

LAMPIRAN I

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#include<DHT.h>

DHT dht (2, DHT11);

#include <LiquidCrystal_I2C.h>

LiquidCrystal_I2C lcd (0x27, A4,A5);

#include <HCSR04.h>

#include <Wire.h>

#include <DS3231.h>

DS3231 rtc(SDA,SCL);

#include <Servo.h>

Servo motorServo;

int trigPin1=4;

int echoPin1=3;

int trigPin2=6;

int echoPin2=22;

int IN1=8;

int IN2=9;

int IN3=10;

int IN4=11;

int buzzer =12;

int button1=13;

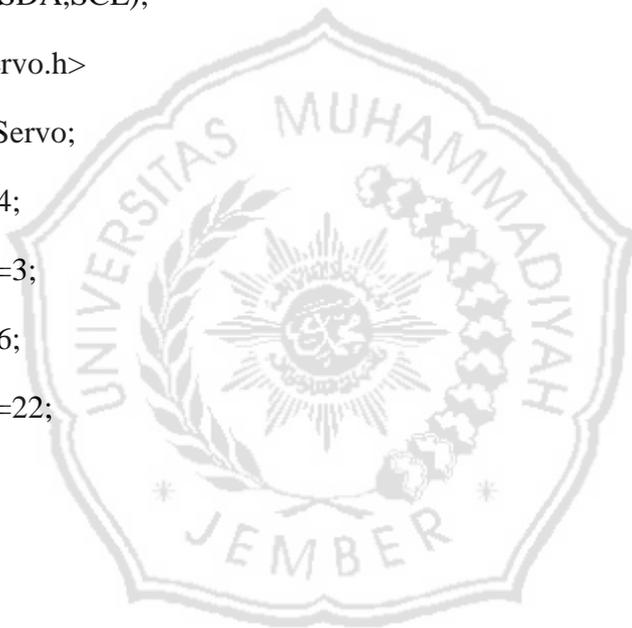
int button2=28;

void setup (){

    Serial.begin(9600);

    motorServo.attach(5);

    pinMode(trigPin1, OUTPUT);
```



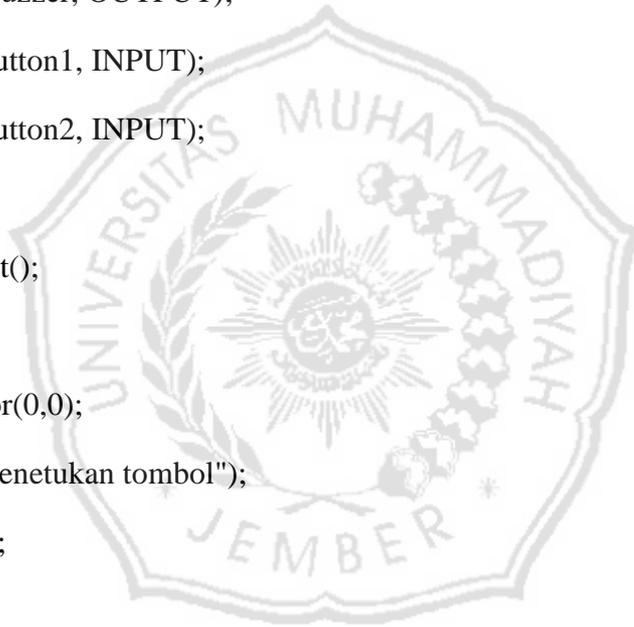
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pinMode (echoPin1, INPUT);
pinMode(trigPin2, OUTPUT);
pinMode (echoPin2, INPUT);
rtc.begin();
pinMode (IN1,OUTPUT);
pinMode (IN2,OUTPUT);
pinMode (IN3,OUTPUT);
pinMode (IN4,OUTPUT);
pinMode (buzzer, OUTPUT);
pinMode(button1, INPUT);
pinMode(button2, INPUT);
lcd.init();
lcd.backlight();
lcd.clear();
lcd.setCursor(0,0);
lcd.print("menentukan tombol");
delay(1000);
}

void loop (){

float kelembaban = dht.readHumidity();
float suhu = dht.readTemperature();
lcd.clear();
lcd.setCursor(0,0);
lcd.print("suhu.");
lcd.print((int) suhu);
lcd.print("C");

