

## LAMPIRAN

### Lampiran 1 source code system

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#define BLYNK_TEMPLATE_ID "TMPL6ronaKYyR"

#define BLYNK_TEMPLATE_NAME "EMERGENCY SYSTEM"

#define BLYNK_AUTH_TOKEN "yR2CQK32aZ3vUY32tgaTJ_TC1P-wDzw0"

#include <Blynk.h>
#include <ESP8266WiFi.h>
#include <BlynkSimpleEsp8266.h>
#define BLYNK_PRINT Serial

char auth[] = BLYNK_AUTH_TOKEN;
char ssid[] = "INDONESIA";
char pass[] = "11223344";

String status = "";
#define sensorHujan D4
bool hujan;
bool dimatikan = false;
int buttonState;

#include <Wire.h>
#include <LiquidCrystal_I2C.h>
#include <DHT.h>

LiquidCrystal_I2C lcd(0x27, 16, 2);

//=====
//===== ULTRASONIC CONFIGURATION
#include <Ultrasonic.h>
```

```

#define trig D3
#define echo D7
Ultrasonic ultrasonic1(trig, echo);
long jarak, value;
int jarakSebelumnya = -1;

#define ledRed D5
#define Sirine D6

BLYNK_WRITE(V4) {
  buttonState = param.asInt();
  if (buttonState == HIGH) {
    dimatikan = true;
    delay(10);
  }
  else if (buttonState == LOW) {
    dimatikan = false;
  }
}

void setup() {
  Serial.begin(115200);
  lcd.begin();
  lcd.backlight();
  lcd.clear();
  lcd.setCursor(0, 0); lcd.print("Level: ");
  lcd.setCursor(0, 1); lcd.print("Jarak: ");
  pinMode(ledRed, OUTPUT); digitalWrite(ledRed, HIGH);
}

```

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pinMode(Sirine, OUTPUT); digitalWrite(Sirine, HIGH);
Blynk.begin(auth, ssid, pass);
pinMode(sensorHujan, INPUT);
}

void loop() {
  Blynk.run();
  //----- ULTRASONIC
  value = ultrasonic1.bacaUltrasonic();
  jarak = constrain(value, 0, 70);
  if (digitalRead(sensorHujan) == LOW) {
    hujan = true;
  } else {
    hujan = false;
  }

  if (jarakSebelumnya != jarak) {
    lcd.setCursor(6, 1); lcd.print(" ");
    lcd.setCursor(6, 1); lcd.print(jarak);
    lcd.setCursor(10, 1); lcd.print("Cm");
    jarakSebelumnya = jarak;
  }

  if (jarak > 35) {
    status = "Normal ";
    lcd.setCursor(6, 0); lcd.print(status);
    digitalWrite(ledRed, HIGH);
    digitalWrite(Sirine, HIGH);
  }

  if (jarak > 25 && jarak < 35) {

```

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status = "Awat Naik";
lcd.setCursor(6, 0); lcd.print(status);
digitalWrite(ledRed, HIGH);
digitalWrite(Sirine, HIGH);
}
if (jarak > 15 && jarak < 25) {
status = "Siaga ";
lcd.setCursor(6, 0); lcd.print(status);
digitalWrite(ledRed, LOW);
digitalWrite(Sirine, HIGH);
}
if (jarak < 15) {
status = "Bahaya ";
lcd.setCursor(6, 0); lcd.print(status);
digitalWrite(ledRed, LOW);
if (!dimatikan) {
digitalWrite(Sirine, LOW);
} else {
digitalWrite(Sirine, HIGH);
}
}
}

Blynk.virtualWrite(V0, "Jarak:" + String(jarak));
if (hujan) {
Blynk.virtualWrite(V1, "Hujan");
} else {
Blynk.virtualWrite(V1, "Cerah");
}
Blynk.virtualWrite(V2, "Level:" + status);

```

```
Blynk.virtualWrite(V3, jarak);
```

```
delay(500);
```

```
}
```

