

IDP 602 DESIGN PROJECT II

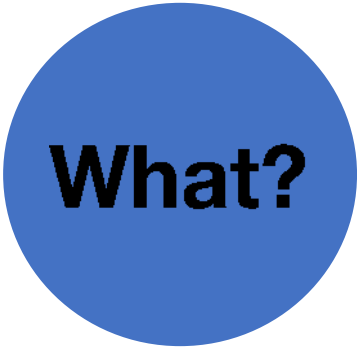
PATRIC JOHN 146130005

Guide : prof.Purba Joshi

Design of Food Kiosk for street vending : urban Indian scenario

“A Design project to Support & Enhance the potential of street food industry in Urban India”

DISCOVER

A solid blue circle.

What?

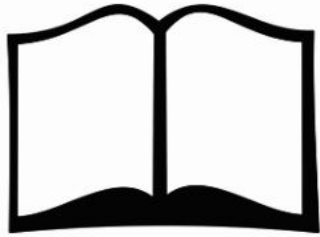
A solid yellow circle.

Why?

A solid green circle.

How?

Data collection



Street Food outside India



JB
45-83

Calzone Soft Drinks Margherita Freshly Ground Coffee Tea

Events
Functions
Parties
etc.

GRASSHOPPER
Landscape Maintenance

GRASSHOPPER

Bun Me

Baguette

Drink Special!!!
SOY
Black Soy Milk

Tea Ti Green Tea
#000000
LIGHT AND HEALTHY DRINK!!!
\$2.50

DRINKS
Pop \$1.25
Water \$1.50
Tea Ti Green Tea \$2.50

BBQ Lemongrass Chicken



Chicken
The classic chicken sandwich. Stuffed with our lemongrass-marinated juicy chicken and topped with our special sauce. Combined with a soft egg roll, crunchy cucumber, fresh cilantro, and crisp and refreshing pickled carrots and daikon, this sandwich will make your mouth water!

\$4.25 ■ HOT food

Lemongrass Tofu



Tofu
The spectacular lemongrass tofu sandwich. Stuffed with tender tofu steaks infused with a hint of lemongrass and a hint of sweetness. Combined with a soft egg roll, crunchy cucumber, fresh cilantro, and crisp and refreshing pickled carrots and daikon, this sandwich will keep you coming back for more!

\$4.25 ■ HOT food

Bun Me

baguette





Street Food in India













South Indian Food Cart



[REQUEST CALLBACK](#)



Owing to the vast experience and knowledge of this domain, we have been able to offer supreme quality **South Indian Food Cart** to our esteemed customers. These carts are ideal for selling samber, idli & vada food items. The offered carts are manufactured using advance tools and equipment in order to ensure optimum standards of quality.

Features:

- Termite resistant
- Weather proof
- Easy to clean
- Price :- Rs. 78,000/-

Approx. Price: **Rs 78,000 / Piece**

[Get Best Quote](#)

[Yes! I am Interested](#)

Ice-Cream Cart



[REQUEST CALLBACK](#)



Our company is instrumental in offering premium quality Ice-Cream Cart to our valuable customers. Available with us at highly reasonable market prices, these carts are precisely designed for selling of ice cream. These carts are manufactured from high quality raw material, which is procured from trusted vendors.

Features:

- Long functional life
- Easy to clean
- Fine finishing

Approx. Price: **Rs 78,000 / Piece**

[Get Best Quote](#)

[Yes! I am Interested](#)

Four Wheeler Food Cart

By: Vanateeg Marketing Pvt. Ltd.



Approximate Price - Rs 25,800

<http://www.indiamart.com/drebel/vending-carts.html#four-wheeler-food-cart>

Momo Carts

By: Vanateeg Marketing Pvt. Ltd.



Approximate Price - Rs 17,500 / Piece

<http://www.indiamart.com/drebel/vending-carts.html#four-wheeler-food-cart>



2015 New Arrival!!! Best Designed towing type fast food cart

Quality Assured

Most Popular

Views: 15,000+ Inquiries: 600+

FOB Price: **US \$2,000 - 4,000 / Unit** | [Get Latest Price](#)

Min.Order Quantity: 1 Unit/Units

Supply Ability: 100 Unit/Units per Month

Port: Shanghai, China

Payment Terms: T/T, Western Union

 **Contact Supplier**

 Leave Messages

http://www.alibaba.com/product-detail/2015-New-Arrival-Best-Designed-towing_613232447.html?spm=a2700.7735675.30.82.gzmL9h&s=p

These kiosks are not designed to be dismantled and sent. They are assembled and sent as whole in big trucks and trailers.

Major Lacunae with Indian products

Lack of space consideration for basic provisions like water for drinking, storage for equipments and accessories, mobility, flexibility of workspaces or modularity, Aesthetics, Visual hygiene.



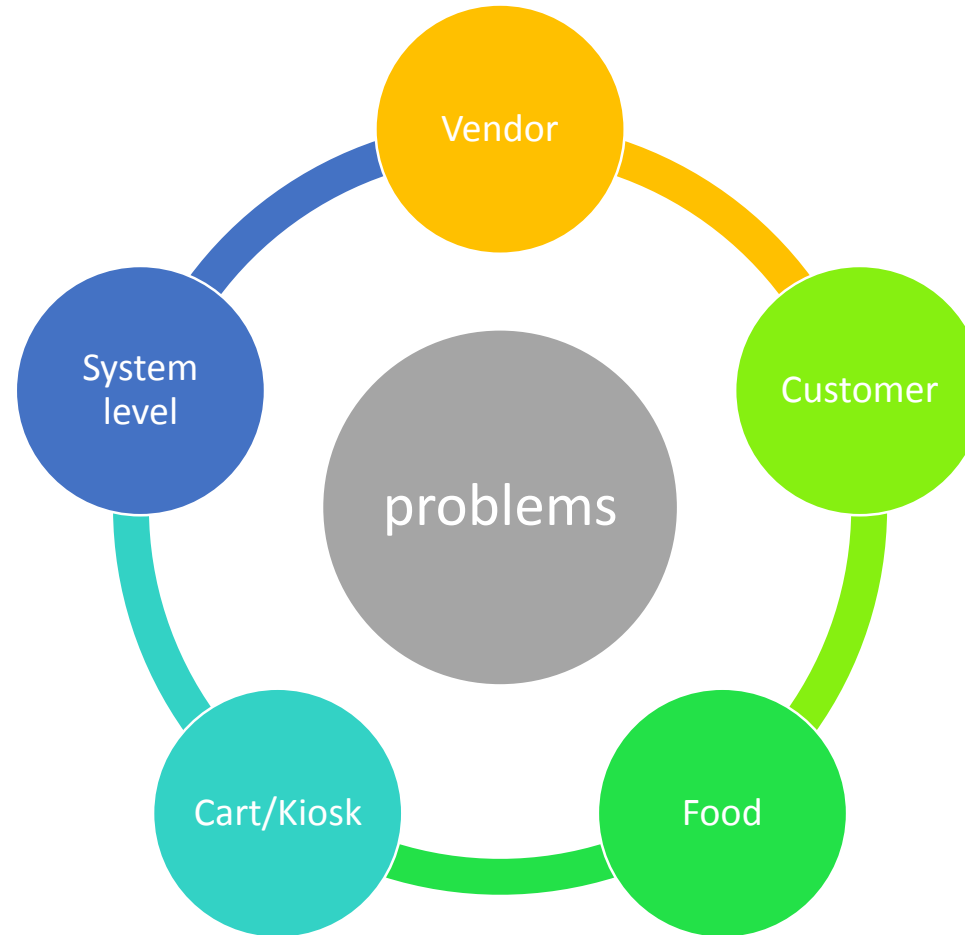
Major strengths

- Different and unique experiences of locations and its ambiances.
- Diverse and unique styles of preparation.
- Variety of taste
- Reaches & Serves to a large section of population
- Supports livelihood of millions of people
- Low & affordable to majority of Indian Population
- Fast and Instantaneous service
- Requires simple skill and less investment (relatively low capital)

Major Weakness

- **Less/no Design carts/products/ accessories for street food vendors.**
- **No standardised products/carts/Kiosks in India.**
- **Lack of professional vendors and support from manufacturers, Industries, fabricators & designers. Less/little training and awareness about hygiene and good cooking/preparation Practices of vendors.**
- **Lack of hygiene to cart, vessels , equipment and surroundings.**

PROBLEMS & ISSUES



Problems to focus

- Aesthetics and form of the cart
- Ergonomics related problems
- Workspace layout and dimensions- to make it good,
Storage space and other provisions accessibility.
(Include comfort, ease of use, increased productivity
and
Performance, aesthetics & safety.)
- Visual hygiene of the cart and provisions for the
vendor to practice hygiene.
- Consideration of other equipments and accessories
for added value
- (Aspects/features which can help vendor , customer
and the public)

DEFINE

Objectives

A Design project to Support & Enhance the potential of street food industry in Urban India.

The new cart should not decrease the variety/Diversity

The project doesn't intend to replace the vendors at the "bottom of the pyramid"

The product is intended to be like a "dérailleur" to shift-up the level of vendor's status and business condition. It will be like a standard product with different options/possibilities to be able to be used by any vendor who wants or any potential customers.

Design Brief

To design food kiosk and system of equipments and accessories for an urban street food vendor who wants to upgrade his business. It should have basic provisions for cooking, preparation, waste storage, storage space for food, equipments, drinking water. It should have a flexible workspace which can be used for 4/5 different varieties of food. The workspace should be ergonomically good. The kiosk should be able to close completely at night. It should be able to clean and maintain with minimum effort. It should have mobility. Price should be under 1 lakh. The cart should be able to dis-assembled and send it in a box, from manufacturer

Target user

Vendors
who want
to upgrade
their
business

Target user
customer

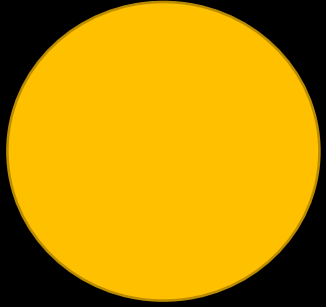
Middle
class

Amount of
people

150-200
people

Target food
type

snacks-
(wraps &
rolls)



**A street food vendor
who wants to upgrade
his business**

Potential buyers/users of my food kiosk

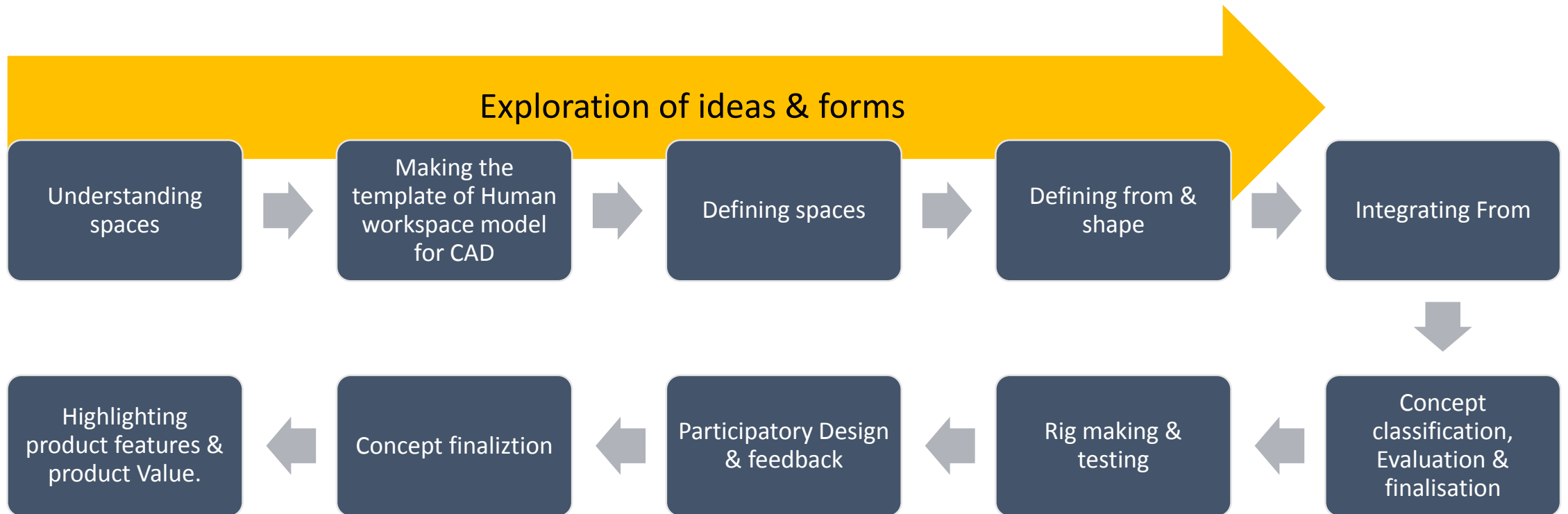
A small cafe
owner who can't
continue to run
the shop due to
heavy shop tax.

