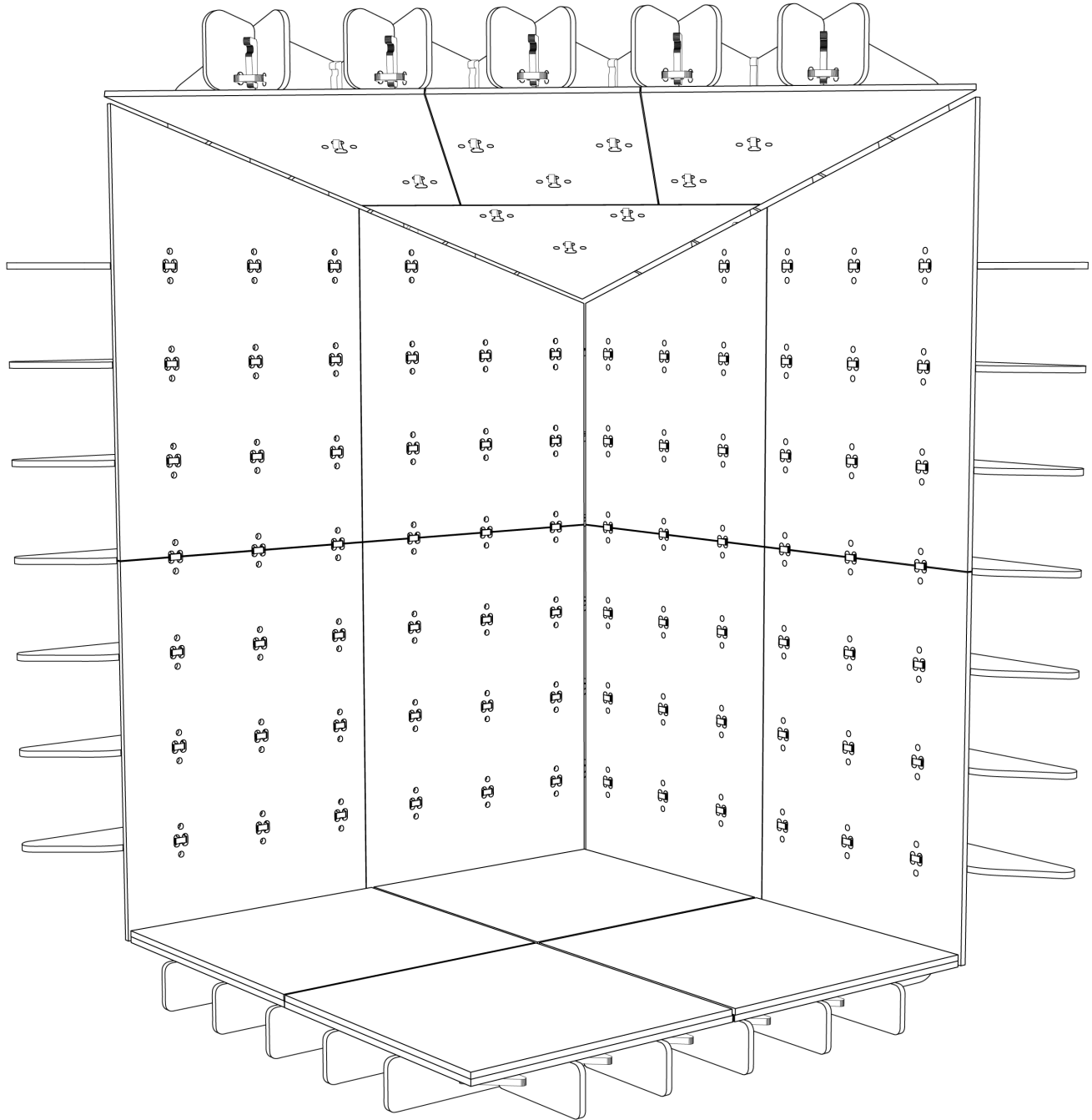


ACOUSTICAL STAGE

The Acoustical Stage is part of a set of pieces designed for a solo performer and acoustical research by the Architecture + Community Build Studio during Spring 2018 Semester. This instruction book contains the instruction for the stage itself and also contains two appendices with instruction for the viewing wall and chair that complete the set.



Naming System

Structure (YY-00)

FP	Floor Structure
SP	Side Structure
TP	Top Structure
LB	Lateral Bracing

Panels (YY-00)

FP	Floor Panel
FF	Finished Floor Panel
SP	Side Panel
RP	Roof Panel

Locks (Unmarked)

Y Locks
Wedges
Mushroom
Hook

Leveling Wedges (Unmarked)

