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A Review of Paper on Design of Autonomous Robotic Boat for Rescue Application

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Abstract: The project titled "Design of Autonomous Robotic Boat for Rescue Application" aims to develop a reliable, efficient, and self-operating boat capable of conducting rescue operations in aquatic environments. This autonomous vessel is designed to navigate through water bodies, identify distressed individuals, and provide assistance without human intervention. Equipped with GPS, ultrasonic sensors, cameras, and communication modules, the boat can detect obstacles, locate victims, and communicate with a central control system. The primary focus is to enhance the boat's adaptability and responsiveness in diverse rescue scenarios, including floods, tsunamis, or other aquatic emergencies. By leveraging machine learning algorithms and advanced path-planning techniques, the boat autonomously calculates optimal routes to reach individuals in need. This project contributes to emergency response technology, offering a scalable and cost-effective solution to save lives in hazardous water environments. The proposed design can significantly improve the speed and safety of rescue operations, potentially reducing the risks faced by human rescuers in dangerous situations.

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