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LAMPIRAN

Lampiran 1 List Program Arduino

1. List Program Pada Arduino Mega 2560

```
/*
                                SKRIPSI
ALAT PEMBUAT KOPI OTOMATIS BERBASIS ARDUINO
MEGA 2560 DENGAN RFID CARD
SEBAGAI ALAT PEMBAYARAN

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*/
#include <SoftwareSerial.h>
#include <OneWire.h>

OneWire Sensor1(6);
OneWire Sensor2(7);
OneWire Sensor3(8);

int NilaiSensor1;
int NilaiSensor2;
int NilaiSensor3;
int tx          = 1;
int rx          = 0;
int echoPin    = 12;
int trigPin    = 13;

int pd1        = A0;
int pd2        = A1;
int pd3        = A2;

int kran1      = 9;
int kran2      = 10;
int kran3      = 11;

int led1       = 22;
int led2       = 24;
int led3       = 26;
int panas1     = 28;
int panas2     = 30;
int panas3     = 32;

int pdA, pdB, pdC, ultra, distance;

SoftwareSerial bluetooth(tx, rx);

String readString;

void setup() {
    Serial.begin(9600);
    pinMode(tx,          OUTPUT);
```

```

pinMode(rx,          INPUT);
pinMode(trigPin,    OUTPUT);
pinMode(echoPin,    INPUT);
pinMode(pd1,        INPUT);
pinMode(pd2,        INPUT);
pinMode(pd3,        INPUT);
pinMode(led1,       OUTPUT);
pinMode(led2,       OUTPUT);
pinMode(led3,       OUTPUT);
pinMode(kran1,      OUTPUT);
pinMode(kran2,      OUTPUT);
pinMode(kran3,      OUTPUT);
pinMode(panas1,     OUTPUT);
pinMode(panas2,     OUTPUT);
pinMode(panas3,     OUTPUT);
}
void baca_input()
{
  pdA    = analogRead(pd1);
  pdB    = analogRead(pd2);
  pdC    = analogRead(pd3);
  ultra  = digitalRead(echoPin);

  long duration, distance;
  digitalWrite(trigPin, LOW); // Added this line
  delayMicroseconds(2); // Added this line
  digitalWrite(trigPin, HIGH);
  // delayMicroseconds(1000); - Removed this line
  delayMicroseconds(10); // Added this line
  digitalWrite(trigPin, LOW);
  duration = pulseIn(echoPin, HIGH);
  distance = (duration/2) / 29.1;
  delay(500);
}

void baca_bluetooth()
{
  while (Serial.available())
  {
    delay (3);
    char c = Serial.read();
    readString += c;
  }
  if (readString.length() >0)
  {
    Serial.println(readString);
    if (readString == "k1")
    {
      kopi1();
    }

    if (readString == "k2")
    {
      kopi2();
    }

    if (readString == "k3")
    {
      kopi3();
    }
  }
}

```

```

    }

    if (readString == "s1")
    {
        kopi4();
    }

    if (readString == "s2")
    {
        kopi5();
    }

    if (readString == "s3")
    {
        kopi6();
    }

    if (readString == "b1")
    {
        kopi7();
    }

    if (readString == "b2")
    {
        kopi8();
    }

    if (readString == "b3")
    {
        kopi9();
    }
}

void kopi1()
{
    digitalWrite(led1, HIGH);
    if (pdA>300 && pdB<300 && pdC<300)
    {
        digitalWrite(kran1, HIGH);
        if (distance<=15)
            digitalWrite(kran1, LOW);
        digitalWrite(led1, LOW);
    }
    else
    {
        digitalWrite(kran1, LOW);
    }
}

void kopi2()
{
    digitalWrite(led1, HIGH);
    if (pdA>300 && pdB<300 && pdC<300)
    {
        digitalWrite(kran2, HIGH);
        if (distance<=15)
            digitalWrite(kran2, LOW);
        digitalWrite(led1, LOW);
    }
}

