# DESIGN SLIDIING DOOR AUTOMATIC USE RFID (RADIO FREQUENCY IDENTIFICATION) AND FINGER PRINT(PROGREMER)

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## ABSTRACT

*The door is one of the most advanced security measures in protecting valuables in the room. Everyone often feels worried because of the increasing number of crimes that occur everywhere. Therefore, in terms of security, owners often use special devices to avoid unwanted crimes in order to protect their property. Very rapid advances in technology have made it possible for various efforts to provide convenience, security and comfort for humans. One way is through the development of home automation systems (Home Automation). Today's sophisticated technology provides positive benefits for the lives of many people. The increase in advice and infrastructure needed by society has led to the creation of sophisticated technology. The aim of this research is to design a prototype of an Arduino-based automatic door opening device using Finger print and Radio Frequency Identification (RFID). The method of this research is that the tool can be operated using an Arduino Uno as a program microcontroller using Arduino IDE software, the Finger print sensor functions to detect fingerprints, Radio Frequency Identification (RFID) functions to detect cards, the liquid crystal display functions to display the movement of the door which is controlled by Finger Print and RFID sensors, DC motor functions as a mechanical driver in opening and closing automatic sliding doors. With the NFC tag detected and the fingerprint detected, the sliding door will automatically open. And vice versa, if the NFC tag is detected and the fingerprint is not detected, the sliding door will not open because opening the sliding door combines RIFD and finger print. In testing the finger print sensor, an accuracy value of 70% was obtained, and for RFID testing, an accuracy value of 100% was obtained.*

*Keywords: Prototype, Finger Print, Software, Selenoid Door Lock, Liquid Cristal Display,*