


```

#include <Arduino.h>
#include <driver/i2s.h>
#include <FS.h>
#include <SPIFFS.h>

// Audio configuration
const uint16_t sample_rate = 16000;
const uint16_t channels = 1;
const uint16_t bits_per_sample = 16;

// Audio buffer
uint8_t audio_buffer[sample_rate * channels * bits_per_sample / 8];

void setup() {
  // Initialize I2S
  i2s_config_t i2s_config = {
    .mode = I2S_MODE_MASTER,
    .sample_rate = sample_rate,
    .bits_per_sample = I2S_BITS_PER_SAMPLE_16BIT,
    .channel_format = I2S_CHANNEL_FMT_ONLY_LEFT,
    .communication_format = I2S_COMM_FORMAT_I2S,
    .dma_buf_count = 2,
    .dma_buf_len = 32,
    .use_apll = false,
    .fixed_mclk = 0,
  };
  i2s_driver_install(I2S_NUM_0, &i2s_config, 0, NULL);

  // Initialize SPIFFS
  if (!SPIFFS.begin()) {
    Serial.println("Failed to initialize SPIFFS!");
    while (1) {}
  }

  // Open audio file
  File audio_file = SPIFFS.open("StarWars3.wav");
  if (!audio_file) {
    Serial.println("Failed to open audio file!");
    while (1) {}
  }

  // Read audio file into buffer
  uint32_t audio_file_size = audio_file.size();
  audio_file.read(audio_buffer, audio_file_size);
  audio_file.close();

  // Set pins for I2S interface
  i2s_pin_config_t i2s_speaker_config = {
    .bck_io_num = GPIO_NUM_18,
    .ws_io_num = GPIO_NUM_19,
    .data_out_num = GPIO_NUM_5};

  //i2s_set_pin(I2S_NUM_0, &i2s_speaker_config);

  // Initialize amplifier
  //i2s_set_dac_mode(I2S_DAC_MODE_NORMAL);

  // Play audio file
  uint8_t i;
  for (i = 0; i < audio_file_size; i++) {
    i2s_write(I2S_NUM_0, &audio_buffer[i], 1, 0, 0);
  }
}

```