```

```

    }
    else
    {
        digitalWrite(kran2, LOW);
    }
}

void kopi3()
{
    digitalWrite(led1, HIGH);
    if (pdA>300 && pdB<300 && pdC<300)
    {
        digitalWrite(kran3, HIGH);
        if (distance<=15)
            digitalWrite(kran3, LOW);
        digitalWrite(led1, LOW);
    }
    else
    {
        digitalWrite(kran3, LOW);
    }
}

void kopi4()
{
    digitalWrite(led2, HIGH);
    if (pdA>300 && pdB>300 && pdC<300)
    {
        digitalWrite(kran1, HIGH);
        if (distance<=12)
            digitalWrite(kran1, LOW);
        digitalWrite(led2, LOW);
    }
    else
    {
        digitalWrite(kran2, LOW);
    }
}

void kopi5()
{
    digitalWrite(led2, HIGH);
    if (pdA>300 && pdB>300 && pdC<300)
    {
        digitalWrite(kran2, HIGH);
        if (distance<=12)
            digitalWrite(kran2, LOW);
        digitalWrite(led2, LOW);
    }
    else
    {
        digitalWrite(kran2, LOW);
    }
}

void kopi6()
{
    digitalWrite(led2, HIGH);
    if (pdA>300 && pdB>300 && pdC<300)

```

```

    {
        digitalWrite(kran3, HIGH);
        if (distance<=12)
            digitalWrite(kran3, LOW);
            digitalWrite(led2, LOW);
        }
    else
        {
            digitalWrite(kran3, LOW);
        }
}

void kopi7()
{
    digitalWrite(led3, HIGH);
    if (pdA>300 && pdB>300 && pdC>300)
    {
        digitalWrite(kran1, HIGH);
        if (distance<=9)
            digitalWrite(kran1, LOW);
            digitalWrite(led3, LOW);
        }
    else
        {
            digitalWrite(kran1, LOW);
        }
}

void kopi8()
{
    digitalWrite(led3, HIGH);
    if (pdA>300 && pdB>300 && pdC>300)
    {
        digitalWrite(kran2, HIGH);
        if (distance<=9)
            digitalWrite(kran2, LOW);
            digitalWrite(led3, LOW);
        }
    else
        {
            digitalWrite(kran2, LOW);
        }
}

void kopi9()
{
    digitalWrite(led3, HIGH);
    if (pdA>300 && pdB>300 && pdC>300)
    {
        digitalWrite(kran3, HIGH);
        if (distance<=9)
            digitalWrite(kran3, LOW);
            digitalWrite(led3, LOW);
        }
    else
        {
            digitalWrite(kran3, LOW);
        }
}

```

```

void suhu()
{
  DS18B20_1();
  Serial.print("Sensor1 = ");
  Serial.println(NilaiSensor1);
  DS18B20_2();
  Serial.print("Sensor2 = ");
  Serial.println(NilaiSensor2);
  DS18B20_3();
  Serial.print("Sensor3 = ");
  Serial.println(NilaiSensor3);

  if (NilaiSensor1<=78)
  {
    digitalWrite(panas1, HIGH);
  }
  else
  {
    digitalWrite(panas1, LOW);
  }

  if (NilaiSensor2<=80)
  {
    digitalWrite(panas2, HIGH);
  }
  else
  {
    digitalWrite(panas2, LOW);
  }

  if (NilaiSensor1<=90)
  {
    digitalWrite(panas3, HIGH);
  }
  else
  {
    digitalWrite(panas3, LOW);
  }
}

void DS18B20_1()
{
  byte i;
  byte present = 0;
  byte type_s;
  byte data[12];
  byte addr[8];
  float celsius, fahrenheit;

  if ( !Sensor1.search(addr)) {
    Sensor1.reset_search();
    delay(250);
    return;
  }

  for( i = 0; i < 8; i++) {

