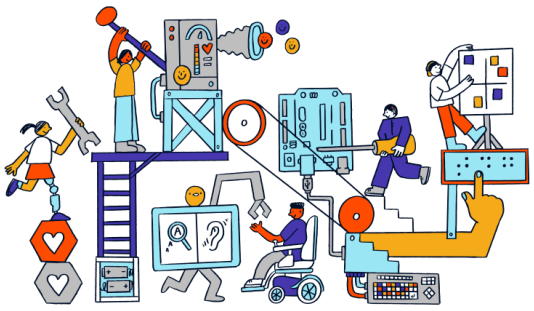
Product Manual: Adapted Recorder Button



engineering GOOD

Revision: 1.0

Date: 01-Dec-2025

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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.

1.2 Product Description

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

WHY?	Special needs students are often excluded with toys or/and ways to express themselves.
WHO?	For Special needs students to learn to understand cause-and-effect and have fun.
WHAT?	Button with audio playback and record function. With add on 3.5mm male mono audio cable to trigger power on/off of other toys.
HOW?	This product transforms off-the-shelf pet buttons into durable and responsive devices that record, playback audio and trigger power on/off other toys. Students use the button to try, feel and understand the cause-and-effect.

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.

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 or 5.50 SGD	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

2. User Guide: Instructions for Use

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.	
Press and hold the bottom button to start recording audio. It can record up to 30seconds.	
Press the top button to playback the audio.	

Connect the 3.5mm male mono jack cable to toy and trigger power on/off.	

2.2 Maintenance

1. Remove AA 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.

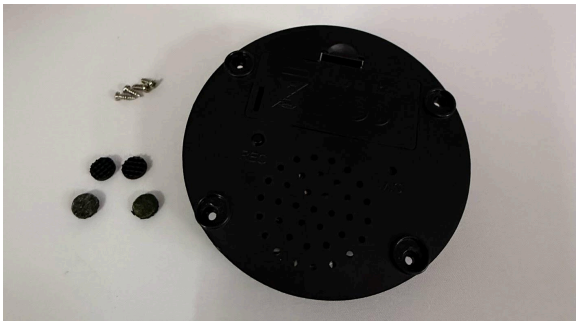
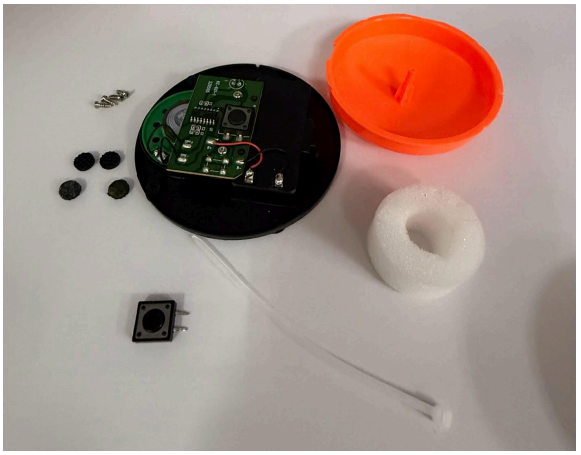
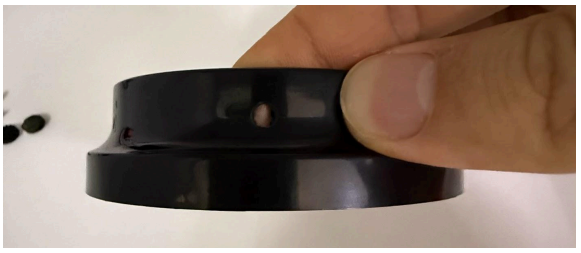
2.3 Troubleshooting

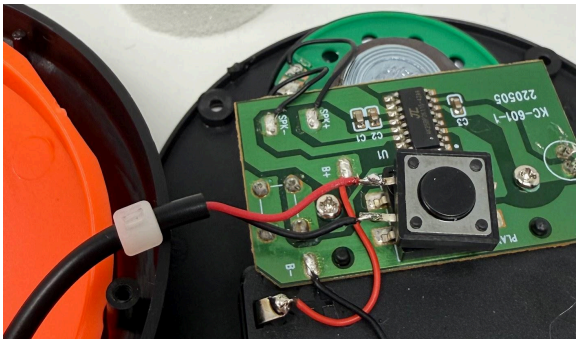
Problem	**Possible Cause**	**What You Can Try**
Adapted Recorder Button not working	Battery drain	Change the battery to see if it works
	Battery spoilt because of leakage	Change the battery to see if it works
	Button spoilt because battery leakage and	Check how bad the corrosion is? 1. If is very bad that it leak to the PCB, please replace the button,

	cause the contact point corroded	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.

3. Maker Guide: Assembly Instructions

3.1 Assembly Guide

Remove the black anti-slip rubber feet and un-screw the 4 screws.	
Open up the button. Need push button and cable tie.	
Drill a hole on the outer cover of the button.	
Put the 3.5mm male mono audio jack through it and put the cable tie on it to prevent it from coming out.	

Solder the extra push button and add a bit of hot glue to the existing push button. *The amount of hot git should little that extra push button should be rotatable on the existing push button Cut the form and the orange cover stand shorter to make space for the extra push button *Do remember to keep the 3.5mm male mono audio jack cable inside the hole when you solder.	 
Install back the part and screw it	
Test with a toy see if working	

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

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 Version 2 – Weakly Reciprocal (CERN-OHL-W 2.0)

The full text of the license is available here: CERN-OHL-W 2.0 Full Text