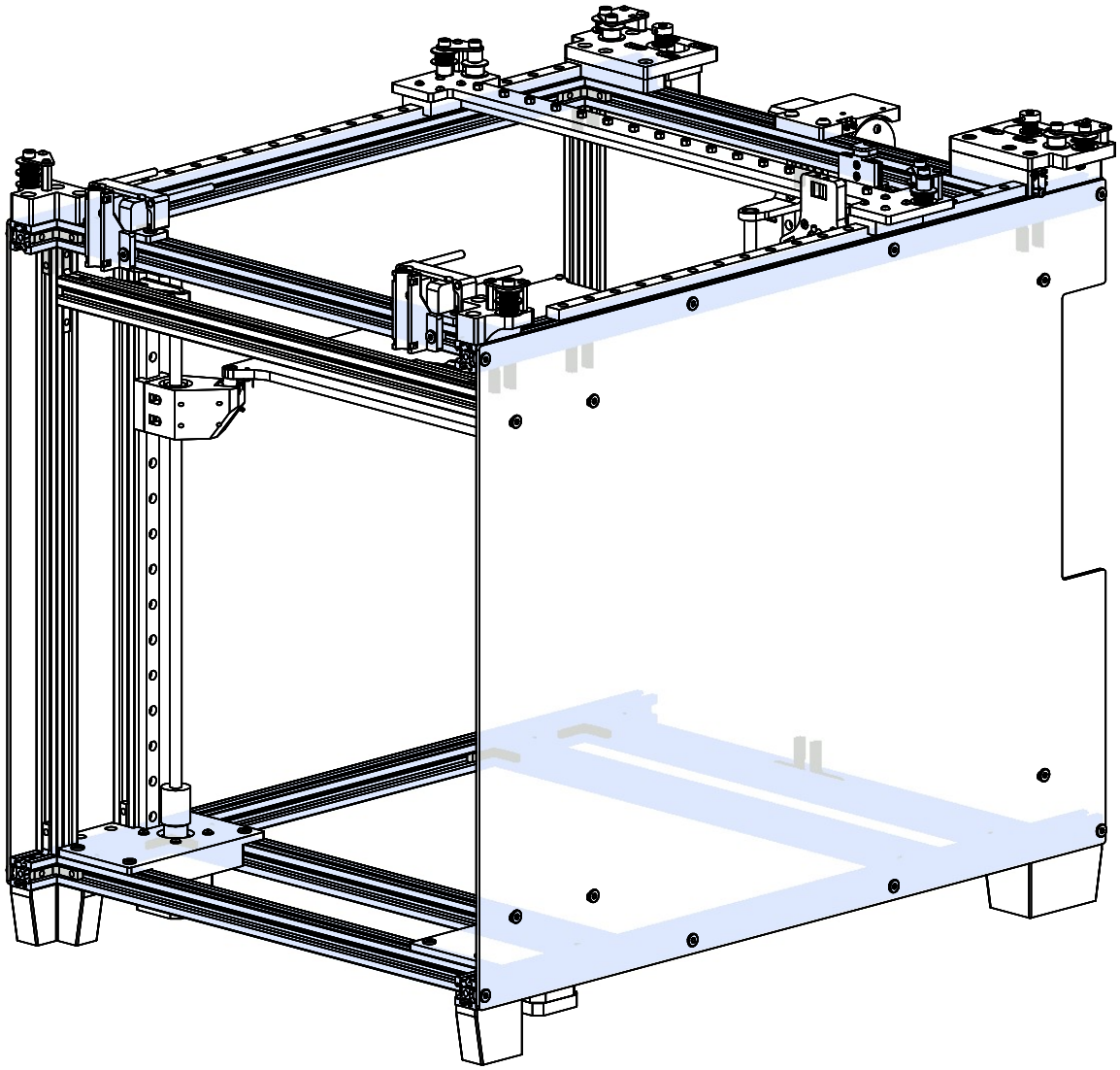


Outer Frame Assembly and Alignment

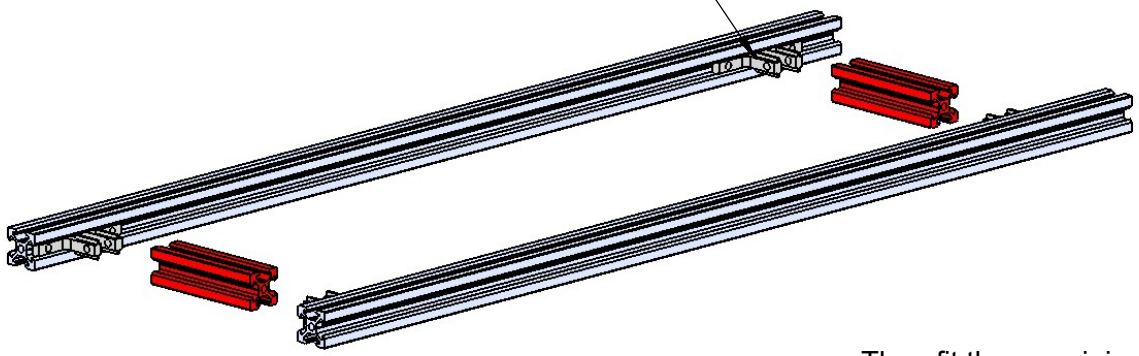
Created by: Joshua Vasquez

last edited: 1/29/2020

SCALE: 1:5

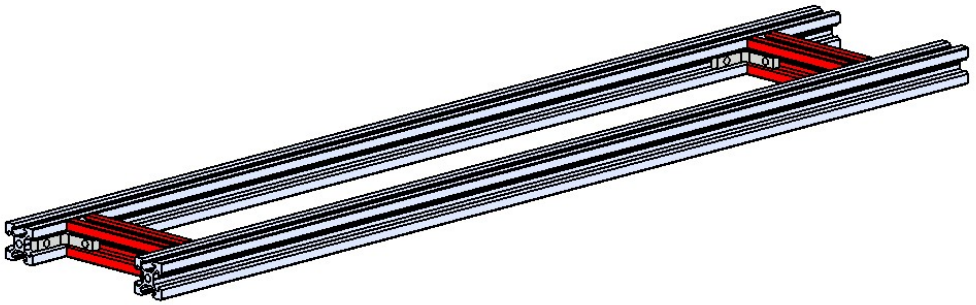
SHEET 1 OF 11

First slide 4 brackets into each side of the long extrusions.



Exploded View

Then fit the remaining parts together as shown above without tightening down any screws. Lay the loose assembly on a flat surface.



Assembled View

Note that only one side of the bracket is meant to completely slide into the extrusion

Exact locations of the brackets do not matter yet.

The short red extrusions are for squaring the frame and will be removed later.

ITEM NO.	DESCRIPTION	QTY.
1	604mm long TSlot Extrusion	2
2	Interior Inside Corner Bracket	8
3	74mm Temporary TSlot Extrusion for Squaring	2

