

LAMPIRAN

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#include <DHT.h>
    #include      <LiquidCrystal_I2C.h>
#include <Servo.h>
Servo myservo;
LiquidCrystal_I2C lcd(0x27, 16, 2);

    // Konfigurasi pin DHT
#define DHTPIN 2
//#define DHTPIN // Pin data DHT22 terhubung ke pin 2
#define DHTTYPE DHT22 DHT dht(DHTPIN, DHTTYPE);
float  humidity; float temperature;

// Konfigurasi pin Ultrasonik
#define trigPin 9 #define echoPin 10 long      duration;
float distance;

#define relayFAN 27 //FAN
#define relayHEATHER 26 //HEATHER
#define relayMOTOR 28 // MOTOR PENGADUK

bool holding = false;

void      setup()      {
    Serial.begin(9600);
    lcd.init(); lcd.backlight();
    dht.begin();
    myservo.attach(3);

    pinMode(trigPin,      OUTPUT);
    pinMode(echoPin,      INPUT);
    pinMode(relayFAN,      OUTPUT);
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pinMode(relayHEATHER, OUTPUT); pinMode(relayMOTOR, OUTPUT);
digitalWrite(relayFAN, HIGH); digitalWrite(relayHEATHER, HIGH);
digitalWrite(relayMOTOR, LOW);
    } z

void loop() {
  bacaDHT(); bacaultrasonic();
  Serial.print("Jarak: ");Serial.print(distance);Serial.print(" cm, "); Serial.print("Suhu:
");Serial.print(temperature);Serial.print(" °C, ");
  Serial.print("Kelembaban: ");Serial.print(humidity);Serial.println(" %");

    // Tampilkan ke LCD
  lcd.setCursor(0, 0);
  lcd.print("Suhu:");    lcd.print(temperature); lcd.setCursor(0, 1);
  lcd.print("Kelembaban:"); lcd.print(humidity);

  if      (distance      <=      14)      { myservo.write(30);
    digitalWrite(relayFAN, LOW); holding = true;
  }
  else   if      (distance      >=      15){ myservo.write(0);
    digitalWrite(relayFAN, HIGH); holding = false;
  }
  if      (temperature  <=      60)      { digitalWrite(relayHEATHER,LOW);
  } else{ digitalWrite(relayHEATHER,HIGH);

  }
  delay(1000); lcd.clear();
  }

void bacaDHT(){ humidity = dht.readHumidity(); temperature =

  dht.readTemperature(); // Default dalam Celcius

  }

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void    bacaultrasonic(){ digitalWrite(trigPin, LOW); delayMicroseconds(2);  
  
        digitalWrite(trigPin,    HIGH);  
delayMicroseconds(10); digitalWrite(trigPin, LOW); duration = pulseIn(echoPin,  
HIGH); distance = duration * 0.034 / 2; // Konversi ke cm  
}
```