

The Sospeso Project

How can we motivate students and teachers at the Amsterdam University of Applied Sciences to better sort their trash?



The Sospeso Smart Bin prototype that counts up the number of disposables thrown into it and generates a coupon for a free coffee for every 100 items thrown away. By creating a reward that can be claimed by anyone in the community, the entire community is stimulated to act more sustainably.

Client:
Amsterdam University of Applied Sciences & University of Amsterdam

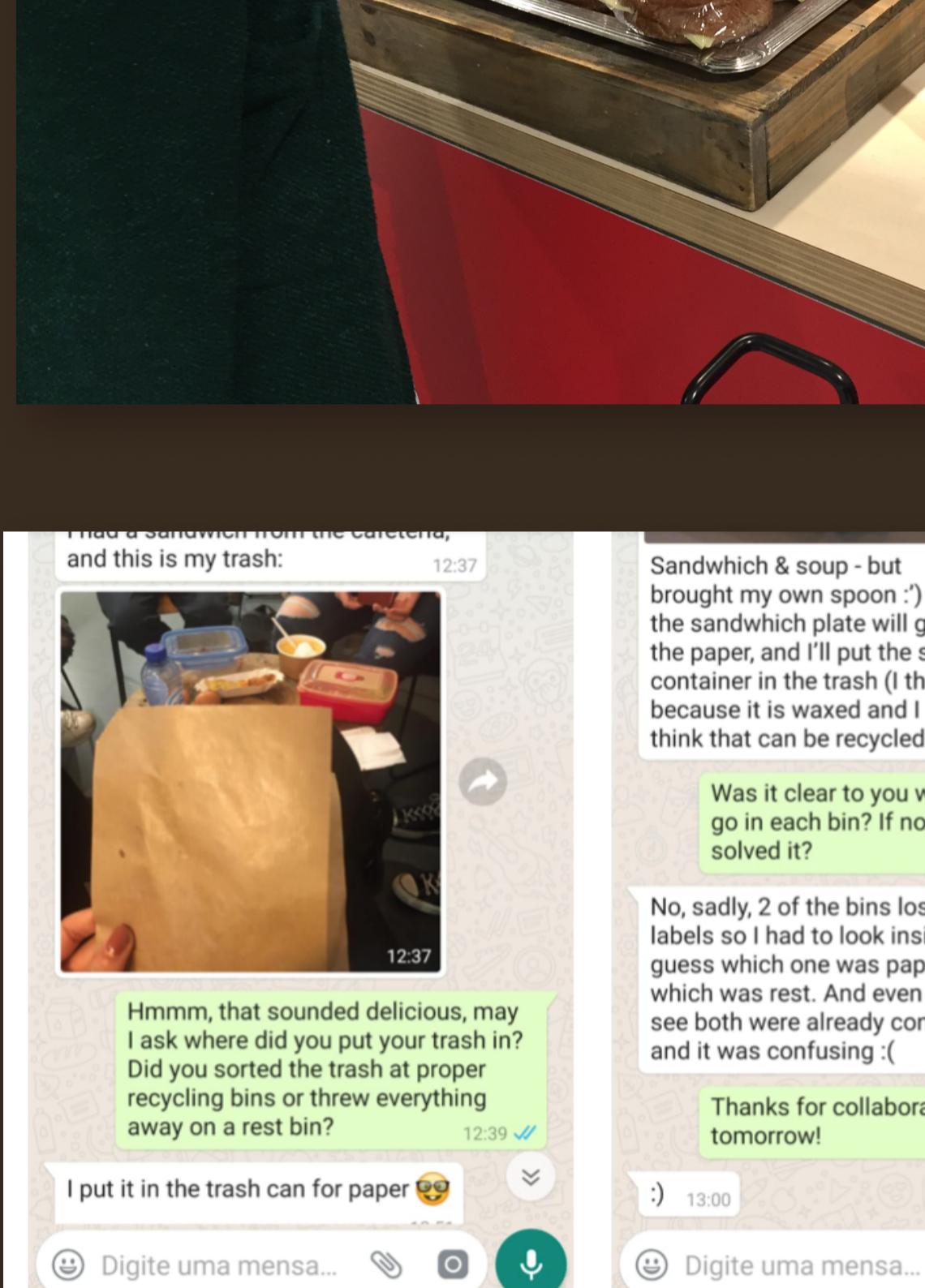
Project Duration:
October 2019 - December 2019

