

CODINGAN ARDUINO

```
#define pinServo 9
#include <Servo.h>
#include <SoftwareSerial.h>
#define rentan_waktu 3000

SoftwareSerial bt(2, 3);
#define sensorapi 7
#include "DHT.h"

#define DHTPIN 5

Servo myservo; // create servo object to control a servo

#define DHTTYPE DHT11 // DHT 11
DHT dht(DHTPIN, DHTTYPE);
float h, t, f;
int api = 0;
long waktu = 0;

String inputString = ""; // a string to hold incoming data
boolean stringComplete = false; // whether the string is complete

void setup() {
    // put your setup code here, to run once:
    myservo.attach(pinServo); // attaches the servo on pin 9 to the servo object
    pinMode(sensorapi, INPUT);
    Serial.begin(9600);
```

```

bt.begin(9600);

myservo.write(160);
dht.begin();
waktu = millis();

}

void loop() {
  bt.println("");
  serialEvent(); //call the function
  // print the string when a newline arrives:
  if (stringComplete) {
    bt.println("");
    Serial.print("inputString : ");
    Serial.println(inputString);
    if (inputString.toInt() > 0) {
      for (int i = 0 ; i < inputString.length();i++){
        Serial.print(inputString.charAt(i),BIN);

      }
      Serial.println();
      int nilai = map(inputString.toInt(), 0, 100, 160, 0);
      Serial.println("nilai : ");
      Serial.println(nilai);
      myservo.write(nilai);

    }
    inputString = "";
  }
}

```

```

    stringComplete = false;
}

// put your main code here, to run repeatedly:
Serial.print("Kondisi API="); Serial.println(digitalRead(sensorapi));
baca_suhu();
api = !digitalRead(sensorapi);
//delay(500);
if (millis() - waktu > rentan_waktu) {
    //SubmitHttpRequest();
    bt.print(api);
    bt.print(",");
    bt.print(t);
    bt.println(";");

    waktu = millis();
}
}

```

```

void baca_suhu() {
    h = dht.readHumidity();
    // Read temperature as Celsius (the default)
    t = dht.readTemperature();
    // Read temperature as Fahrenheit (isFahrenheit = true)
    f = dht.readTemperature(true);

    // Check if any reads failed and exit early (to try again).
    if (isnan(h) || isnan(t) || isnan(f)) {

```

```
Serial.println("Failed to read from DHT sensor!");  
return;  
}
```

```
Serial.print("Humidity: ");  
Serial.print(h);  
Serial.print(" %\t");  
Serial.print("Temperature: ");  
Serial.print(t);  
Serial.print(" *C ");  
Serial.print(f);  
Serial.println(" *F");  
}
```

```
void hidupkan() {  
myservo.write(0);  
delay(3000);  
}
```

```
void matikan() {  
myservo.write(180);  
delay(3000);  
}
```

```
String getValue(String data, char separator, int index)  
{  
int found = 0;  
int strIndex[] = {0, -1};  
int maxIndex = data.length() - 1;
```

```

for (int i = 0; i <= maxIndex && found <= index; i++) {
    if (data.charAt(i) == separator || i == maxIndex) {
        found++;
        strIndex[0] = strIndex[1] + 1;
        strIndex[1] = (i == maxIndex) ? i + 1 : i;
    }
}

return found > index ? data.substring(strIndex[0], strIndex[1]) : "";
}

void serialEvent() {
    while (bt.available()) {
        // get the new byte:
        char inChar = (char)bt.read();
        // add it to the inputString:
        // if the incoming character is a newline, set a flag
        // so the main loop can do something about it:
        if (inChar == '\n') {
            stringComplete = true;
        } else if (inChar == '\r') {

        } else {
            inputString += inChar;
        }
    }
}
}

