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## **Hydroclean Smartbin Solution for Plastic Pollution Crisis**

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**Abstract :** By 2050, there will be more plastic than fish in our oceans. 51 trillion micro-plastics pollute our waters and contaminate the food on our plates, increasing the risk of tumours and diseases such as cancer. Our product is a solution to the ever-growing problem of plastic pollution. We call it the SmartBin. The SmartBin is a cylindrical device which will float just below the surface of the water, able to move with the aid of 4 water thrusters situated on the sides. As it floats, our SmartBin will suck water into itself and pump it out through the bottom. All waste is collected into a reusable filter including microplastics measuring down to 1.5mm. A speaker emitting sound at a frequency of 9 hertz ensures marine life stays away from the SmartBin. Featured along with our product is a smartphone app which will enable the user to designate an area for the SmartBin to cover on a satellite image. The SmartBin will then return to its start position near the shore, configured through the app. As global pressure to tackle water pollution continues to increase, environmental spending increases too. As our product provides an effective solution to this issue, we can seize the opportunity and scale our company. Our product is unparalleled. It can move at a high speed, covering a wide area rather than being restricted to one position. We target not only oceans and sea-shores, but also rivers, lakes, reservoirs and canals, as they are much easier to access and control.

Keywords: water, plastic, pollution, solution, hydroclean, smartbin, cleanup

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