

# RANCANG BANGUN ALAT UKUR SUHU TUBUH OTOMATIS BERBASIS ARDUINO

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## ABSTRAK

Pada masa awal menyebarnya virus Covid-19 di Indonesia membawa dampak negatif khususnya pada 2 sektor yakni sektor Kesehatan, dan Ekonomi. Dengan dibuatnya Alat *Sistem Deteksi Suhu Otomatis* memakai konsep *Internet Of Things (IoT)* ini supaya Operator tidak melakukan kontak fisik dengan Pengunjung sebagai upaya Antisipasi Dini Covid-19. Meski saat ini dalam zona “*New Normal*”. Dalam penelitian ini, alat dipasang pada tembok guna untuk pengunjung menempatkan *Telapak Tangan* didepan alat yang nantinya di proses dan mengeluarkan output nilai suhu pengunjung ditampilkan pada LCD dan notifikasi pada aplikasi *Blynk*. Demi layak pakai atau tidaknya alat tersebut, dilakukannya pengujian 20 kali percobaan nilai output menggunakan objek *Telapak Tangan* dan *Kaleng Hangat*, Alat dan ThermoGun dengan 3 jarak yang berbeda. Dengan demikian didapatkan rata-rata selisih *Telapak Tangan* 5cm = (2,3°C), 10cm (3,8°C), 15cm (4,7°C). Sedangkan nilai dari *Kaleng Hangat* pada jarak 5cm = (0,2°C), 10cm = (0,3°C), dan 15cm = (0,3°C).

**Kata Kunci :** *Internet of Things, Sistem Deteksi Suhu Otomatis, Blynk.*

# **DESIGN AND BUILD AN ARDUINO-BASED AUTOMATIC BODY TEMPERATURE MEASURING INSTRUMENT**

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## **ABSTRACT**

*In the early days of the spread of the Covid-19 virus in Indonesia, it had a negative impact, especially on 2 sectors, namely the Health sector and the Economy. With the creation of an Automatic Temperature Detection System Tool using the Internet Of Things (IoT) concept so that operators do not make physical contact with visitors as an effort to anticipate Covid-19 early. Although currently in the "New Normal" zone. In this study, the tool is mounted on a wall in order for visitors to place their palms in front of the tool which will be processed and output the visitor's temperature value output displayed on the LCD and notifications on the Blynk application. For the sake of being suitable for use or not, testing was carried out 20 times for the output value using the object of the Palm of the Hand and the Warm Can, the Tool and the ThermoGun with 3 different distances. Thus, the average difference between the palms is 5cm = (2.3°C), 10cm (3.8°C), 15cm (4.7°C). While the value of the Warm Can at a distance of 5cm = (0.2°C), 10cm = (0.3°C), and 15cm = (0.3°C).*

**Keywords:** Internet of Things, Automatic Temperature Detection System, Blynk.