

Seah Wen Hui Jofina
(Group Leader)

Glenda Tan Yi Ling

Limoran Alianna Cabucos

Ong Jing Xuan

Chua Jing Xuan

Higher Nitec in Mechanical Engineering
Higher Nitec in Bio-Chemical Technology



Fashion's Second Life

Textile waste is a growing issue in Singapore, with many clothes discarded before they are worn out, often ending up in landfills or being incinerated.

Ragblox addresses this by converting unwanted clothing into sustainable coasters. Waste fabric is cut and mixed with sodium alginate, then hardened with calcium chloride to form durable coasters.

Testing revealed that 100% cotton binds best, resulting in strong, reliable coasters.

Innovators' Inspiration

"One of my teammates had a lot of clothes she no longer wanted, which got us thinking about how we could repurpose instead of discarding them. Along the way, we learned that Singapore generates a huge amount of textile waste, with only a small portion of it recycled. This inspired us to create a sustainable and practical using waste fabric. It was rewarding to see our idea successfully transformed into a useful product. Through our creation, I hope we can encourage more people to rethink and repurpose waste materials."

– Seah Wen Hui Jofina

What's So Special?

- Each coaster has a distinct appearance, as the colours and patterns vary depending on the mix of waste fabric used.
- Unlike conventional fabric-based coasters that are stitched or glued, Ragblox products are produced entirely through a chemical process.
- The coasters are treated with an environmentally friendly waterproof spray to enhance durability and water resistance.