PROGRAM ARDUINO PENYIRAM TANAMAN OTOMATIS

```
#include <LiquidCrystal.h>

#include <Adafruit_MLX90614.h>

Adafruit_MLX90614 mlx = Adafruit_MLX90614();

const int PIN_ANALOG = A0;

const int PIN_RS = 10;

const int PIN_E = 9;

const int PIN_DB_4 = 7;

const int PIN_DB_5 = 6;

const int PIN_DB_6 = 5;

const int PIN_DB_7 = 4;

const int pompa = 8;

LiquidCrystal lcd(PIN_RS, PIN_E, PIN_DB_4, PIN_DB_5,

PIN_DB_6, PIN_DB_7);


void setup ()

{

pinMode(A0,INPUT);

pinMode(8,OUTPUT);

Serial.begin(9600);

lcd.begin(16, 2);

mlx.begin();

delay(5000);

}
```

```
void loop()

{

lcd.clear();

  lcd.setCursor(0,0);

  int sensorValue = analogRead(A0);

  int soil = (sensorValue / 610.0)*100,round;

  float temp = mlx.readObjectTempC();

  int derajat = (11011111);

  lcd.setCursor(0,0);

  lcd.print(soil);

  lcd.print("Kelembaban: "));

  lcd.print("%");

  lcd.setCursor(0, 1);

  lcd.print("suhu: ");

  lcd.print(temp);

  lcd.write (derajat);

  lcd.print("C");

  Serial.println(analogRead(A0));

  delay(5000);

  if((soil>=60)&&(temp <=28.00)){

    digitalWrite(pompa,HIGH);

  }else{

    digitalWrite(pompa,LOW);}

}
```

PROGRAM ARDUINO *SOIL MOISTURE SENSOR*

```
const int PIN_ANALOG = A0;


void setup ()

{

  Serial.begin (9600);

  pinMode(PIN_ANALOG, INPUT);

}

void loop ()

{

  int a0 = analogRead (PIN_ANALOG);

  int soil = (a0 / 610.0)*100,round;

  Serial.println(soil);

  delay (1000);

}
```

PROGRAM ARDUINO SENSOR MLX90614

```
#include <Wire.h>
#include <Adafruit_MLX90614.h>
Adafruit_MLX90614 mlx = Adafruit_MLX90614();


void setup() {
  Serial.begin(9600);
  Serial.println("Adafruit MLX90614 test");
  mlx.begin();
}
void loop() {
Serial.print("Ambient = ");
Serial.print(mlx.readAmbientTempC());
Serial.print("*C\tObject=");
Serial.print(mlx.readObjectTempC());
Serial.println("*C");
Serial.print("Ambient = ");
Serial.print(mlx.readAmbientTempF());
Serial.print("*F\tObject=");
Serial.print(mlx.readObjectTempF()); Serial.println("*F");
  Serial.println();
  delay(500);
}
```

PROGRAM ARDUINO LCD 16x2

```
#include <LiquidCrystal.h>
const int PIN_RS = 12;
const int PIN_E = 11;
const int PIN_DB_4 = 7;
const int PIN_DB_5 = 6;
const int PIN_DB_6 = 5;
const int PIN_DB_7 = 4;
LiquidCrystal lcd(PIN_RS, PIN_E, PIN_DB_4, PIN_DB_5,
PIN_DB_6, PIN_DB_7);

void setup ()
{
lcd.begin(16, 2);
}

void loop()
{
lcd.clear ();
lcd.print ("TEST");
lcd.setCursor(0, 1);
lcd.print ("1234");
delay (5000);
}
```