

# **LAMPIRAN**

Listing Program Monitoring Pemotong Papan PCB Menggunakan *Visual Basic*

```
=====
int isObstaclePin = 11; // Deklarasi sensor 1 Digital pin 11
int isObstacle = LOW; //
int isObstaclePin2 = 12; // Deklarasi Sensor 2 Digital pin 12
int isObstacle2 = HIGH; //
int RELAY = 13; // Deklarasi Relay pin Digital 13
int Reset = 48;
const int buzzer = 9; // Deklarasi Buzzer pin Digital 10
int data; //int TempValue;
#define TempPin A0 // LM 35 Analog pin 0
#include <Wire.h>
#include <LCD.h>
#include <LiquidCrystal_I2C.h>
#define I2C_ADDR    0x27    //Code LCD
#define BACKLIGHT_PIN    3
#define En_pin      2
#define Rw_pin      1
#define Rs_pin      0
#define D4_pin      4
#define D5_pin      5
#define D6_pin      6
#define D7_pin      7
//Initialise the LCD
LiquidCrystal_I2C  lcd(I2C_ADDR,
En_pin,Rw_pin,Rs_pin,D4_pin,D5_pin,D6_pin,D7_pin);
void setup() {
  Serial.begin(9600);
  pinMode(RELAY, OUTPUT);
  pinMode(isObstaclePin, INPUT);
  pinMode(isObstaclePin2, INPUT);
  pinMode(buzzer, OUTPUT);
}
```

```

Serial.begin(9600);
digitalWrite(RELAY, HIGH);
delay (100);
//Define the LCD as 16 column by 2 rows
lcd.begin (16,2);

//Switch on the backlight
lcd.setBacklightPin(BACKLIGHT_PIN,POSITIVE);
lcd.setBacklight(HIGH);

//goto first column (column 0) and first line (Line 0)
lcd.setCursor(0,0);
lcd.print("Sistem Aktif");
delay(1000);
lcd.clear();
lcd.setCursor(0,0);
lcd.print("Eka Pujati");
delay(1000);
lcd.setCursor(1,0);
lcd.print("Teknik Komputer");

}

void loop() {
  data = analogRead(TempPin);
  float suhu = ( data/1024.0)*459;
  float TempFarh = (suhu*9)/5 + 32;
  lcd.clear();
  lcd.setCursor(0,0);
  lcd.print("SUHU =");
  lcd.print(suhu);
  delay(1000);
}

```

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Serial.print(suhu);
Serial.print("C");
Serial.println();
////////////////////////////////////
isObstacle = digitalRead(isObstaclePin);
if (isObstacle == LOW) //Sensor 1 mendeteksi penghalang
{

    lcd.setCursor(1,1);
    lcd.print("STATUS:");
    digitalWrite(RELAY, LOW); // Code relay pada saat aktif
    lcd.setCursor(8,8);
    lcd.print("ON");
    delay(1000);
}

////////////////////////////////////
isObstacle2 = digitalRead(isObstaclePin2); // Sensor 2 mendeteksi penghalang
if (isObstacle2 == LOW)
{
    //Serial.println("NonAktif");
    digitalWrite(RELAY, HIGH); // Code relay pada saat aktif
    lcd.setCursor(1,1);
    lcd.print("STATUS:");
    lcd.setCursor(8,8);
    lcd.print("OFF");
    delay(1000);
    Serial.print("1");

}
if (suhu >=50) //ganti ke suhu yang ingin di ubah
{

```

```
lcd.clear(); // Kondisi jika suhu lebih dari 50 maka pemotong noAktif
lcd.setCursor(0,0);
lcd.print("Suhu Maksimal");
lcd.setCursor(0,1);
lcd.print("Mohon Tunggu");
digitalWrite(RELAY, HIGH);
tone(buzzer, 1000); //
delay(1000); //
noTone(buzzer); //
delay(1000); // Koding buzzer
}
}
```

Listing Program Monitoring Pemotong Papan PCB Menggunakan *Visual Basic*

