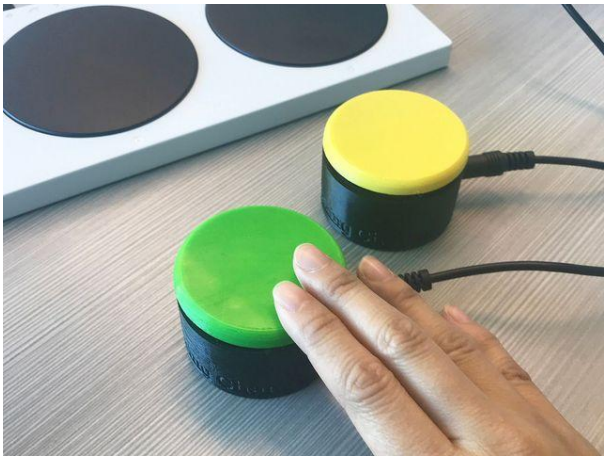


MMC60 Switch

Makers Making Change

VIEW IN BROWSER

updated 19. 5. 2023 | published 19. 5. 2023

Summary

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

3.93 hrs	6 pcs	0.20 mm	0.40 mm	PLA	43 g	Prusa MK3/S/S+

Healthcare > Home Medical Tools

Tags: accessibility accessible assistivedevice assistiveswitch assistivetechnology disability switch controller gaming adaptedgaming

The MMC60 Switch is a cost-effective accessibility switch, an assistive device used by people with physical disabilities to control electronics (e.g. phones, computers, adapted toys, game controls, etc.).

This switch is ideal for people who have difficulty with fine motor control. The flexure in the design allows the user to press, hit, or smash on the switch with a high degree of force.

The top button / activation surface is attached to the base by threading it on. This makes it easy to change tops to change color, labels, etc.

Print Settings

Infill: 20%

Resolution: 0.2mm

Supports: No

Rafts: No

Bill of Materials

To assemble the switch, you will need:

- 1 – 3D Printed Base Bottom
- 1 – 3D Printed Base Top
- 1 – 3D Printed Flexure
- 1 – 3D Printed Button
- 1 – 3D Printed Switch Mount
- 1 – 3D Printed Pins
- 1 – 3.5 mm mono cable
- 1 – Microswitch (Omron SS-3GP)
- 1 – Mono Jack (CUI MJ3502)
- 1 – 1/4″-20 UNC Hex Bolt, 1/2″ Length
- 2 – 1/4″-20 UNC Hex Nut
- 1 – 1/4″-20 UNC Tee Nut Insert, 5/16″ Length
- 5 – #4 Metal Screw, 3/8″ Length
- 2 – 4 cm length 22 AWG wire

Build Tutorial

Printed assembly manual can be found in the Files tab.

Button Customization Tutorial

https://makersmakingchange.com/customizing-switch-buttons/

Additional Documentation

https://makersmakingchange.com/project/mmc60-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

Follow us on Instagram, Facebook, and Twitter

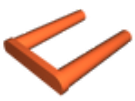
Model files

rfs_button.stl

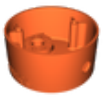
rfs_base_top.stl

rfs_flexure.stl

rfs_sw_jack_mount.stl



rfs_pins.stl



rfs_base_bottom.stl

Print files

rfs_button_02mm_pla_mk3s_40m.gcode

PLA 0.40 mm 0.20 mm 0.66 hrs 9 g Prusa MK3/S/S+

rfs_base_top_02mm_pla_mk3s_26m.gcode

PLA 0.40 mm 0.20 mm 0.44 hrs 6 g Prusa MK3/S/S+

rfs_flexure_02mm_pla_mk3s_22m.gcode

PLA 0.40 mm 0.20 mm 0.37 hrs 3 g Prusa MK3/S/S+

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rfs_sw_jack_mount_02mm_pla_mk3s_22m.gcode

PLA 0.40 mm 0.20 mm 0.36 hrs 3 g Prusa MK3/S/S+

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rfs_pins_02mm_pla_mk3s_3m.gcode

PLA 0.40 mm 0.20 mm 0.05 hrs 1 g Prusa MK3/S/S+

rfs_base_bottom_02mm_pla_mk3s_2h3m.gcode

PLA 0.40 mm 0.20 mm 2.05 hrs 21 g Prusa MK3/S/S+

Other files

mmc60_switch_instruction_v11.pdf

mmc60_switch_troubleshooting_guide.pdf

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