

AUTOMATED FOOD SPOILAGE DETECTOR SYSTEM

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ABSTRACT

Food safety is essential for a country's economy as well as the health of its people. Reducing food waste and increasing transportation efficiency are essential requirements. The bulk of purchasers primarily consider the food value of the products they purchase. Temperature, microbes, and humidity depend on food and have a big impact on how quickly things decompose. If the storage is between 40 to 140 degrees Fahrenheit, it is in a dangerous range because bacteria quickly proliferate, doubling in number every 20 minutes. The humidity in the space used for storing food must be in the range of 50% and 55%. In the contemporary living environment, sophisticated sensors are used to identify potential health risks. In this study, we devised a straightforward and reasonably priced micro-system to assess if food is rotting by observing the gases that food releases. The meal is monitored using a MQ-4 gas sensor. This project makes use of a food detection system powered by Arduino. In addition to interpreting inputs and outputs, the microcontroller panel is also capable of turning on the sensor. Usually, food is kept in the refrigerator, which inhibits bacterial growth. This project's main objective is to employ sensors to stop food from going bad. This is accomplished by continuously monitoring signals from the food, and a 16*2 LCD panel, a buzzer, and an LED are used to display the amount of methane present.

KEYWORDS: *Arduino UNO, MQ4 Methane Gas Sensor, Spoiled Food Detection*

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