

THE ADAPTABLE SWITCH

INTRODUCTION

The switch is an accessible push button widely used in the field of disability. It is designed to facilitate access to different types of technologies and, in an extensive way, to allow the user to act on his environment.

It transforms a motor gesture, lacking precision, into, for example, a signal that can be used by a computer, a tablet or a telephone to fully control them when they are set for this operating mode.

The switch also gives access to electric toys, communication devices or devices controlled by buttons such as cameras, game consoles, etc....

The switches are available from specialist dealers. There are different sizes, colors but also different types and shapes. However, the contactor can be difficult to choose so many different models and remains, for a majority of models, expensive.

This is why it may be appropriate to have an adaptable switch that can be modified according to the user's motor characteristics, habits or tastes while making it more accessible.

The adaptable switch presented here offers a series of possibilities and customization options that make it potentially capable of responding to all situations.

Totally printed using a 3D printer, the different parts that make it up are assembled like Lego bricks. It offers different mounting and positioning possibilities using the standard used for GOPRO mini cameras, for which accessories are available at low prices everywhere.

It also has a specific button with screw fasteners that allows the manufacture and use of specific custom buttons thus providing a basis for creating unique models to meet non-generic needs.

Finally, the assembly of the switch is simple and requires only two simple tin solderings which it is possible to avoid, when one does not have soldering iron, by carrying out a simple crimping of wires.

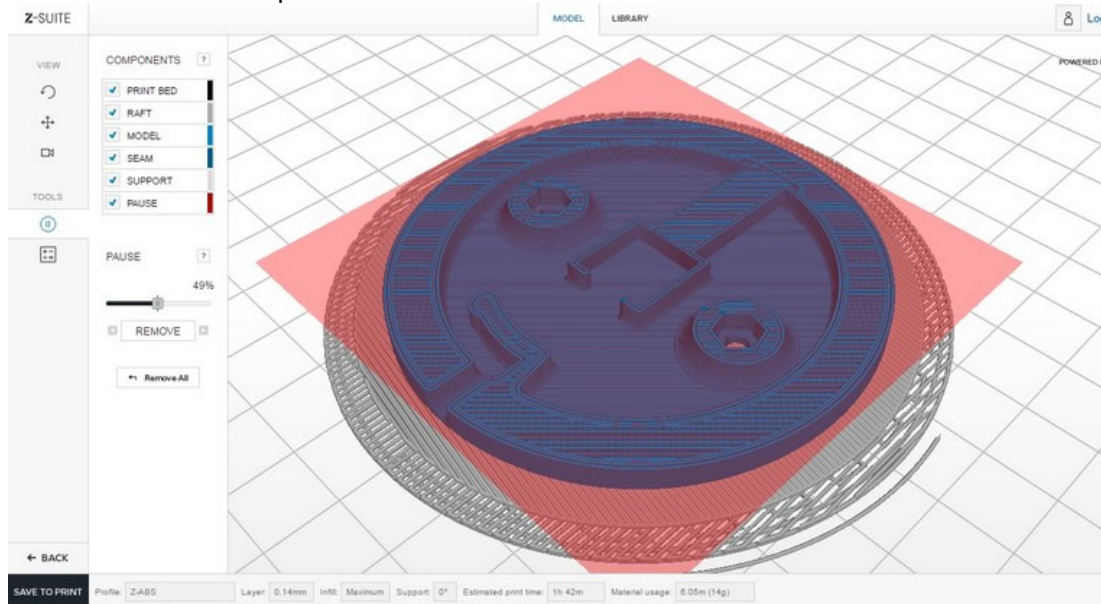
MANUFACTURE THE ADAPTABLE CONTACTOR

Print, with a 3D printer, the 3 parts of the switch, preferably using ABS plastic.

