#include <ESP32Servo.h>

#define MQ6\_PIN 34

#define THRESHOLD 1150

#define SERVO\_PIN 18

#define PRINT\_INTERVAL 5000

Servo myServo;

int currentServoAngle = 0;

unsigned long lastPrintTime = 0;

void setup() {

  Serial.begin(115200);

  myServo.setPeriodHertz(50);

  myServo.attach(SERVO\_PIN, 500, 2400);

  myServo.write(0);  // Start position

  Serial.println("Gas Sensor System Initialized...");

}

void loop() {

  int gasValue = analogRead(MQ6\_PIN);

  unsigned long currentTime = millis();

  if (currentTime - lastPrintTime >= PRINT\_INTERVAL) {

    lastPrintTime = currentTime;

    if (gasValue > THRESHOLD) {

      Serial.println("⚠️ Gas Detected!");

      if (currentServoAngle != 90) {

        myServo.write(90);

        currentServoAngle = 90;

      }

    } else {

      Serial.println("No Gas Detected.");

      if (currentServoAngle != 0) {

        myServo.write(0);

        currentServoAngle = 0;

      }

    }

  }

  delay(100);

}