

# DOOR LOCK SYSTEM WITH ARDUINO

## Project overview:

This project is to make a device that is more secure and affective locking system than the general mechanical lock system, it would show the accepted password, would also turn on a buzzer after certain number of wrong attempts.

## Team members:

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## Project description:

A pin protected locking system that only opens the lock when the correct pin is entered. You are only given 3 tries and fixed amount of time to get the pin right. Otherwise, the system stops taking input and you can enter a pin.



## Electronic components required:

- 1) Servo motor
- 2) 4x4 keypad membrane
- 3) buzzer
- 4) Arduino uno
- 5) standard 16x2 LCD display
- 6) jumper wires
- 7) Door Latch

## Budget:

For now, we require mainly 4 items,

The estimated costs on amazon are,

1 4x4 keypad membrane – 150 /-

1 or 2 16x2 standard LCD display – 250 to 300/- each

1 buzzer – 90 to 150/-

1 Door Latch 200/-

Approximate Budget 750 to 800/- (Not final)

## Project objectives:

The main objective is to replace the traditional door lock system where we use mechanical lock and key mechanism and replace it with something more reliable, fast and secure.

This product would be more economical, easy to implement and takes up lesser power.

## Expected outcomes:

The door wouldn't open until the right password is entered and would lock itself after certain number of wrong attempts .

The circuit will be disabled once the given timer expires and nothing can be inputted.

When the correct password is typed then the lock is opened.