Annex B: List of Finalists

1. Aqua Gold [Mapletree Gold Award]

As part of the Singapore Green Plan 2030, Singapore is working towards the '30 by 30' goal - to build our agri-food industry's capability and capacity to sustainably produce 30% of our nutritional needs by 2030.

With 1% of Singapore's land set aside for farming, Team Aqua Gold sees an opportunity to work with existing local aquafarms to produce Furikake in a sustainable way. Furikake is a Japanese condiment sprinkled on rice, fish, and vegetables. Typically, blends of furikake include ingredients like dried nori (seaweed), toasted sesame seeds, dried fish, dried eggs, dried herbs, salt, and sugar.

Team Aqua Gold's O.NILO Fish Furikake is a nutritious, ready-to-eat food topping made from tilapia fish fingerlings and okara (soybean pulp). Fish bones of tilapia form part of the ingredients in an effort to minimise wastage. The product comes in three flavours, and the use of locally sourced, upcycled ingredients and sustainable production processes help reduce carbon footprint and food wastage.

Team Members / Degree Programme:

1. Tsai Kok Pow – Team Lead
2. Chevonne Luo Zheng Yee
3. Audrey Lim Jia Wen
4. Evelyn Ng Pei Ying
5. Nurice Lam Yun Jia

All the above Year 4 students are from the Food Technology degree programme.

2. Dabaoware [Commendation Prize]

Single-use plastic containers in Singapore's hawker centres are a significant source of pollution, leading to unnecessary environmental damage. Introducing Dabaoware, an innovative solution designed to revamp the "bring-your-own" initiative by dispensing reusable food containers through smart vending machines. Each container features a robust stainless-steel base for outstanding structural integrity and a flexible, durable cover.

The cutting-edge vending machines leverage advanced machine learning and computer vision technology to automate processes. Users simply head to a vending machine to retrieve a takeaway container before buying their food, and return the unwashed container to the vending machine after use, where it would be collected and cleaned in an offsite centralised dishwashing system. The clean containers will then be restocked in the vending machines for the cycle to repeat.

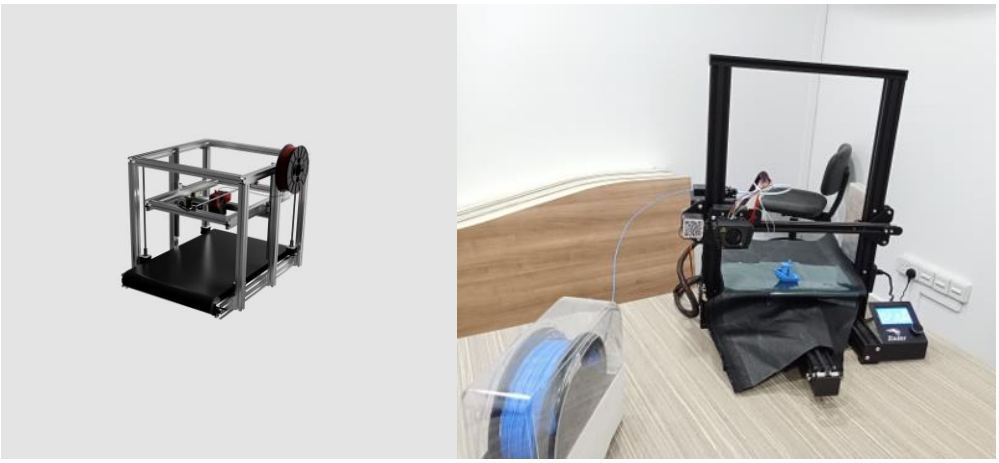
This vending machine offers convenience and encourages eco-friendly practices by providing a practical solution for reducing single-use packaging. Ideal for busy urban areas, schools, and hawker centres, the machines seamlessly integrate into the daily routines of Singaporeans who lunch out or order takeaway food, to make sustainability effortless.

Team Members / Degree Programme:

1. Sebastian Nuguid Fernandez – Team Lead
2. Toh Shao Er
3. Ashsyahid Bin Hussin
4. Liew Xi Jun Adrian

All the above Year 1 students are from the Applied Artificial Intelligence degree programme.

3. ETEN Engineering [Mapletree Bronze Award]



3D printing is achieved through additive manufacturing — the process by which material is joined under computer control to create a three-dimensional object. The material, ranging from liquid resin to powdered grains, is fused together layer by layer. A variety of shapes, including very complex ones, are easily printed from a digital 3D model or CAD file.

'Conveyo', a novel 3D Printer designed by Team ETEN Engineering, seeks to elevate this eco-friendly manufacturing process by streamlining production and offering an energy-efficient alternative to conventional 3D printers.

The inclusion of a conveyor system in their 3D printer helps automate the removal of finished parts, which saves time and doesn't require human intervention. This allows for continuous printing, maximising printing uptime and increasing production. As human intervention is not needed, it results in savings in manpower costs.