```



```

lcd.setCursor(0,1);
lcd.print("kelembaban.: ");
lcd.print((int) kelembaban);
lcd.println("%");
delay(1000);
Serial.print(suhu);
Serial.print(" ");
Serial.println(kelembaban);
delay(2000);
digitalWrite (trigPin1, HIGH);
delayMicroseconds(10);
digitalWrite (trigPin1, LOW);
float jarak1 = pulseIn(echoPin1, HIGH);
jarak1=jarak1/1000000;
jarak1=jarak1*330/2;
jarak1=jarak1*100;
if (jarak1 < 14 ){
lcd.setCursor(0,0);
lcd.print("jarak 1.");
lcd.print(jarak1);
lcd.print("mm");}
if (jarak1 > 14 ){
lcd.clear();
lcd.setCursor(0,0);
lcd.print("jarak 1: 15.79");
lcd.print("mm");

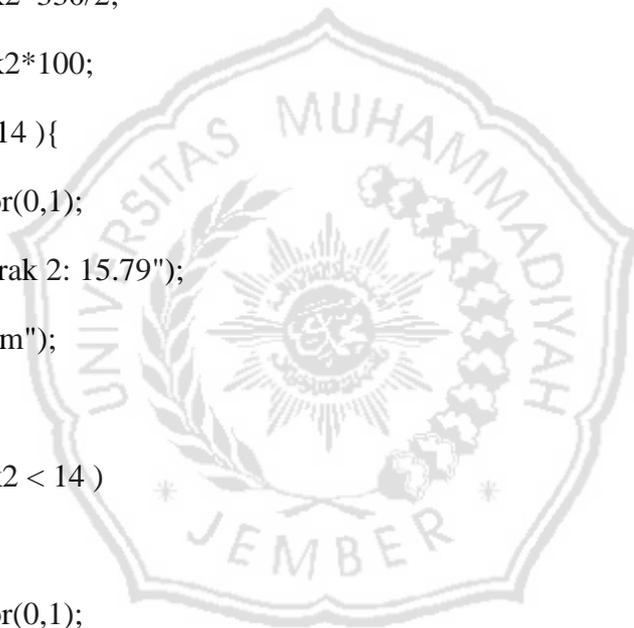
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Serial.println(jarak1);
}
delay(1000);
digitalWrite (trigPin2, HIGH);
delayMicroseconds(10);
digitalWrite (trigPin2, LOW);
float jarak2 = pulseIn(echoPin2, HIGH);
jarak2=jarak2/1000000;
jarak2=jarak2*330/2;
jarak2=jarak2*100;
if (jarak2 > 14 ){
  lcd.setCursor(0,1);
  lcd.print("jarak 2: 15.79");
  lcd.print("mm");
}
else if (jarak2 < 14 )
{
  lcd.setCursor(0,1);
  lcd.print("jarak 2.:");
  lcd.print(jarak2);
  lcd.print("mm");
  Serial.println(jarak2);
}

Serial.print( rtc.getDOWStr());
Serial.print(" ");
Serial.print(rtc.getDateStr());

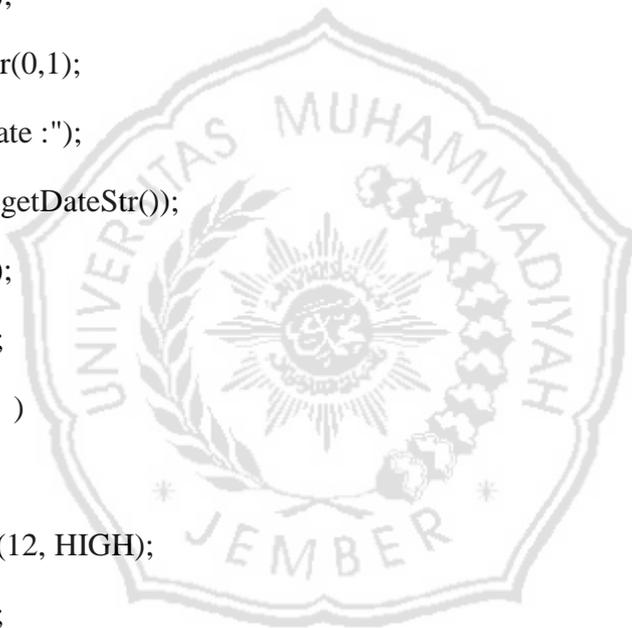
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```

Serial.print(" -- ");
Serial.println(rtc.getTimeStr());
delay (5000);
lcd.clear();
lcd.setCursor(00,00);
lcd.print(rtc.getDOWStr());
lcd.setCursor(11,0);
lcd.print(rtc.getTimeStr());
lcd.print(" ");
lcd.setCursor(0,1);
lcd.print("Date :");
lcd.print(rtc.getDateStr());
lcd.print(" ");
delay(5000);
if(suhu < 27 )
{
digitalWrite(12, HIGH);
delay(1000);
digitalWrite(12, LOW);
delay(1000);
}
else if(suhu > 27)
{
digitalWrite(12, LOW);
delay(1000);
}

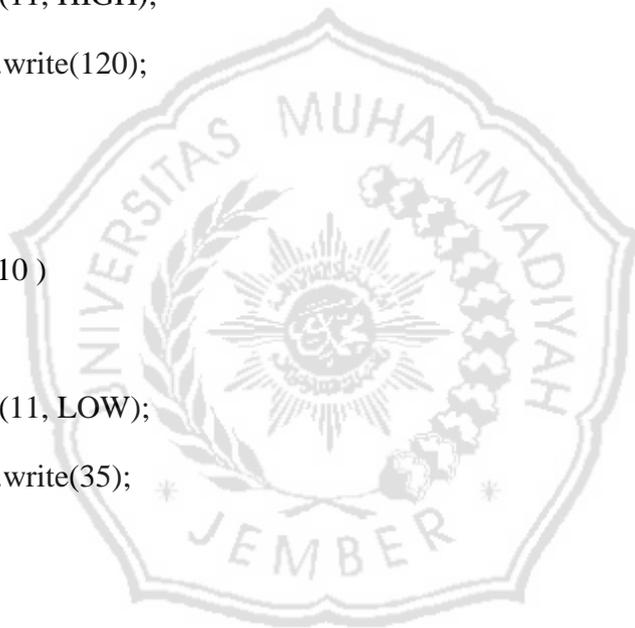
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```

if(jarak1 < 12 )
{
digitalWrite(11, HIGH);
motorServo.write(120);
delay(15);
}
else if(jarak1 > 10 )
{
digitalWrite(11, HIGH);
motorServo.write(120);
delay(15);
}
if (jarak1 < 10 )
{
digitalWrite(11, LOW);
motorServo.write(35);
delay(15);
}
else if(jarak1 > 12 )
{
digitalWrite(11, HIGH);
motorServo.write(35);
delay(15);
}
if (digitalRead(button1)==HIGH)
{

