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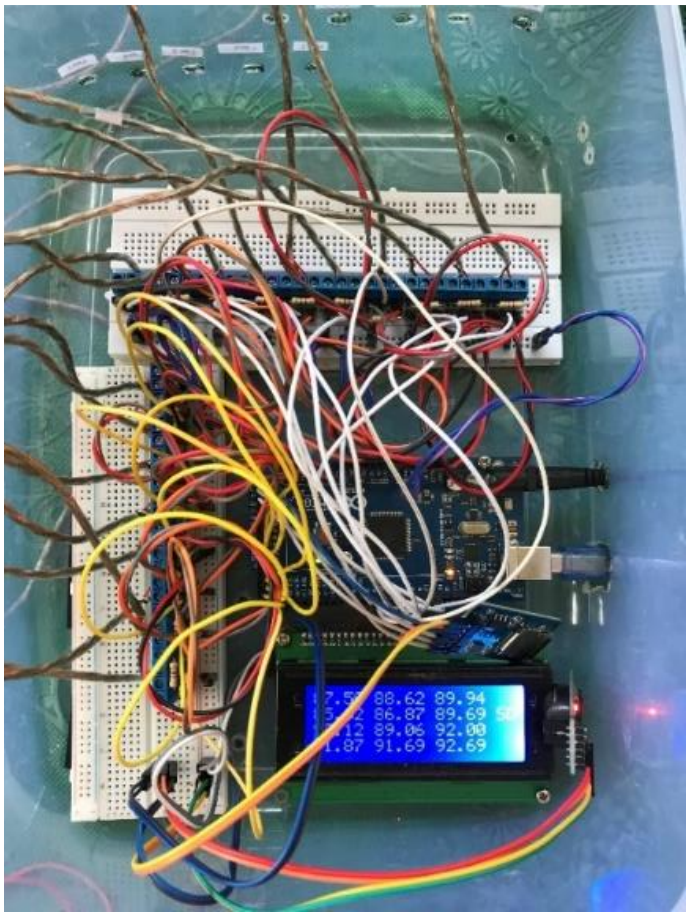
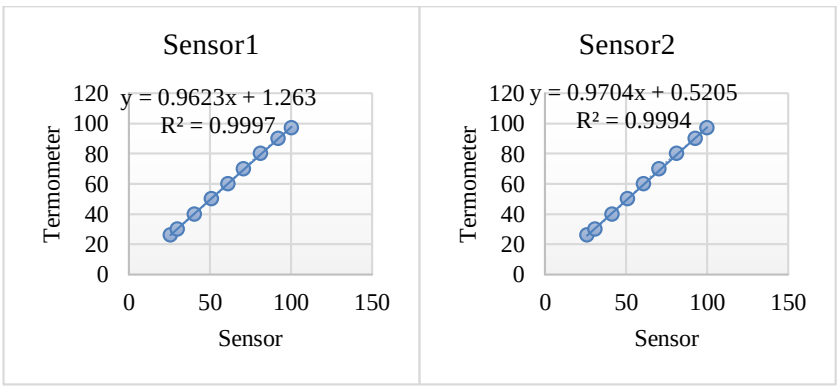
LAMPIRAN

