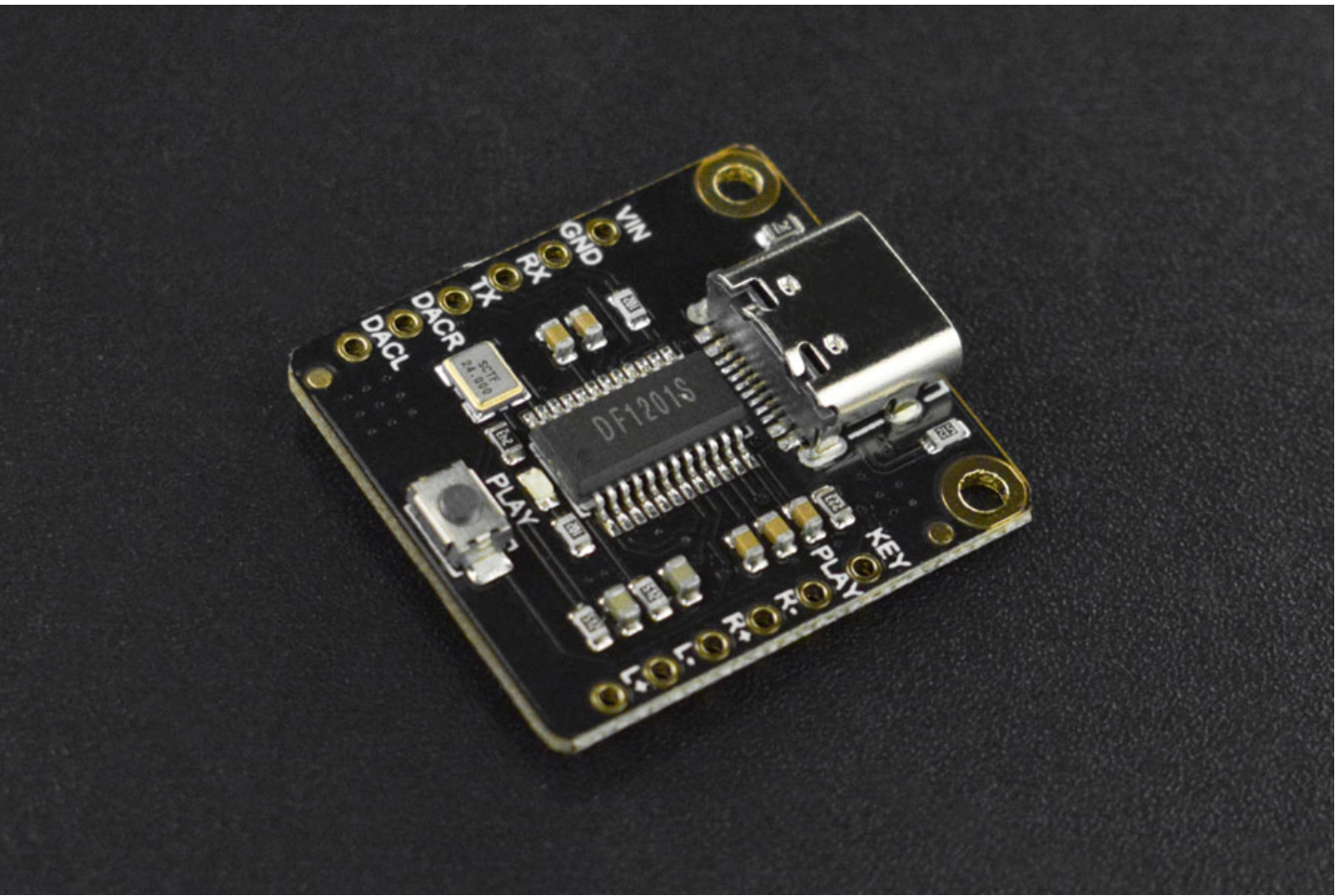# How to use DFPlayer Pro to play Music

What is a DFPlayer?

