Trigger Extenders for Joy-Con Controller
DESIGN RATIONALE

Introduction

The Trigger Extenders for Joy-Con Controller is designed to extend the shoulder bumpers and triggers on the Nintendo Joy-Con Controller to make it easier to activate them.

The device is intended for users that have issues using the shoulder bumpers and triggers on the Nintendo Joy-Con Controller.

Research

No similar commercial or DIY products could be found.

Requirements

Goals

G01	Extend the shoulder bumpers and triggers so they can be activated from more positions

Functional Requirements

F01	Device must extend the bumpers to be activated from more locations
F02	Device must extend the triggers to be activated from more locations
F03	Device must be easily attached and removed from the Nintendo Joy-Con Grip

Constraints

C01	Device must be entirely 3D printed

Testing

The parts were printed, and the extenders were attached and removed from the slide-on trigger attachment 50 times to see if they would hold up over time. At the end of the testing the parts still work, although the attachments are slightly looser.

Detailed Design

Slide-on Trigger Attachment

~110x30x20mm

Shoulder Trigger Extender

~160x35x5mm

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Shoulder Bumper Extender

~140x40x5mm

Opportunities for Improvement

- The trigger extenders can break after repeatedly attaching and being removed from the trigger attachment. However, they need to be removed to take the Joy-Cons out to charge and use with the main switch body. Redesigning the extender so that it doesn't block the insertion and removal of the Joy-Cons would extend the lifespan of this device.