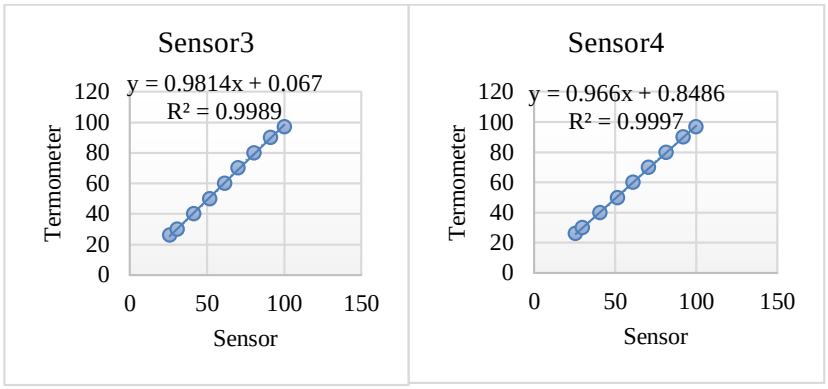
Lampiran 1. Hasil Rancangan Alat Ukur

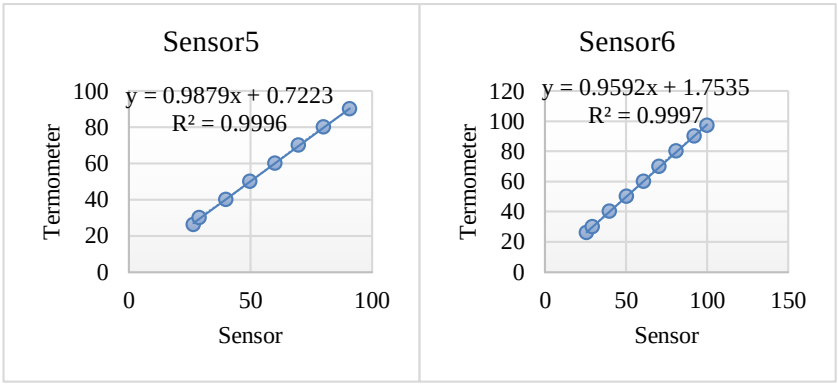


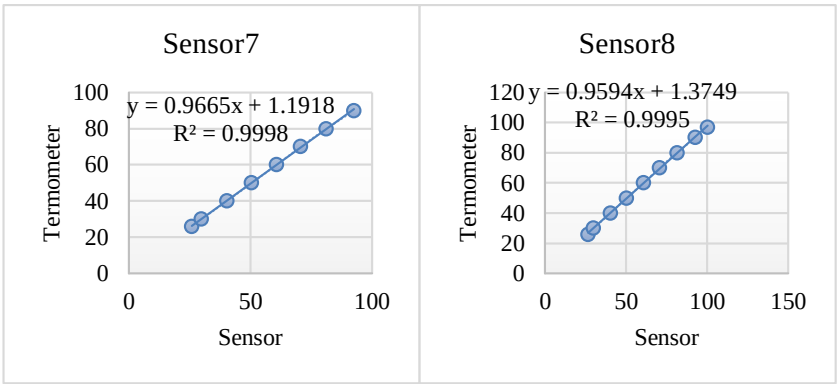
Gambar 21. Hasil Rancangan Alat Ukur.

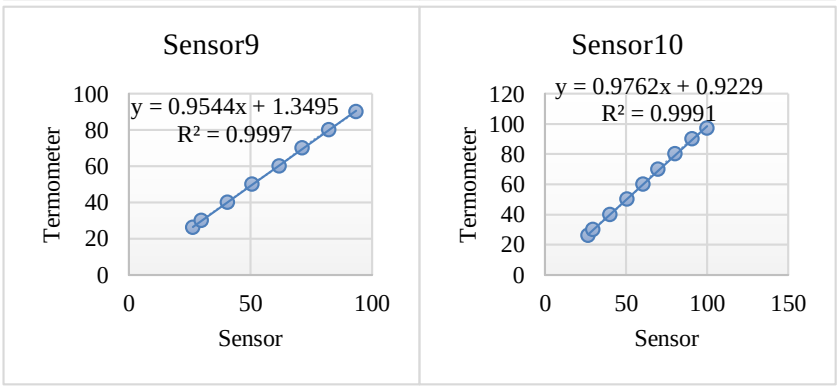
Lampiran 2. Grafik Uji Akurasi Sensor

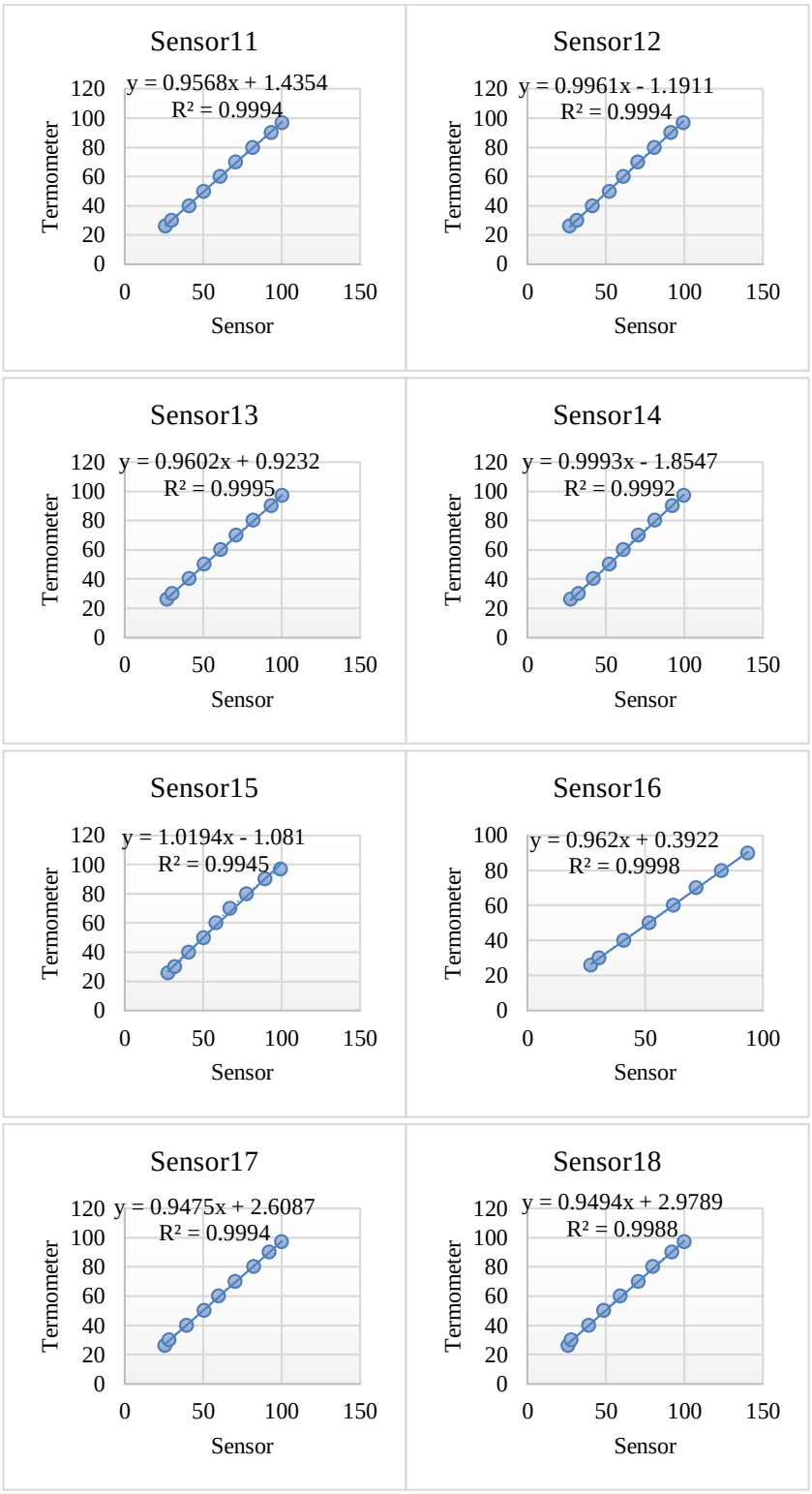



Sensor3
y = 0.9814x + 0.067
R² = 0.9989
Termometer
Sensor
Sensor4
y = 0.966x + 0.8486
R² = 0.9997
Termometer
Sensor


