THE SEABIN FLOATING RUBBISH BIN

COLLECTING WASTE FROM THE WATER SURFACE

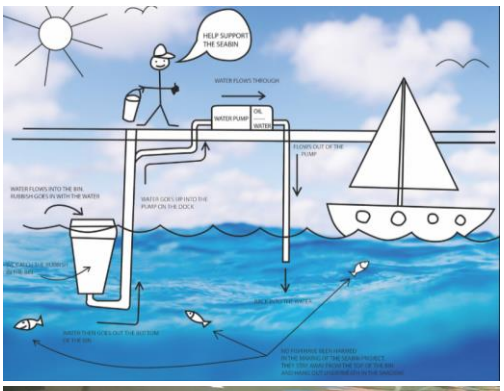
The Seabin is a floating rubbish bin created by two Australian surfers, Andrew Turton and Pete Ceglinski to help rid the oceans of plastic and pollution. Each Seabin device works independently, floating up and down with the tide, removing wastes from the water 24 hours a day.

After numerous sailing trips around the world and witnessing the amount of pollution in marinas, in 2014 the inventors decided to create the Seabin device to collect trash, paper, plastics, oil, fuel and detergents floating on the water surface. The device is designed to ensure the safety of marine life: the basket is positioned on the water surface so as to collect only the pollution and the waste floating without damaging the fish.

The Seabin moves floating in the surface and the water is sucked inside it thanks to a submersible water pump capable of displacing 25.000 liters per hour. The water is then pumped back into the marina leaving litter and debris trapped in the catch bag to be to be disposed away properly. Each Seabin filters over 2 million litres of water each year. The pump is designed to be plugged into a 110/220 V shore power.

Inside the Seabin a natural fiber and biodegradable *catch bag* collects all the floating debris. The catch bag can hold up to 20 Kgs of debris and when this is full, the worker simply replaces the catch bag with another one. The size of the Seabin and the catch bag have been designed for a safe working load of one person.

The Seabin floating rubbish bin can be installed in an unused corner of seashores, ports docks, yacht clubs and commercial ports. The strategic positioning is set in places that are known to become clogged with trash and debris, enabling the wind and the currents to push the debris directly to the Seabin.



The Seabin can catch an estimated 1.5 Kgs of floating debris per day (depending on the weather and debris volumes). Seabin can also catch microplastic particles between 2 to 5 millimeters in diameter**.** According with the company's website, each Seabin has the capability to catch in a year 90,000 plastic bags, 35,700 disposable cup, 16,500 plastic bottles, 166,500 plastic utensils.

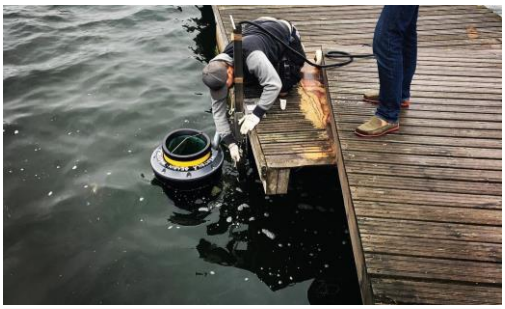
If we can have rubbish bins on land, why not have them in the ocean: the idea of a container that collects waste in the sea is simple and brilliant and success has been great. The company is working with a great number of countries to sell and install the Seabin floating rubbish bins. Its sales and distribution network is growing everyday recording pre-orders from around the world. In Australian shores, for example, 100 Seabins have been installed

that will extract 110 tons of micro plastics, litter and debris annually starting from November 2018.

The company's goal is actually to implement a production capacity to respond to the great market demand. Partnering with industry leaders and innovators, with universities and environmental groups worldwide, the team at Seabin Project is also planning to develop more technologies to be adapted to future Seabin models. In particular, the team is working to produce the device using sustainable materials, to convert captured plastics into energy, to reuse or recycle the Seabins for other uses and applications.

Other project challenges include lowering the carbon footprint of Seabin's production through the use of wind or solar energy; lowering running costs (estimated at $1 per day) and developing a model that is suitable for fixed marinas, pylons and hard-edged waterways. Another aspect of particular interest is the work in progress to create a catch bag that could be used to capture macro plastics, microplastics and microfibers more efficiently.

A strategy envisaged by the authors is also to work with local groups in the interested countries to create and support local economies with the production and maintenance of the Seabin devices. The Team of Seabin Project is currently reaching out to corporations, governments, non-profits and environmental agencies to establish partnerships and dynamic collaborations aimed at increasing practical and measureable positive impact in tackling ocean plastic pollution.



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Seabin Project website

Seabin in Facebook

Video in Youtube

Video in Youtube

Article in anmm.blog

Article in createdigital.org.au

Seabin in lifegate.com

Article in businessinsider.com

Article in seawork.com

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Article in powerboat.world.com