

Hi

(Not a WhamBam's employee here lol just a beta tester)

Are you having issues with the Flex Plate on your AnyCubic Mono X? Which none of the prints stick to the Plate?

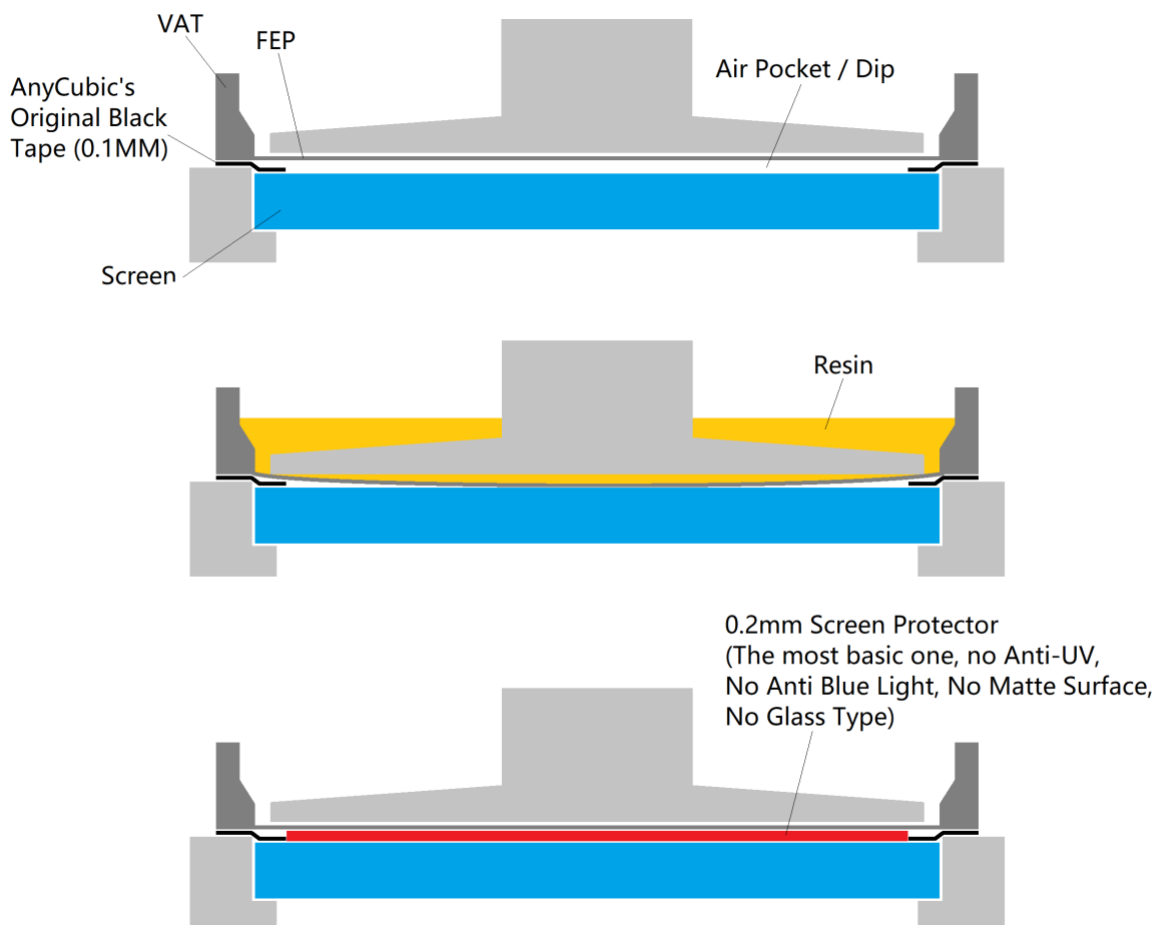
I understand your frustration because I experienced the same a while ago, no matter how we adjust the setting, no success, we tried:

- Added 10s / 20s / 30s or even Double the Bottom Exposure Time
- Added 2 to 5 Bottom Layers
- Added 1s to 4s Normal Exposure Time
- Slow down the Lift / Retract Speed
- All % of the UV Power (20% to 100%)
- Re-Level multiple times
- Adjust tension or Replace the FEP multiple times
- Different Color of Resin
- Print in a heated chamber

Initially I thought it was the Flex Plate's problem, but we need to admit WhamBam have a good track record on most other printers, so I tested it for a whole month and spend a lot of resins.

Then the more I look into it, the more I think it's due to the Mono X's design. So I came up with a theory, which I called it the "Mono X Pocket", and seems like it can be fixed by a basic screen protector, here is more explanation:

**P.S.: If you are not interest / believe on this, please skip to P.3**

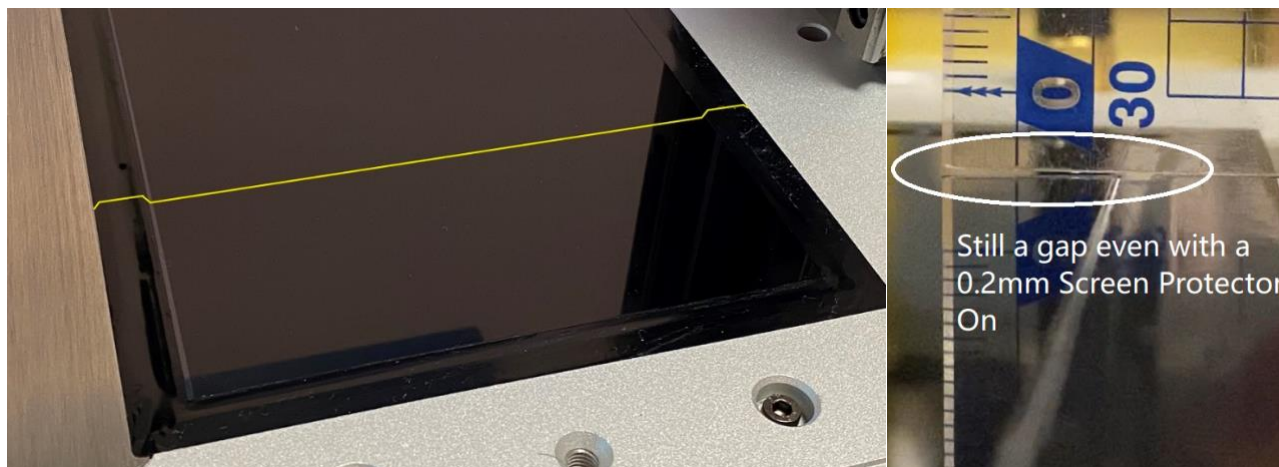


**\*Drawing are exaggerated to illustrate the idea**

**PLEASE NOTE!** AnyCubic like to use different parts on different batch, so your machine might be different than mine, but I think it is worth to take a look if yours have the same thing. (Mine was from the first batch, received on September 03, 2020)

For my machine, I realized not only the original tape is thick (0.1mm), but the screen seems to sit a bit lower than the deck as well.

Look at the picture on the right, it is the screen with a 0.2mm screen protector on, even with a raised surface, the tape still a touch higher.



So not hard to imagine, without the screen protector, there should be a 0.2-0.3mm gap between the screen and FEP (because the VAT is sitting on top of the tape), and I believe that Pocket / Dip created some issue, caused the FEP not getting proper support from the bottom.

(and perhaps that's the actual cause of "cannot stick at the middle due to concave build plate" as well)

After added a screen protector, seems like it filled the Pocket / Dip and supported the FEP evenly, it helped the print to stick without sanding the plate.

This trick worked on my Mono X, I even retested it by remove the screen protector – nothing sticks, then I re-apply a screen protector – prints stick again.

**Although I have to say again, your machine might be different than mine, but I think it is worth a try, because not only it is cheap, but mainly it helped to protect the screen from resin leakage.**

Taobao (The one I used)

<https://m.tb.cn/h.4W5Jluz?sm=57deb1>

Amazon (Not sure about the thickness, some say it's 0.1mm some say it's 0.15mm)

[https://www.amazon.com/dp/B08HSG4RNM/ref=cm\\_sw\\_r\\_cp\\_api\\_fabt1\\_80UFbX2W7K9T](https://www.amazon.com/dp/B08HSG4RNM/ref=cm_sw_r_cp_api_fabt1_80UFbX2W7K9T)

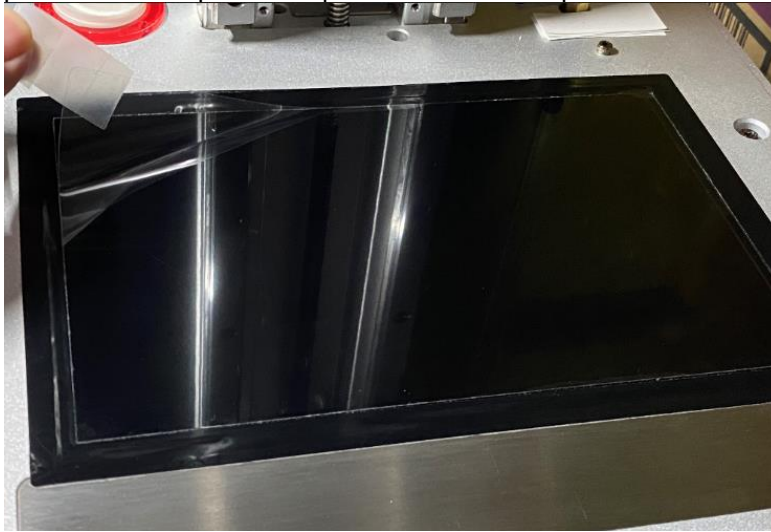
For applying the screen protector, the way I do is cutting it to 194x123 (or you can re-measure it to get an accurate size)

With this size you can stick it just on top of the polarized film without removing the tape (I prefer to apply it this way as I think the thickness of the tape caused issue)

## Suggestion:

So, my suggestion for those who have any Flex Plate on Mono X with adhesion issue (or concave build plate):

- Apply Screen Protector + Thinner Kapton Tape to attack the **Mono X Pocket**, this should help to bring the performance on par in compared to other resin printers.



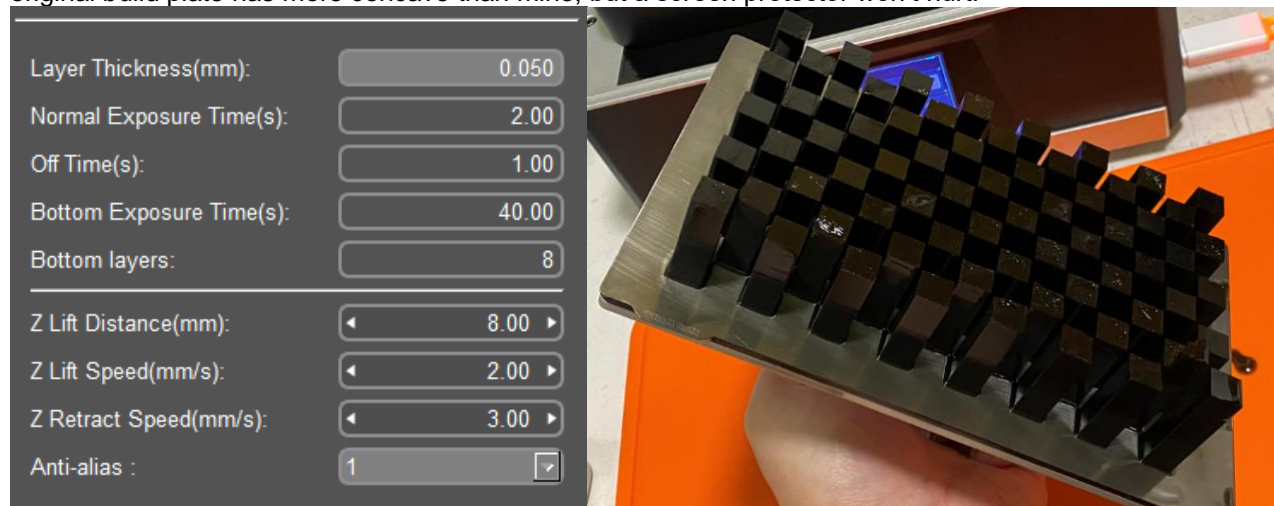
- Sand the surface of the Flex Plate with the provided sandpaper (400g) to give the best adhesion, you can go 200g-250g if you think it's necessary. But please note that spring steel is quite sensitive, if it sanded with 100-150g aggressively, the plate might bow.



- **(Optional)** Sand the original build plate flat as some believe the concave is the main issues. (Mine have a little bit, but to be honest, I have Zero adhesion issue since day one, but yours might be different, so it's not my position to say)



To me, now it prints perfectly with just the first 2 modifications with the most basic setting. I don't know if your original build plate has more concave than mine, but a screen protector won't hurt.



(Some looks weird because I forgot to refill the resin, but it proved the point. lol)

However, if you can't wait for the screen protector and want to see an instant result. You can try to sand it with the provided 400g sandpaper first.

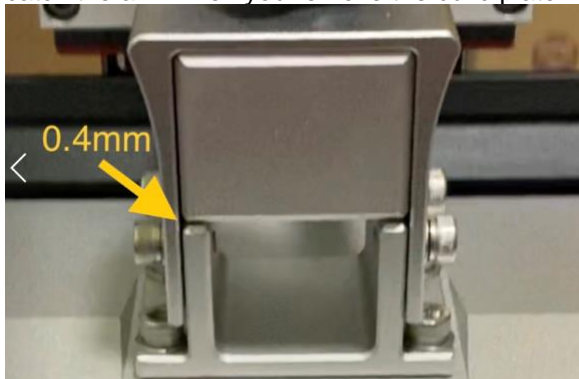
I see that most people do the sanding only, but I think it only helped 70%, and from my observations, the screen protector helped the rest which bring the whole performance to 100%.

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## **Side note (Spacer):**

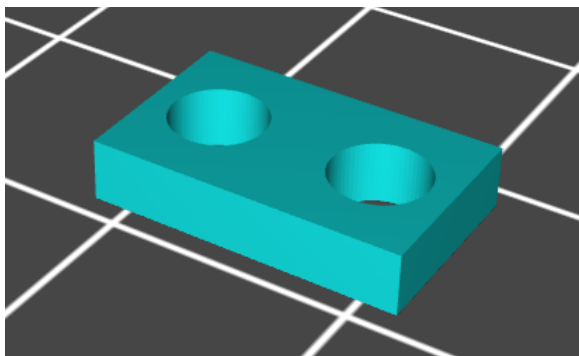
Some people ask if the Flex Plate need a spacer on Mono X, the answer is Yes & No.

Because without it, it will work perfectly fine, but it only gives you 0.4mm gap or less, sometime the bracket will catch the arm when you remove the build plate.



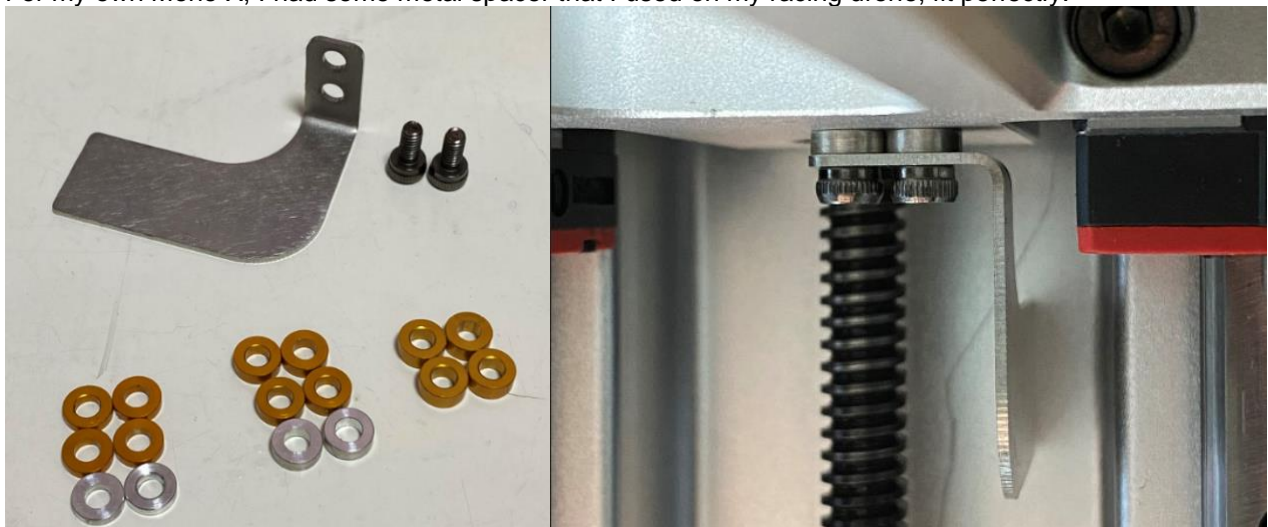
So, with a spacer, it will just make your life easier, so it is totally a personal preference. (However, I heard one case that a grinding noise occurred, then resolved by adding a spacer)

Therefore, spacer is highly recommended. One of our WhamBam beta tester – Kristina, made a spacer and have it on Thingiverse, It has 1mm, 2mm & 2.6mm



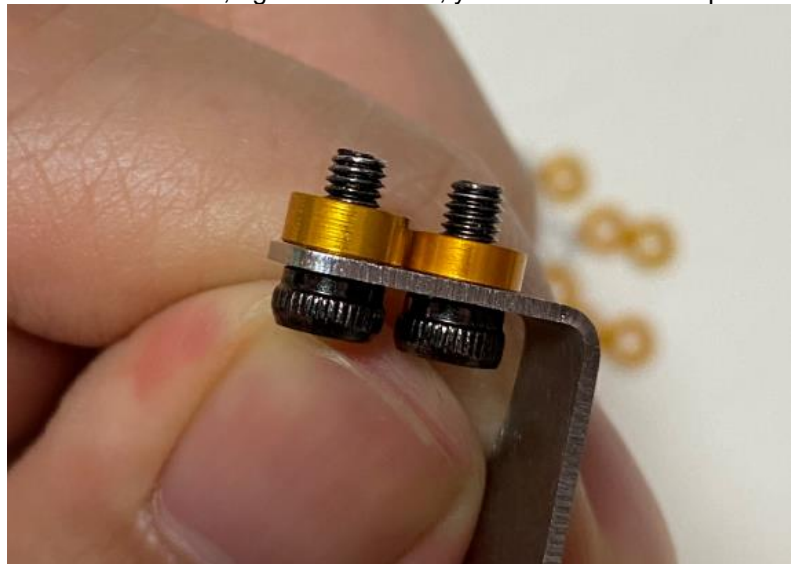
<https://www.thingiverse.com/thing:4637052>

For my own Mono X, I had some metal spacer that I used on my racing drone, fit perfectly.





Left side is 2.6mm, right side is 2mm, you can see 2.6mm spacer covers half of the thread already.



So personally, I will just use 2mm spacer, because 2.6mm spacer will give you too less to bite, 2mm give enough space and it will work even without the Flex Plate (so you don't need to remove the spacer if you have to remove the WhamBam Flex Plate System).

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## Side Note (Flint Read Leveling Method):

<https://youtu.be/n6DdWXdGOY>

Back in the Photon S, the first thing I learned was to use the Flint Read Method for leveling, it rocks!

Then after the Mono X arrived, I've created my own version of the Flint Read Method and it works beautifully.

So here is just sharing my version of the Flint Read Leveling Method on the AnyCubic Mono X

Basically the same thing without the step-down thing:

1. Un-tight the 4 screws on the build plate
2. Place the VAT on the screen
3. Press "Home" and wait for the build plate to settle down
4. Hold down the middle of the plate with small pressure
5. Tighten the 4 screws
6. Un-tight the VAT's screw to check the movability\*\*\*
7. Move Z up 0.3mm from the FEP
8. Set Z=0

\*\*\*For the movability, the VAT should sit tight already by the pressure of the plate.

Disclaimer:

Please judge at your own risk, it works for me, it works for some other people I know, but if you are not sure what are you doing, you may damage your own machine, so please be cautious.

Frederick