



URBAN PLUNGE

Sydney
WATER



IADYS/Butchart Marine Services | Jellyfishbot

Country of Origin: France

Technology Readiness Level: 9 - Fully commercial

JELLYFISHBOT

by IADYS

Description: The Jellyfishbot is a small robot that collects floating waste such as plastics, algae, biomass, and oil spills. Jellyfishbot is an efficient and flexible solution to water decontamination of widespread and sheltered areas, such as ports, marinas, lakes, rivers, and harbours. The Jellyfishbot is compact and easy to set up. The device can be operated autonomously or by using a remote control. When the Jellyfishbot is equipped with sonar, it can perform bathymetric surveys. The Jellyfishbot operates with low noise pollution by using electric batteries, minimising effects on marine life. The Jellyfishbot can also be operated in tandem to allow faster collection rates over a more widespread area.



Applicability to Urban Swim Sites: The Jellyfishbot is able to clear any floating waste or oils that could make their way into swimming areas. In 2023, an option to collect water samples for water quality monitoring of swimming areas will be available.

Technical Risk and Case studies: There are around 70 Jellyfishbots in operation in marinas, yachting, tourism, and industrial sites worldwide. IADYS partnered with the City of Cassis, to deploy a Jellyfishbot on days when a farmers' market is held. More than 500L of waste is collected every month in a span of 2 hours when the Jellyfishbot is used. In Australia, Butchart Marine Services distributes Jellyfishbot. The first unit was deployed on Garden Island in Sydney. Butchart Marine Services also recently ran a demonstration for the Cooks River Alliance with various stakeholders from the four local government areas that the Cooks River runs through, Sydney Water staff and NSW State Government officials. Initial discussions are also underway with the City of Melbourne Council and Kalgoorlie City Council about deploying a Jellyfishbot for the Yarra river and specific water treatment plants respectively. The worldwide shortage of electronic components had led to an increase in the price of transport and shortage of materials used to build the Jellyfishbot. This is currently being managed by IADYS by tapping new suppliers to bridge the inventory gap.

Cost & Business Case: The Jellyfishbot is a cost-effective solution allowing up to a one-third reduction (from AU\$ 15,458 to AU\$ 5,255) in the cost of manpower and cleaning operations over a four-month period, compared to using a boat with an operator onboard. The use of the Jellyfishbot has allowed manpower resources to be redelegated into other tasks.

Butchart Marine Services (Australian Partner) | Greg Butchart: greg@butchartmarineservices.com.au

<https://www.jellyfishbot.io/>