Sensor5
y = 0.9879x + 0.7223
R² = 0.9996
Termometer
Sensor
Sensor6
y = 0.9592x + 1.7535
R² = 0.9997
Termometer
Sensor


Sensor7
y = 0.9665x + 1.1918
R² = 0.9998
Termometer
Sensor
Sensor8
y = 0.9594x + 1.3749
R² = 0.9995
Termometer
Sensor


Sensor9
y = 0.9544x + 1.3495
R² = 0.9997
Termometer
Sensor
Sensor10
y = 0.9762x + 0.9229
R² = 0.9991
Termometer
Sensor



Gambar 22 (a-r). Hasil Uji Akurasi Sensor.

Lampiran 3. Spesifikasi Alat Sterilisasi dan *Baglog*

Spesifikasi Alat Sterilisasi

Bahan	Besi Seng
Ketebalan	1 mm
Diameter	60 cm
Tinggi	90 cm
Volume	200 liter
Kapasitas	75 *baglog*
Sumber Panas	Kompor Mawar ZPL 100
Media Transfer Panas	Air
Bahan Bakar	Gas Elpiji
Tinggi Dudukan *Baglog*	22 cm
Diameter Dudukan *Baglog*	59,5 cm
Bahan Dudukan *Baglog*	Besi
Tinggi Air	10 cm
Volume Air	28,26 liter
Tinggi Tungku	25 cm
Lebar Tungku	65 cm
Panjang Tungku	70 cm
Bahan Tungku	Besi

Gambar 23. *Baglog*

Spesifikasi *Baglog*

Bahan	Serbuk gergaji, dedak dan kapur
Tinggi	20 cm
Diameter	11 cm
Volume	1899,7 cm^3 atau 1,9 liter
Massa	1,1 kg