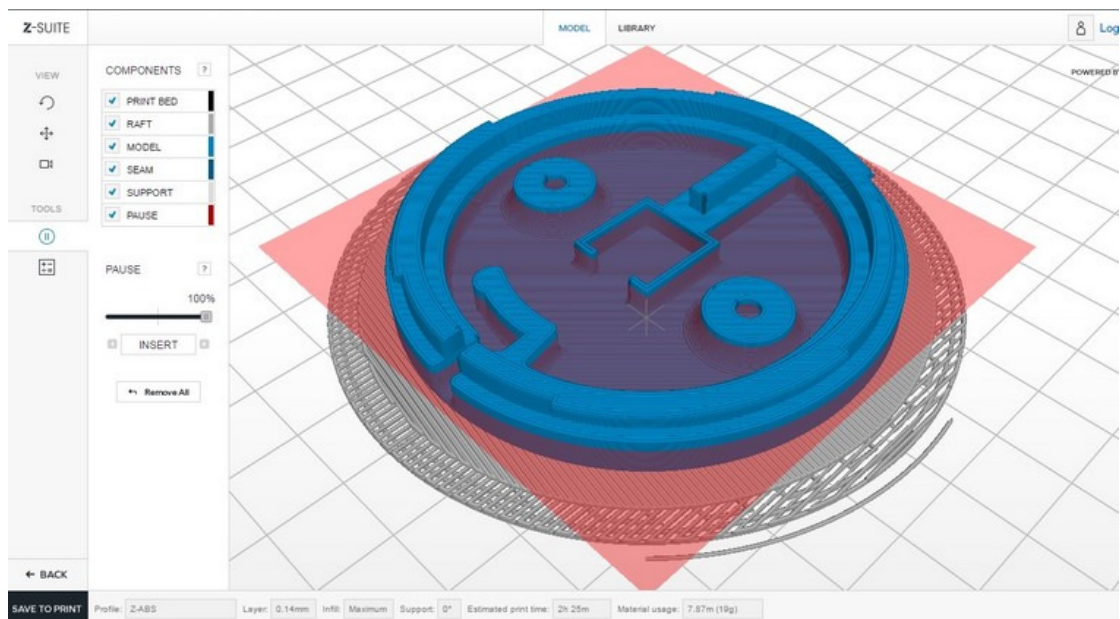
Parts 1: Switch base

Print setting:

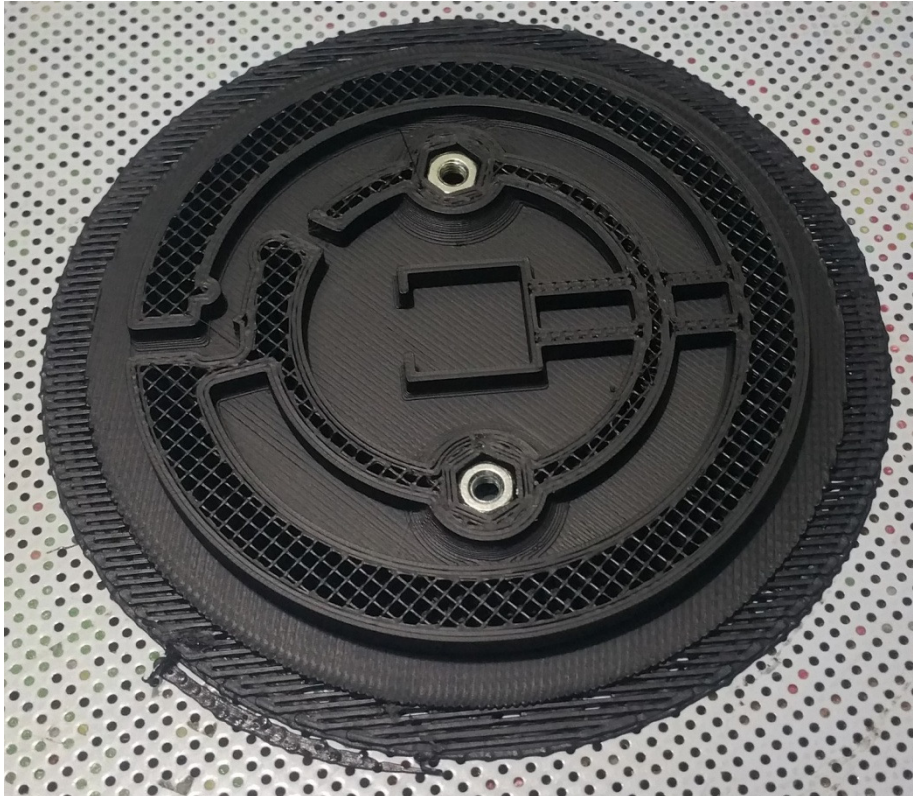
- No supports,
- Layer thickness: as thin as possible
- Insert a pause at the nuts to allow them to be inserted before printing is complete.



