

VCORE 4.0 BRS-Z-Upgrade 3.x Copy infringement from Print Big

This document is made to assess the strict design copy of the Z-Upgrade 3.x product by BRS-Engineering from Print Big

I/ The License

1/ Basics


As a reminder to start:


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When I'm releasing a product, I'm not blindly releasing it; I look for existing content and eventual patents OR CC licenses

Since the design has been released on all channel, the product was known, and since I sell a lot of those items, people know about the existence of it within the Vcore Community

The Z-Upgrade 3.x 3D files are available for free to allow people to make it DIY and modify them, for free, the base material for a copy is existing .

2/ Timestamps

The product Z-Upgrade 3.0 has been licensed the 30th April 2024 under CC-BY-NC

then again under the 1st revision the 12 November 2024

then again under the 2nd revision the 21 January 2025

then again under the 3rd revision the 17 march 2025

then again under the 4th revision the 16 June 2025

All the timestamps with the 3D files are public on my [Github history](#)

3/ License Application

This license applied asks for 2 things to be respected: first the crédits HAS TO BE MADE... still today I dont got any. The second is it can't be used as a commercial material for benefits, without the approbation of the original maker

1. **Attribution** — You must give [appropriate credit](#), provide a link to the license, and [indicate if changes were made](#). You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
2. **NonCommercial** — You may not use the material for [commercial purposes](#).

As we know, my design were displayed on the Ratrig groups, public, easy to know if such upgrade exists.

I mention on my store page that I can approve the usage of any NC product if the ask is made, that is called courtesy, and this is quite important in the world of open source. The lack of it is an issue. Since I give all options to anyone here

2/ Creative Commons

Let get back on the Creative Common rules:

The Print Big product is a remix, that is just a fact, I will prove that with material to start with a bit later on this document

No license have been placed on the Print Big design, neither as a patent, making it unprotected

So we can at least tell that this is an adaptation ; an adaptation is making a modification of a CC protected asset.

Adaptations are something tricky in the CC environment, because it imply (quoting):
"creating something new from a copyrighted work that is sufficiently original to itself" **Sufficiently original to itself...**

This is important because like Print Big has done it, adding some champfers + logo + some minor changes, it is not enough, and can't bypassing the CC licence of the original (here the material to start with to check the deep implications of CC, [Link 1](#), [Link 2](#))

That clearly imply if any legal action is taken, must be provide the keyfeatures which are making the copy DIFFERENT enough to be protected by any CC or even a Patent.

II/ The copy itself

So now let's deepdive into the differences in both designs:

We will take an older revision, before the Starlock system since I know this is the one which has been taken ; the advantage when you work to do a job, and you knew by heart your own designs

I will add too than I have added some useless feature to see when my work is taken, as it is not the first time I got already prepared to that kind of move

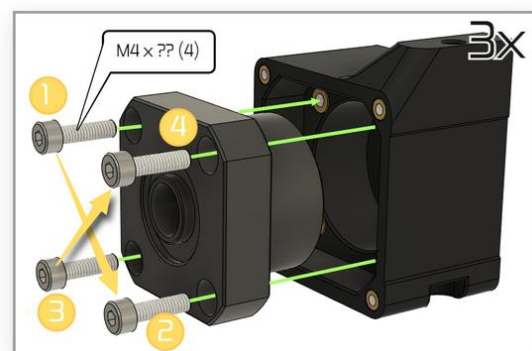
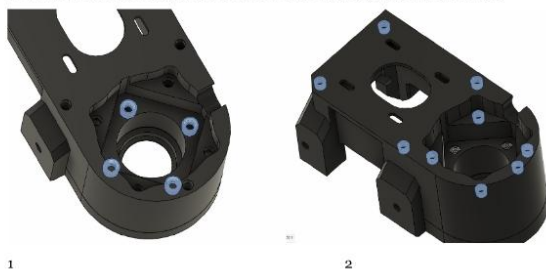
My manuals are public, as the one from Print Big if you want to compare

1-The BK/FK support:

