

LAMPIRAN

LIST PROGRAM

```
#include <Wire.h>
```

```
#include <LiquidCrystal_I2C.h>
```

```
#include <ESP8266WiFi.h>
```

```
#include <ESP8266HTTPClient.h>
```

```
#define SENSOR D5
```

```
#define BUZZER D7
```

```
#define TOMBOL D6
```

```
LiquidCrystal_I2C lcd(0x27, 16, 2);
```

```
const char* ssid = "NAMA_WIFI";
```

```
const char* password = "PASSWORD_WIFI";
```

```
String apiKey = "WRITE_API_KEY";
```

```
int jumlahObjek = 0;
```

```
int lastSensorState = HIGH;

int lastTombolState = HIGH;

unsigned long lastSend = 0;

void setup() {

    pinMode(SENSOR, INPUT);

    pinMode(BUZZER, OUTPUT);

    pinMode(TOMBOL, INPUT_PULLUP);

    Wire.begin(D2, D1);

    lcd.init();

    lcd.backlight();

    lcd.setCursor(0,0);

    lcd.print("Connecting WiFi");

    WiFi.begin(ssid, password);
```

```
while (WiFi.status() != WL_CONNECTED) {  
  
    delay(500);  
  
    lcd.setCursor(0,1);  
  
    lcd.print("Connecting...");  
  
}
```

```
    lcd.clear();  
  
    lcd.print("WiFi Connected");  
  
    delay(2000);  
  
    lcd.clear();  
  
}
```

```
void loop() {  
  
    int sensorState = digitalRead(SENSOR);  
  
    int tombolState = digitalRead(TOMBOL);  
  
    // ===== HITUNG OBJEK =====
```

```
if (lastSensorState == HIGH && sensorState == LOW) {  
  
    jumlahObjek++;  
  
    digitalWrite(BUZZER, HIGH);  
  
    delay(150);  
  
    digitalWrite(BUZZER, LOW);  
  
    lcd.clear();  
  
}  
  
lastSensorState = sensorState;  
  
// ===== RESET =====  
  
if (lastTombolState == HIGH && tombolState == LOW) {  
  
    jumlahObjek = 0;  
  
    lcd.clear();
```

```
    lcd.setCursor(0,0);

    lcd.print("Counter Reset");

    delay(1000);

    lcd.clear();

}

lastTombolState = tombolState;

// ===== LCD =====

lcd.setCursor(0,0);

lcd.print("Jumlah Objek");

lcd.setCursor(0,1);

lcd.print(jumlahObjek);

// ===== KIRIM KE THINGSPEAK =====

if (millis() - lastSend > 15000) { // setiap 15 detik

    if (WiFi.status() == WL_CONNECTED) {
```

```
WiFiClient client;

HTTPClient http;

String url = "http://api.thingspeak.com/update?api_key=" +
7VGED9UY63DOXHAV + "&field1=" + String(jumlahObjek);

http.begin(client, url);

http.GET();

http.end();

}

lastSend = millis();

}

delay(50);

}
```