



BLV Conversion kit to Rat Vcore kinematics (full printable)



Clock_Watchdog

[VIEW IN BROWSER](#)

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Summary

Conversion for BLV Mgn Cube to Vcore Kinematics

[3D Printers](#) > [Other Printer Parts & Upgrades](#)

It needs some other adjustment and a specific BOM (with links for the part needed). I'm working on the hardware parts (Nut, Bolts, ecc), The aim is to use as much of the hardware as possible that come with the BLV kits (see fysetc), with the obvious exception of the part involving the kinematics, such as bearings, M5 bolts and nuts and ofc 9mm Belts. I will add some specs during time. At the moment you will find the right part of the kinematics containing all the necessary hardware (the left part uses the same things). I Suggest to print the part in something like PA-CF or PC (like PCblend from Prusa), even the PETG CF can work fine with a nice rigidity and resistance. Care to PA (not CF), in some brand i noticed a good amount of deformation during time. The printability of the Y parts is improved compared to the Vcore parts. I splitted the part in 2 pieces to have a better tolerance in the spot that will host bearings and washers. The step file will receive upgrades and changes during time.

PS I will add the compatibility with 1515 extrusion and MGN7 for the gantry, due to the fact that some tests gave very good results with this combination, and it would be nice to have some other feedback for this one.

-1515 gantry only with European Extrusion-

UPDATE 1: Added a version for 1515 extrusion gantry. I suggest to use the 1515 (460mm) extrusion from voron V0 standards, because it is compatible with MGN7 and MGN9 rails. For fit the M3 nut in the 1515 extrusion (Voron format) you will just need M3 nut.

It is in BETA too, i'm just waiting for some hardware part. Use the mgn7 on the 1515 for a very light gantry

UPDATE 2: improved some little things in the Idler parts. The version for 1515 gantry needs to be updated too , in the same time you can use the Idler parts of the "standard" version

UPDATE 3: BETA testing DONE and it works fine, me and a couple of guys tested it, the file is updated to V4. Improved the belt path for the idler parts, and a couple of tolerances.

The 1515 gantry version is in test and needs some adjustment

UPDATE 4: 1515 Version (1515 460mm) for EU allu extrusions tested and works.

UPDATE 5: 1515 Gantry (1515 460mm) for EU allu extrusions improved. The Improvement in terms of speed capability over the 2020 extrusion is consistent.

The Next update will adapt the EVA 3 and EVA 2 to the 1515 and mgn9(Height must be adapted)

USEFULL LINKS (N.B CHECK THE LINK CAREFULLY, SOMETIMES CAN HAPPEN THAT THE PRODUCT LINKED WILL CHANGE DUE TO ALIEXPRESS. IN THAT CASE, IF YOU HAVE SOME DOUBT OR THE ITEM SEEMS WRONG REPORT IN COMMENT. I WILL TRY TO CHECK THE LINKS PERIODICALLY)

F695 x 24

https://s.click.aliexpress.com/e/_DB8h4ZL

695 x 12

https://s.click.aliexpress.com/e/_DEBkCAp

Mini Precision Shim (5x8x1) x 29

https://s.click.aliexpress.com/e/_DmhM8xX

Allu Spacers 6mm (or use the Printed Spacers)

https://s.click.aliexpress.com/e/_DnaqmRX

9mm belts

https://s.click.aliexpress.com/e/_DdU6w2N

GT2 Pulley for 9mm belts x 2

https://s.click.aliexpress.com/e/_DcRfHBj

TBG-S Trianglelab

https://s.click.aliexpress.com/e/_DdvCw3R

EVA 3 Adapter for TBG-S

<https://www.printables.com/model/382883-eva3-adapter-for-tbg-s-trianglelab-extruder>

1515 460mm Gantry (pick 500mm and write a note to the seller for 460mm cut)

https://s.click.aliexpress.com/e/_DnDxclh

BOM for the 2020 gantry version

M5 10mm x 30

m5 20mm x 1

M6 10mm x 4

M5 45mm x 6

M5 40mm x 4

M5 locking nut x 11

M3 35mm x 8

M3 40mm x 2

M3 14mm x 4

M3 20mm x 2

M3 locking nut x 2

M3 Square nut x 6

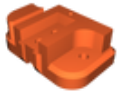
This remix is based on

Model files



1515 Gantry Version (with MGN9H for a lightweight Gantry)

4 files

**1515-gantry-bottom-left.stl****1515-gantry-bottom-right.stl****1515-gantry-top-left.stl****1515-gantry-top-right.stl**

Addons

5 files

**spool-holder-body.stl****spool-holder-part-b.stl**



cable-guide.stl



spool-holder-part-a.stl



printed-spacer.stl

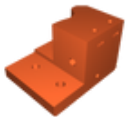


2020 Vcorized STLs

15 files



motor-left-top.stl



ilder-right-top.stl



idler-right-bottom.stl



idler-left-bottom.stl



gantry-right-top.stl



gantry-endstop.stl



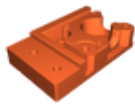
idler-left-top.stl



leaf-motor-cover-left.stl



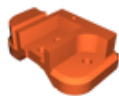
leaf-motor-cover-right.stl



motor-left-bottom.stl



motor-right-bottom.stl



gantry-left-top.stl



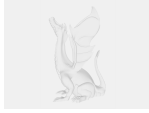
motor-right-top.stl



gantry-left-bottom.stl



gantry-right-bottom.stl



conversion-kit-to-vcore-kinematics-v4.step



blv-vcorized-1515-v3.step

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