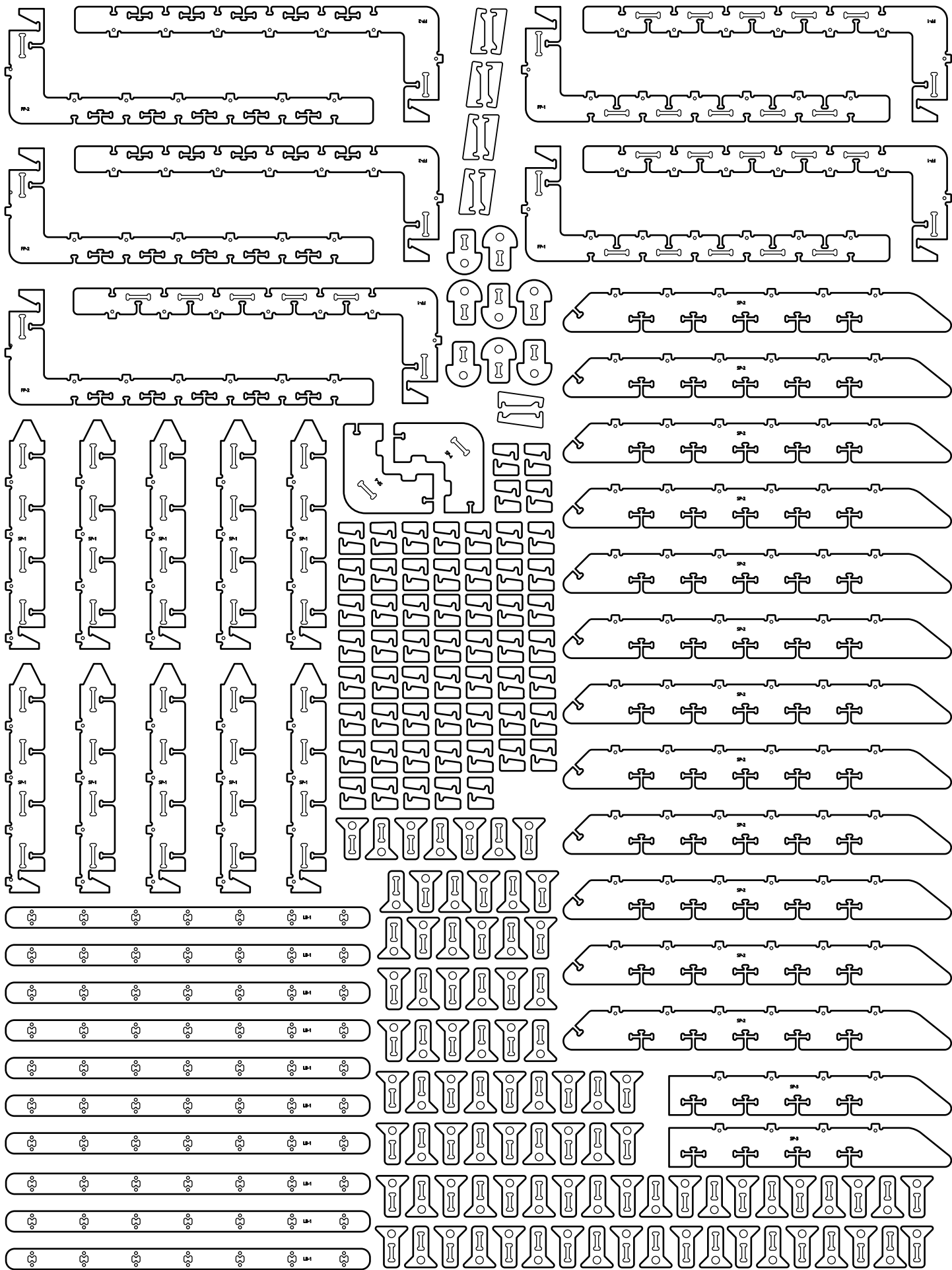
Inventory of Pieces

POSITION	COMPONENT NAME	QUANTITY
FLOOR STRUCTURE	FP-1	5
	FP-2	5
SIDE STRUCTURE	SP-1	10
	SP-2	12
	SP-3	2
	SP-4	6
TOP STRUCTURE	TP-1	1
	TP-2	1
	TP-3	1
	TP-4	1
	TP-5	1
	TP-6	1
	TP-7	1
	TP-8	1
	TP-9	1
	TP-10	1
LATERAL BRACING	LB-1	10

POSITION	COMPONENT NAME	QUANTITY
Y LOCKS	N/A	120
WEDGES	N/A	116
MUSHROOM	N/A	6
HOOK	N/A	10
LEVELING WEDGE	N/A	60

OTHER ITEMS NEEDED	QUANTITY
LADDER	1
ZIP TIES	100
DRILL	1
SCREWS	25

POSITION	COMPONENT NAME	QUANTITY
FLOOR PANEL	FP-3	1
	FP-4	1
	FP-5	1
	FP-6	1
	FP-7	1
	FP-8	1
FINISHED FLOOR	FF-1	1
	FF-2	1
	FF-3	1
	FF-4	1
SIDE PANEL	SP-4	2
	SP-5	2
	SP-6	2
	SP-7	2
ROOF PANEL	RP-1	1
	RP-2	1
	RP-3	1
	RP-4	1



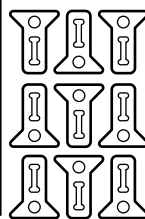
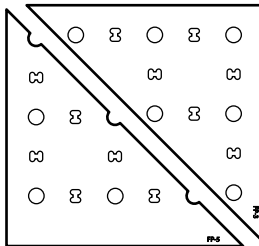
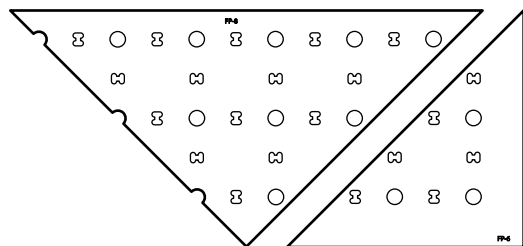
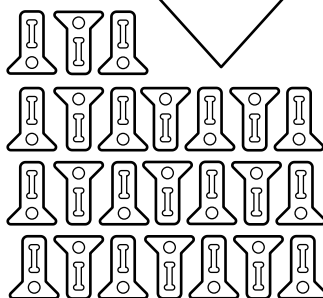
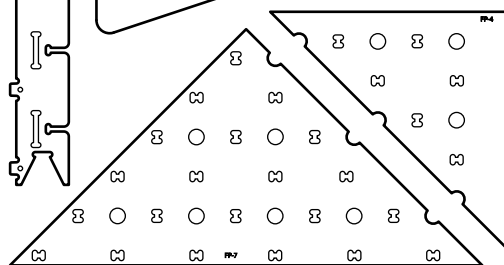
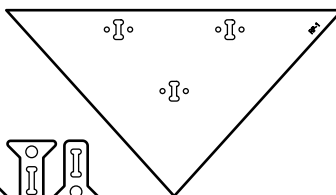
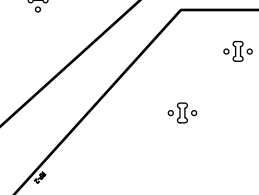
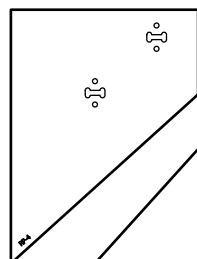
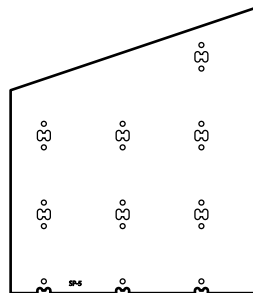
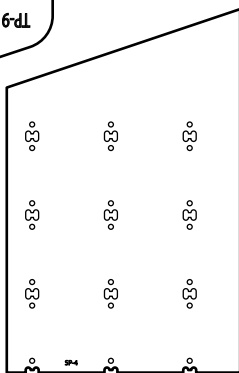
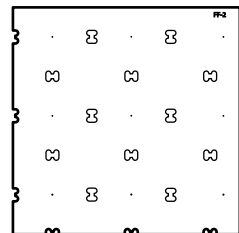
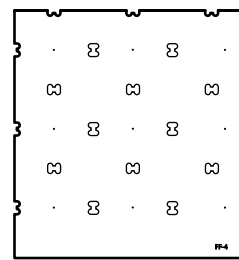
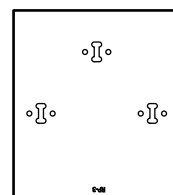
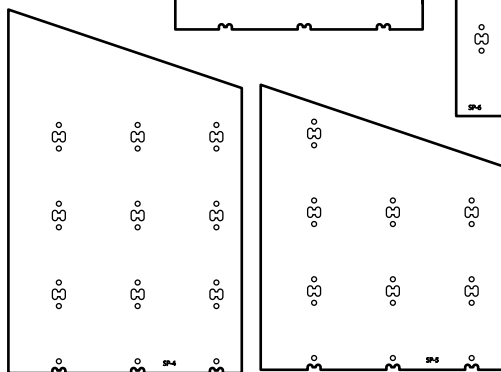
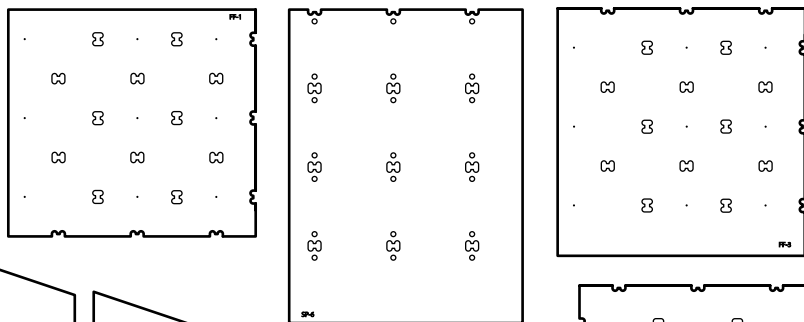
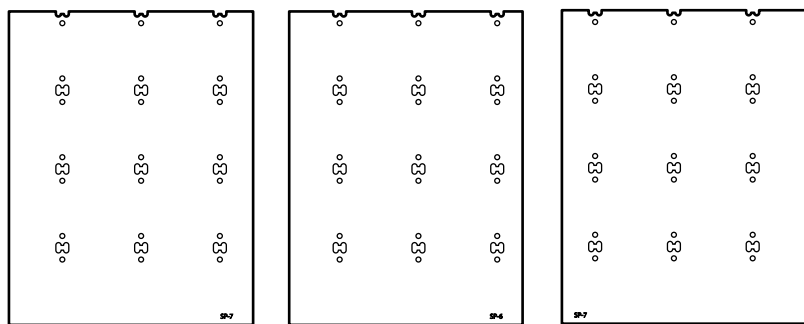
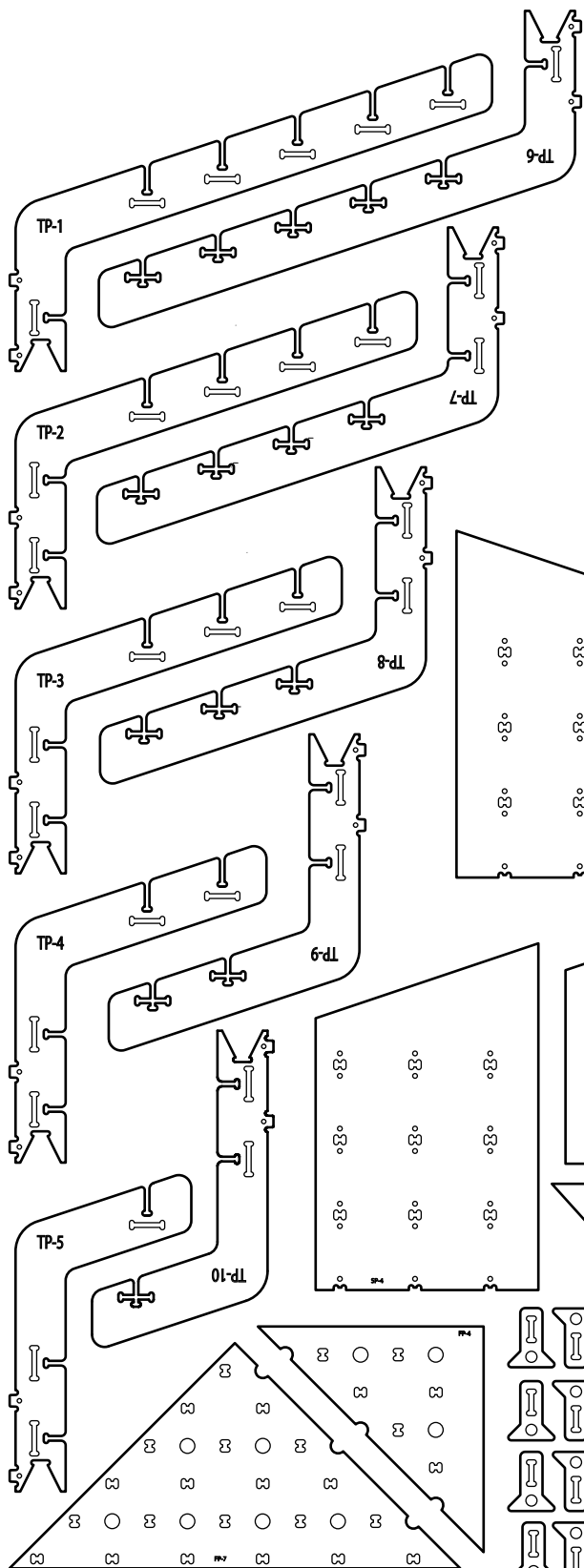



