

EUT 220E Industrial Design Studio I Section I

2019/2020 Spring Semester

## POST-PANDEMIC EATING





DEPARTMENT OF INDUSTRIAL DESIGN

#### EUT 220E Industrial Design Studio I Section I 2019/2020 Spring Semester

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### **POST-PANDEMIC EATING**

PERMACULTURE, LOCAL FOOD PRODUCTION&DISTRIBUTION for SHORT CIRCUITS

Our life has been changed dramatically since the World Health Organization declared **Covid-19** as a pandemic. For this reason, we have been changing our actions in many different fields to keep up with pandemic conditions. Now, we should wear a mask in public places and comply with social distancing rules.

Our relationship with food is affected by these post-pandemic conditions. Reports indicate increase in domestic food preparation and consumption as well as changes in shopping for food. At this moment, the global health crisis caused by COVID-19 brings the questions of our relationship with nature.

The questions we face now are local production and consumption, growing our own food individually or as a group. The underlying idea is to decrease the liabilities for safe food acquisition; meaning how to reach food with desirable, fun, fair and just ways for people and for nature. The aim is to decrease the time and resources to have access to healthy food; as well as how to construct relationships around food in the post-pandemic new normal.

In this project students designed **a product family that will respond to permaculture and urban farming** considering the following themes:

Food Mobility / Food Hygiene / Eating Well / Eating Together / Growing Food





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#### SOIL-CARE AEROBIC COMPOSTER

Soil-Care is a compost unit designed for the urban life. Composting is a process of reusing the leftover food scraps to produce fertilizer. It's a great way to improve the health of the plants.

The unit contains a compost bin, a kitbag and transfer bins. It is designed for the compresehensive maintenance of soil under the plants.

The Soil-Care Composter is placed on a suitable place inside the apartment. As the organic waste starts to increase, composter creates fertilizer for the plants. User experience a collective work by using the compost until together. The unit also has a kitbag which contains a shovel and a rake that users can take to their flats for plant maintenance. After the compost is produced, users can easily move the fertilizers to the plants in their flats using the transfer buckets. Soil-Care Aerobic Composter









GROWIE

Indoor educational vegetable growing kit for kids aged 7-11.

With GROWIE kids can grow their own colorful veggies and stay healthy while having fun tracking their growth.

Kids can see growing plant roots from clear planting pot.

ALL INSTRUCTIONS ARE IN THE BOOKLET







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#### SEEDRY

Seedry is a product provides everything that the user needs to have ready to use dried herbs from start to finish.

During the pandemic people started to be careful about human contact in everything to make sure it is safe, including food. In hot and humid places people are dependent to others in order to have dried herbs because it is impossible to dry herbs without getting them moldy and rotten. Seedry helps to sprout, grow, dry and grind herbs even in the most humid places in a very short time. It is easy to use, eco-friendly and cost-efficient. With Seedry users can have dried herbs on their table even without leaving their house.





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#### **GREENHOUSE AT HOME**

As we all experience, the Covid-19 pandemic has led to changes in our lives and also eating habits, which are an important part of our lives. This has led us to change the foods we consume or the places where we buy those foods, perhaps to get these nutrients of our own. The "Greenhouse at home" project aims to grow the vegetables and fruits we buy from the grocery store with the least effort of people in their own homes. While the conditions they need in the process of cultivating vegetables and fruits cannot be provided on a room or balcony in the home environment, this product can easily provide moisture, temperature, light and oxygen variables that the plant needs alone. As a result of the watering of vegetables and fruits, the water thrown under the pots accumulates in the drawer part of the product. With the heater at the bottom of the drawer, this water is heated and restored to the system when necessary, providing the moisture and temperature that plants need. It also allows plants to get the water they need with their own roots. Thanks to the LEDs on the ceiling of the product, plants are given light within the time range they need without separation day or night. The lids at the top are opened and ventilated when necessary. The product alone helps to grow different kinds of vegetables and fruits in a home environment at the same time with these characteristics. Although it does all this on his own, it shows people that they can farm in the city and consume the fruits and fruits they grow safely and most importantly in a healthy way.

### **PRODUCT FEATURES**

The covers on the top can be opened for ventilation.







on cabinet

The product has a **RESISTANCE** under the water drawer for boiling excess water that is discharged by drainage and providing moisture to the plants.

(it can be any dimensions wanted)

The product has different pots for different plants



1 big pot 2 small pots





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#### SAKSI

Saksı aims to make growing plants easier and encourage people to grow more. Saksı's pots are made of fabric and are elevated from the ground preventing mold growth and water from pooling on the ground.

Pots and seeds are sold with a code on the package that connects the products to the app. The app provides information about the plants and sends notifications when it needs to be watered or harvested. In app money (sprout) can be collected by buying more plants and updating the growth of them. Each user has their own sunroom in the app which can be decorated using sprouts. Users can visit their friends' sunrooms and see their plants. There is a weekly decoration contest that rewards the winners with a discount coupon for seeds. Winners are determined with the votes of the other users.

SAKS/ grow your own



The items will be available on the application once the QR code is scanned.



Notifications and easily accesible information, the experience of growing plants is made pleasant. Vith contests and coupons growing more plants is encouraged.









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#### GOURDEN

Gourden is a kit designed to support permaculture at home. It aims to give people cups and jugs that they can produce from gourds at home. Thus, people can have the experience of producing their own cups and jugs from a plant and after the products are deformed they can completely blend into nature as they are fully natural products. At the same time, the sustainability of the project was ensured by the fact that the tools in the kit, the growing and drying area were made of recyclable filament and the molds were made of biopolymer filament.



#### User Scenario







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#### **REUSING PRUNING RESIDUES**

The main idea of the system is reusing the pruning residues. The person, who pruned his/her plants, able to connect with the person, who wants to use them in various areas, through an app. So, what can be done with the residues, how they can be re-evaluated? There are 4 main area about what can be done. Which are REPRODUCTION, PIGMENTATION, DRYING and GRINDING the residues and mix it with soil.

The design of each module enable user to execute these 4 actions in defined areas with defined tools. The person, who wants to re-use the residues, could buy whichever module he/she wants as seperately. On the other hand, the person, who pruned, could also execute the action through modules.

As mentioned before, modules may be sold seperately or as a whole. The steps, how to execute or which ingredients could be used could be given on a designed card in the packaging to inform the user.



## MATERIALS

Clear/

Bororsilicate

Glass





MycoComposite™ Mycellium-Corn Husks/Hemp Crop Fibres

Granite



Fill mould with mycelium and crop fibres of corn husks or hemp

Process

Pressign and drying process

Internal growth in mould - 4 days

High performing material,cost competitive with conventional expanded foam polymers,yet uses a fraction of the energy to produce, and is 100% home compostable.







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#### GARDENROLL

This permaculture has own light source. Using cocopeat instead of soil helps the keep it clean and also helps the using less water than usual because cocopeat keeps the water inside of it. You can control this system from remote. You can grow your own vegetables and fruits, with this way it will be easy, clean and healthy.









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#### **COMPOST REPOSITORY**

Organic waste dumps in education areas for children of primary school level and below. With this system, children will be able to experience fertilizer formation, plant growing and the process of waste mixing with nature at a young age. The children will throw their organic wastes into these buckets during the day and observe the compost transformation of organic wastes.

Cover to reduce the spread of odor. Waste is thrown through side gaps

Herbaceous (fast-reacting) plants such as thyme, mint, sage, basil

Openable cover

to drain excess

soil

Transparent observation area for compost waste Moving up and down parts for composting organic waste When the children press the pedal with their feet, the inner part moves



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#### **PLEA**

PLEA Service System allows users to grow food at home, then collects crops and provides cooked food service to users.

The material and financial exchange between the user and the system takes place with the virtual currency (Pleny) defined in the .

Pleny also produces its own products and makes these products as sustainable as possible. are collapsible textile plant growing unit made of green materials and matching the texture of the houses.

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Stacking



EATING:

for short circuits

Δ \

Matching textile and hamboo

Fold and get the shape

One part main Body

Connecting the feet

**Foldable stitches** 





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#### LIFT GARDEN

Lift garden offers you the opportunity to grow your own food in an enjoyable way at home. You just need to measure the size of your balcony. Take the modules that match your balcony dimensions and create the shape you want.

Lift garden is adjustable and will not bother you on the balcony when you pull up. You can bring down use it at any time.

# LIFT GARDEN

"Grow your food"













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#### **MUSH-POT**

Oyster mushroom pot - With coffee and tea waste (optional straw can be added)

The potted piece is made of 100% eco-friendly recyclable material

Mainly made of 3 materials:
1)Base Organic Material (like corn husk)
2) Fungus Mycelium organism that connects this material
3)Cellulose Acetate used as a protective waterproof coating.

The material already has the necessary components for its complete biodegradation on its own.

In addition, the cellulose acetate coating of the product can be biodegraded with the help of fungal enzymes used in this material.







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#### MILKBAR FROM ALMONDS

the Covid-19 the After and quarantine came into our lives, so many things have changed, including our eating habits. We started to produce our food at home by ourselves. We started baking pasta, bread, growing our food, and we produced our milks. How? Must we have a cow to do that? No. You should only have some almonds in your kitchen and leave the rest of the production to our new Milkbar. Milkbar gives you the opportunity of producing your own almond milk AND almond flour without a waste. Producing almond milk at home had never been this easy!







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