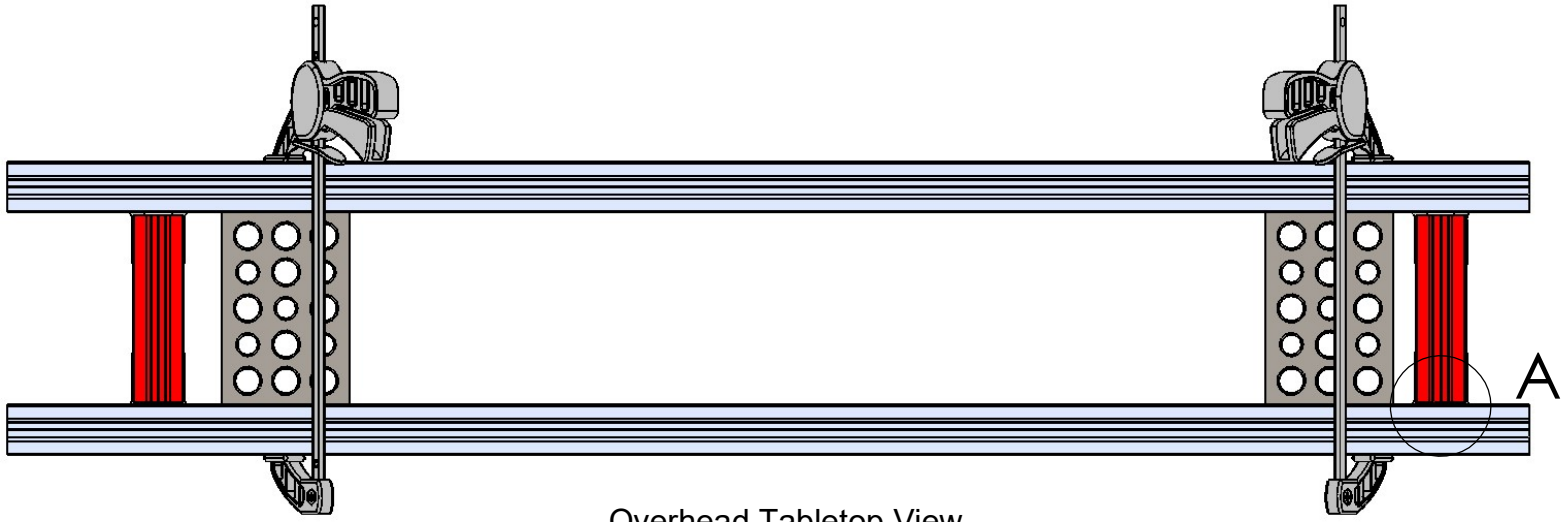
Upper Frame Squaring Setup

Created by: Joshua Vasquez

last edited: 1/29/2020

SCALE: 1:4

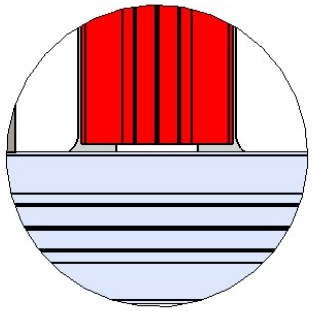
SHEET 2 OF 11



Overhead Tabletop View

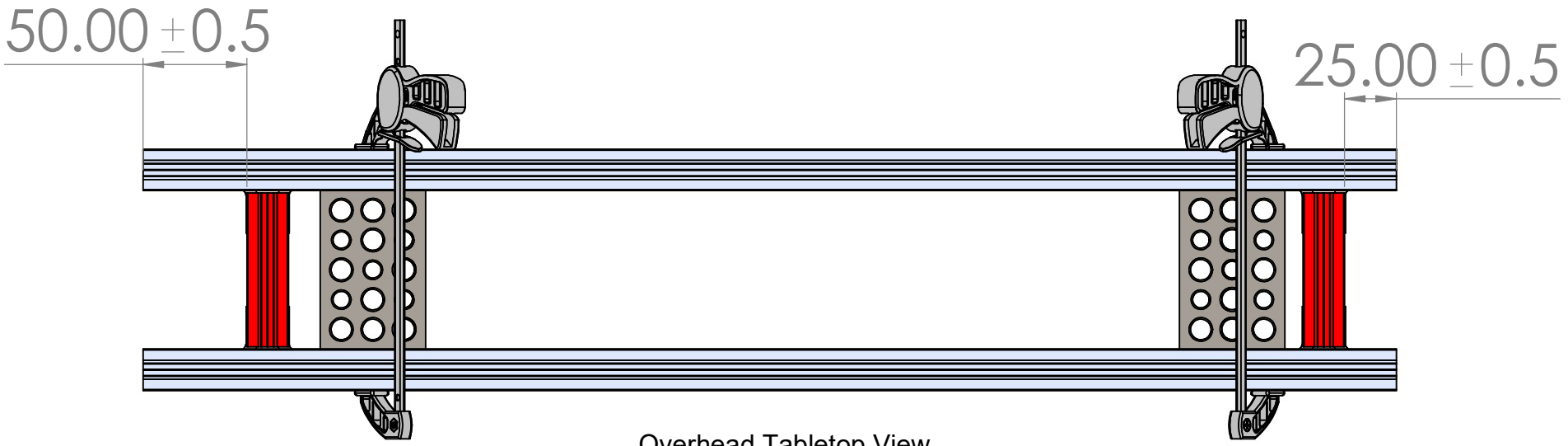
Slide two 1-2-3 Blocks into the frame on either side and loosely clamp the entire setup together as shown above.

Notice that the red extrusions will be loose. This is intentional as they are not being used as references to square the frame. In this configuration, the frame is "square" using the 1-2-3 Blocks as a reference.



