3D PRINTING AND DESIGN REFERENCE DOCUMENT	
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REVISION HISTORY

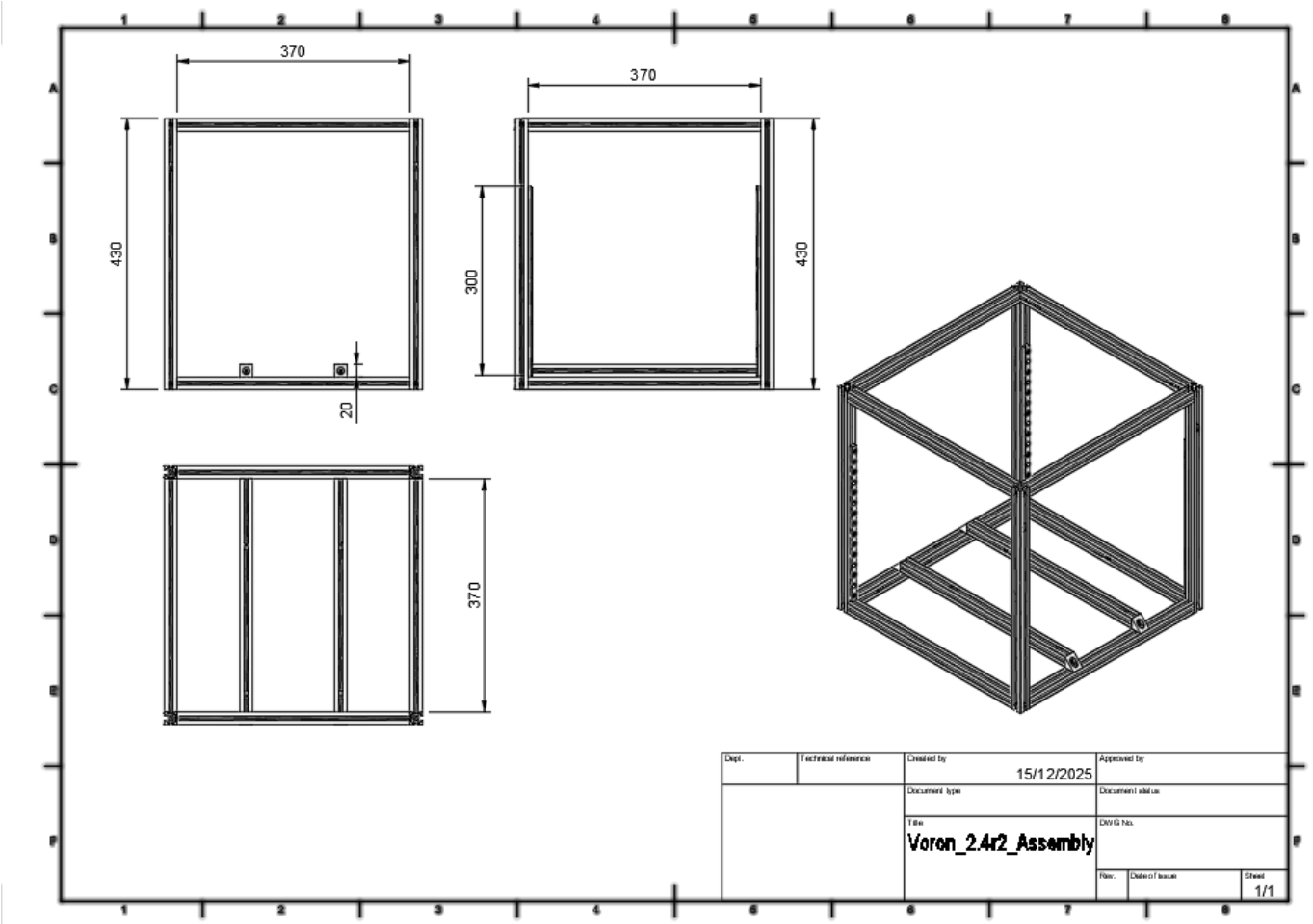
Revision	Details of Modification(s)	Reason for modification	Date	By
0	Draft release	Document description here	2025/12/02 17:13	jattie

Voron 2.4 Build

This section facilitates research of information for a building a Voron 2.4.[1)]

Building the frame

The Voron publications default model is for a 246mm build plate and surprisingly not publishing scaled models and the 3D model is not parametric or scaling either.