1 Part preparation

You will need to place m4 inserts at those places on the 3 pillar base blocks: 1

You will need to place m3 inserts at those places on the 3 pillar base blocks: 2

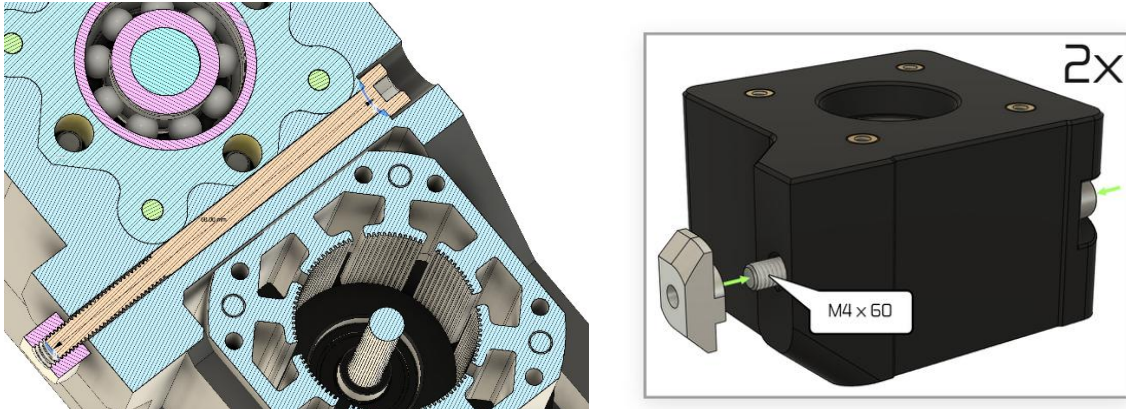


The top part being equipped with 4x M4 inserts

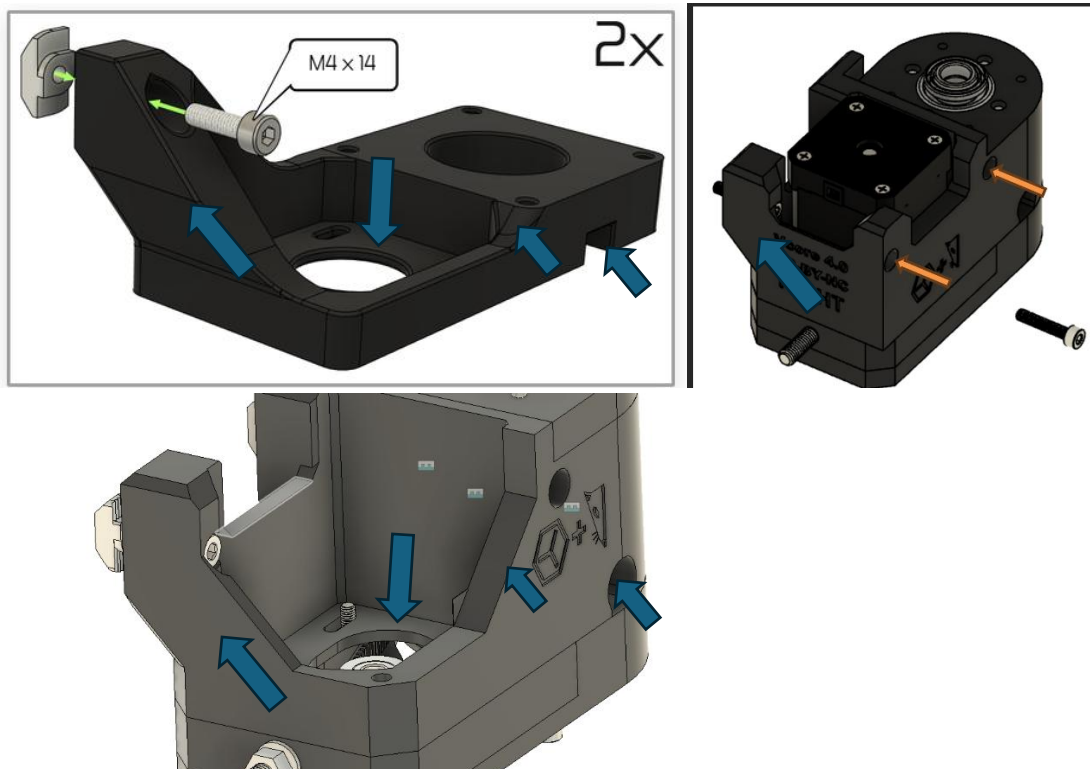
As you can see, SAME fixation method, same part, only the shape is different, would have been too obvious otherwise

They used a FK12, I use a naked BK12

2-The mounting solution:

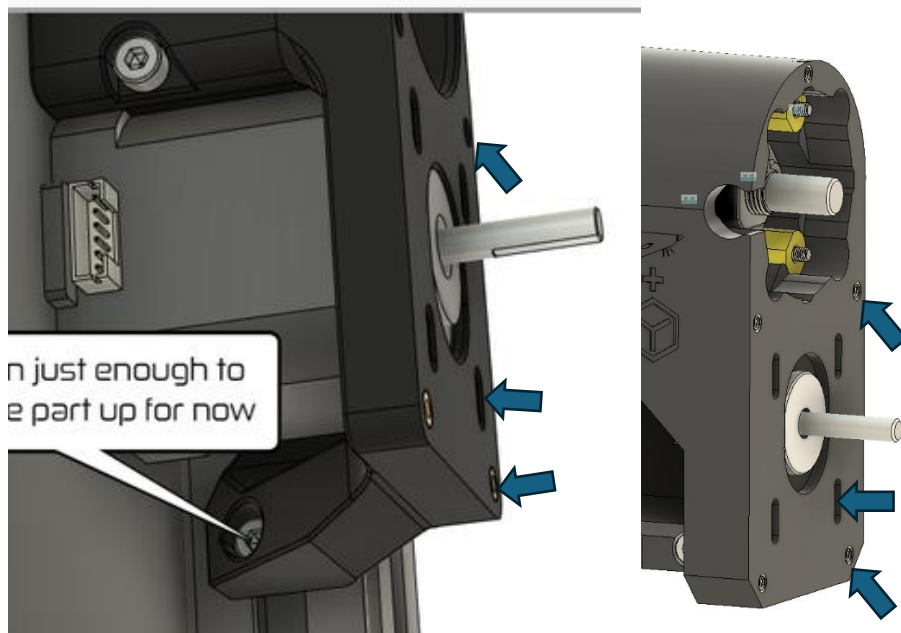


Here have use exactly the same screw... M4x60 with a Hammer M4 nut. It could have been an M5, a longer one, a shorter one, No it keeps the same



Stangely, same M4 shorter method, we can assess the part exact similarities across the 2 revisions; same angled arms, same cavity, and I guess same spaces to the millimeter

3-The main block



Here the nema is hold the same way, with the 48mm offset, with the oval tuning gap and the sliding sytem with the same dimensions, same inserts pattern disposition, Dimension between axes are the same too; it could have been a bit different, it could have been done with another method, no the part is the same

3-The belt system:

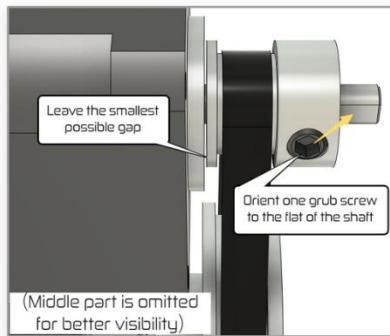
☐ 14. Belt Drives

Put the belt around both toothed pulleys and mount them on the stepper shaft and ballscrew together. The mounting side of the large pulley is facing the ballscrew, while the small pulley must be the other way around (compare images). Don't fasten them yet.

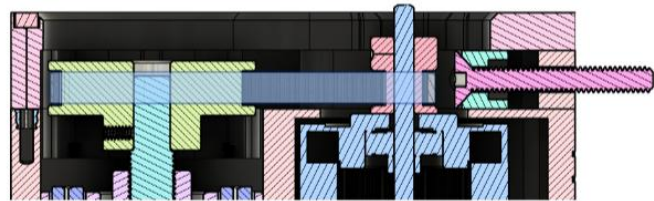


Then install the Belt and the 60T pulley. Wiggling it a bit to fit the 20T.

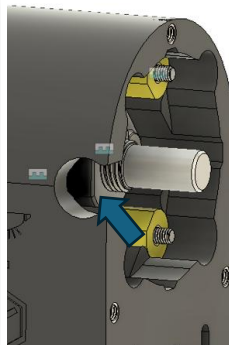
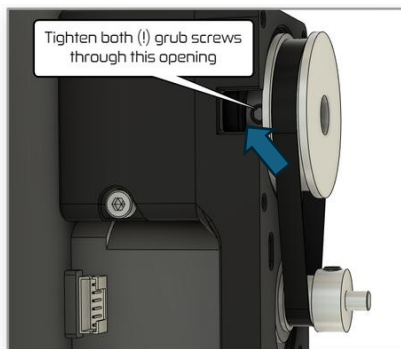
Here has been chosen the SAME 60:20 reduction with a 6mm 180-195mm belt, It could have been a 30:20, 60:40, or 40:20 But here the same specs to the millimeter. You could have take a 10mm belt (more resilient, and often less expensive) but no, still the 6mm



Control the alignment



We can see the whole structure of both manual being the same, exactly in the same order, the effort in it is minimal.