DETAIL A
SCALE 1 : 1

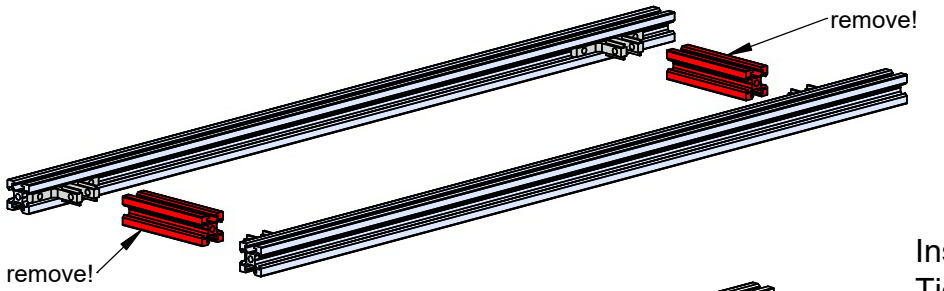
Upper Frame Bracket Registration		
	Created by: Joshua Vasquez	last edited: 1/29/2020
	SCALE: 1:3	SHEET 3 OF 11



Overhead Tabletop View

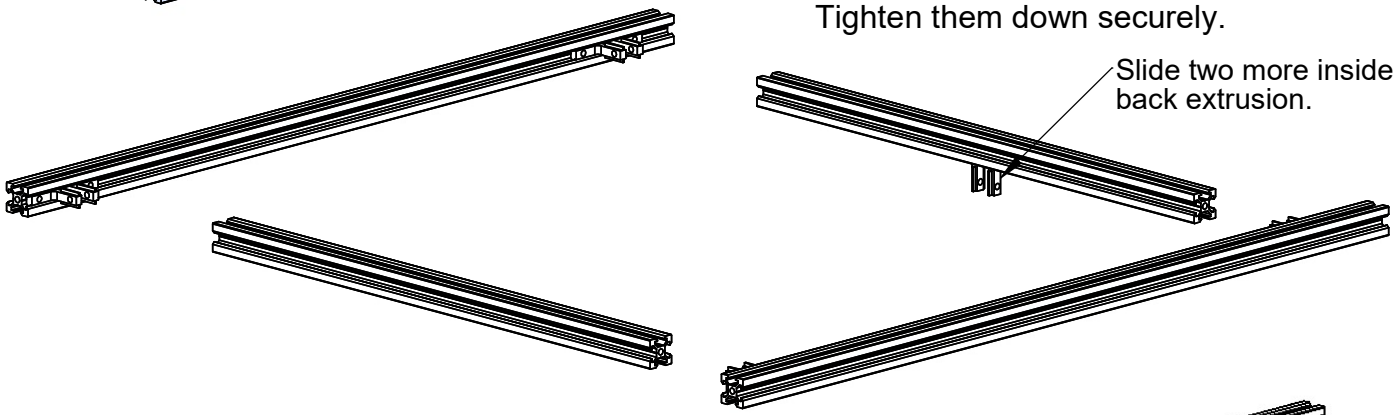
Using Calipers as a reference, adjust the red extrusions such that they match the dimensions shown above. Note that bracing the entire assembly against a loose extrusion may make this dimension easier to measure as shown below. When they are in the proper location, fasten down all 16 screws in the inside corner brackets. This procedure will "set" the brackets in the correct location.

Upper Frame Bracket Fixturing		
	Created by: Joshua Vasquez	last edited: 1/29/2020
	SCALE: 1:3	SHEET 4 OF 11

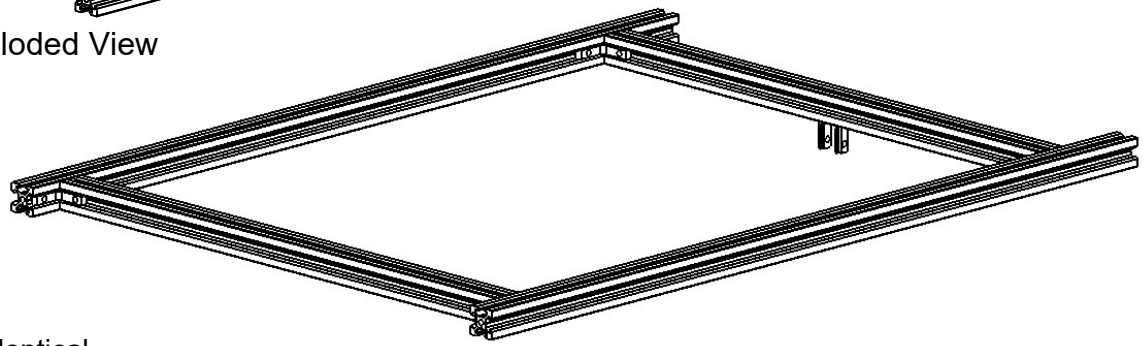


Remove the clamps and 1-2-3 blocks. Then loosen the 8 screws connecting the red extrusions. Leave all other screws tightened.

Install the 409mm TSlot Extrusions in place of the Red Extrusions. Tighten them down securely.



