





## 1. Program Arduino

```
*/  
  
#include <LiquidCrystal_I2C.h>  
#include "HX711.h"  
  
  
LiquidCrystal_I2C lcd(0x27, 16, 2);  
HX711 scale(5, 6);  
  
float calibration_factor = 22200; // this  
calibration factor is adjusted according to my load  
cell  
  
float units;  
float ounces;  
const int relay = 7;  
const int btn = 4;  
int runn = 0;  
void setup() {  
    Serial.begin(9600);  
    pinMode(relay, OUTPUT);  
    pinMode(btn, INPUT_PULLUP);  
    digitalWrite(relay, LOW);  
    lcd.begin(); // initialize the LCD  
    lcd.backlight();  
    lcd.clear();  
    lcd.setCursor(0, 0);  
    lcd.print("Memulai");  
    Serial.println("OKOKOK");  
    scale.set_scale();  
    scale.tare(); //Reset the scale to 0
```

```
long zero_factor = scale.read_average(); //Get a
baseline reading

Serial.print("Zero factor: "); //This can be used
to remove the need to tare the scale. Useful in
permanent scale projects.

Serial.println(zero_factor);
delay(1000);

lcd.clear();

}

void loop() {

    scale.set_scale(calibration_factor); //Adjust to
this calibration factor

    Serial.print("Reading: ");
    units = scale.get_units(),10;
    if (units < 0)
    {
        units = 0.00;
    }
    ounces = units * 0.035274;
    Serial.print(units);
    Serial.print(" kg");
    Serial.print(" calibration_factor: ");
    Serial.print(calibration_factor);
    Serial.println();

    lcd.setCursor(0, 0);
    lcd.print("Berat: ");
    lcd.setCursor(7, 0);
    lcd.print(units);
```

```
lcd.setCursor(11, 0);
lcd.print(" kg ");
lcd.setCursor(8, 1);
lcd.print("Fan ");
if (runn == 1){
    digitalWrite(relay, HIGH);
    lcd.setCursor(12, 1);
    lcd.print("ON ");
    if (units >= 20) {
        digitalWrite(relay, LOW);
        runn = 0;
    }
    if (digitalRead(btn) == LOW){
        digitalWrite(relay, LOW);
        runn = 0;
        delay(1000);
    }
}
else if (runn == 0){
    lcd.setCursor(0, 1);
    lcd.print("Standby");
    lcd.setCursor(12, 1);
    lcd.print("OFF");
    digitalWrite(relay, LOW);
}
if (digitalRead(btn) == LOW){
    runn = 1;
```

```
delay(1000);

lcd.setCursor(0, 1);

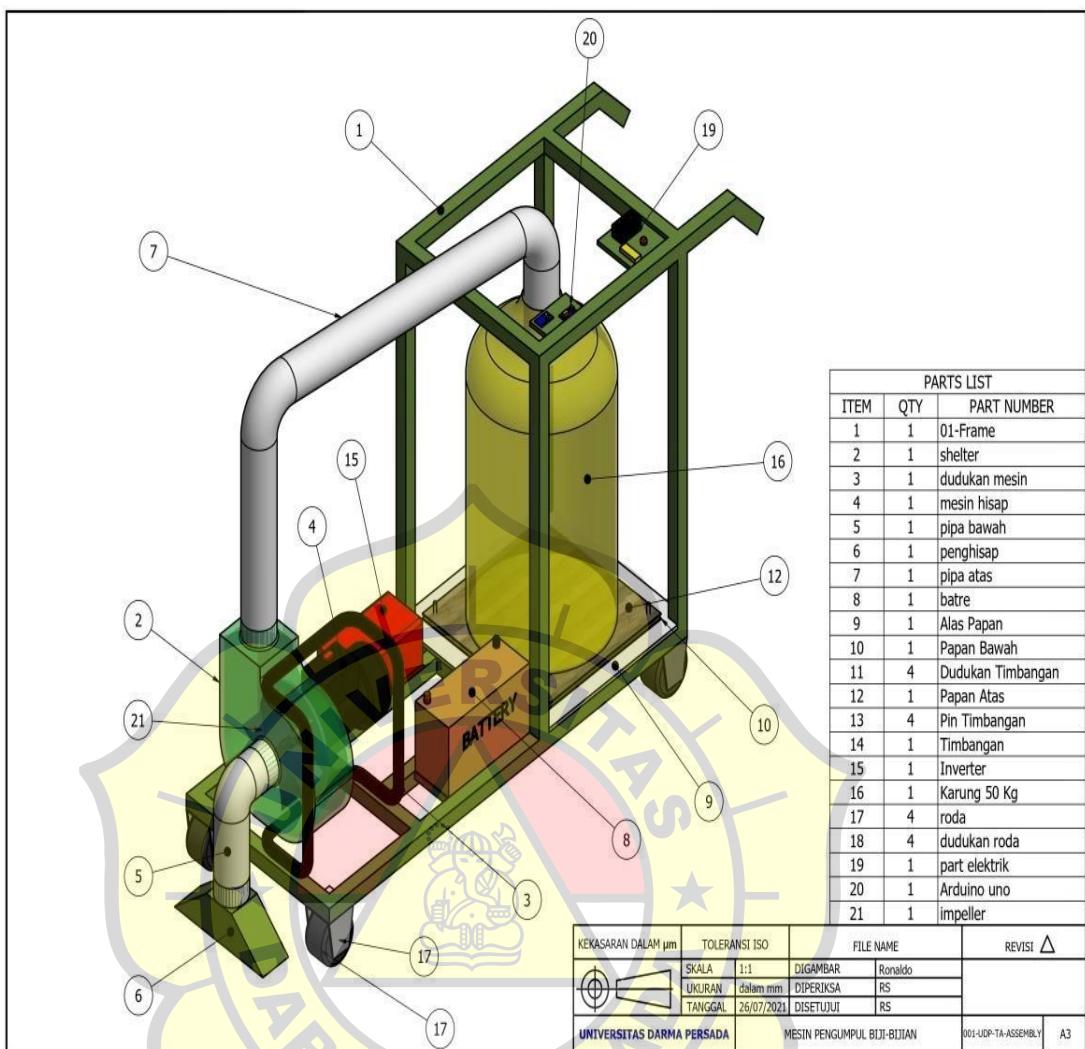
lcd.print("Running");

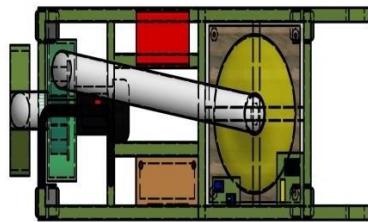
}

delay(50);

}
```







