

# ***DESIGN SLIDING DOOR AUTOMATIC USING RFID (RADIO FREQUENCY IDENTIFICATION) AND FINGERPRINT (MOTORS AND MECHANICAL)***

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## ***ABSTRACT***

*The door is one of the most advanced security measures in protecting valuables in the room. One way is through the development of home automation systems (Home Automation). This research method is that the tool can be operated using Arduino Uno as a program microcontroller using Arduino IDE software, Finger print sensor functions to detect fingerprints, RFID functions to detect cards, LCD functions to display door movements which are controlled by finger print sensors and RFID, Motor DC functions as a mechanical driver in opening and closing automatic sliding doors. The aim of this research is to conduct research and design an automatic sliding door prototype using RFID and finger print with the help of Arduino Uno as a microcontroller. The results of this research are that the tool can be operated using an Arduino Uno as a control system and a 12 V DC motor as a driver to open and close the door. The DC motor will move the load (door) if the voltage is above 10 V. The percentage success rate for opening the door from the outside is 99.2% and the success rate for opening the door from the inside is 99.3%.*

***Keywords:*** *Prototype, slidig door, DC motor, RFID, finger print*