Exploded View



Assembled View

Assuming your 409mm TSlot Exrusions were cut to identical lengths, your frame should now be square!

Set this frame aside for now.

ITEM NO.	DESCRIPTION	QTY.
1	409mm TSlot Extrusion	2
3	Interior Inside Corner Bracket	2

Upper Frame Assembly

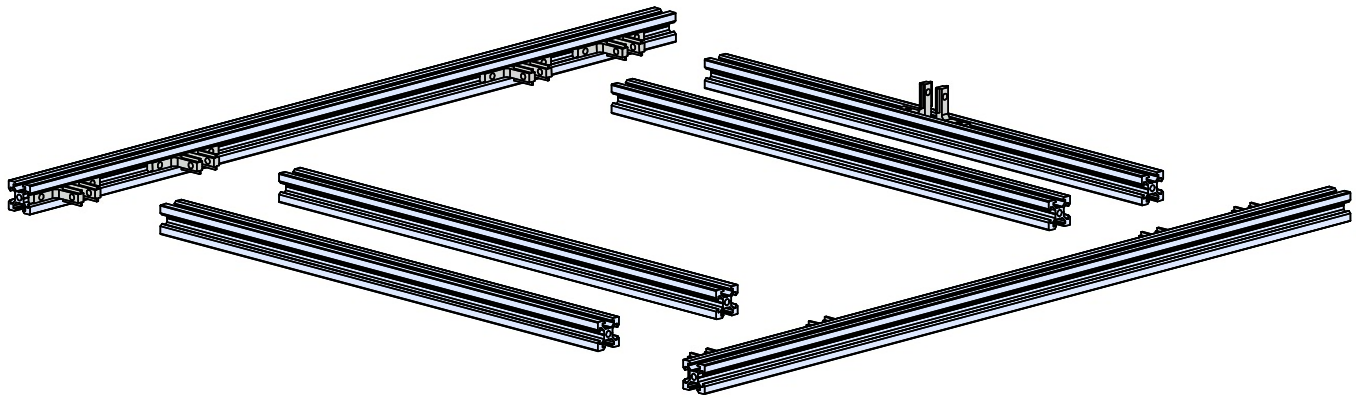
Created by: Joshua Vasquez

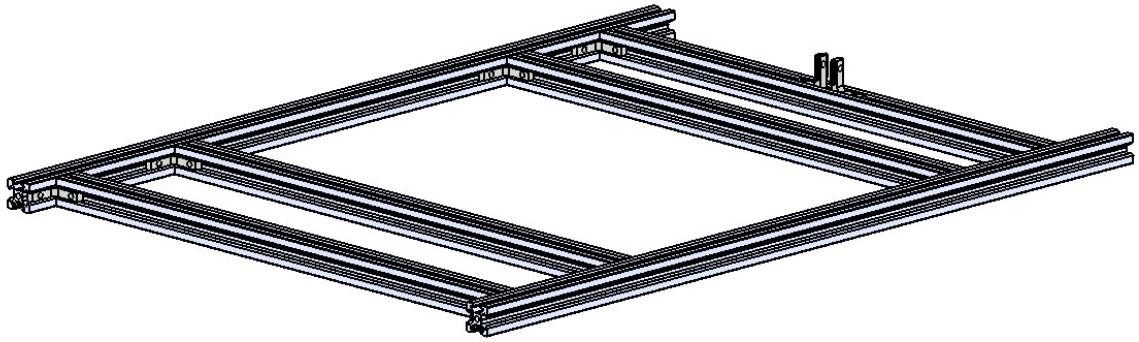
last edited: 1/29/2020

SCALE: 1:5

SHEET 5 OF 11

Like before, assemble the entire lower frame without fastening down any set screws.





ITEM NO.	DESCRIPTION	QTY.
1	409mm TSlot Extrusion	4
2	604mm long TSlot Extrusion	2
3	Interior Inside Corner Bracket	18

Lower Frame Loose Assembly

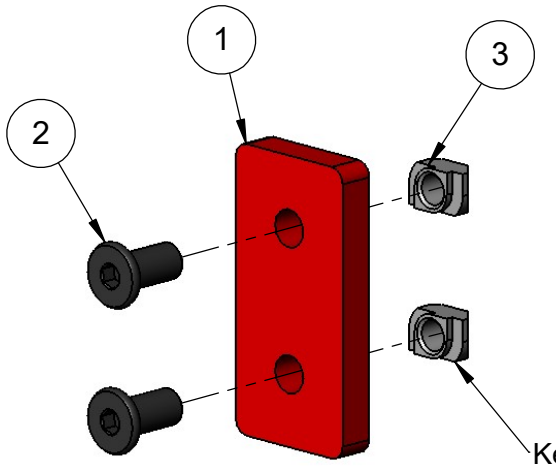
Created by: Joshua Vasquez

last edited: 1/29/2020

SCALE: 1:5

SHEET 6 OF 11

Make 8 of the following assemblies.



