



Frame Assembly Instructions

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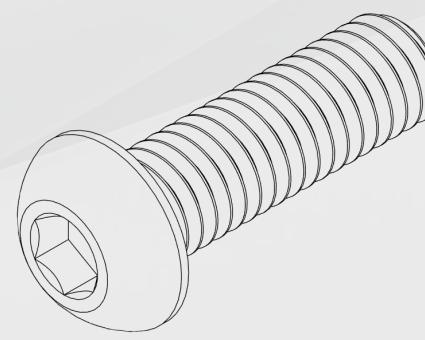
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Bill of Materials

PE

Default Frame

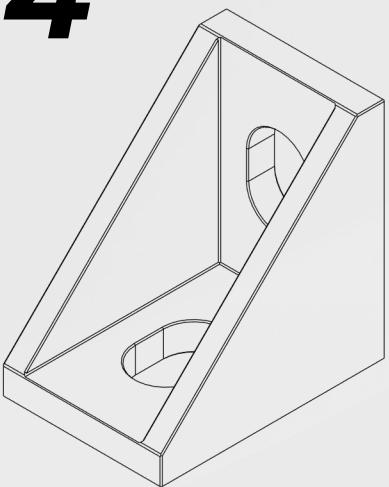
x34



M5x20 BHCS

A metric bolts for fixing extrusions via blind joint.

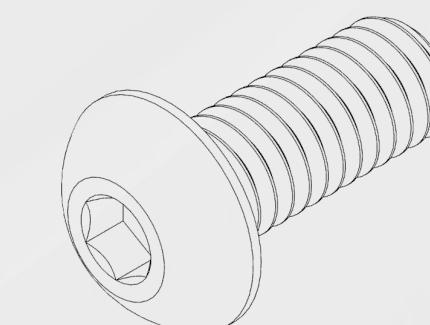
x4



Cornet Brackets

Corner joints are used for fixing the Z extrusion.

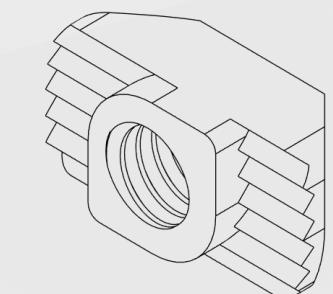
x8



M4x10mm BHCS

A metric bolts for fixing corner joints.

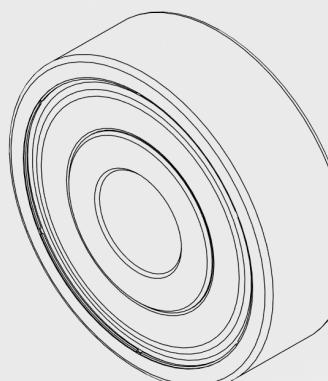
x8



M4 T-Nut

A nut that can be inserted into the extrusion slot

x3



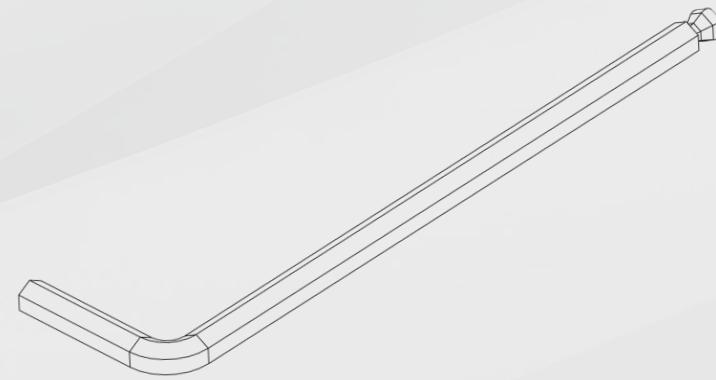
625zz

A ball bearings used for drill jig.

