LAMPIRAN

A. Listing Program

```
#include <OneWire.h>
#include <DallasTemperature.h>
#include <Wire.h>
#include <LiquidCrystal_I2C.h>

LiquidCrystal_I2C lcd(0x27,16,2);

#define ONE_WIRE_BUS 3

OneWire oneWire (ONE_WIRE_BUS);

DallasTemperature sensorSuhu(&oneWire);


float suhuSekarang;
int led = 8;

unsigned long previousMillis = 0;
const long interval = 500;
int detik, waktu;
int menit;

const int PIN_2 = 2;
const int PIN_7 = 7;
const int PIN_9 = 9;
const int PIN_10 = 10;
const int PIN_11 = 11;
const int PIN_12 = 12;

int a = 0;
```

```
void setup(void) {

  Serial.begin(9600);
  sensorSuhu.begin();
  lcd.begin();
  lcd.backlight();
  lcd.setCursor(3,0);
  lcd.print("TUGAS AKHIR");
  delay(1500);
  lcd.clear();
  delay(200);
  lcd.setCursor(0,0);
  lcd.print("MUHAMMAD FUAD");
  lcd.setCursor(0,1);
  lcd.print("20163010070");
  delay(1000);
  lcd.clear();
  delay(200);
  lcd.setCursor(0,0);
  lcd.print("BANGKIT PERDANA");
  lcd.setCursor(0,1);
  lcd.print("20163010064");
  delay(1000);
  lcd.clear();
  delay(200);
  lcd.setCursor(3,0);
  lcd.print("AUTOMATIC");
  delay(1000);
  lcd.clear();
  delay(200);
```

```
 lcd.setCursor(3,0);
 lcd.print("PROCESSING");
 delay(1000);
 lcd.clear();
 delay(200);
 lcd.setCursor(6,0);
 lcd.print("FILM");
 delay(1000);
 lcd.clear();

 pinMode (led, OUTPUT);
 pinMode ( PIN_2, INPUT_PULLUP);
 pinMode ( PIN_9, OUTPUT);
 pinMode ( PIN_10, OUTPUT);
 pinMode ( PIN_11, OUTPUT);
 pinMode ( PIN_12, OUTPUT);
 }

void fungsi()
 {
   digitalWrite(PIN_10,LOW);
   int push2 =digitalRead(PIN_2);
   if (push2 == LOW )
   {
  digitalWrite(PIN_10, HIGH);
     a=1;
   }
 }

void loop(void)
{
```

```
int push2 =digitalRead(PIN_2);
digitalWrite(PIN_2,HIGH);

suhuSekarang = ambilSuhu();
lcd.setCursor(0,0);
lcd.print ("SUHU :");
lcd.setCursor(7,0);
lcd.print(suhuSekarang);
lcd.setCursor(1,1);
lcd.print(menit);
lcd.print("");
lcd.print(":");
lcd.setCursor(3,1);
lcd.print(detik);
lcd.print(" ");

if (suhuSekarang>=40)
{
digitalWrite(led, HIGH);
lcd.setCursor(7,1);
lcd.print ("READY");
attachInterrupt(digitalPinToInterrupt(2),fungsi,HIGH);
}
if(a==1)
{
 if (push2 == LOW )
{
 digitalWrite(PIN_9, HIGH);
 digitalWrite(PIN_11, HIGH);
 digitalWrite(PIN_12, HIGH);
}
```

```
 unsigned long currentMillis = millis();
 if (currentMillis - previousMillis >= interval)
{
   // save the last time you blinked the LED
   previousMillis = currentMillis;
   waktu++;
 }
 }
 else{

 }
 detik=waktu;
 if(waktu>59)
 {
   menit++;
   detik=0;
   waktu=0;
 }
 if(push2==LOW)
 {
   waktu=0;
   menit=0;
 }

 else if (menit==5)
 {
 detik=0;
 waktu=0;
 menit=0;
 a=0;
 digitalWrite(PIN_9, LOW);
```

```
  digitalWrite(PIN_11, LOW);
  digitalWrite(PIN_12, LOW);
  }
}
float ambilSuhu()
{
  sensorSuhu.requestTemperatures();
  float suhu = sensorSuhu.getTempCByIndex(0);
  return suhu;
}
```

B. Rangkaian Keseluruhan