

Well Plate Bed Plate Instructions



Created by:
Joshua Vasquez

last edited:
9/28/2021

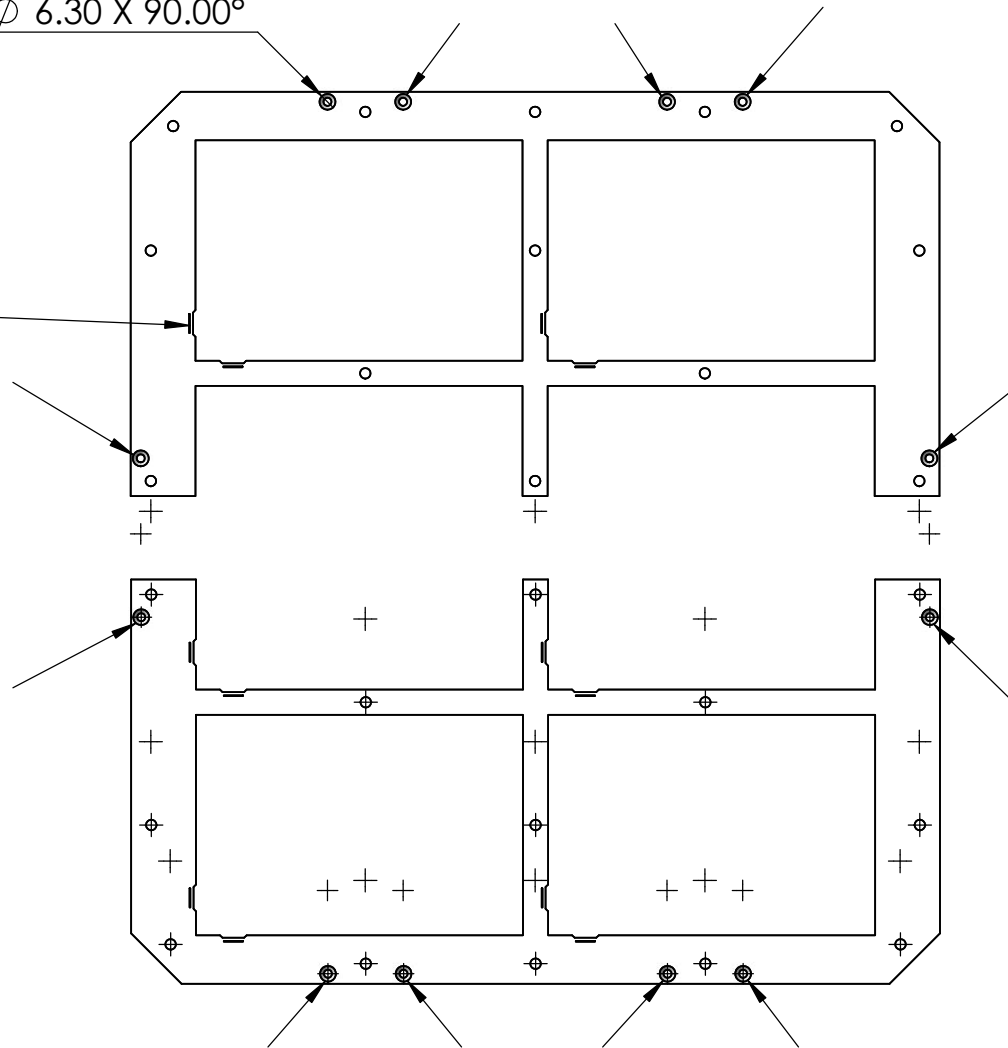
SCALE: 1:2

SHEET 1 OF 14

12 x ϕ 3.20 ∇ 8.73
 \checkmark ϕ 6.30 X 90.00°


With a 90-deg Countersink tool,
 countersink the following 12 holes
 for an M3 flathead screw.

Note the orientation of each plate
 using these slots as an identifying
 feature.



ITEM NO.	DESCRIPTION	QTY.
1	Top Layer Lower Plate	1
2	Top Layer Upper Plate	1

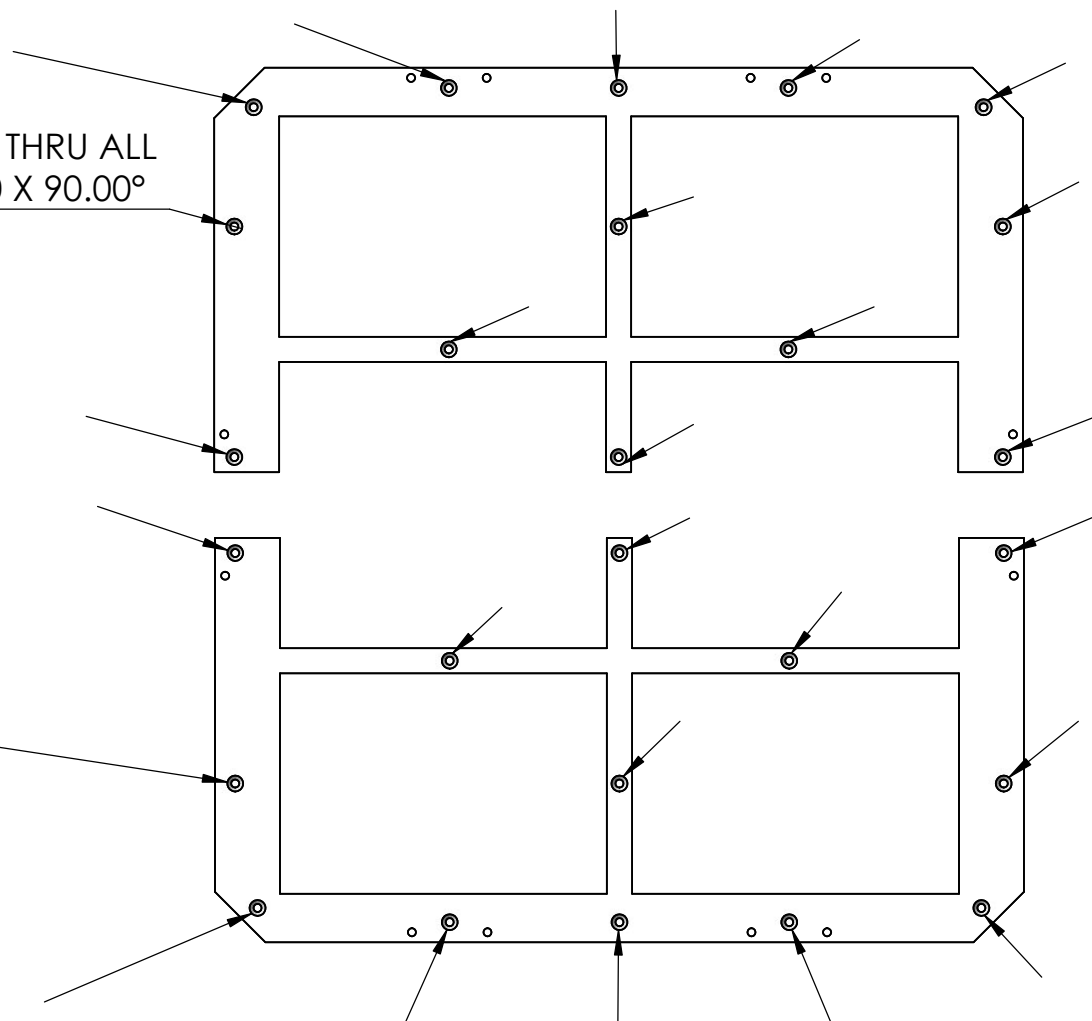
Only countersink the holes indicated! Double check the Orientation!