Gambar 24. Ilustrasi *Steamer* Drum dan *Baglog.*

Lampiran 4. Bahasa Pemrograman Alat Ukur

```
//----------------------------Library LCD----------------------//

#include <Wire.h>
#include <LiquidCrystal_I2C.h>
LiquidCrystal_I2C lcd(0x27,20,4);

//----------------------------Library RTC ----------------------//
//#include <DS3231.h> //mengincludekan library DS3231
//DS3231  rtc(SDA, SCL); // inisialisasi penggunaan i2c
//#include "RTClib.h"
//RTC_DS3231 rtc;
//char daysOfTheWeek[7][4] = {"Min", "Sen", "Sel", "Rab", "Kam",
"Jum", "Sab"};

//int Day;
//int Month;
//int Year;
//int Secs;
//int Minutes;
//int Hours;

//String dofweek; // hari
```

```
//String myDate;
//String myTime;

#include "RTClib.h"
RTC_DS3231 rtc;
char  dataHari[7][12]  =  {"Minggu",  "Senin",  "Selasa",  "Rabu",
"Kamis", "Jumat",
"Sabtu"};
String hari;
int tanggal, bulan, tahun, jam, menit, detik;

//
#include <SPI.h>
#include <SD.h>
const int CS = 53;
File dataku;
int count = 1;//

//mosi51, miso50, sck52, cs53


//-----------------------Library DS18B20-------------------------//
#include <OneWire.h>
#include <DallasTemperature.h>

#define ONE_WIRE_BUS_1 2
#define ONE_WIRE_BUS_2 3
#define ONE_WIRE_BUS_3 4
#define ONE_WIRE_BUS_4 5
#define ONE_WIRE_BUS_5 6
#define ONE_WIRE_BUS_6 7
#define ONE_WIRE_BUS_7 8
#define ONE_WIRE_BUS_8 9
#define ONE_WIRE_BUS_9 10
#define ONE_WIRE_BUS_10 11
#define ONE_WIRE_BUS_11 22
#define ONE_WIRE_BUS_12 24
#define ONE_WIRE_BUS_13 26
#define ONE_WIRE_BUS_14 28
#define ONE_WIRE_BUS_15 30
#define ONE_WIRE_BUS_16 32
#define ONE_WIRE_BUS_17 34
#define ONE_WIRE_BUS_18 36

OneWire oneWire_in(ONE_WIRE_BUS_1);
OneWire oneWire_out(ONE_WIRE_BUS_2);
OneWire oneWire_in1(ONE_WIRE_BUS_3);
OneWire oneWire_in2(ONE_WIRE_BUS_4);
OneWire oneWire_in3(ONE_WIRE_BUS_5);
OneWire oneWire_in4(ONE_WIRE_BUS_6);
OneWire oneWire_in5(ONE_WIRE_BUS_7);
OneWire oneWire_in6(ONE_WIRE_BUS_8);
OneWire oneWire_in7(ONE_WIRE_BUS_9);
OneWire oneWire_in8(ONE_WIRE_BUS_10);
OneWire oneWire_in9(ONE_WIRE_BUS_11);
OneWire oneWire_in10(ONE_WIRE_BUS_12);
OneWire oneWire_in11(ONE_WIRE_BUS_13);
OneWire oneWire_in12(ONE_WIRE_BUS_14);
```

```
OneWire oneWire_in13(ONE_WIRE_BUS_15);
OneWire oneWire_in14(ONE_WIRE_BUS_16);
OneWire oneWire_in15(ONE_WIRE_BUS_17);
OneWire oneWire_in16(ONE_WIRE_BUS_18);


DallasTemperature sensor_inhouse(&oneWire_in);
DallasTemperature sensor_outhouse(&oneWire_out);
DallasTemperature sensor_in1house(&oneWire_in1);
DallasTemperature sensor_in2house(&oneWire_in2);
DallasTemperature sensor_in3house(&oneWire_in3);
DallasTemperature sensor_in4house(&oneWire_in4);
DallasTemperature sensor_in5house(&oneWire_in5);
DallasTemperature sensor_in6house(&oneWire_in6);
DallasTemperature sensor_in7house(&oneWire_in7);
DallasTemperature sensor_in8house(&oneWire_in8);
DallasTemperature sensor_in9house(&oneWire_in9);
DallasTemperature sensor_in10house(&oneWire_in10);
DallasTemperature sensor_in11house(&oneWire_in11);
DallasTemperature sensor_in12house(&oneWire_in12);
DallasTemperature sensor_in13house(&oneWire_in13);
DallasTemperature sensor_in14house(&oneWire_in14);
DallasTemperature sensor_in15house(&oneWire_in15);
DallasTemperature sensor_in16house(&oneWire_in16);



//----------------------deklarasi  semua  variable  suhu  DS18B20
dengan jenis data float ------------------------------------// //


void setup() {
  Serial.begin(9600);
  lcd.init();                       // initialize the lcd
  lcd.backlight();

   if (! rtc.begin()) {
 //Serial.println("RTC Tidak Ditemukan");
 //Serial.flush();
 //abort();
 }
 //Atur Waktu
 rtc.adjust(DateTime(F(__DATE__), F(__TIME__)));
 //rtc.adjust(DateTime(2023, 1, 11, 20, 50, 0));

//-----------------------------------sebelum  mengukur,  mengatur
resolusinya ------------------------------------//

 //sensor.setResolution(0,  9);   //  angka  pertama  nomor  indeks
sensor, angka kedua bit resolusi sensor
 //sensor.setResolution(0, 10);
 //sensor.setResolution(0, 11);
  //sensor.setResolution(0, 12);

    sensor_inhouse.begin();
    sensor_outhouse.begin();
    sensor_in1house.begin();
    sensor_in2house.begin();
```

```
    sensor_in3house.begin();
    sensor_in4house.begin();
    sensor_in5house.begin();
    sensor_in6house.begin();
    sensor_in7house.begin();
    sensor_in8house.begin();
    sensor_in9house.begin();
    sensor_in10house.begin();
    sensor_in11house.begin();
    sensor_in12house.begin();
    sensor_in13house.begin();
    sensor_in14house.begin();
    sensor_in15house.begin();
    sensor_in16house.begin();

// rtc.adjust(DateTime(F(_DATE_),F(_TIME_)));
  //setting pertama download program
 // rtc.setDate(24, 6, 2022);   //mensetting tanggal 07 april 2018
 // rtc.setTime(9, 00, 00);     //menset jam 22:00:00
  //rtc.setDOW(6);     //menset hari "selasa"

//Pesan status SD card
//  Serial.print("Membaca SD Card  ");
// lcd.setCursor(0,0);
//  lcd.print("IMAM AFRIZAL ");
//  lcd.setCursor(0,1);
//  lcd.print("DATA LOGER  ");
//   lcd.setCursor(0,2);
//  lcd.print("TEKPER UNHAS");
//  lcd.setCursor(0,3);
//  lcd.print("MEMBACA SD CARD"  );
  if (!SD.begin(CS)){
    Serial.println("GAGAL/ SD RUSAK"  );
 //   lcd.setCursor(0,3);
 //   lcd.print("GAGAL/SD Rusak  ");
    while(1);
  }
  Serial.println("Berhasil");
  //lcd.setCursor(0,3);
  //lcd.print("BERHASIL  ");
    //lcd.clear();
 }
void loop(){

 DateTime now = rtc.now();
 hari = dataHari[now.dayOfTheWeek()];
 tanggal = now.day(), DEC;
 bulan = now.month(), DEC;
 tahun = now.year(), DEC;
 jam = now.hour(), DEC;
 menit = now.minute(), DEC;
 detik = now.second(), DEC;

 // DateTime now = rtc.now();
 // Day = now.day(),DEC;
 // Month = now.month(),DEC;
 // Year = now.year(),DEC;
 // Hours = now.hour(),DEC;
 // Minutes = now.minute(),DEC;
```

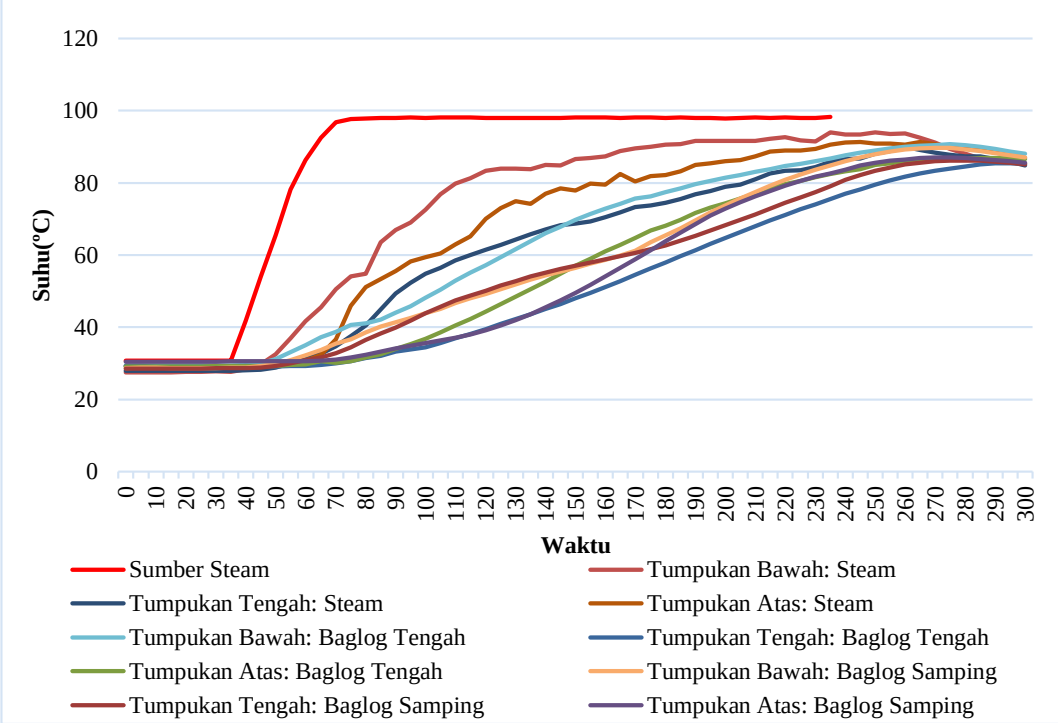
```
 // Secs = now.second(),DEC;

 // dofweek = daysOfTheWeek[now.dayOfTheWeek()];
//{rtc.setDOW(WEDNESDAY);

 //t = rtc.getTime();

  //Hor = t.hour;

  //Min = t.min;

  //Sec = t.sec;
 // Serial.print(rtc.getDOWStr()); //prosedur pembacaan hari
  //Serial.print(" ");

  //Serial.print(rtc.getDateStr()); //prosedur pembacaan tanggal
  //Serial.print(" -- ");

  //Serial.println(rtc.getTimeStr());
    delay (1000);



//------------------------------Membaca data suhu dari sensor #0 dan
mengkonversikannya ke nilai Celsius ----------------------------//

    sensor_inhouse.requestTemperatures();
    sensor_outhouse.requestTemperatures();
    sensor_in1house.requestTemperatures();
    sensor_in2house.requestTemperatures();
    sensor_in3house.requestTemperatures();
    sensor_in4house.requestTemperatures();
    sensor_in5house.requestTemperatures();
    sensor_in6house.requestTemperatures();
    sensor_in7house.requestTemperatures();
    sensor_in8house.requestTemperatures();
    sensor_in9house.requestTemperatures();
    sensor_in10house.requestTemperatures();
    sensor_in11house.requestTemperatures();
    sensor_in12house.requestTemperatures();
    sensor_in13house.requestTemperatures();
    sensor_in14house.requestTemperatures();
    sensor_in15house.requestTemperatures();
    sensor_in16house.requestTemperatures();


    Serial.print("Inhouse: ");
    Serial.println(sensor_inhouse.getTempCByIndex(0));

    Serial.print("Outhouse: ");
    Serial.println(sensor_outhouse.getTempCByIndex(0));

    Serial.print("Inhouse1: ");
    Serial.println(sensor_in1house.getTempCByIndex(0));

    Serial.print("Inhouse2: ");
    Serial.println(sensor_in2house.getTempCByIndex(0));

    Serial.print("Inhouse3: ");
```

```
  Serial.println(sensor_in3house.getTempCByIndex(0));

  Serial.print("Inhouse4: ");
  Serial.println(sensor_in4house.getTempCByIndex(0));

  Serial.print("Inhouse5: ");
  Serial.println(sensor_in5house.getTempCByIndex(0));

  Serial.print("Inhouse6: ");
  Serial.println(sensor_in6house.getTempCByIndex(0));

  Serial.print("Inhouse7: ");
  Serial.println(sensor_in7house.getTempCByIndex(0));

  Serial.print("Inhouse8: ");
  Serial.println(sensor_in8house.getTempCByIndex(0));

  Serial.print("Inhouse9: ");
  Serial.println(sensor_in9house.getTempCByIndex(0));

  Serial.print("Inhouse10: ");
  Serial.println(sensor_in10house.getTempCByIndex(0));

  Serial.print("Inhouse11: ");
  Serial.println(sensor_in11house.getTempCByIndex(0));

  Serial.print("Inhouse12: ");
  Serial.println(sensor_in12house.getTempCByIndex(0));

  Serial.print("Inhouse13: ");
  Serial.println(sensor_in13house.getTempCByIndex(0));

  Serial.print("Inhouse14: ");
  Serial.println(sensor_in14house.getTempCByIndex(0));

  Serial.print("Inhouse15: ");
  Serial.println(sensor_in15house.getTempCByIndex(0));

  Serial.print("Inhouse16: ");
  Serial.println(sensor_in16house.getTempCByIndex(0));


