square greens

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Centonze Simone - Costa Eugenio - Tallone Nicolò

Square Greens *(3rd splitted-winning prize)*

Italy

Eugenio Costa is a product designer guided by curiosity and a hands-on attitude, exploring form and material through observation and making, seeking honest and thoughtful solutions.

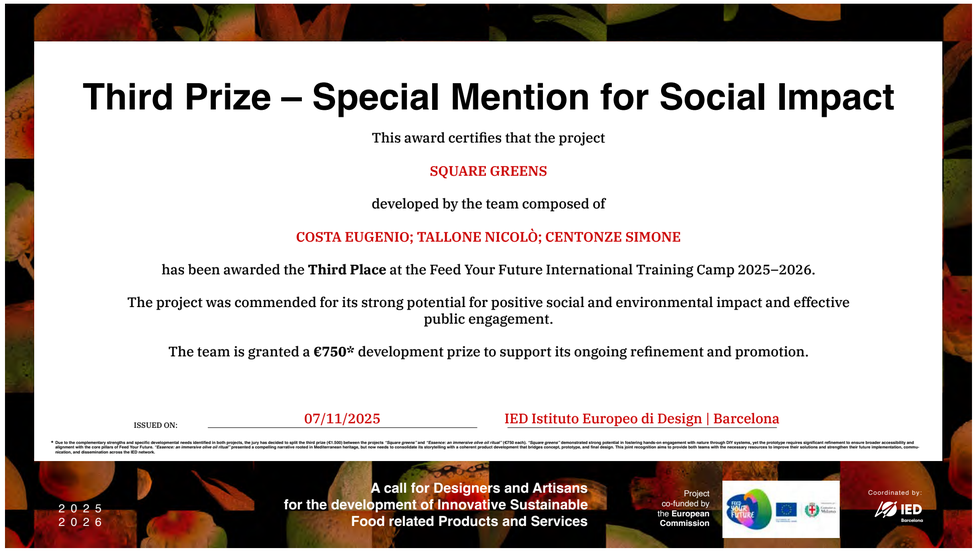
Italy

Nicolò Tallone is a product designer with a curious and exploratory approach, attentive to both formal and visceral qualities of objects, allowing ideas to evolve through open-ended experimentation.

Italy

Simone Centonze is a product designer exploring biomimicry, material research and mechanical experimentation. Inspired by nature, freediving and climbing, he develops intuitive and quietly inventive solutions.

Tutor and mentors: Sebastian Alberdi, Pep Trias





3.3 Square Greens *(3rd splitted-winning prize)*

Project overview

Square Greens is **a compact domestic system designed to enable the cultivation of microgreens**—young edible plants known for their high nutritional density and rapid growth. The project addresses the **environmental impact of contemporary food systems by encouraging small-scale food production within everyday domestic environments**.

Rather than treating sustainability as an abstract concept, Square Greens transforms it into a daily practice, **allowing users to grow fresh microgreens directly in their kitchen**. By **shortening supply chains and promoting local food production**, the project encourages healthier eating habits while fostering a more direct and conscious relationship with food.







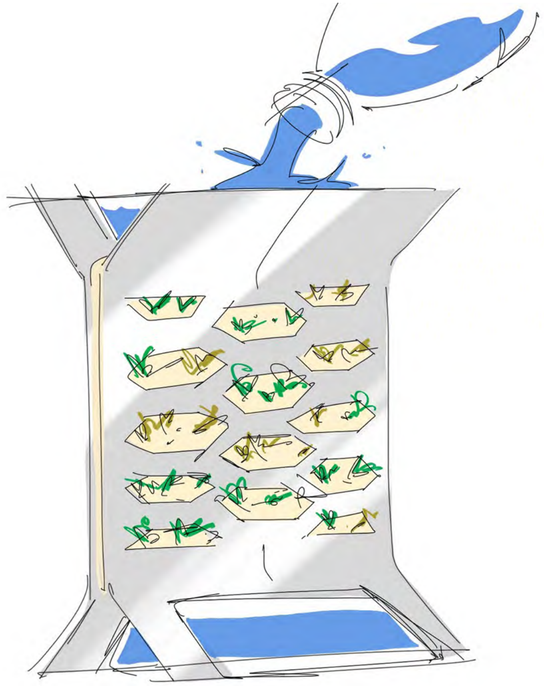
3.3.1 Description of prototype

Design Concept and Development

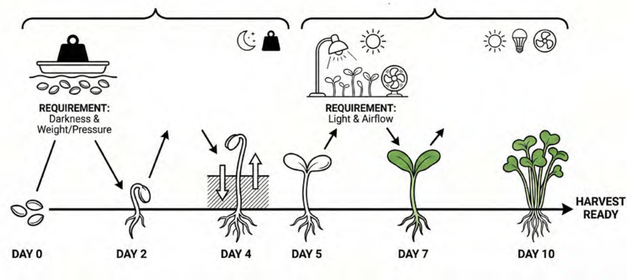
The core concept behind Square Greens lies in **simplifying the cultivation process and removing the barriers that often discourage people from growing food at home**. Microgreens are naturally fast-growing plants, but the **earliest germination phase can be fragile and difficult to manage for inexperienced users**.

To address this issue, **the system activates the first stage of growth directly inside the packaging**. **Seeds are embedded in a hygroscopic cotton substrate that retains moisture and creates the optimal conditions for germination before the product reaches the user**. By the time the pod is opened, the first days of growth have already occurred, allowing the user to immediately continue cultivation with minimal effort.

