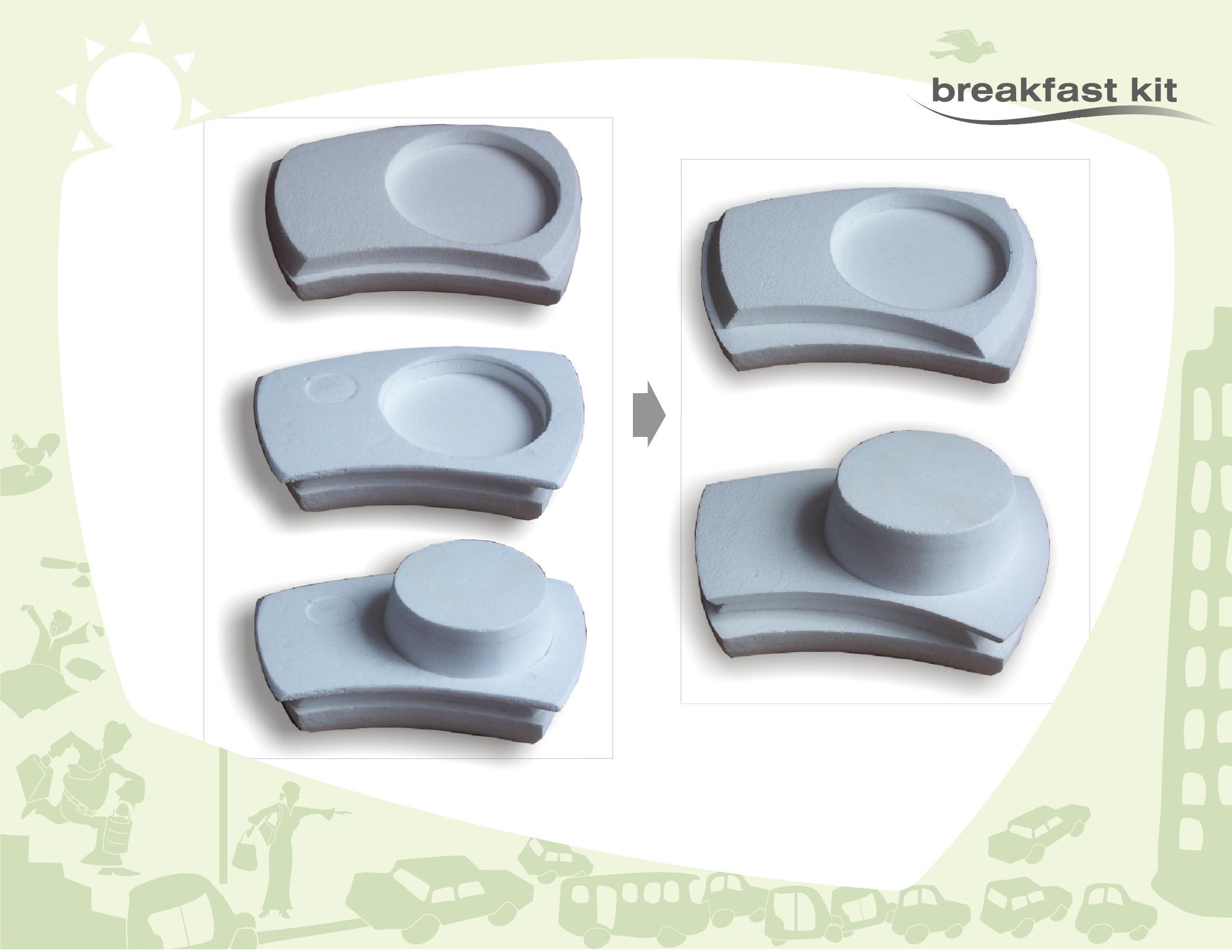
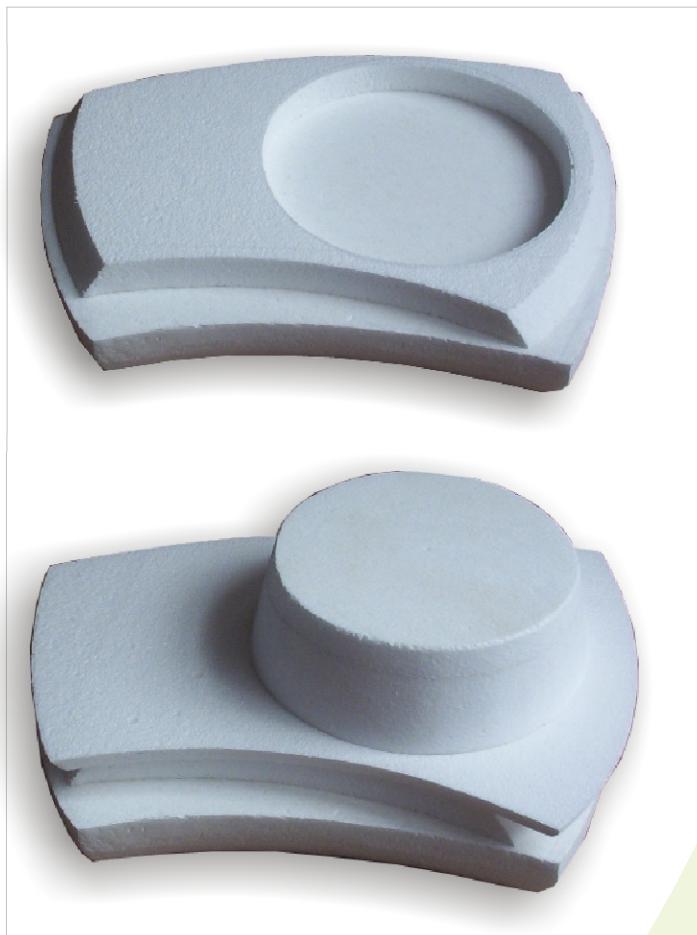
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Process models



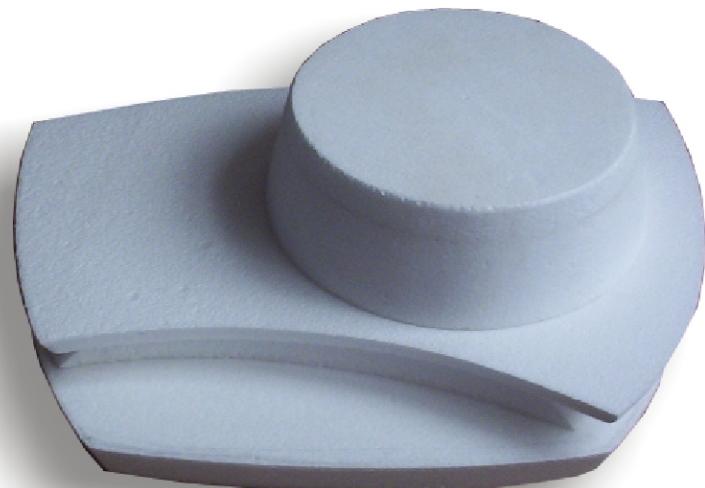


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Space for control panel.