lcd.setCursor(0, 0);
lcd.print(sensor_inhouse.getTempCByIndex(0));

lcd.setCursor(6, 0);
lcd.print(sensor_outhouse.getTempCByIndex(0));

lcd.setCursor(12, 0);
lcd.print(sensor_in1house.getTempCByIndex(0));

lcd.setCursor(0, 1);
lcd.print(sensor_in3house.getTempCByIndex(0));



lcd.setCursor(6, 1);
lcd.print(sensor_in4house.getTempCByIndex(0));
```

```
  lcd.setCursor(12, 1);
  lcd.print(sensor_in5house.getTempCByIndex(0));

  lcd.setCursor(0, 2);
  lcd.print(sensor_in6house.getTempCByIndex(0));

  lcd.setCursor(6, 2);
  lcd.print(sensor_in7house.getTempCByIndex(0));

  lcd.setCursor(12, 2);
  lcd.print(sensor_in8house.getTempCByIndex(0));

  lcd.setCursor(0, 3);
  lcd.print(sensor_in9house.getTempCByIndex(0));

  lcd.setCursor(6, 3);
  lcd.print(sensor_in10house.getTempCByIndex(0));

  lcd.setCursor(12, 3);
  lcd.print(sensor_in11house.getTempCByIndex(0));

delay(100);

//lcd.setCursor(0,3);
//lcd.print(rtc.getDateStr()); //prosedur pembacaan tanggal
//lcd.print("-");
//lcd.print(rtc.getTimeStr());


  //------------------------Untuk Dataloger---------------------//
  dataku=SD.open("SENSOR", FILE_WRITE);
  if(dataku)
  {
    dataku.print(now.hour(),DEC);
    dataku.print("/");
    dataku.print(now.minute(),DEC);
    dataku.print("/");
    dataku.print(now.second(),DEC);
    dataku.print("/");
    dataku.print(sensor_inhouse.getTempCByIndex(0));
    dataku.print(",");
    dataku.print(sensor_outhouse.getTempCByIndex(0));
    dataku.print(",");
    dataku.print(sensor_in1house.getTempCByIndex(0));
    dataku.print(",");
    dataku.print(sensor_in2house.getTempCByIndex(0));
    dataku.print(",");
    dataku.print(sensor_in3house.getTempCByIndex(0));
    dataku.print(",");
    dataku.print(sensor_in4house.getTempCByIndex(0));
    dataku.print(",");
    dataku.print(sensor_in5house.getTempCByIndex(0));
    dataku.print(",");
    dataku.print(sensor_in6house.getTempCByIndex(0));
    dataku.print(",");
    dataku.print(sensor_in7house.getTempCByIndex(0));
    dataku.print(",");
    dataku.print(sensor_in8house.getTempCByIndex(0));
    dataku.print(" ");
```

```
dataku.print(sensor_in9house.getTempCByIndex(0));
dataku.print(",");
dataku.print(sensor_in10house.getTempCByIndex(0));
dataku.print(",");
dataku.print(sensor_in11house.getTempCByIndex(0));
dataku.print(",");
dataku.print(sensor_in12house.getTempCByIndex(0));
dataku.print(",");
dataku.print(sensor_in13house.getTempCByIndex(0));
dataku.print(",");
dataku.print(sensor_in14house.getTempCByIndex(0));
dataku.print(",");
dataku.print(sensor_in15house.getTempCByIndex(0));
dataku.print(",");
dataku.print(sensor_in16house.getTempCByIndex(0));
dataku.print(",");
dataku.println();
dataku.close();
Serial.println("tersimpan");
lcd.setCursor(18,1);
lcd.print("SD");
if(count>1000000) count=0;
  }
  else{
    Serial.println("gagal tersimpan");
    lcd.setCursor(18,1);
    lcd.print("NS");
  }
  count=count+1;
  delay(300000);
  }
```