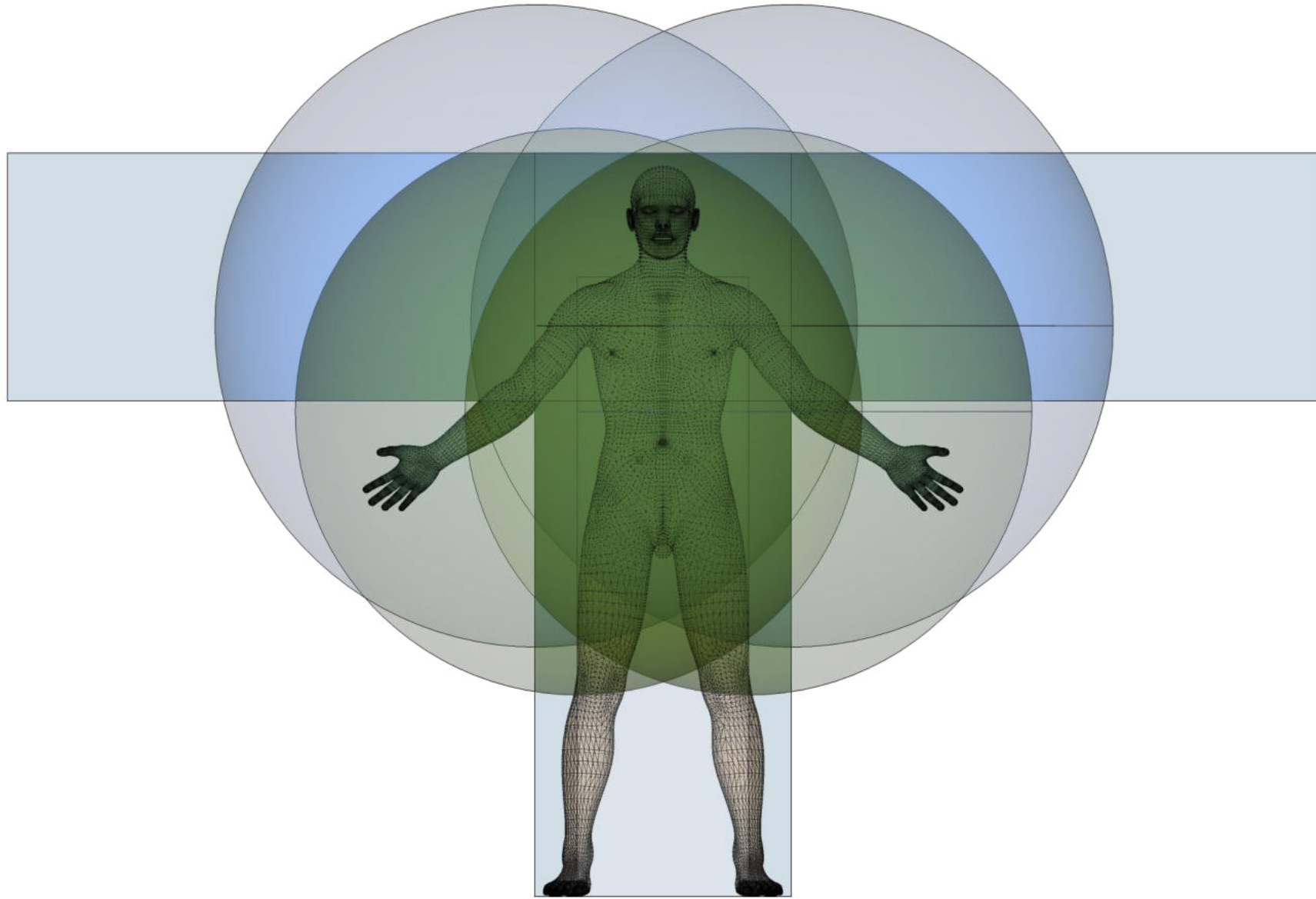
Hotel/Restaurant
management who
want to sell their food
far from the shop.

A graduate
student/
professional in
cooking/culinary
arts who wants to
practice and earn
some.

A housewife/
“common man” who
knows cooking and
wants to earn some
money.

DEVELOP

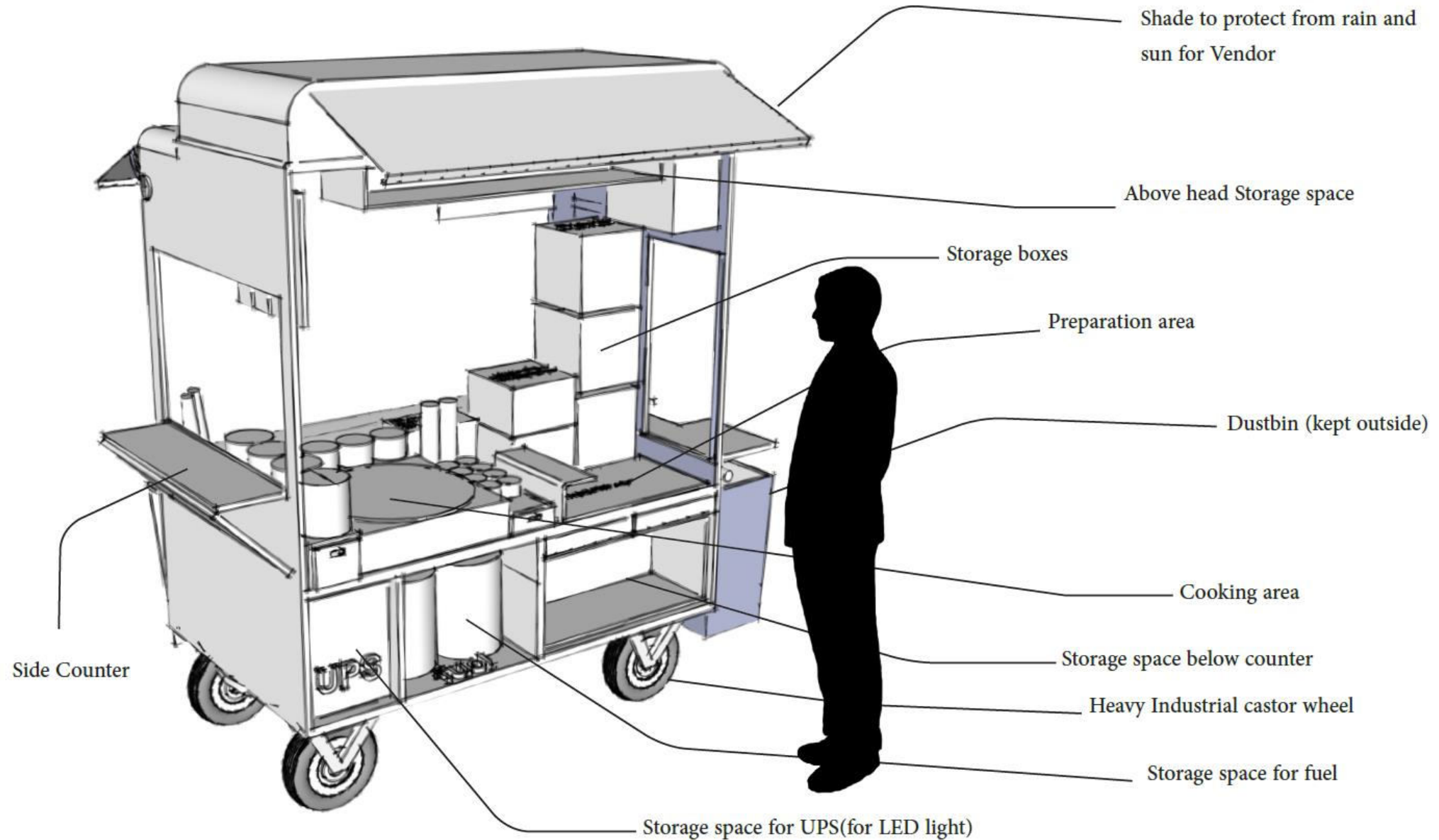




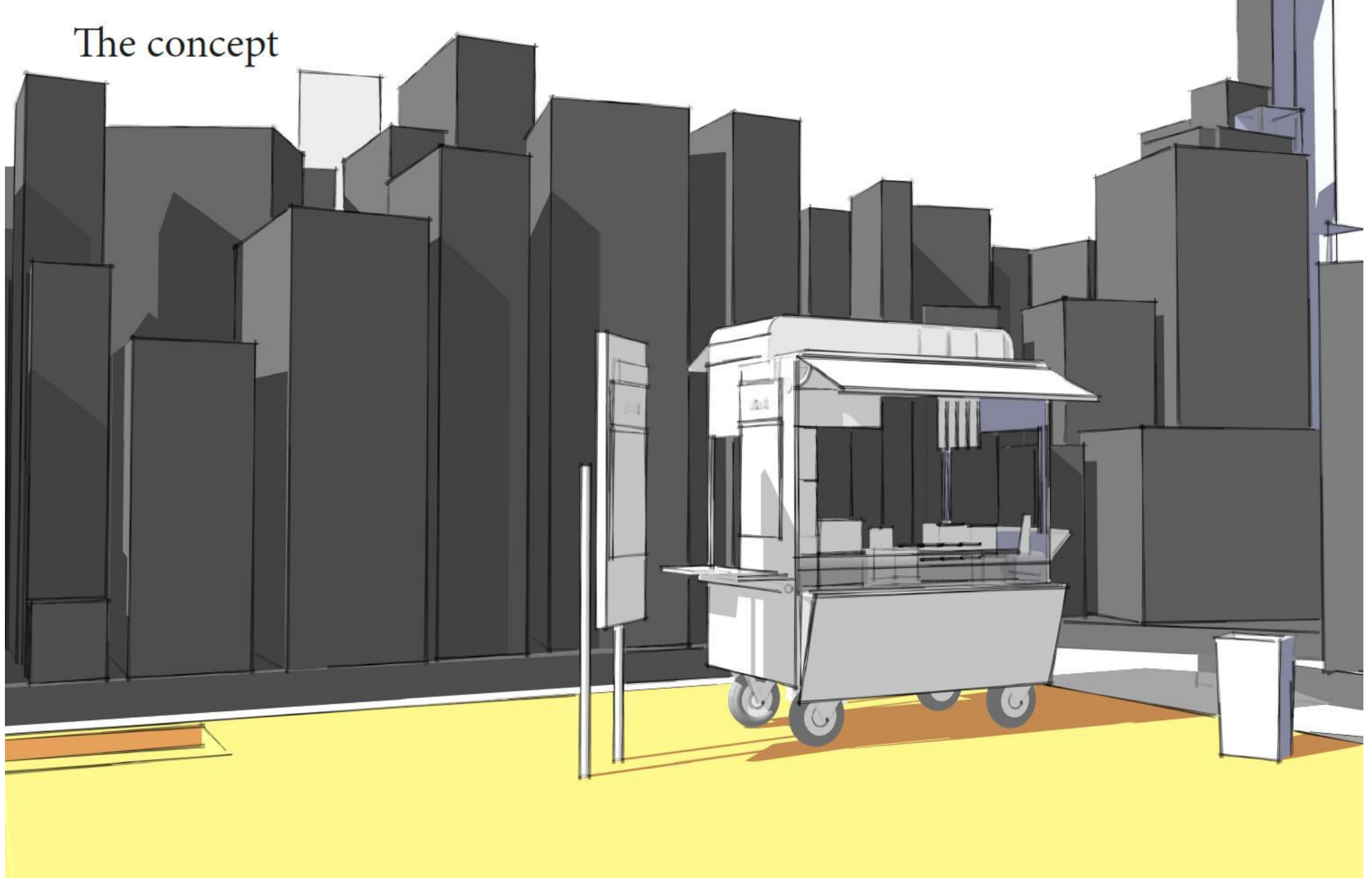
Virtual Human template

Defining Spaces/features & other aspects

The Concept



The concept



Ideation & formal exploration

Ideas and exploration of concepts happened parallel y with the development of the spaces. After the development of spaces, the ideas were then integrated with the concept and analyzed.

