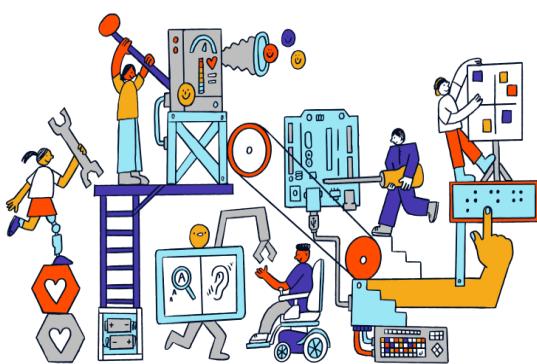


Product Manual: Adapted Recorder Button



2025/2026

Adapted Recorder Button Product Handbook

Rev: 1.0



Revision: 1.0

Date: 01-Dec-2025

Table of Contents

Table of Contents.....	1
1. Introduction.....	2
1.1 About the Community Partner.....	2
1.2 Product Description.....	3
WHY?.....	3
WHO?.....	3
WHAT?.....	3
HOW?.....	3
1.3 Product Overview and Features.....	4
1.4 Bill of Materials (BOM).....	5
2. User Guide: Instructions for Use.....	6
2.1 Set Up Instructions.....	7
2.2 Maintenance.....	9
2.3 Troubleshooting.....	10
3. Maker Guide: Assembly Instructions.....	11
3.1 Assembly Guide.....	12
4. Credit and Open Hardware Licence.....	15
4.1. Open Hardware Attribution.....	15
4.2. License Statement and Source Availability.....	16
4.3 CERN Open Hardware Licence.....	16

2025/2026

Adapted Recorder Button Product Handbook

Rev: 1.0



1. Introduction

1.1 About the Community Partner

Our journey began in 1970 with the will of Mrs Shakuntala Bhatia. Under the banner of the Asian Women's Welfare Association, Mrs Bhatia and her peers, like Mrs Tambyah and Mrs Kula, identified gaps in the community to help the underserved.

The Association incorporated AWWA Ltd on 7 January 2015, a Singapore company limited by guarantee. In April of the same year, AWWA Ltd took over the operations and activities previously managed by the Association. In 2022, the Association was dissolved, and AWWA continues to address social service gaps as they arise, by being guided by our mission and strategic vision.



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1.2 Product Description

This table clarifies the intended purpose and scope of the product:

WHY?	Special needs students are often excluded from using toys and/or face lack of appropriate ways to express themselves.
WHO?	For special needs students who are learning to understand cause-and-effect and have fun.
WHAT?	A button with audio recording and playback function, adapted with an additional 3.5mm male mono audio cable to trigger the power on/off of other toys.
HOW?	This product transforms an off-the-shelf pet button into a durable and responsive device that records, plays back audio, while enabling it to trigger the power of other toys. It allows students to experience and understand the cause-and-effect.

2025/2026

Adapted Recorder Button Product Handbook

Rev: 1.0



1.3 Product Overview and Features



1. Adapted Recorder Button can playback audio.
2. Adapted Recorder Button can record audio.
3. Adapted Recorder Button can trigger other toys to power on/off via the 3.5mm male mono audio jack cable and both trigger and playback audio.

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Adapted Recorder Button Product Handbook

Rev: 1.0



1.4 Bill of Materials (BOM)

Item	Supplier/Product Link	Price	Quantity
Pet Button	Click Here Shoppe link - Link too long Click Here Lazada Link - Link too long	5.86 SGD/pcs or 5.50 SGD/pcs	1
Push button 12*12*4.3 or 5	Click Here - Link too long	4.26 SGD/30pcs	1
3.5mm male mono audio jack cable	Click Here - Link too long	5.42 SGD/10pcs	1
Cable Tie 3x100mm	Click Here - Link too long	1.62 SGD/100pcs	1

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Adapted Recorder Button Product Handbook

Rev: 1.0



2. User Guide: Instructions for Use



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2025/2026

Adapted Recorder Button Product Handbook

Rev: 1.0



2.1 Set Up Instructions

Use the following table for a step-by-step guide to setting up the product:

Setting up	
Open the battery cover and install 2 AAA batteries.	A photograph of the recorder button from a top-down perspective. The top cover has been removed, revealing the internal circuit board, a small speaker grille, and a USB port. A black cable is attached to the side.
Press and hold the bottom REC button to start recording audio. It can record up to 30seconds.	A photograph of the recorder button from a top-down perspective. The bottom REC button is circled in red.
Press the top button to playback the audio.	A photograph of the recorder button from a top-down perspective. The top playback button is highlighted with a bright orange circle.

2025/2026

Adapted Recorder Button Product Handbook

Rev: 1.0



Setting up	
Connect the 3.5mm male mono jack cable to an adapted toy with female mono jack to trigger power on/off.	A photograph showing a black spherical device with a crescent moon and stars pattern on its top half, connected by a black cable to an orange circular button.

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2025/2026

Adapted Recorder Button Product Handbook

Rev: 1.0



2.2 Maintenance

1. Remove AAA batteries if the Adapted Recorder Button is not in use to prevent battery leak and corrosion.
2. If AA battery leaks, please change it
3. The device can be wiped clean with a damp cloth. Do not wash or submerge in water.