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Assembly: Step 1

Pieces Required:

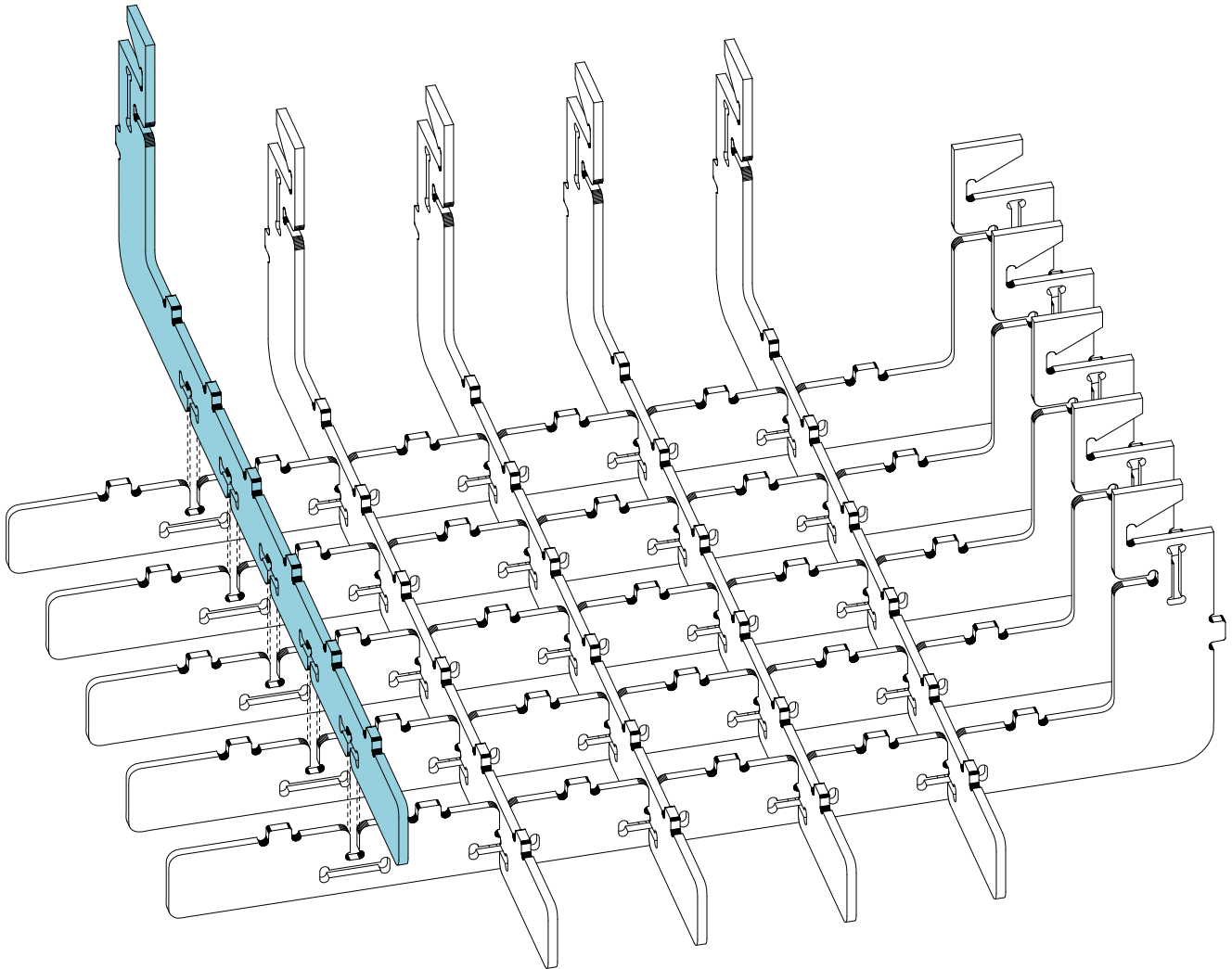
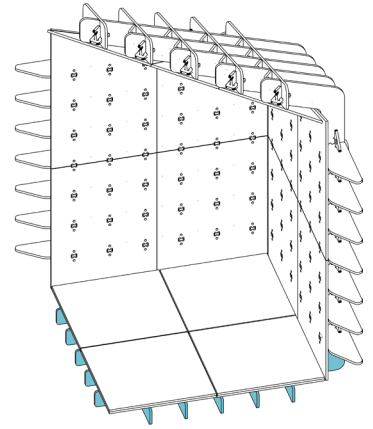
(5) FP-1 

(5) FP-2 

Directions:

- Create (5) rows with the FP-1 pieces.
- Place the (5) FP-2 pieces in the slots of the FP-1 pieces as shown below.