Topics Explored:
Designing for Behavioral Change, Service Design, Sustainability

Teammates:
Gabriel Castro, Peter Polacsek, Wendy Plas

Project Role:
User research, sensor system design, electronics

Making University Campuses More Sustainable



A More Efficient Sorting Process

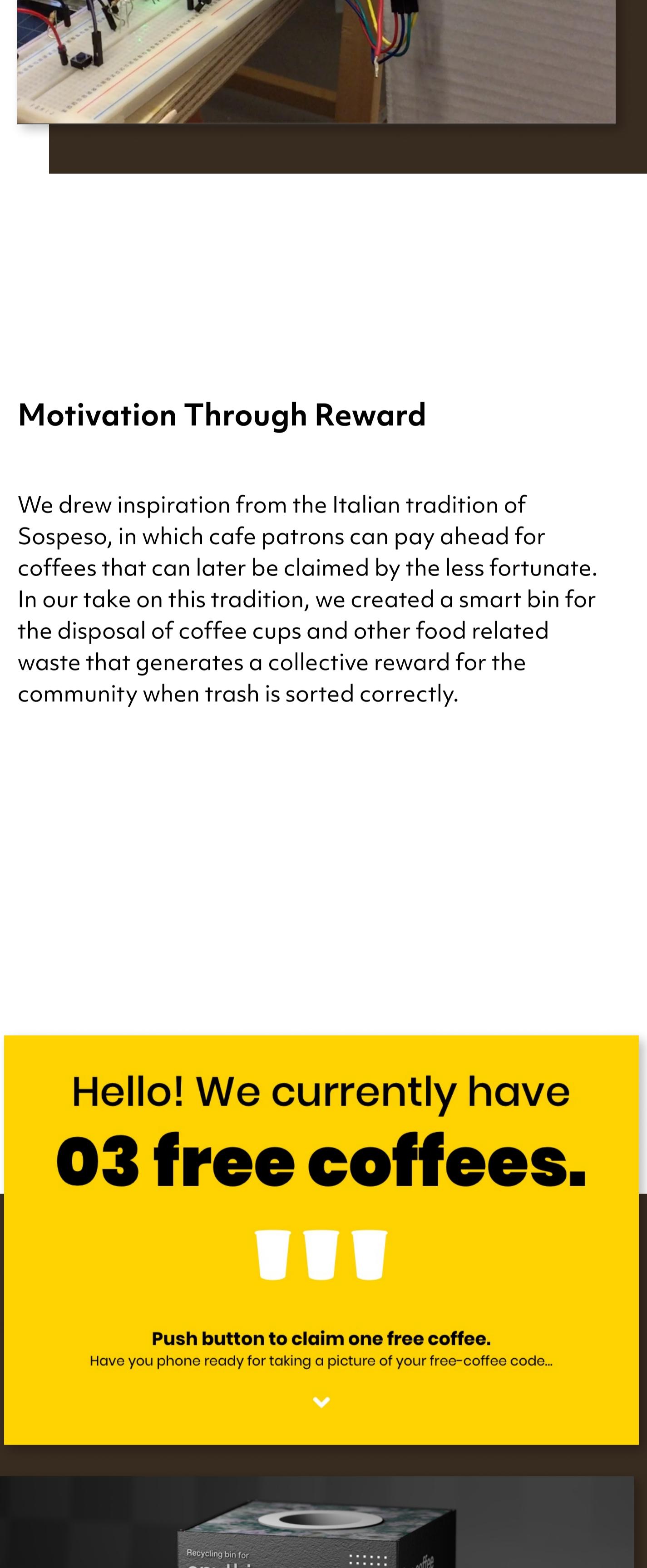
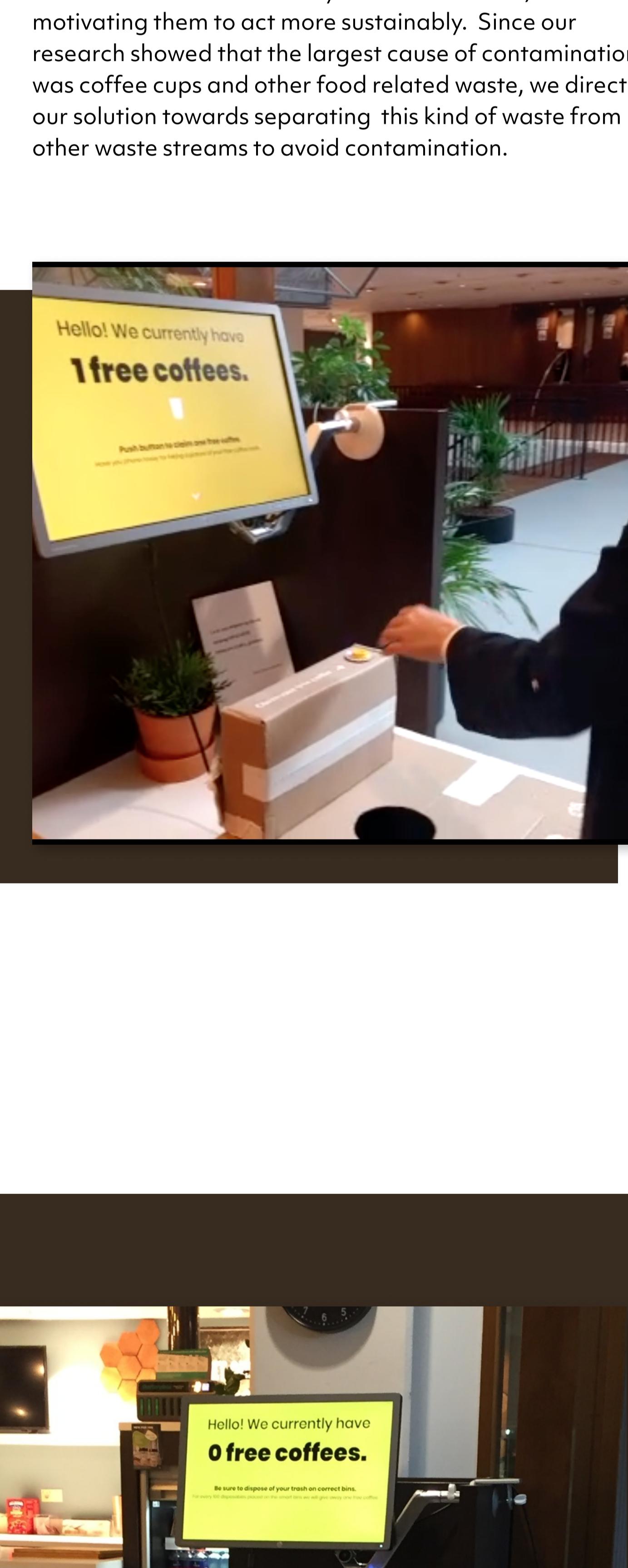
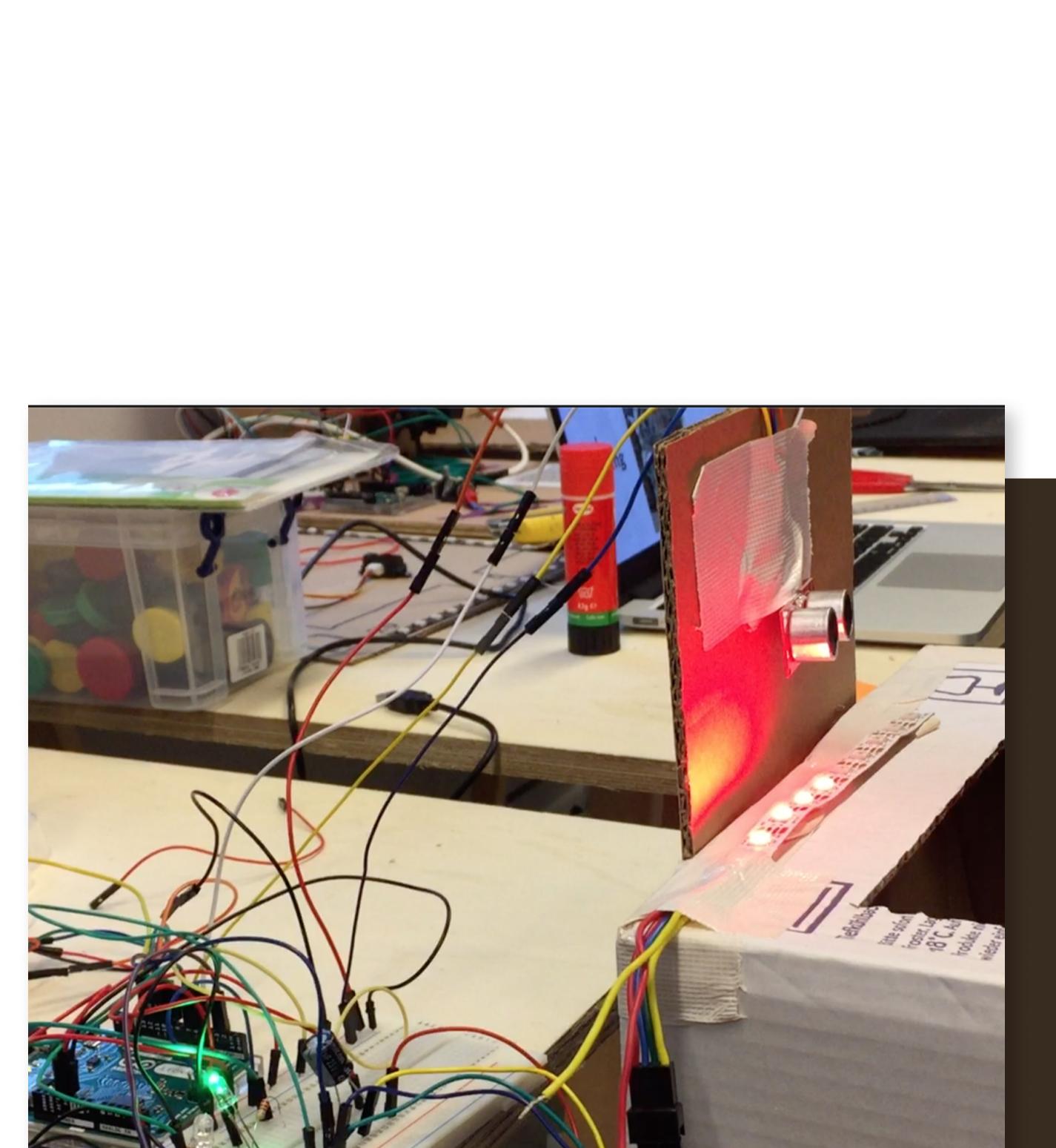
The Amsterdam University of Applied Sciences (AUAS) and the University of Amsterdam (UvA) are aiming to become more sustainable as the city of Amsterdam moves towards having a circular economy in 2030. However, exactly how trash needs to be sorted in order to be recycled remains a confusing topic.