Keep these T-Nuts Loose; only two full turns.
They will be tightened into the frame later.

ITEM NO.	DESCRIPTION	QTY.
1	Outer Frame Squaring Plate	8
2	M5 Buttonhead Screw, 10mm long	16
3	M5 Drop-In T-Nut for 20x20 Extrusion	16

Squaring Bracket Assembly

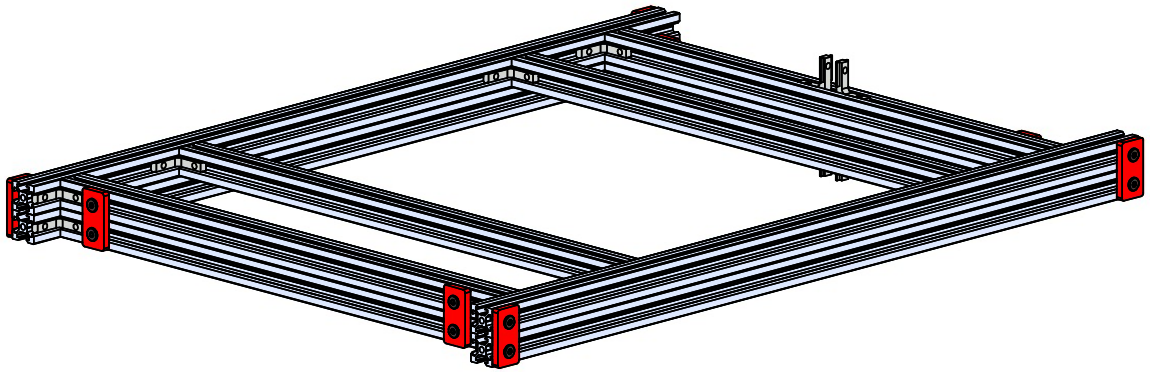
Created by: Joshua Vasquez

last edited: 1/29/2020

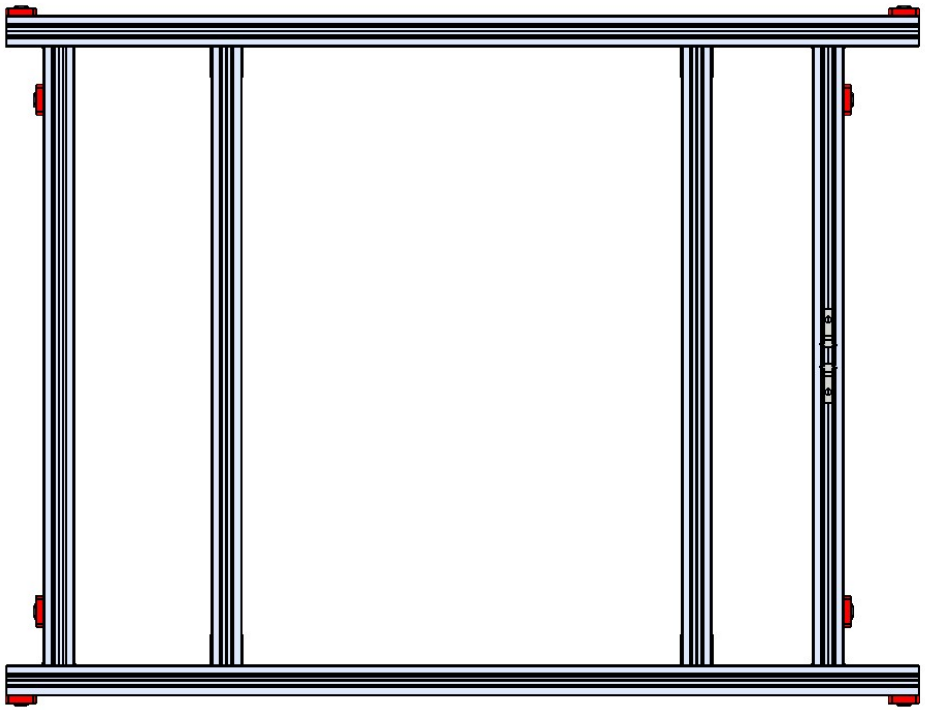
SCALE: 1:1

Join the prior frame with the loose frame "back-to-back" such that the dangling corner brackets do not interfere with each other. Then install the 8 plate assemblies into the corner and tighten them down such that the frame is "pulled" into the shape by the frame from the prior step.