```



```

if (OneWire::crc8(addr, 7) != addr[7]) {
    return;
}
switch (addr[0]) {
case 0x10:
    type_s = 1;
    break;
case 0x28:
    type_s = 0;
    break;
case 0x22:
    type_s = 0;
    break;
default:
    return;
}

Sensor1.reset();
Sensor1.select(addr);
Sensor1.write(0x44, 1);          // start conversion, with
parasite power on at the end

delay(1000);          // maybe 750ms is enough, maybe not

present = Sensor1.reset();
Sensor1.select(addr);
Sensor1.write(0xBE);          // Read Scratchpad
for ( i = 0; i < 9; i++) {          // we need 9 bytes
    data[i] = Sensor1.read();
}
int16_t raw = (data[1] << 8) | data[0];
if (type_s) {
    raw = raw << 3; // 9 bit resolution default
    if (data[7] == 0x10) {
        raw = (raw & 0xFFF0) + 12 - data[6];
    }
}
else {
    byte cfg = (data[4] & 0x60);
    if (cfg == 0x00) raw = raw & ~7; // 9 bit resolution, 93.75
ms
    else if (cfg == 0x20) raw = raw & ~3; // 10 bit res, 187.5 ms
    else if (cfg == 0x40) raw = raw & ~1; // 11 bit res, 375 ms
}
celsius = (float)raw / 16.0;
fahrenheit = celsius * 1.8 + 32.0;
NilaiSensor1 = celsius;
}

void DS18B20_2()
{
    byte i;
    byte present = 0;
    byte type_s;
    byte data[12];
    byte addr[8];
    float celsius, fahrenheit;

```

```

if ( !Sensor2.search(addr)) {
    Sensor2.reset_search();
    delay(250);
    return;
}

for( i = 0; i < 8; i++) {
}

if (OneWire::crc8(addr, 7) != addr[7]) {
    return;
}
switch (addr[0]) {
case 0x10:
    type_s = 1;
    break;
case 0x28:
    type_s = 0;
    break;
case 0x22:
    type_s = 0;
    break;
default:
    return;
}

Sensor2.reset();
Sensor2.select(addr);
Sensor2.write(0x44, 1);          // start conversion, with
parasite power on at the end

delay(1000);          // maybe 750ms is enough, maybe not

present = Sensor2.reset();
Sensor2.select(addr);
Sensor2.write(0xBE);          // Read Scratchpad
for ( i = 0; i < 9; i++) {          // we need 9 bytes
    data[i] = Sensor2.read();
}
int16_t raw = (data[1] << 8) | data[0];
if (type_s) {
    raw = raw << 3; // 9 bit resolution default
    if (data[7] == 0x10) {
        raw = (raw & 0xFFF0) + 12 - data[6];
    }
}
else {
    byte cfg = (data[4] & 0x60);
    if (cfg == 0x00) raw = raw & ~7; // 9 bit resolution, 93.75
ms
    else if (cfg == 0x20) raw = raw & ~3; // 10 bit res, 187.5 ms
    else if (cfg == 0x40) raw = raw & ~1; // 11 bit res, 375 ms
}
celsius = (float)raw / 16.0;
fahrenheit = celsius * 1.8 + 32.0;
NilaiSensor2 = celsius;
}

void DS18B20_3()

```

```

{
  byte i;
  byte present = 0;
  byte type_s;
  byte data[12];
  byte addr[8];
  float celsius, fahrenheit;

  if ( !Sensor3.search(addr)) {
    Sensor3.reset_search();
    delay(250);
    return;
  }

  for( i = 0; i < 8; i++) {

  if (OneWire::crc8(addr, 7) != addr[7]) {
    return;
  }
  switch (addr[0]) {
  case 0x10:
    type_s = 1;
    break;
  case 0x28:
    type_s = 0;
    break;
  case 0x22:
    type_s = 0;
    break;
  default:
    return;
  }

  Sensor3.reset();
  Sensor3.select(addr);
  Sensor3.write(0x44, 1);          // start conversion, with
parasite power on at the end

  delay(1000);          // maybe 750ms is enough, maybe not

  present = Sensor3.reset();
  Sensor3.select(addr);
  Sensor3.write(0xBE);          // Read Scratchpad
  for ( i = 0; i < 9; i++) {          // we need 9 bytes
    data[i] = Sensor3.read();
  }
  int16_t raw = (data[1] << 8) | data[0];
  if (type_s) {
    raw = raw << 3; // 9 bit resolution default
    if (data[7] == 0x10) {
      raw = (raw & 0xFFF0) + 12 - data[6];
    }
  }
  }
  else {
    byte cfg = (data[4] & 0x60);
    if (cfg == 0x00) raw = raw & ~7; // 9 bit resolution, 93.75
ms
    else if (cfg == 0x20) raw = raw & ~3; // 10 bit res, 187.5 ms

