**Mask Detection and Vaccine Verification System for public places**

**Problem Statement:**

After the breakout of the worldwide pandemic COVID-19, there arises a severe need of protection mechanisms, face mask being the primary one. To limit the spread of the disease, mandatory vaccination and face-mask rules will become common in public settings around the world.

**Solution:**

These developments inspired research into automatic techniques for face-mask

detection, temperature detection and vaccine verification that can help monitor

public behavior and contribute towards constraining the COVID-19 pandemic.

We propose an efficient computer vision-based approach focused automated monitoring of people in public places to detect face mask, body temperature and to check their vaccination status by implementing the model on Raspberry Pi to detect through camera model and IR temperature sensor to create a safe environment that contributes to public safety. After detecting a breach, the Raspberry Pi 3 displays a warning signal on the LED screen and through speaker.

As a result, the suggested approach benefits society by saving time, reducing the transmission of the corona virus and reduction of man power to check the person

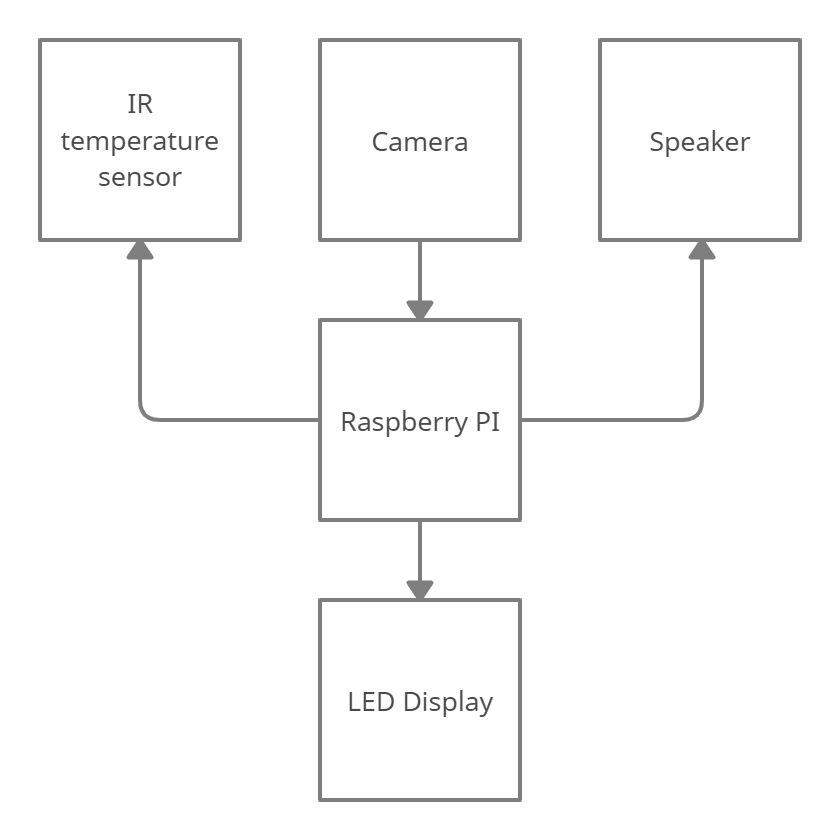
temperature and vaccination status at every entrance. It can be used efficiently in the current circumstances, where lockdown is being loosened in order to inspect people at public meetings, retail malls, airport and railway station and other

places. Automated inspection saves time, money and man-power by reducing the number of people needed to inspect the public.

**Components Required:**

* Raspberry PI (3000)
* SG 90 Servo motor (150)
* RPI Camera (300)
* IR sensor (30)
* IR temperature Sensor (1000)
* LED Display Screen 20\*4 (1000)

**Block Diagram:**

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