

ABSTRACT

This study designs and tests a smart medication reminder system connected via the Internet of Things (IoT) and uses the Telegram application as a notification medium. This tool is also equipped with an ultrasonic sensor to detect whether the user has taken the medicine, as well as a servo motor that automatically opens the medicine container at the scheduled time. Ultrasonic sensor testing was carried out 10 times and produced an accuracy of $\pm 98\%$ in detecting medication taking with a maximum distance of 10 cm. Meanwhile, the servo motor was also tested 10 times to open the container to a 90-degree angle, with a success rate of 99%. These results indicate that the system is able to work consistently and responsively, and has the potential to help users not miss their medication schedule, especially in remote monitoring scenarios.

Keywords: RTC, Telegram, Medication Reminder, Ultrasonic Sensor, Servo Motor.