Drone display stand with interchangeable mounts for DJI Mavic Mini 2/SE and Air/ Air 2S

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VIEW IN BROWSER

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Summary

Drone display stand with removable and interchangeable mount, currently only for Air 2/2S and Mini 2/SE

Hobby & Makers > RC & Robotics

Tags: display drone mini stand pedestal mavic dji showcase displaystand mavicair2 interchangeable mavicmini2 mini2 replaceable mavicair2s

I have two drones that I currently don't use, just sitting there collecting dust and thought to myself, why not put them on a cool looking pedestal so I can place them on my shelf and show them off to my visitors :D

Looked around Amazon but either couldn't find one with a design that I liked or reliable enough to hold the drones (many people say that the stands are kinda easy to topple over when knocked). So I ventured out to design my own. I like the stance of the....stands I saw online, so I decided

to do something similar but with my own twist, which is to have the mount where the drone sits removable and interchangeable.

The stand has the male section of a slide and lock friction fit locking mechanism (I don't know the proper name for this. If you know the name for it, please let me know), while the bottom face of the mount has the female cutout. Line them up and slide the mount piece into position to lock it in place. When you want to remove the mount and change it to another type, simply push the mount the opposite direction to dislodge it from the stand. The two parts are held together tightly by friction.

The stand itself is very sturdy and to me, reliable enough to support the Air 2S fully deployed. It will not tip over easily with slight touches, but of course if you intentionally push on it, it will topple over. The stand supports the Mini 2 even more reliably due to the fact that the Mini 2 is much smaller and lighter.
Warning: Neither of the drones are completely secured to the stand and as such can easily be separated from the stand. As such if the stand tips over, the drone WILL come off from the stand! Please make sure that you place the stand and the drone in a secure location away from any small children or pets that can knock them off.

Currently there are two mounts for this stand; one for the Air 2S and the other for the Mini 2/SE. The stand itself have two finished style to it; one with sharp edges and the other with smooth rounded edges. I never printed the one with sharp edges so I have no pictures of it, but I thought I'd provide it here in case you might prefer that style for your stand.

Print Guide:

This print is material agnostic and I printed mine using PLA. Feel free to experiment with different material and settings such as infill and wall thickness. Mine are printed with 15% adaptive cubic and 4 wall loops and 0.08mm layer height for the smooth clean finish.

Print all flat sides down with no supports needed. Please see the important settings below.

2 important settings to keep in mind:

1. These models are not ideal to be printed with .20mm or .016mm layer height. Printing with these layer heights will result in pretty bad overhangs. The minimum layer height for the stand itself should be 0.16mm and the minimum layer height for the Mini 2 mount is 0.12mm. I'm not sure if this depends on the printer or slicer, but when you preview and you see those blue overhangs, then I suggest to go down to the next layer height. Just try to get rid of any blue overhangs, it's not ideal to the look.

2. I recommend printing with outer brim enabled. My first set of prints were without any brims and they failed spectacularly because one part somehow got dislodged off the print plate, while the others had the corners lifting off the print plat, resulting in failed prints. Do not risk it and just print with brims! I set my brim width to 7mm for even more grounding force.

Model files

air_2s-mount.stl

Removable base compatible with the DJI Air 2/2S

mini_2-mount.stl

Removable base compatible with the DJI Mavic Mini 2/2 SE

stand_2.stl

Rounded, smooth edge design for the stand

stand_1.stl

Sharper, right angled edge design for the stand

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