Screening of ideas

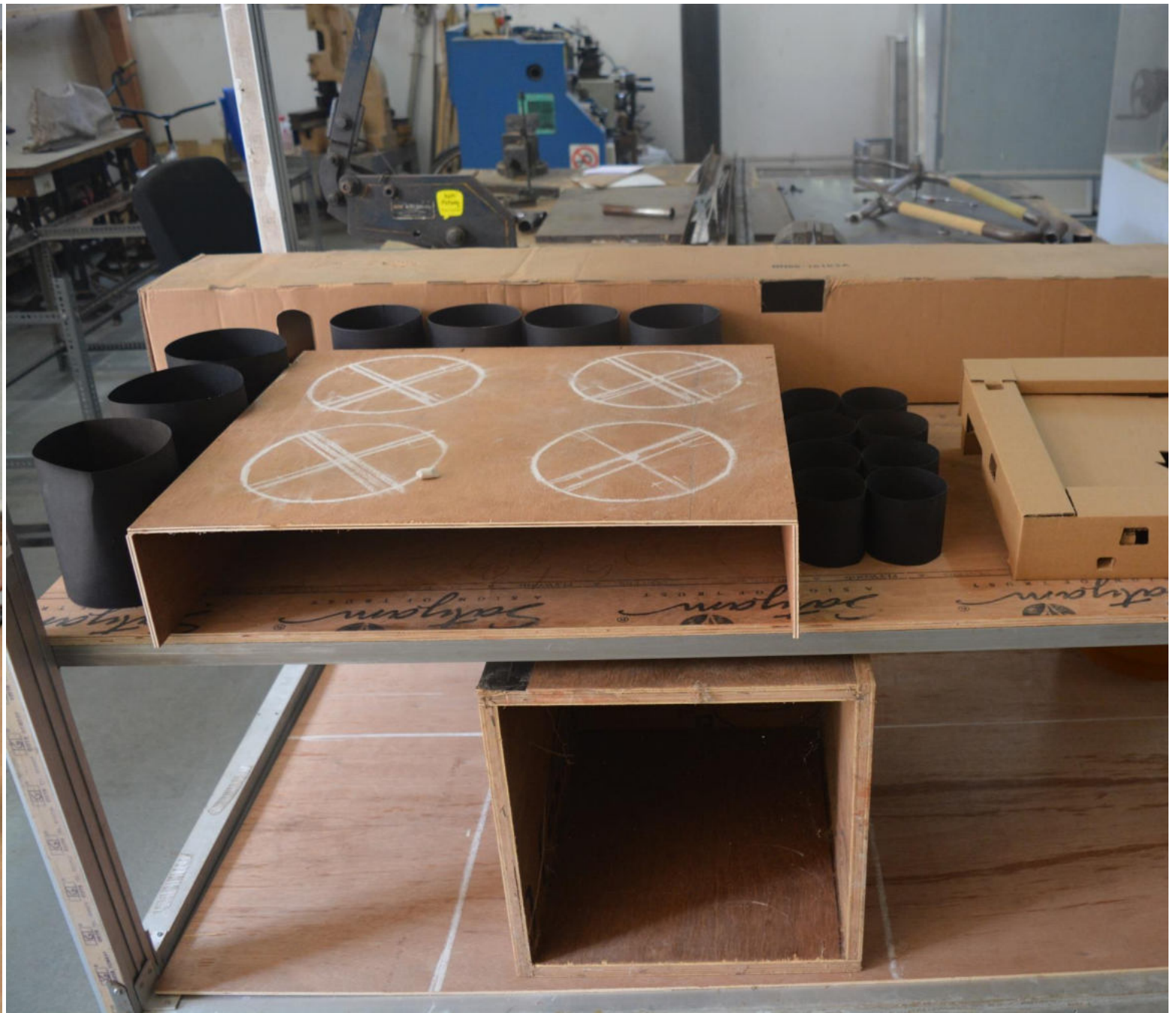
All ideas has to be filtered and have to select the few good ones for the final concept evaluation. The concepts were individually evaluated on the basis of various aspects and 8 concepts are selected/shortlisted for final evaluation.



Concept evaluation

	Colour & graphics	Algae	Glass	Box	Oven	House	Lunch box	Bamboo
Form dominance	5	6	7	6	9	8	9	6
Visual attraction	6	9	7	6	8	7	6	7
Innovativeness	4	9	6	8	9	6	7	6
Structure complexity	9	4	4	7	4	6	4	7
Maintenance factor	8	4	4	6	4	6	7	8
Cost	7	3	3	6	4	5	5	7
Manufacturing Complexity	6	2	4	5	3	5	4	5
Self-contentedness	7	9	8	7	9	9	6	7
Appropriateness in the Indian context	9	6	5	7	8	9	8	8
Total	61	52	48	58	58	61	56	61















“Only after the final model I will be able to give more feedback. I Will be glad to help you anytime”

feedback

Provision for storage space for 5kg gas might not work well as estimated. Availability is one issue, also the gas might finish quickly .

- A cover or shade near cooking space would be appropriate to protect from hot smokes, flames and oils.
- The roof of cart should be made such that smoke should not stay inside. Also the material should be carefully selected so that cleaning will be easy.
- use of steel will help to clean and will be long lasting, and easily available.
- Use of tissue is appropriate for the design.
- Overall design is good. The flexibility in space will attract vendors.
- wheels are good , but detailing has to be done carefully.

Use of wood inside cart should be carefully used since cockroaches and other bugs might breed between them. Also spilling of hot and cold food items will spoil it.

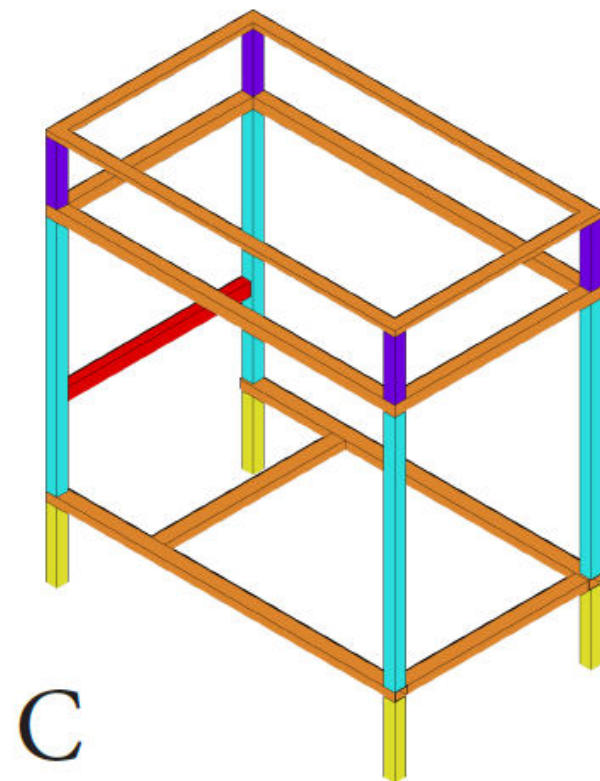
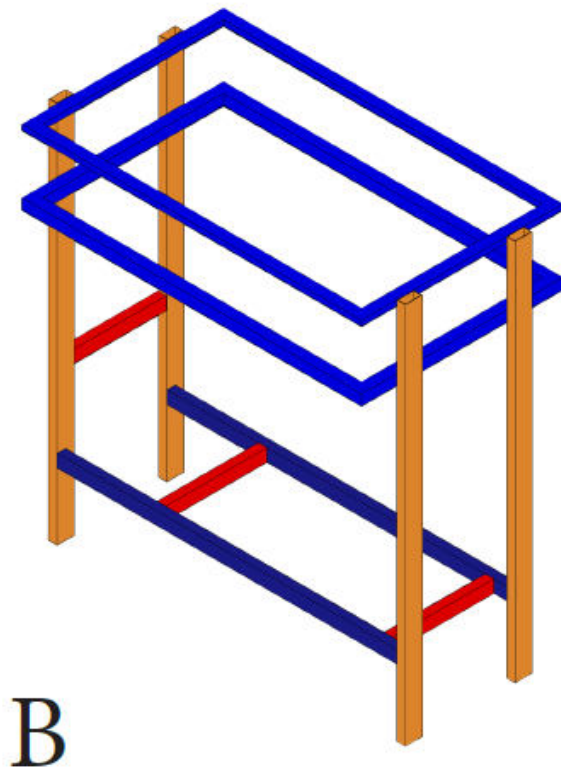
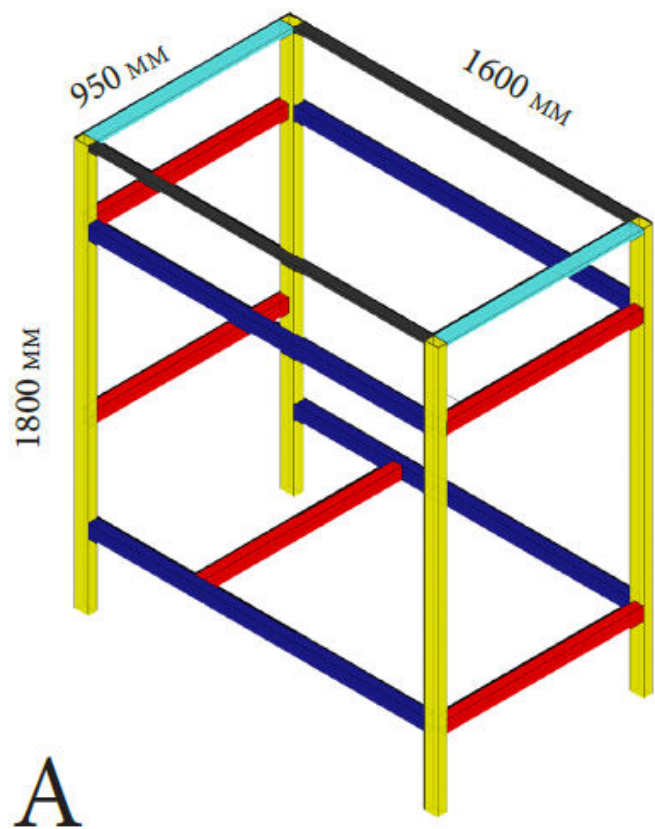
- Care should be observed while handling cooking equipments.
- Keeping of oils or other flammable materials near the stove should be avoided
- High pressure and low pressure valves should be used accordingly.