NOTE: If needed, leveling wedges may be placed in the slots under the floor structure to level the stage.



Assembly: Step 2

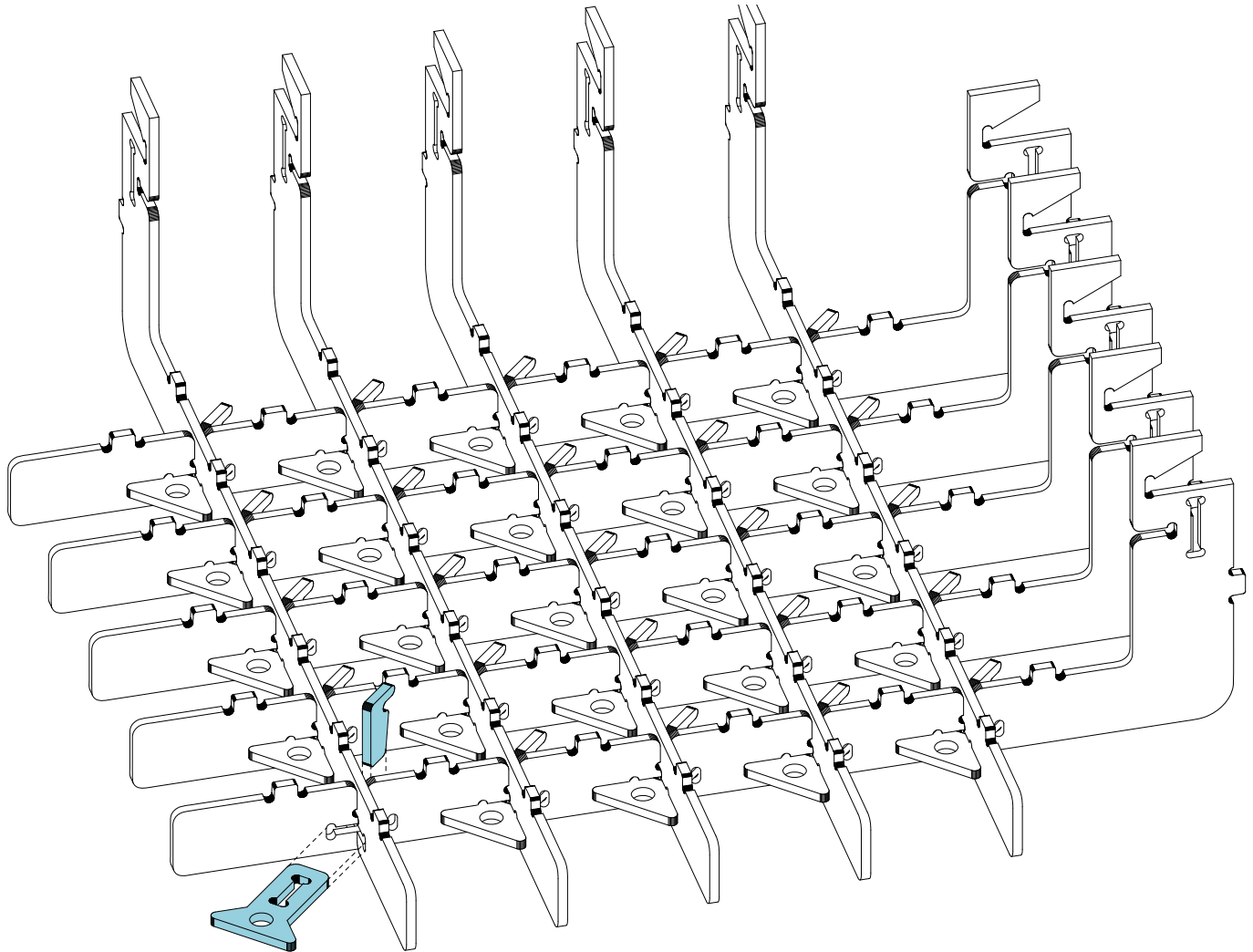
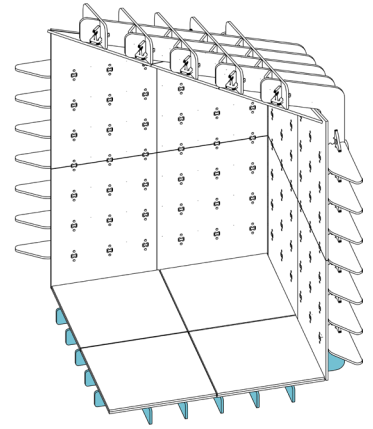
Pieces Required:

(25) Y Locks 

(25) Wedges 

Directions:

- Place (1) lock and (1) wedges into every slot in the floor structure for a total of (25) each.



