

# Coffee Talk with Edwin



**Please tell us about yourself, who are you and what do you do?** Create, experiment, and validate prototypes in the area of robotics, artificial intelligence, and virtual reality. That is what startup **TechTics** by Martijn Lukaart and myself, Edwin Bos, is working on. The BeachBot robot, that monitors and cleans up litter is one of the **projects** we are working on.

**How did your journey towards sustainability begin and how did you come up with the initial idea?** My background is in PR with an interest in sustainability. When he came into contact with fellow entrepreneur Martijn Lukaart, who is active in areas such as AI and robotics, the link with sustainable entrepreneurship was quickly established. Together, we started TechTics to investigate the possibilities of using new technology for sustainability: Tech for Good. The BeachBot was our first idea when we got to the topic of litter. We have developed a first prototype together with a Minor Robotics team from the Technical University of Delft.

**What is a possible future for your initiative? Where do you want to be within five years?** From the start, there was a lot of press attention, which acted like a flywheel. "Thanks to all the reactions that followed, we can also better understand what

works and what doesn't and what can be used to build a business model and adapt our innovation for real-life use cases. Moving from the experimentation and validation phase to operational robot models for specific tasks is a long-term process though. Financing remains important. There must be some certainty that there are parties that want to purchase a robot. We want to work towards that. In that respect, we also look beyond the beach, because litter is everywhere. Parks, business parks, you name it. There are plenty of opportunities. But first, there has to be a well-functioning model for one segment, before we start looking for the broader market.

**If you have three free wishes, what would you wish for?** Obviously less (or no more) plastic and more awareness to keep the world clean. For our own company, I wish that we will find a solid sustainable business model. Having a teleoperated robot that can add to waste removal and research would really be something. In the next demo, Bos is thinking of municipal employees who can monitor the robot remotely via VR glasses and a 360-degree camera in order to identify specific waste, locate it, and pick it up, for example for sampling.

**What do you think we all can do to solve the plastic pollution problem in general?** A purely robotic solution

Insights about the project

## “Human-Robot Interaction for a World Without Plastic Litter”

by Edwin Bos, Netherlands



AWARD WINNER

will not solve plastic pollution. This invention also does not intend to just clean up other people's mess. Of course, the problem lies with the people themselves. In the interaction with our robots you could let people think about what they are doing (littering) and that way contributes to tackling the topic of litter at the source. But the fact is that littering is now a problem and we should all change our mindset towards plastic pollution immediately and take action.



*Our robots are programmed with artificial intelligence which enables them to efficiently map and collect litter, detecting and acting at the same time.*