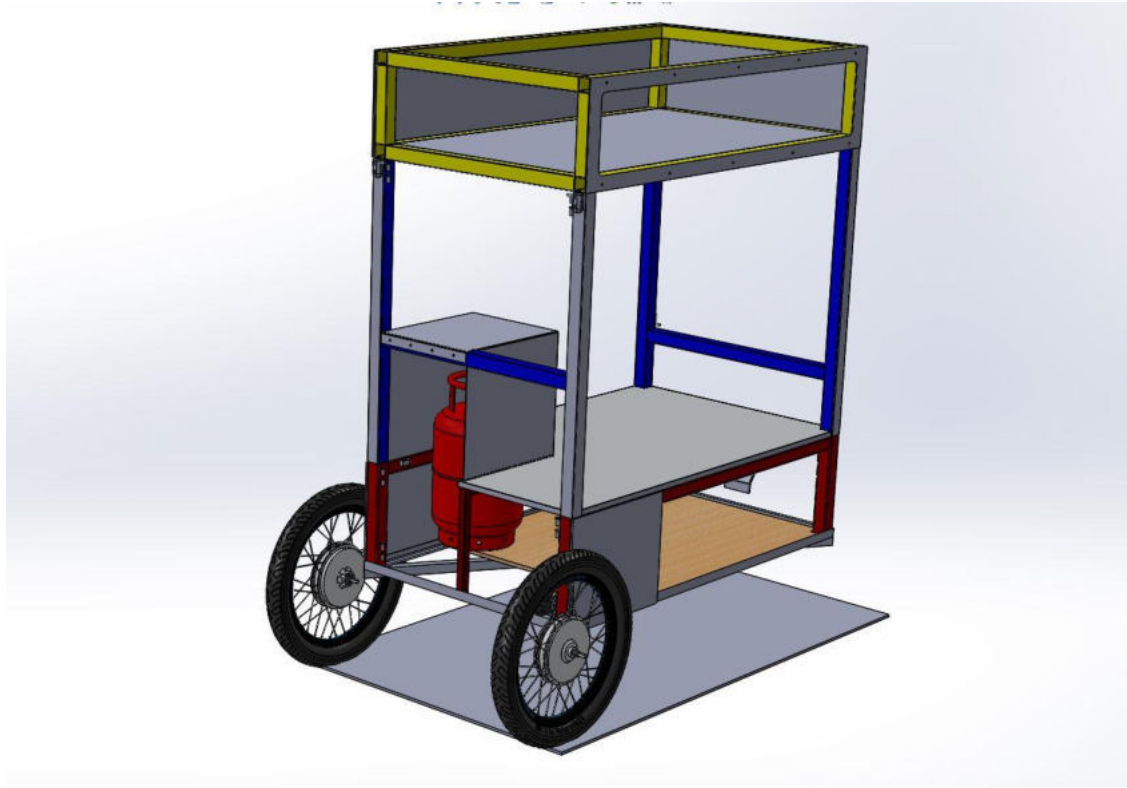
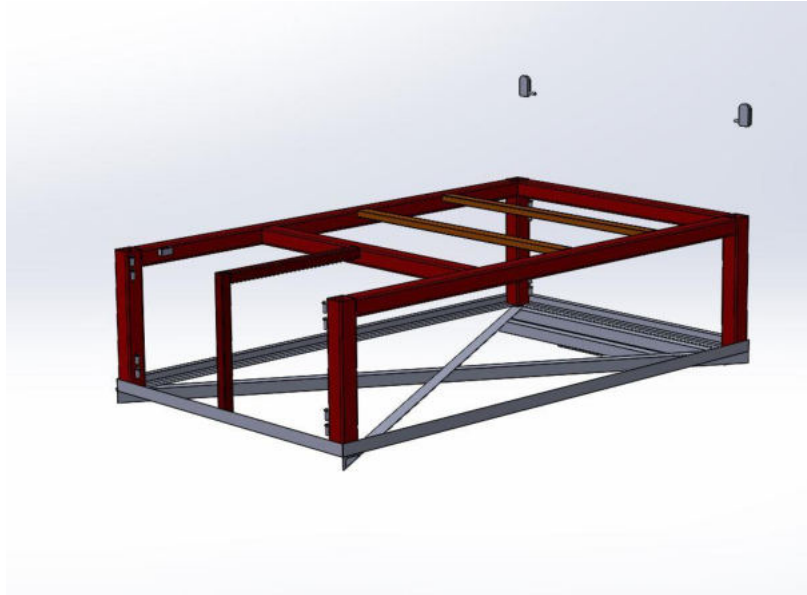
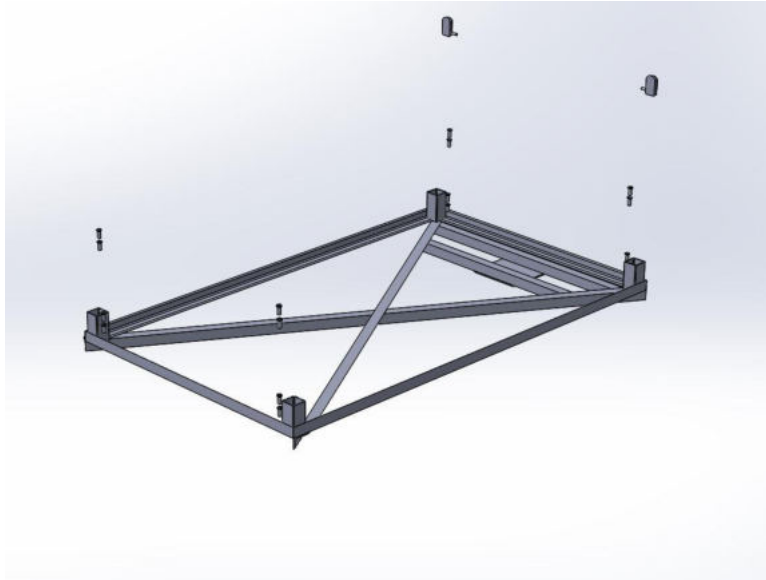
Product Details

Materials & Manufacturing process

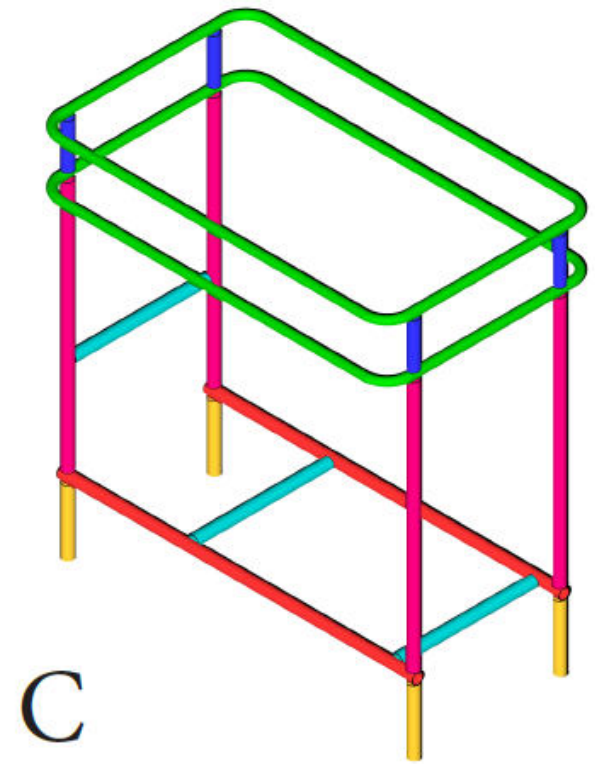
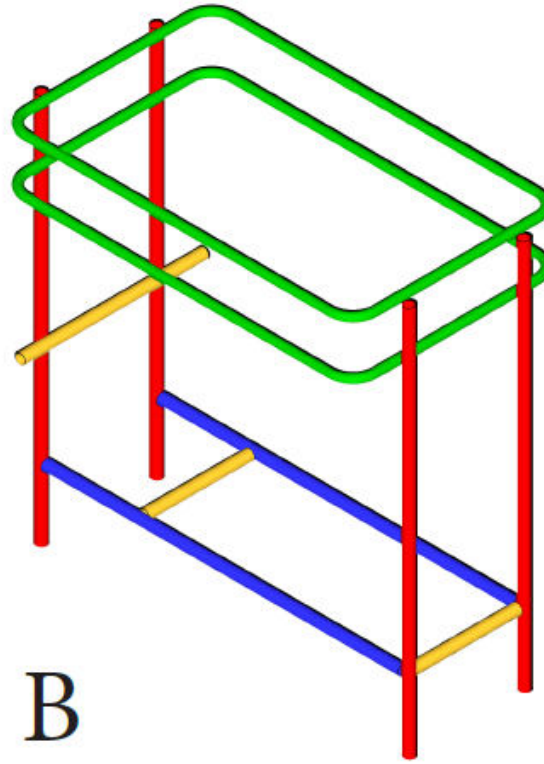
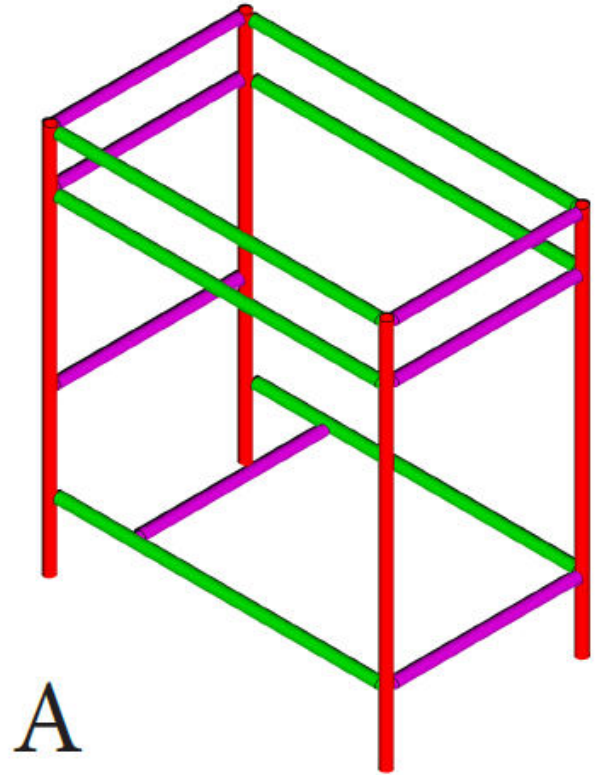
Structure exploration - Main frame

Box section - Mild steel



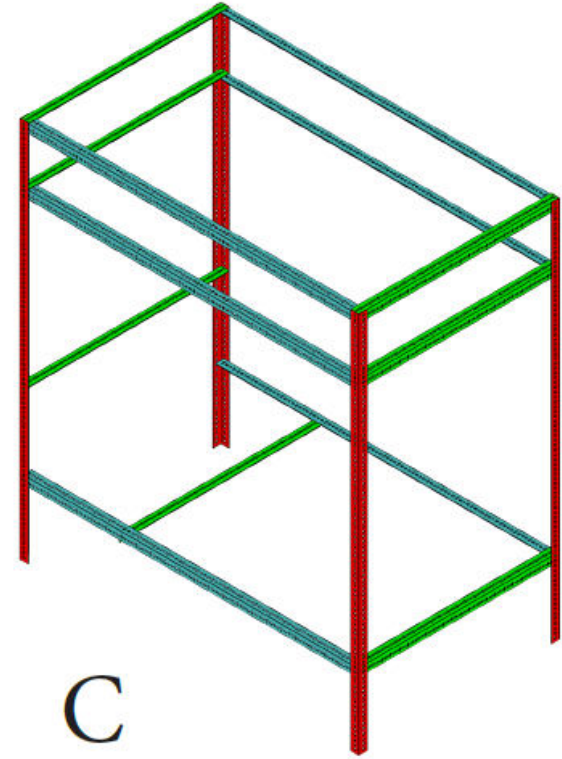
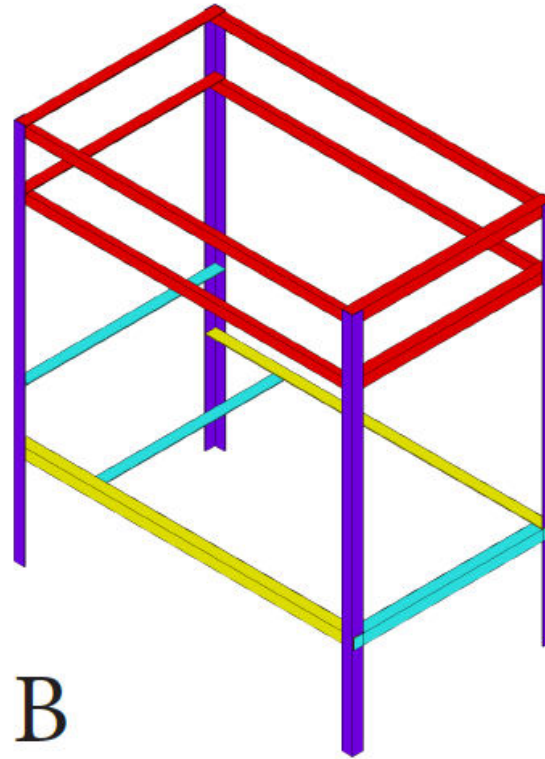
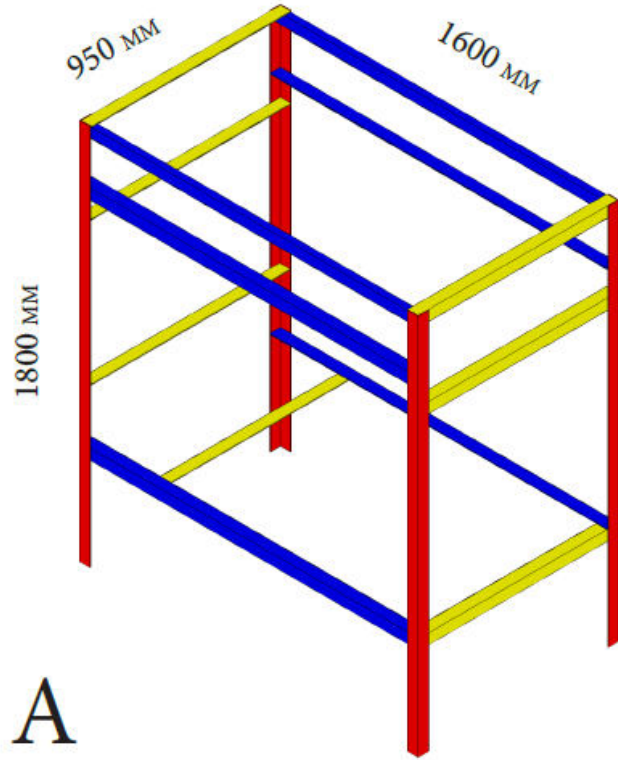