Top Plate Pre-Processing		
	Created by: Joshua Vasquez	last edited: 9/28/2021
	SCALE: 1:3	SHEET 2 OF 14

26 x ϕ 3.20 THRU ALL
 \checkmark ϕ 6.30 X 90.00°


With a 90-deg Countersink tool,
 countersink the following 26 holes
 for an M3 flathead screw.

Note the orientation of each plate
 using these slots as an identifying
 feature.



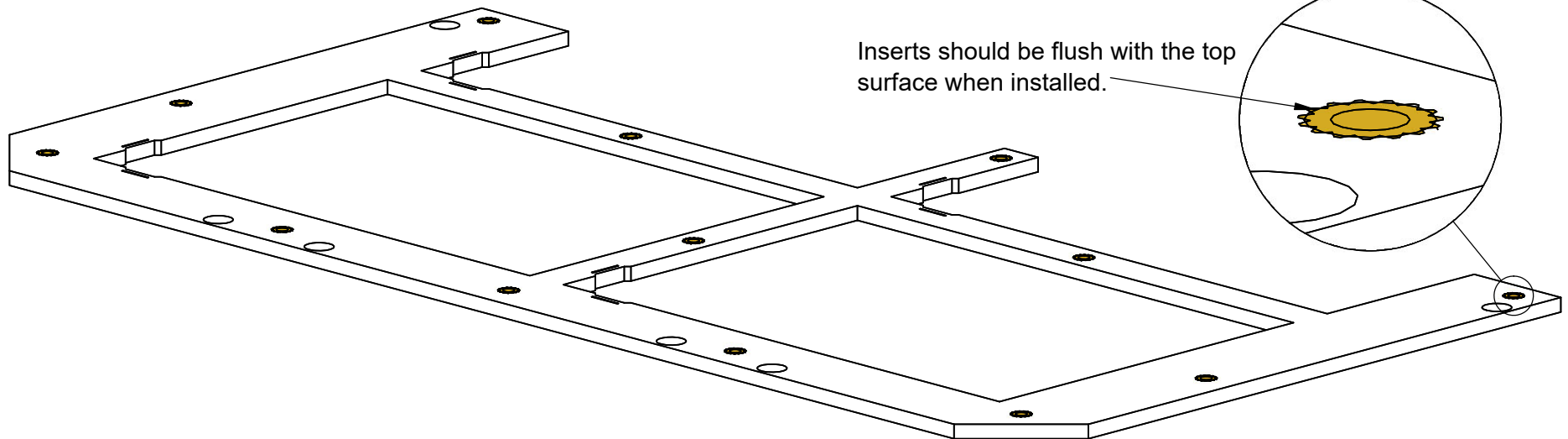
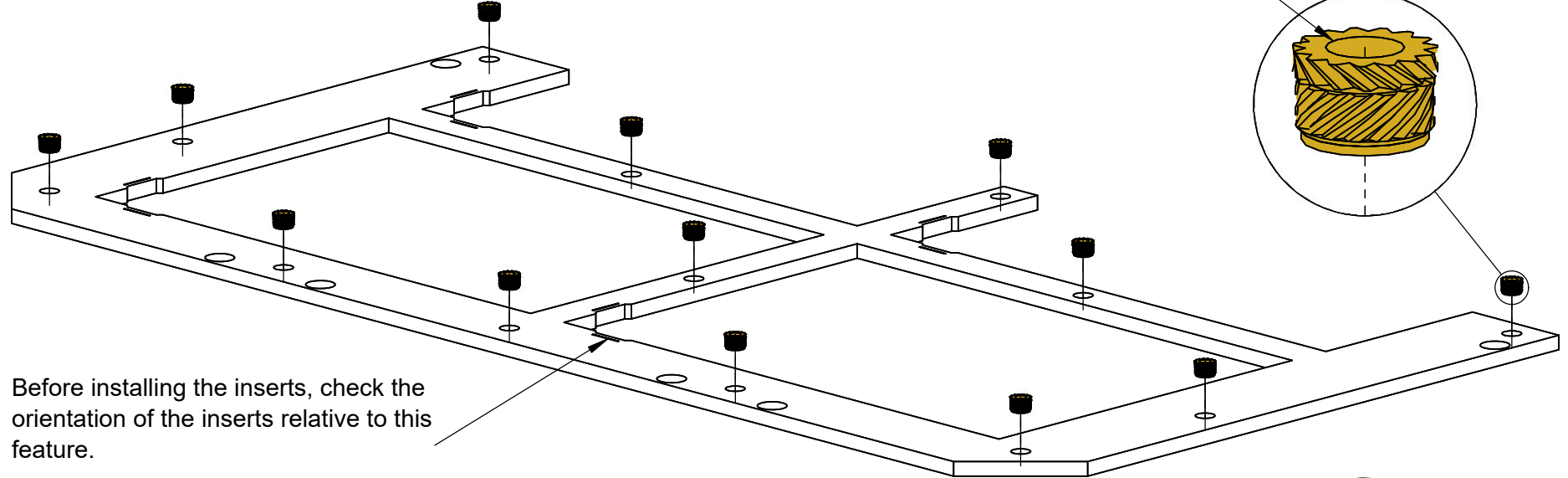
ITEM NO.	DESCRIPTION	QTY.
1	Top Layer Lower Plate	1
2	Top Layer Upper Plate	1

Only countersink the holes indicated! Double check the Orientation!

Bottom Plate Pre-Processing		
	Created by: Joshua Vasquez	last edited: 9/28/2021
	SCALE: 1:3	SHEET 3 OF 14

Install the following heat set inserts in the locations specified using the Plate Press Technique.

Note the insert orientation. The smooth side will insert first.



ITEM NO.	DESCRIPTION	QTY.
1	Top Layer Lower Plate	1
2	M3 Tapered Heat Set Insert	13

