LAMPIRAN

A. Pembuatan 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(digitalPinToInterr
upt(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 ;
}
```