Bill of Tools

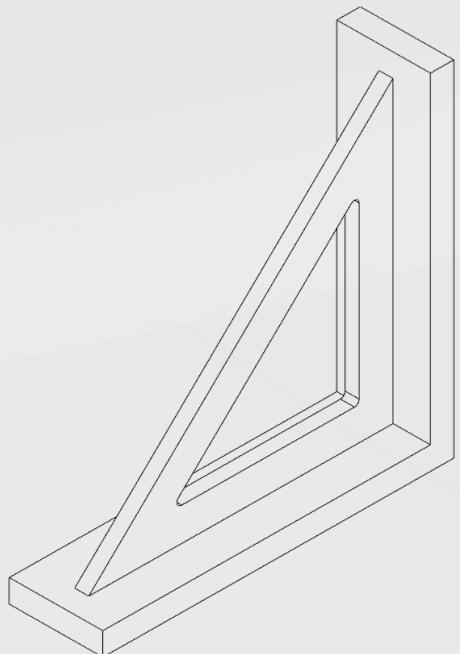
PE

Default Frame



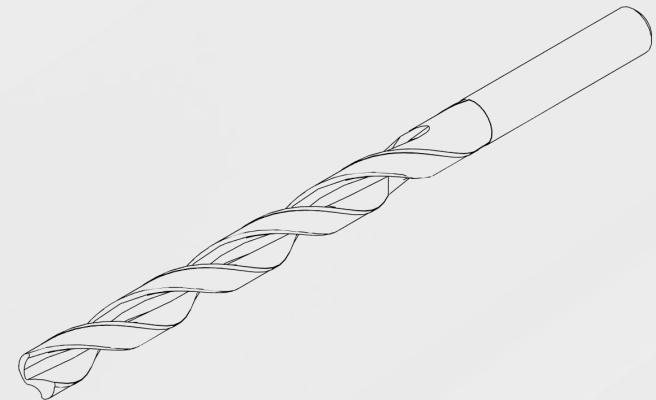
3mm Allen Key

Allen key for M5 BHCS.



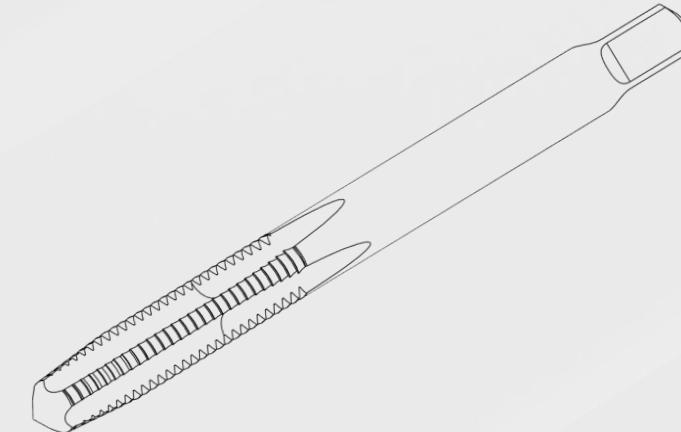
Square

Square is used for aligning the frame.



5mm Drill Bit

To drill acces holes.



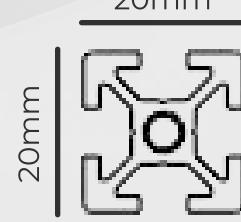
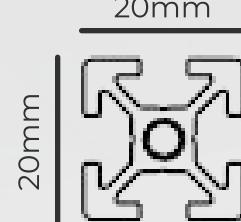
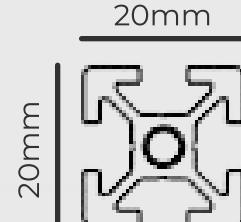
M5 Tap

For tapping the extrusion holes.

Default Frame

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Here is the list of extrusions needed to build a frame without sidepack, click [here](#) to learn what these things "HFSB5-2020-530-AP10-BP115-CP190-DP520" and what you should understand from them.

	HFSB5-2020-530-AP10-BP115-CP190-DP520	A Extrusions	x4
	350mm		
	310mm	C Extrusions	x1

Blind Joints

PE

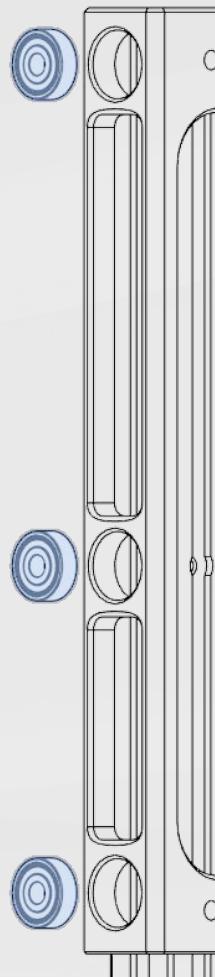
Default Frame

Blind joint provides an inexpensive, simple, sturdy, and aesthetically pleasing appearance.

To create a blind joint, you need to tap metric threads into the extrusions and drill specific locations. A button head cap screw (BHCS) is placed into the tapped portion, and then the extrusion to be fixed is slid to align the head of the screw with the channel of the profile. Using an Allen key, the extrusions are fastened together through pre-drilled holes.

