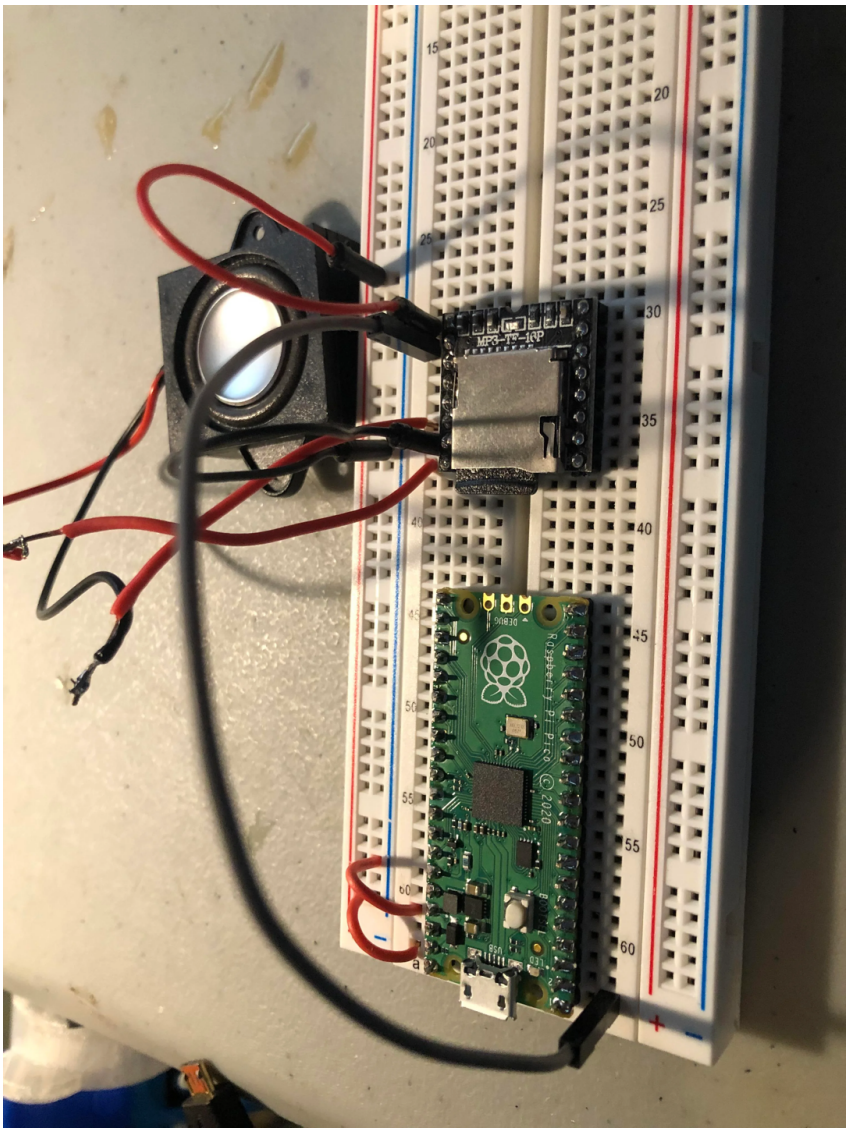
DFPlayer with pico

For one of my projects, I've wanted to connect a DFPlayer to play audio. If anyone doesn't know, these DFPlayer Mini MP3 Player devices are quite amazing. They're cheap, small, very easy to get, and handle WAV and MP3 audio very well. There's lots of manufacturers, so cheap or weird clones are possible, but I have had good luck with them. I've used them with arduinos before, so I wanted to get one working on my pico project.



It works. The board takes wires for +5/GND, and 2 wires for

the speaker, and one wire to the TX (pin 0) of the pico. The microsd card I used is 1Gig, and I loaded it with WAV files. The proper format is to make folders in a two-character number format, like "01" . Inside each folder are files like "001.wav" and "002.mp3".

The library I used was Makuna/DFMiniMp3. It had some weird hiccups. First, there are several different copies on the internet, with incompatible function args, so get the proper version from the github page.

Second, it requires that you provide a class (called Mp3Notify) that catches errors, and while I found an example of that class, it took a bit of fiddling to get it to compile.

This bit of code plays sounds in a simple countdown, for me:

```
#include "DFMiniMp3.h"

//****************************************************
class Mp3Notify;
typedef DFMiniMp3<HardwareSerial, Mp3Notify> DfM
DfMp3 dfmp3(Serial1);

//****************************************************
// implement a notification class,
// its member methods will get called
//
class Mp3Notify
{
public:
  static void PrintlnSourceAction(DfMp3_PlaySou
  {
    if (source & DfMp3_PlaySources_Sd)
    {
        Serial.print("SD Card, ");
    }
    if (source & DfMp3_PlaySources_Usb)
    {
        Serial.print("USB Disk, ");
    }
    if (source & DfMp3_PlaySources_Flash)
    {
        Serial.print("Flash, ");
    }
```

```
    Serial.println(action);
  }
  static void OnError(DfMp3& mp3, uint16_t erro
  {
    // see DfMp3_Error for code meaning
    Serial.println();
    Serial.print("Com Error ");
    Serial.println(errorCode);
  }
  static void OnPlayFinished(DfMp3& mp3, DfMp3_
  {
    Serial.print("Play finished for #");
    Serial.println(track);
  }
  static void OnPlaySourceOnline(DfMp3& mp3, DfM
  {
    PrintlnSourceAction(source, "online");
  }
  static void OnPlaySourceInserted(DfMp3& mp3, D
  {
    PrintlnSourceAction(source, "inserted");
  }
  static void OnPlaySourceRemoved(DfMp3& mp3, Df
  {
    PrintlnSourceAction(source, "removed");
  }
};




//**************************************************
void setup()
{
  Serial.begin(115200);

  dfmp3.begin();

  dfmp3.setVolume(30);

}


//**************************************************
void loop()
```

```
{
  for (int i = 7; i > 0; --i)
  {
    dfmp3.playFolderTrack(1,i);
    delay(1000); // Delay for a period of time
  }
}
```

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granmastern • 2 yr. ago

nice to know it works. ive been curious about these DFPlayer modules

as a side question, can these also work like regular SD cards readers? i.e read a text file or jpeg?

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techbear1980 • 2 yr. ago