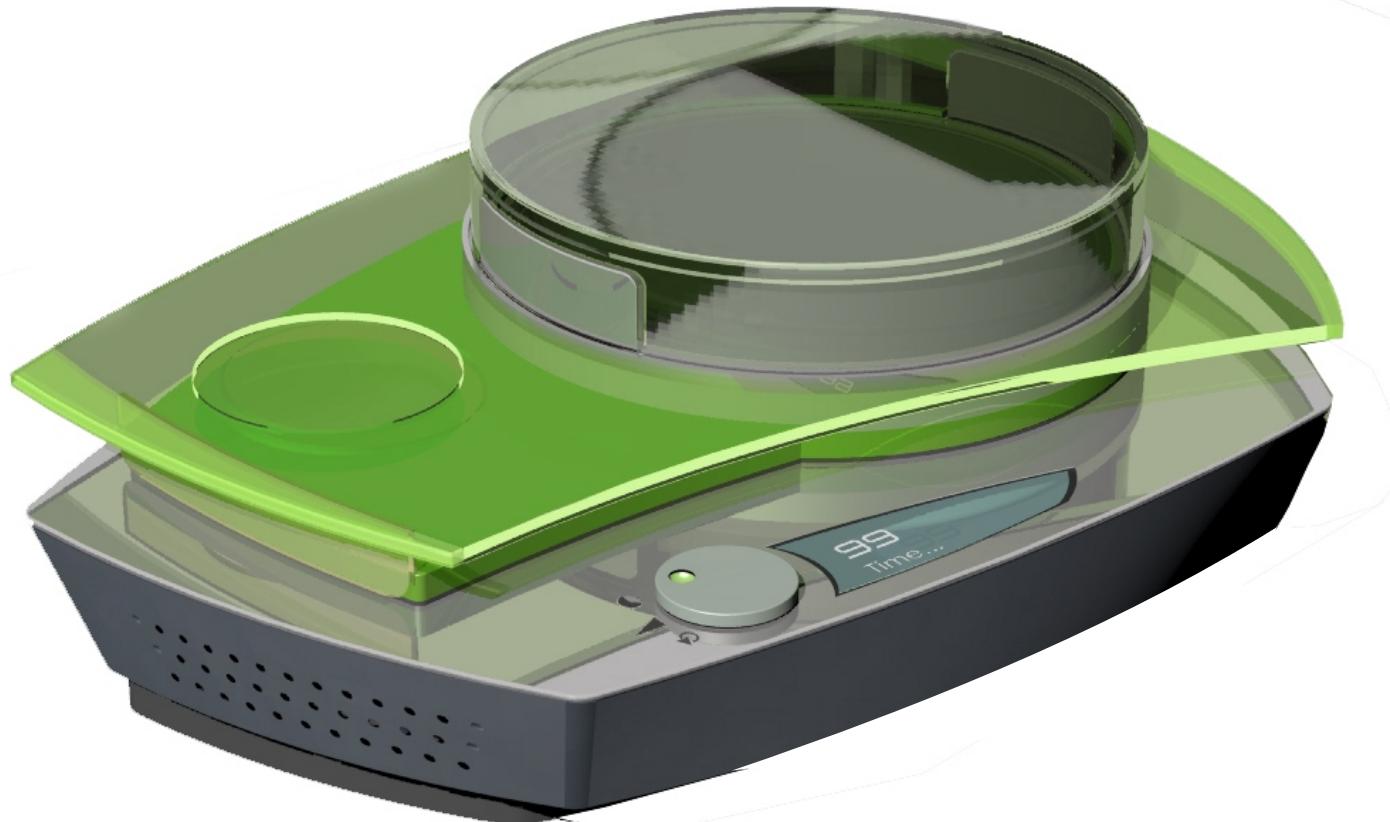


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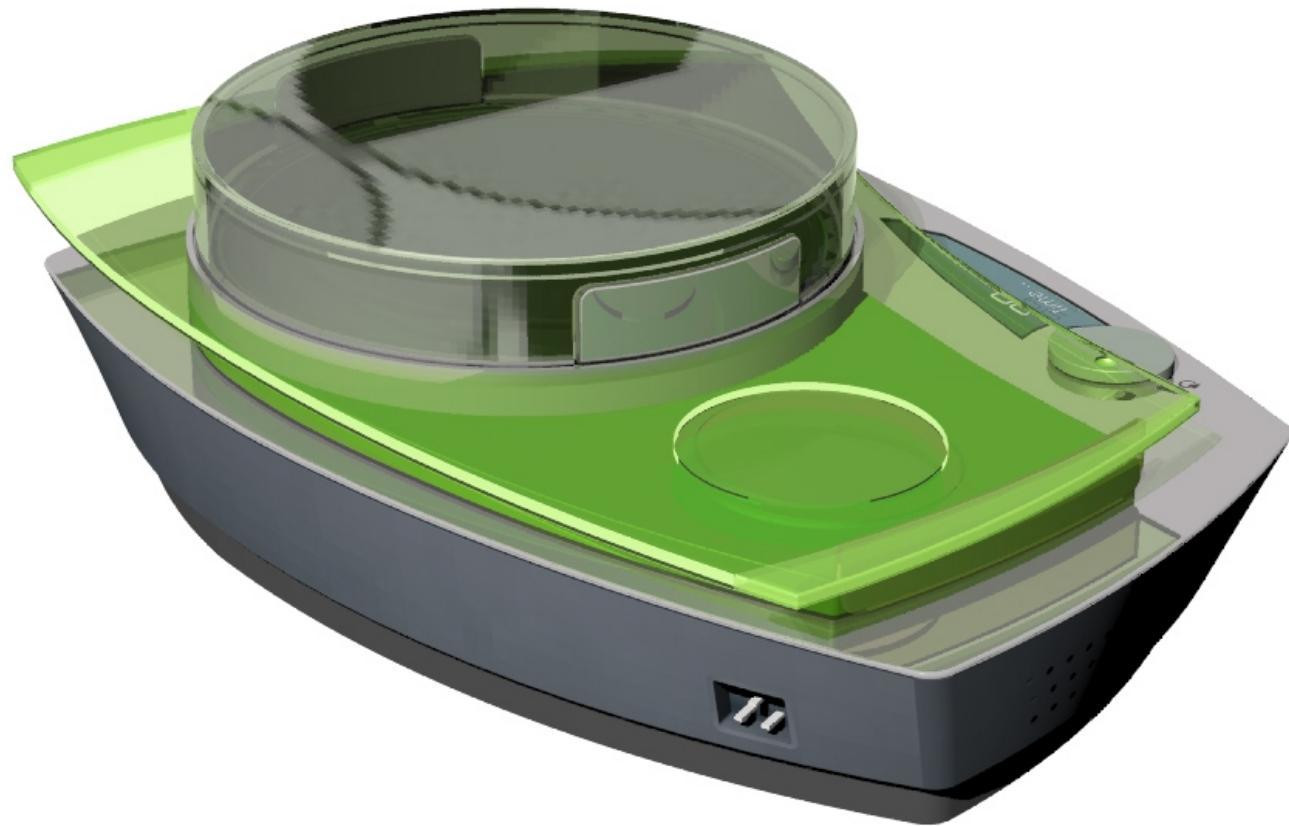