Structure exploration - Main frame
Circular section - Mild steel



Structure exploration - Main frame

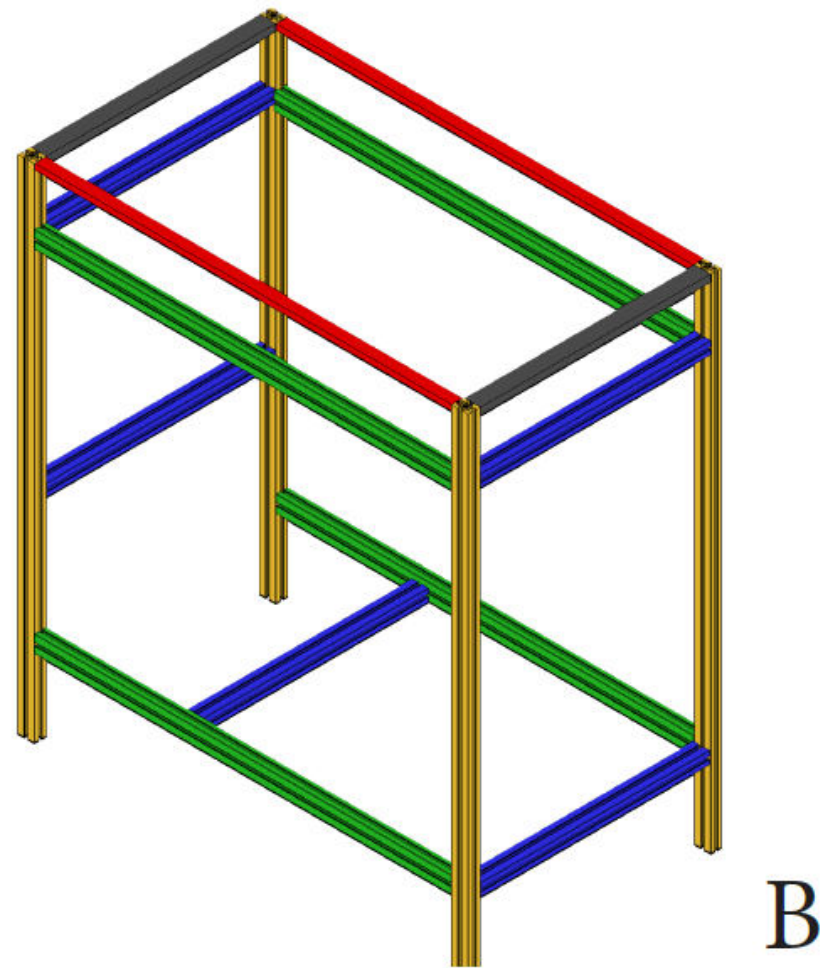
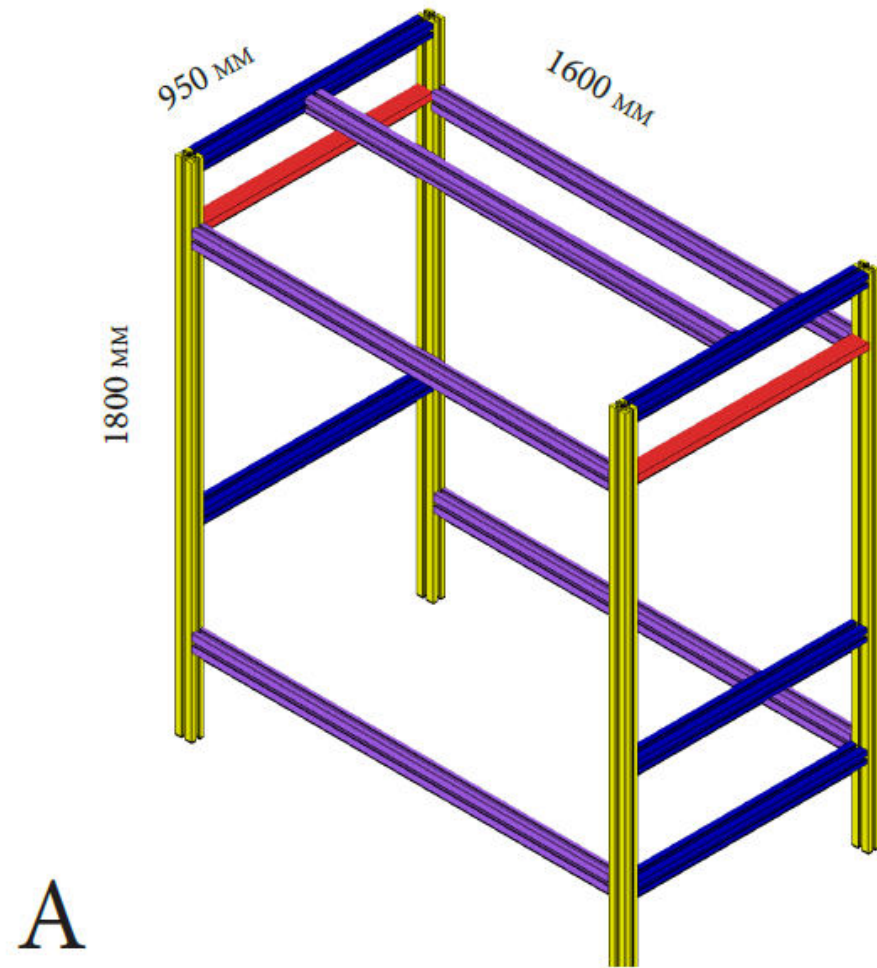
90 degree Angle- section - Mild steel



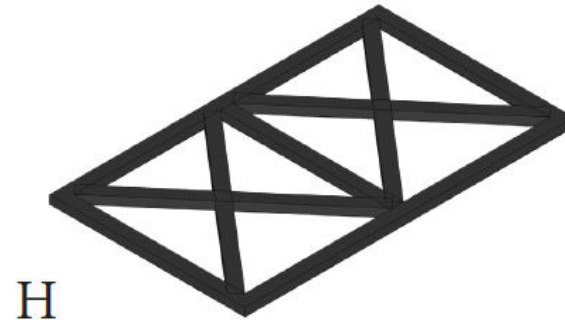
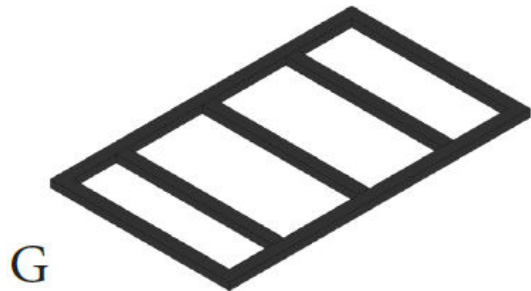
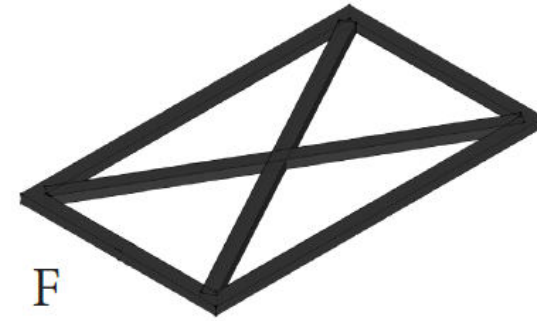
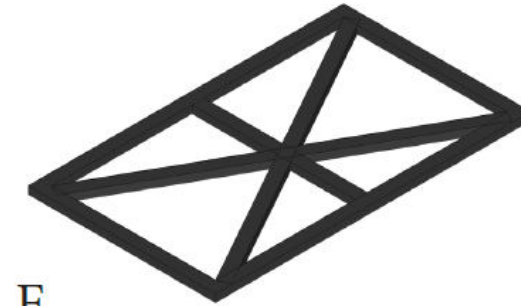
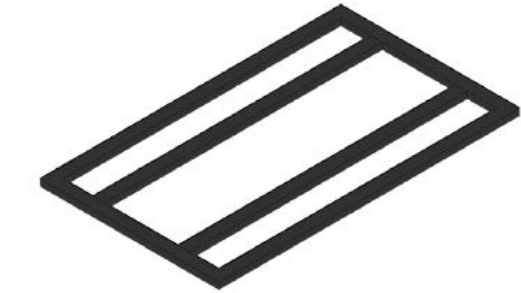
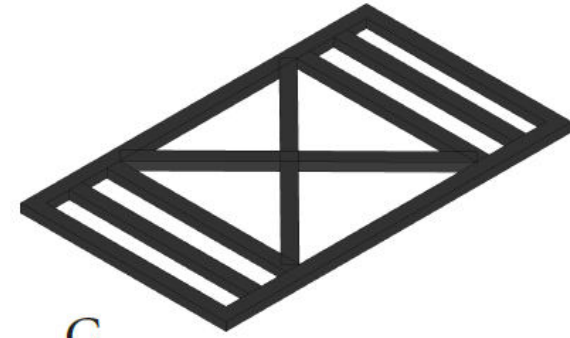
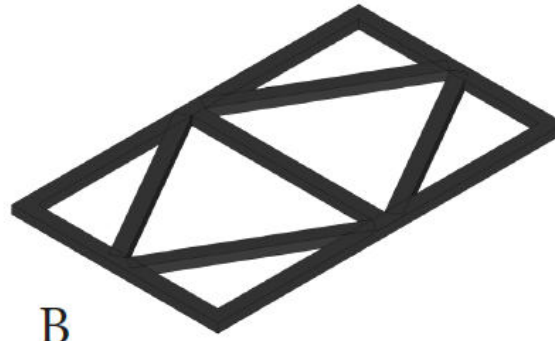
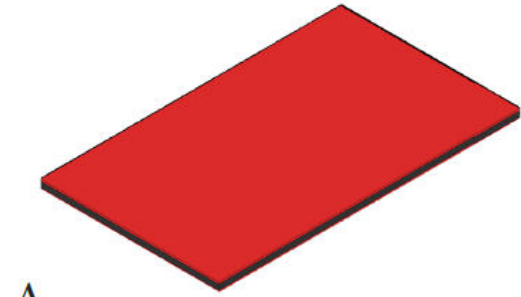
L - section - slotted

Structure exploration - Main frame

Special X-profile - Aluminum



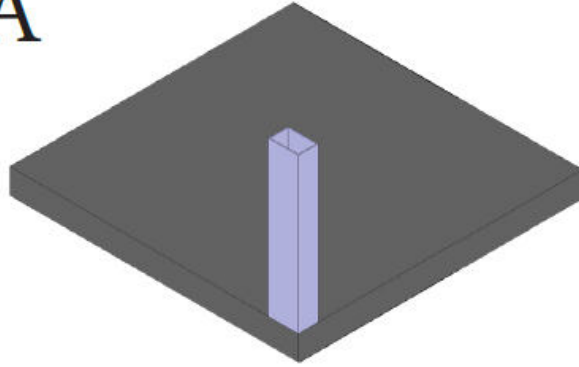
Base frame - Exploration



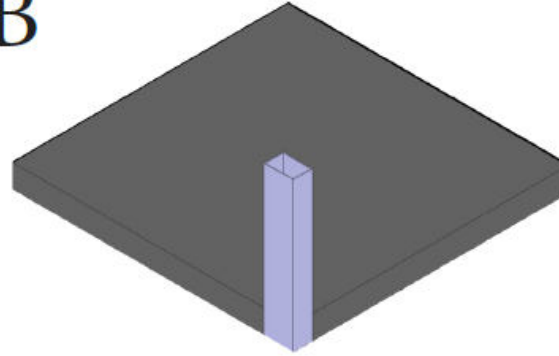
Type F configuration is selected for the base of the Kiosk