```

```
    else if (cfg == 0x40) raw = raw & ~1; // 11 bit res, 375 ms
  }
  celsius = (float)raw / 16.0;
  fahrenheit = celsius * 1.8 + 32.0;
  NilaiSensor3 = celsius;
}

void loop()
{
  baca_bluetooth();
  baca_input();
  kopi1();
  kopi2();
  kopi3();
  kopi4();
  kopi5();
  kopi6();
  kopi7();
  kopi8();
  kopi9();
  suhu();
}
```

Lampiran 2 Blok Program *App Inventor*

The image displays four distinct blocks of App Inventor code, each starting with a 'when' event trigger. The first block, 'when Screen1.Initialize', contains a 'do' loop with nine 'set' blocks, each setting the 'Visible' property of a specific UI element to 'false'. The second block, 'when ListPicker1.BeforePicking', contains a 'do' loop with ten 'set' blocks (all setting 'Visible' to 'false') and a nested 'when TinyWebDB1.ValueStored' block with a 'do' loop containing a 'call Notifier1.ShowAlert' block with the message 'Terima Kasih!'. The third block, 'when ListPicker1.AfterPicking', contains a 'do' loop with an 'evaluate but ignore result' block (calling 'BluetoothClient1.Connect' with 'ListPicker1.Selection' as the address), followed by an 'if' block that checks 'BluetoothClient1.IsConnected'. If true, it sets 'ListPicker1.Visible' to 'false' and 'Tableutama.Visible' to 'true'. The fourth block, 'when masuk.GotFocus', contains a 'do' loop with a 'call TinyWebDB1.GetValue' block (tagged 'IDPelanggan') and a 'Text' block.

```
when Screen1.Initialize
do
  set Tableutama.Visible to false
  set Tablesaldo.Visible to false
  set Tablekopi.Visible to false
  set tablekopi1.Visible to false
  set tablekopi2.Visible to false
  set tablekopi3.Visible to false
  set tablekeluar.Visible to false
  set tablekeluarbalik.Visible to false

when ListPicker1.BeforePicking
do
  set ListPicker1.Elements to BluetoothClient1.AddressesAndNames
  set Tableutama.Visible to false
  set Tablesaldo.Visible to false
  set Tablekopi.Visible to false
  set tablekopi1.Visible to false
  set tablekopi2.Visible to false
  set tablekopi3.Visible to false
  set tablekeluar.Visible to false
  set tablekeluarbalik.Visible to false

  when TinyWebDB1.ValueStored
  do
    call Notifier1.ShowAlert
      notice "Terima Kasih!"

when ListPicker1.AfterPicking
do
  evaluate but ignore result call BluetoothClient1.Connect
    address ListPicker1.Selection
  if BluetoothClient1.IsConnected
  then
    set ListPicker1.Visible to false
    set Tableutama.Visible to true

when masuk.GotFocus
do
  call TinyWebDB1.GetValue
    tag IDPelanggan
  Text
```

```
when keluar2 .Click
do
  set tablekopi1 . Visible to false
  set tablekopi2 . Visible to false
  set tablekopi3 . Visible to false
  set Tablesaldo . Visible to false
  set Tableutama . Visible to true
  set tablekeluar . Visible to false
  set tablekeluarbalik . Visible to false
  set Label10 . Visible to false
  set memuatsaldo . Text to ""
  set IDPelanggan . Text to ""
  set Hitam . Enabled to true
  set luwak . Enabled to true
  set capucino . Enabled to true
  set deng1 . Enabled to true
  set gede1 . Enabled to true
  set deng2 . Enabled to true
  set gede2 . Enabled to true
  set deng3 . Enabled to true
  set gede3 . Enabled to true
```

```
when TinyWebDB1 .WebServiceError
  message
do
  call Notifier1 .ShowAlert
  notice "Maaf, server sedang mengalami gangguan "
```

```
when TinyWebDB1 .GotValue
  tagFromWebDB valueFromWebDB
do
  set tagFromWebDB to IDPelanggan . Text
  set memuatsaldo . Text to get valueFromWebDB
  set Tablesaldo . Visible to true
  set Tablekopi . Visible to true
  set tablekeluar . Visible to true
  set Tableutama . Visible to false
  set Label10 . Visible to true
  if memuatsaldo . Text < 4000
  then
    call Notifier1 .ShowAlert
