



[http://wolfstone.halloweenhost.com/HalloweenTech/audrec\\_RecordableSoundBox.html](http://wolfstone.halloweenhost.com/HalloweenTech/audrec_RecordableSoundBox.html)

## Recordable Sound Box

A pneumatic popup may be impressive, but it works better when there is [synchronized](#) light and sound. The more haunting I do, the more I am convinced that you can get better scares by attacking several of the senses at once.

Here, we discuss the construction of a programmable sound box. All you do is close a switch, and it plays back the sound that you recorded ... [loudly](#). We also have a page outlining a [scream box](#) that makes a single, simple, basic scream.



## Gallery of Hackable Equipment

This project is a very simple modification of an electronic gadget that already provides the ability to record and play back custom sounds. There are plenty of gadgets out there that can be used, depending on your budget and quality requirements.

The chief reason why gadgets with built-in sound produce cheap of tinny-sounding output is because they use cheap speakers on the output. Piping the output into decent sound systems usually provides good results.

Sound recorders come in three flavors:

- record-once [actually, I haven't seen any samples of these, but the technology exists to make them]
- re-recordable, that keeps the message even when power is removed ("nonvolatile")
- re-recordable, that loses the message when power is removed ("volatile")

Note: You can also implement [recorded sound using MP3 players](#), but they tend to be harder to control, and not easily triggered by a switch.

## Volatile Sound Recorders

A volatile loses the message when power is removed. You will need to re-record your sound every time you get ready to use it - then make sure that the power stays on all the time. This is can be quite a pain in the neck. Volatile sound recorders are not recommended for canned sound because of the hassle.



This clunky little assembly records a message and plays it back when you press the little box on top. It looks like something that might be built into a huggable teddy bear. I got it from [Marlin P. Jones](#).

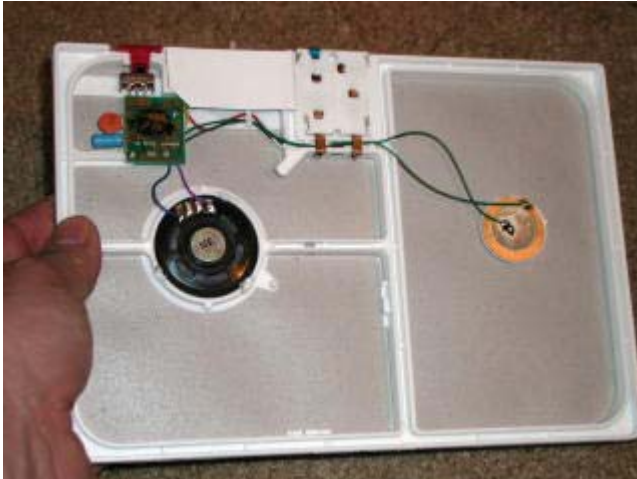


This unit is intended to be a tag attached to a gift. You record your own voice message that plays when the tag is squeezed.

It can record a message up to 10 seconds long

I got this at [Fry's](#). It is marked \$9.99, but it was marked down to \$7.99, \$5.99, and finally on sale for \$1.99 (January 2002).

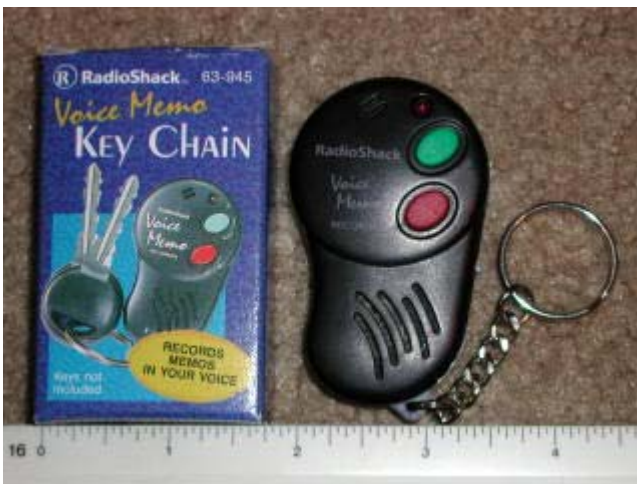
Obtained from  
Omarshauntedtrail.com



This is the inside of a recordable greeting card. It's been a while since I played with it; I think it's volatile.

