

Method of Approach

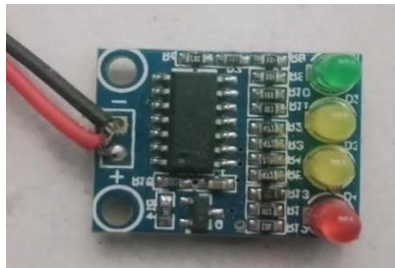
EXISTING METHOD

In the realm of existing water purification methods, Reverse Osmosis (RO) stands as a widely used but sometimes problematic technique. RO systems are known for their efficiency in removing impurities from water. However, they have a notable downside: they can inadvertently strip essential minerals from the water, making it less suitable for consumption. This drawback is a significant concern in regions where the drinking water already has low mineral content.

The Smart Water Purification System we propose aims to address this limitation while also providing a dynamic solution that adapts to varying impurity levels. By monitoring the Total Dissolved Solids (TDS) of incoming water, our system ensures that the purification method chosen is appropriate to the specific water quality, avoiding unnecessary mineral removal and other issues associated with traditional RO systems. This makes our system a significant advancement in water purification technology, overcoming the shortcomings of established methods.

PROPOSED METHOD

Design and implement a sustainable water purification system that utilizes solar energy for power, ensuring access to clean water in off-grid or remote areas. The system will include a battery level indicator for efficient monitoring and maintenance. This integrated solar-powered water purification system with a battery level indicator aims to provide a sustainable solution for clean water access, addressing both energy efficiency and water quality concerns in off-grid areas.



Battery Level Indicator