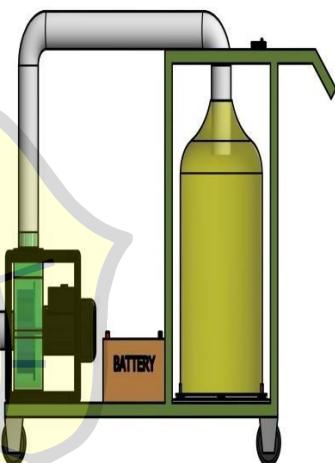
TAMPAK ATAS



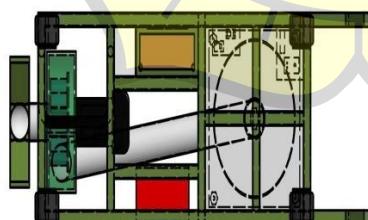
TAMPAK SAMPING KIRI



TAMPAK DEPAN



TAMPAK SAMPING KANAN



TAMPAK BAWAH

| KEKASARAN DALAM $\mu\text{m}$ | TOLERANSI ISO |            | FILE NAME                   | REVIST $\Delta$        |
|-------------------------------|---------------|------------|-----------------------------|------------------------|
|                               | SKALA         | 1:1        | DIGAMBAR                    | Ronaldo                |
|                               | UKURAN        | dalam mm   | DIPERIKSA                   |                        |
|                               | TANGGAL       | 26/07/2021 | DISETUJUI                   |                        |
| UNIVERSITAS DARMA PERSADA     |               |            | MESIN PENGUMPUL BIJI-BIJIAN | 002-UDP-TA-ASSEMBLY A3 |