```



```

lcd.clear();

lcd.setCursor(0,0 );

lcd.print("Tombol 1");

lcd.setCursor(0, 1);

lcd.print("proses fermentasi");

delay(1000);

digitalWrite(10, HIGH);

digitalWrite(9, HIGH);

digitalWrite(8, HIGH);

delay(1000);

if(suhu < 29)
{
digitalWrite(10, LOW);
digitalWrite(9, HIGH);
digitalWrite(8, LOW);
delay(1000);
}
}

if( digitalRead(button2)==HIGH)
{

lcd.clear();

lcd.setCursor(0,0 );

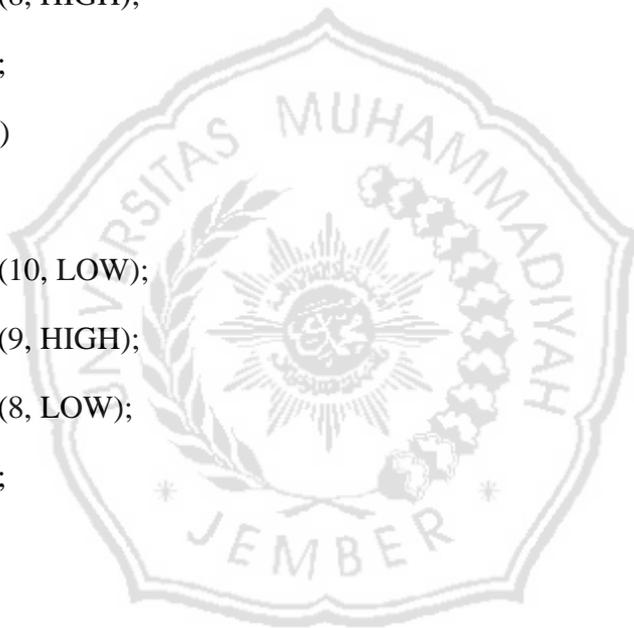
lcd.print("Tombol 2");

lcd.setCursor(0, 1);

lcd.print("proses fermentasi");

delay(1000);

```



```
digitalWrite(10, LOW);  
digitalWrite(9, HIGH);  
digitalWrite(8, LOW);  
delay(1000);  
if(suhu > 32 )  
{  
digitalWrite(10, HIGH);  
digitalWrite(9, HIGH);  
digitalWrite(8, HIGH);  
delay(1000);  
}  
}  
}
```

