



# 3D Printed Personal Monitor Game Controller Mount

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<https://learn.adafruit.com/3d-printed-personal-monitor-game-controller-mount>

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# Overview

Ever find yourself play games in bed but your partner just wants to sleep? Save your relationship without sacrificing your levels by 3D printing your own controller-display mount. Our 7" HDMI 720p monitor is perfect for gaming without the big screen

The mount is designed to work with the XBox 360 game controller and our HDMI 7" display, its 1280x800 and IPS for great HD graphics! We have a design thats great for XBox360 controllers ready to print. If you want to adapt it for another gaming system, this guide will help you customize our mount design to work with your game controller.



## Parts

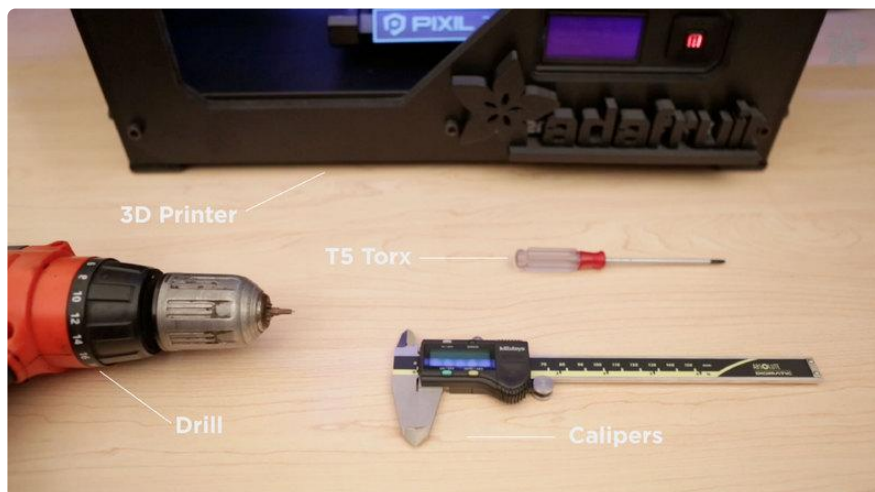
- [Adafruit HDMI 7" Display \(http://adafru.it/1033\)](http://adafru.it/1033)
- [2.1mm DC extension cord \(http://adafru.it/327\)](http://adafru.it/327) (in case you need more slack on the power cable)

- 6' long HDMI cable, try to get a slim-style one
- 3D Printed Mount
- Game Controller
- #4 3/4 long Philips screws - you can also use 4-40 or M3 screws, 1/2 to 3/4" long, depending on your controller construction.

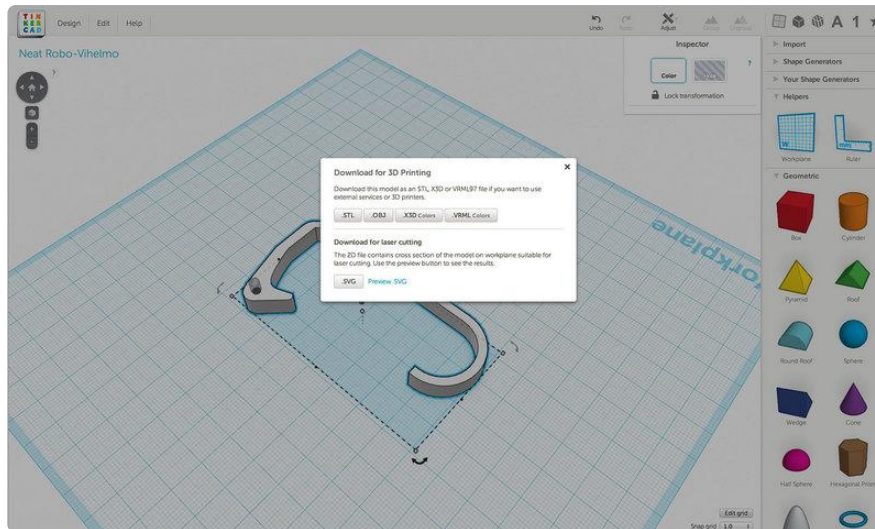
## Tools

- 3D Printer
- Calipers
- Drill/Screw drivers
- [T5 security Torx or whatever other tools you may need to disassemble the controller.](http://adafru.it/822) (<http://adafru.it/822>)

The HDMI screen we have doesn't do audio decoding, so if you want audio, connect to the A/V port on the back of the console or use a wireless headset



