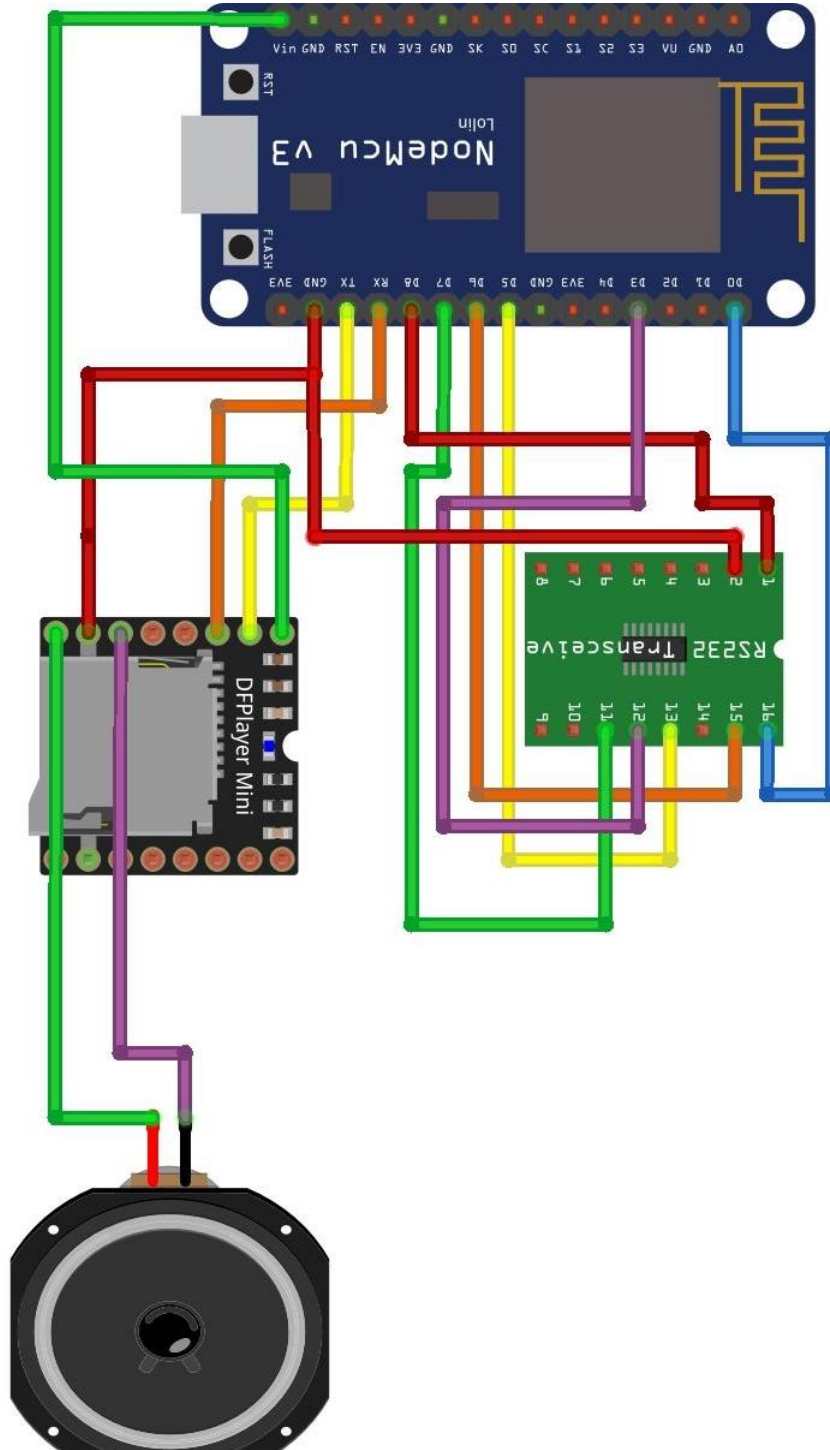


## **LAMPIRAN**

Gambar Rangkaian



## Kode Program Alat

```
#include <DMDESP.h>
#include <fonts/EMSansSP8x16.h>
#include <SoftwareSerial.h>
#include <DFPlayer_Mini_Mp3.h>

#include <ESP8266WiFi.h>
#include "Fire base ESP8266.h"
Fire base Data fire base Data;

//koneksi ke fire base
#define FIREBASE_HOST "antrianandroid-c3d02-default-rtdb.firebaseio.com"
#define FIREBASE_AUTH "sydTZa3eiP173qMi7ePrks3XjprmcAuiXw9obDmG"

//koneksi WiFi
#define WIFI_SSID "SHATOMEDIA"
#define WIFI_PASSWORD "inovation"

int antrian = 0;

//SETUP DMD
#define DISPLAYS_WIDE 1 // Kolom Panel
#define DISPLAYS_HIGH 1 // Baris Panel
DMDESP Disp(DISPLAYS_WIDE, DISPLAYS_HIGH); // Jumlah Panel P10 yang digunakan (KOLOM,BARIS)

//-----
long angka = 0;
unsigned long X= 0;
const long kecepatan = 5000;
```

```

void setup() {
  Serial.begin(9600);

  mp3_set_serial(Serial); //set Serial for DFPlayer-mini mp3 module
  mp3_set_volume(25);

  // DMDESP Setup
  Disp.start(); // Jalankan library DMDESP
  Disp.setBrightness(20); // Tingkat kecerahan
  Disp.setFont(EMSansSP8x16); // Tentukan huruf
  mp3_play(121); //nyalakan mp3

  WiFi.begin(WIFI_SSID, WIFI_PASSWORD);
  while (WiFi.status() != WL_CONNECTED)
    delay(500);

  Firebase.begin(FIREBASE_HOST, FIREBASE_AUTH);
  Firebase.setInt(firebaseData, "/value2");
  antrian = firebaseData.getIntData();
  angka = antrian;
}

void loop() {
  Disp.loop(); // Jalankan Disp loop pd LED
  unsigned long currentMillis = millis();
  if (currentMillis - X > kecepatan) {
    X = currentMillis;
  }
}

