



GoPro Hero 5 NinjaFlex Case with Tripod

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<https://learn.adafruit.com/gopro-hero-5-ninjabflex-case-with-tripod>

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Overview



The new GoPro Hero 5 doesn't need a water proof case but a bulky case is required to attached it to a tripod. 3D Print this slim design to protect the edges and screen while adding a tripod mount without sacrificing size.



Cut outs for the lens, display, LCD and LED

While the body looks like it's rubber, it's actually hard plastic. The bumper case protects the edges and the screen on the back while still allowing you to access the HDMI and USB ports. Perfect for timelapses!



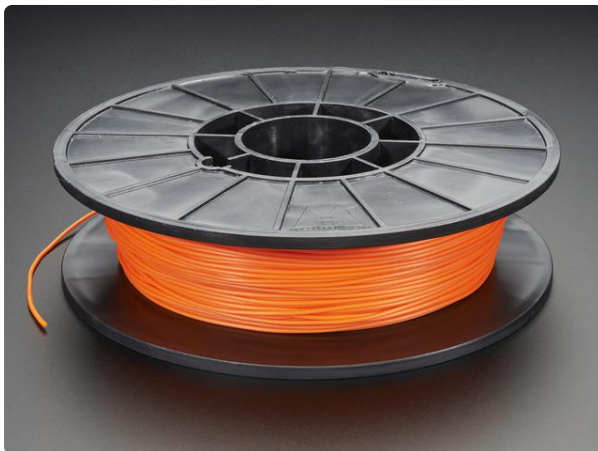
The standard 3/4" to 1/4" mount allows it to connect to tripods and the mini ball head lets you adjust the camera to any angle.



Flexible design

This 3d printed design is optimized for [flexible filaments like NinjaFlex \(\)](#).

We have [many colors \(\)](#) for this material, but orange looks good and stands out if you need to easily located the camera.



[NinjaFlex Filament - 1.75mm - Liquid Hot Lava - 0.5 Kg](#)

Looking beyond ABS? Tired of PLA? Open a world of possibilities, limited only by your imagination. NinjaFlex, a cutting-edge filament for 3D printers, is a specially formulated...

<https://www.adafruit.com/product/2443>



Parts

You only need a couple parts if you need to attach it to a tripod:



Swivel-Head Pan Tilt (PTZ) Shoe Mount Adapter

This Swivel-Head Pan-Tilt (PTZ) Shoe Mount Adapter allows you to attach something with standard 1/4" machine screw mount to a camera's shoe...

<https://www.adafruit.com/product/2464>

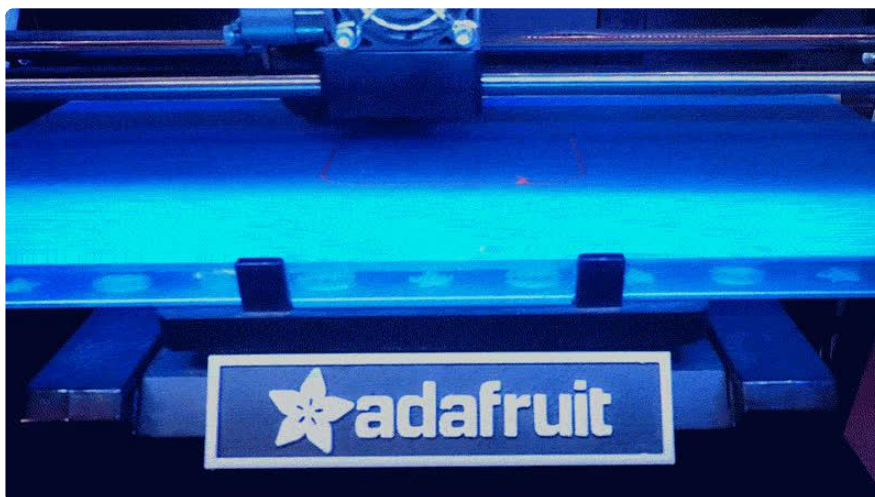


Camera and Tripod 3/8" to 1/4" Adapter Screw

Whaddya got a screw loose or something? This 3/8" to 1/4" Adapter Screw is super handy if you're building projects that...

