

***Automated Control System for Traditional Herbal Drink Powder Based on
Arduino Nano***

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ABSTRACT

Empon-empon (Indonesian traditional herbal medicine) have become one of the superior commodities in Indonesia due to their abundant availability. This condition encourages people to utilize these rhizomes as herbal drinks, as they offer numerous health benefits for the body, particularly in the form of powdered herbal medicine (jamu bubuk). However, until now, the production of powdered herbal medicine still relies on manual processes, which require significant labor and yield limited output. This research aims to design and implement an Automatic Traditional Herbal Drink Powder System based on Arduino Nano, equipped with a digital timer and an infrared temperature sensor. The method used in this study is Research and Development (R&D). The system consists of several key components, including Arduino Nano, MLX90614 infrared sensor, solenoid valve, digital timer, and an AC motor. The design results demonstrate that the system can improve time efficiency and enhance product quality in the powdered herbal medicine production process, while also having the potential to reduce production and operational costs.

Key Words: *Automatic Traditional Herbal Drink Powder, Empon-Empon (Indonesian traditional herbal medicine), Arduino Nano, MLX90614 Infrared Sensor*