    notice "Maaf, Kartu Anda tidak terdaftar /Saldo Anda Tidak Cukup! "
    set Hitam . Enabled to false
    set luwak . Enabled to false
    set capucino . Enabled to false
  else if memuatsaldo . Text < 5000
  then
    set luwak . Enabled to false
  else if memuatsaldo . Text < 7000
  then
    set capucino . Enabled to false
```

```
when Hitam .Click
do
  set Tablekopi . Visible to false
  set tablekeluar . Visible to false
  set tablekopi1 . Visible to true
  set tablekeluarbalik . Visible to true
  set Label10 . Visible to false
  if memuatsaldo . Text < 5000
  then set deng1 . Enabled to false
  else if memuatsaldo . Text < 6000
  then set gede1 . Enabled to false
```

```
when back .Click
do
  set tablekopi1 . Visible to false
  set tablekopi2 . Visible to false
  set tablekopi3 . Visible to false
  set Tablesaldo . Visible to true
  set Tablekopi . Visible to true
  set tablekeluarbalik . Visible to false
  set tablekeluar . Visible to true
  set Label10 . Visible to false
```

```
when luwak .Click
do
  set Label10 . Visible to false
  set Tablekopi . Visible to false
  set tablekeluar . Visible to false
  set tablekopi2 . Visible to true
  set tablekeluarbalik . Visible to true
  if memuatsaldo . Text < 6000
  then set deng2 . Enabled to false
  else if memuatsaldo . Text < 7000
  then set gede2 . Enabled to false
```

```
when capucino .Click
do
  set Tablekopi . Visible to false
  set tablekeluar . Visible to false
  set tablekopi3 . Visible to true
  set tablekeluarbalik . Visible to true
  set Label10 . Visible to false
  if memuatsaldo . Text < 8000
  then set deng3 . Enabled to false
  else if memuatsaldo . Text < 10000
  then set gede3 . Enabled to false
```

```
when cil1 .Click
do
  set memuatsaldo . Text to memuatsaldo . Text - 4000
  call TinyWebDB1 .StoreValue
  tag IDPelanggan . Text
  valueToStore memuatsaldo . Text
  call BluetoothClient1 .SendText
  text " k1 "
  set tablekopi1 . Visible to false
  set Tablesaldo . Visible to false
  set tablekeluarbalik . Visible to false
  set Tableutama . Visible to true
  set Hitam . Enabled to true
  set luwak . Enabled to true
  set capucino . Enabled to true
  set deng1 . Enabled to true
  set gede1 . Enabled to true
  set deng2 . Enabled to true
  set gede2 . Enabled to true
  set deng3 . Enabled to true
  set gede3 . Enabled to true
  set memuatsaldo . Text to " "
  set IDPelanggan . Text to " "
```




```
when deng1 .Click
do
  set memuatsaldo .Text to memuatsaldo .Text - 5000
  call TinyWebDB1 .StoreValue
    tag IDPelanggan .Text
    valueToStore memuatsaldo .Text
  call BluetoothClient1 .SendText
    text "s1"
  set tablekopi1 .Visible to false
  set Tablesaldo .Visible to false
  set tablekeluarbalik .Visible to false
  set Tableutama .Visible to true
  set Hitam .Enabled to true
  set luwak .Enabled to true
  set capucino .Enabled to true
  set deng1 .Enabled to true
  set gede1 .Enabled to true
  set deng2 .Enabled to true
  set deng2 .Enabled to true
  set gede2 .Enabled to true
  set deng3 .Enabled to true
  set gede3 .Enabled to true
  set memuatsaldo .Text to ""
  set IDPelanggan .Text to ""
```

```
when gede1 .Click
do
  set memuatsaldo .Text to memuatsaldo .Text + 6000
  call TinyWebDB1 .StoreValue
    tag IDPelanggan .Text
    valueToStore memuatsaldo .Text
  call BluetoothClient1 .SendText
    text "b1"
  set tablekopi1 .Visible to false
  set Tablesaldo .Visible to false
  set tablekeluarbalik .Visible to false
  set Tableutama .Visible to true
  set Hitam .Enabled to true
  set luwak .Enabled to true
  set capucino .Enabled to true
  set deng1 .Enabled to true
  set gede1 .Enabled to true
  set deng2 .Enabled to true
