

## **ABSTRACT**

*The changing weather conditions at this time have made the body condition fragile, many are not aware that the body temperature has increased. To find out if the occupants of the house or guests have a body temperature below 37 degrees, an automatic sensor is needed that attaches to the door of the house. This design aims to make a prototype of an automatic door with a temperature sensor MLX90614 at a certain distance using NodeMCU and also examine the performance of the prototype system that is made. This circuit uses NodeMCU, MLX90614 infrared temperature sensor and servo. The temperature sensor will detect body temperature if the body temperature is detected below 37°C then the servo will open the door and the temperature data will be sent to NodeMCU to be processed and sent to firebase so it can be monitored in the application. This stage includes planning requirements, design and implementation processes. In developing this prop, the researcher made a prototype of a prop that resembles a door in a house. In this series the door will open if the temperature of the occupants of the house is at a safe threshold and at a measurement distance of 10 cm, the door will open for 10 seconds and will be closed again. This tool can also provide output performance in accordance with the programming that has been designed on the microcontroller such as displaying the results of reading the body temperature of the occupants of the house and measuring distance limits of 10 cm, then a display appears on the application, and moves the door with a DC motor.*

**Keywords :** *Smart door, MLX90614 Temperature Sensor, Servo, Firebase, Application*