



The design makes emptying the device and separating different sized particles quick and easy to do | Photo source The Tyre Collective

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MICROPLASTIC COLLECTION DEVICE REDUCES VEHICLE TYRE POLLUTION

 MOBILITY & TRANSPORT

The tyre-mounted device helps reduce airborne pollutants and the amount of plastic that ends up in the ocean

Spotted: Created by The Tyre Collective, the electrostatic collection device sits behind a tyre close to the road. In laboratory tests, the device currently collects 60 per cent of all airborne particles.

Microplastic pollution from tyres is a significant ocean pollutant and is likely to increase in volume as electric vehicles (EV) become more common. That is because the weight of the batteries in EVs causes more wear and tear on tyres. The end result is fewer exhaust fumes, and more microplastics, which can become airborne and thus present no less of a danger to human and environmental health than the emissions from gas-powered vehicles.

The Tyre Collective is an interdisciplinary team of engineers and designers studying at Imperial College and the Royal College of Art in London. Determined to create a closed-loop recycling system, the team ensured that the design makes emptying the device and separating different sized particles quick and easy to do. Some particles are suitable for reuse in new tyres, while others are usable in objects as disparate as ink and soundproofing and 3D printing materials. The project is currently receiving support from InnovationRCA, and finding other commercial partners is a focus for the next stage of development of this project.

Other ways Springwise has spotted vehicles becoming more environmentally friendly include using **sustainable bioplastics** made from food waste in car parts and a **rooftop cargo box** with an integrated solar panel.

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