I believe I got it from Hallmark.

### Nonvolatile Sound Recorders



This keychain has a memo recorder.

I got this one at [Radio Shack](http://RadioShack.com).



This is prewired digital sound recorder from [Radio Shack](http://RadioShack.com) [~1999].

It can record a message up to 20 seconds long

Obtained from  
[Omarshauntedtrail.com](http://Omarshauntedtrail.com)



Sometimes, Radio shack changes the design. As of this update, the current model is [Radio Shack #276-1323](#), 9-Volt, 20-Second Recording Module, \$10.49 [October 2004]

## Assembly

The procedure is actually quite straightforward:

- Open up the gadget.
- Find out where the "play" switch is attached.
- Solder wires across the "play" switch and run them out to your triggering device.
- Find out where the sound comes out (the "loudspeaker").
- Solder wires across the "speaker" and run them out to whatever device uses the sounds. This can be a set of [amplified speakers](#), a stereo, or mixer for more complex sound system.

This project is simple because the gadget is already *built*. All you are doing is tapping into it.

If you used a [volatile sound recorder](#), you will need to re-record your sound every time you get ready to use it - then make sure that the power stays on all the time. This is can be quite a pain in the neck. Volatile sound recorders are not recommended for canned sound.



This is the button that you have to press to make the Radio Shack sound board play. The original pair of red wires run off to the lower left. All you have to do to make the board play is to connect these two wires together - that's what pressing the switch does.

The red and blue wires come from the relay that triggers this prop. These new wires go in parallel with the original wires. Now, triggering the relay does the same thing as pressing the switch: it plays the sound.

I like leaving the original switch in place for testing.





This is the speaker that provides the output for the Radio Shack sound board. The original pair of red wires run off to the upper left. All you have to do to get the sound from the board is to tap into these two wires.

I like leaving the original speaker in place for testing.

The red and blue wires go off to the amplified speakers that will make the prop sound loud. These new wires go in parallel with the original wires. Now, triggering the unit sends the same sound to two places: soft sounds from the original little speaker, and loud sounds from the amplified speaker.

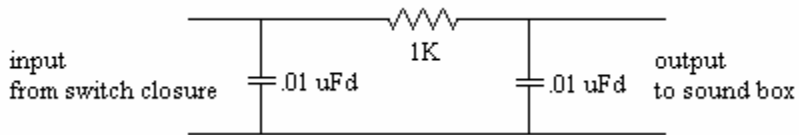
Here is the setup we used for the sound of [giant spider](#) in our year 2000 haunt:



The [Radio Shack](#) recordable sound board is in the center. The [trigger relay](#) is lower right with the [X-10](#) module just above it. The wire from the sound board terminates in a 1/8" socket that connects to the [amplified speakers](#).

## Fixing Hair Trigger

Some sound boxes have hair-trigger inputs - even the tiniest bit of electrical noise will cause the box to trigger. This is annoying. This circuit *might* help. Build it into the sound box. I haven't tried it yet, but the idea appears solid.

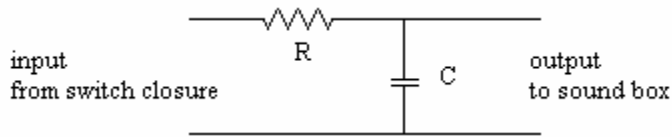


This is just a RC Pi filter.

The component values are just guesses.

Trigger filter for sound boxes  
Dennis Griesser  
11/13/2003

Here's another possibility:



This is a simple low-pass filter. The cutoff frequency is given by:

$$f_c = \omega_c / 2\pi = 1 / (2\pi RC)$$

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