# Developing a Real Time Non Invasive Approach to Distinguish Natural and Artificial Ripened Fruits

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**Abstract:** *In this project we focuse on detecting artificial and natural ripened fruit using the sensor introduces a novel Internet of Things-based method. An ESP32 microcontroller serves as the system's central hub and is responsible for gathering and interpreting data from a wide range of sensors. These sensors include a DHT sensor that measures the temperature and humidity inside the fruit container, a moisture sensor that determines the moisture content of the fruits and vegetables, a weight/load sensor that tracks the weight of the produce, and a MQ2 gas sensor that carefully measures the concentration of ethylene gas released by fruits [7]. This strategy reduces food waste and preserves agricultural products by providing a more effective and sustainable substitute for conventional techniques. A key component of guaranteeing the freshness, quality, and market value of fruits and vegetables is their timely ripening.The ability of the system to continuously evaluate the complex interactions between temperature, humidity, moisture, etc. This project presents the development of an IoT-based system for preventing the premature ripening of fruits and vegetables. The system utilizes sensors to monitor ethylene gas concentration, temperature, humidity, moisture content, and weight, enabling timely intervention to regulate ripening conditions. By detecting changes in these parameters, the system can activate a DC fan to improve air circulation and disperse ethylene gas, and a DC pump to spray ethylene absorbent onto the fruits. This helps to control the ripening process and prolong the shelf life of fruits and vegetables.*

**Keywords:** Internet of Things