

## **ABSTRAK**

### **ALAT DETEKSI SUHU TUBUH MANDIRI MENGGUNAKAN KAMERA TERMAL BERBASIS ARDUINO MEGA**

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Virus Corona 2019 (Covid-19) mengharuskan pengecekan suhu yang dilakukan saat memasuki ruangan sebagai pencegahan pertama untuk menghindari salah satu ciri terdampak Covid-19. Alat ini menggunakan AMG8833 sebagai kamera termal. Pengukuran yang dilakukan menggunakan alat deteksi suhu tubuh mandiri ini disarankan dilakukan pada jarak 10 cm karena berdasarkan hasil data analisis memiliki nilai regresi paling mendekati 1, yaitu sebesar 0,847875 sehingga dapat dikatakan memiliki hubungan yang paling erat dengan hasil ukur pada alat standar. Suhu tubuh manusia yang terukur kurang dari 37,5°C akan mendapat status “SEHAT” kemudian gate akan terbuka sehingga orang tersebut diperbolehkan masuk ke dalam ruangan. Sedangkan gate tidak akan terbuka jika suhu tubuh yang terukur melebihi 37,5°C. Kemudian hasil dari pengukuran suhu tubuh yang telah dilakukan akan dikirimkan ke Firebase.

Kata kunci: *Virus Corona 2019, Covid-19, Kamera Termal AMG8833, Suhu.*

## **ABSTRACT**

### ***AUTOMATIC BODY TEMPERATURE DETECTION DEVICE BASED ON ARDUINO MEGA USING THERMAL CAMERA***

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*Temperature verification is required before entering a room as an early precaution to avoid one of the characteristics of being affected by The Corona Virus 2019 or in short COVID-19. This device uses AMG8833 as a thermal camera. Measurements carried out using an independent body temperature detection tool is recommended to be carried out at a distance of 10 cm. It's needed in order to make the measurement much more efficient based on the data analysis results. The closer the regression value to 1, the closest relationship with the measurement results on a standard device is. The best result we have in this research is on the second analysis, which is 0,847875. A human body temperature that's measured less than 37.5°C will receive a "SEHAT" status which resulted of the gate being opened, allowing the person to enter the room. Meanwhile, if the measured body temperature exceeds 37.5°C, the device will make a buzzing sound to alert the workers and further action will be taken. Lastly, the measurement results of the body temperature that have been carried out will be sent to Firebase.*

*Keywords: Corona Virus 2019, COVID-19, AMG8833 Thermal Camera, Temperature.*

