



AI Prime HD Case & Fan mod

M Martin Sulgan

[VIEW IN BROWSER](#)

updated 23. 11. 2022 | published 23. 11. 2022

Summary

An easy to do Fan upgrade for AI Prime HD light.

[Hobby & Makers](#) > [Electronics](#)

Tags: [upgrade](#) [case](#) [fan](#) [prime](#) [ligh](#)

Hello, I started to have issues with cooling fan on AI Prime HD light on my reef tank. Unfortunately, there is no way to get a proprietary replacement fan anywhere, so I decided to upgrade the cooling myself with the necessary changes to the light - change of the case/new fan.

- This case works with AI Prime HD light (did not test on Prime 16HD)
- I Have used **Noctua NF-A8 5 V** fan as a replacement. (going from 6cm original fan to 8 cm replacement) - any 8cm PC case fan should do, just make sure you get a 5V version.
- No need for other parts, the screws are reused, and the screw holes are printed (no need for inserts)

I printed the model in PETG (no supports needed) to handle the led heat, however after instal, I can tell that PLA would handle this as well. This new case significantly improves the heat management.

I think, this set up is slightly louder than the original fan (when new) - measured round 47db 20cm bellow light. The noise is much smoother - like white noise, it does not intrude.

Enjoy.

Model files



prime-hd-case-mod.stl

License

This work is licensed under a
[Creative Commons \(4.0 International License\)](#)



Attribution

-
- ✗ | Sharing without ATTRIBUTION
 - ✓ | Remix Culture allowed
 - ✓ | Commercial Use
 - ✓ | Free Cultural Works
 - ✓ | Meets Open Definition