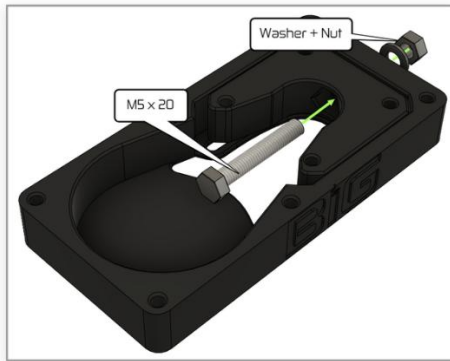
So here the place of the opening to tight the grub screw, set the same side, not the other way, the same side, making it square is the only minor difference

4-The tensionner:

The best section in my opinion



Same parts, same holes, same thickness, same dimensions

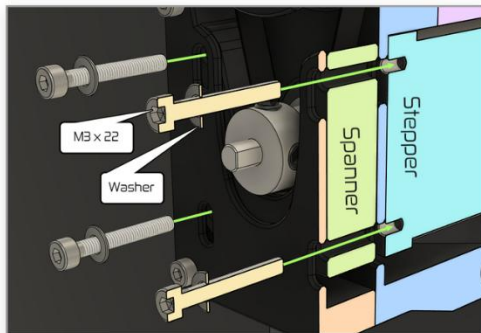


Hex instead of a countersunk, still M5, this could have been a M4 which is basically enough, no it is the same

nb: Hiccup in the Print Big manual, this is not a M5x20mm, but a M5x50mm, error like this happens when we didn't make the design, and surprise again, mine is an M5x50mm

5-The closing:

Put four M3 x 22 bolts through the lower part and spanner and screw them into the stepper motor, so that the washers barely touch the lower part. We will tighten them once the belt is tensioned.



Then close it with the M3x22mm screw and then the M3x20mm to close the bottom. M3 washers are not mandatory.



On this one again, have been used M3x22m with washers, 22mm are not very standard, but kept in the copy, 22mm, like my last manual, that is a strange coincidence

I will add the fact that the orientation of the front block is the same, it could have been rotate it by 90 degree to be a bit different, reversed it, but no

4-The cfg:

I will mention this one but it has been kept the same, the rotation distance and direction about it as the same because of the 60:20 choice

5-The name:

SKU: UP-RA-2501

RatRig V-Core 4 Z-Axis Upgrade Kit SFU1605

459,99 € – 499,99 € incl. tax

Z-Axis Upgrade +/- the same as **Z-Upgrade** on my store

III/ The price tag

Even on the price tag it has been placed it in the exact price range of my store, meaning this release have been studied prior to launch, knowing the implication with the license

IV/ The statistics and the luck

Some people will be tempted to see just luck, or unfortunate similarities

Print Big tells : a student in thesis made that from scratch after a lot of thinking and engineering, and everything is well documented...

Let's think about what are the statistic, what are the chances all this "similarities" are just pure coincidence, that is nearly impossible even if you dont do math very good

V/ The conclusion

I will not speak on the arms or the top retainers because that not much of an issue, I will not speak of some changes (minor) to make it a bit visually different, that not a big deal

We assessed here all the "Keyfeatures" differences which are just absents, we can conclude the design is the same, the hardware is the same even to the screws metric values and dimensions, reduction ratio is the same, tensionner is the same, offsets are the same, total tensionning course of the nema is the same, the manual is the same, manual order is the same, the vocabulary is the same

The copied design fail to match the adaptation requirements, « **creating something new from a copyrighted work that is sufficiently original to itself** »

I do not call that demonstration "similarities", I call that pure theft from a public 3D file CC protected

I'm almost sure that people don't need any law degree to see that for the pictures above

As you can maybe guess, this is not the first time that people stole my designs, but they have the courtesy of not being in the RR vendor channel.

That being said, in the optic to settle this issue, I have offered Print Big 2 choices:

1-Deletion of the product from their store, to comply with the NC licence. I allow them to do anything they want with their remix of my design, crediting me if you want to release it as a 3D model (not sold). They can use this design to manufacture a big printer as a whole sale, but do not sell the Upgrade alone.

2-They keep the product on their store, with the credit of my design, since it is a remix (illegal today in the current situation), advertise it as it is, with a link to the product page of my Z-Upgrade 3.2D, and we can arrange a little fee at each selling on their side.

So far this is the more smart move to do in my opinion, to resume everything in our lives, and maybe get along after that.

As for today, they refused, still in the denial part

The third solution being a magistral demonstration of the content of this comparison I did and see what image it will give them. Any people will see it as a CC violation, and by extension a lack of elementary respect.

Any harm on their image will be on them since this is the consequence of stealing people design.

My company is held by myself, me alone and I'm living from it. This move they have made is putting my work at risk, quite unfairly when we know the work has been made by me

They are not a competitor, we don't sell the same things

Their company, Core Am gmbh, can surely rely on selling everything they want without making such a move toward me.