```



```

Disp.clear();
textTengah(0, String(angka));

if (Firebase.ready()){
    Firebase.getInt(firebaseData, "/value2");
    antrian = firebaseData.getIntData();

    if (antrian != angka) {
        angka = antrian;
        mp3_play(angka); //nyalakan mp3
    }
}
}
}

char data[100]; //siapkan char penampung sebanyak 100
void textTengah(int y, String Msg) { //buat fungsi
    Msg.toCharArray(data, 100); //konversi String ke Char Array
    int Tengah = int((Disp.width() - Disp.textWidth(data)) / 2); //rata tengah
    Disp.drawText(Tengah, y, data); //tampilkan pada display
}

```

Link *Source Code* Aplikasi:

[https://drive.google.com/drive/folders/1eEYuznZzna3trLv\\_KalcekMjbUPSNgRV?usp=sharing](https://drive.google.com/drive/folders/1eEYuznZzna3trLv_KalcekMjbUPSNgRV?usp=sharing)

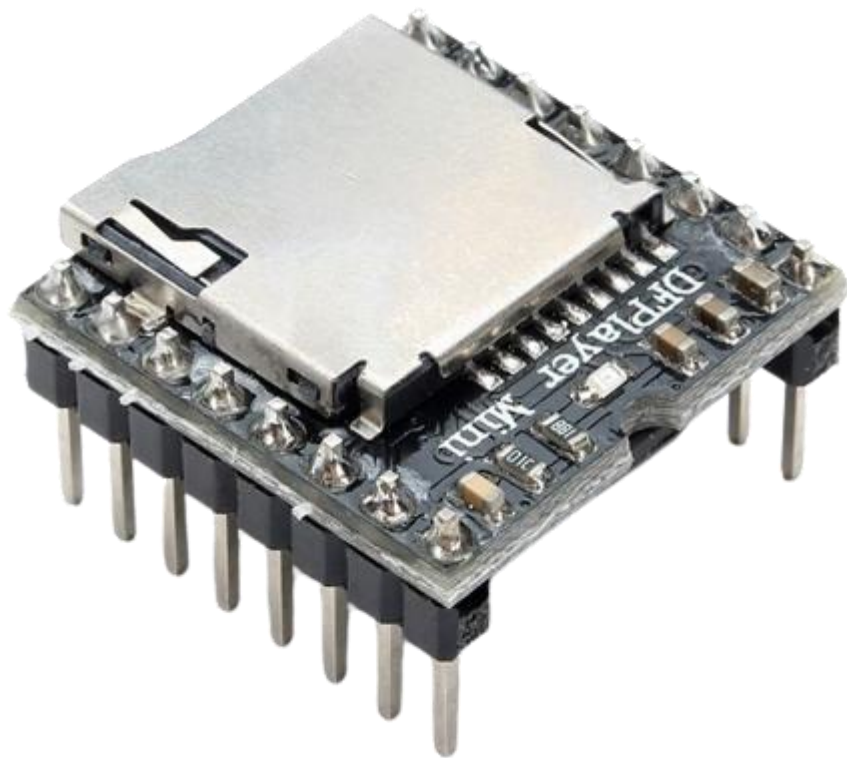
### Spesifikasi NodeMCU ESP8266



Spesifikasi NodeMCU ESP8266	
Mikrokontroler	ESP8266
Input Tegangan	3.3 V ~ 5V
Ukuran <i>Board</i>	37 mm x 30 mm
GPIO	13 PIN
<i>Flash Memory</i>	4 MB
<i>Wireles</i>	802.11 b/g/n standar
<i>USB to Serial Converter</i>	CH340G

### Spesifikasi DFPlayer Mini





Spesifikasi DFPlayer Mini	
Kompabilitas File Sistem	FAT16 dan FAT 32
Input Tegangan	3.2 V ~ 5V
Volume	30 Level
Jenis Format Audio	MP3, WAV, WMA
<i>Output</i>	DAC 24-Bit

Kapasitas Penyimpanan Maksimum	<i>Micro SD 32 GB dan NORFLASH 64 MB</i>
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### Spesifikasi Modul P10



Spesifikasi Modul P10	
Ukuran Modul	16 CM x 32 CM

Jumlah LED	512 LED
Sudut Pandang Horizontal	120 Derajat
Tegangan Input	DC 5V
Jarak Antar LED	10mm
Warna	<i>Green</i>

**Spesifikasi Modul *Speaker***



Spesifikasi Modul <i>Speaker</i>	
Diameter Modul	12 Inch/ 305mm
Impedensi	8 Ohm
Lebar Daerah Frekuensi	47 Hz – 3.8 KHz
Medan Magnet	1.23 T

Warna	<i>Black</i>
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