

The Ocean Cleanup



Project author or developer:
Boyan Slat

Where:
NL / Paesi Bassi / Governo di Rotterdam

Website:
<https://www.theoceancleanup.com/>

The Ocean Cleanup is a non-profit organization, developing advanced technologies to rid the world's oceans of plastic.

The Ocean Cleanup is designing and developing the first feasible method to rid the world's oceans of plastic. Every year, millions of tons of plastic enter the ocean. A significant percentage of this plastic drifts into large systems of circulating ocean currents, also known as gyres. Once trapped in a gyre, the plastic will break down into microplastics and become increasingly easier to mistake for food by sea life. Going after it with vessels and nets would be costly, time-consuming, labor-intensive and lead to vast amounts of carbon emission and by-catch. That is why The Ocean Cleanup is developing a passive system, moving with the currents - just like the plastic - to catch it. The system consists of a 600-meter-long floater that sits at the surface of the water and a tapered 3-meter-deep skirt attached below. The floater provides buoyancy to the system and prevents plastic from flowing over it, while the skirt stops debris from escaping underneath. As the system moves through the water, the plastic continues to collect within the boundaries of the U-shaped system. By deploying a fleet of systems, The Ocean Cleanup has estimated to be able to remove 50% of the Great Pacific Garbage Patch in just 5 years' time. The concentrated plastic will be brought back to shore for recycling and sold to B2C companies. The revenue gained will help fund the cleanup expansion to the other four ocean gyres. In preparation for full-scale deployment, The Ocean Cleanup organized several expeditions to map the plastic pollution problem in the Great Pacific Garbage Patch to an unprecedented degree of detail. The team simultaneously advanced its design through a series of scale model tests, including prototypes deployed in the North Sea 2016, 2017 and 2018. The first cleanup system was deployed from San Francisco Bay on September 8, being towed to the Great Pacific Garbage Patch to commence the cleanup.