Lower Plate Inserts



Created by:
Joshua Vasquez

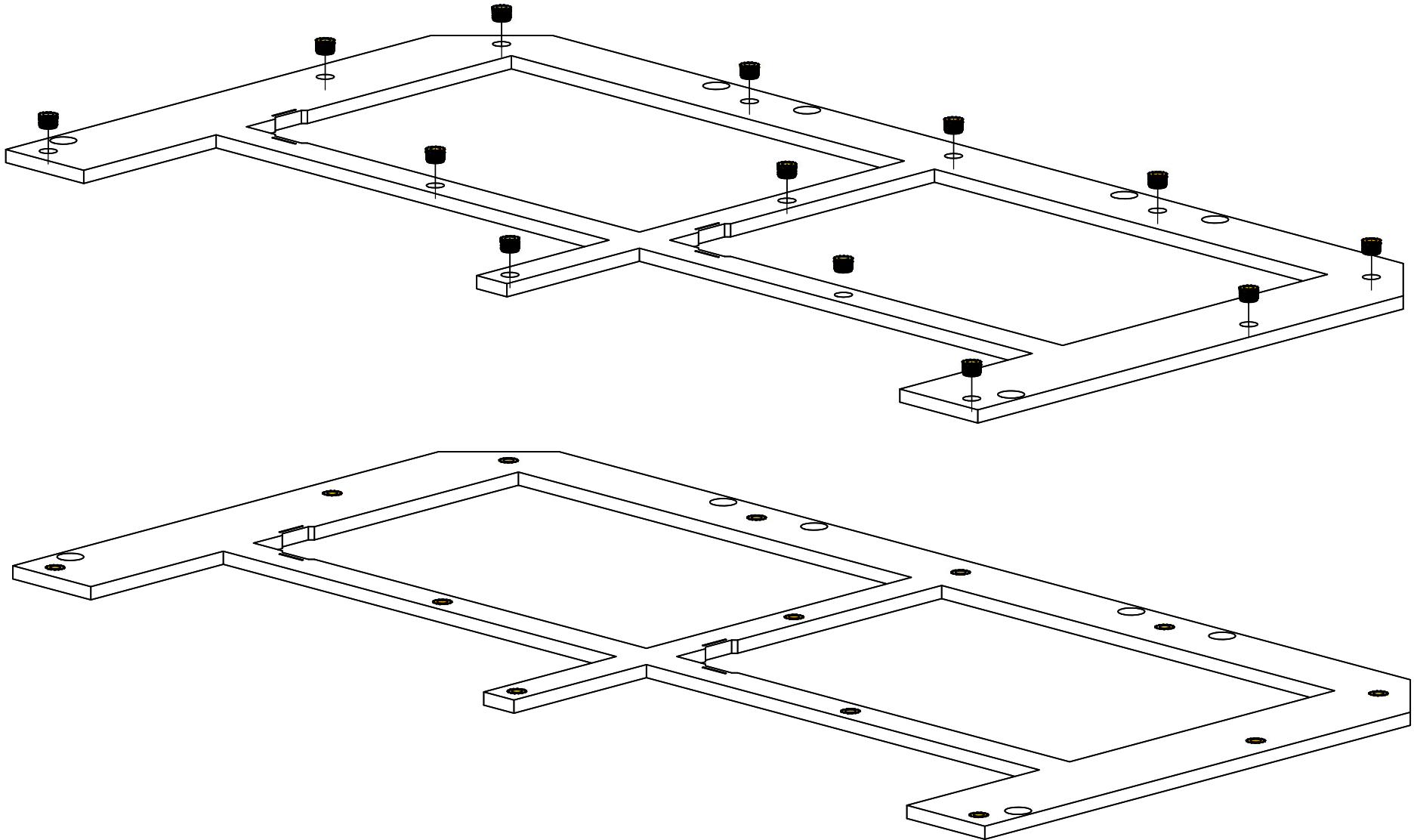
last edited:
9/28/2021

SCALE: 3:4


SHEET 4 OF 14

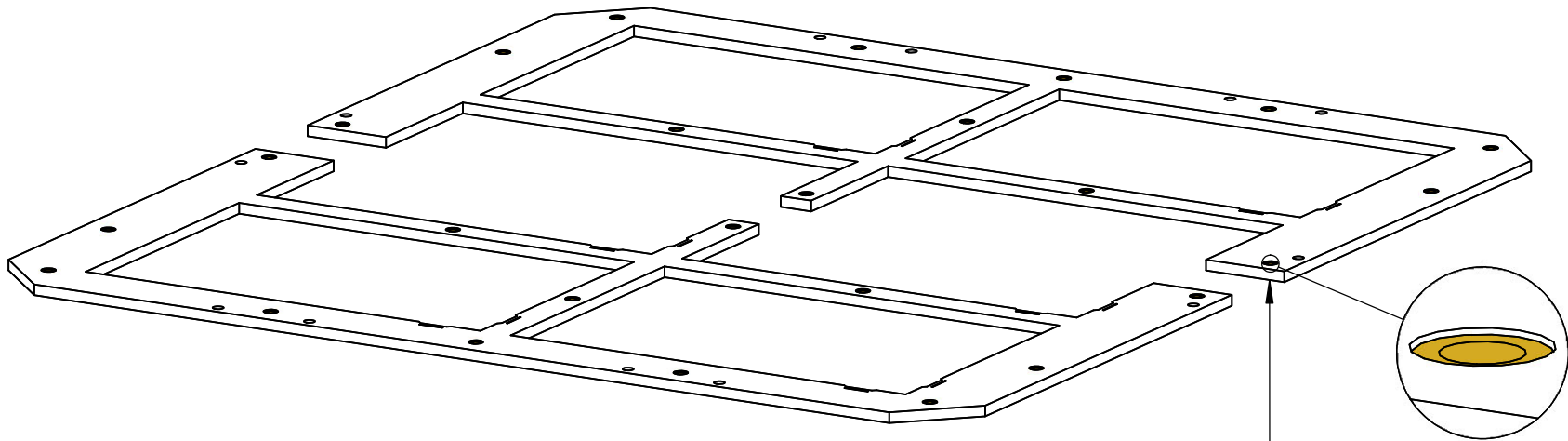
Like before, install the following inserts in the locations specified.

Warning: this piece is **not** a copy of the prior one. Check the holes in relationship to the small cutouts.



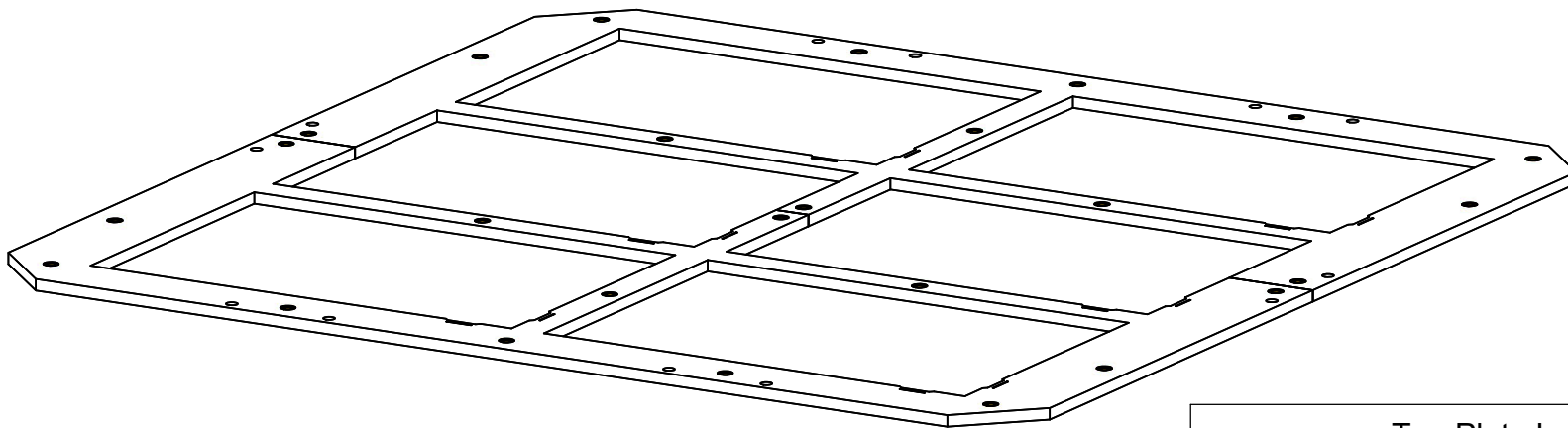
ITEM NO.	DESCRIPTION	QTY.
1	Top Layer Upper Plate	1
2	M3 Tapered Heat Set Insert	13

Upper Plate Inserts		
	Created by:	last edited:
	Joshua Vasquez	9/28/2021
	SCALE: 3:4	SHEET 5 OF 14



Loosely lay out each plate from the prior steps such that they are upside down from their previous orientation.

Plates are oriented such that inserts were installed from the bottom.



