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# Review on Door Lock Through Fingerprint Scanner

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**ABSTRACT:** The purpose of our review paper is to represent our project which makes Our home and offices are safe when we are out of station . This project is done by integrating finger print scanner with Arduino board. Arduino processor ATmega328 is able to handle more functions than other microcontrollers. The finger print scanner used in this project is R307 which to detect the recognizing and authenticating the fingerprint of an individual. Since sensor has high accuracy in Fingerprint Scanning. This project is fitted on backside of the Door and the fingerprint is placed on the outside of the door. The project is designed for the safety of our houses and offices.

**KEYWORDS:** Arduino, Fingerprint scanner, Solenoid Lock.

## I. INTRODUCTION

These days corporate environment security is a major threat faced by every individual when away from home or at the home. When it comes to security systems, it is one of the primary concerns in this busy competitive world, where human cannot find ways to provide security to her confidential belongings manually. Instead, he will finds an alternative solution which provides better, reliable and atomized security. This is an era where everything is connected through network, where anyone can get information from anywhere around the world.

## II. LITERATURE SURVEY

Arduino Based Smart Fingerprint Authentication System.”- In today's world home, offices, shops, banks need more security measures for security purposes.

To provide security for this area, a smart lock system has been introduced. Many innovative smart door locks are designed for locking and unlocking systems.

This type of lock has a fingerprint, RFID card, PIN, password and unlocks the system using a mobile phone. Users using this type of bolting system use a PIN number or fingerprint or RFID card to unlock the system. This system does not have a security pecking order to increase security.



### III. PROPOSED SYSTEM DEVELOPMENT

#### ➤ Fingerprint Scanner :

This is the R307 optical fingerprint reader scanner. R307 Fingerprint scanner is a fingerprint sensor with Transistor-Transistor Logic universally asynchronous transmitter interface for direct connection to microcontroller UART or USB-Serial adapter. The consumer can store fingerprint data in the scanner and configure it in 1:1 or 1:N ratio mode to identify fingerprint. A level converter is required to interface with a PC serial port.



Fig.1 optical fingerprint reader

#### ➤ Microcontroller Module (Arduino Uno) :

ATmega328P datasheet is used for Arduino uno microcontroller board. It has 6 changing physical quantities inputs and 14 digital input/output pins (of which 6 can be used as PWM outputs).



Fig.2 Arduino Uno

#### └ Solenoid Lock:

A solenoid lock represents a latch for electrical locking and unlocking. It is available for unlocking in power-on mode type and locking and keeping in power-on mode type, which can be used selectively depending on the situation.

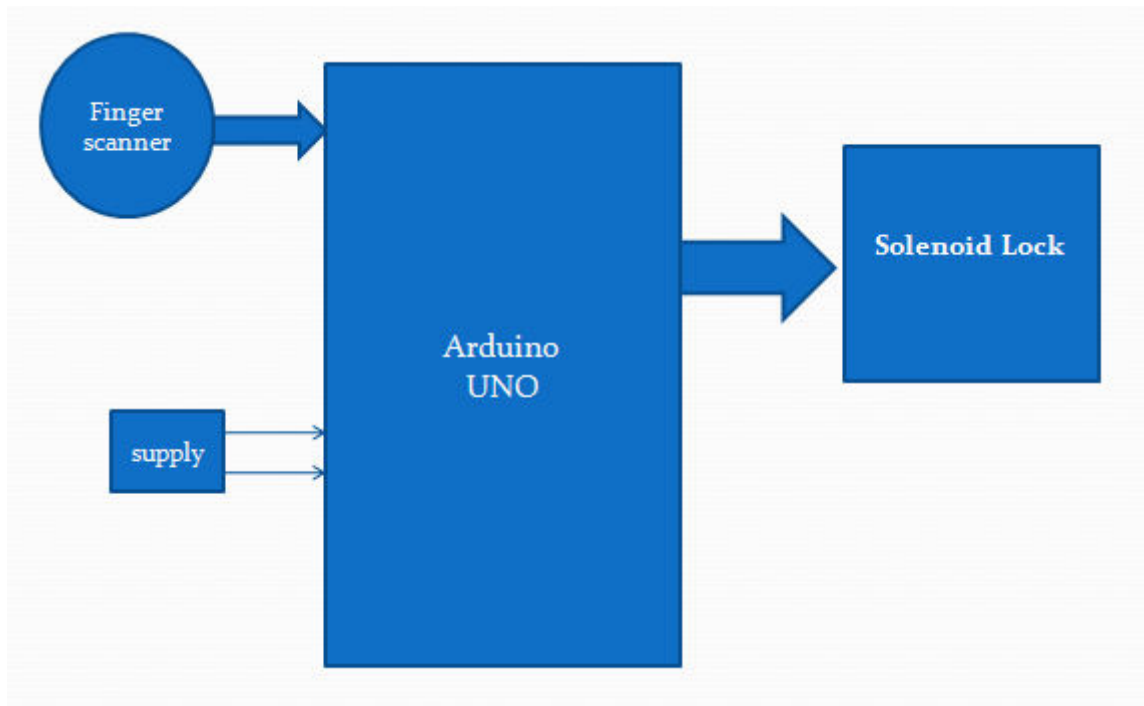


Fig.3 solenoid lock



**Working of system :**

The door lock to work, you need to enter your fingerprint data first. Once done, the door will check your fingerprint with the saved data every time someone enters. If the fingerprint matches, the door opens. These security checks are instant.