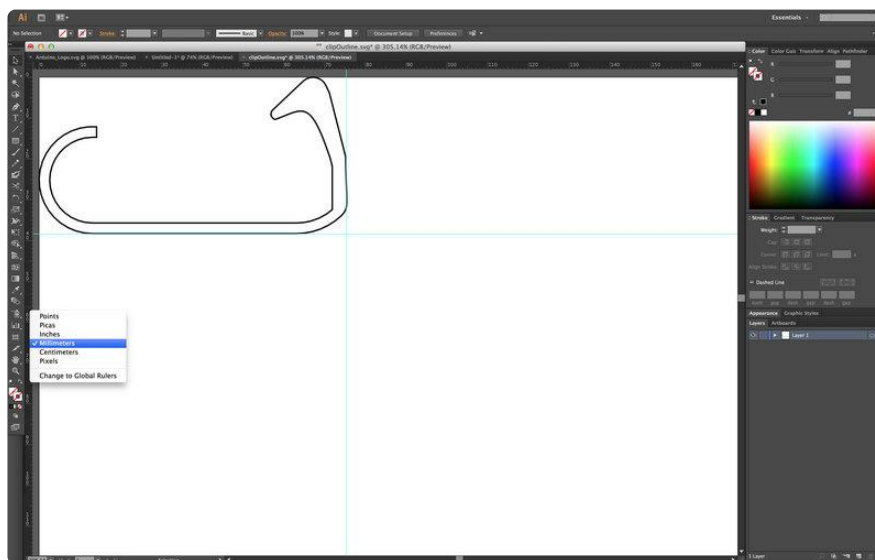
# Customize



Editable model is available on:

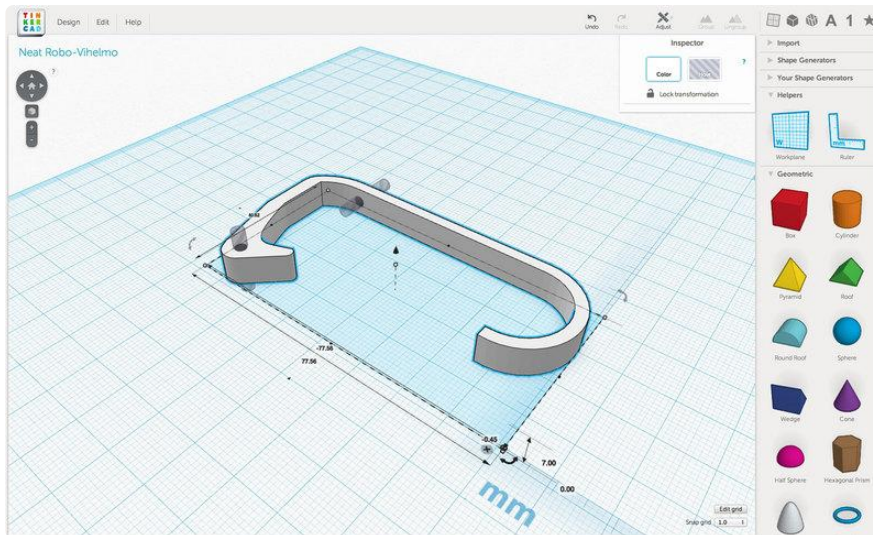
<https://tinkercad.com/things/2jUKWiqFpQj-xbox-controller-clip/> (<https://adafru.it/d2s>)

You can adjust the model to fit your game controller by editing the paths of our design on our Tinkercad page. Click on Design > Download for 3D Printing. Then click on the .SVG file.



Open the paths in you preferred vector editing program and adjust the clip height to fit your controller dimensions.





Import the file back into Tinkercad and adjust the thickness of the extrude and screw holes by hitting the "R" key to bring up the ruler tool.

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## 3D Printing

# Printing Techniques

### Build Plate Preparations

There's a great [video tutorial \(https://adafru.it/cRd\)](https://adafru.it/cRd) by Dr. Henry Thomas who demonstrates a great technique for preparing acrylic build plates for awesome prints. Wipe down the plate with a paper towel lightly dabbed in acetone. Use another paper towel and apply a tiny dab of olive oil. Wipe down the plate so a small film of oil is applied, this will allow the parts to come off the plate easier.