Note: This process is made easier by dangling the frame over a table such that the corner brackets do not prevent the frame from resting flat on the table surface.

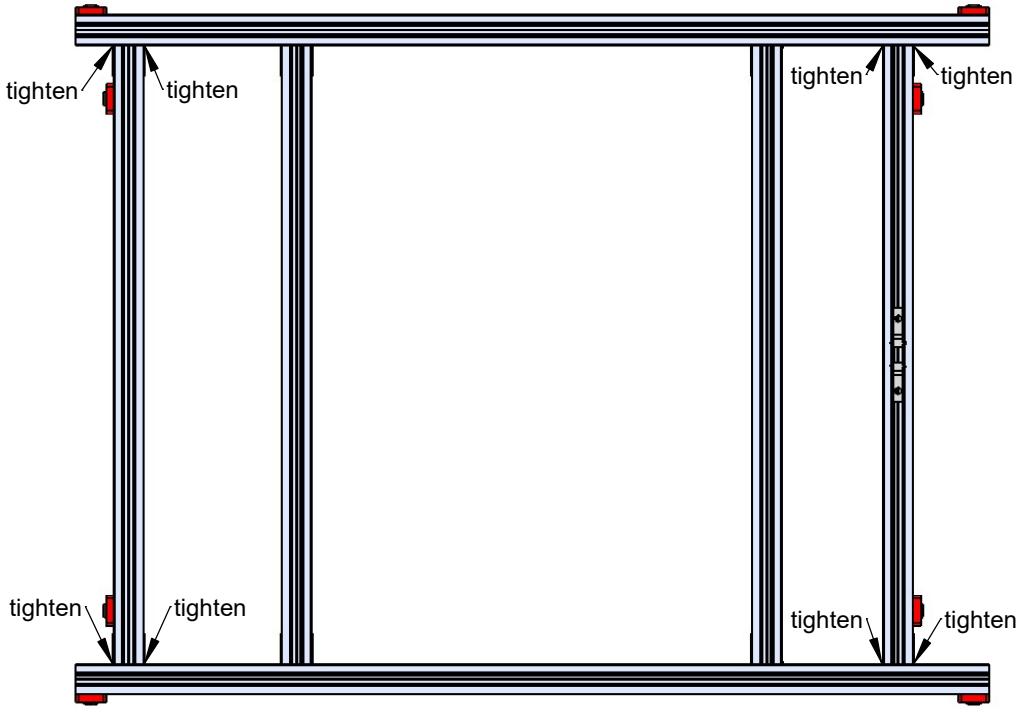


Clamp down the outer frame with the temporary red plates as shown below. This step will pull the lower frame into a configuration that matches the upper frame. Then clamp down the setscrews in the outer frame extrusions. (The inner extrusions will be clamped down later.)



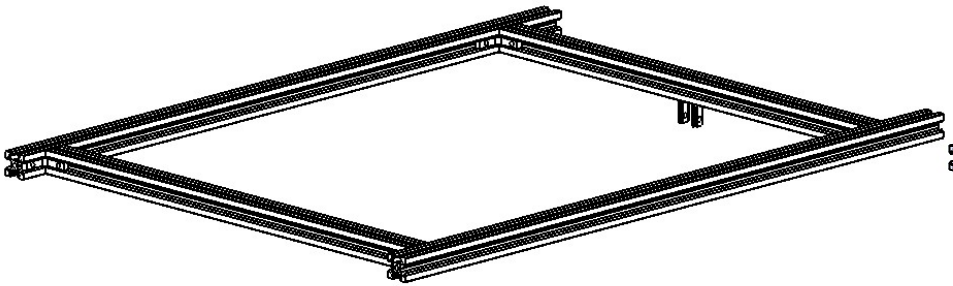
Upper/Lower Frame Registration		
	Created by: Joshua Vasquez	last edited: 1/29/2020
	SCALE: 1:5	SHEET 8 OF 11

Now tighten down the setscrews in the outer frame extrusions on the frame that is still loose. (The inner extrusions will be clamped down later.)