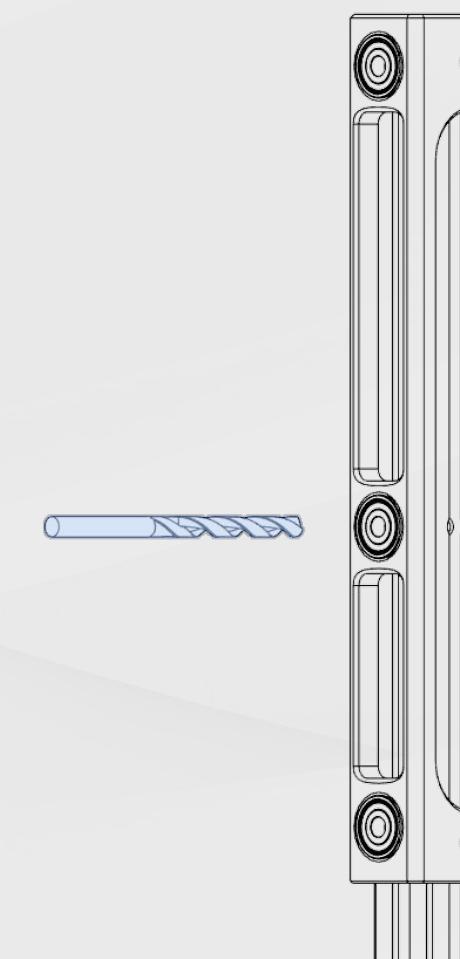
Step 1

First of all you need to place the 625zz bearings into their designated locations in the jig.



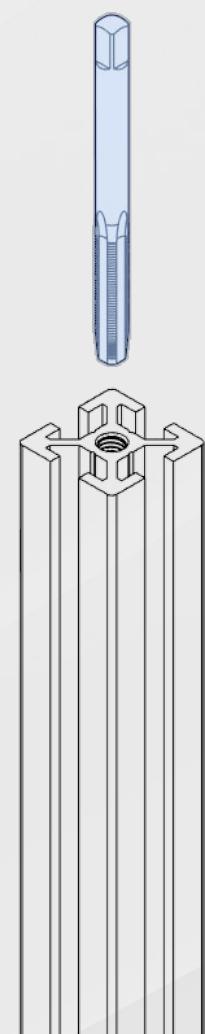
Step 2

Use drill and 5mm drill bit to drill holes.
You need to drill to the end.



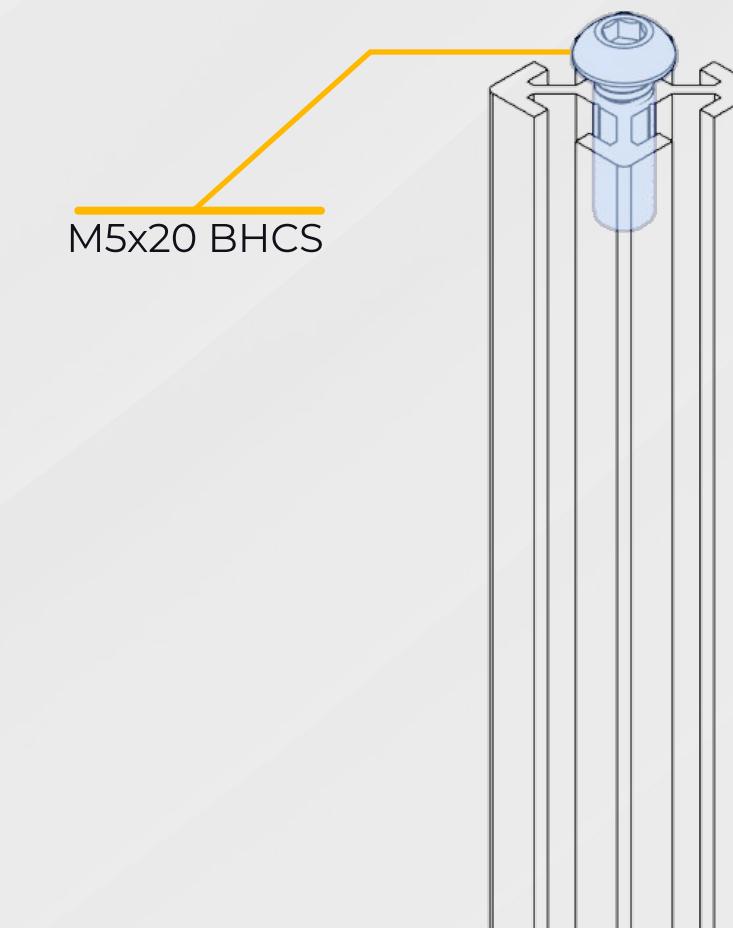
Step 3

Tap an M5 thread into the holes of the required profiles.



