## Abstract

Coronavirus disease (Covid-19) still exists, but the implementation of health protocols, namely maintaining distance, wearing masks, and washing hands (3M) is not optimal and has received more attention lately. Previous studies applied the IoT concepts to hand sanitizer systems and automatic body temperature measurements. However, this research has not been optimal for system integration in solving problems. Existing research only focuses on temperature sensor readings which can be monitored in real-time by installing third-party applications first. Therefore, we make an automatic hand sanitizer and body temperature measurement system with low liquid hand sanitizer condition notification by implementing modifications using PHP MySQL website and notification feature via Twilio bot integrated with WhatsApp. The feature is based on previous research proposals. Based on the test results, the performance of the system prototype is considered good. The system prototype can produce an average of 1.1 mL as the recommended average hand sanitizer in one use of less than 1.74 mL. Then the system prototype has a hand sanitizer fluid accuracy of 90.4% and an accuracy of MLX90614 temperature sensor of 99.9%.

Keywords: 3M Protocol; Coronavirus disease (Covid-19); System Prototype; hand sanitizers; Body Temperature Gauge.