TEAM

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COURSE

Analog Circuit Lab

INSTRUCTOR

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SSCAW

Security System for Cardiac Arrest (& other emergencies) in Washroom.

THE PROBLEM

Recovering patients and elderly people are at a high risk of facing sudden life-threatening emergencies while they are using the washroom.

At these times, the lock that protects their privacy becomes a huge hurdle for the caretakers to rescue them.

OUR SOLUTION

1

CHOOSE USE MODE

While the person wants to lock, they choose 1 of 3 modes, urine, stool, and bath. The lock turns on and a timmer of 4 mins, 10mins and 15 mins respectively is started

2

TIME ELAPSES

After the time is completed, if the lock is still not unlocked, indicator lights and siren will be on-ed inside the washroom for 20 secs.

3

EXTEND THE LOCK

There are buttons all over the washroom, pressing which will extend the lock for another 5 mins and the process repeats.
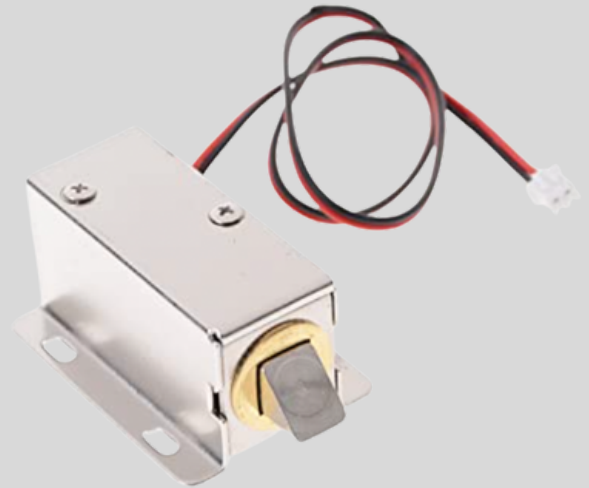
4

EMERGENCY!!

If the button is not pressed for 20 secs, then it means it's a potential emergency. Hence first the lock is unlocked then a siren is turned on outside to notify caretakers.

COMPONENTS NEEDED

- Electric lock
- 555 timmer
- Potentiometer
- Sirens
- Lights
- Push Buttons
- Wires
- Resistors
- Capacitors
- Transistors

Estimated budeget   **INR 800**

We feel everything except the lock will be available in the lab. The link to the lock is below

https://www.amazon.in/Robodo-Electronics-SLNDLTCH12-Assembly-Consumption/dp/B07B918RK9/ref=sr_1_2?crid=H74UOJP3DGK1&keywords=arduino+lock&qid=1679304054&sprefix=ardiuno+lock%2Caps%2C217&sr=8-2\

Lock   500
Modelling costs 300