#define RAIN\_SENSOR\_PIN  A0   // Arduino pin connected to the OUTPUT pin of rain sensor

#define BUZZER\_PIN       A2   // Arduino pin connected to Buzzer's pin

#define LED\_PIN\_1        7    // Arduino pin connected to the first LED's pin

#define LED\_PIN\_2        8    // Arduino pin connected to the second LED's pin

int rain\_state      = LOW;  // current state of rain sensor's pin

int prev\_rain\_state = LOW;  // previous state of rain sensor's pin

void setup() {

  Serial.begin(9600);                      // Initialize serial

  pinMode(RAIN\_SENSOR\_PIN, INPUT);         // Set Arduino pin to input mode

  pinMode(BUZZER\_PIN, OUTPUT);             // Set Arduino pin to output mode for buzzer

  pinMode(LED\_PIN\_1, OUTPUT);              // Set Arduino pin to output mode for first LED

  pinMode(LED\_PIN\_2, OUTPUT);              // Set Arduino pin to output mode for second LED

}

void loop() {

  prev\_rain\_state = rain\_state;            // Store old state

  rain\_state = digitalRead(RAIN\_SENSOR\_PIN);  // Read new state

  if (prev\_rain\_state == HIGH && rain\_state == LOW) { // Pin state change: LOW -> HIGH

    Serial.println("Rain detected!");

    digitalWrite(BUZZER\_PIN, HIGH);        // Turn on buzzer

    digitalWrite(LED\_PIN\_1, HIGH);         // Turn on first LED

    digitalWrite(LED\_PIN\_2, LOW);         // Turn on second LED

  }

  else if (prev\_rain\_state == LOW && rain\_state == HIGH) { // Pin state change: HIGH -> LOW

    Serial.println("Rain stopped!");

    digitalWrite(BUZZER\_PIN, LOW);         // Turn off buzzer

    digitalWrite(LED\_PIN\_1, LOW);          // Turn off first LED

    digitalWrite(LED\_PIN\_2, HIGH);          // Turn off second LED

  }

}