DFPlayer Pro is a mini, simple but powerful MP3 Player. It supports four controlling modes: Arduino, AT command, on-board buttons, and ADKEY. You can directly press the on-board button to play or switch music without using a controller. By using a USB cable, you can easily copy your audio files into this module, or use it as a sound card for your PC or Raspberry Pi after connecting them together. **Know More**

We have a tutorial about how to use **DFplayer Mini** here.
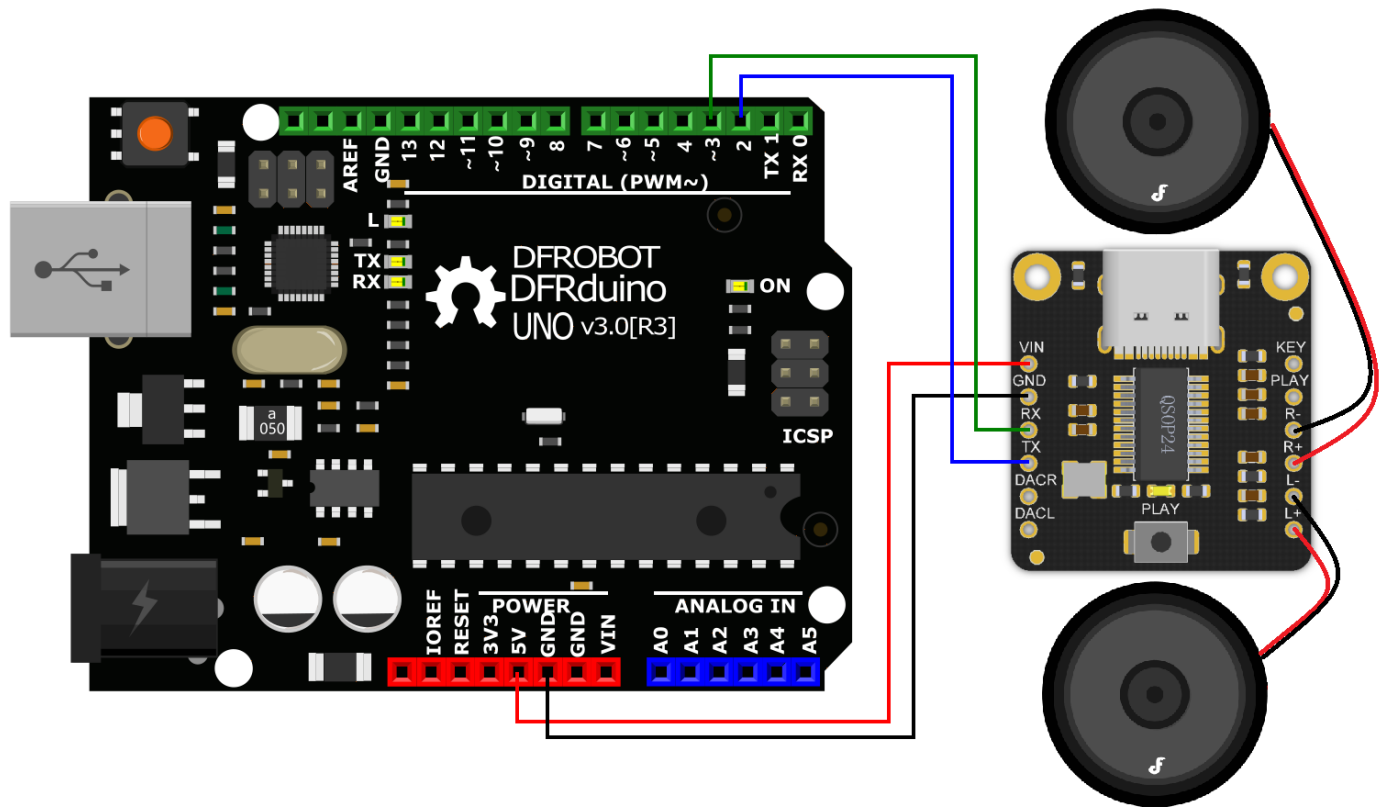
Upgrade from DFPlayer Mini

Feature	DFPlayer Mini	DFPlayer Pro	Upgrade Benefit
Audio Output Quality	Mono, lower-quality (distortion at high volume)	Stereo output, higher-quality audio	⬜ Cleaner, richer sound; suitable for higher-end projects

