

**Rancang Bangun *Liquid Filling Machine* Berbasis *Internet of Things* Guna Memudahkan Proses *Monitoring Produk*. (*Design and Development of an Internet of Things-Based Liquid Filling Machine to Facilitate Product Monitoring*).**

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**ABSTRACT**

*Small and Medium Enterprises (UMKM) play a crucial role in Indonesia's economy. The majority of UMKM are in the food and beverage sector, including canned sardine businesses. As product demand increases, UMKM often face challenges in improving production efficiency, product quality, and meeting hygiene and health standards. This study develops a low-cost automatic liquid filling machine utilizing Internet of Things (IoT) technology and gravity. The machine is designed to address the issues of accurate liquid filling in canned sardine production, reduce manual filling errors, and improve product quality. It is equipped with infrared proximity sensors and ultrasonic sensors integrated with a NodeMCU ESP8266 microcontroller for real-time monitoring. Implementation results show that this machine can enhance work efficiency, production capacity, and product quality while reducing operational costs.*

**Key words:** *umkm, liquid filling machine, internet of things, canned sardines*