Insert a pause before printing when preparing the part.



Pause to insert the nuts into the case.



Insertion of nuts, for 3mm bolts, during the print pause.

Part 2 and part 3: upper part of the switch and button :

Print setting:

- Turn the part upside down so that the visible upper part is facing upwards,
- With supports,
- Layer thickness: as thin as possible.

SWITCH ASSEMBLY

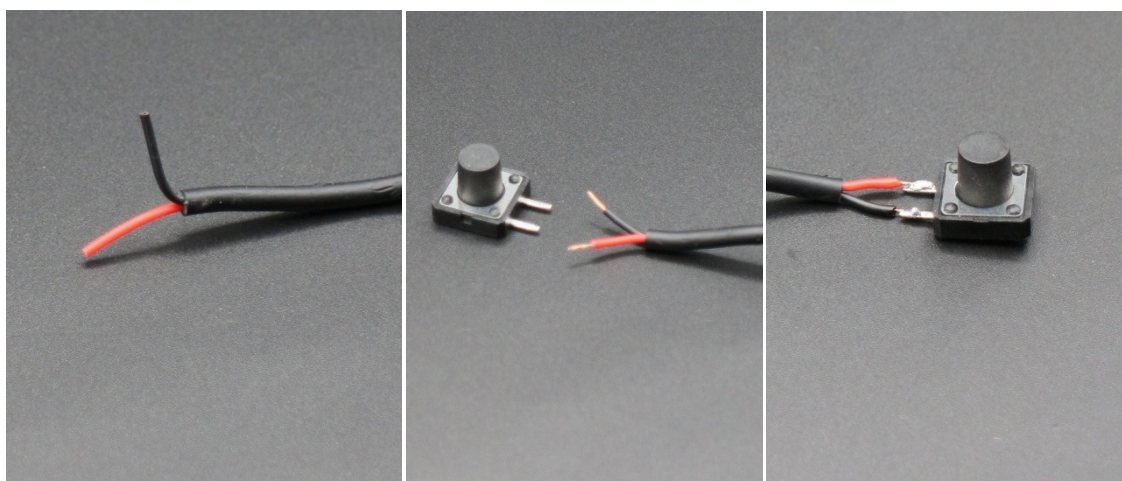
Printed switch parts and accessories :



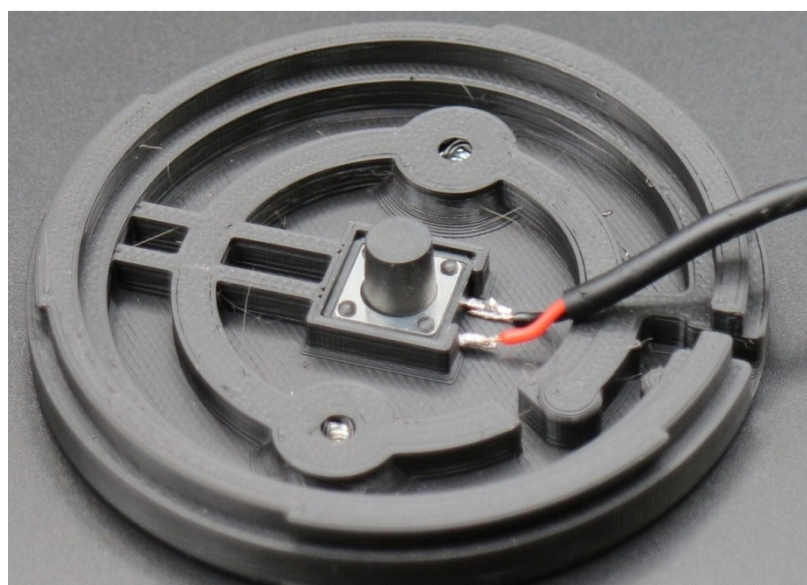
Tools :