This approach reduces waiting time, simplifies the process, and increases the success rate of home cultivation. The project reframes packaging not simply as a container but as an active part of the growing system itself.







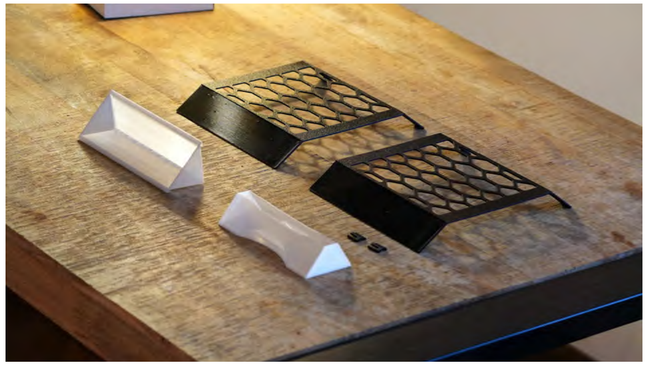
Prototype and Materials

The prototype consists of **a minimal self-standing structure designed to hold the growing pod vertically within domestic spaces**. The system contains three essential elements: a support frame, a microgreen growth pod, and a lower reservoir that collects excess water.

Users activate the system simply by inserting the pod into the frame, adding water manually, and placing the device near a light source. The microgreens continue their growth cycle until they are ready for harvest within a few days.

The structure was developed through **rapid prototyping techniques**, allowing the team to test different geometries, assembly solutions, and structural components. **Its modular construction enables components to be replaced, repaired, or upgraded, encouraging experimentation and long-term adaptability of the system**.







Impact and Future Potential

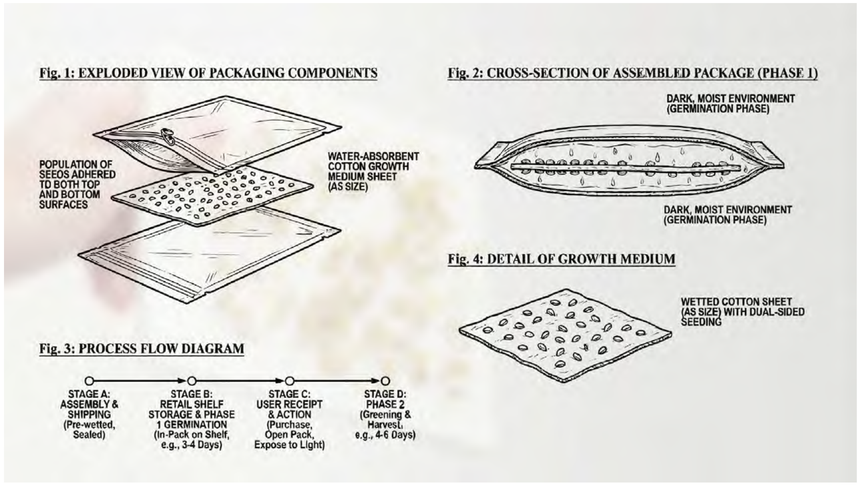
Square Greens promotes a distributed model of micro-scale food production that empowers individuals to grow fresh, nutrient-rich food directly within their homes. By enabling cultivation at the domestic level, the project reduces reliance on long supply chains and contributes to a more resilient food ecosystem.

Beyond its immediate functional role, the system also has an **educational dimension**. By making cultivation visible, accessible, and intuitive, Square Greens **encourages users to better understand the processes behind food production and develop more conscious consumption habits**.

Designed as an **open-source and adaptable platform**, the system can evolve through community experimentation and shared improvements. This approach supports accessibility, customization, and collaborative innovation, allowing the project to grow alongside its users and adapt to different domestic contexts.



3.3.2 Visual documentation



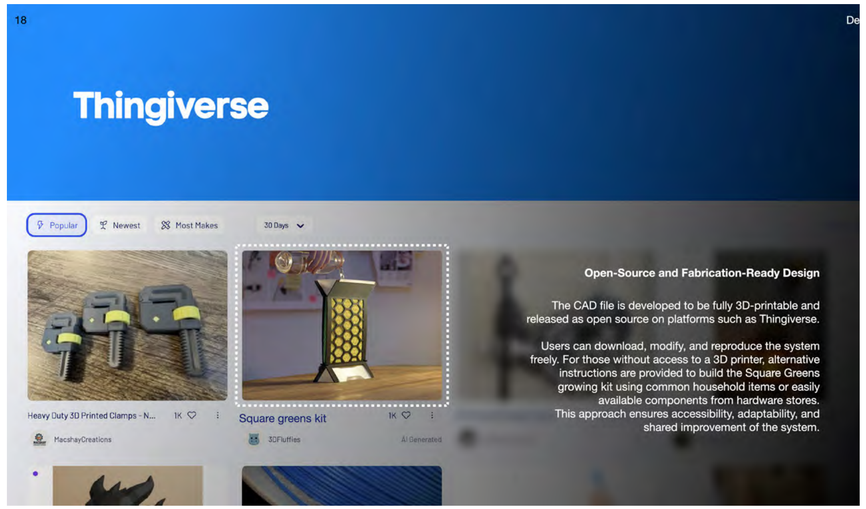












[13] Square Greens_Final presentation.pdf
[14] Square Greens_Press-kit (content media folder)