# Anti-Theft Alarm using Arduino UNO

Team Name- Gryffindor

Team Members- Riya Kumari

Aniket Datta

Devinder Singh

Harsh Gandhi

# Objective:

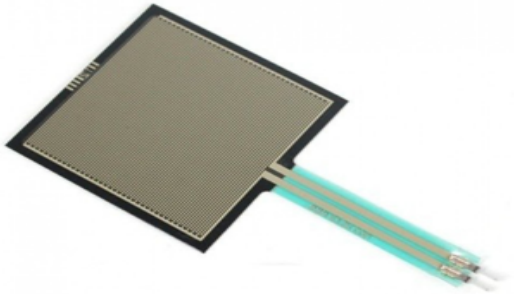
- Our project was focused on developing an anti-theft alarm system using force sensors and an Arduino microcontroller. The system used force sensors placed under a piece of equipment or a valuable item to detect any unauthorized movement or tampering. If the sensors detected movement or tampering, the system would trigger an alarm.

# Required components:

1. **Arduino UNO**
2. **FSR Force Sensor**
3. **Red LED**
4. **Green LED**
5. **Buzzer**
6. **Bread Board**
7. **320 ohm & 10k ohm Resistance**
8. **LCD Display**
9. **Push Button**
10. **Battery 9v**

# Working of force sensors in the System

- The force sensors used in the system are sensitive to changes in pressure or force applied to them. When a person moves or tampers with the item being protected, the force sensors detect the change in pressure and send a signal to the Arduino microcontroller. The microcontroller then triggers the alarm.

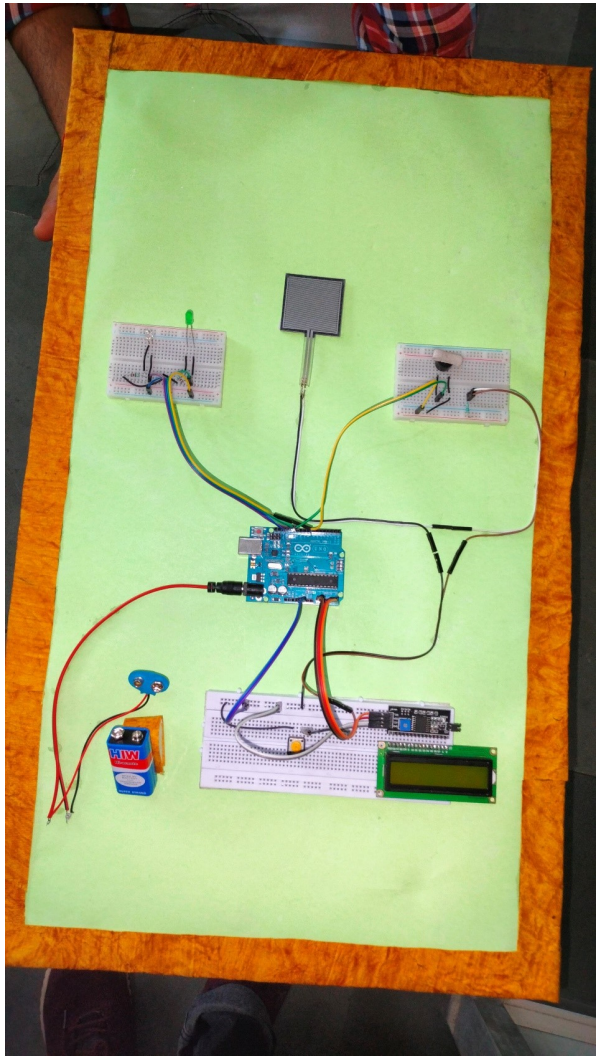


# About the alarm system

- We used a buzzer as the alarm in our system. When the force sensors detect movement or tampering and trigger the alarm, the buzzer starts sounding. The alarm continues to sound until the user disables it by pressing the reset button.

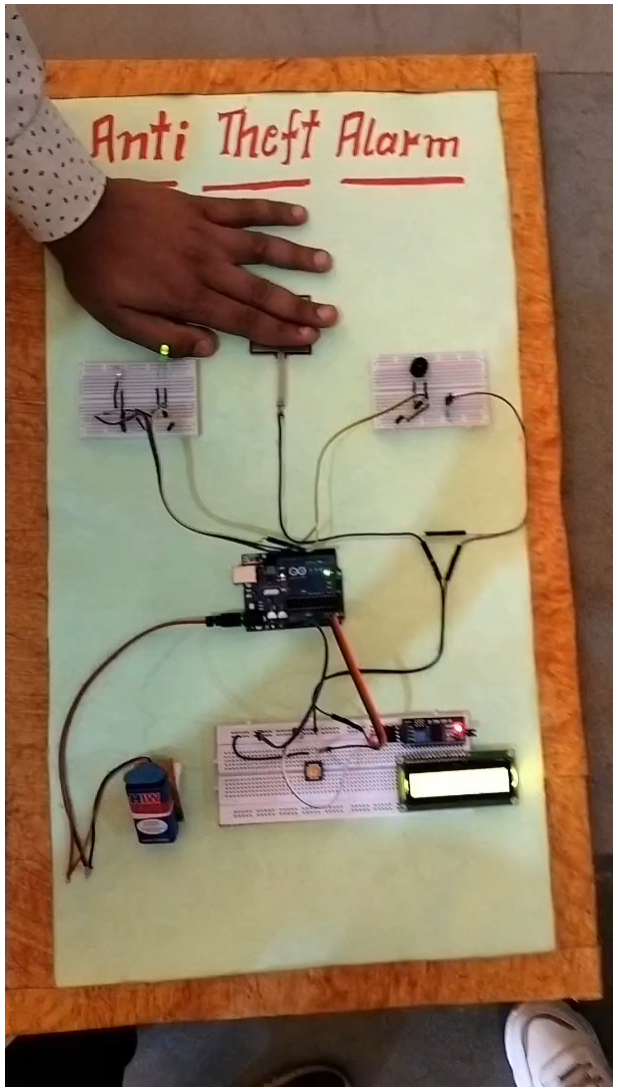
# Testing  the performance of the system

- We tested the performance of our system by simulating different scenarios, such as detecting movement or tampering with the protected item and triggering the alarm, We also tested the system in different environments to ensure that it was working correctly in different lighting and temperature conditions.



# Result:

- Our system was able to successfully detect movement or tampering with the protected item and trigger the alarm when needed. The LCD display provided a clear and easy-to-understand interface for the user, indicating the status of the system and providing the password prompt when needed.


Anti Theft Alarm

# Thank You