Top Plate Layout



Created by:
Joshua Vasquez

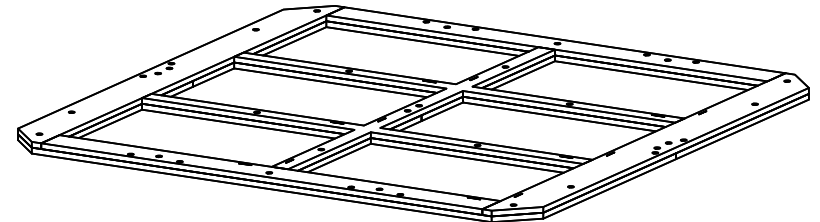
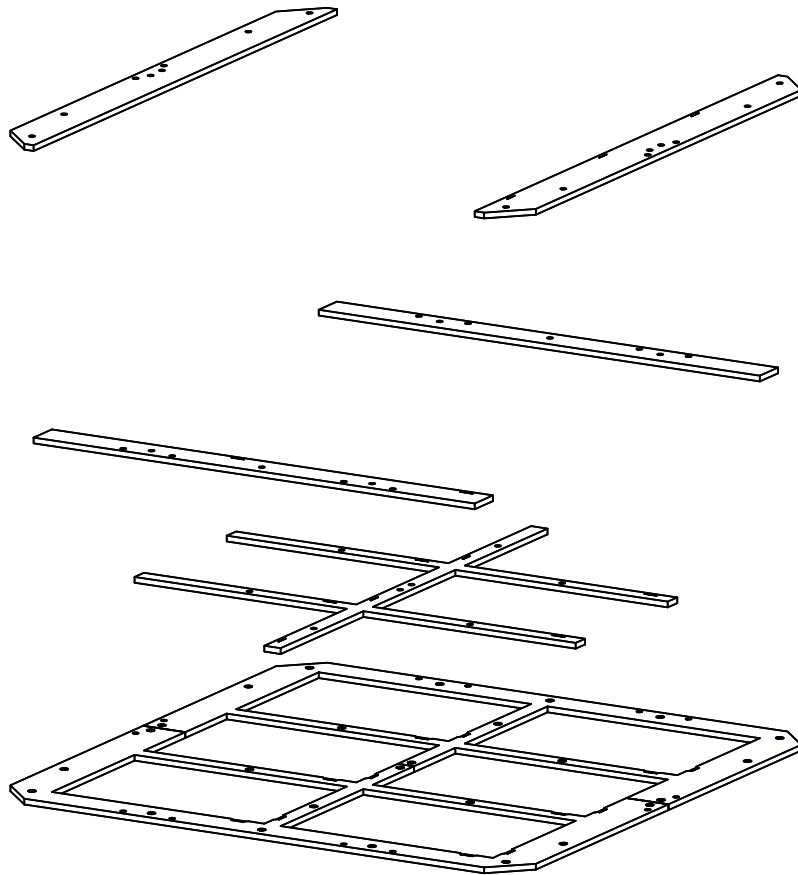
last edited:
9/28/2021

SCALE: 1:2


SHEET 6 OF 14

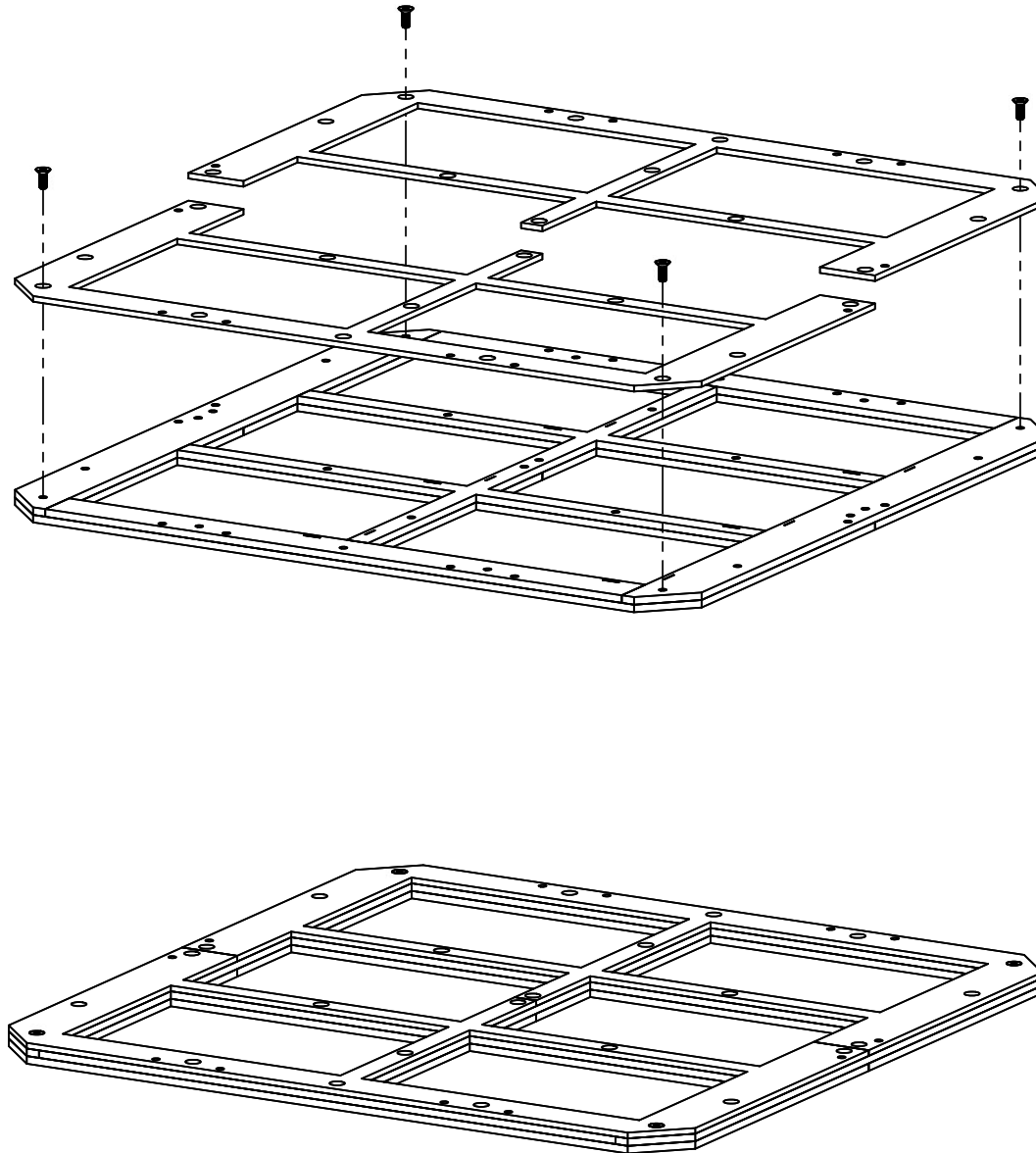
Lay these parts on top of the previous and ensure that the holes match.

They will be secured in future steps.




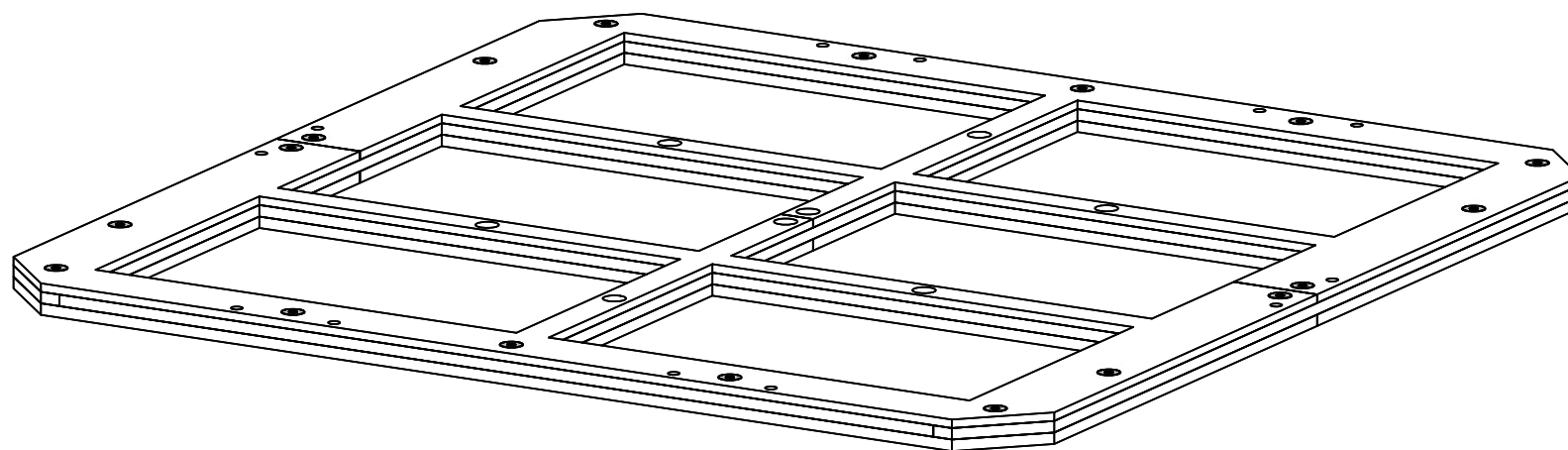
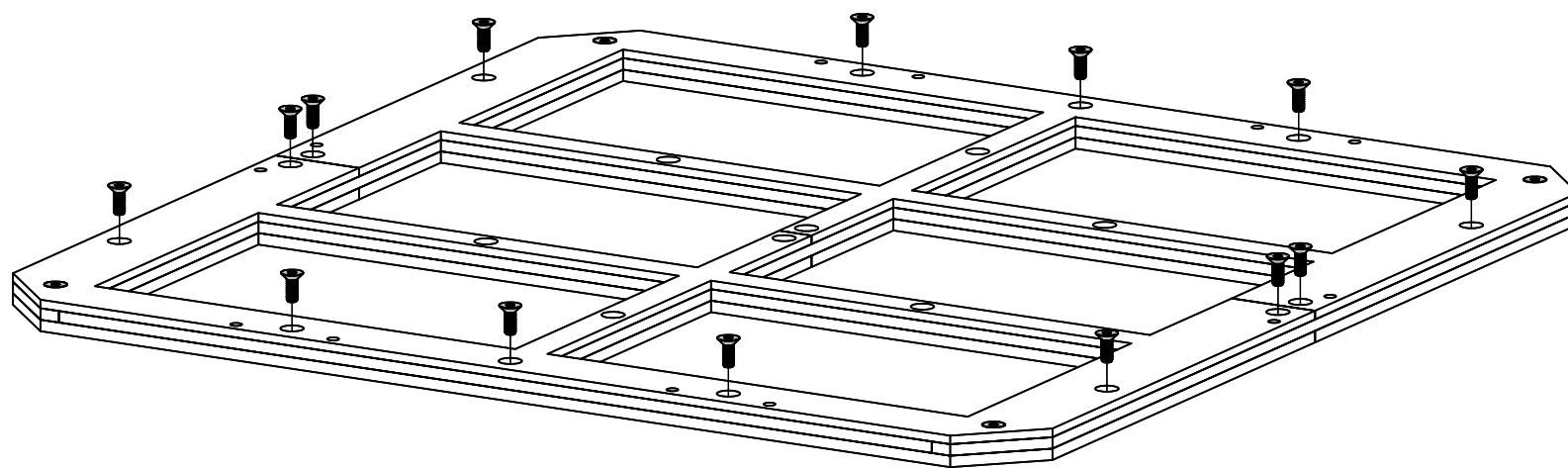
ITEM NO.	DESCRIPTION	QTY.
1	Middle Layer Left Plate	1
2	Middle Layer Right Plate	1
3	Middle Layer Upper Plate	1
4	Middle Layer Lower Plate	1
5	Middle Layer Center Plate	1

Center Layout		
	Created by:	last edited:
	Joshua Vasquez	9/28/2021
	SCALE: 1:4	SHEET 7 OF 14




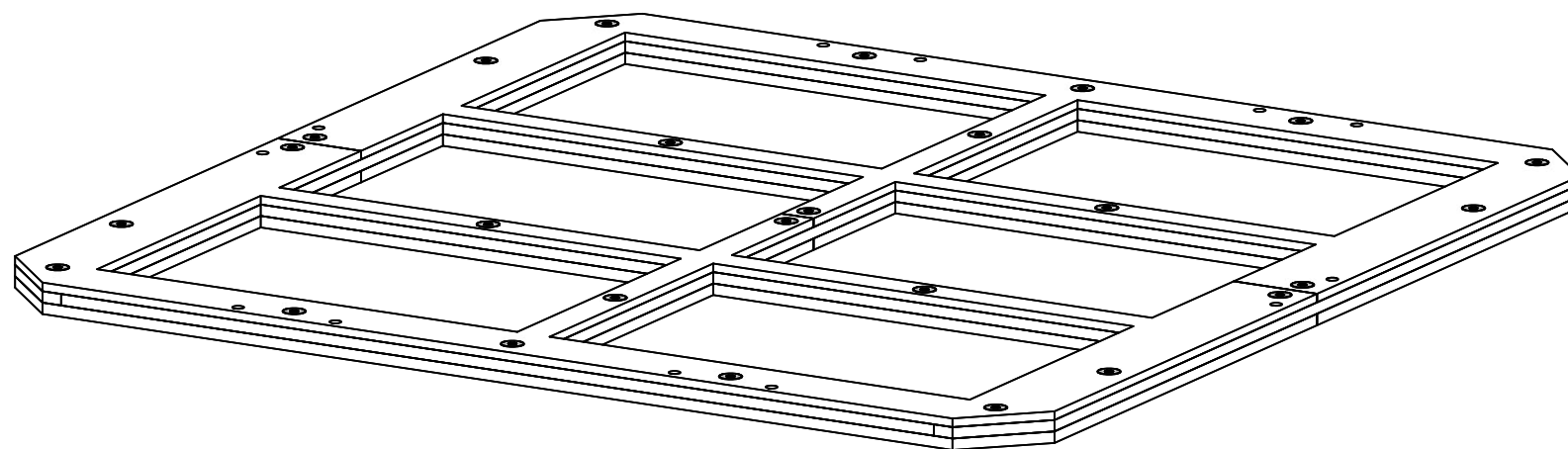
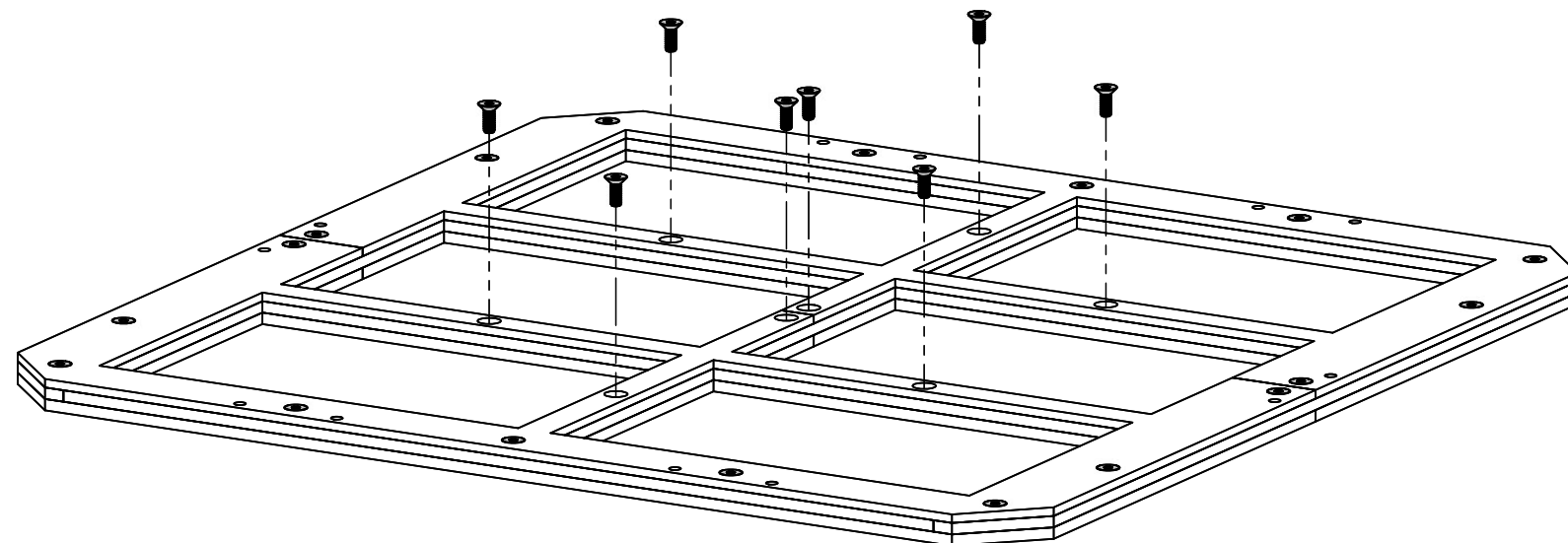
ITEM NO.	DESCRIPTION	QTY.
1	M3 Flathead Screw, 8mm long	4
2	Bottom Layer Upper Plate	1
3	Bottom Layer Lower Plate	1