```

LIST PROGRAM JAVA IDE ECLIPSE SISTEM PENGATURAN KOMPOR GAS

```
package com.venya.digitalstove;
```

```
import java.util.ArrayList;
```

```
import java.util.List;
```

```
import org.apache.http.NameValuePair;
```

```
import org.apache.http.message.BasicNameValuePair;
```

```
import org.json.JSONArray;
```

```
import org.json.JSONObject;
```

```
import android.app.Activity;
```

```
import android.app.ProgressDialog;
```

```
import android.content.Intent;
```

```
import android.os.AsyncTask;
```

```
import android.os.Bundle;
```

```
import android.os.CountDownTimer;
```

```
import android.os.Message;
```

```
import android.text.format.DateFormat;
```

```
import android.util.Log;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.ImageView;
```

```
import android.widget.SeekBar;
```

```
import android.widget.Switch;
```

```

import android.widget.TextView;

import android.widget.Toast;

public class MenuUtama extends BluetoothActivity{

    ImageView imgLampu;

    SeekBar besar_api;

    TextView suhu;

    Button Logout;

    ProgressDialog pDialog;

    String data_api , data_suhu;

    JSONParser jParser = new JSONParser();

    public static String TAG_SUCCESS = "success";

    public static String TAG_PRODUCT = "product";

    CountdownTimer cdt;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        // TODO Auto-generated method stub

        super.onCreate(savedInstanceState);

        setContentView(R.layout.layar2);

        besar_api = (SeekBar)findViewById(R.id.seekBar1);

        suhu = (TextView)findViewById(R.id.suhu);

        Logout = (Button)findViewById(R.id.btnlogout);

//        imgLampu = (ImageView)findViewById(R.id.imageView1);

//new ambilData().execute();

//        cdt = new CountdownTimer(3000,3000) {

//

//            @Override

//            public void onTick(long arg0) {

```

```

//          // TODO Auto-generated method stub
//
//      }
//
//      @Override
//      public void onFinish() {
//          // TODO Auto-generated method stub
//          new ambilData().execute();
//          start();
//      }
//  };
//
//      cdt.start();

```

```

        besar_api.setOnSeekBarChangeListener(new
SeekBar.OnSeekBarChangeListener() {

```

```

        @Override
        public void onStopTrackingTouch(SearchBar arg0) {
            // TODO Auto-generated method stub
            Log.e("ditekan", ""+besar_api.getProgress());
            write("" + besar_api.getProgress() + "\n");
            //new ubahServo().execute();
        }

```

```

        @Override
        public void onStartTrackingTouch(SearchBar arg0) {
            // TODO Auto-generated method stub

```



```
    }

    @Override
    public void onProgressChanged(SeekBar arg0, int arg1, boolean
arg2) {

        // TODO Auto-generated method stub

    }

});

Logout.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View arg0) {

        // TODO Auto-generated method stub

        Intent a = new
Intent(MenuUtama.this,MainActivity.class);

        startActivity(a);

        finish();

    }

});

}
```

```

public boolean handleMessage(Message msg)
{
    super.handleMessage(msg);
    switch(msg.what)
    {
        case BluetoothRemoteControlApp.MSG_READ:
            //tvData.append("R: " + msg.obj + "\n");
            String masuk = msg.obj.toString();

            Log.e("data masuk", masuk);
            if (masuk.length()!=0){

                String[] pecah = masuk.split(",");
                if (pecah[0].equals("1")){
                    //ganti gambar api

//imgLampu.setImageDrawable(getResources().getDrawable(R.drawable.lhidup)
);

                    }else{

//imgLampu.setImageDrawable(getResources().getDrawable(R.drawable.lmati));
                    //ganti gambar padam

                }

                suhu.setText(pecah[1] +" C");
            }
            break;
        case BluetoothRemoteControlApp.MSG_WRITE:
            //tvData.append("S: " + msg.obj + "\n");
            Log.e("data keluar", ""+msg.obj);
    }
}

```

```

        break;
    }
    return false;
}

class ambilData extends AsyncTask<String, String, String> {
    String status = "0";

    @Override
    protected void onPreExecute() {
        // TODO Auto-generated method stub
        super.onPreExecute();

//        pDialog = new ProgressDialog(MenuUtama.this);
//        pDialog.setTitle("Proses Merubah Servo");
//        pDialog.setIndeterminate(false);
//        pDialog.setCancelable(true);
//        pDialog.show();
    }

    @Override
    protected String doInBackground(String... params) {
        // TODO Auto-generated method stub

        String URLLogin;
        ConnectionClass con = new
ConnectionClass("ambilinformasi.php");
        URLLogin = con.getConn();
        int success;

```

```

String date = (DateFormat.format("dd-MM-yyyy hh:mm:ss",
                                new java.util.Date()).toString());

try {
    List<NameValuePair> param1 = new
ArrayList<NameValuePair>();
    // param1.add(new BasicNameValuePair("imei", imei));
    //param1.add(new
BasicNameValuePair("servo",""+besar_api.getProgress() ));
    JSONObject json = jParser.makeHttpRequest(URLLogin,
"GET",
                                param1);
    //Log.e("json", json.toString());
    success = json.getInt(TAG_SUCCESS);
    //Log.e("sukses", "" + success);
    if (success == 1) {
        JSONArray
jArray=json.getJSONArray(TAG_PRODUCT);
        JSONObject jobject=jArray.getJSONObject(0);
        data_api = jobject.getString("API");
        data_suhu = jobject.getString("SUHU");

        // nama_toko = new String[jArray.length()];
        // for(int i=0;i<jArray.length();i++)
        // {
        // JSONObject jobject=jArray.getJSONObject(i);
        // nama_toko[i]=jobject.getString("nama");
        //
        // }

