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LAMPIRAN

Program Arduino

```
#include "wifi-setup.h"
#include "sim800v2-setup.h"
#include "sensor-controller.h"
#include "influx-setup.h"

unsigned long check_connection; unsigned long
check_connection_interval = 10 * 1000;
unsigned long check_send_data; unsigned long
check_send_data_interval = 10 * 1000;
unsigned long check_sensor; unsigned long check_sensor_interval = 10 *
1000;
unsigned long send_gsm; unsigned long send_gsm_interval = 10 * 1000;

void setup() {
  // put your setup code here, to run once:
  Serial.begin(115200);
  delay(10000);
  Serial.println("xixixixiii");
  //pin profile
  if(true){
    //set relay pin
    pinMode(relay_1,OUTPUT);
    digitalWrite(relay_1,HIGH);
    // pinMode(relay_2,OUTPUT);
    pinMode(buzzer,OUTPUT);
    smokeSensorSetup();

    //set flame sensor pin
    for(int _i=0; _i<flame_sensor_total; _i++){
      pinMode(flame_sensor_list[_i],INPUT);
    }
  }
}
```

```

//set buzzer pin
pinMode(buzzer,OUTPUT);

// aht10 setup
aht10Setup();

// sim800 setup
setGPRSProfile();

sendSMS("6285846864713", "System Start");
// sendSMS("6285846864713", "Cek Ruangan Server, Ada Api!");
}

while(wifi_mark!=true){
  connectWifi();
}

timeSetting();
delay(10000);
sendSMS("6287870592391", "hehee");
}

void loop() {
  if(millis() - check_connection >= check_connection_interval){
    if(checkWifi() == false){
      connectWifi();
    }
    check_connection = millis();
  }

  // sensor check
  if(millis() - check_sensor >= check_sensor_interval){
    update_flame_sensor();
    smokeCheck();
  }
  // //update smoke

```

```

// //check fire
if(fire_state == false){
  // if(smoke_state == true){
  if(false){
    fire_state == true;
  } else {
    for(int _i=0; _i<4; _i++){
      int _counter=0;
      if(flame_sensor_state[_i] == true){
        _counter++;
      }
      if(_counter>=flame_sensor_minimum_detect){
        fire_state = true;
      }
    }
  }
} else {
  int _counter=0;
  for(int _i=0; _i<4; _i++){
    if(flame_sensor_state[_i] == false){
      _counter++;
      fire_state = false;
    }
  }
  // Serial.print("GHJK"); Serial.println(_counter);
  if(_counter>=4){
    fire_state = false;
  }
}

Serial.print(fire_state);
Serial.println(smoke_state);
for(int _i=0; _i<4; _i++){
  Serial.print(flame_sensor_state[_i]);
}
Serial.print("-");

```

```

Serial.print(!digitalRead(smoke_1));
Serial.print(!digitalRead(smoke_2));
Serial.print("-");
Serial.println(getAHT10Temp());
//turn relay

check_sensor = millis();
}

// daq send
if(millis() - check_send_data >= check_send_data_interval){
  sendInfluxDB();
  check_send_data = millis();
}

// sms and call gsm
if(millis() - send_gsm >= send_gsm_interval){
  Serial.print("A");
  if(getAHT10Temp() > 35){
    Serial.print("B");
    if(fire_state == true){
      Serial.print("C");
      if(smoke_state == true){
        Serial.println("D");
        Serial.println("GSM SEND");
        // buzzerRing(1000,1000);
        tone(buzzer,1000);
        digitalWrite(relay_1, LOW);
        sendSMS("6285846864713", "Cek Ruangan Server, Ada Api!");
        delay(5000);
        makeCall("6285846864713");
        send_gsm = millis() + 60000;
      } else {
        send_gsm = millis();
        digitalWrite(relay_1,HIGH);
        noTone(buzzer);

```



```
    }  
  } else {  
    digitalWrite(relay_1,HIGH);  
    noTone(buzzer);  
    send_gsm = millis();  
  }  
  } else {  
    digitalWrite(relay_1,HIGH);  
    noTone(buzzer);  
    send_gsm = millis();  
  }  
}  
  
}
```

BIODATA PENULIS



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Penulis telah mengikuti seminar hasil Tugas Akhir pada tanggal 15 Agustus 2024 sebagai salah satu persyaratan untuk memperoleh gelar Ahli Madya (A.Md).