First Wave Screw Installation		
	Created by:	last edited:
	Joshua Vasquez	9/28/2021
	SCALE: 1:3	SHEET 8 OF 14




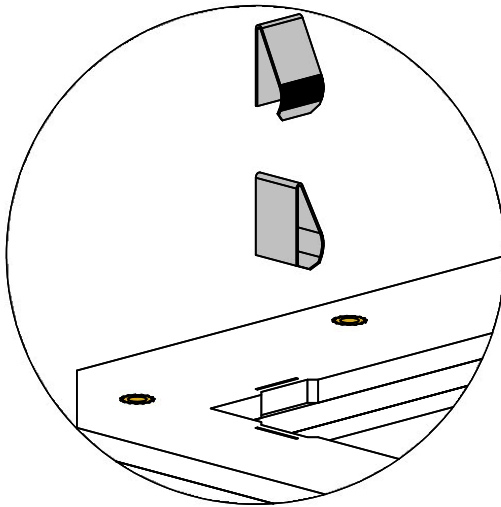
ITEM NO.	DESCRIPTION	QTY.
10	M3 Flathead Screw, 8mm long	14

Second Wave Screw Installation		
	Created by:	last edited:
	Joshua Vasquez	9/28/2021
	SCALE: 1:2	SHEET 9 OF 14



ITEM NO.	DESCRIPTION	QTY.
10	M3 Flathead Screw, 8mm long	8

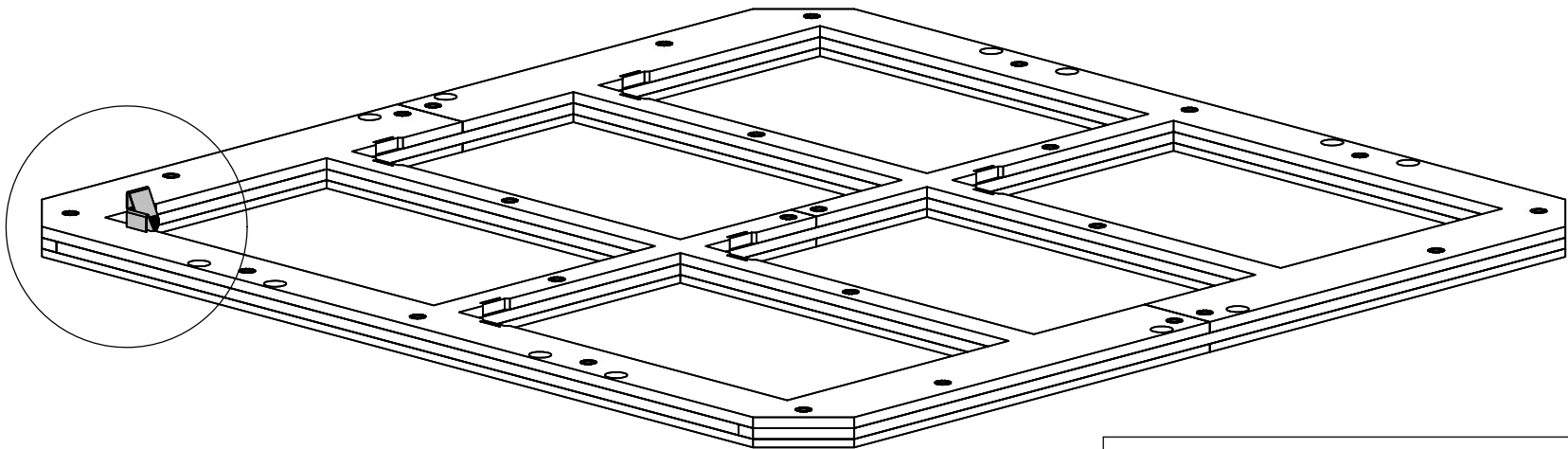
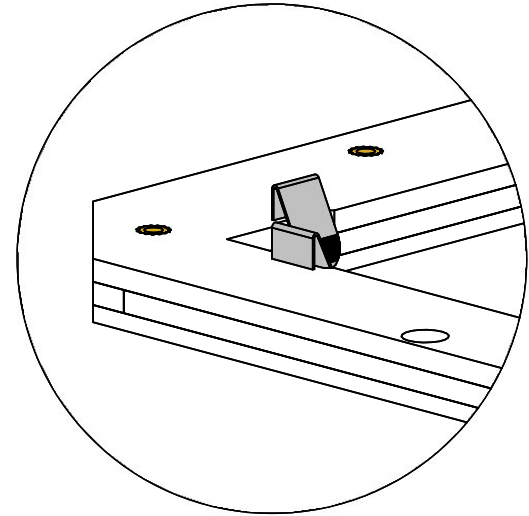
Final Wave Screw Installation		
	Created by:	last edited:
	Joshua Vasquez	9/28/2021
	SCALE: 1:2	SHEET 10 OF 14




Press-Fit each clip through the first two plates until it hard-stops at the top of the third plate.