Assembly: Step 3

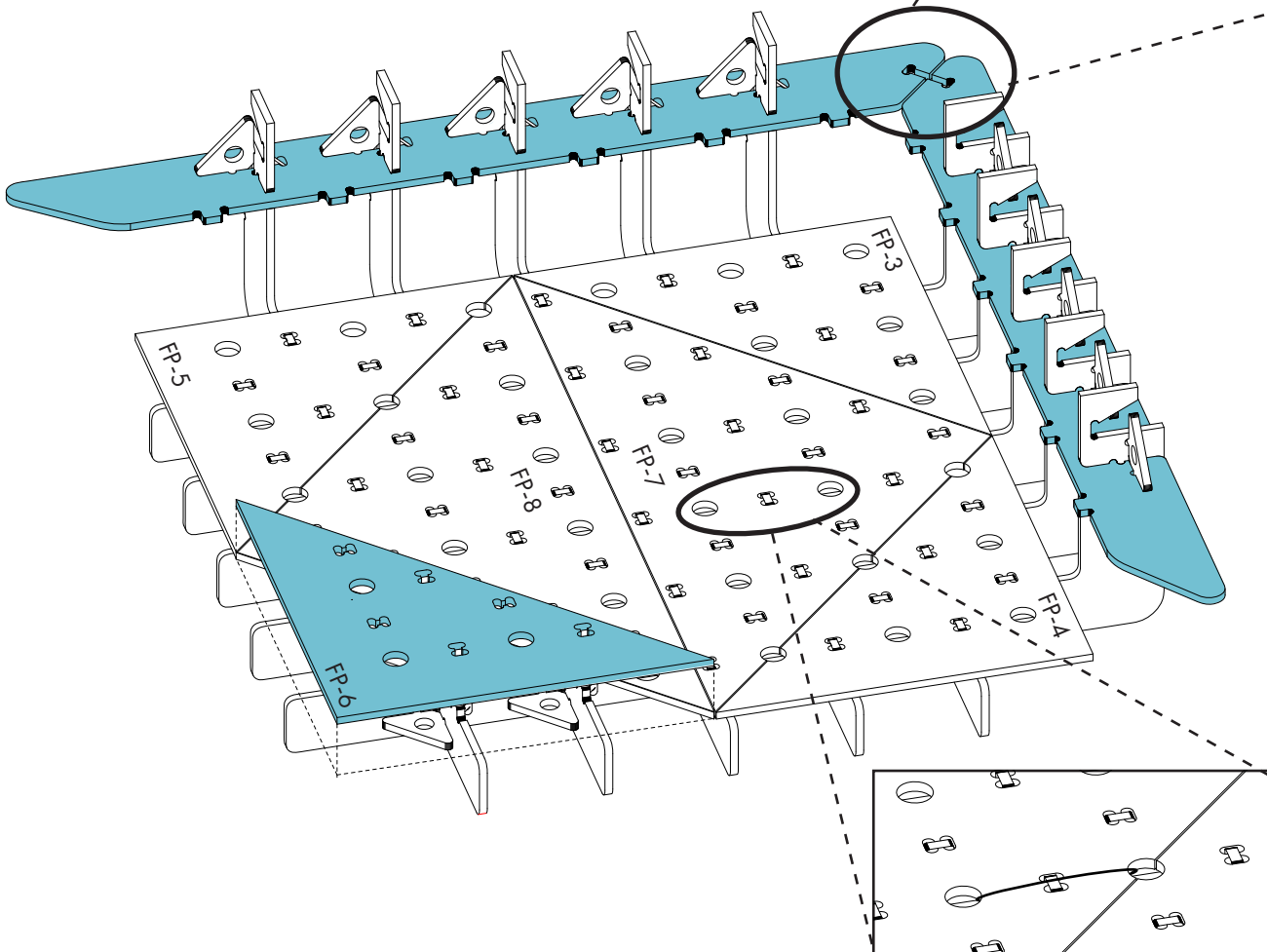
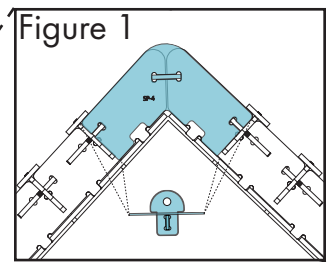
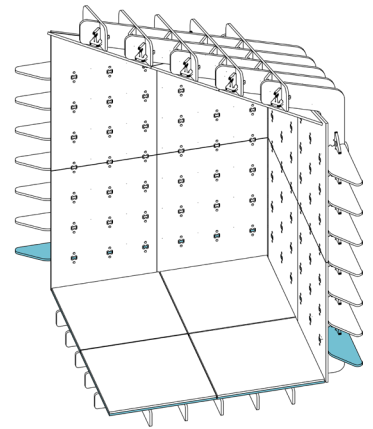
Pieces Required:

(2) SP-2		(1) FP-7	
(1) FP-3		(1) FP-8	
(1) FP-4		(10) Y Locks	
(1) FP-5		(10) Wedges	
(1) FP-6			

Directions:

- Insert (2) SP-2 into the floor structure as shown below. Secure with Y locks and wedges.
- Place floor panels in the pattern shown below. Secure with zip ties as required.

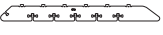
NOTE: Refer to Figure 1 for optional placement of SP-4 pieces on the back of wall structure.



Assembly: Step 4

Pieces Required:

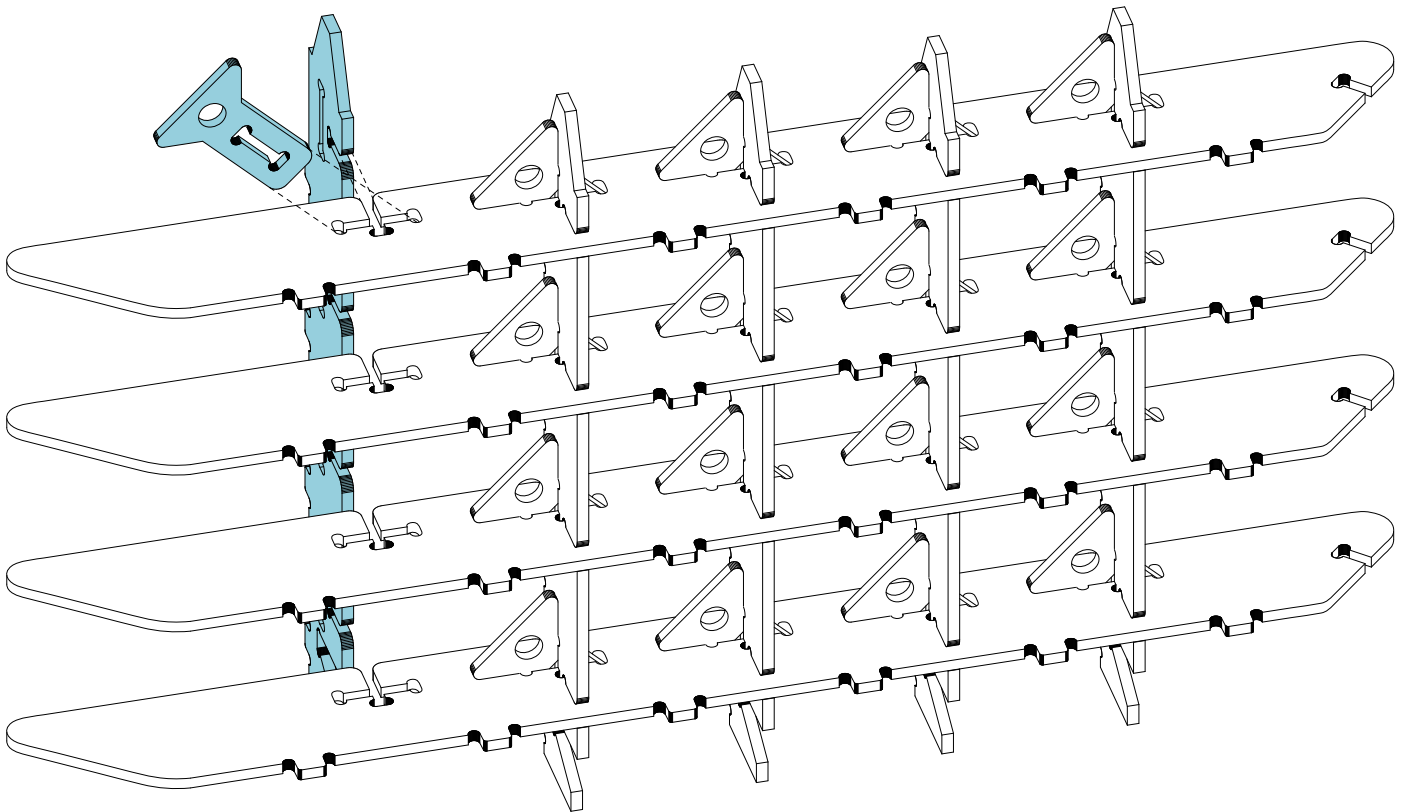
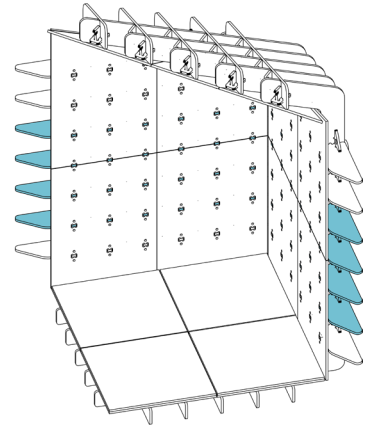
(10) SP-1 

(8) SP-2 

(40) Y Locks 

Directions:

- Insert (5) SP-1 pieces into (4) SP-2 pieces as shown below. Repeat this twice, once for each wall.
- Insert Y Locks in each of the slots for the wall structure.



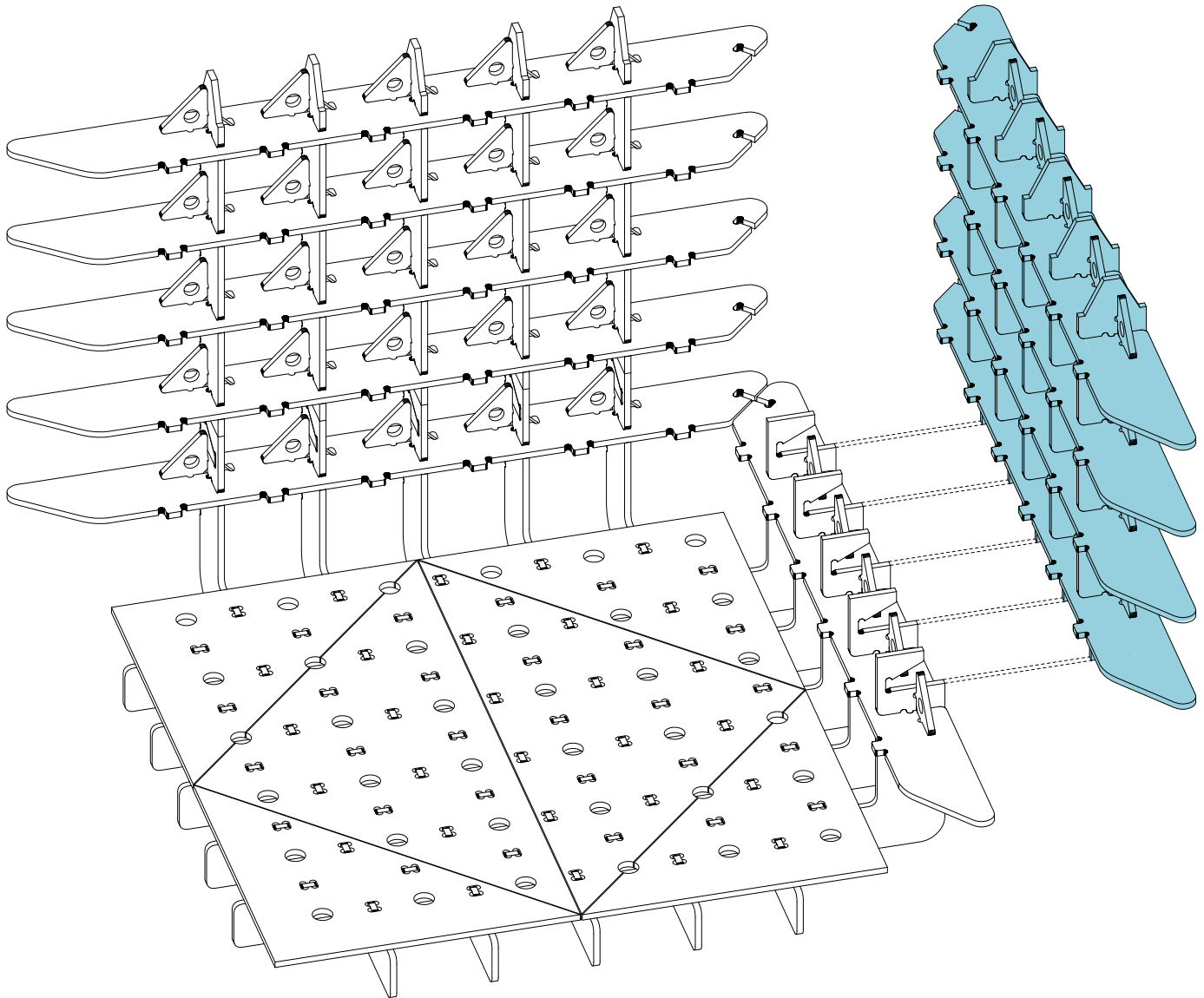
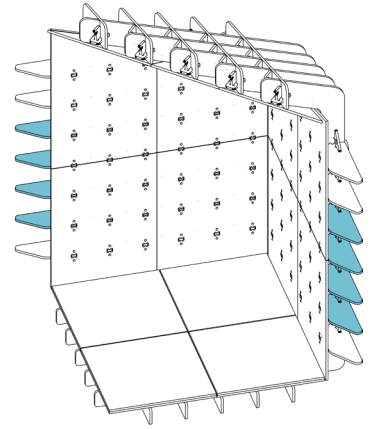
Assembly: Step 5

Pieces Required:

(40) Wedges 

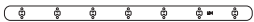
Directions:

- Lift and slide the pre assembled wall into place as shown below. Insert the wedges into the locks, but do not tighten them all the way in until all wall panels have been placed.



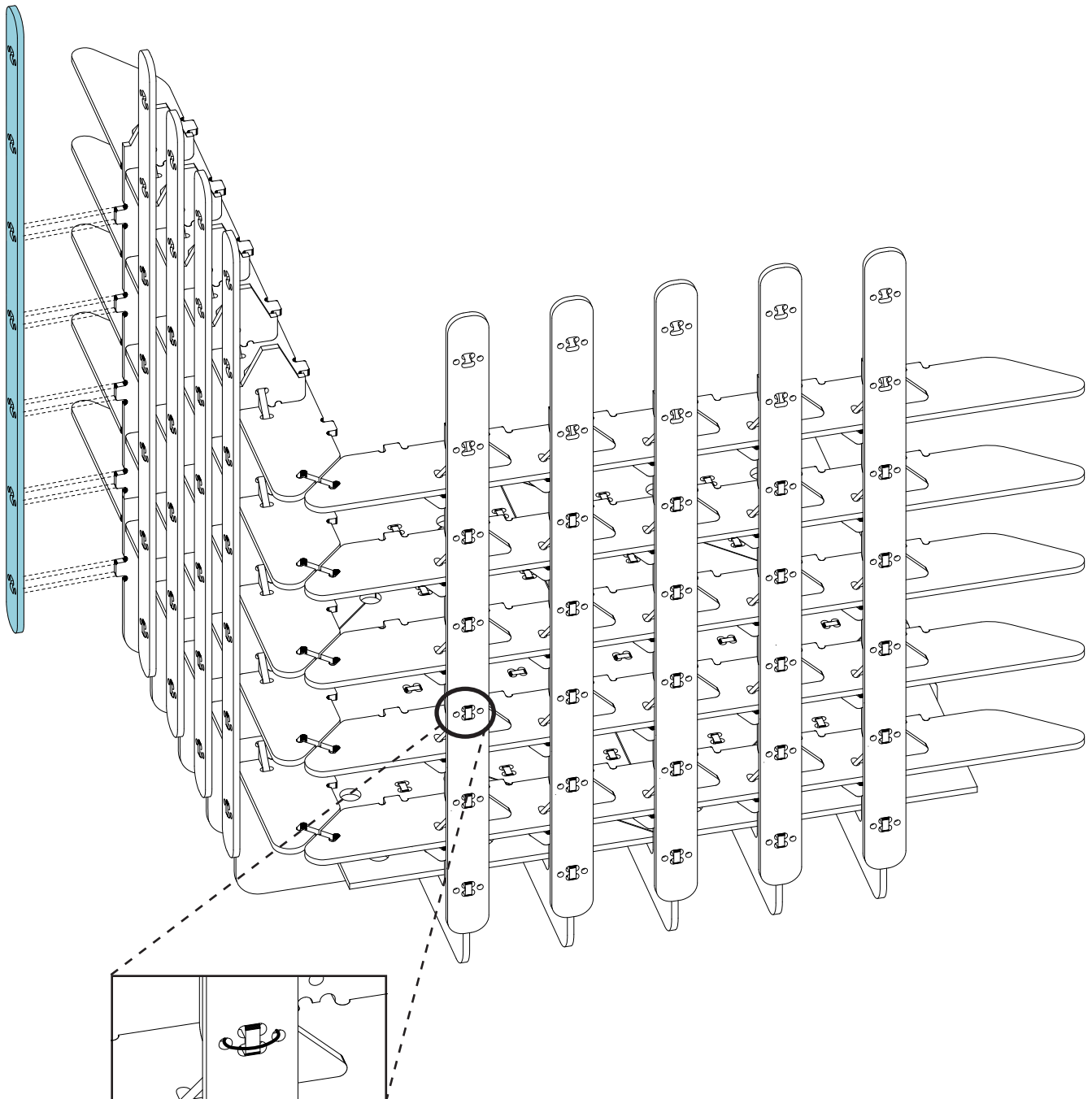
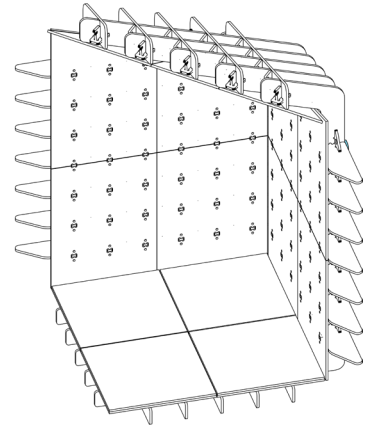
Assembly: Step 6

Pieces Required:

(10) LB-1 

Directions:

- Place (5) LB-1 on each back side of the wall structure.
Secure with zip ties as required.



Assembly: Step 7

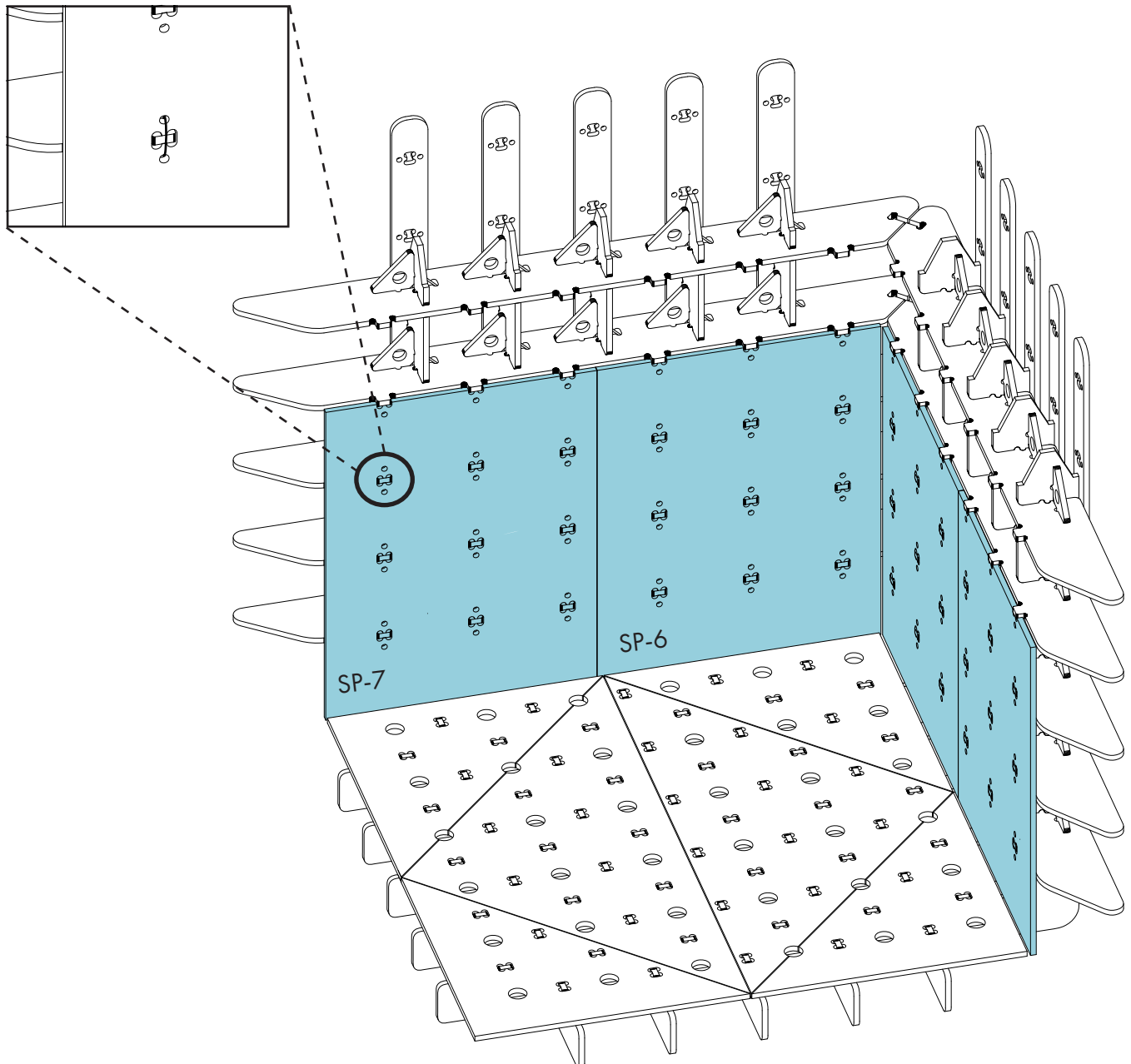
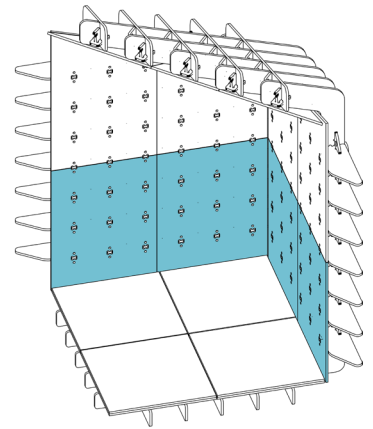
Pieces Required:

(2) SP-6 

(2) SP-7 

Directions:

- Attach (1) SP-6 and (1) SP-7 to each side of stage as shown below.



