

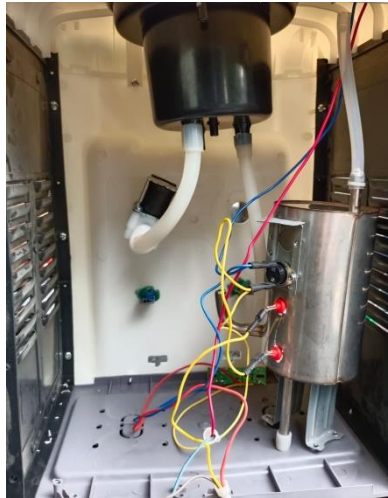
## LAMPIRAN



**Lampiran 1 Body Dispenser Sebelum Dirakit**



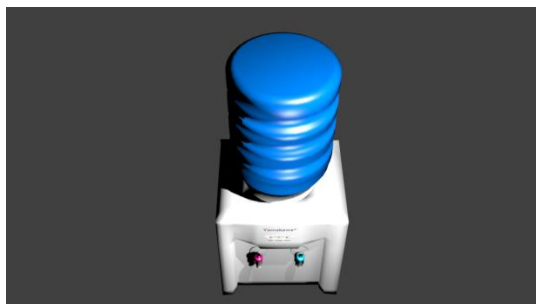
**Lampiran 2 Body Dispenser Setelah Dirakit**



**Lampiran 3 Bagian Dalam Dispenser Sebelum Dirakit**



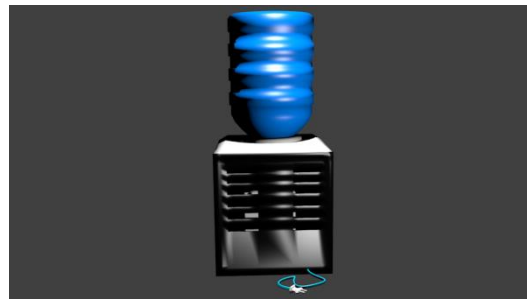
**Lampiran 4 Bagian Dalam Dispenser Setelah Dirakit**



**Lampiran 5 Desain 3D Tampak Atas**



**Lampiran 6 Desain 3D Tampak Depan**



**Lampiran 7 Desain 3D Tampak Belakang**

## Lampiran 8 Coding

```
#include <SoftwareSerial.h> //memasukan library Software Serial
#include <DFPlayer_Mini_Mp3.h> //memasukan library DFPlayermini

int air_panas = 7;
int air_biasa = 8;
int sensor1 = 5;
int sensor2 = 6;
int val_1 = 1;
int val_2 = 1;
int x = 0, y = 0;

unsigned int old_1, old_2;

//SoftwareSerial mySerial(2, 3); //pin RX dan TX

void setup () {
  Serial.begin (9600); //baud komunikasi pada 9600
  mp3_set_serial (Serial);
  pinMode (air_panas, OUTPUT);
  pinMode (air_biasa, OUTPUT);
  pinMode (sensor1, INPUT_PULLUP);
  pinMode (sensor2, INPUT_PULLUP);
  delay(5);
  mp3_set_volume (30);
  looping();
}
```

```

void loop ()
{

}

void looping()
{
  val_1 = digitalRead (sensor1);
  val_2 = digitalRead (sensor2);

  digitalWrite (air_panas, HIGH);
  digitalWrite (air_biasa, HIGH);

  if (val_1 == 0){

    x++;
  }
  else if (val_1 != 0)
    x = 0;

  if (val_2 == 0)
    y++;
  else if (val_2 != 0)
    y = 0;

  if (x == 2 )
  {
    mp3_play (1);
  }

  if (y == 2 )

```

```

{
  mp3_play (2);
}

if (x == 10 )
{
  x = 0;
  eksekusi_panas();
}

if (y == 10 )
{
  y = 0;
  eksekusi_biasa();
}

Serial.print (val_1);
Serial.print ('\t');
Serial.print (val_2);
Serial.print ('\t');
Serial.print (x);
Serial.print ('\t');
Serial.println (y);
delay(1000);
looping();
}

void eksekusi_panas()
{
  val_1 = digitalRead (sensor1); //memainkan lagu 1 pada folder mp3 yang sudah
  direname dengan nama 0001.mp3

```

```

delay(100);
for (int i = 0; i < 100; i++)
{
  if (val_1 == 1)
  {
    digitalWrite (air_panas, HIGH);
    delay(100);
    looping();
  }
  digitalWrite (air_panas, LOW);
  Serial.println (i);
  delay(100);
}
delay (100);
digitalWrite (air_panas, HIGH);
jeda1();
}

void eksekusi_biasa()
{
  val_2 = digitalRead (sensor2);
  //mp3_play (2); //memainkan lagu 1 pada folder mp3 yang sudah direname
dengan nama 0001.mp3
  delay(100);
  for (int i = 0; i < 100; i++)
  {
    if (val_2 == 1)
    {
      digitalWrite (air_biasa, HIGH);
      delay(100);
      looping();
    }
  }
}

```

```

    }
    digitalWrite (air_biasa, LOW);
    Serial.println (i);
    delay(100);
}
delay (100);
digitalWrite (air_biasa, HIGH);
jeda2();
}

void jeda1()
{
    val_1 = digitalRead (sensor1);
    if (val_1 == 1)
    {
        delay(1000);
        looping();
    }
    Serial.print(" Gelas panas terisi , segera angkat gelas ");
    Serial.print('\t');
    Serial.println(val_1);
    delay(100);
    jeda1();
}

void jeda2()
{
    val_2 = digitalRead (sensor2);
    if (val_2 == 2)
    {
        delay(1000);

```



```
    looping();  
  }  
  Serial.print(" Gelas biasa terisi , segera angkat gelas ");  
  Serial.print('\t');  
  Serial.println(val_2);  
  delay(100);  
  jeda2();  
}
```