Base - main frame joinery details

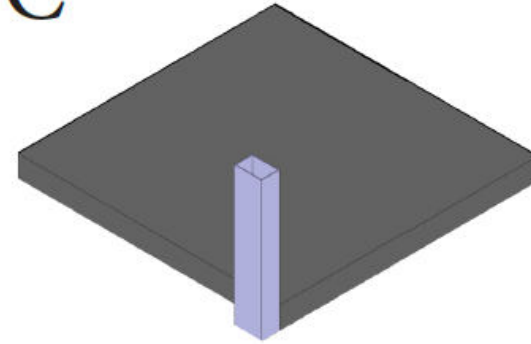
A



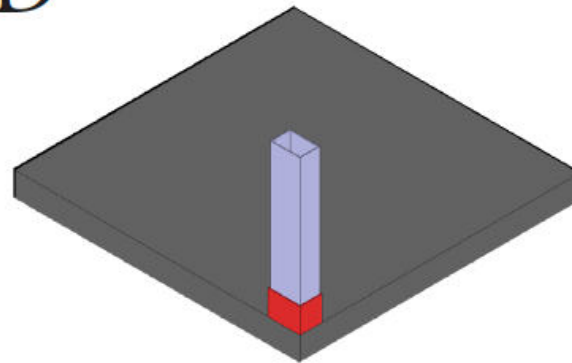
B



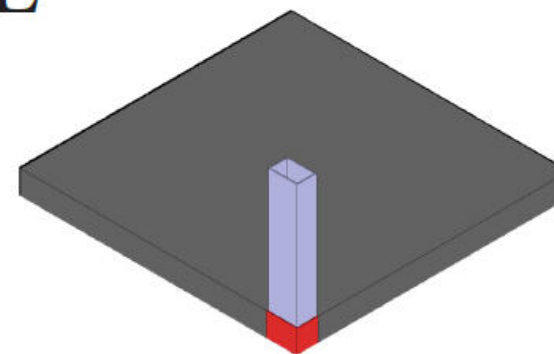
C



D

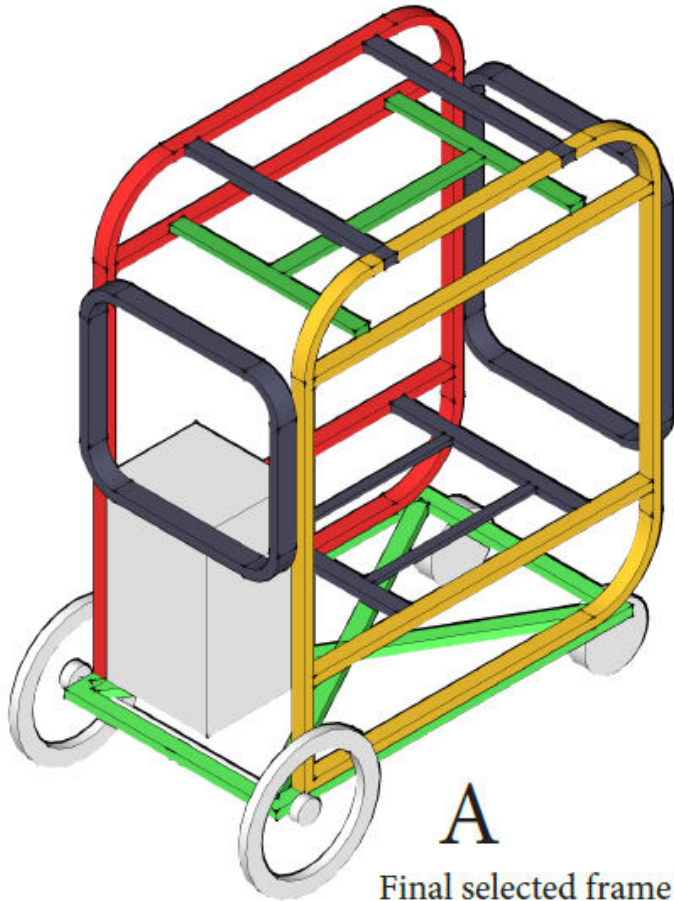


E



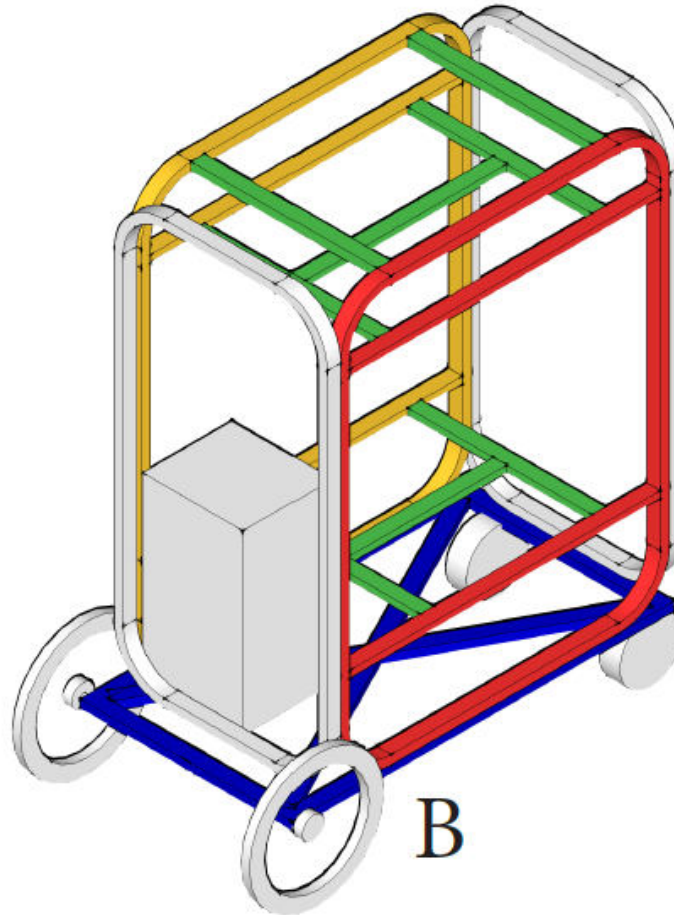
Type B is selected for the kind of joinery for the kiosk

Exploration of structure for kiosk by using Rectangular section -Mild steel

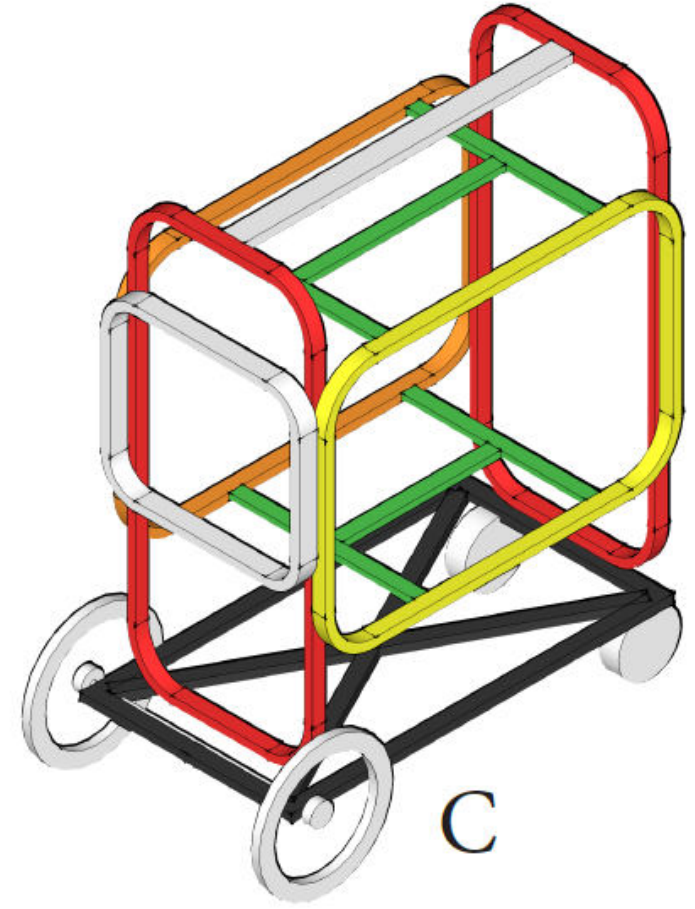


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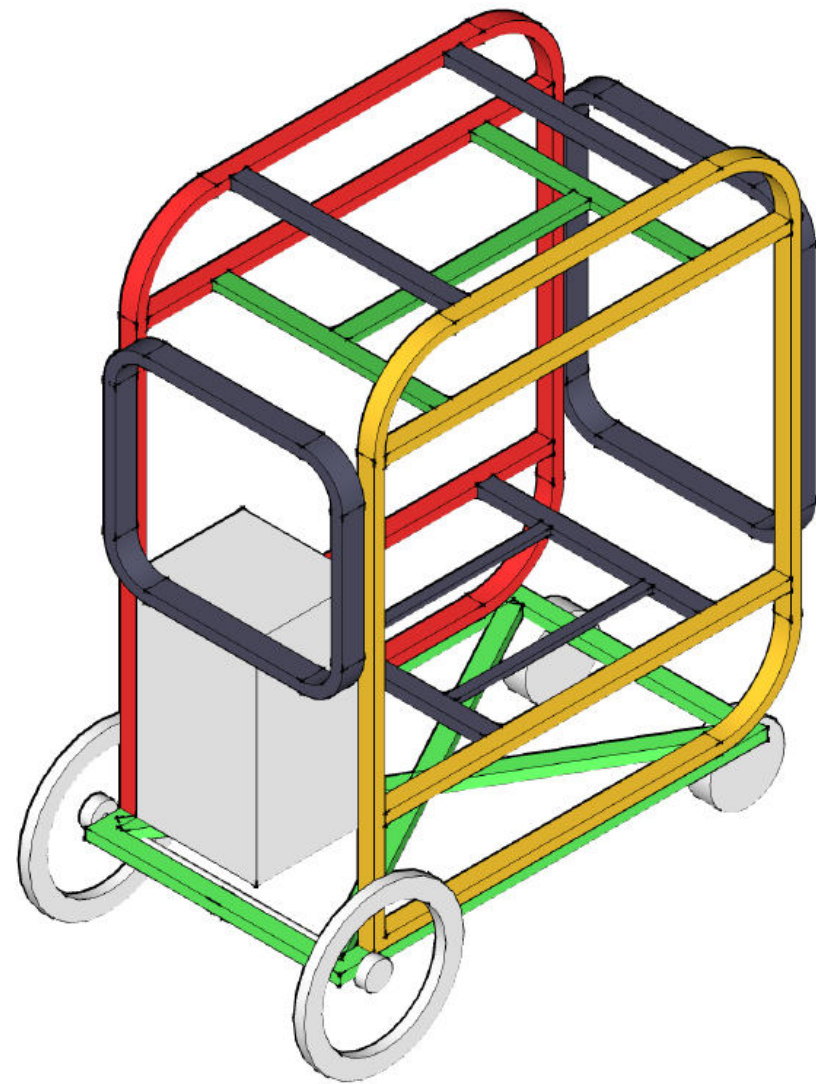
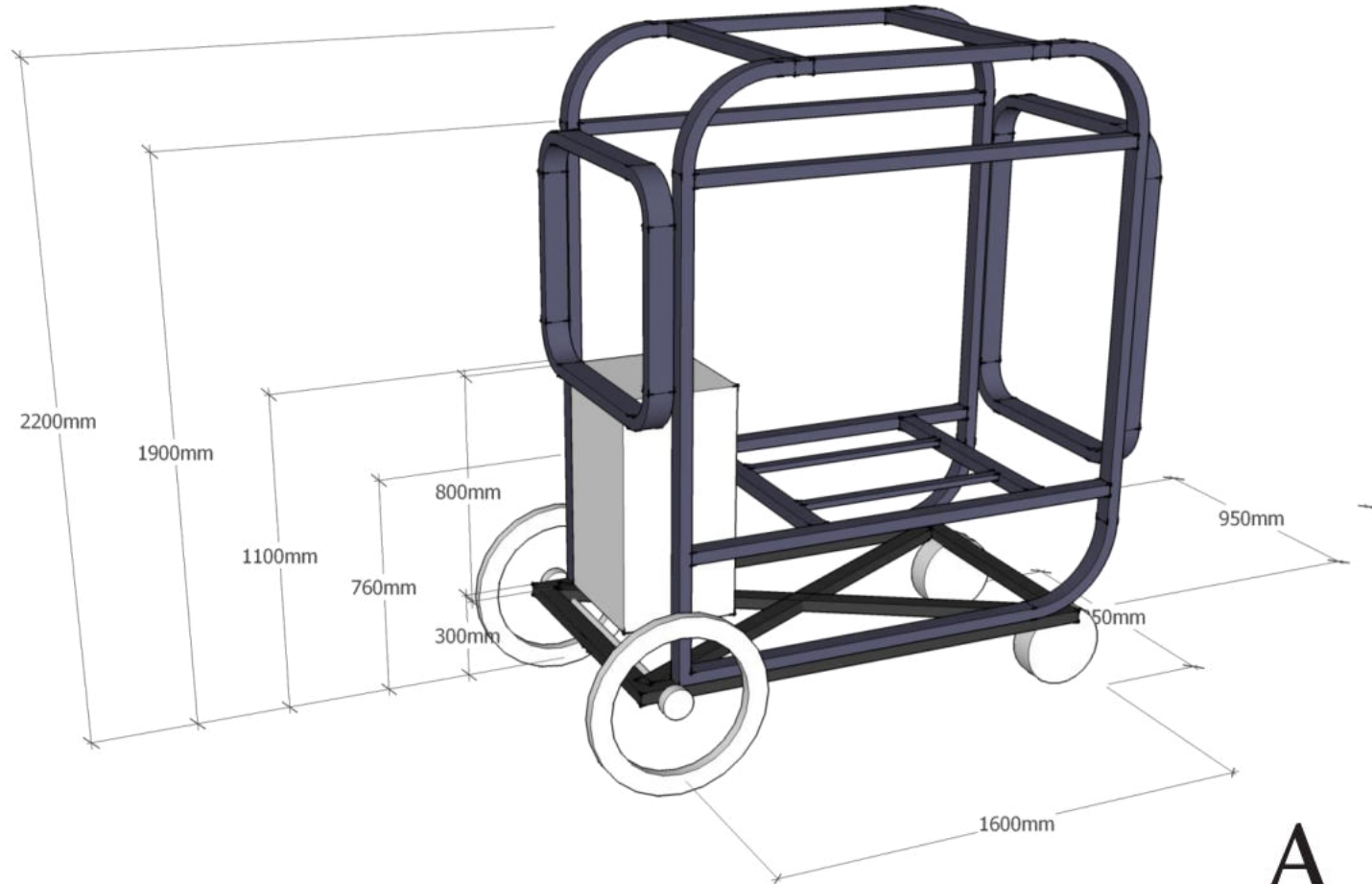
Final selected frame and
structure configuration for
further development