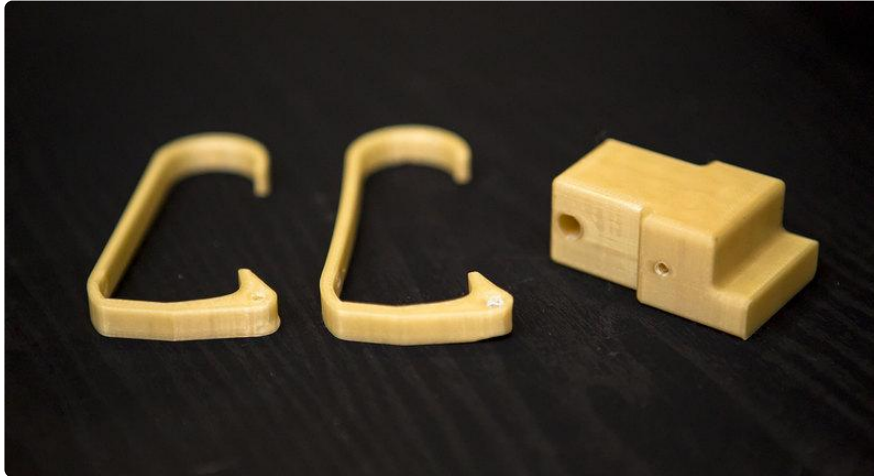
### Live Level

We recommend going raft-less for each piece because it will have the best quality result. Each piece will require a well leveled platform. We tend to "live level" our prints, meaning we adjust the build plates thumb screws while the print is laying down filament. This way we can make adjustments directly and improve the leveling by seeing how the extruders are laying down the first layer onto the build plate. We recommend watching the first layer so that you get a more successful print. If you see the layers aren't sticking or getting knocked off, you can always cancel print, peel it off and try again.

[Download STLs](https://adafru.it/d2u)

<https://adafru.it/d2u>

Mounting Clip About 15 minutes 4g	PLA @230 No Raft No Support	2.0 Layer Height 90/150mm/s
Mounting Base About 30 minutes 2g	PLA @230 No Raft No Support	20 Layer Height 90/150mm/s



## Assembly



Be careful not to lose the nut that holds the monitor to the base. We will reuse it to hold the monitor on to the 3d printed base.



We'll need to replace the two screws near the top of the control triggers to accommodate the thickness of the clips. Two 4 3/4 screws should work great for securing the clips and holding the base in place.

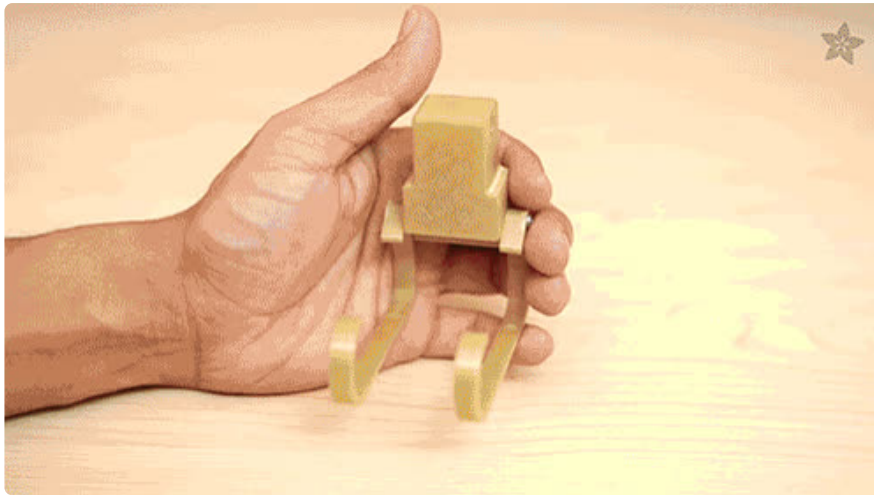


Use two 4 3/4 screws to assemble the clips and base together.



Drill the screws into the clips first, then into the the base.





Snap the controller into the completed mount by sliding the bottom in first and then snapping the top on.



Tighten the screws to secure the clips to the bottom of the controller.



That's it! Plug a 6' (or longer) HDMI cable into the HDMI port and into your console - we suggest a thin-style one instead of a bulky one so that it doesn't weigh down the

right side of the screen. Power the screen with 9V or 12VDC and you are ready to rock

The HDMI screen doesn't do audio decoding, so if you need audio, connect up headphones to the A/V port on the back of your console or use a controller-wired or wireless headset.

[Enjoy, and post up your awesome 3D-printed gaming mods to our Google+ community \(https://adafru.it/cRR\)](https://adafru.it/cRR)