INNOVATIVE PROJECT

TOPIC:-

SMART WIFI VIDEO

DOORBELL

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ABSTRACT:-

Nowadays, Security system is one of the most researched fields and with increasing security threats, companies are launching new smart security products to combat these threats. **IoT** is an added advantage in this field which can automatically trigger an event, like calling the police, fire brigade or your neighbor, in case of any emergency.We will use **ESP32 and camera** to build a **Smart Wi-Fi door bell.**

This Smart doorbell can easily be powered by an AC socket and whenever someone at the door presses the doorbell button, it will play a specific song on your phone and sends a text message with a link of video streaming page where you can see the person at the door from anywhere in world.

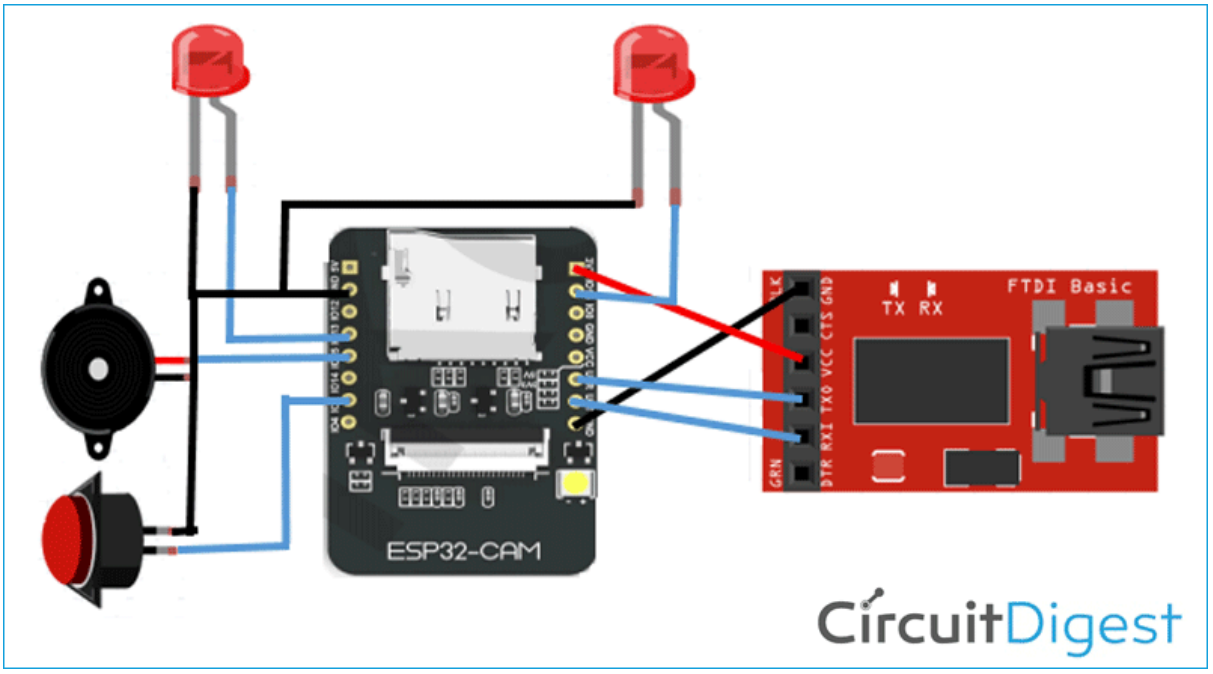
KEYWORDS - Security, Threats, Camera, Wi-Fi, Door bell

COMPONENTS REQUIRED:-

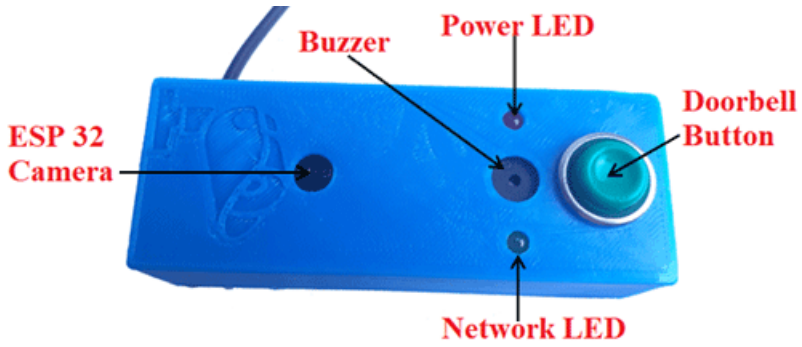
- ESP32-CAM
- FTDI Programming Board
- 220V AC to 5V DC Converter
- Buzzer
- Push Button
- LED (2)

CIRCUIT DIAGRAM:-

Circuit diagram for this **Smart Wi-Fi Doorbell** is very simple, just connect two LEDs, a push button and a buzzer to ESP32 GPIO pins. A buzzer is used to make a sound whenever the button is pressed. One LED is used to indicate the power status, and the other LED is used to indicate the network status. Network LED will be in a high state if ESP is connected to a network otherwise, it will blink.