Lampiran 5. Grafik Suhu Keseluruhan Hasil Sterilisasi



Gambar 25. Suhu Sterilisasi Keseluruhan.

Lampiran 6. Data Hasil Sterilisasi

No	Waktu (Menit)	Sumber *Steam* (ºC)	Tumpukan bawah (ºC)						Tumpukan tengah (ºC)					Tumpukan atas (ºC)				
			Steam (ºC)	*Baglog* Tengah		*Baglog* Samping		Luar	*Baglog* Tengah		*Baglog* Samping		Luar	*Baglog* Tengah		*Baglog* Samping	
				Dalam	Atas	Dalam	Atas		Dalam	Atas	Dalam	Atas		Dalam	Atas	Dalam	Atas
1	0	29,69	29,31	30,5	29,19	29	29,37	28,31	28,37	29,19	28,25	28,81	28,94	28,06	29,44	30	30,75
2	5	29,69	29,37	30,5	29,19	29	29,69	28,31	28,37	29,19	28,25	28,87	28,87	28,12	29,37	30	30,69
3	10	29,69	29,37	30,44	29,12	29,06	29,56	28,37	28,37	29,12	28,31	28,87	28,87	28,19	29,31	30,12	30,69
4	15	29,69	29,31	30,44	29,12	29,06	29,5	28,37	28,37	29,12	28,37	28,87	28,87	28,25	29,25	30,06	30,75
5	20	29,62	29,5	30,44	29,19	29	29,5	28,37	28,37	29,12	28,37	28,87	28,81	28,25	29,25	30,12	30,69
6	25	29,69	29,44	30,37	29,12	29,06	29,5	28,37	28,37	29,12	28,37	28,87	28,87	28,25	29,25	30,12	30,69
7	30	29,69	29,62	30,37	29,12	29	29,56	28,44	28,37	29,12	28,5	28,87	28,87	28,31	29,25	30,19	30,69
8	35	29,69	29,5	30,37	29,19	29,06	29,56	28,44	28,37	29,12	28,5	28,94	28,94	28,37	29,19	30,25	30,69
9	40	41,44	30,19	30,31	29,5	29,06	29,75	28,5	28,44	29,12	28,58	29	29,06	28,44	29,19	30,25	30,69
10	45	54,13	31,56	30,31	30,56	29,12	30,37	28,69	28,44	29,06	28,56	29,31	29,19	28,5	29,19	30,25	30,69
11	50	66,31	34,31	30,25	32,88	29,06	31,69	29,31	28,44	29,06	28,62	30	29,31	28,5	29,31	30,31	30,62
12	55	79,81	38,75	30,31	36,5	29,12	33,69	30,44	28,44	29,12	28,69	31,37	29,62	28,56	29,69	30,37	30,62
13	60	88,31	43,5	30,31	40,44	29,19	36,44	31,81	28,37	29,37	28,75	33,19	30,5	28,56	30,19	30,44	30,69
14	65	94,81	47,44	30,37	44,56	29,31	39,31	33,25	28,44	29,75	28,94	34,56	32,25	28,62	31,75	30,69	30,81
15	70	99,37	52,44	30,56	47,25	29,56	42,5	35,38	28,44	30,62	29,25	36,75	36,56	28,62	30,94	31,06	31
16	75	100,37	55,94	30,87	50,75	30,06	44,44	38,19	28,44	31,94	29,81	39,5	46,19	28,69	31,81	31,69	31,44
17	80	100,56	56,69	31,5	51,06	30,87	47,44	41,13	28,5	33,88	30,62	43	51,44	28,69	33,75	32,69	32,06
18	85	100,69	65,44	32,44	52,31	32,13	49,44	45,69	28,5	34,94	31,87	45,44	53,69	28,81	35,75	33,81	32,81
19	90	100,69	68,87	33,94	54,69	33,88	50,19	50,19	28,62	37,38	33,56	47,06	55,94	29,06	38,31	34,81	33,63
20	95	100,81	70,87	36	56,13	36,13	50,5	53,19	28,75	38,38	35,63	49,06	58,63	29,5	40,81	35,69	34,38
21	100	100,69	74,44	38,69	58,25	38,75	50,63	55,75	28,94	39,5	38,06	50,88	59,88	30,31	43,13	36,5	35,06

Lanjutan Lampiran 6. Data Hasil Sterilisasi

No	Waktu (Menit)	Sumber *Steam* (ºC)	*Steam* (ºC)	Tumpukan bawah (ºC)					Tumpukan tengah (ºC)					Tumpukan atas (ºC)				
				Baglog Tengah		*Baglog* Samping		Luar	*Baglog* Tengah		*Baglog* Samping		Luar	*Baglog* Tengah		*Baglog* Samping		
				Dalam	Atas	Dalam	Atas		Dalam	Atas	Dalam	Atas		Dalam	Atas	Dalam	Atas	
22	105	100,81	78,69	41,81	59,5	41,31	50,69	57,44	29,25	41,5	40,5	52,13	60,94	31,5	45,38	37,25	35,75	
23	110	100,87	81,75	45,19	61,25	43,88	51,25	59,56	29,75	43,94	42,88	53,31	63,5	33,06	47,81	38,19	36,56	
24	115	100,75	83,25	48,75	62,38	46,25	51,63	61,13	30,37	45,75	45,13	53,94	65,81	34,88	49,81	39,13	37,5	
25	120	100,62	85,19	52,31	62,94	48,44	52	62,5	31,19	47,81	47,13	54,63	70,81	37,06	52	40,25	38,69	
26	125	100,69	85,87	55,81	64,06	50,5	52,63	63,88	32,19	49,75	49	55,75	73,87	39,38	53,94	41,56	40,13	
27	130	100,69	85,87	59,19	65,25	52,25	53,69	65,5	33,25	51,44	50,63	56,81	75,87	41,81	55,81	43,13	41,63	
28	135	100,69	85,75	62,31	66,81	53,81	54,81	66,87	34,5	53,06	52	58	75,12	44,31	57,69	44,81	43,44	
29	140	100,69	86,87	65,31	68,25	55,25	55,81	68,25	35,88	54,81	53,31	59	78	46,81	59,5	46,75	45,38	
30	145	100,69	86,69	67,87	69,44	56,5	56,88	69,44	37,38	56,19	54,56	59,75	79,37	49,31	61,5	48,75	47,44	
31	150	100,87	88,5	70,25	70,87	57,63	57,75	70	39	57,81	55,69	60,5	78,87	51,69	63,75	50,94	49,56	
32	155	100,75	88,87	72,44	71,94	58,81	58,94	70,5	40,69	59,31	56,81	61,25	80,87	53,94	65,56	53,44	51,75	
33	160	100,75	89,25	74,44	73	59,88	59,94	71,81	42,56	60,75	57,88	61,94	80,44	56,13	67,5	56,13	54	
34	165	100,69	90,75	76,19	74,06	60,88	61,38	73,12	44,44	62,31	58,94	62,69	83,56	58,25	69,06	58,75	56,31	
35	170	100,87	91,44	77,87	75,12	61,94	63,19	74,69	46,44	64,06	60	63,63	81,44	60,25	71	61,5	58,63	
36	175	100,81	91,87	79,37	75,12	63,06	66,62	75,06	48,38	65,75	61,13	64,56	82,94	62,25	73,44	64,25	61,13	
37	180	100,69	92,44	80,75	75,94	64,37	69,31	75,87	50,44	67,19	62,31	65,56	83,25	64,25	74,12	66,94	63,5	
38	185	100,81	92,69	81,94	77,06	66	71,62	76,81	52,63	68,56	63,75	66,75	84,31	66,06	75,81	69,5	65,94	
39	190	100,62	93,62	83	78,12	67,94	74,12	78,25	54,81	69,94	65,37	67,94	86,06	67,87	78	72,06	68,31	
40	195	100,69	93,56	84	79	70,19	76,44	79,12	57,06	71,31	67	69,25	86,5	69,56	79,19	74,5	70,75	
41	200	100,5	93,5	84,94	79,87	72,56	78,12	80,31	59,38	72,5	68,75	70,62	87,19	71,12	80,31	76,56	72,94	
42	205	100,69	93,5	85,69	80,56	74,75	79,81	80,87	61,63	73,69	70,5	71,94	87,5	72,69	81,25	78,37	74,87	
43	210	100,75	93,5	86,37	81,69	76,81	81,31	82,5	63,81	74,87	72,19	73,31	88,56	74,12	82,81	79,94	76,62	