Step 4

Insert the M5x20 BHCS bolt into the tapped hole. Leave ~2mm gap between the bolt and extrusion.



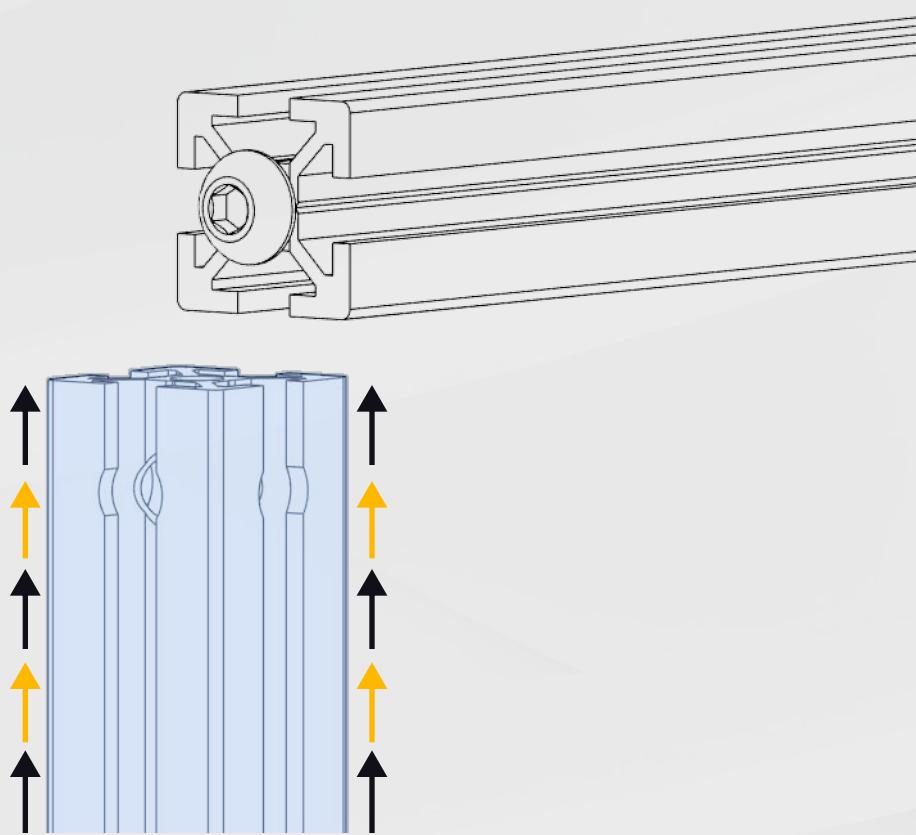
Blind Joints

PE

Default Frame

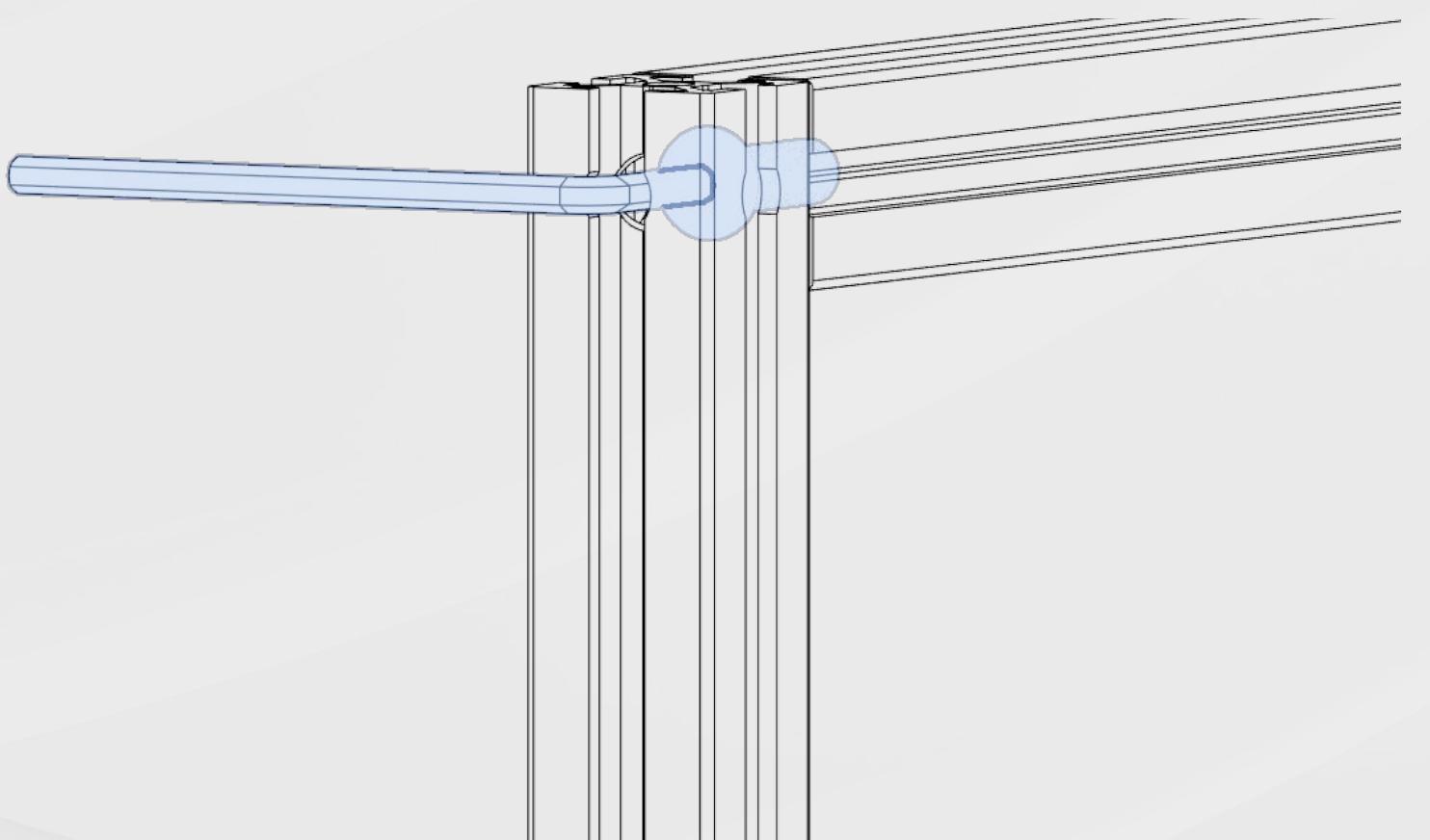
Step 5

Slide the extrusion and align the predrilled hole with the bolt.



Step 6

Use a 3mm Allen hex key to tighten the M5x20 button head cap screw.



You are all set!

I believe you have sufficient knowledge to assemble the Crossant235's frame.

The frame assembly is critical for the printer, and proper assembly is essential. Please be patient and use a square while assembling the frame.



