# Light Switch Extension Lever **DESIGN RATIONALE**



#### Introduction

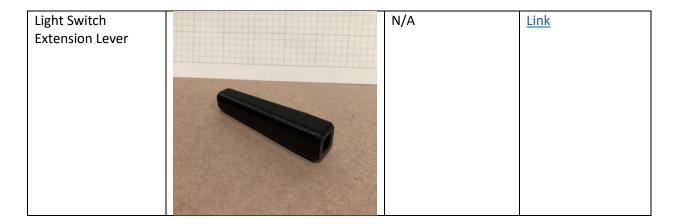
For some users with arthritis, limited grip strength or finger dexterity, it can be difficult to use a light switch. The Light Switch Extension Lever allows the user to flip the switch without needing any grip strength or nearly as much precision.

#### Research

Name	Photo	Price	Link
Commercial		•	
Light Switch Extender for Children		\$15.95	Link
Light Switch Extender		N/A	Link
DIY	ı	l	1

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## Requirements

#### Goals

G01 Extend the toggle lever of a light switch so it can be toggled by bumping it with the hand

### **Functional Requirements**

F01	Device must work, or be easily customizable to work with multiple thicknesses of light switch
	toggles

#### Constraints

C01	Must be entirely 3D printed

### **Testing**

The original design was tested, and found to require supports, and was too big for most of the light switches tried. It was remodeled in Fusion 360, with a changeable user parameter to accommodate any light switch.

## **Opportunities for Improvement**

Design could be altered to include a spring or some mechanism that would allow a one size fits all, instead of changing the Switch\_Thickness parameter for each switch.