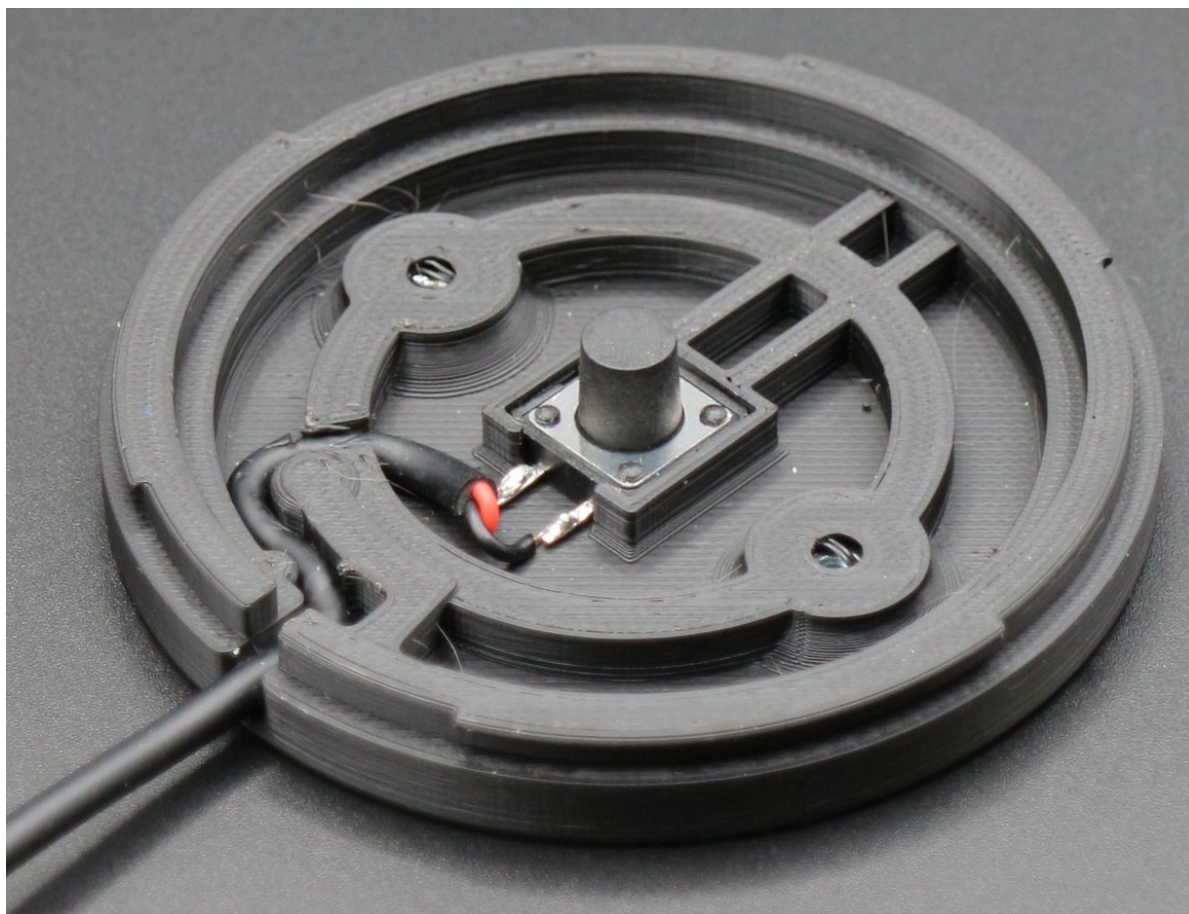
Strip the wires and solder the push button :



Install the push button in the shell by pushing firmly on the body of the button :



Force the cable into the intended path :



Install the switch button :



Install the cap :



Screw it in by marking the notches: the switch is ready.

