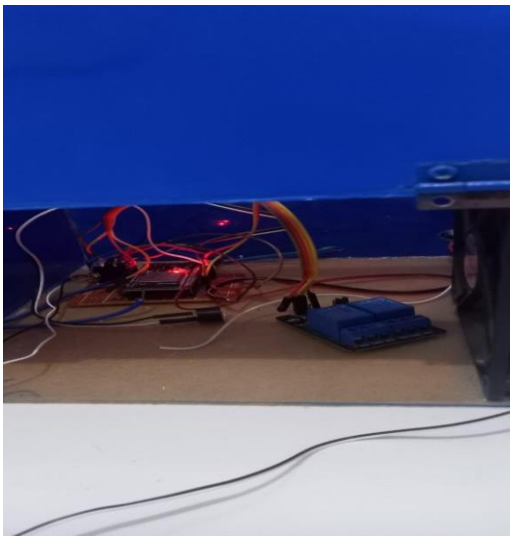
LAMPIRAN

GAMBAR ALAT



Listing Program Arduino IDE

```
#include "DHT.h"
#include <ThingerESP32.h>
#define DHTPIN 5
#define DHTTYPE DHT11
#define USERNAME "smartbulding"
#define DEVICE_ID "SMART_BUILDING"
#define DEVICE_CREDENTIAL "T84uzGQh3c12YpEY"

#define SSID "XIAOMI"
#define SSID_PASSWORD "juju1234"

ThingerESP32 thing(USERNAME, DEVICE_ID, DEVICE_CREDENTIAL);

#define relayac 26
#define sensorPin 32     //Deklarasi sensor terhubung pada pin D5
#define sensorPin1 34     //Deklarasi sensor terhubung pada pin D5
#define kipas 4
#define BUZZER  12

const int bawah=0;
const int atas=4095;
const int Db=0;
const int Da=4095;
int range,range1;
DHT dht(DHTPIN, DHTTYPE);
float h, t;//deklarasi variabel
void setup() {
  Serial.begin(9600);
  thing.add_wifi(SSID, SSID_PASSWORD);
  dht.begin();
  pinMode (relayac, OUTPUT);
  pinMode(kipas, OUTPUT);     //Deklarasi variabel RELAY sebagai Output
  pinMode(BUZZER, OUTPUT);     //Deklarasi variabel RELAY sebagai Output

  //thing["relayac"] << (digitalPin(relayac));
 // thing["relaydc"] << (digitalPin(relaydc));

  thing["DHT11"] >> [](pson& out){
    out["kelembaban"] = h;
    out["suhu_celcius"] = t;
    out["API"] = range1;
        ["GAS"] = range;
  };
}
```

```
void loop () {
thing.handle();
int sensorgas=analogRead(sensorPin);
range=map(sensorgas,bawah,atas,0,500);
int sensorapi=analogRead(sensorPin1);
range1=map(sensorapi,Db,Da,0,100);
Serial.print("GAS : ");
Serial.println(range);
Serial.print("APII : ");
Serial.println(range1);
 h = dht.readHumidity();
 t = dht.readTemperature();
  Serial.print(F("Humidity: "));
  Serial.print(h);
  Serial.print("\n");
  Serial.print(F("  Temperature: "));
  Serial.print(t);
  Serial.print(F("°C "));

    if (range >50) {
    Serial.println("ada asap");
    digitalWrite(kipas, LOW);
    digitalWrite(BUZZER, HIGH);
    }

    else if (range <= 50)
    {digitalWrite(kipas, HIGH);
    digitalWrite(BUZZER, LOW);
    }
   if  (range1 <=80){
    Serial.println("ada api");
    digitalWrite(relayac, LOW);
   //digitalWrite(BUZZER, LOW);

    }
   else if (range1 >= 80){
   digitalWrite(relayac, HIGH);
  // digitalWrite(BUZZER, HIGH);
    }
  if  (t <=30){
    Serial.println("suhu");
    digitalWrite(kipas, HIGH);
    }
   else if (t >= 30){
   digitalWrite(kipas, LOW);
    }
delay(1000);
}
```