#include <WiFi.h>

#include <WiFiClientSecure.h>

#include "esp\_camera.h"

#include <UniversalTelegramBot.h>

// Replace with your network credentials

const char\* ssid = "YOUR\_SSID";

const char\* password = "YOUR\_PASSWORD";

// Replace with your Bot Token (get from BotFather)

#define BOTtoken "YOUR\_BOT\_TOKEN"

// Replace with your chat ID (get from @userinfobot)

#define CHAT\_ID "YOUR\_CHAT\_ID"

// PIR sensor pin

#define PIR\_PIN 13

// Telegram Bot setup

WiFiClientSecure client;

UniversalTelegramBot bot(BOTtoken, client);

unsigned long lastTime = 0;

const unsigned long interval = 10000; // 10 seconds cooldown

// Camera configuration

void configCamera() {

camera\_config\_t config;

config.ledc\_channel = LEDC\_CHANNEL\_0;

config.ledc\_timer = LEDC\_TIMER\_0;

config.pin\_d0 = 5;

config.pin\_d1 = 18;

config.pin\_d2 = 19;

config.pin\_d3 = 21;

config.pin\_d4 = 36;

config.pin\_d5 = 39;

config.pin\_d6 = 34;

config.pin\_d7 = 35;

config.pin\_xclk = 0;

config.pin\_pclk = 22;

config.pin\_vsync = 25;

config.pin\_href = 23;

config.pin\_sscb\_sda = 26;

config.pin\_sscb\_scl = 27;

config.pin\_pwdn = 32;

config.pin\_reset = -1;

config.xclk\_freq\_hz = 20000000;

config.pixel\_format = PIXFORMAT\_JPEG;

config.frame\_size = FRAMESIZE\_QVGA;

config.jpeg\_quality = 12;

config.fb\_count = 1;

// Initialize camera

esp\_err\_t err = esp\_camera\_init(&config);

if (err != ESP\_OK) {

Serial.printf("Camera init failed with error 0x%x", err);

return;

}

}

// Send photo to Telegram

void sendPhoto() {

Serial.println("Capturing photo...");

camera\_fb\_t \*fb = esp\_camera\_fb\_get();

if (!fb) {

Serial.println("Camera capture failed");

return;

}

Serial.println("Photo captured. Sending to Telegram...");

bot.sendPhotoByBinary(CHAT\_ID, "image/jpeg", fb->len, fb->buf, "intruder.jpg", "🚨 Motion detected!");

esp\_camera\_fb\_return(fb);

}

void setup() {

Serial.begin(115200);

pinMode(PIR\_PIN, INPUT);

// Connect to WiFi

WiFi.begin(ssid, password);

client.setInsecure(); // Skip SSL certificate validation

while (WiFi.status() != WL\_CONNECTED) {

delay(500);

Serial.print(".");

}

Serial.println("\nWiFi connected!");

// Initialize camera

configCamera();

}

void loop() {

int motion = digitalRead(PIR\_PIN);

if (motion == HIGH && (millis() - lastTime > interval)) {

Serial.println("🚨 Motion detected!");

sendPhoto();

lastTime = millis();

}

}