

Custom Single Switch Kit

ASSEMBLY MANUAL

INTRODUCTION:

Access switches are used by people with disabilities who have limited mobility and hand functions. They provide alternative inputs to control assistive technologies they otherwise may have difficulties operating such as computers, environmental controls, and communication aids.

In this guide, switch users and their caretakers can customize the shape of a switch to better suit the user's hand. With a more contoured shape, users can grip the switches more securely and position it wherever on their hand.

TOOLS



Switch Assembly



Instamorph® or any moldable plastic



Heat proof container



Hot water



Spoon



Towel



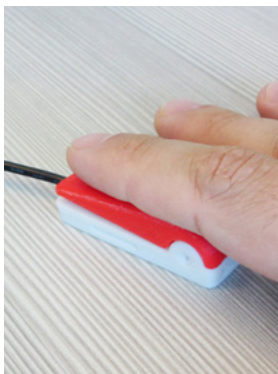
Thermometer (optional)

PART A: BUILD THE SWITCH

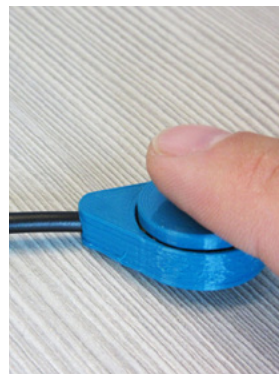
The main component of the custom switch is the switch assembly. It's comprised of a tactile switch with a mono cable and a jack ending soldered to it.

Use a completed switch like the Raindrop Switch and Light Touch Switch or create your own simple switch without any 3D printed casing by following the Light Touch Switch Instructions steps 2-10. Cover any exposed solder connection with electrical tape or heat shrink tubing. Test the switch first before completing Part B.

You can substitute different tactile switches like this [lever switch](#) in your simple switch.



Light Touch Switch
[Build Instructions](#)



Raindrop Switch
[Build Instructions](#)



Simple Switch
[Build Instructions Steps 2-10 only](#)

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PART B: MOULDING THE INSTAMORPH



01. Heat the water until 50°C or 122°F.



02. Choose where the user wants to position the switch in their hand and how it'll be activated. See Appendix A for examples. Maintain hand position.



03. Transfer water into a heat proof container.



04. Add the instamorph pellets into the hot water. Wait 2 minutes until the pellets turn clear and clump together.



05. Scoop out the instamorph with a spoon. Carefully test the instamorph with your fingertips. **It should be very warm and pliable but not too hot to the touch.**



06. Mould the soft instamorph into the user's hand position



07. Press the switch from Part A into the soft instamorph in the desired location.



08. Hold the instamorph and switch in position until it hardens and turns opaque. Dry with a towel.

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09. Connect the switch into a device to test that it works.



10. Remould the instamorph for a different configuration by removing the switch assembly first and softening the instamorph in hot water.

APPENDIX: CUSTOM SWITCH EXAMPLES



Switch on the index finger



Switch on the side of the palm



Switch on the outside of the fist



Switch in between fingers