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DFPlayer - A Mini MP3 Player For Arduino

<https://www.dfrobot.com/index.php?route=product/product&product_id=1121>

This example shows the basic function of library for DFPlayer.

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/******Notice and Trouble shooting*****

1.Connection and Diagram can be found here

<https://www.dfrobot.com/wiki/index.php/DFPlayer_Mini_SKU:DFR0299#Connection_Diagram>

2.This code is tested on Arduino Uno, Leonardo, Mega boards.

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#include "Arduino.h"

#include "SoftwareSerial.h"

#include "DFRobotDFPlayerMini.h"

SoftwareSerial mySoftwareSerial(10, 11); // RX, TX

DFRobotDFPlayerMini myDFPlayer;

void printDetail(uint8_t type, int value);

void setup()

{

pinMode(2,INPUT); // Next Button

pinMode(3,INPUT); // Previous Button

pinMode(4,INPUT); // Pause Button

pinMode(5,INPUT); // Volume Up

pinMode(6,INPUT); // Volume Down

pinMode(9,OUTPUT); // Pause Indicator

mySoftwareSerial.begin(9600);

Serial.begin(9600); //I changed this value to 9600 from 115200 as I was getting gibberish back from the Player

Serial.println();

```

Serial.println(F("DFRobot DFPlayer Mini Demo"));
Serial.println(F("Initializing DFPlayer ... (May take 3~5 seconds)"));

if (!myDFPlayer.begin(mySoftwareSerial)) { //Use softwareSerial to communicate with mp3.
  Serial.println(F("Unable to begin:"));
  Serial.println(F("1.Please recheck the connection!"));
  Serial.println(F("2.Please insert the SD card!"));
  while(true);
}
Serial.println(F("DFPlayer Mini online.));

myDFPlayer.volume(20); //Set volume value. From 0 to 30
myDFPlayer.play(1); //Play the first mp3
}

void loop()
{
  if(digitalRead(5) == HIGH) myDFPlayer.volumeUp();
  if(digitalRead(6) == HIGH) myDFPlayer.volumeDown();
  //-----
  if(digitalRead(2) == HIGH)
  {
    delay(200); myDFPlayer.next();
  }
  //-----
  if(digitalRead(3) == HIGH)
  {
    delay(200); myDFPlayer.previous();
  }
  //-----
  if(digitalRead(4) == HIGH)
  {
    delay(200);
    digitalWrite(9, HIGH);
    while(1)
    {
      myDFPlayer.pause();
      if(digitalRead(4) == HIGH) {myDFPlayer.start(); break;}
    }
    digitalWrite(9, LOW);
  }
}

```

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/*****
This code from the initial build has been commented out

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static unsigned long timer = millis();

if (millis() - timer > 5000) {
    timer = millis();
    myDFPlayer.next(); //Play next mp3 every 5 seconds.
}
*****/

if (myDFPlayer.available()) {
    printDetail(myDFPlayer.readType(), myDFPlayer.read()); //Print the detail message from DFPlayer to
handle different errors and states.
}
}

void printDetail(uint8_t type, int value){
    switch (type) {
        case TimeOut:
            Serial.println(F("Time Out!"));
            break;
        case WrongStack:
            Serial.println(F("Stack Wrong!"));
            break;
        case DFPlayerCardInserted:
            Serial.println(F("Card Inserted!"));
            break;
        case DFPlayerCardRemoved:
            Serial.println(F("Card Removed!"));
            break;
        case DFPlayerCardOnline:
            Serial.println(F("Card Online!"));
            break;
        case DFPlayerPlayFinished:
            Serial.print(F("Number:"));
            Serial.print(value);
            Serial.println(F(" Play Finished!"));
            break;
        case DFPlayerError:
            Serial.print(F("DFPlayerError:"));
            switch (value) {
                case Busy:
                    Serial.println(F("Card not found"));
                    break;
                case Sleeping:
                    Serial.println(F("Sleeping"));

```

```
        break;
    case SerialWrongStack:
        Serial.println(F("Get Wrong Stack"));
        break;
    case CheckSumNotMatch:
        Serial.println(F("Check Sum Not Match"));
        break;
    case FileIndexOut:
        Serial.println(F("File Index Out of Bound"));
        break;
    case FileMismatch:
        Serial.println(F("Cannot Find File"));
        break;
    case Advertise:
        Serial.println(F("In Advertise"));
        break;
    default:
        break;
}
break;
default:
    break;
}
}
```