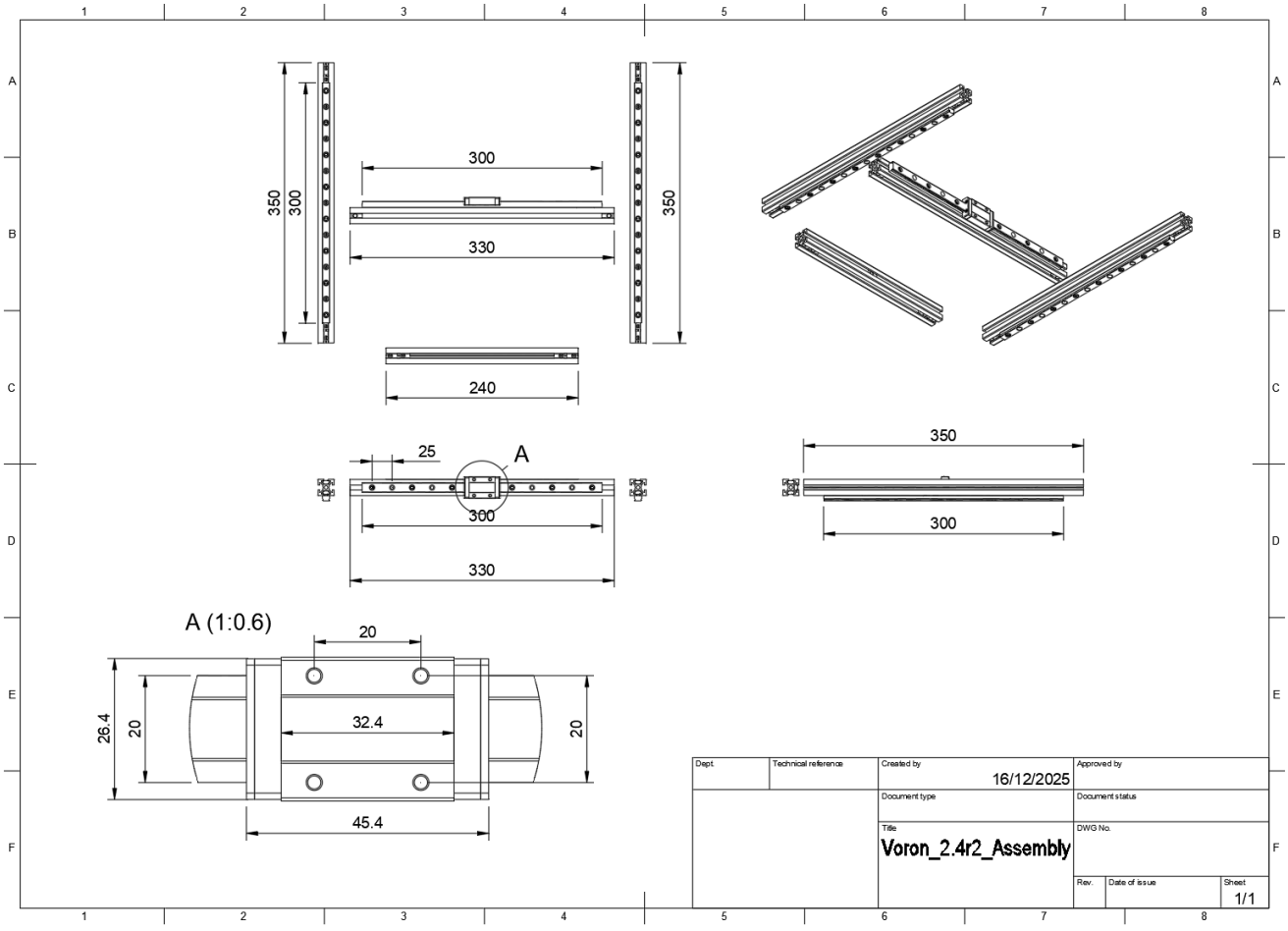


Part	Dimension	Quantity
20 x 20 Aluminium Profile	370mm	10
20 x 20 Aluminium Profile	430mm	4
Lineaer Rails	9 x 300mm	4

In order to Facilitate a 350mm build this needs to be scaled. This is not a problem when buying kits, however building from raw materials needs to dimensional details.

- 4 × 530 mm (drilled) → The vertical uprights. They set the printer’s height and must be drilled for blind joints.
- 10 × 470 mm (tapped) → The horizontal frame members (top and bottom squares, plus gantry supports). These are tapped to accept fasteners.

Building The Gantry



- 2 × 450 mm → The gantry extrusions that carry the XY motion system.
- 1 × 430 mm → The rear crossmember that supports the Z drives and belts.
- 1 × 340 mm → The front crossmember that supports the front idlers and closes the frame

Profile for 350mm Frame

530	4	2,120
470	10	4,700
SUBTOTAL		**6,820**

Profile for 350mm Gantry

450	2	900
430	1	430
340	1	340
SUBTOTAL		**1,670**
TOTAL		**8,490**

Cost effective Aluminium Profile Material Options

Material	Unit Price	Total	
Flowmax 20 x 20 Profile x 3m	34.42	3	€103.24

West3D Voron V2.4 Self-Source Configurator

Build Size: 350mm	€131.13
Frame: Space Grey (W/ Angle Brackets)	€13.11
Printed Parts: No Printed Parts	
Fasteners: BDF Stainless Steel	
Motion: POWGE Motion Silver	€43.71
Rails: Berserker Rails - Medium Preload	€43.71
Ready to Roll Add-on: No - I'll do that myself	
XY Endstop: XY PCB	
Z Endstop: Z PCB	
Probe: CNC Tap Kit	€30.60
SSR:	Panasonic AQA211VL 15A SSR
Motors: LDO V2.4 Motor Kit	€26.23
Controller Board: Manta M8P (With CB2)	€52.45
Display: BTT PiTFT 5“ Touch Display	€43.71
Stepper Drivers: TMC2226	€8.74
Power Supply:	LRS-200-24 (24v)
Extruder Components: Galileo 2 (G2E)	€26.23
Wiring Harness: V2.4 / Trident Wiring Harness	
Cable Chains: Standard Cable Chains	
Bed Heater: West3D Performance Edge to Edge	€13.11
Aluminium Build Plate: Voron 2.4 MIC6 Build Plate	
Flex Plate: Energetic Doubled Sided Smooth/Texture (350)	€13.11
Build Plate Magnet: Standard	
Toolhead: Stealthburner	
Toolhead PCB: Nitehawk Stealthburner	€24.48
Hot End: Rapido PT1000 HF	€8.74
Power Inlet / Rocker Switch: Tyco Filtered Inlet + ZF Rocker	
Fans: Premium Option (Delta Blower)	€8.74
Side + Door Panels (Acrylic or ACM): Smoked	€4.37
Back/Deck/Bottom Panels (ABS): Black	
Titanium Backers w/ Ti Screws: Standard	
Printed High-Temp HTN Nylon Ducts: Not Needed	
Kinematics Kit: Yes - Titanium	€52.45

1)

https://www.vorondesign.com/

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