The AUAS and UvA plan on changing the sorting process and switching to a new collection company that will be able to more efficiently recycle their waste. We were tasked with clarifying the new sorting process on the AUAS campus, and instructing students and staff how to sort their trash.

Finding the cause of confusion

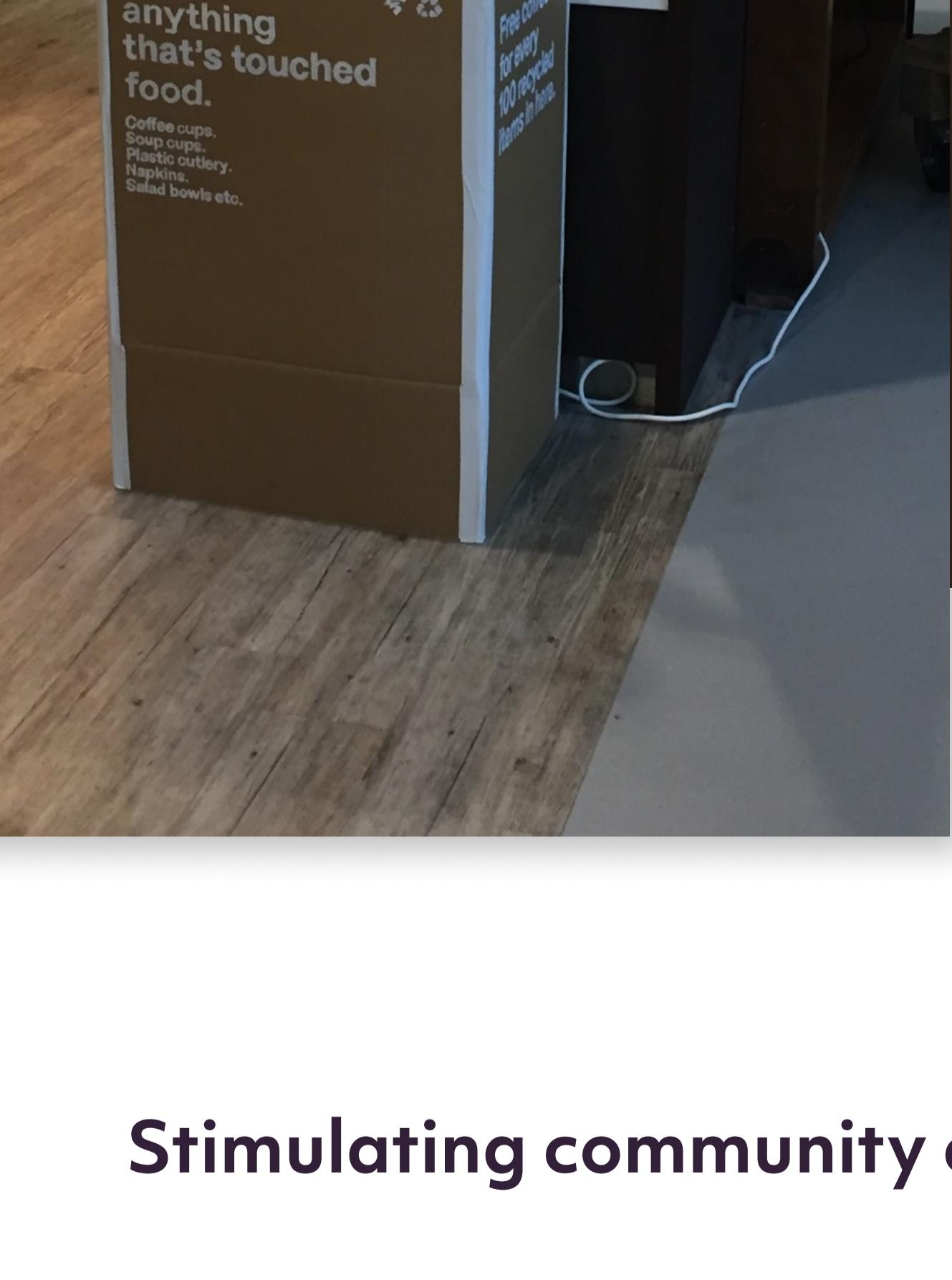
Prototyping the New System

We started to investigate how this new sorting system might play out on campus and conducted two experiments simultaneously. First, we made our own bins out of cardboard boxes. We labelled them according to the new sorting system outlined in our brief, and included an additional bin labelled "Confusion" for all the things people were unsure how to dispose of. We put these bins in our studio for a week, and then analyzed their contents.