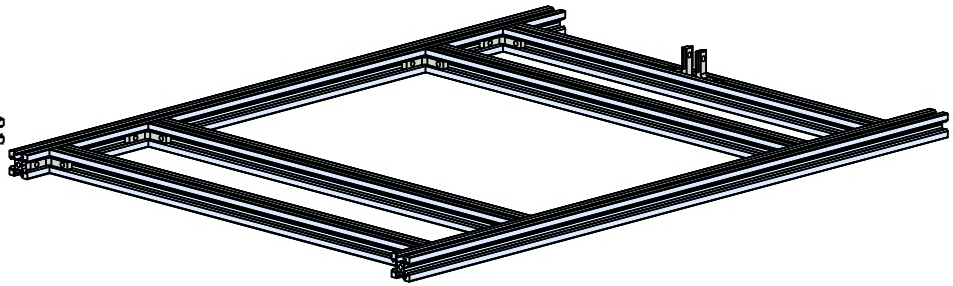
Lower Frame Bracket Fixturing		
	Created by: Joshua Vasquez	last edited: 1/29/2020
	SCALE: 1:5	SHEET 9 OF 11

With the outer screws tightened on the lower frame, remove the temporary plates and separate the frames.



Upper Frame

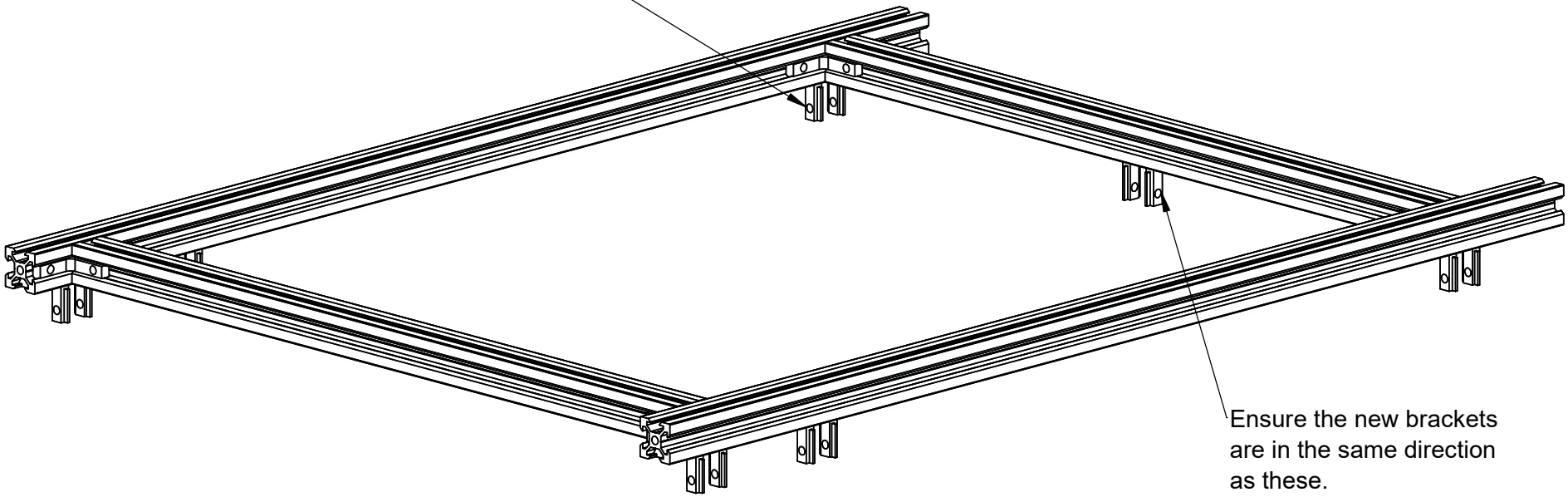
Set this one aside.



Lower Frame

Separated Upper/Lower Frames		
	Created by: Joshua Vasquez	last edited: 1/29/2020
	SCALE: 1:6	SHEET 10 OF 11

Slide 3 pairs of Inside-Corner Brackets (12 total) onto the bottoms side of each long extrusion. Loosely fasten them in the approximate locations shown just they do not fall out.



Ensure the new brackets are in the same direction as these.

ITEM NO.	DESCRIPTION	QTY.
3	Interior Inside Corner Bracket	12
4	Upper Frame Assembly	1

Upper Frame Bracket Loose Assembly

Created by: Joshua Vasquez

last edited: 1/29/2020

SCALE: 1:3

SHEET 11 OF 11