

ELC GROUP (B)

Project Idea

Create a gate to allow the entry of a certain number of people, and if the number increases, an alarm will be triggered .

The problems that the project will solve

In the hospitals

In some hospitals, the number of people admitted to patients is determined to maintain the safety of patients

The project will contribute to identifying only five people for the patient, with a warning if the number increases

We will put it on the door of the patient's room.

In the elevators

In life, people use the elevator a lot, but they use the elevator in the wrong way, and this leads to many problems

The elevator carries a certain number of people, but there are some people who use it and increase the specified number, so the project will allow only five people, and if they increase, the alarm will be triggered.

In the factories

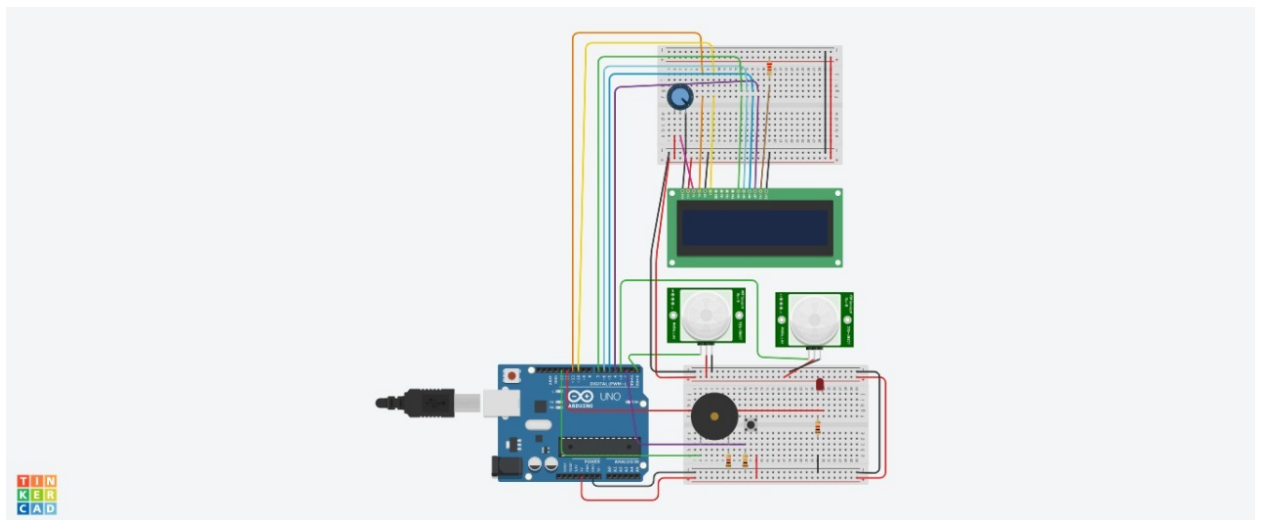
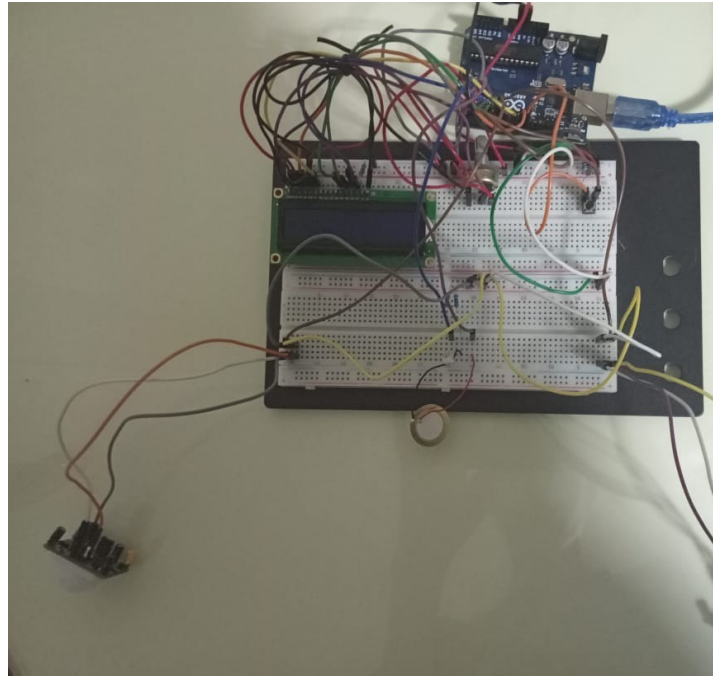
Some dangerous factories allow a certain number of people to enter the factory at a specific time, such as nuclear power plants

The project will contribute to preserving the factory by not having any problems, that if the number of people increases, a warning will be made.

Currently, it is Covid-19 and this is spreading due to congestion. The project will help reduce congestion so that it will allow a certain number of people to be together at one time.

Components of the project

1. Arduino Uno
2. Breadboard
3. Liquid Crystal Display (LCD)
4. Potentiometer 250 k Ω
5. 2 PIR Sensors
6. Led
7. Piezo
8. Resistors
9. Cables
10. Push button



We used PIR sensors, which sense any movement in front of them and we used 2 of them to determine if the person got in or out the room, and the LCD shows the number of people inside. And if the number exceeds 5, the Led toggles (turns on and off quickly), and the piezo makes a sound as an alert.

The code

You can take a look in the code of our project in online IDE by this link

[Online C++0x Compiler & Debugging Tool - Ideone.com](https://ideone.com)