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Solar Powered Lake Surface Cleaning Robot

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Abstract: *Water pollution in lakes has become a major environmental concern due to the increasing accumulation of floating debris, plastics, and organic waste. To address this issue, a Solar-Powered Lake Water Cleaning Robot is proposed to autonomously remove floating pollutants while operating efficiently on renewable energy. The robot is designed with solar panels, ensuring sustainable operation without reliance on fossil fuels. It integrates an automated conveyor system to collect and remove waste while maintaining water quality. Sensors for real-time monitoring enable adaptive cleaning strategies, enhancing operational efficiency. This eco-friendly solution aims to reduce water pollution, promote sustainability, and improve aquatic ecosystems.*

Keywords: Water pollution control, solar-powered robot, autonomous navigation, waste collection