Remote Controlled Solar Powered Micro and Macro Plastic Water Cleaning System (Year 2)

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If water pollution, including macro and micro plastics is detrimental to marine life, then developing an efficient cleaning system is essential because marine life needs to be protected and habitats and environments needs to be preserved The debris collector had a starting/ending point directed to two targets, each 1609344 meters away. Solar/electric energy was utilized to power the filter, propeller, and rudder. A fabricated rudder assisted a remote-controlled system for maneuverability. Each point was labeled with a number 1.27 cm in size. Each trial was considered successful once the number was legible. Upon return to the ending point, the filter was rinsed and filtered again to collect micro pollutants which were weighed with a gram scale. Five trials each were performed to each target with 80% accuracy. There was a 2.7% discrepancy between the total amount of micro plastics collected from targets A and B, (29.7 vs 28.9 grams). The data supports the hypothesis the a self-sufficient remote-controlled device would clean the water.

Awards Won: