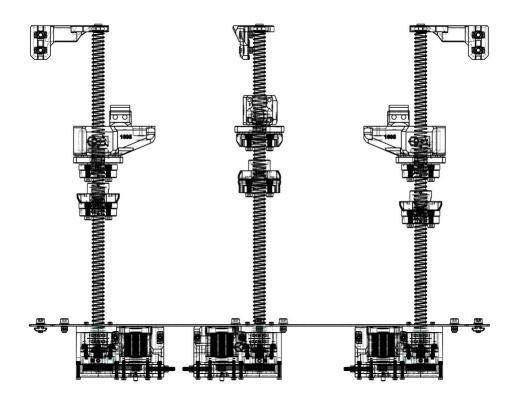
GUIDE : Z-Upgrade 3.2c variants

Suivi des évolutions

Indice	Date	Description de l'évolution	Auteur
0.0	24/03/2024	Création	FBR



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1 Objective

The Goal her is to review all ACTIVE variants of the BRS-ENGINEERING Z-Upgrade 3.2C variants to pick the one made to best fits your needs:

KEEP IN MIND THAT ALL Z-UPGRADE 3.2C VARIANTS ARE COMPATIBLE FOR ANY V-CORE 4.0 MACHINE. THIS DOCUMENT EXPLAINS YOU HOW TO WISELY CHOOSE THE BEST FOR YOUR SCENARIO.

2 Variant Lists

Variant	Released	Made for
Z-UPGRADE 3.2C	30/04/24	VCORE 4.0 (CoreXY/Hybrid) 300/400/500
Z-UPGRADE 3.2C-Reinforced arms	21/01/25	VCORE 4.0 (CoreXY/Hybrid) 300/400/500/++ with Custom heavy cast bed
Z-UPGRADE 3.2C-H	17/03/25	VCORE 4.0 (CoreXY/Hybrid) 300/400/500/++ with a taller Z volume AND/OR Custom heavy cast bed

3 **Ballscrews size**

	Z-UPGRADE 3.2C	Z-UPGRADE 3.2C- Reinforced arms	Z-UPGRADE 3.2C-H
SFU1204	YES	NO	NO
SFU1605	YES	YES	YES

What size should I take?

Ballscrew type	<u>diameter</u> (mm)	<u>Pitch</u>	Pros	Cons
SFU1204	12	4	"Lighter" then 1605	Can be hard to find at correct
			Nut less wide	prices after 1000mm (Selfsource)
			95% of the time sufficient	
			to handle loads	
SFU1605	16	5	Very stiff and straight for long Z height	Heavy
			Can support insane weights	
			Easily found for long size and priced correctly	

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There is no "performances" differences on the print quality between each SFUs type, BRS-Engineering originally offer both to meet the availability on the market, and 1605 add some insane possibility for very big or specific machines.

4 WOBBLEX or BRS-Oldham V3

	Pros	Cons
WobbleX	Low-profile (few mm gained on Z)	Expensive
	Accept heavy load	
BRS-Oldham V3	Cheaper on price	Can't handle the same weight than WobbleX
		Few mm thicker (No Z loss compared to the Stock VC4)

5 **General comparisons**

Overall, all variants/editions share the same principle and the same base

The 3.2C (base) will be reference here

Keys differences	Z-UPGRADE 3.2C	Z-UPGRADE 3.2C- Reinforced arms	Z-UPGRADE 3.2C-H
StarLock design	Classic version with M3 inserts (1605-1204)	Classic version with M3 inserts (1605 only)	Withstands more weight (1605 only)
Ballscrews Type	SFU1204 or 1605	SFU1605	SFU1605



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Z-Upgrade 3.2C Variants

Mounting	M3	M3	M5
Decouplers	Oldham	Oldham	WS16
	WS12	WS16	
	WS16		

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6 Decision tree:

