

Lampiran

1. Program arduino master

```
#include <ESP8266WiFi.h>

const char *ssid = "arif";
const char *password = "12345678";

const int Pin_sens1 = 16;
const int Pin_sens2 = 5;
const int Pin_sens3 = 4;
int sensor1, sensor2, sensor3, dataSensor;
char intToPrint[5];

WiFiClient client;
const char * host = "192.168.4.1";
const int httpPort = 80;

void setup() {
  Serial.begin(9600);
  delay(10);
  Serial.print("Connecting to ");
  Serial.println(ssid);

  WiFi.mode(WIFI_STA);
  WiFi.begin(ssid, password);

  while (WiFi.status() != WL_CONNECTED) {
    delay(500);
    Serial.print(".");
  }

  Serial.println("");
```

```

Serial.println("WiFi connected");
Serial.println("IP address: ");
Serial.println(WiFi.localIP());
}

void loop() {
sensor1 = digitalRead(Pin_sens1);
sensor2 = digitalRead(Pin_sens2);
sensor3 = digitalRead(Pin_sens3);
Serial.print(sensor1);
Serial.print(" ");
Serial.print(sensor2);
Serial.print(" ");
Serial.println(sensor3);
dataSensor = (sensor3 * 4) + (sensor2 * 2) + (sensor1 * 1);
// dataSensor = 7;
itoa(dataSensor, intToPrint, 10);

if (!client.connect(host, httpPort)) {
Serial.println("connection failed");
return;
}

// We now create a URI for the request
String url = "/data/";
url += "?sensor_reading=";
url += intToPrint;

Serial.print("Requesting URL: ");
Serial.println(url);

// This will send the request to the server
client.print(String("GET ") + url + " HTTP/1.1\r\n" +
"Host: " + host + "\r\n" +

```

```
"Connection: close\r\n\r\n");
unsigned long timeout = millis();
while (client.available() == 0) {
if (millis() - timeout > 5000) {
Serial.println(">>> Client Timeout !");
client.stop();
return;
}
}
```

```
Serial.println();
Serial.println("Closing connection");
Serial.println();
Serial.println();
Serial.println();
```

```
delay(500);
}
```

2. program arduino slave

```
#include <ESP8266WiFi.h>
#include <ESP8266WebServer.h>

const char *ssid = "arif";
const char *password = "12345678";
int RELAY = 16;
int LAMPU = 5;
#define ON LOW
#define OFF HIGH

ESP8266WebServer server(80);

void handleSentVar() {
```

```

Serial.println("handleSentVar function called...");
if (server.hasArg("sensor_reading")) { // this is the variable sent from the client
Serial.println("Sensor reading received...");
int readingInt = server.arg("sensor_reading").toInt();
char readingToPrint[5];
itoa(readingInt, readingToPrint, 10);
if (readingInt == 0) {
digitalWrite(RELAY, ON);
digitalWrite(LAMPU, ON);
Serial.println("Ada Bahaya");
}
else {
digitalWrite(RELAY, OFF);
digitalWrite(LAMPU, OFF);
Serial.println("Normal");
}
Serial.print("Reading: ");
Serial.println(readingToPrint);
Serial.println();
server.send(200, "text/html", "Data received");
}
}

```

```

void setup() {
pinMode(RELAY, OUTPUT);
pinMode(LAMPU, OUTPUT);
delay(1000);
Serial.begin(9600);
Serial.println();
Serial.print("Configuring access point...");
WiFi.softAP(ssid, password);
IPAddress myIP = WiFi.softAPIP();
Serial.print("AP IP address: ");
Serial.println(myIP);

```

```
server.on("/data/", HTTP_GET, handleSentVar); // when the server receives a request
with /data/ in the string then run the handleSentVar function
server.begin();
Serial.println("HTTP server started");

}

void loop() {
server.handleClient()
}
```

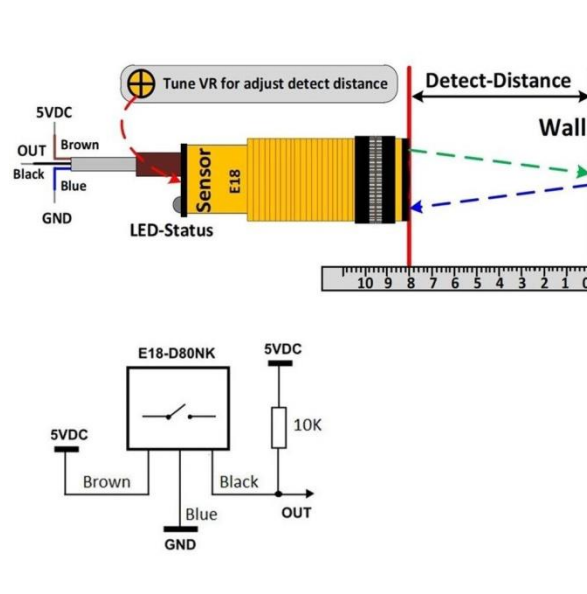
3. Gambar percobaan rangkaian



4. Gambar hardware

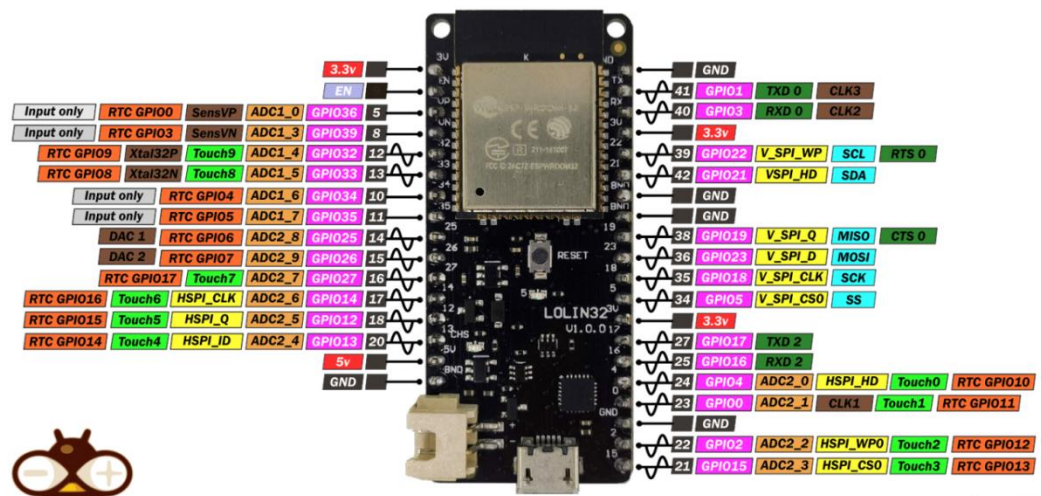


5. Data sheet sensor proximity infrared



6. Gambar data sheat arduino note mcu

ESP32 WeMos LOLIN32 PINOUT



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