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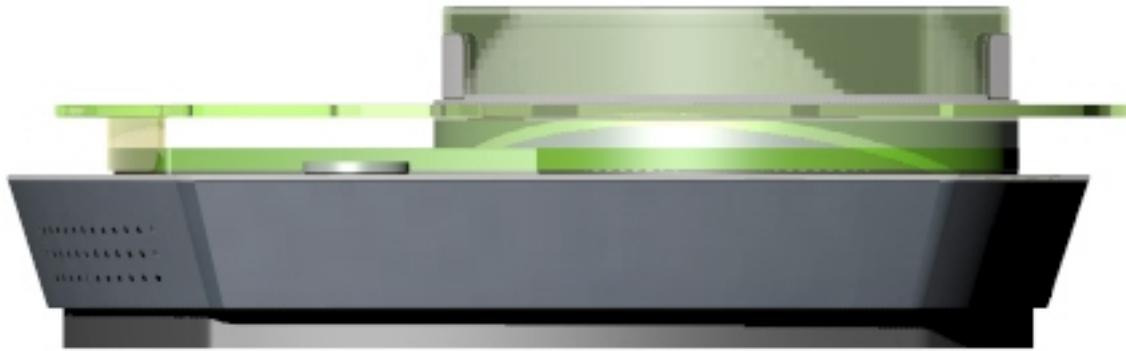
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Top view