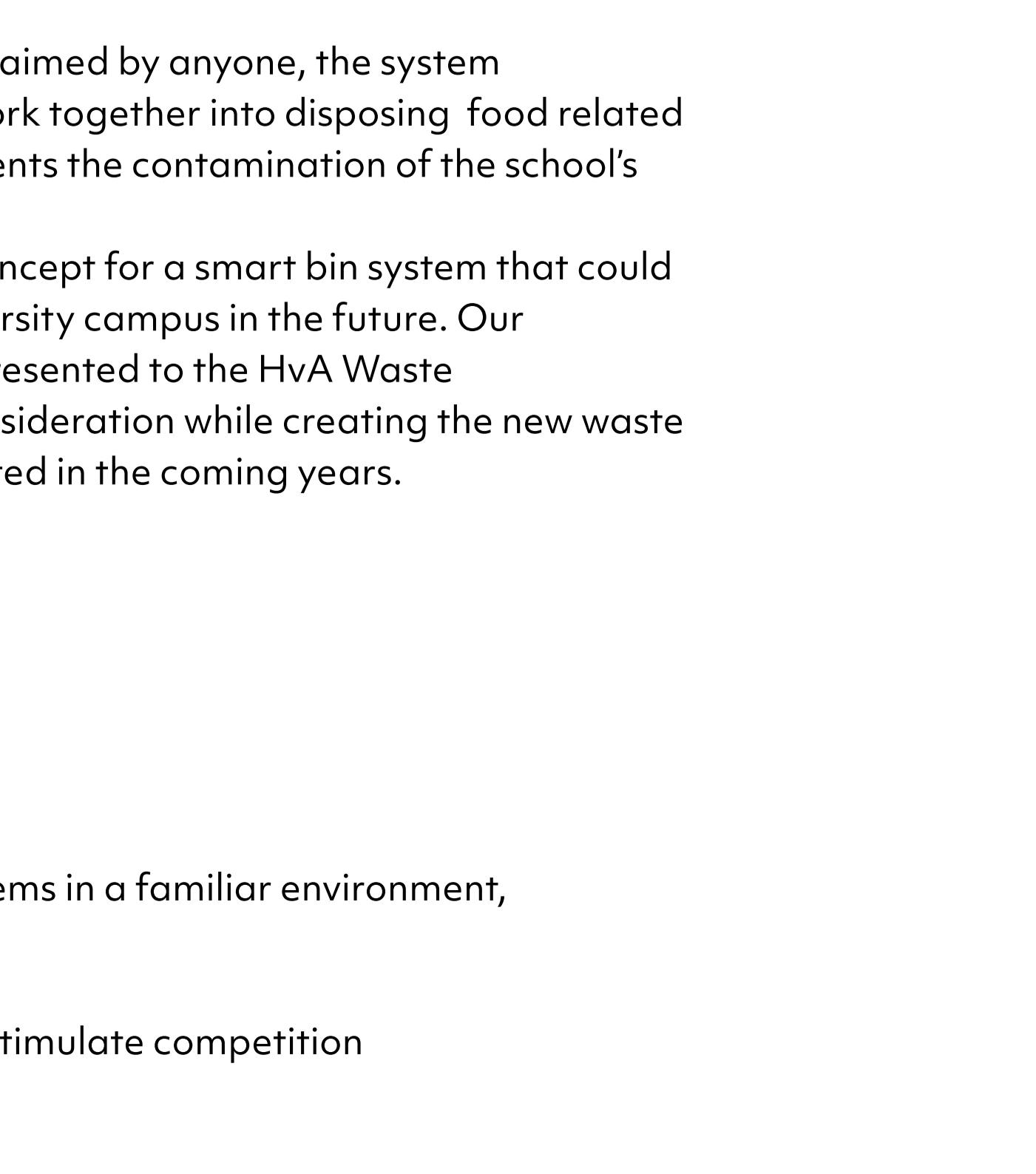
FINDINGS:

- People are most confused on how to sort coffee cups, disposable cutlery, and food packaging. These products are, therefore, the biggest cause of contamination in the other streams;
- Simple labels aren't enough for people to be able to sort their trash correctly;
- People think they know how to sort their trash but oftentimes they are mistaken.



Motivation Through Reward

We drew inspiration from the Italian tradition of Sospeso, in which cafe patrons can pay ahead for coffees that can later be claimed by the less fortunate. In our take on this tradition, we created a smart bin for the disposal of coffee cups and other food related waste that generates a collective reward for the community when trash is sorted correctly.



Stimulating community collaboration

By generating a reward that can be claimed by anyone, the system stimulates the entire community to work together into disposing food related waste correctly. This joint effort prevents the contamination of the school's recyclable waste streams.

This prototype serves as a proof of concept for a smart bin system that could be implemented throughout the university campus in the future. Our prototype & research findings were presented to the Hva Waste Management committee for their consideration while creating the new waste management system to be implemented in the coming years.

Learnings:

- it takes time to change behavior

- people are initially wary of new systems in a familiar environment, but learn them quickly

- Rewards are highly motivating and stimulate competition