2025/2026

Adapted Recorder Button Product Handbook

Rev: 1.0



2.3 Troubleshooting

Problem	Possible Cause	What You Can Try
Adapted Recorder Button not working	Battery drain	Change the battery to see if it works
	Battery spoilt because of leakage	Change the battery to see if it works
	Button is malfunctioning because battery leakage has caused the contact points to corrode	Check how bad the corrosion is? 1. If is very bad that it leak to the PCB , please replace the button, 2. If not try to clean up and replace the battery
	Adapted Recorder Button faulty because of the solder broken	Open with the assembly instruction and try to check on it or contact EG for support.
Adapted Recorder Button playback sound but toy is not triggering	Toy issues	1. Plug switch into a known working toy. If the switch is able to activate the working toy, the issue may lie with the original toy. 2. Check the toy's product manual for troubleshooting.

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2025/2026

Adapted Recorder Button Product Handbook

Rev: 1.0



3. Maker Guide: Assembly Instructions

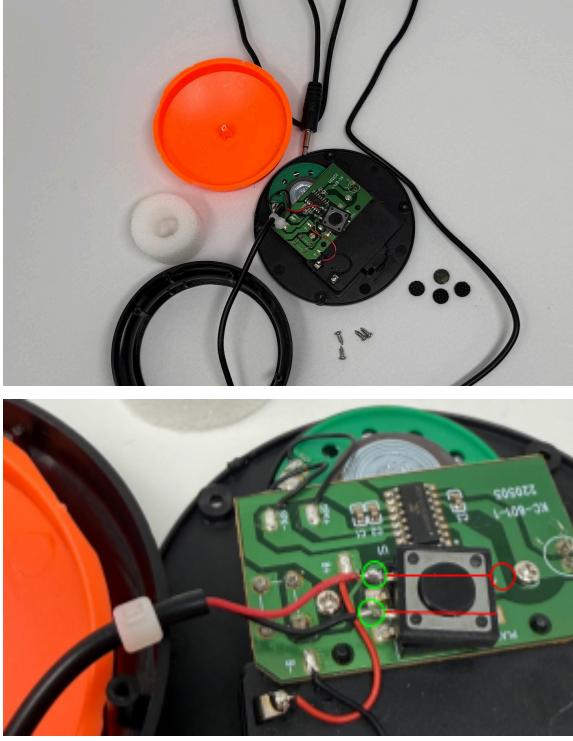


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3.1 Assembly Guide

Steps	Images
Remove the black anti-slip rubber feet and unscrew the 4 screws.	
Open up the button. Need push button and cable tie.	
Drill a hole on the outer cover of the button.	
Insert the 3.5mm male mono audio jack cable through the hole and secure it with a cable tie to prevent it from coming out.	

Steps	Images
<p>Solder the extra push button on the both green circles and not 1 green and 1 red circle.</p> <p>Add a bit of hot glue to the existing push button.</p> <p>*The amount of hot git should minimal so that the extra push button remain movable (rotatable) on the existing push button</p> <p>Cut the form and the orange cover stand shorter to make space for the extra push button</p> <p>*Do remember to keep the 3.5mm male mono audio jack cable inside the hole when you solder.</p>	
Install back the part and screw it	

2025/2026

Adapted Recorder Button Product Handbook

Rev: 1.0



Steps	Images
Test with a toy see if working	A photograph showing a large, solid orange push-button. A black cable connects the button to a black, circular device that is glowing with a bright blue light, resembling a star projector or a glowing ball. The button is positioned to the left of the glowing device.

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4. Credit and Open Hardware Licence

This section provides the required legal notices and attribution for the open hardware design used to create this product.

4.1. Open Hardware Attribution

The core design for this Adapted Recorder Button is based on the Playback Switch, an open-source assistive technology project.

- Original Designer: Makers Making Change (a program of Neil Squire).
- Original Copyright: Copyright (c) Neil Squire / Makers Making Change.
- Original Source Location: The original project source files are available online at:

<https://www.makersmakingchange.com/product/playback-switch/01tJR000003S43IYAC>



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About Makers Making Change

Empowering people with disabilities since 1984

Our Mission

According to Statistics Canada, 80% of people living with a disability use an assistive device to increase their independence, and 27% need at least one more. Cost is often cited as the main barrier.

Volunteer-made assistive technology can help bridge the gap.

Neil Squire's Makers Making Change program connects people with disabilities to volunteers who can build affordable assistive technology. Our mission is to achieve economic and social inclusiveness for all people with disabilities.



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2025/2026

Adapted Recorder Button Product Handbook

Rev: 1.0



4.2. License Statement and Source Availability

The hardware design used in this product is licensed under the CERN Open Hardware Licence Version 2 – Weakly Reciprocal (CERN-OHL-W 2.0) or later.

By distributing this product, we are obligated to make the complete design source available to you.

- Complete Source Availability: The complete design files (Source), including schematics, assembly instructions, and any modifications made by Engineering Good, are available free of charge at a permanent online location:
<https://github.com/Engineering-Good/T4G-Adapted-Recorder-Button>
- Modification Notice: This version of the Playback Switch design was modified by Engineering Good to include the 3.5mm mono audio jack functionality for triggering other toys. The full, modified source is available at the URL listed above.
- Full License Text: The complete legal text of the CERN Open Hardware Licence Version 2 – Weakly Reciprocal** follows this section.

4.3 CERN Open Hardware Licence

The full text of the license is available here: [CERN-OHL-W 2.0 Full Text](https://cern-ohl-w.org/cern-ohl-w-2.0.html)

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