  set gede2 .Enabled to true
  set deng3 .Enabled to true
  set gede3 .Enabled to true
  set memuatsaldo .Text to ""
  set IDPelanggan .Text to ""
```

```
when cil2 . Click
do
  set memuatsaldo . Text to memuatsaldo . Text - 5000
  call TinyWebDB1 . StoreValue
    tag IDPelanggan . Text
    valueToStore memuatsaldo . Text
  call BluetoothClient1 . SendText
    text "k2"
  set tablekopi2 . Visible to false
  set Tablesaldo . Visible to false
  set tablekeluarbaik . Visible to false
  set Tableutama . Visible to true
  set Hitam . Enabled to true
  set luwak . Enabled to true
  set capucino . Enabled to true
  set deng1 . Enabled to true
  set gede1 . Enabled to true
  set deng2 . Enabled to true
  set gede2 . Enabled to true
  set deng3 . Enabled to true
  set gede3 . Enabled to true
  set memuatsaldo . Text to ""
  set IDPelanggan . Text to ""
```

```
when deng2 . Click
do
  set memuatsaldo . Text to memuatsaldo . Text + 6000
  call TinyWebDB1 . StoreValue
    tag IDPelanggan . Text
    valueToStore memuatsaldo . Text
  call BluetoothClient1 . SendText
    text "s2"
  set tablekopi2 . Visible to false
  set Tablesaldo . Visible to false
  set tablekeluarbaik . Visible to false
  set Tableutama . Visible to true
  set Hitam . Enabled to true
  set luwak . Enabled to true
  set capucino . Enabled to true
  set deng1 . Enabled to true
  set gede1 . Enabled to true
  set deng2 . Enabled to true
  set gede2 . Enabled to true
  set deng3 . Enabled to true
  set gede3 . Enabled to true
  set memuatsaldo . Text to ""
  set IDPelanggan . Text to ""
```

```
when gede2 . Click
do
  set memuatsaldo . Text to memuatsaldo . Text - 7000
  call TinyWebDB1 . StoreValue
  tag IDPelanggan . Text
  valueToStore memuatsaldo . Text
  call BluetoothClient1 . SendText
  text " b2 "
  set tablekopi2 . Visible to false
  set Tablesaldo . Visible to false
  set tablekeluarbaik . Visible to false
  set Tableutama . Visible to true
  set Hitam . Enabled to true
  set luwak . Enabled to true
  set capucino . Enabled to true
  set deng1 . Enabled to true
  set gede1 . Enabled to true
  set deng2 . Enabled to true
  set gede2 . Enabled to true
  set deng3 . Enabled to true
  set gede3 . Enabled to true
  set memuatsaldo . Text to " "
  set IDPelanggan . Text to " "
```

```
when cil3 . Click
do
  set memuatsaldo . Text to memuatsaldo . Text - 7000
  call TinyWebDB1 . StoreValue
  tag IDPelanggan . Text
  valueToStore memuatsaldo . Text
  call BluetoothClient1 . SendText
  text " k3 "
  set tablekopi3 . Visible to false
  set Tablesaldo . Visible to false
  set tablekeluarbaik . Visible to false
  set Tableutama . Visible to true
  set Hitam . Enabled to true
  set luwak . Enabled to true
  set capucino . Enabled to true
  set deng1 . Enabled to true
  set gede1 . Enabled to true
  set deng2 . Enabled to true
  set gede2 . Enabled to true
  set deng3 . Enabled to true
  set gede3 . Enabled to true
  set memuatsaldo . Text to " "
  set IDPelanggan . Text to " "
```

```
when deng3 . Click
do
  set memuatsaldo . Text to memuatsaldo . Text - 8000
  call TinyWebDB1 . StoreValue
    tag IDPelanggan . Text
    valueToStore memuatsaldo . Text
  call BluetoothClient1 . SendText
    text "s3"
  set tablekopi3 . Visible to false
  set Tablesaldo . Visible to false
  set tablekeluarbaik . Visible to false
  set Tableutama . Visible to true
  set Hitam . Enabled to true
  set luwak . Enabled to true
  set capucino . Enabled to true
  set deng1 . Enabled to true
  set gede1 . Enabled to true
  set deng2 . Enabled to true
  set gede2 . Enabled to true
  set deng3 . Enabled to true
  set gede3 . Enabled to true
  set memuatsaldo . Text to "0"
  set IDPelanggan . Text to "0"
```