**Fig.4 Block Diagram Of Proposed System**

**IV. APPLICATION**

There are some applications of alcohol detector they are presented below:

- It can be used to provide security.
- It can be use an houses, offices and Lockers.
- This can also be used electronic locking system to gain access.

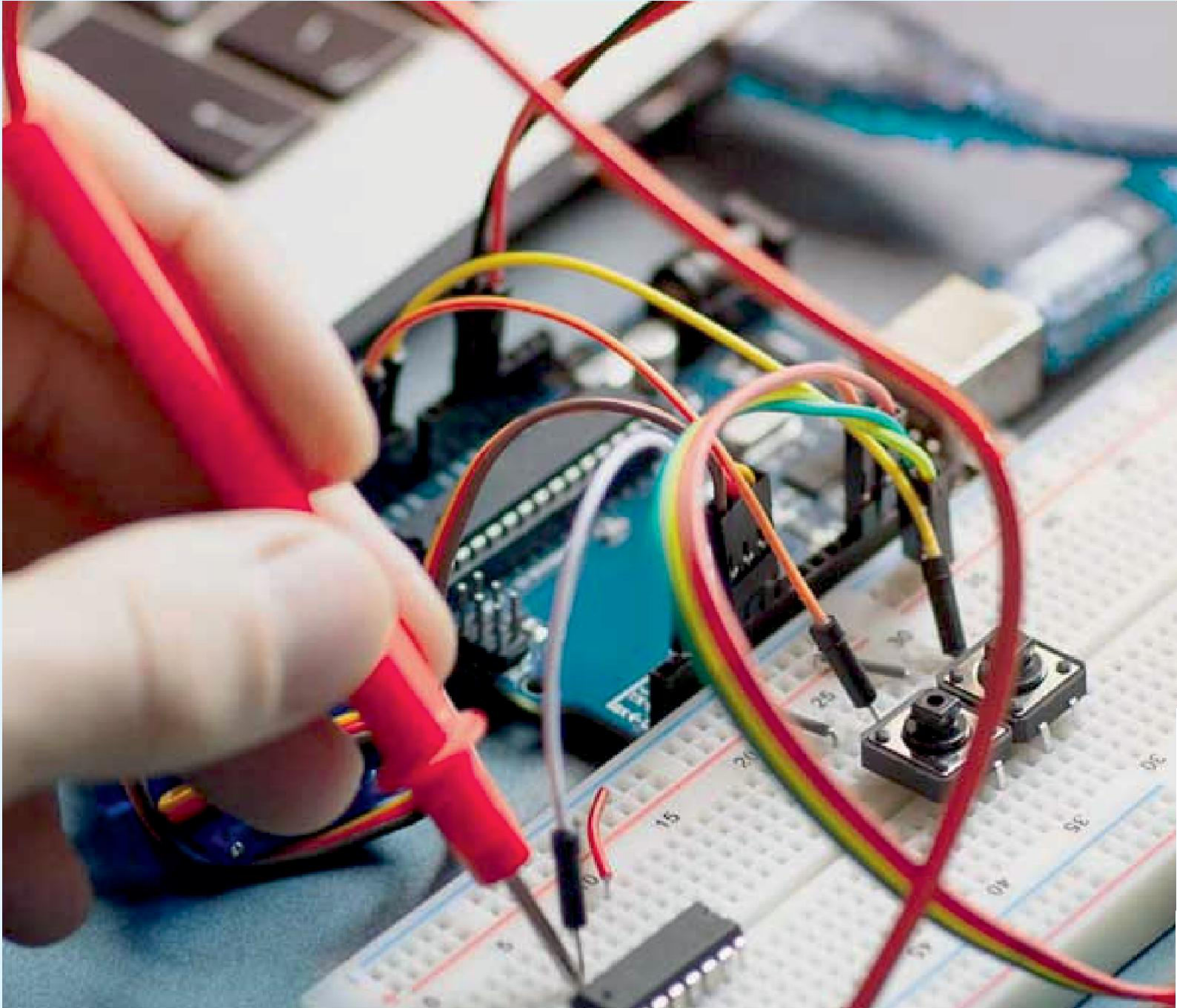
**V. CONCLUSION**

The main purpose of this study to develop an Security product in low price from other and its have biometric locking system so it can open only the accessible person . Also provide security to our house and offices .



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