B



C

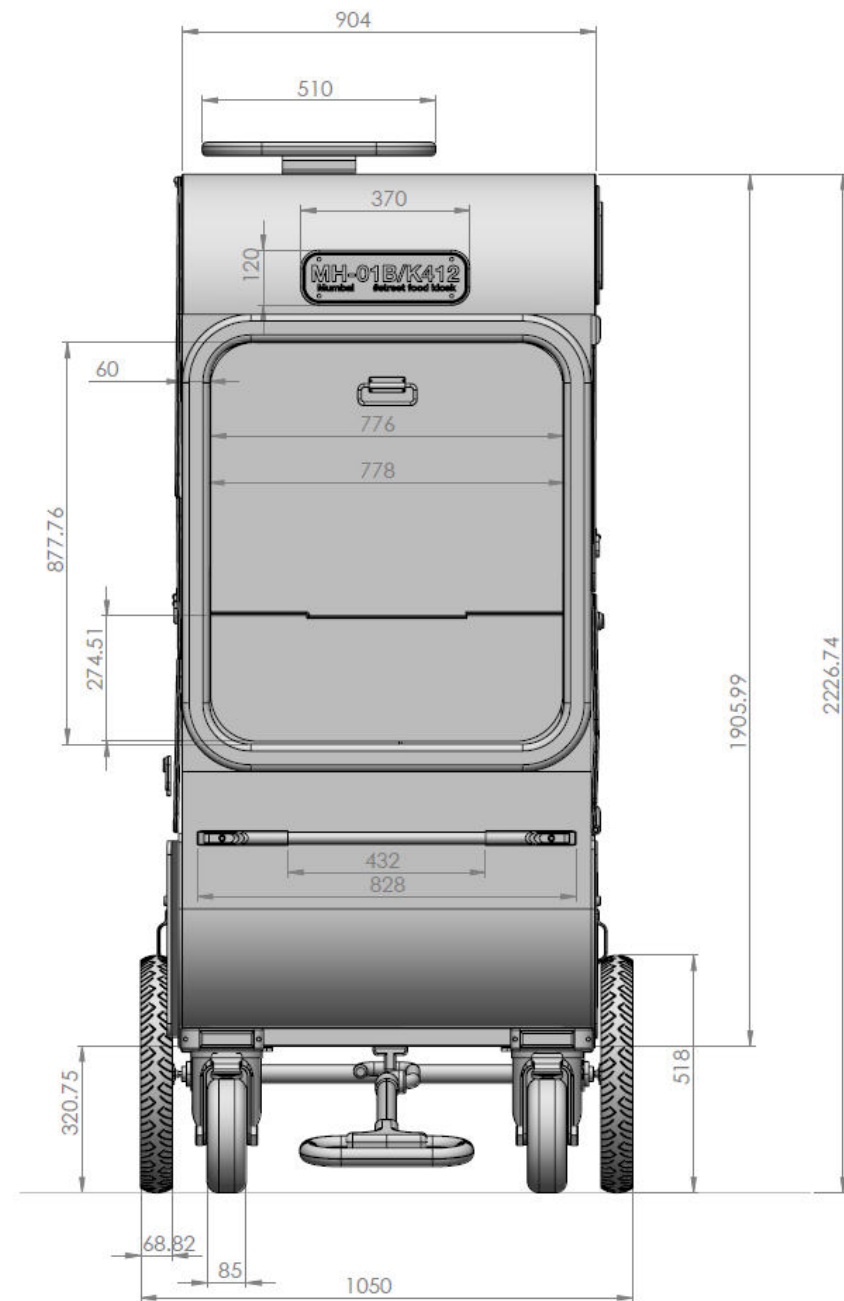
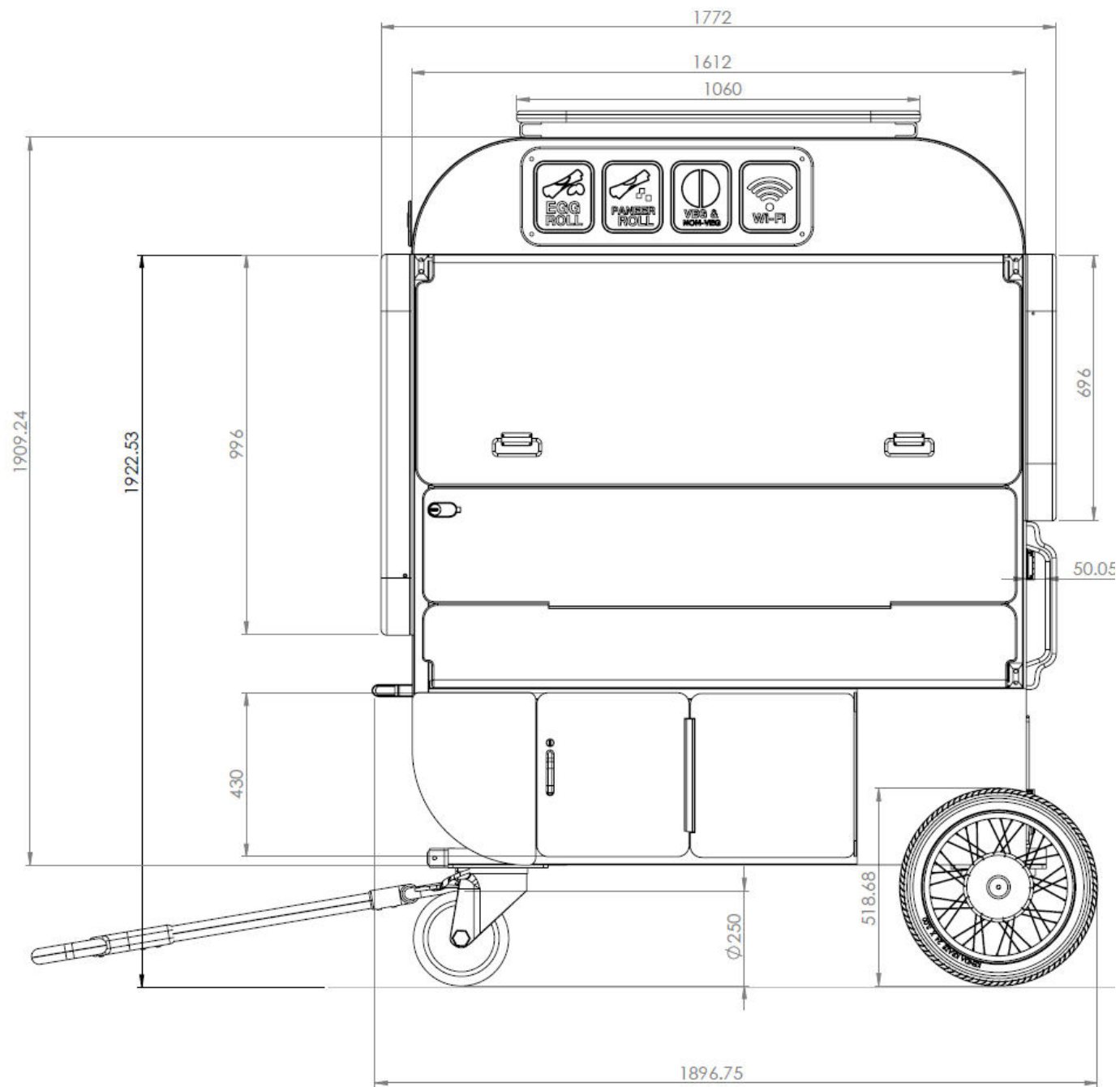


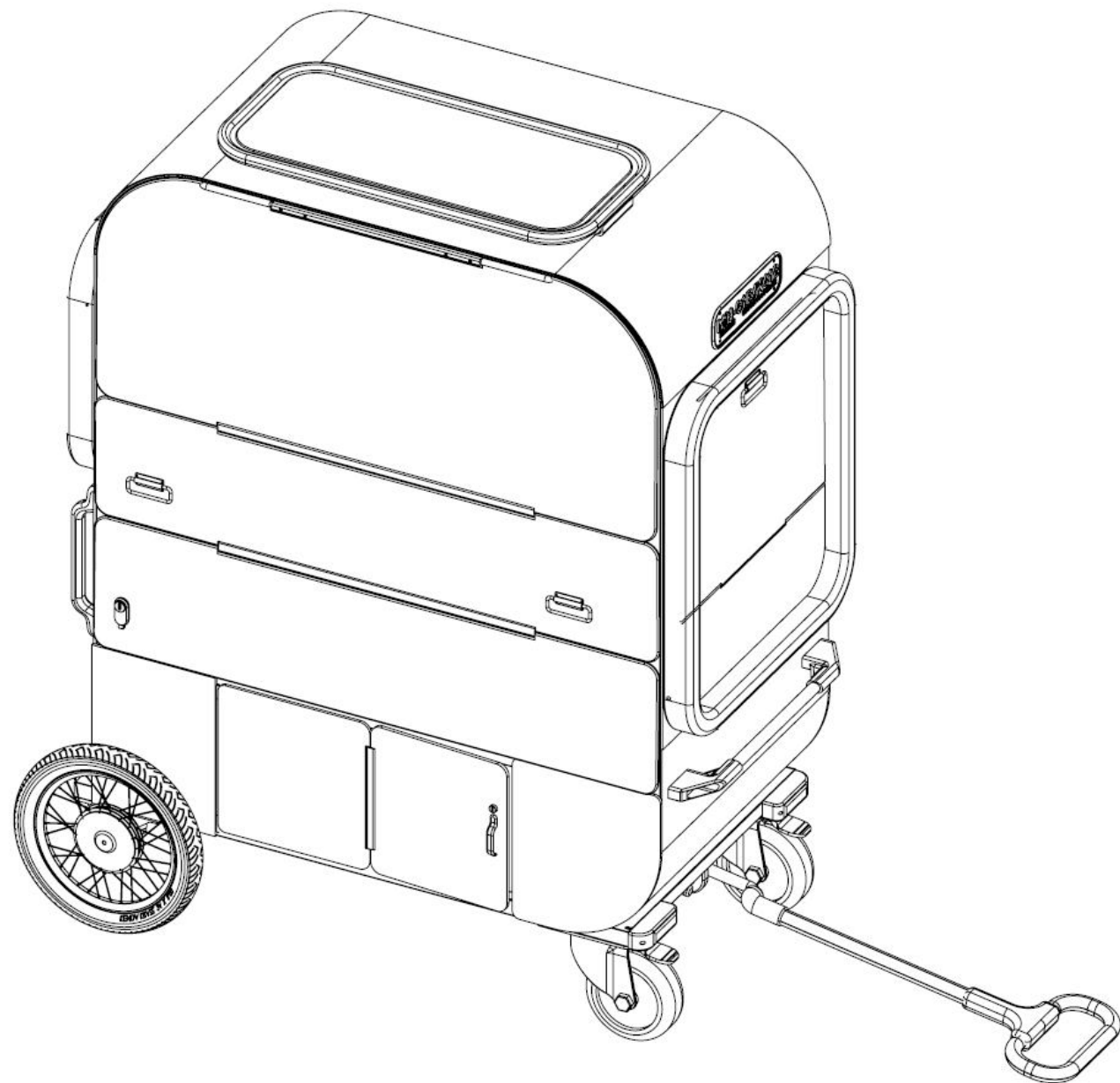
A

Final selected frame and structure configuration for further development



“Foo-fi”
Cart





Please click the link to play video

Uninterrupted internet
through your snack time

New vending
spot/location
possibilities



New user possibilities

Know where your
favourite food kiosk is

“Foo-fi”