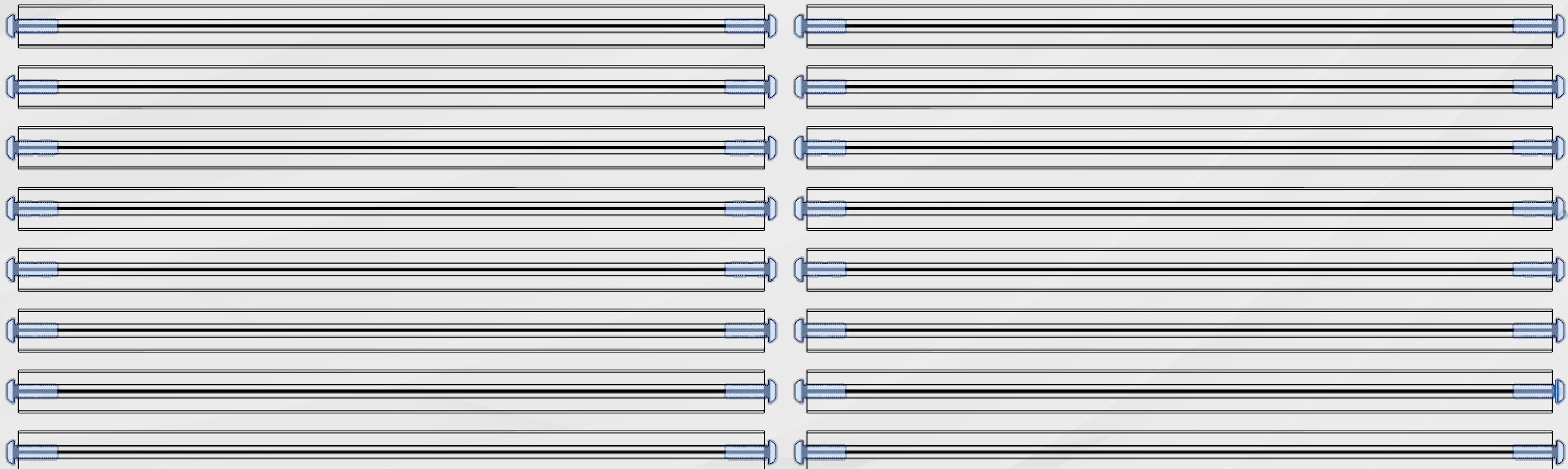
Frame Assembly

PE

Default Frame

Preparation

Before starting the frame assembly, tap both ends of the 16 pieces of 350mm extrusions with an M5 tap and insert M5x20 BHCS screws to both ends.