```

```

        // JSONArray
JSONArray=json.getJSONArray(TAG_PRODUCT);

        // JSONObject jobject=jArray.getJSONObject(0);
        status = "1";
    } else {
        status = "0";
    }

} catch (Exception e) {
    e.printStackTrace();
}

return null;
}

@Override
protected void onPostExecute(String result) {
    //cdt.start();
    // TODO Auto-generated method stub
    if (status.equals("1")) {
        suhu.setText(data_suhu+" C");
        Log.e("api",data_api);
        if (data_api.equals("1")){

//imgLampu.setImageDrawable(getResources().getDrawable(R.drawable.lhidup));
        }else{

//imgLampu.setImageDrawable(getResources().getDrawable(R.drawable.lmati));
        }

//pDialog.dismiss();

```

```

//Toast.makeText(MenuUtama.this, "Sukses Merubah SERVO",
//Toast.LENGTH_LONG).show();

// Toast.makeText(FullscreenActivity.this,
// "absen cuy latitude = " +
// String.valueOf(latitude)+" longitude = " +
// String.valueOf(longitude), Toast.LENGTH_SHORT).show());

// startActivity(myIntent);
} else {
pDialog.dismiss();
// decrypt="null";
Toast.makeText(MenuUtama.this, "Tidak Merubah SERVO",
Toast.LENGTH_LONG).show();
}
}
}

```

```

class ubahServo extends AsyncTask<String, String, String> {
    String status = "0";

    @Override
    protected void onPreExecute() {
        // TODO Auto-generated method stub
        super.onPreExecute();

        pDialog = new ProgressDialog(MenuUtama.this);
        pDialog.setTitle("Proses Merubah Servo");
    }
}

```

```

        pDialog.setIndeterminate(false);
        pDialog.setCancelable(true);
        pDialog.show();
    }

    @Override
    protected String doInBackground(String... params) {
        // TODO Auto-generated method stub

        String URLLogin;
        ConnectionClass con = new
ConnectionClass("update_servo.php");
        URLLogin = con.getConn();
        int success;
        String date = (DateFormat.format("dd-MM-yyyy hh:mm:ss",
            new java.util.Date()).toString());

        try {
            List<NameValuePair> param1 = new
ArrayList<NameValuePair>();
            // param1.add(new BasicNameValuePair("imei", imei));
            //param1.add(new
BasicNameValuePair("servo",""+besar_api.getProgress() ));
            JSONObject json = jParser.makeHttpRequest(URLLogin,
"GET",
                param1);
            //Log.e("json", json.toString());
            success = json.getInt(TAG_SUCCESS);
            //Log.e("skses", "" + success);
            if (success == 1) {

```

```

        // JSONArray
jArray=json.getJSONArray(TAG_PRODUCT);

        // nama_toko = new String[jArray.length()];
        // for(int i=0;i<jArray.length();i++)
        // {
        // JSONObject jobject=jArray.getJSONObject(i);
        // nama_toko[i]=jobject.getString("nama");
        //
        // }

        // JSONArray
jArray=json.getJSONArray(TAG_PRODUCT);

        // JSONObject jobject=jArray.getJSONObject(0);
        status = "1";
        } else {
        status = "0";
        }

    } catch (Exception e) {
        e.printStackTrace();
    }

    return null;
}

@Override
protected void onPostExecute(String result) {
    //cdt.start();
    // TODO Auto-generated method stub
    if (status.equals("1")) {

```



```
pDialog.dismiss();
Toast.makeText(MenuUtama.this, "Sukses Merubah SERVO",
Toast.LENGTH_LONG).show();

// Toast.makeText(FullscreenActivity.this,
// "absen cuy latitude = " +
// String.valueOf(latitude)+" longitude = " +
// String.valueOf(longitude), Toast.LENGTH_SHORT).show();

// startActivity(myIntent);
} else {
pDialog.dismiss();
// decrypt="null";
Toast.makeText(MenuUtama.this, "Tidak Merubah SERVO",
Toast.LENGTH_LONG).show();
}
}
}
}
```