



MFR - 3 inch FPV race drone - DJI Vista ready



AAME

[VIEW IN BROWSER](#)

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Summary

Easy to print, assembly and maintains. It have decent performance to play at home.

[Hobby & Makers](#) > [RC & Robotics](#)

Tags: [quadcopter](#) [tpu](#) [fpv](#) [aame](#)

It's an open source design.

Videos: https://youtube.com/playlist?list=PLgceMsQyNMfT9rvlGa_Ch6L50eUYFBX7_

Git reposistory: <https://github.com/alessandroame/MFR>

Carbon frame version: <https://www.printables.com/model/486129>

My goal is to make a micro fpv racer to use in my backyard to have fun with less troubles as possible.

It designed to host a 25*25 AIO board and caddx vista vtx.

If you will to use analog vtx or other digital system you just have to worry about making an adapter that has the external dimensions of caddx vista.

I printed the frame in polycarbonate and also petg and it can handle hard crashes but not on hard surfaces like concrete.

The electronic parts are well protected by the tpu canopy and the tpu support.

Hardware you need:

- 4x M2x12 screws to mount the electronics
- 4X M2 nuts
- 16x M2x6 screws for the motors

My configuration:

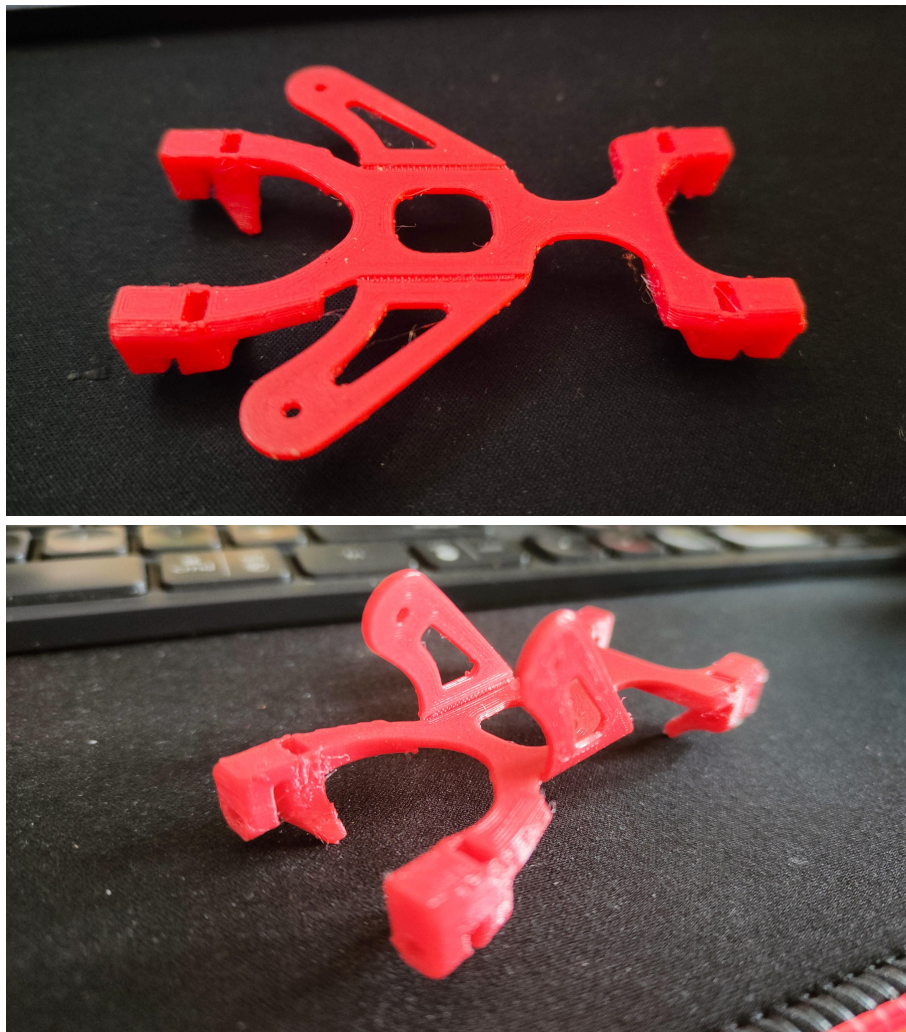
- Motors: T-Motor F1507 3800kv
- FC and ESC: MAMBA AIO F722 MK1 35A
- Vtx: Caddx Vista
- Camera: Caddx Nebula Pro
- Battery: 4s 850mAh

In the files section I added a zip file which contains all my gcodes.

The gcode of frame is to be printed in PC. I used this one: https://www.filoalfa3d.com/it/tech/573-3605-ALFALOY31-8057635590019.html#/11-colore-nero/30-diametro-175_mm/51-peso-1_kg

All other parts are printed with SainSmart TPU 95A.

Use heat to form the camera mount:



Changelog

v0.3

Various minor improvements.

v0.2

Frame v0.1 broke near motor screws so there are the news:

- Added vibration damper between motors, screw and frame
- Strengthened motor plates
- I've tried to slice the canopy with 2 perimeters (before I used 4 perimeters)
- Improved canopy frame lock
- Improved antenna mount

v0.1

Test in a backyard track:

Turntable:

Maiden:

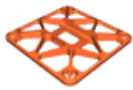
Print timelapses:

Model files



canopy.stl

☐ print it in tpu



frame.stl

☐ You can print it in abs petg or pc (or other rigid impact resistant material)



bottom-motor-damper.stl

☐ print it in tpu



upper-motor-damper.stl

☐ print it in tpu



electronic-mount.stl

☐ print it in tpu

Other files

microvistafpv racer.zip

☐ All my gcodes for Prusa mk3. The frame gcode is to print in polycarbonate.

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