Frame Assembly

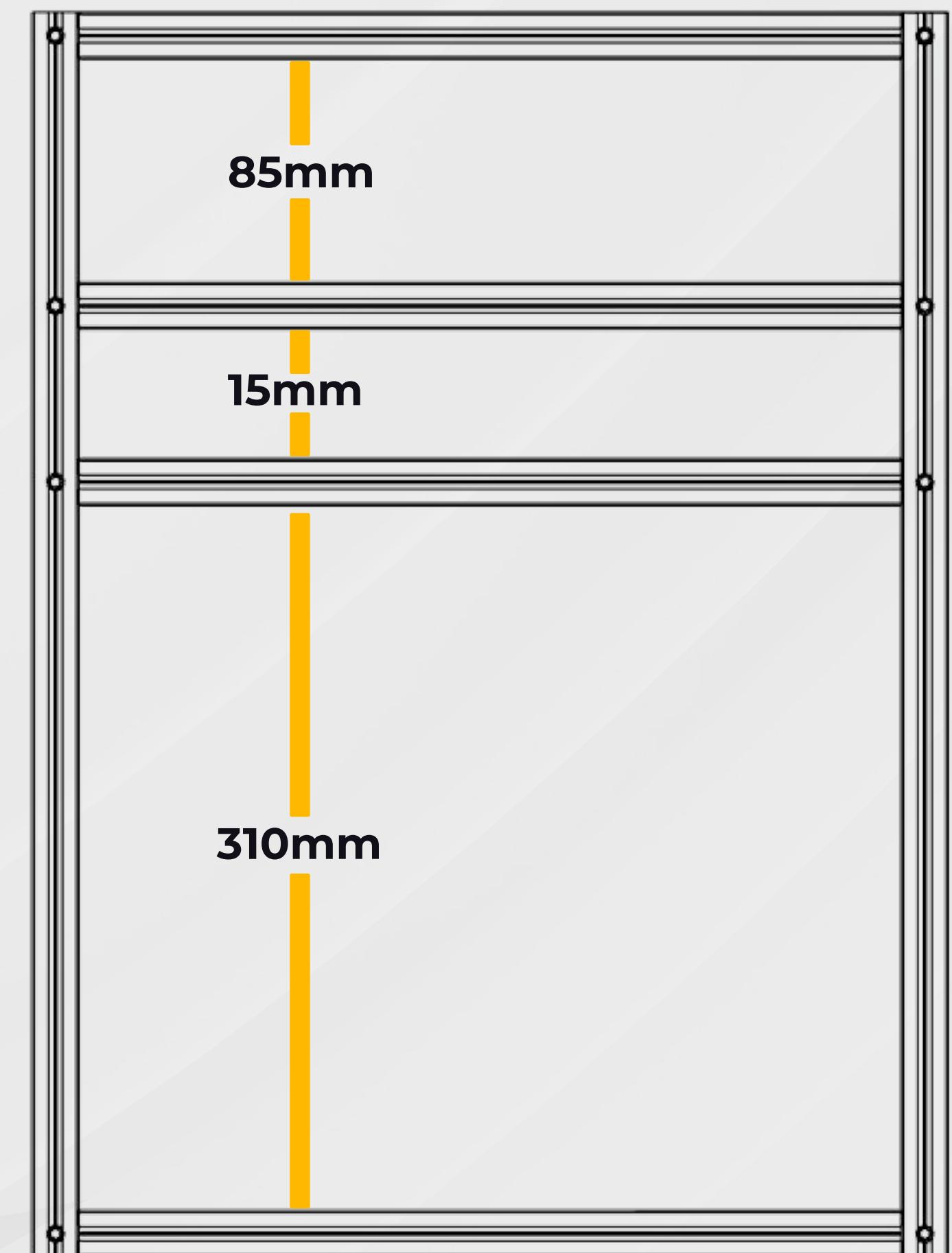
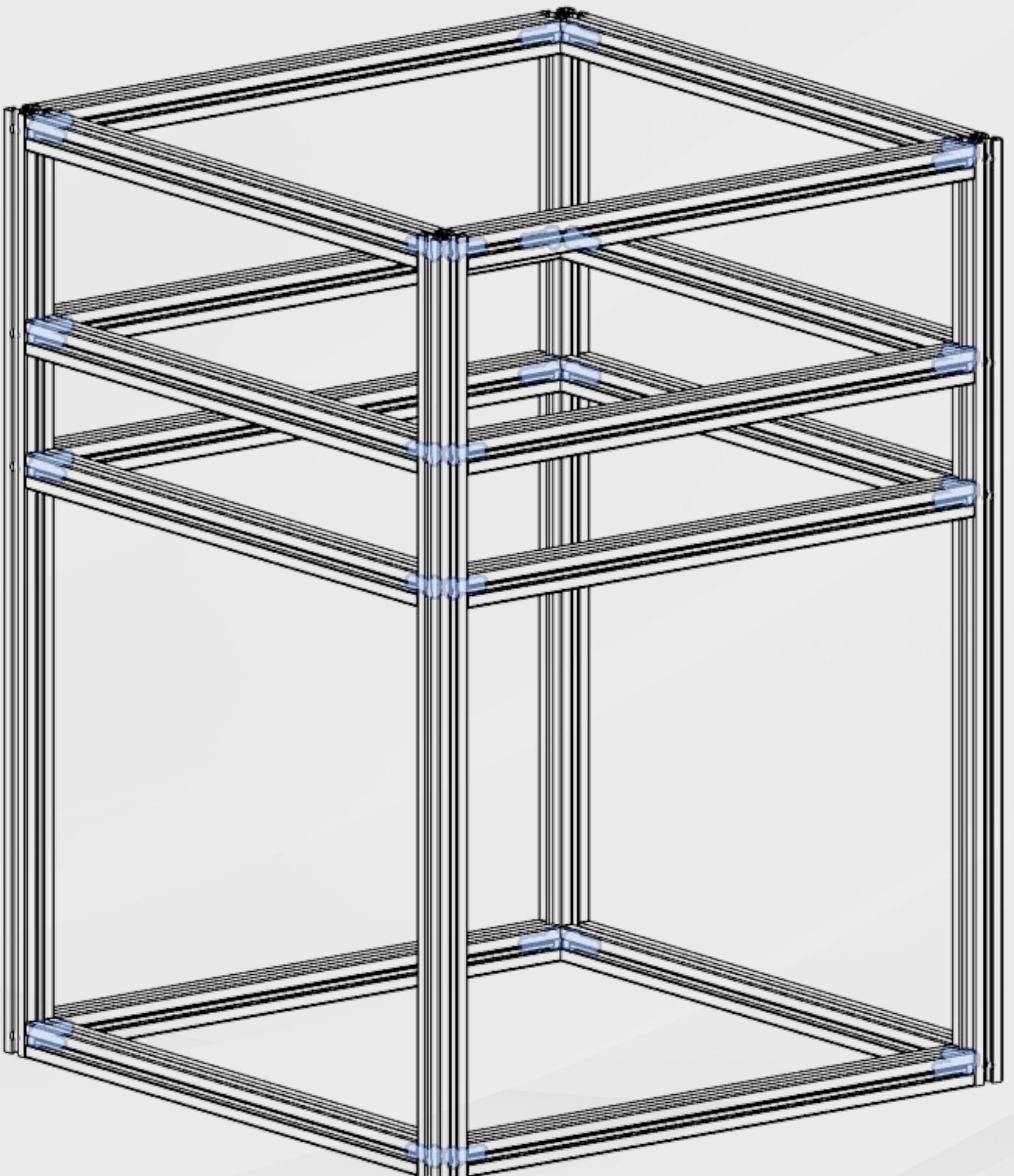
PE

Default Frame

A&B Extrusions

Slide the **B extrusions** into the slots of the **A extrusions** to the desired position. Then tighten the **M5x20 BHCS** screws using a 3mm Allen key.

