

BIRD DETECTION FOR AGRICULTURE PURPOSE



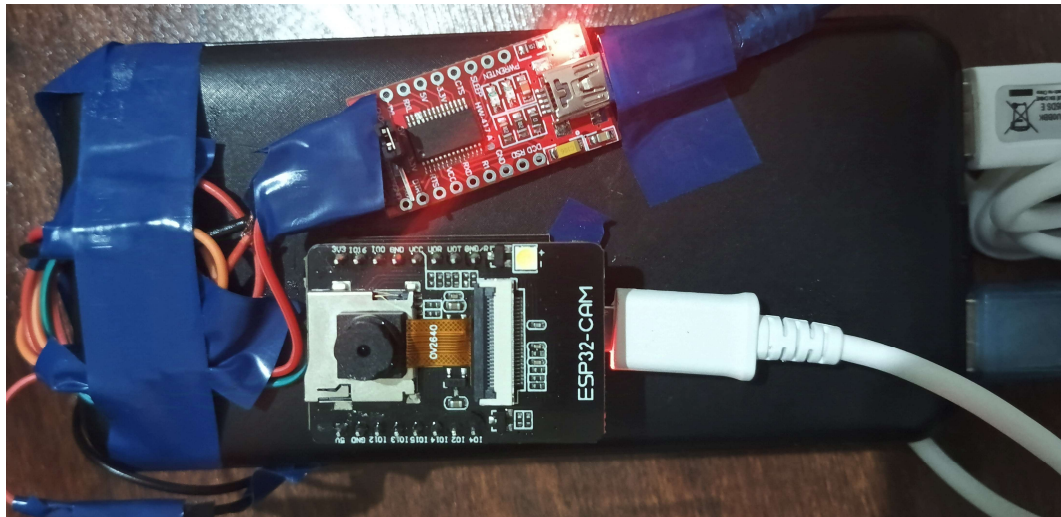
Sachin.S

CONTENTS:

- INTRODUCTION
- COMPONENTS USED
- WORKING AND CONNECTIONS

INTRODUCTION:

Bird detection using the ESP32-CAM is an innovative solution for protecting crops in agriculture. By utilizing the ESP32-CAM's camera and machine learning capabilities, birds can be identified in real-time. This system helps prevent crop damage by triggering buzzer devices upon detection.



COMPONENTS USED:

- ESP32 CAM
- ESP32 cam BASE BOARD (FOR CODE DUMPING)
- TTL((FOR ESP32 CAM2 CODE DUMPING)
- BUZZER (12V DC)
- CONNECTING WIRES

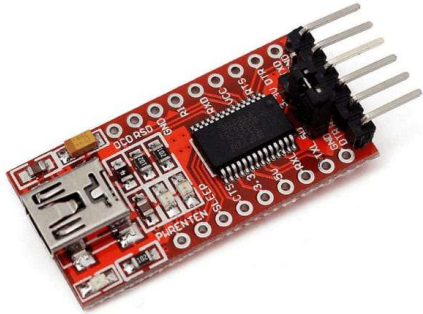
COMPONENTS:



ESP-32 CAM



ESP-32 CAM



TTL(Transistor-Transistor Logic)



BUZZER

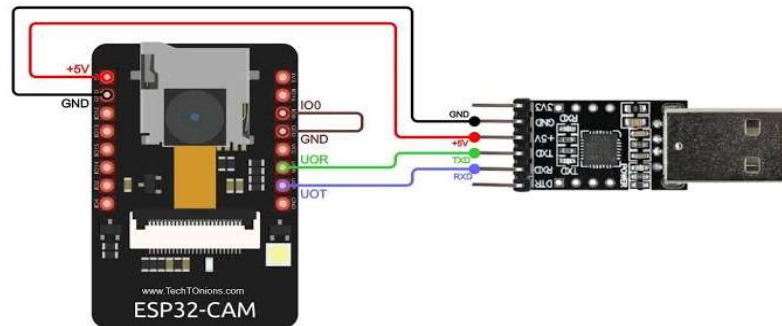


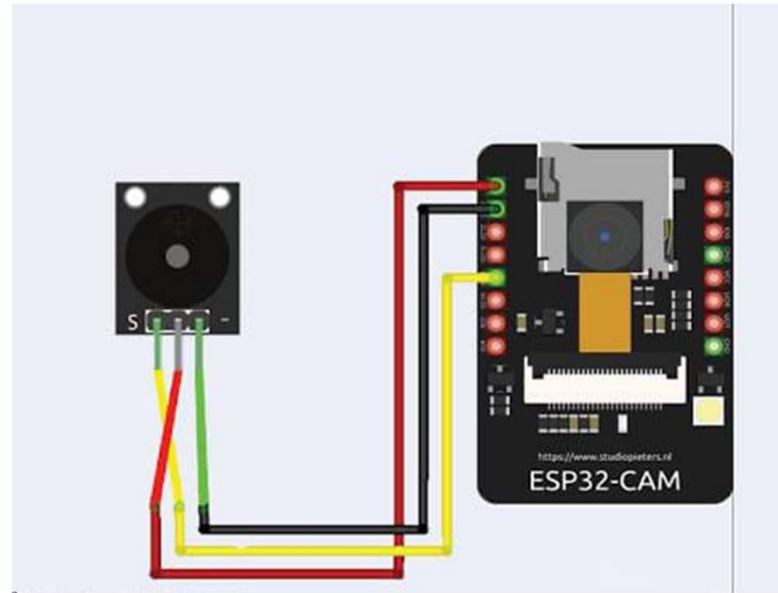
JUMPER WIRE

WORKING AND CONNECTION:



The ESP32-CAM module connects to the ESP32-CAM base board through a 16-pin header that aligns the pins for power, GPIO, and peripheral interfacing. The base board typically includes a USB-to-serial converter to simplify programming and power delivery.





Connect the positive terminal of the active buzzer to an available GPIO pin 12 on the ESP32-CAM and the negative terminal to GND.