Light Touch Switch

Makers Making Change

VIEW IN BROWSER

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Summary

A cost-effective 3D printable accessibility switch for people with physical disabilities.

1.46 hrs	4 pcs	0.20 mm	0.40 mm	PLA	14 g	Prusa MK3/S/S+

Healthcare > Home Medical Tools

Tags: switch accessibility disability assistivetechnology assistivedevice accessible assistiveswitch

The Light Touch Switch is a cost-effective 3D printable accessibility switch based on an initial design by Kevin Cross. It's an assistive device used by people with physical disabilities to control electronics (e.g. phones, computers, adapted toys, game controls, etc.).

This particular switch is well-suited for use by a finger. It can be plugged into any standard 3.5 mm AT interface and even the Xbox Adaptive Controller.

Print Settings

Infill: 20%

Resolution: 0.2mm

Supports: Yes (only for the switch cap)

Rafts: No

Bill of Materials

To assemble the switch, you will need:

- 1 – 3D Printed Switch Base
- 1 – 3D Printed Switch Cap
- 1 – 3D Printed Hinge Pin
- 1 – 3.5 mm mono cable
- 1 – 12 mm tactile switch
- ~1/3 – stick of hot glue
- 1 – 3D Printed 12 mm switch soldering jig (Optional)

Build Tutorial

Printed assembly manual can be found in the Files tab.

Additional Documentation

https://makersmakingchange.com/project/light-touch-switch/

About Makers Making Change

Makers Making Change is an initiative of the Neil Squire Society, a Canadian non-profit that empowers people with disabilities through technology.

We leverage the capacity of community based Makers, Disability Professionals and Volunteers to develop and deliver affordable Open Source Assistive Technologies.

Volunteer to print a device

Tackle a design challenge

Submit an assistive device idea

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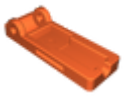
This remix is based on

XBox adaptive controller low cost/force buttons

by Davross

Model files



lts_base_v10.stl

lts_cap_v10.stl

lts_pin_v01.stl

switch_jig_12mm_v10.stl

lts_v10.f3d

lts_pin_v01.f3d

Print files

lts_pin_v01_02mm_pla_mk3s_5m.gcode

PLA 0.40 mm 0.20 mm 0.08 hrs 1 g Prusa MK3/S/S+

lts_base_v10_02mm_pla_mk3s_23m.gcode

PLA 0.40 mm 0.20 mm 0.39 hrs 4 g Prusa MK3/S/S+

lts_cap_v10_02mm_pla_mk3s_33m.gcode

PLA 0.40 mm 0.20 mm 0.55 hrs 4 g Prusa MK3/S/S+

switch_jig_12mm_v10_02mm_pla_mk3s_26m.gcode

PLA 0.40 mm 0.20 mm 0.44 hrs 5 g Prusa MK3/S/S+

Other files

light_touch_switch_assembly_manual.pdf

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