The **distance between the extrusions** should be as shown in the second image.



Frame Assembly

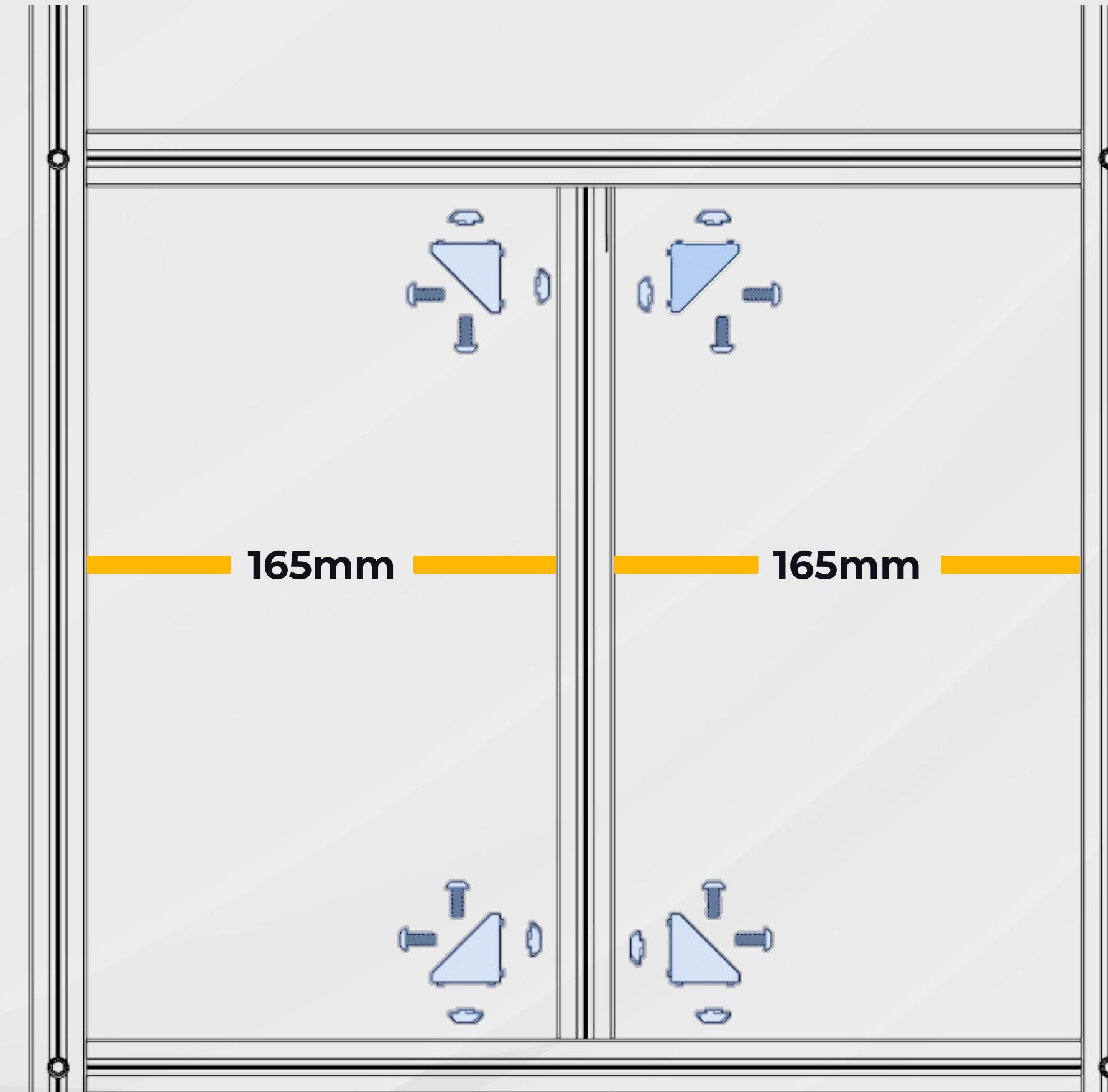
PE

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C Extrusion

The C extrusion will hold the rear Z-rail extrusion. To secure it, you will need **8 M4 T-nuts**, **8 M4x10mm BHCS or SHCS**, and **4 corner brackets**.

The position of the C extrusion should be **exactly in the middle**.





**Completed
Frame**