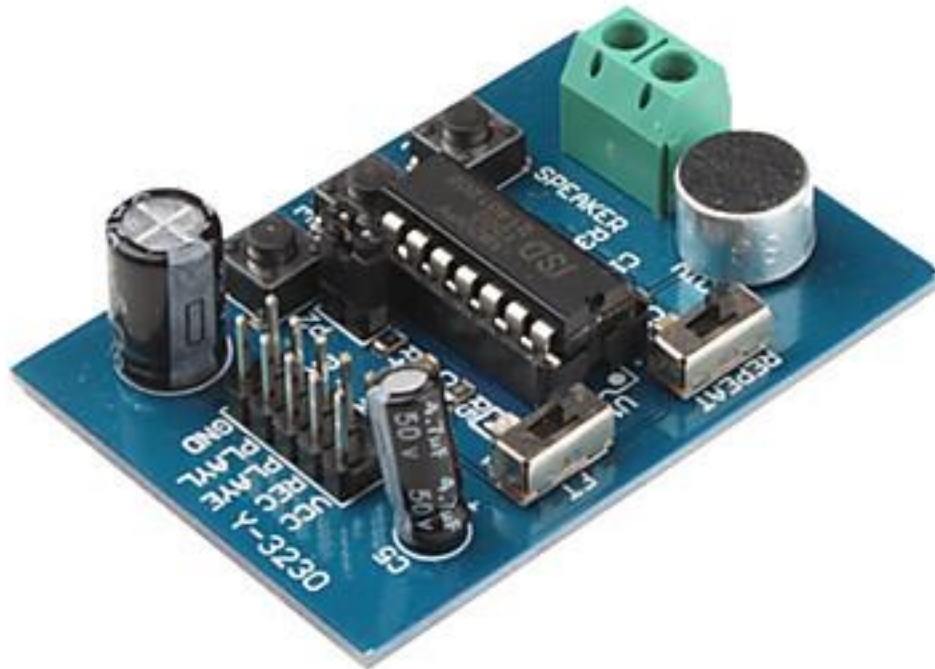


VOICE RECORDER MODULE



Description

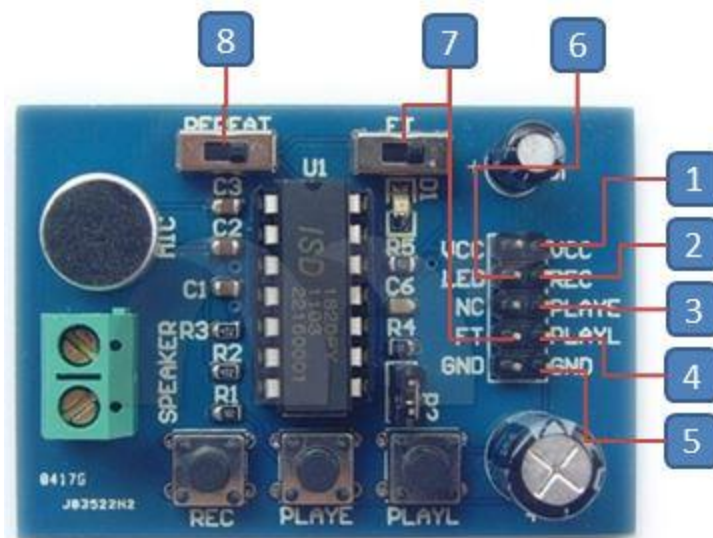
The ISD1820 voice module board may be a good answer for an additional single sound effect to a project. These boards can record a single audio sample of up to 10 seconds using a built-in microphone and will play back the sample on demand with good fidelity.

There are two playback modes. The first is edge triggered; a positive pulse to the Playback-E pin triggers the module to play the entire message once. The second method, level triggered, will play the recording while it is high, and stop playing when it is low. This module use is very easy which you could direct control by push button on board or by microcontroller such as arduino.

