# Open Playback Recorder
## SUMMARY

## Product Information

### Product Name
Open Playback Recorder

### Device Category

- [ ] Adapted Toys
- [ ] Aids for Daily Living (ADL)
- [ ] Assistive Switches
- [x] Communication Aids (AAC)
- [ ] Computer Access
- [ ] Environmental Controls
- [ ] Gaming
- [ ] Keyguard
- [ ] Kits
- [ ] LipSyncs
- [ ] Mounting
- [ ] Recreation and Leisure
- [ ] Seating and Positioning
- [ ] Switch Interfaces
- [ ] Writing Aids

### User Value Statement
The Open Playback Recorder is an open-source device that can record three lists of voice messages that its user can playback via the trigger of an accessible button connected through a 3.5 mm mono jack. It aims to assist users with communication difficulties by giving them alternative methods to engage in conversation. This device has functionality similar to AbleNet's Big Mack or Step by Step.

### Designer
Design by Neil Squire Society/Makers Making Change

## Device Info

### Overview
This device can record and store three separate lists of messages, which can then be sequentially played back using a 3.5mm jack or an onboard button. It is designed for users with difficulty communicating, and can allow them to choose from a list of messages for three separate situations.

### Disability Type

Select one or more disability types:

- [ ] Agility / Dexterity
- [ ] Arthritis

# Open Playback Recorder
## SUMMARY

- [ ] Cognitive
- [ ] Hearing
- [ ] Mobility
- [ ] Mobility
- [x] Other
- [ ] Pain
- [ ] SCI
- [ ] Vision

## Disability Type Description

This device is designed for users that have difficulty with communication and need a communication aid. This device can store three different sets of messages for use in three different situations.

## How To Use

### Setup

Connect two assistive switches, one to the jack labeled PLAY, and one to the jack labeled LEVEL.

### Power On

To power on the device, flip the switch on the top of the device from OFF to ON.

### Message Recording

To record one or more messages, the device needs to be in Record Mode. The device will record messages to the currently selected level.

**Step 1.** To engage "Record Mode" hold down the REC button for 2 seconds. When Record Mode is engaged, the REC LED will turn red and remain solid.

Note: When Record Mode is engaged, all previous messages on that level will be erased.

**Step 2.** To start message recording, press and hold the PLAY button or assistive switch connected to the play jack. The REC LED will flash red. Record the message into the microphone and release the button to end and save the message. The RED LED will once again turn red and remain solid.

**Step 3.** To record additional messages, repeat Step 2.

Note: These messages will later by played back in the same order they were recorded.

**Step 4.** When the desired messages have been recorded, press the REC button to exit Record Mode. The red REC LED will turn off.

### Message Playback

To play back a message, press an assistive switch connected to the play jack. This will play a message from the current recording level. The play button on the device itself will also allow a secondary user to play a message. Continuing to press the button will cycle through all the messages on that level.

# Open Playback Recorder
## SUMMARY

To change the message level, press an assistive switch connected to the level jack. The level shift button on the device will also allow a secondary user to change the message level. The current level will be indicated by the three blue LEDs on the left side of the device.

### Estimated Cost

The estimated material cost of the device:

- [ ] $0 - $10
- [ ] $11 - $25
- [ ] $26 - $50
- [x] $51 - $100
- [ ] $101 - $250
- [ ] $250+

### Attribution

Design by Neil Squire Society/Makers Making Change

## Maker Info

### Project Skills

- [x] 3D Printing
- [ ] Custom PCB
- [x] Electronics
- [ ] Laser Cutting
- [ ] Mechanics
- [ ] Other
- [x] Software
- [x] Soldering
- [ ] Woodworking

### Skills Description

The primary skill used in this build is soldering. The circuit is constructed on a protoboard, and all the components need to be connected by wires.

### Tools Needed

- [x] 3D Printer
- [x] Common Hand Tools
- [ ] Common Power Tools
- [ ] Laser Cutter
- [x] Soldering Iron
- [ ] Specialized Tooling

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## SUMMARY

### Print time (hrs)
24 hrs

### Assembly time (hrs)
5 hrs

### Build Instructions
The main work on this build involves soldering together two circuits on protoboards, one for each half of the enclosure, and connecting them together with Dupont wires.

### Download Link

https://github.com/makersmakingchange/Open-Playback-Recorder/archive/refs/heads/main.zip

### Project Link

https://github.com/makersmakingchange/Open-Playback-Recorder

## License

### License
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