

Single Message Playback Switch

DESIGN RATIONALE

Introduction

The Single Message Playback Switch is a switch device that can store and play back a single message up to 30 seconds in length. The device can be used both as a toy and as a communication aid.

This device is intended for users with a need for a communication aid, or users that want to add audio feedback to an existing device.

Research

Name	Image	Price	Link
Commercial			
LittleMac		\$155 USD	Link
Big Step by Step		\$220 USD	Link
DIY			
Single Message Record/Playback Project		\$27.99	Link

Single Message Playback Switch

DESIGN RATIONALE

Requirements

Goals

G01	Create a device that can play a message with the press of a switch
-----	--

Functional Requirements

F01	Record a message
F02	Play back a message
F03	Be a switch accessible device

Constraints

C01	Device must be low cost
C02	Device must be easily assembled

Ideation

The device was inspired by the Open Playback Recorder, and envisioned as a cheaper, simpler version of the device. A dog training button was chosen as the device, and after opening the device, a the central button was found to be identical to the buttons used in most Makers Making Change assistive switches.

A jack was soldered in parallel with the button, and a hole drilled in the casing of the switch to accommodate it. It was also suggested to make one using a “pigtail” style female mono jack. In this case the jack was replaced with a female cable, and a zip tie was used to secure the cable to the device.

Opportunities for Improvement

Future updates to this project will include mounting brackets to allow the switch to be attached to standard ¼-20 mounting hardware.