

Implementation of a Remote Steering System on a Solar Cell based RC Boat Trash Collector

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ABSTRACT

Waste is a problem that is the main focus in Indonesia. This occurs due to increasing waste generation without proper processing methods. The latest data from the Ministry of Environment in 2023, the amount of waste generated reaches 17,441,415.28 tons/year, where the largest source of waste comes from household waste (44.64%) followed by traditional markets (26.44%), offices (5.75%), and the rest are public facilities, areas and others. From this data, 18.68% is plastic waste. Most plastic waste cannot be decomposed by microorganisms or takes a long time for nature to decompose. Not only is it found on land, plastic waste is also often found in waters. This research aims to find out the capacity of waste that can be transported and the maximum distance of the remote steering system on a solar cell based RC Boat Trash Collector. The test was carried out on the Bedadung River by transporting waste on the surface of the river water until the tank on the RC Boat Trash Collector was full and transporting the waste was carried out a certain distance on Friday, February 16 2024. In implementing the remote steering system on the RC Boat Trash Collector equipment get the results, namely controlling the steering on the RC Boat Trash Collector; there are 3 buttons including controlling the drive motor, servo and conveyor mechanism. The maximum control distance is a radius of 300 meters.

Keywords: RC Boat Trash Collector, Waste, Steering System, River