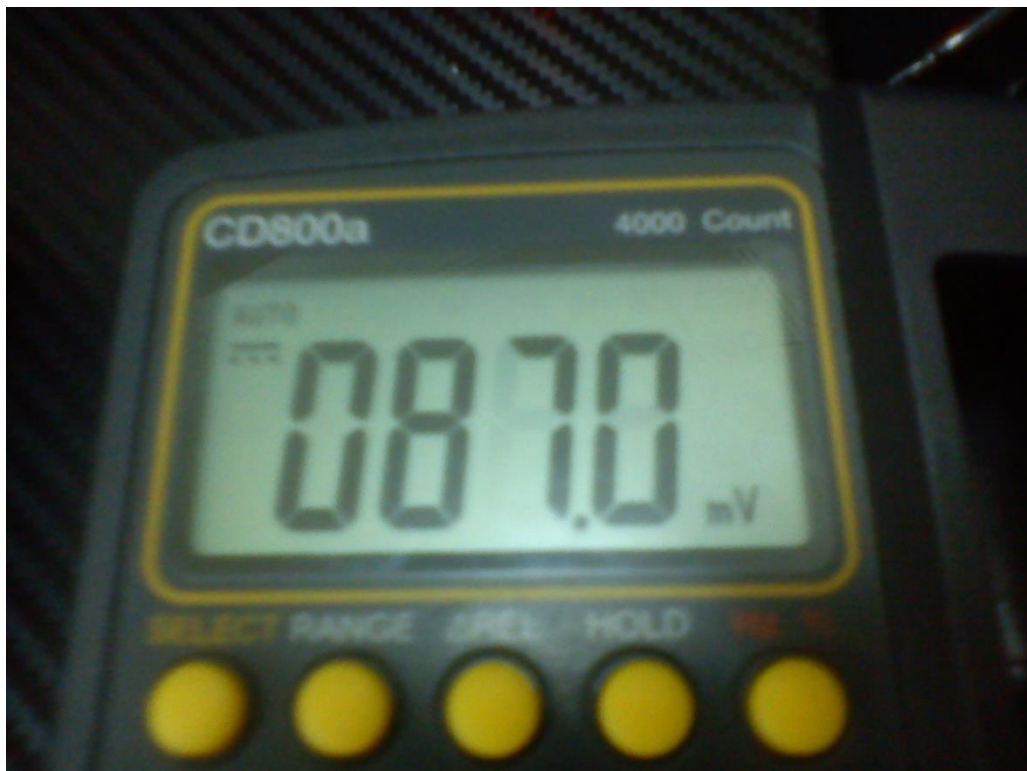
```
when gede3 . Click
do
  set memuatsaldo . Text to memuatsaldo . Text + 10000
  call TinyWebDB1 . StoreValue
    tag IDPelanggan . Text
    valueToStore memuatsaldo . Text
  call BluetoothClient1 . SendText
    text "b3"
  set tablekopi3 . Visible to false
  set Tablesaldo . Visible to false
  set tablekeluarbaik . Visible to false
  set Tableutama . Visible to true
  set Hitam . Enabled to true
  set luwak . Enabled to true
  set capucino . Enabled to true
  set deng1 . Enabled to true
  set gede1 . Enabled to true
  set deng2 . Enabled to true
  set gede2 . Enabled to true
  set deng3 . Enabled to true
  set gede3 . Enabled to true
  set memuatsaldo . Text to "0"
  set IDPelanggan . Text to "0"
```