Lanjutan Lampiran 6. Data Hasil Sterilisasi

No	Waktu (Menit)	Sumber *Steam* (ºC)	Tumpukan bawah (ºC)					Tumpukan tengah (ºC)					Tumpukan atas (ºC)				
			Steam (ºC)	*Baglog* Tengah		*Baglog* Samping		Luar	*Baglog* Tengah		*Baglog* Samping		Luar	*Baglog* Tengah		*Baglog* Samping	
				Dalam	Atas	Dalam	Atas		Dalam	Atas	Dalam	Atas		Dalam	Atas	Dalam	Atas
44	215	100,69	94,12	87,06	82,69	78,81	83	84,12	65,94	76,12	73,75	75,12	89,87	75,44	84,62	81,37	78,31
45	220	100,75	94,62	87,87	83,5	80,87	84,37	84,81	68,06	77,25	75,5	76,75	90,25	76,75	85,56	82,75	79,94
46	225	100,69	93,75	88,44	84,25	82,75	85,56	84,94	70,19	78,31	77,25	78,19	90,25	78,06	86,25	84,06	81,44
47	230	100,62	93,44	88,94	85,06	84,44	86,62	85,94	72,19	79,31	78,94	79,5	90,62	79,31	87,06	85,12	82,75
48	235	100,94	95,87	89,31	86,19	85,87	87,56	87,44	74	80,44	80,37	81,56	91,81	80,44	87,69	86	83,87
49	240	-127	95,37	90	87,25	87,25	88,56	88,19	75,87	81,56	81,81	83,56	92,44	81,5	88,37	87	85,06
50	245	-127	95,37	90,75	88,06	88,56	89,44	88,37	77,62	82,5	83,19	85,06	92,62	82,62	88,44	88,06	86,25
51	250	-127	95,87	91,37	88,62	89,69	90,12	89,62	79,31	83,37	84,44	86,25	92,19	83,69	89,69	88,81	87,25
52	255	-127	95,5	91,87	89,25	90,5	90,81	90,37	80,94	84,31	85,44	87,19	92,19	84,62	89,87	89,25	87,87
53	260	-127	95,56	92,19	89,81	91,12	91,31	91,69	82,31	85,06	86,25	87,94	91,87	85,5	90,19	89,44	88,37
54	265	-127	94,5	92,5	90,06	91,62	91,56	90,81	83,56	85,69	86,87	88,37	92,56	86,25	89,69	89,81	88,81
55	270	-127	93,12	92,69	90,25	91,87	91,69	89,94	84,62	86,37	87,5	88,62	92	86,87	89,69	90,12	89,06
56	275	-127	91,37	92,69	90,75	91,87	91,5	89,31	85,56	86,69	87,81	88,62	91,25	87,37	89,56	90	89,12
57	280	-127	89,94	92,44	90,62	91,62	91,12	88,94	86,37	87,12	88	88,5	90,75	87,81	89,37	89,62	89,12
58	285	-127	88,69	92	90,19	91,19	90,62	88,94	87	87,5	88,06	88,31	90,31	88,12	89,25	89,31	89
59	290	-127	87,56	91,44	89,56	90,56	89,87	88,19	87,5	87,62	87,94	88	89,62	88,25	89,19	88,94	88,75
60	295	-127	87,69	90,75	88,75	89,94	89,19	87,37	87,81	87,5	87,69	87,56	89	88,31	88,94	88,5	88,5
61	300	-127	87,37	90,19	88	89,25	88,69	86,44	87,87	87	87,31	87	88,06	88,37	88,56	88,06	88,06

Lampiran 7. Dokumentasi Penelitian

Gambar 26. Proses Pembuatan Alat Ukur.

Gambar 27. Proses Pemasukan Program Pada Alat Ukur.

Gambar 28. Uji Akurasi Sensor.

Gambar 29. Pembuatan Media Tanam (*Baglog*).

Gambar 30. Persiapan Sterilisasi.

Gambar 31. Pemasangan Sensor Pada Alat Sterilisasi.

Gambar 32. Pemasangan Sensor Pada *Baglog*.

Gambar 33. *Baglog* Setelah Sterilisasi.