LAMPIRAN A

Program Arduino

```
//ta pengering padi
#define RPWM   7      //driver motor, define artinya variabel tetap
#define LPWM   6
//--------------------------------------------------------------------------------
const int heater = 4;
const int blower = 3;
//--------------------------------------------------------------------------------
int saklar = 8;
int statesaklar = 0;
int saklaroff = HIGH;
int saklaron = LOW;
int set = 11;
int stateset = 0;
int down = 10;
int statedown = 0;
int up = 12;
int stateup = 0;
int stategeser;
int setsuhu = 70;
int setkelembaban = 14;
int setkecepatan = 180;
int counter = 0;//nilai awal

//--------------------------------------------------------------------------------
int buzzer = 13;
int buzzernyala = HIGH;
int buzzermati = LOW;
//--------------------------------------------------------------------------------
#include <DHT.h>
DHT dht(2, DHT22                  ); //Pin, Jenis DHT
float suhu;                  // tipe data angka desimal / pecahan "0.0"
int kelembaban;
//--------------------------------------------------------------------------------
//#include "HX711.h"
```

```
//#define DOUT  A1
//#define CLK  A0
//HX711 scale(DOUT, CLK);
//float calibration_factor = 1750;
//int GRAM = 0;
#include "HX711.h"
#include <EEPROM.h>

#define alamatKalibrasiM 0
#define alamatKalibrasiC 4

//pin
HX711 scale(A1, A0); // (DT, SCK)

byte modeKalibrasi = 0;
uint16_t beratKalibrasi1Tera;
uint16_t beratKalibrasi2Tera;
long beratKalibrasi1;
long beratKalibrasi2;

long lastMillis;
float berat;
//-------------------------------------------------------------------------------
#include <Wire.h>
#include <LiquidCrystal_I2C.h>
LiquidCrystal_I2C lcd(0x27, 16, 2);
//-------------------------------------------------------------------------------
int KadarAir;

void setup() {
  // put your setup code here, to run once:
  Serial.begin(9600);
  pinMode(saklar, INPUT);
  pinMode(set, INPUT_PULLUP);
  pinMode(down, INPUT_PULLUP);
  pinMode(up, INPUT_PULLUP);
  digitalWrite(set, HIGH);
  digitalWrite(down, HIGH);
  digitalWrite(up, HIGH);
```

```
  pinMode(buzzer, OUTPUT);
  pinMode(heater, OUTPUT);
  pinMode(blower, OUTPUT);
  digitalWrite(saklar, saklaroff);
  digitalWrite(heater, HIGH);
  digitalWrite(blower, HIGH);
  digitalWrite(buzzer, buzzermati);
  //---------------------------------------------------------------------------
  dht.begin();
  //---------------------------------------------------------------------------
  //  scale.set_scale();
  //  scale.tare();
  //  long zero_factor = scale.read_average();
  Serial.println("Kalibrasi Loadcell");
  Serial.println("http://www.semesin.com/project/");
  Serial.println();

  float m, c;
  EEPROM.get(alamatKalibrasiM, m); //memori arduino
  EEPROM.get(alamatKalibrasiC, c);
  scale.power_up();
  scale.set_scale(m);
  scale.set_offset(c);
  scale.power_down();

  lastMillis = millis();
  //---------------------------------------------------------------------------
  lcd.init();
  lcd.backlight();
  //---------------------------------------------------------------------------
  pinMode (RPWM, OUTPUT);
  pinMode (LPWM, OUTPUT);

}

void loop() {

  if (digitalRead(saklar) == saklaron) {
    kalibrasi(); //loadcell baca
```

```
  dht22();    //baca dht
  airtanah(); // baca sensor tanah
  kontrol(); // logic sistem

  //    scale.set_scale(calibration_factor);
  //    GRAM = scale.get_units(), 4;
  tampilan(); // lcd
  statesaklar = 1;// ngatur nilai di lcd ketika saklar off
 }
 else {
  //sistem idle atau kondisi normal tidak on
  kalibrasi();
  motormati();
  airtanah();
  lcd.clear();
  digitalWrite(heater, HIGH);          // digitalWrite(pin digital,
   kondisi"on/off" ATAU "HIGH/LOW");
  digitalWrite(blower, HIGH);
  digitalWrite(buzzer, buzzermati);
  setting();
  //    Serial.print("statesaklar=");
  //    Serial.println(statesaklar);
  //    Serial.print("stateset=");
  //    Serial.println(stateset);
  //    Serial.print("statedown=");
  //    Serial.println(statedown);
  //    Serial.print("stateup=");
  //    Serial.println(stateup);
  statesaklar = 0;
  //    counter=0;
 }
 //  Serial.println(GRAM);
 delay(500);
}
```

LAMPIRAN B

Dokumentasi Pengujian

a. Pengujian dibawah Sinar Matahari

No	Dokumentasi		
	Berat awal	**Suhu dan kelembaban**	**Berat akhir**
1			
2			
3			

b. Pengujian load cell dengan timbangan digital

Pembacaan Load Cell	Pembacaan Timbangan Digital
	 472 gram
	 487 gram
	 641 gram
	 819 gram

c. Pengujian suhu dan kelembaban tray dryer

RPM	Hasil Pengukuran Kelembaban (℃)		Hasil Pengukuran Kelembaban (%)	
	Alat ukur (%)	Sensor (%)	Alat Ukur (%)	Sensor (%)
100	53	55		
120	59	44		
140	59	52		
160	51	42		
180	63	55		
200	74	52		

d. Pengukuran Kadar Air menggunakan Alat Ukur

Pembacaan YL-69	Pembacaan Soil Meter
	 38%
	 16%
	 5%

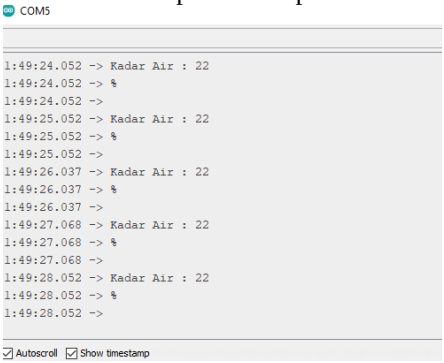
e. Pengukuran Rpm Menggunakan Taco Meter

Pembacaan LCD	Pembacaan Taco Meter
	
	
	
	
Pwm 200	

f. Pengeringan menggunakan mesin

g. Pengeringan menggunakan sinar matahari

h. Pembacaan kadar air padi basah pada serial monitor



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Riwayat Pendidikan :

- SD Negeri 02 Menduran Tahun 2007 – 2013
- SMP Negeri 5 Purwodadi Tahun 2013 – 2016
- SMA Negeri 1 Grobogan Tahun 2016 – 2019
- Politeknik Negeri Cilacap Tahun 2019 – 2022

Penulis telah mengikuti sidang Tugas Akhir pada tanggal Agustus 2022 sebagai salah satu persyaratan untuk memperoleh gelar Ahli Madya (A.Md).