

# **Implementation of a Conveyor Mechanism on a Solar Cell Based Rc Boat Trash Collector**

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## **ABSTRACT**

*Population growth, economic growth and changes in people's consumption patterns cause waste production to increase without being accompanied by good management methods. The government's breakthrough to overcome the waste problem, especially in waters, is to use a waste dredger in the form of a long arm excavator for waste that settles in river flows. Garbage that is on the surface of the river requires more effective cleaning efforts compared to waste that settles in the river flow, therefore the RC Boat Trash Collector project with a belt conveyor drive was created. Cleaning efforts on the surface of the river using conventional methods are deemed less effective due to their limited reach. One of the development efforts to clean up rubbish on the surface of the river is using the RC Boat Trash Collector project with a belt conveyor drive. This research was carried out with the aim of finding out the capacity of waste that can be transported by the storage tank as well as knowing the ideal angle of inclination of the conveyor mechanism and knowing the appropriate conveyor belt tension. The test was carried out on the Bedadung River on February 19 2024 with the technical test of transporting rubbish found on the surface of the river water until the rubbish bin on the ship was full and transporting rubbish was simulated with several types of rubbish. The research method was carried out several times to find out the best results for the variables being tested using a remote control.*

*Keywords: Conveyor, Garbage, RC Boat Trash Collector, River*