Specifications

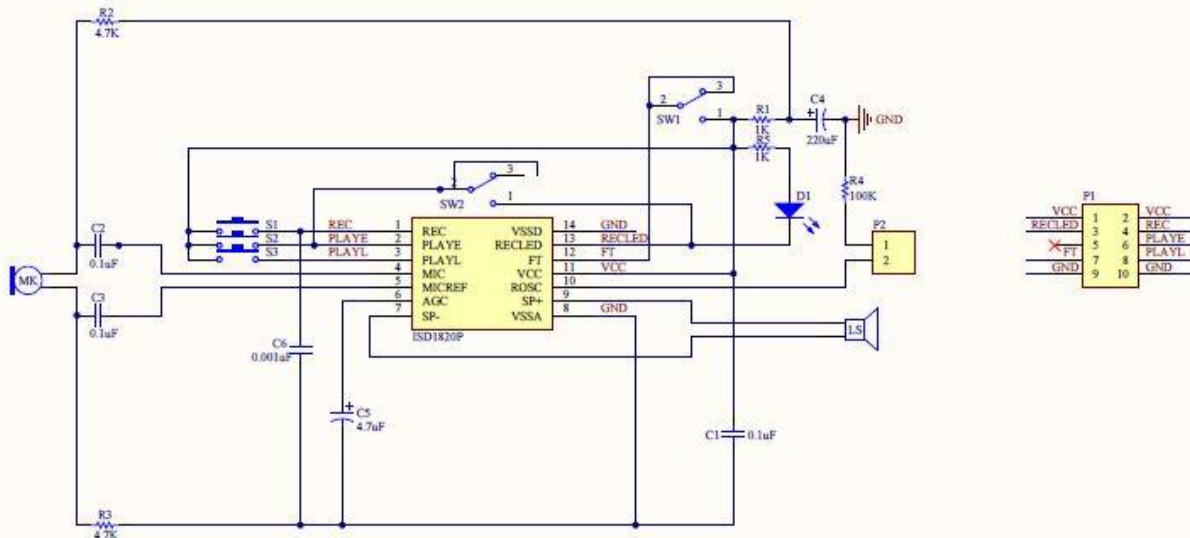
- On-board ISD1820 chip
- On-board microphone, can directly recording voice
- Can play a recording up to 10 seconds
- High-quality, natural voice restore, can be used as a propaganda module
- With a loop playback, jog play, single-pass playback mode
- The pins are leaded out, can control operating by microcontroller
- Working voltage: 3V-5V DC
- Size: 54mm x 38mm

Pin Configuration



1. VCC: 3V-5V DC
2. REC: active-HIGH record signal
3. PLAYE: active-HIGH playback, edge-activated signal
4. PLAYL: active-HIGH playback, level-activated signal
5. GND: ground
6. LED: LED (D1)
7. FT: active-HIGH feed though

Schematic Diagram



Sample Sketch

```
const int REC=2, PLAYE=3, PLAYL=4, FT=5;

void setup(){
  Serial.begin(9600);
  record();
  delay(500);
  play_e();
  delay(500);
  play_l();
  delay(500);
  live();
  delay(500);
}

void record(){
  Serial.println("Recording for 10 seconds...");
  digitalWrite(REC, HIGH);
  delay(10000);
  digitalWrite(REC, LOW);
}

void play_e(){
  Serial.println("Now playing...");
  digitalWrite(PLAYE, HIGH);
  delay(500);
  digitalWrite(PLAYE, LOW);
}
```

```
}  
  
void play_l(){  
  Serial.println("Now playing for 5 seconds...");  
  digitalWrite(PLAYL, HIGH);  
  delay(5000);  
  digitalWrite(PLAYL, LOW);  
}  
  
void live(){  
  Serial.println("Mic feed through for 10  
seconds...");  
  digitalWrite(FT, HIGH);  
  delay(10000);  
  digitalWrite(FT, LOW);  
}  
  
void loop(){}
```

How to Test

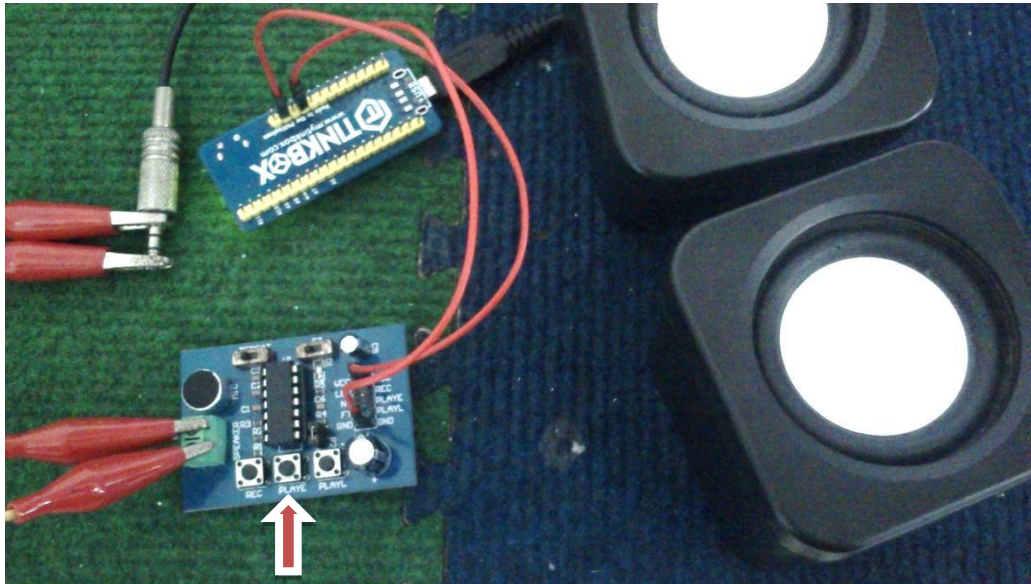
The components to be used are:

- Microcontroller (any compatible arduino)
 - Voice recorder module
 - Pin connectors
 - Speaker
 - USB cable
1. Connect the components using pin connectors. VCC pin is connected to the 3.3V power supply, GND pin is connected to the GND. The module can also be tested through a microcontroller. REC, PLAYE, PLAYL, and FT pins are connected to the digital I/O pins. Pin number will be based on the actual program code.
 2. After hardware connection, insert the sample sketch into the Arduino IDE.
 3. Using a USB cable, connect the ports from the microcontroller to the computer.
 4. Upload the program.
 5. See the status in the serial monitor.