Cart

10x Value

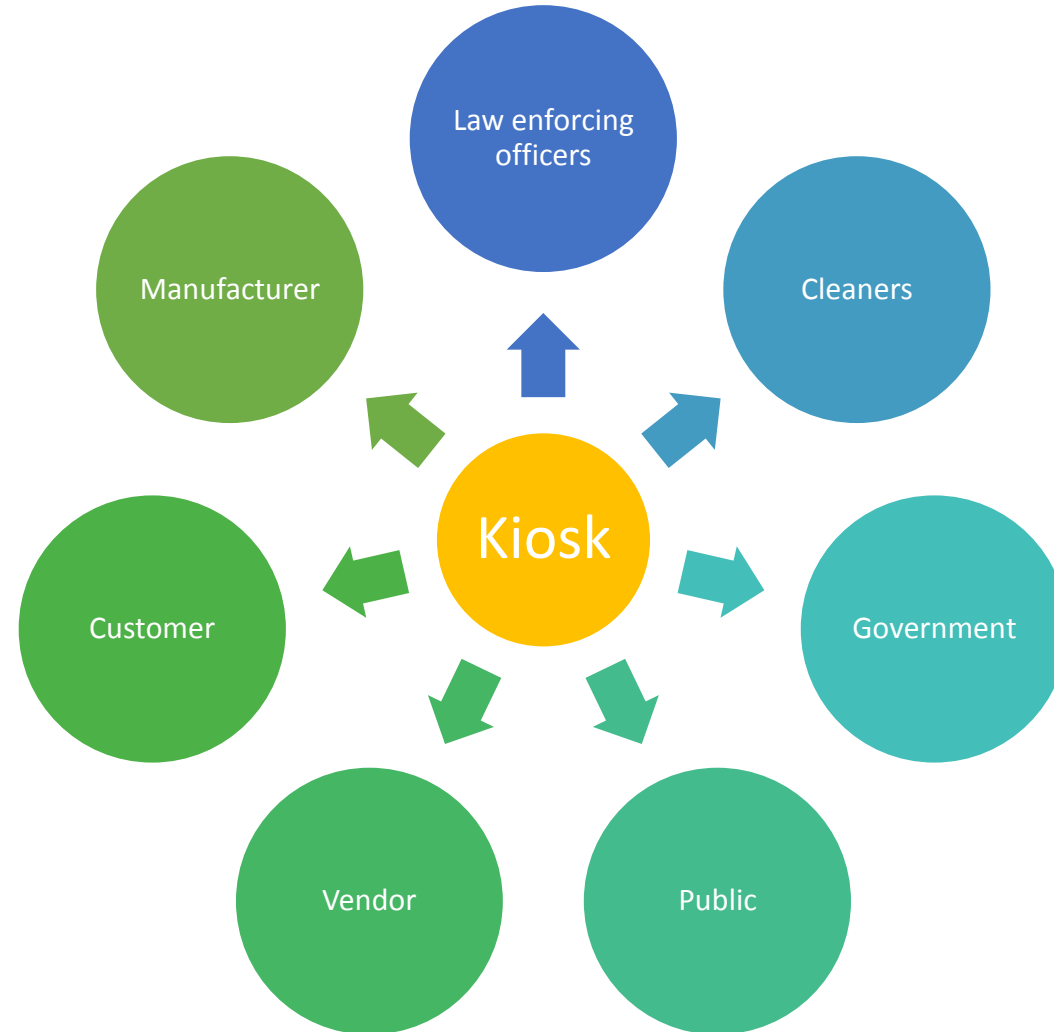
“Service is profit”

“Time is profit”

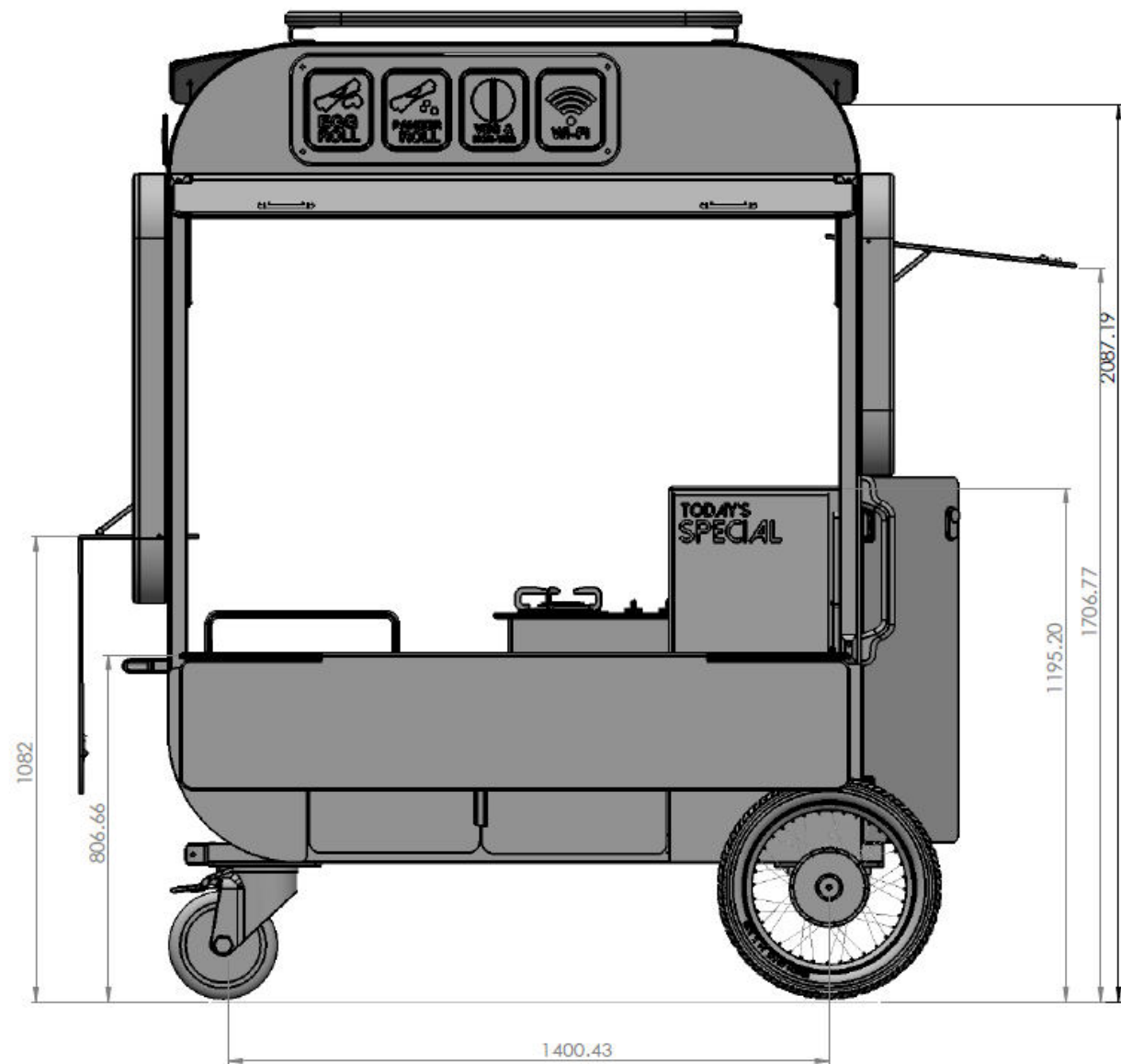
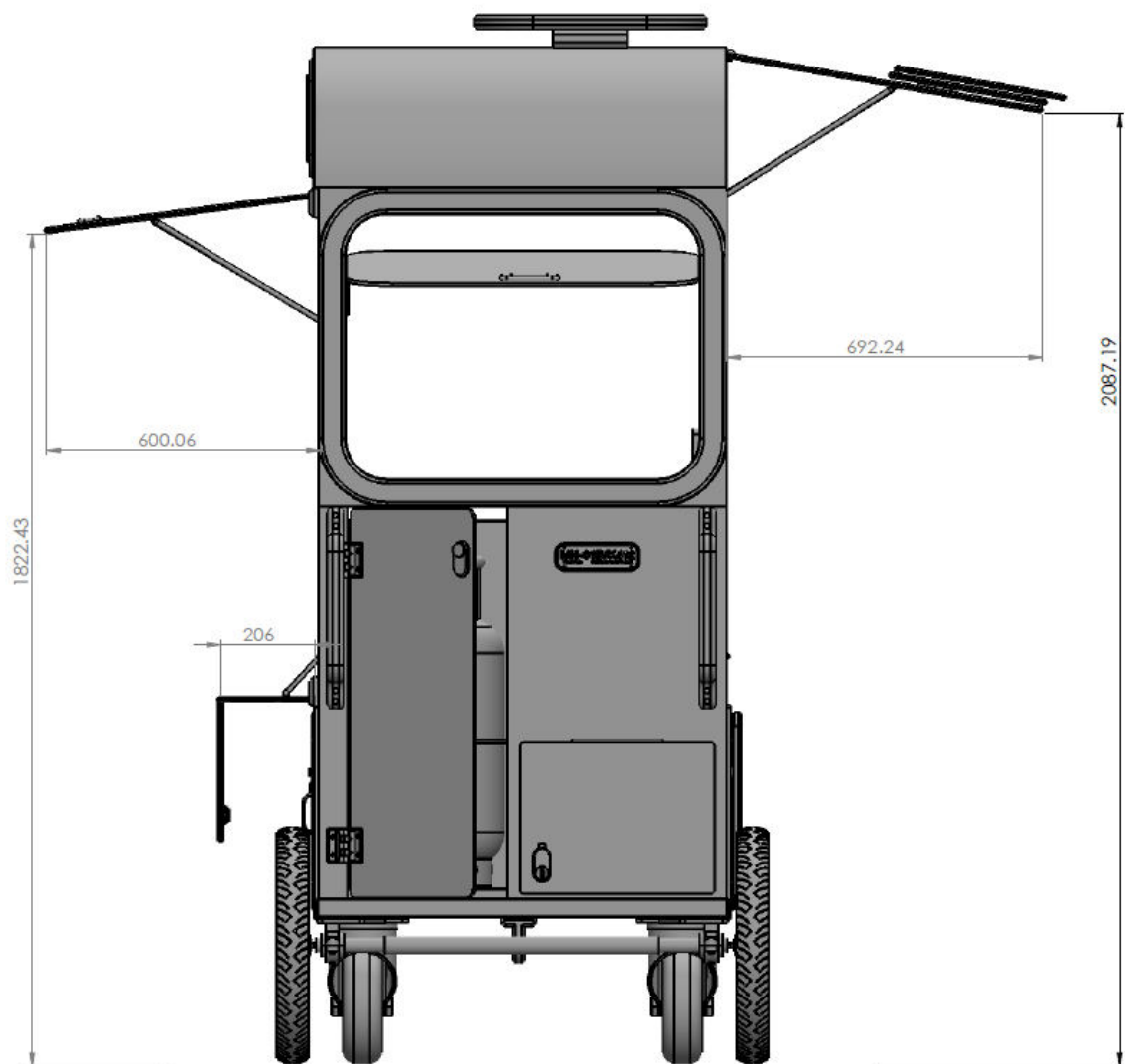
“Space is profit”

“Energy is profit”

“Health is profit”









“Foo-fi”

Cart



DELIVER



The process

Thank you