```
=====
Imports System
Imports System.Threading
Imports System.IO.Ports
Imports System.ComponentModel

Public Class Form1

    '-----
    Dim myPort As Array
    Delegate Sub SetTextCallback(ByVal [text] As String) 'Added to prevent
threading errors during receiveing of data
    '-----
    Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
        'TODO: This line of code loads data into the 'EkaDataSet.Table1'
table. You can move, or remove it, as needed.
        Me.Table1TableAdapter.Fill(Me.EkaDataSet.Table1)
        'TODO: This line of code loads data into the
'DatabaseDataSet.Copy_of_Table1' table. You can move, or remove it, as
needed.
        myPort = IO.Ports.SerialPort.GetPortNames()
        ComboBox1.Items.AddRange(myPort)
        Label7.Text = Format(Now, "dd-MM-yyyy/hh:mm")
        TextBox1.Text = "0"
        TextBox2.Text = "0"
        TextBox3.Text = "0"
    End Sub

    '-----
    Private Sub ComboBox1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles ComboBox1.Click
    End Sub

    '-----
    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        Table1BindingSource.AddNew()
        SerialPort1.PortName = ComboBox1.Text
        SerialPort1.BaudRate = ComboBox2.Text
        SerialPort1.Open()
        Button3.Show()
        Button4.Show()
        Label14.Show()
        Label15.Show()
        Label16.Show()
        Label12.Hide()
        Label13.Hide()
        TextBox1.Show()
        TextBox2.Show()
        TextBox3.Show()
        Button2.Show()
        ComboBox1.Hide()
        ComboBox2.Hide()
        Button1.Enabled = False
        Button4.Enabled = True
    End Sub
End Class
```

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        Label3.Text = "0"
        Label8.Text = "0"
        Button5.Hide()
    End Sub
'-----
    Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button4.Click
        SerialPort1.Close()
        Button1.Enabled = True
        Button4.Enabled = False
        TextBox1.Text = Label3.Text
        TextBox2.Text = Label7.Text
    End Sub

    Private Sub SerialPort1_DataReceived(ByVal sender As System.Object,
ByVal e As System.IO.Ports.SerialDataReceivedEventArgs) Handles
SerialPort1.DataReceived
        ReceivedText(SerialPort1.ReadExisting())
    End Sub

    Private Sub ReceivedText(ByVal [text] As String) 'input from
ReadExisting

        If Me.RichTextBox2.InvokeRequired Then
            Dim x As New SetTextCallback(AddressOf ReceivedText)
            Me.Invoke(x, New Object() {(text)})
        Else
            Me.RichTextBox2.Text &= [text] 'append text
        End If
    End Sub

    Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs)
        Me.Hide()
    End Sub

    Private Sub Timer1_Tick(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Timer1.Tick
        RichTextBox2.Clear()
        Timer1.Stop()
    End Sub

    Private Sub RichTextBox2_TextChanged(ByVal sender As System.Object,
ByVal e As System.EventArgs) Handles RichTextBox2.TextChanged
        Label8.Text = RichTextBox2.Text
        Timer1.Interval = 1000
        Timer1.Start()
        If Val(RichTextBox2.Text) = 1 Then
            Label3.Text = Val(Label3.Text) + 1
        End If
    End Sub

    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        Try
            Table1BindingSource.EndEdit()
            Table1TableAdapter.Update(EkaDataSet.Table1)
            MsgBox("data disimpan")
        Catch ex As Exception

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        MsgBox("Database error")
    End Try

End Sub

Private Sub Button3_Click_1(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
    Table1BindingSource.RemoveCurrent()
    Table1BindingSource.EndEdit()
    Table1TableAdapter.Update(EkaDataSet.Table1)
End Sub

Private Sub Button5_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button5.Click
    Me.Hide()
    Form3.Show()

End Sub

Private Sub Label8_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Label8.Click

End Sub
End Class
```