

Home Security System

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Goal:

The purpose of this project is to develop a home security system that can give homeowners peace of mind. By employing a keypad for authentication and a motion sensor, the system is made to only allow people who have knowledge of the correct password. The major goal is to offer a straightforward, budget-friendly, and dependable home security solution.

Description:

After pressing enter, the input will be checked against a pre-set password. The Arduino code will read input from the keypad and show the input on the LCD screen. Upon entering a valid password, the LCD screen will display a positive message (example: "Password Correct") and turn off the system. A negative message (ex: "Wrong Password / Error") will appear on the LCD screen if the password is entered incorrectly, and the system will then sound an alarm using the buzzer. If the PIR sensor picks up any movement before the proper password is entered, the code will also sound an alarm through the buzzer.

Parts List:

- Arduino UNO
- Keypad
- LCD screen
- Buzzer
- PIR motion sensor

Diagram:

