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DEPARTMENT OF
SCIENCE & TECHNOLOGY
सत्यमेव जयते

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TECHNOLOGY
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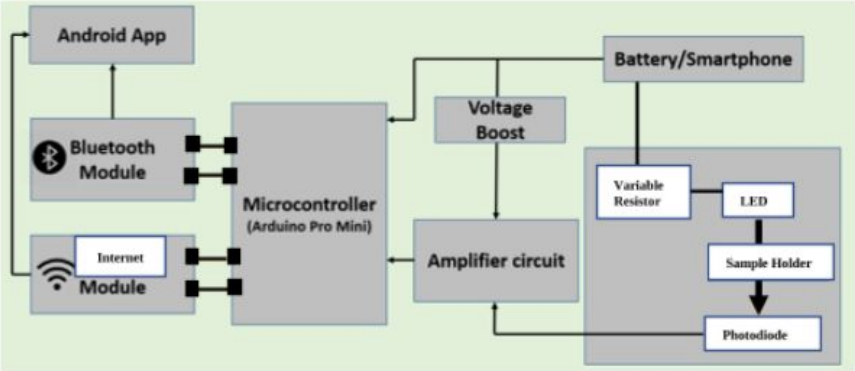
PENDING

(IN202111015698) A portable real-time colorimetric detection device and method of using the same



NEED

Accurate and portable detection of analytes in real-time is a growing need across various industries like healthcare and food safety. Existing systems often struggle with cost, speed, and portability.

MARKET ANALYSIS

The global sensor market is expected to grow at a CAGR of 8.4% from 2023 to 2033, driven by increasing demand for advanced detection solutions in healthcare, agriculture, and environmental monitoring. (Source: Grand View Research, 2023)

TECHNOLOGY OVERVIEW

This patent introduces a portable real-time colorimetric detection device that uses LED light sources and photodiodes to detect analytes in samples. The system is designed for on-site analysis, offering wireless data transfer and temperature control for stable results.

Target Industries

1) Healthcare diagnostic companies; 2) Environmental monitoring services; 3) Food safety testing services; 4) Consumer electronics firms offering portable diagnostic solutions.

TECHNOLOGY KEY FEATURES

Portable, real-time, colorimetric detection; LED-photodiode optical pair; microcontroller-driven; wireless data transfer; customizable wavelength ranges; temperature control; boost converter for efficient power use.

AT A GLANCE

- SDG 3 (Good Health and Well-being), SDG 9 (Industry, Innovation, and Infrastructure), SDG 12 (Responsible Consumption and Production)

Read more here

Technology is available for licensing/ co-development.

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