LAMPIRAN A

Program Mikrokontroler Arduino Uno

```
#include<max6675.h>
#include<LiquidCrystal_I2C.h>
unsigned int pulsesperturn = 1;
const int pinADC =A1;
int sensitivitas = 185;
int nilaiadc= 00;
int teganganoffset = 2500;
double tegangan = 00;
double HasilArus = 00;
int sck = 6;
int cs = 5;
int so = 4;
int encoder = 2;
volatile unsigned int counter;
int rpm;
MAX6675 suhu(sck,cs,so);
LiquidCrystal_I2C lcd(0x27, 20, 4);

void setup() {
  lcd.init();
  lcd.backlight();
  Serial.begin(9600);
  pinMode(encoder, INPUT);
  digitalWrite(encoder, HIGH);
  attachInterrupt(0,countpulse,RISING);
  lcd.begin(20, 4);
}
```

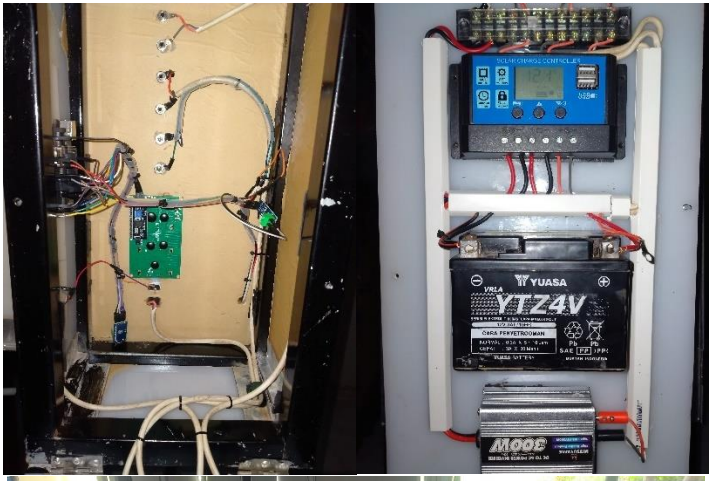
```
void data_Arus(){
 nilaiadc = analogRead(pinADC);
 tegangan= (nilaiadc/1024.0) * 5000;
 HasilArus =((tegangan-teganganoffset) / sensitivitas);
}
void countpulse(){
       counter++;
}

void loop() {
  static uint32_t previousMillis;
  if (millis() - previousMillis >= 1000) {
           rpm = (counter/20)*60;
           counter = 0;
           previousMillis += 1000;
  }
  lcd.setCursor(0,0);
  lcd.print("Suhu  : ");
  lcd.setCursor(8,0);
  lcd.print(suhu.readCelsius());
  lcd.print((char)223);
  lcd.print("C");
  delay(1000);
  lcd.setCursor(0,1);
  lcd.print("Speed : ");
  lcd.setCursor(8,1);
  lcd.print(rpm);
  lcd.print(" rps");
  delay(1);
```

```
  data_Arus();
  Serial.print ("Nilai ADC yang terbaca = ");
  Serial.print(nilaiadc);
  Serial.print("\t tegangan (mV)= ");
  Serial.print (tegangan,3);
  Serial.print("I=");
  Serial.println (HasilArus,3);
  lcd.setCursor(0, 2 );
  lcd.print("Arus  : ");
  lcd.print (HasilArus,2);
  lcd.print ("A");
  delay(1);
}
```

LAMPIRAN B

Gambar Mekanik Prototype Pembangkit Listrik Tenaga Biomassa



LAMPIRAN C

Gambar Proses Pengambilan Data


PROTOTYPE PEMBANGKIT LISTRIK
TENAGA BIOMASSA