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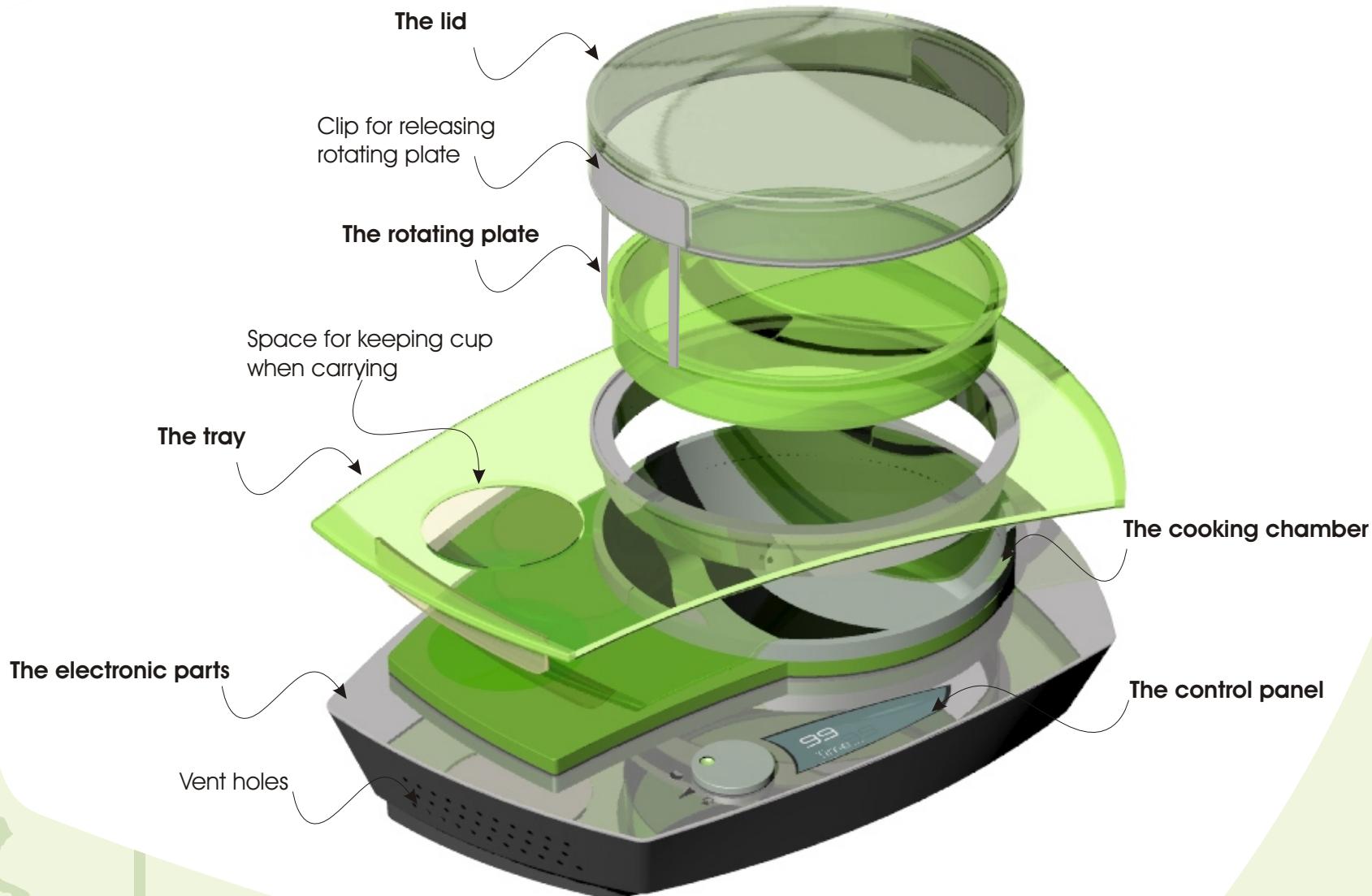
Front elevation



Left side



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