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## Water Powered Hydrogen Electricity Generator

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**Abstract:** This project focuses on developing a hydrogen electricity generator powered by water. It uses electrolysis to split water into hydrogen and oxygen, with hydrogen serving as a clean fuel alternative to fossil fuels. The system is designed to work with renewable energy sources like solar or wind, making it environmentally friendly. The hydrogen produced can be stored and used for power generation, while oxygen is either released or repurposed.

Key components, such as durable electrodes, an efficient electrolyte, a stable power supply, and secure storage, are carefully selected to ensure safe and effective operation. The system undergoes rigorous testing and improvements to enhance its efficiency and reliability. This project demonstrates a practical method for hydrogen production, offering a sustainable energy solution. By addressing storage and safety concerns and integrating with renewable energy, it contributes to the advancement of hydrogenbased clean energy technologies

Keywords: Hydrogen Generator, Water Electrolysis, Renewable Energy, Power Generation

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