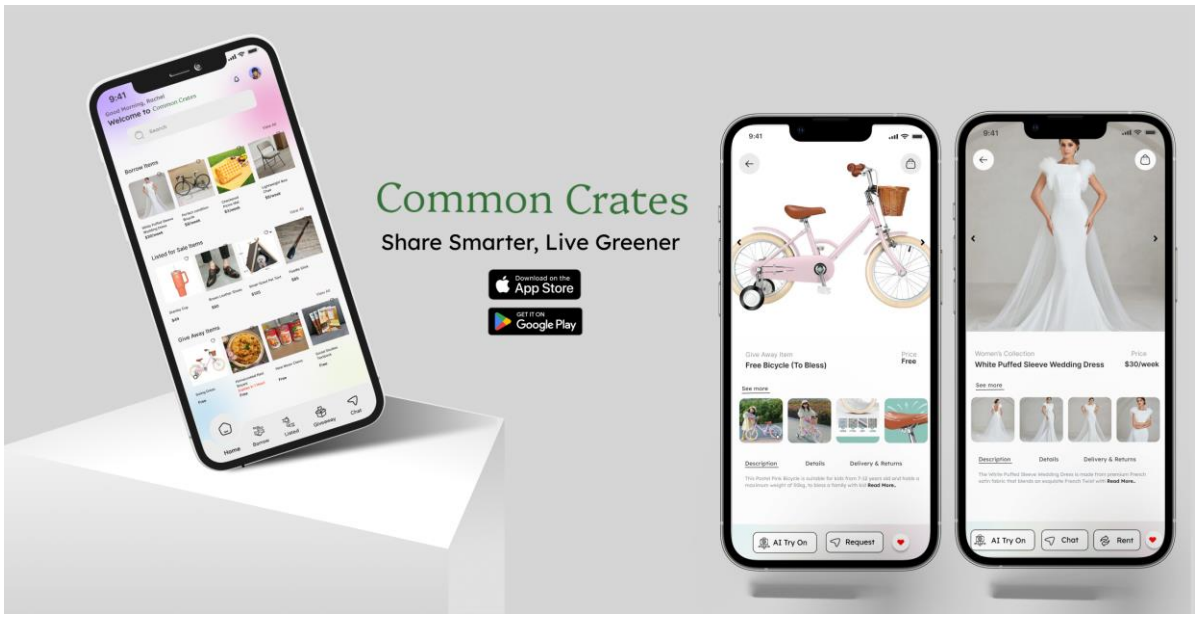
Designed for the educational sector and commercial markets in the ASEAN region, Conveyo strives to advance sustainability in the 3D printing industry by reducing the carbon footprint of additive manufacturing and fostering sustainable practices.

Team Members / Degree Programme:

1. Ethan Lim Wei Qi (Team Lead)
2. Jeremiah Ho Zhan Rui
3. Gareth Tan Jun Long
4. Ke Ee Chong

All the above Year 1 students are from the Mechanical Design and Manufacturing Engineering degree programme.

4. Fintech [Commendation Prize]



Common Crates is an innovative mobile platform designed to drive sustainability by allowing users to rent, gift or sell underutilised items such as clothes, bicycles and electronics, thereby fostering a culture of reusability and sharing. By giving these items a new lease of life, the platform addresses the challenge of high disposal rates and environmental degradation by encouraging the circulation of goods that would otherwise contribute to waste.

Through the app, users have the option to rent out, sell, or give their items away for free to other interested users. With features like proximity-based discovery to match interested buyers and sellers who are nearby for convenient transactions and Know-Your-Customer (KYC) verification for secure transactions, Common Crates aims to make sharing easy and efficient while ensuring a safe environment for transactions. It promises to reduce environmental footprints, connect people, and empower them towards collective prosperity.

Team Members / Degree Programme:

1. Ruchel Lee Wen Xuan – Team Lead
2. Praveen Kumar
3. Tay Boon Kai
4. Lee Ray Hao

All the above Year 2 students are from the Applied Computing with a specialisation in Fintech degree programme.

5. Nigel's Fantastic Four [Mapletree Silver Award]

Styrofoam packaging has a huge environmental impact. From polluting oceans, contributing to global climate change, and causing danger to human health, the consequences are far-reaching. Nigel's Fantastic Four offers an alternative, environment-friendly packing solution to the non-biodegradable styrofoam.

The team proposes packaging made from mycelium, the mass of branched fibres that make up fungus. Mycelium is a safe, strong, and biodegradable material, and mycelium-based products naturally degrade after their intended product cycle.

The packaging has a natural fibrous texture, which can be used to package electronics and fragile items such as wine bottles.

Sustainable packaging is becoming an increasingly high priority for both consumers and brands. The low-energy consumption of growing mushroom fungus to cultivate mycelium, the ability to be custom-moulded, and the compostable quality of this packaging would help organisations meet their sustainability goals and promote a greener earth.

Team Members / Degree Programme:

- Nigel Ang (Team Lead), Year 4
- Nicole Tan Hsing Yi, Year 3
- Tan Yee Lin, Year 3
- Daphne Ng Jing Ni, Year 3
- Lim Zhi Xin, Year 3

All the above students are from the Food Technology degree programme.