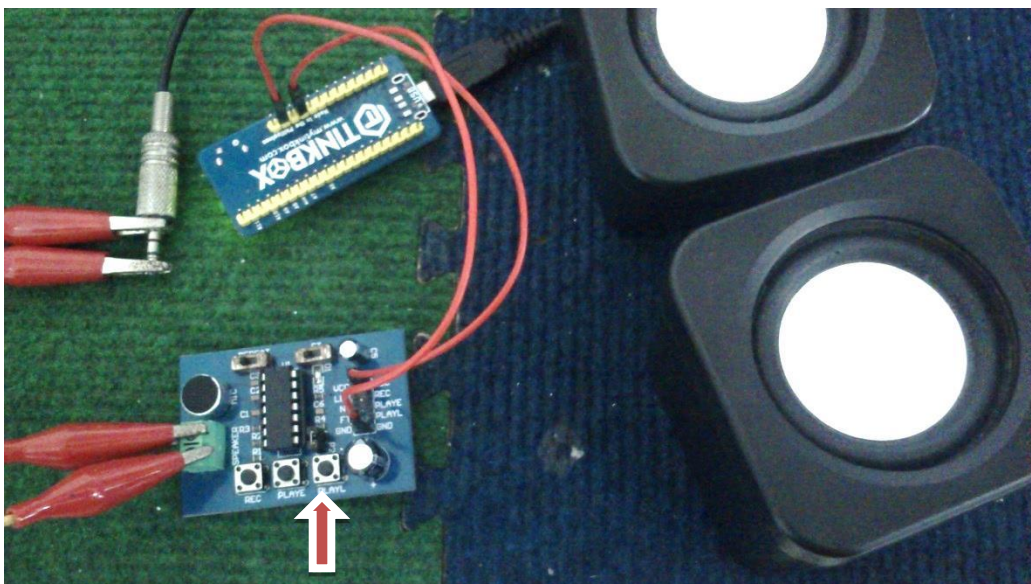
- To test the module through direct control by push button, press and hold the REC button to start recording for 10 seconds. If the button was dropped the recording ceases immediately.

Testing Results

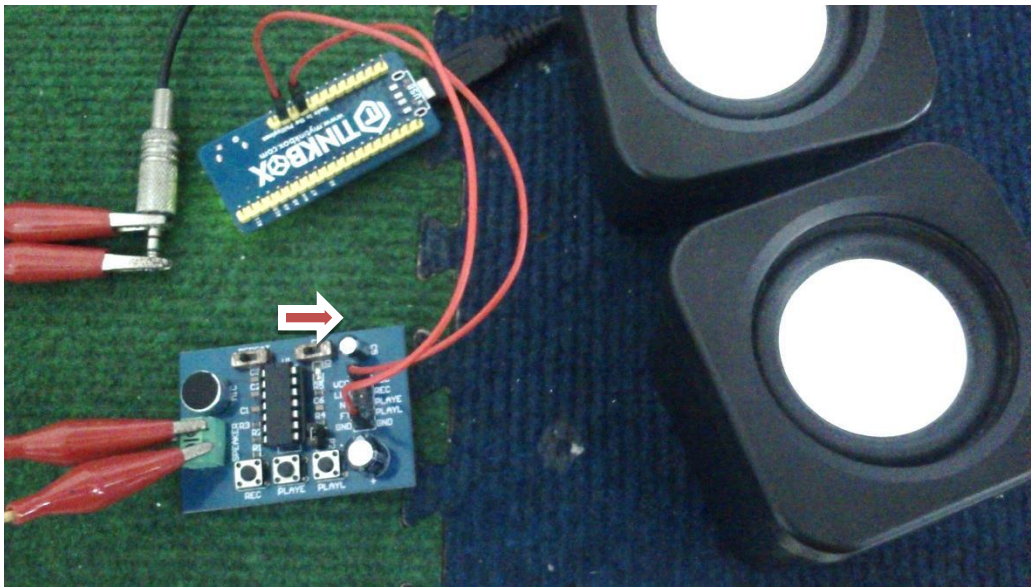
After recording, pressing the PLAYE button plays the recorded sound in the speaker.



When the PLAYL button was pressed, the recorded sound played until the button was dropped.



When FT was switched to right side, the sound from MIC will directly playback from the speaker.



When REPEAT was switched to right side, the sound recorded will play from the speaker in a continuous loop.