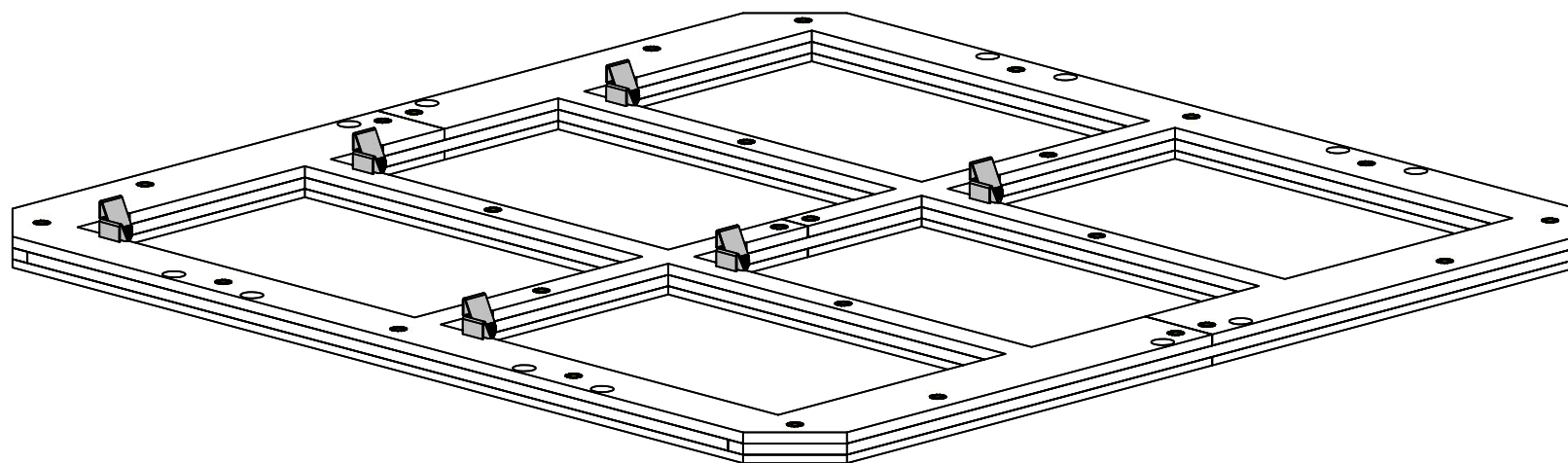
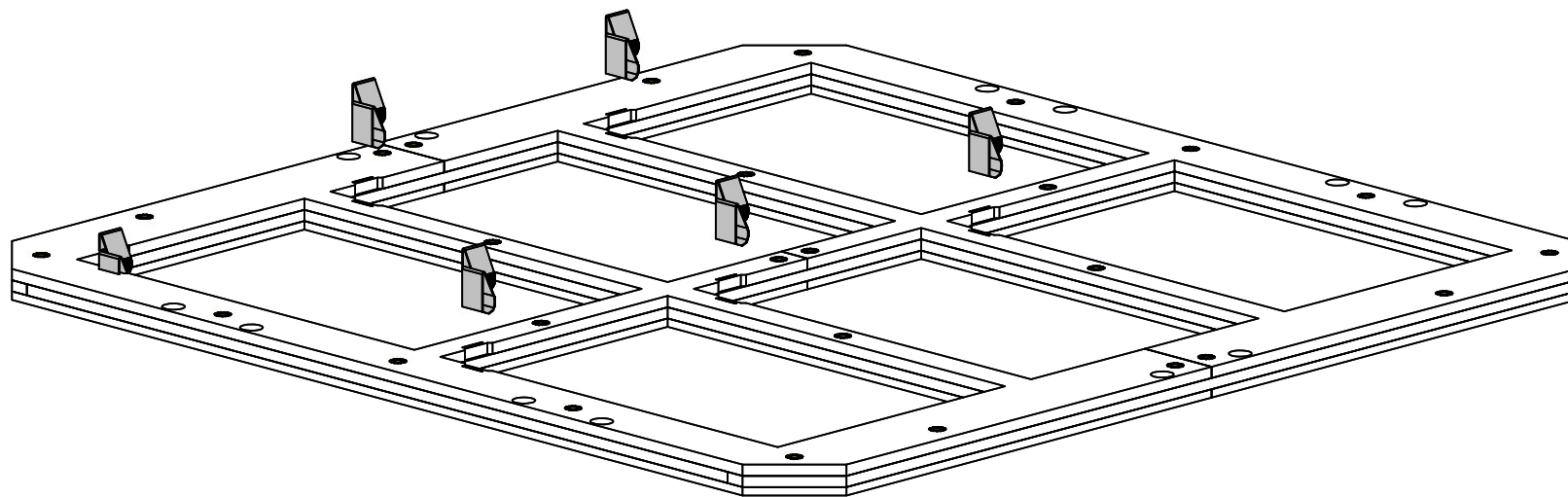
Note that these clips have small burrs in them that will bend when you push them in.

Use a hard metal surface or clamps to gently push the clips into position. Do not use a hammering force as the plastic plates can shatter.



ITEM NO.	DESCRIPTION	
2	5205 Keystone Battery Clips	2

First Clip Installation		
	Created by:	last edited:
	Joshua Vasquez	9/28/2021
	SCALE: 1:2	SHEET 11 OF 14



