WATER REMAINDER

PROJECT DESCRIPTION
This project uses **Arduino and DFPlayer Mini** to play an audio file automatically. The Arduino communicates with the DFPlayer using **software serial communication**. When power is ON, the system initializes the module and sets the volume level. The **MP3 file stored on a micro SD card** is played through a speaker. It is useful for **voice alerts, announcements, and warning systems**.

PIN CONNECTIONS
DFPlayer Mini → Arduino UNO

- **VCC → 5V**
- **GND → GND**
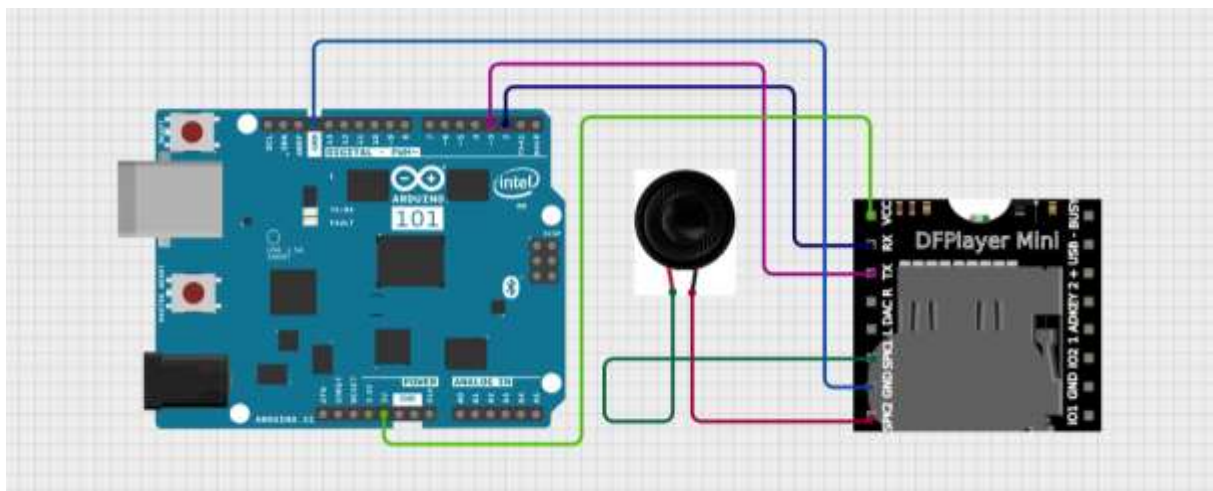- **RX   → D2**
- **TX   → D3**

Speaker → DFPlayer Mini

- **SPK1** → Speaker +
- **SPK2** → Speaker −

Micro SD Card

- Insert **FAT32 formatted SD card**
- Audio file name: **0001.mp3** (root folder)

CIRCUIT DIAGRAM

PROJECT PHOTOS

CODE
```
#include "SoftwareSerial.h"
#include "DFRobotDFPlayerMini.h"

// Use pins 2 and 3 to communicate with DFPlayer Mini
static const uint8_t PIN_MP3_TX = 2; // Connects to module's RX
static const uint8_t PIN_MP3_RX = 3; // Connects to module's TX
SoftwareSerial softwareSerial(PIN_MP3_RX, PIN_MP3_TX);

// Create the Player object
DFRobotDFPlayerMini player;

void setup() {

  // Init USB serial port for debugging
  Serial.begin(9600);
  // Init serial port for DFPlayer Mini
  softwareSerial.begin(9600);

  // Start communication with DFPlayer Mini
  if (player.begin(softwareSerial)) {
   Serial.println("OK");

    // Set volume to maximum (0 to 30).
```

```
    player.volume(30);
    player.play(1);

  } else {
    Serial.println("Connecting to DFPlayer Mini failed!");
  }
}

void loop() {

  }
```