

ABSTRACT

DESIGN OF AN AUTOMATIC PERFUME DISPENSER USING IR SENSORS AND AHT20 IN IOT-BASED CLASSROOMS

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The development of Internet of Things (IoT) technology has led to the creation of automation systems that respond to environmental conditions. This study aims to design and build an automatic perfume sprayer that can spray fragrances based on the number of visitors and room temperature, particularly in classrooms. The system uses an IR sensor to count the number of visitors, an AHT20 sensor to monitor temperature and humidity, and an ESP32 microcontroller as the control center. Spraying is done in stages: two sprays for 8 visitors, three for 16, and four for 24 visitors. If the room temperature is high, the system adds one extra spray every 30 minutes. Information output is displayed via an LCD screen and the Blynk app for remote monitoring. The design results show that the system can operate automatically and efficiently, and can be applied to enhance classroom environmental comfort. This device can also serve as a reference for IoT technology development in environmental automation.

Keywords: IoT, ESP32, IR sensor, AHT20 sensor, automatic perfume sprayer, classroom.