ITEM NO.	DESCRIPTION	
1	Base Plate Sandwich	1
2	5205 Keystone Battery Clips	12

Full Clip Installation

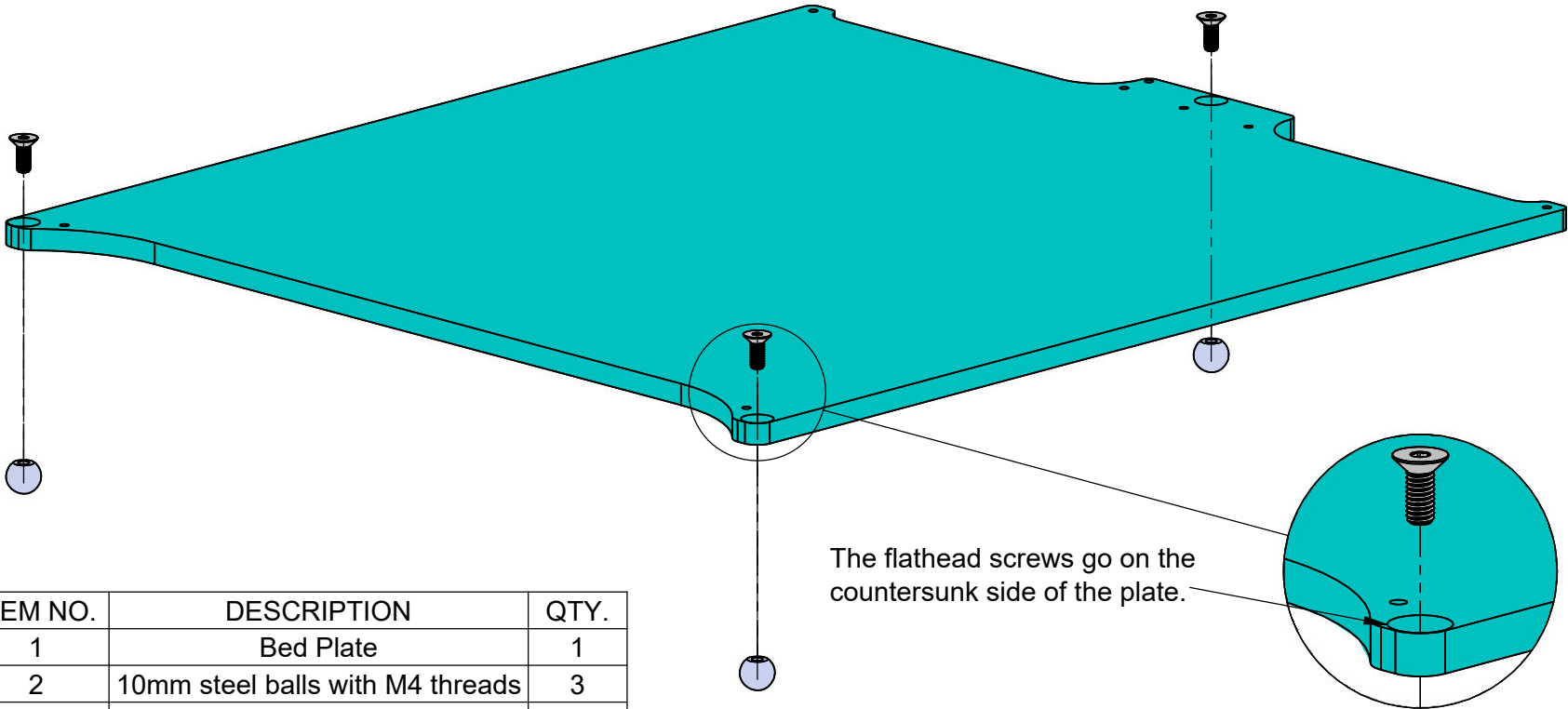


Created by:
Joshua Vasquez

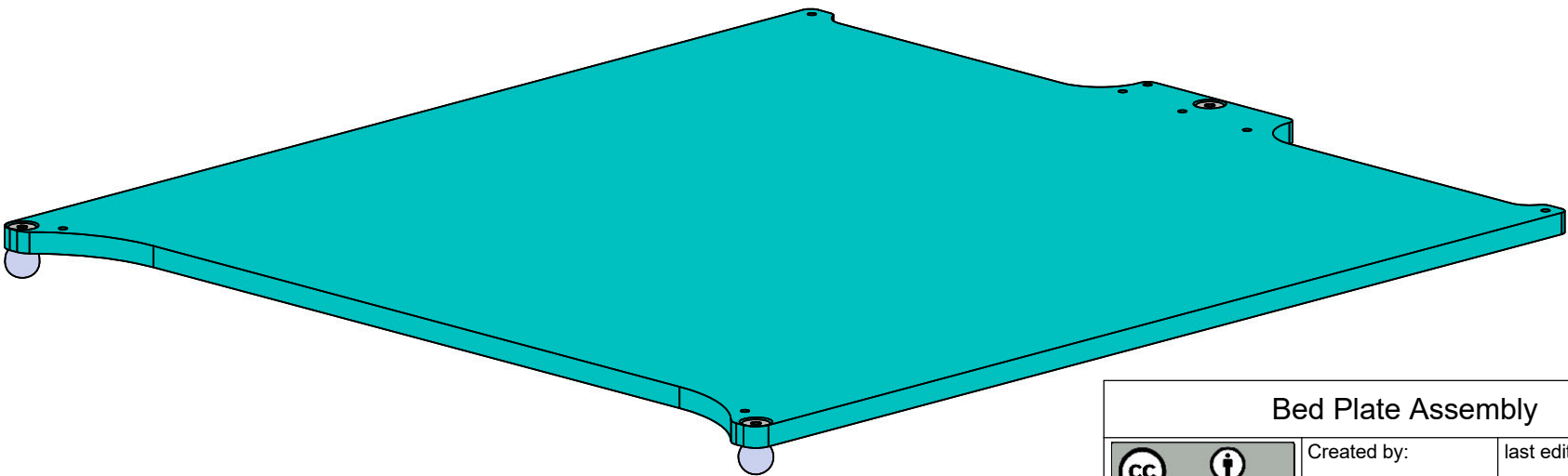
last edited:
9/28/2021

SCALE: 1:2

SHEET 12 OF 14



ITEM NO.	DESCRIPTION	QTY.
1	Bed Plate	1
2	10mm steel balls with M4 threads	3
3	M4 Flathead screw, 10mm long	3



Bed Plate Assembly

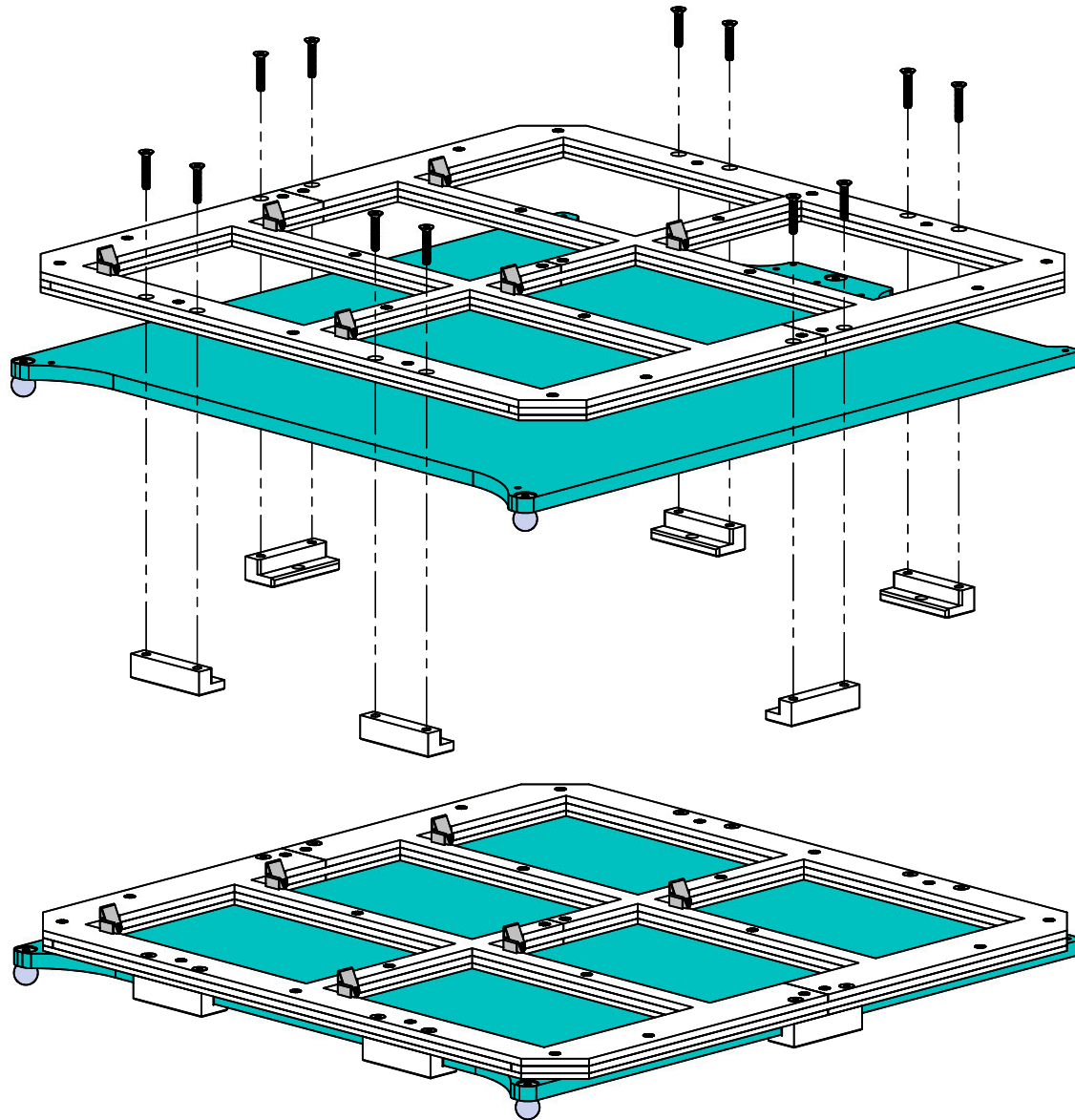


Created by:
Joshua Vasquez


last edited:
9/28/2021

SCALE: 1:2

SHEET 13 OF 14



ITEM NO.	DESCRIPTION	
1	M3 Flathead Screw, 16mm long	12
3	Bed Plate Attachment Clips	6
4	Base Plate Sandwich	1
5	Bed Plate Assembly	1

Final Installation		
	Created by:	last edited:
	Joshua Vasquez	9/28/2021
	SCALE: 1:3	SHEET 14 OF 14