<https://www.adafruit.com/product/2392>

3D Printing



Slice Settings

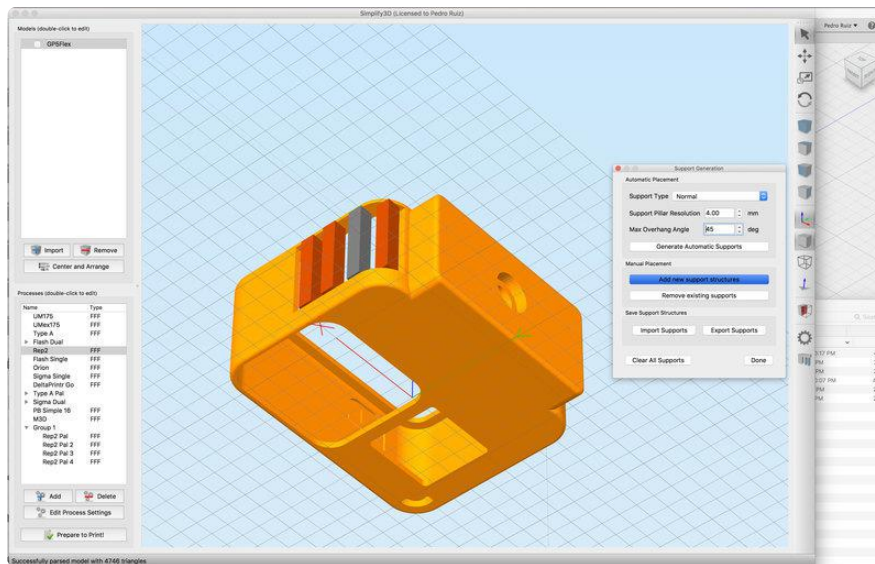
Depending on your 3D printer, you may need to adjust the slice settings. We tested the enclosure on a Flashforge Creator PRO. They do require support material and are oriented to print "as is".

- Nozzle: 0.4mm
- Extrusion Multiplier: 1.0
- Extrusion Width: 0.48mm
- Layer Height: 0.2mm
- Nozzle Temperature: 240c
- Print Speed: 60mm/s



3D Printing Enclosures

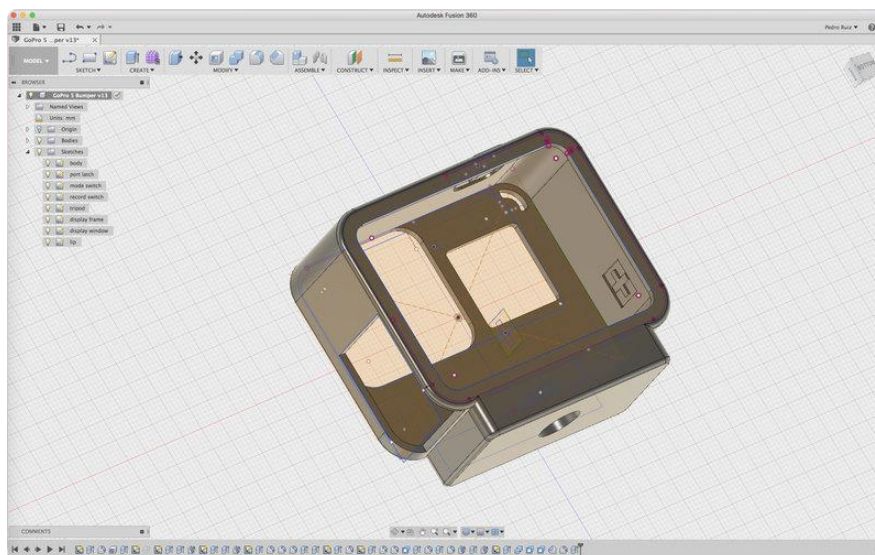
I drew up an enclosure in Autodesk Fusion 360 and designed to print in flexible materials like NinjaFlex. I 3D printed the enclosure using the Flashforge Creator PRO. But, If you don't have access to a 3D printer, you could use a service like [3D Hubs \(\)](#) to make it for you. I used orange NinjaFlex material to 3D print the parts, and they will require support materials for the USB/HDMI ports.



Supports

The bridging around the ports will need supports. We used Simplify3D to create 4mm pillers under the top side of the port opening.

We also slowed the support structure underspeed to 30% and lowered the dense infill percentage to 30%



Edit Design

You can easily update the design for any additional features by editing the Fusion360 designs. The sketches are all listed in the timeline, so it's easy to adjust the sizes to each component.

Edit Design

Download on Thingiverse

Assemble





Adding tripod thread



Push the tripod thread with the wide part on the outside.

Tighten the thread with a flat head screw driver or screw on a tripod to fasten the threads tight.

Slightly tug on the thread to make sure it has a good grip inside the mount.



Make sure the thread is flush with the underside of the case.





Align ports

Make sure all of the ports are aligned by rotating the case around the camera body. The USB/HDMI port should open by slight moving the thin part of the frame while pushing the latch open.