Lampiran 3 Foto Pengukuran

1. Pengukuran Tegangan *Output* Catu Daya



2. Pengukuran Tegangan *Output Photo Diode*



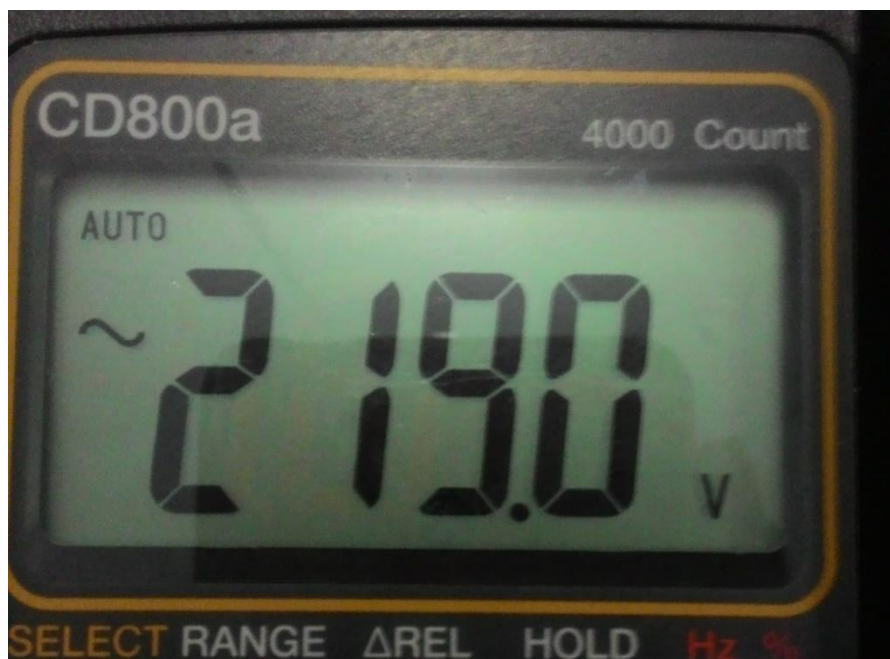




3. Pengukuran Tegangan *Output* Kran Elektrik



4. Pengukuran Tegangan *Output* Relay Pemanas





5. Pengukuran Tegangan *Output* Pin Arduino



Riwayat Hidup



Muhammad Ashif, lahir di Jakarta, 19 Desember 1992. Penulis bertempat tinggal di Jl. Guji Baru, kecamatan Kebon Jeruk, kelurahan Duri Kepa, Jakarta Barat. Mahasiswa yang hobi browsing, bermain futsal dan membaca ini, pernah menempuh pendidikan dasar di SD Islam Al-Isra Jakarta. Setelah itu, penulis melanjutkan pendidikan menengah di SMPN 89 Jakarta dan SMAN 85 Jakarta. Setelah menyelesaikan pendidikan SMA, penulis melanjutkan pendidikan ke jenjang lebih tinggi di Universitas Negeri Jakarta Jurusan Teknik Elektro Program Studi Pendidikan Teknik Elektronika. Penulis dapat dihubungi melalui alamat e-mail di ashif.192@gmail.com.