Feature	DFPlayer Mini	DFPlayer Pro	Upgrade Benefit
DAC (Digital-Analog Converter)	Basic DAC	High-quality DAC	⬜ Better audio fidelity
Storage Support	MicroSD only (up to 32GB FAT32)	MicroSD (up to 32GB FAT32) + 128MB internal flash	⬜ Internal storage removes reliance on SD card
Flash Memory Support	⬜ None	⬜ Yes, built-in 128MB flash	⬜ More durable, faster access, no SD card needed
Serial Communication	9600 baud fixed	115200 baud default (configurable)	⬜ Faster, more responsive communication
Command Set	Basic, sometimes buggy	More advanced, stable command set	⬜ More reliable control and feedback
Speaker Connection	Direct to mono speaker	Stereo line out (needs amp)	⬜ Needs external amp for speakers
Volume Control	0–30 steps	0–100 steps	⬜ Finer volume control
Power Supply	3.2V–5V	3.3V–5.5V	⬜ Slightly more flexible
Size	Smaller (20mm x 22mm)	Slightly larger (24mm x 24mm)	⬜ Slightly bigger, but compact enough
Ease of Use	Simple, but unstable at times	More stable firmware	⬜ More professional and dependable
Audio Channels	Mono	Dual-channel (stereo)	⬜ True stereo separation for improved sound effects
Advanced Playback Controls	Limited to play/pause/next/prev	Fast-forward, fast-rewind, play from specific time	⬜ More control and interactivity for audio playback

Wiring

1. VCC to 5V (Power)
2. GND to GND (Ground)
3. RX to D3
4. TX to D2
5. R+ to Speaker(+) *red wire*
6. R- to Speaker(-) *black wire*
7. Second speaker (L+ & L-) is optional

Library

`DFRobot_DF1201S` library will be used for this module. We have a tutorial on **how to install a library** here.

Get Started

```
#include <DFRobot_DF1201S.h>
#include <SoftwareSerial.h>

SoftwareSerial DF1201SSerial(2, 3);  //RX  TX

DFRobot_DF1201S DF1201S;
void setup(void){
  Serial.begin(115200);
  DF1201SSerial.begin(115200);
  while(!DF1201S.begin(DF1201SSerial)){
    Serial.println("Init failed, please check the wire connection!");
    delay(1000);
  }
  /*Set volume to 20*/
  DF1201S.setVol(/*VOL = */20);
```

```cpp
  Serial.print("VOL:");
  /*Get volume*/
  Serial.println(DF1201S.getVol());
  /*Enter music mode*/
  DF1201S.switchFunction(DF1201S.MUSIC);
  /*Wait for the end of the prompt tone */
  delay(2000);
  /*Set playback mode to "repeat all"*/
  DF1201S.setPlayMode(DF1201S.ALLCYCLE);
  Serial.print("PlayMode:");
  /*Get playback mode*/
  Serial.println(DF1201S.getPlayMode());

}

void loop(){
  Serial.println("Start playing");
  /*Start playing*/
  DF1201S.start();
  delay(3000);
  Serial.println("Pause");
  /*Pause*/
  DF1201S.pause();
  delay(3000);
  Serial.println("Next");
  /*Play the next song*/
  DF1201S.next();
  delay(3000);
  Serial.println("Previous");
  /*Play the previous song*/
  DF1201S.last();
  delay(3000);
  Serial.println("Start playing");
  //Fast forward 10S
  DF1201S.fastForward(/*FF = */10);

  Serial.print("File number:");
  //Get file number
  Serial.println(DF1201S.getCurFileNumber());

  Serial.print("The number of files available to play:");
```

```
  //The number of files available to play

  Serial.println(DF1201S.getTotalFile());


  Serial.print("The time length the current song has played:");

  //Get the time length the current song has played

  Serial.println(DF1201S.getCurTime());


  Serial.print("The total length of the currently-playing song: ");

  //Get the total length of the currently-playing song

  Serial.println(DF1201S.getTotalTime());

  Serial.print("The name of the currently-playing file: ");

  //Get the name of the playing file

  Serial.println(DF1201S.getFileName());

  delay(3000);

  //Play the file No.1, the numbers are arranged according to the sequence of the files copied into the U-disk

  DF1201S.playFileNum(/*File Number = */1);

  //Play the test.mp3 file in test folder

  DF1201S.playSpecFile("TRACK007.MP3");


  while(1);

  /*Delete the currently-playing file */

  //DF1201S.delCurFile();
}
```