This is how the **Wi-Fi video doorbell** setup will look in 3D printed casing:



IFTTT Setup for Wi-Fi Doorbell

IFTTT is a free web-based service that allows users to create chains of simple conditional statements, called "recipes", which are triggered based on changes to other web services such as Gmail, Facebook, Instagram, and Pinterest. **IFTTT** is an abbreviation of "If This Then That".

In this project, IFTTT is used to send an Email whenever the temperature or humidity goes beyond a predefined limit.

First login to IFTTT with your credentials or *Sign Up* if you don't have an account on it.

Now search for 'Webhooks' and click on the Webhooks in Services section.

Now, in the Webhooks window, click on 'Documentation' in the upper right corner to get the private key.

Copy this key. It will be used in the program.

After getting the private key, now we will create an applet using Webhooks and Email services. To create an applet click on your profile and then click on '***Create.***'

Now in the next window, click on the ***'This'*** icon.

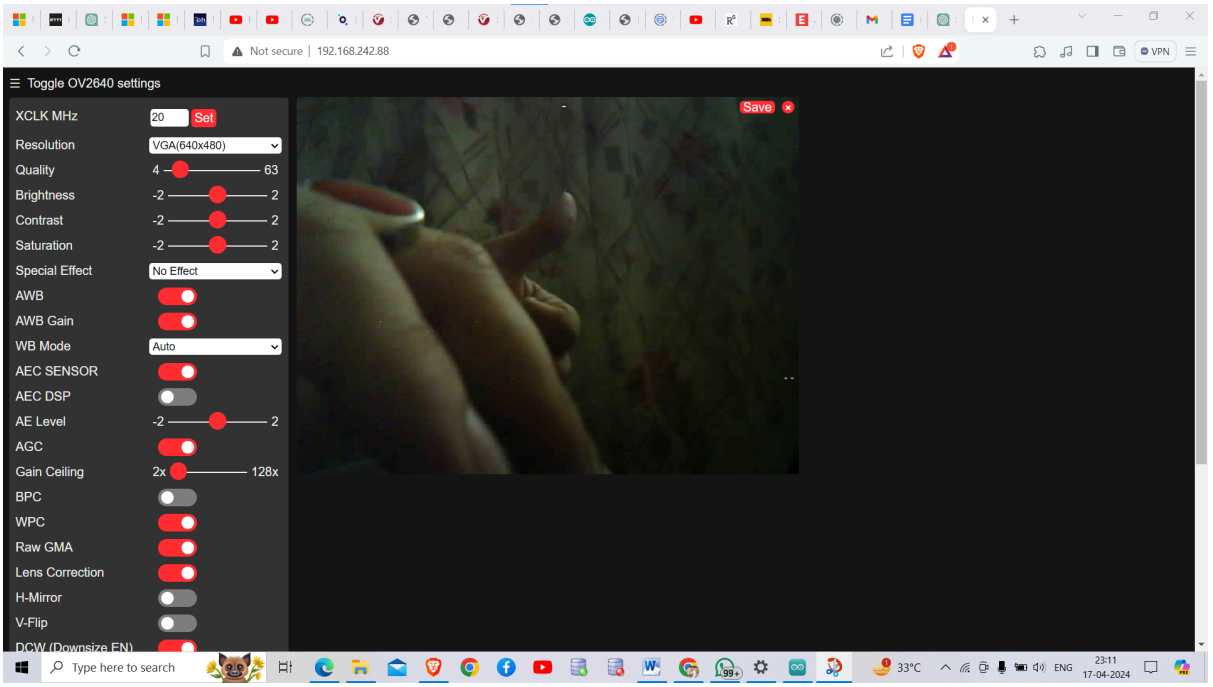
Now choose '***Receive a Web Request***' trigger and in the next window, enter the event name as *button_pressed* and then click on create a trigger.

Now to complete the applet, click on ***'That'*** to create a reaction for the ***button_pressed*** event.

Here we will play a specific song on the phone when the IoT doorbell button is

pressed. For that search for ‘Android device’ in the search section.

ESP32 CAM OPERATIONS:-



CONCLUSION:-

Security system is one of the most researched fields and with increasing security threats, companies are launching new smart security products to combat these threats. IoT is an added advantage in this field which can automatically trigger an event, like calling the police, fire brigade or your neighbor, in case of any emergency.

So Smart Wifi Video Doorbell could be a great solution for such events.