



## Compact Hitbox/ Leverless Controller for mini print bed



Xericity

VIEW IN BROWSER

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## Summary

Small DIY solution for those with a mini print bed and hand soldering.

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Tags: [fighting](#) [leverless](#) [fightstick](#) [arcade](#) [controller](#)  
[hitbox](#)

I am finally releasing this model after a few fixes. Design was influenced by Vaunt's Tiltbox. This was done on tinkercad so there is no step file. I am moving on to learning Onshape so I will no longer be working on this model.

Not a perfect model but I've used it for the last 6 months with no issues whatsoever.

This was printed on a Prusa mini+ (180 x180mm bed)

Item List/Notes:

- Raspberry pi Pico
- 1.3 OLED SH1106 <https://www.aliexpress.com/item/1005004146596540.html>
- Gateron KS 27 low profile red switches lubed with generic GPL 205
- 10 X 2 magnets with hot glue/JB weld
- M5 x 5mm screws and nuts

- Micro to USB C 3.1 extender <https://www.aliexpress.com/item/1005005282250054.html>
- I highly recommend using some JB Weld to stick some parts the top plate to the middle for extra durability.
- GP2040CE Firmware  
Please visit <https://gp2040-ce.info> for more info, installation and wiring guide.
- Buttons are slightly remixed (non-standard size) from Pett-J <https://github.com/pett-j/Choc-Button-Caps/tree/main/Choc%20V2> to fit into my build as I am too lazy to go back and make some changes
- You can tighten the top plate and middle modules with some clamps as it can be a bit tight. Might as well add some adhesive while you're at it!
- KS 27 soldering pin helper will fit by inserting one pin in and wiggling left and right for the second pin.

Print settings:

0.2 layer height standard prusaslicer settings

-Infill: Support Cubic at 25%

-Printed in PETG with Duramic3D Filament

-Organic Support for Middle Left module

-Printed on a texture PEI sheet as it looks better and hides some layer lines if calibrated

## Model files

**top-right-plate.stl**



**top-left-plate.stl**



**middle-left-module.stl**

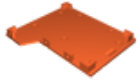


**middle-right-module.stl**





**bottom-right-plate.stl**



**bottom-left-plate.stl**



**v2-small-low-profile-mx.stl**



**v2-mid-low-profile-mx.stl**



**v2-big-low-profile-mx.stl**



**gateron-ks-27-solder-pin.stl**

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