





AQUA CHECK



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Problem **STATEMENT**

The problem of water quality is a critical issue that affects the health and well-being of communities around the world. The increasing demand for clean drinking water, combined with the increasing pollution of our waterways, has resulted in a widespread decline in the quality of our drinking water. This problem is further exacerbated by the lack of adequate infrastructure, insufficient regulation, and poor enforcement of existing water quality standards.

What

The poor water quality causes diseases bacteria, decreases agricultural productivity and harm aquatic wildlife.

Why

The issue of water quality must be addressed to access safe and clean drinking water, and to protect the environment .

How

This requires a combination of technological solutions, effective regulations, and increased public awareness to address the underlying causes of water pollution.

APPLICATION

Using a water quality checking device to monitor water parameters in real-time can help ensure that the water is safe for use and meets the desired quality standards. This can help prevent problems such as corrosion, scaling, and fouling in industrial processes, and can help maintain a healthy aquatic environment in aquariums and swimming pools.



Water quality checkers typically use electrodes to measure the electrical conductivity of water, which is directly related to the concentration of ions in the water. The pH of water can be measured by using a pH electrode. Temperature can be measured by using a thermistor or thermocouple. TDS can be calculated by measuring conductivity and then using a conversion factor to determine the TDS concentration.

MARKET TRENDS

The target industry for Aqua check would likely be the water quality testing and treatment sector. Aqua Check could provide real-time analysis and monitoring of water quality and suggest appropriate treatment methods.

TARGET INDUSTRY

There are already a number of traditional water testing methods and tools available in the market. However, the use of AI in real-time water testing and treatment is a relatively new concept and there may be only a few direct competitors offering similar solutions.

COMPETITONS

The unique selling proposition (USP) of an AI-based water potability model could be its ability to provide accurate and real-time analysis of water quality, and its ability to continuously monitor water quality and suggest appropriate treatment methods.

USP

RISK ANALYSIS

01

TECHNICAL RISK

03

DATA ACCURACY
RISK

05

LEGAL AND
REGULATORY RISK

02

ALGORITHM
BIAS RISK

04

PRIVACY AND
SECURITY RISK

06

ADOPTION RISK



FUTURE PROSPECTS

**IMPROVED
WATER
QUALITY**

**INTEGRATION
WITH SMART
WATER
MANAGEMENT
SYSTEMS**

**COST AND TIME
SAVINGS**

**IMPROVED
TREATMENT
METHODS**

REQUIREMENTS

SOFTWARE

- **AI AND MACHINE LEARNING PLATFORMS:** AI AND MACHINE LEARNING PLATFORMS, SUCH AS TENSORFLOW, PYTORCH, AND SCIKIT-LEARN, CAN BE USED TO DEVELOP AND TRAIN THE AI MODEL.
- **DATA ANALYSIS AND VISUALIZATION TOOLS:** TOOLS SUCH AS R OR PYTHON CAN BE USED TO ANALYZE AND VISUALIZE THE WATER QUALITY DATA USED TO TRAIN THE AI MODEL.
- **CLOUD COMPUTING SERVICES:** CLOUD COMPUTING SERVICES, SUCH AS AMAZON WEB SERVICES (AWS) OR MICROSOFT AZURE, CAN BE USED TO HOST THE AI MODEL AND ASSOCIATED SOFTWARE AND DATA.

HARDWARE

- **PH SENSOR.**
- **CONDUCTIVITY SENSOR.**
- **RESIDUAL CHLORINE SENSOR.**
- **TURBIDITY SENSOR.**
- **DISSOLVED OXYGEN SENSOR.**
- **ORP SENSOR.**
- **COD SENSOR.**
- **AMMONIA NITROGEN ION SENSOR.**



**THANKS
FOR WATCHING**



TEAM DATA DEMONS