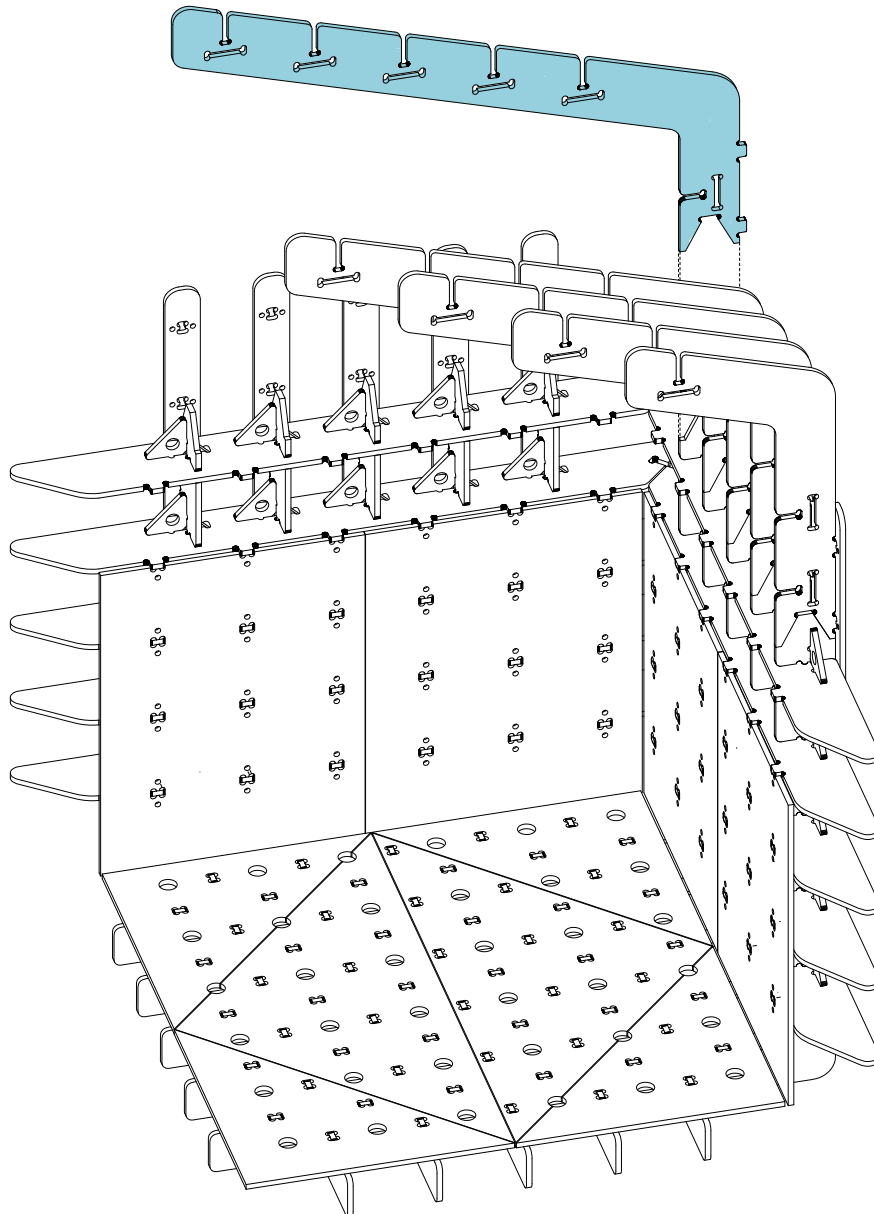
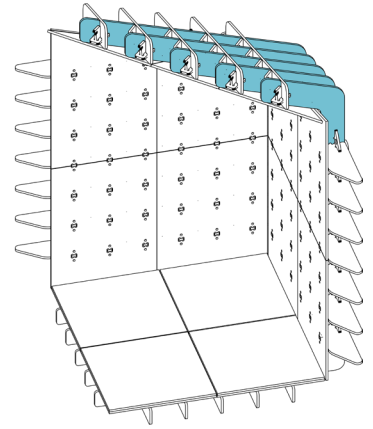
Assembly: Step 8

Pieces Required:

- (1) TP-1
- (1) TP-2
- (1) TP-3
- (1) TP-4
- (1) TP-5

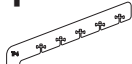

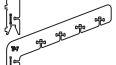
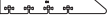





Directions:

- Moving from the outside of the structure in, insert TP-1 - TP-5 pieces. Pull back lateral bracing as needed to insert notches from top pieces and then zip tie to secure.



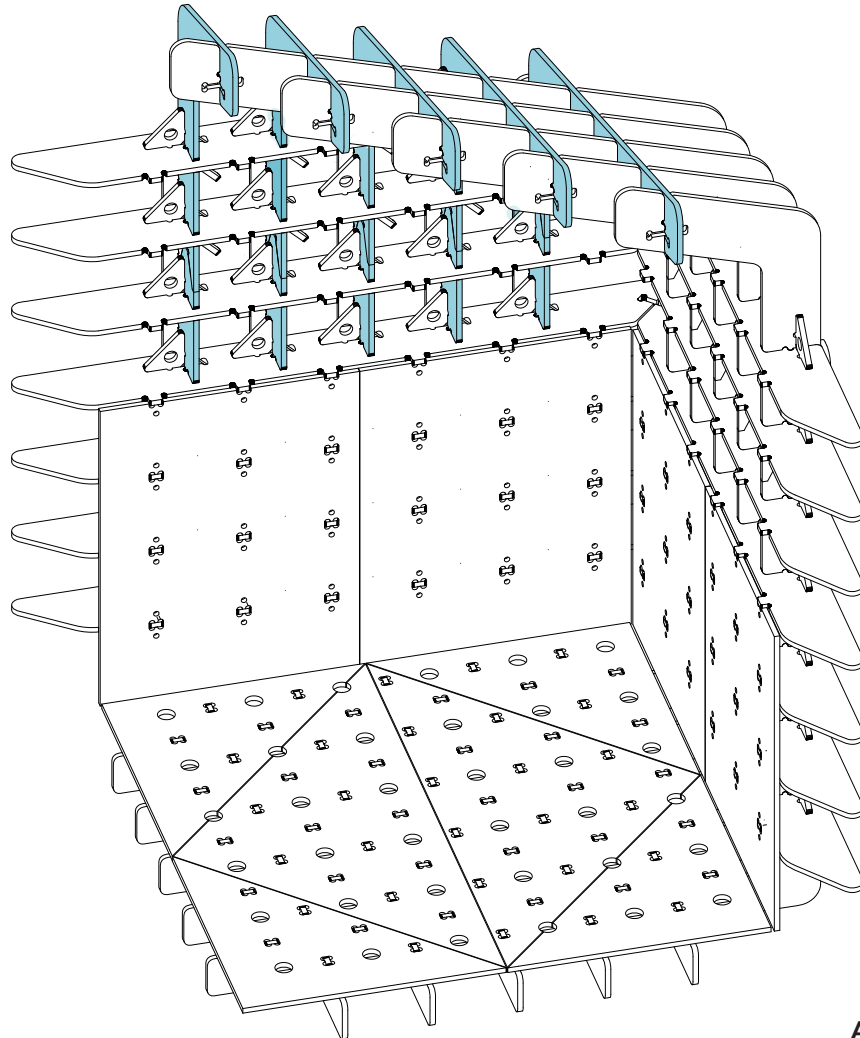
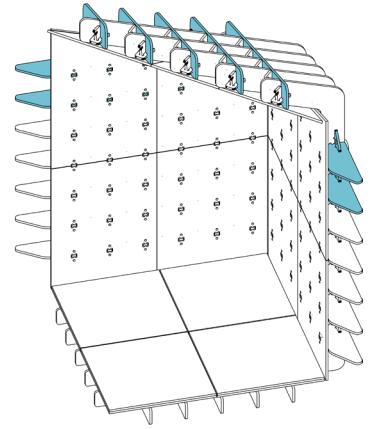
Assembly: Step 9

Pieces Required:

- | | | | |
|-----------|---|--------------|---|
| (1) TP-6 |  | (2) SP-2 |  |
| (1) TP-7 |  | (2) SP-3 |  |
| (1) TP-8 |  | (18) Y Locks |  |
| (1) TP-9 |  | (18) Wedges |  |
| (1) TP-10 |  | | |






Directions:

- Insert TP-6 - TP-10 up and over TP-1 - TP-5 starting from the outside of the structure and working inward.
- Insert (1) SP-2 and (1) SP-3 on each side of the structure and secure with Y locks and wedges.



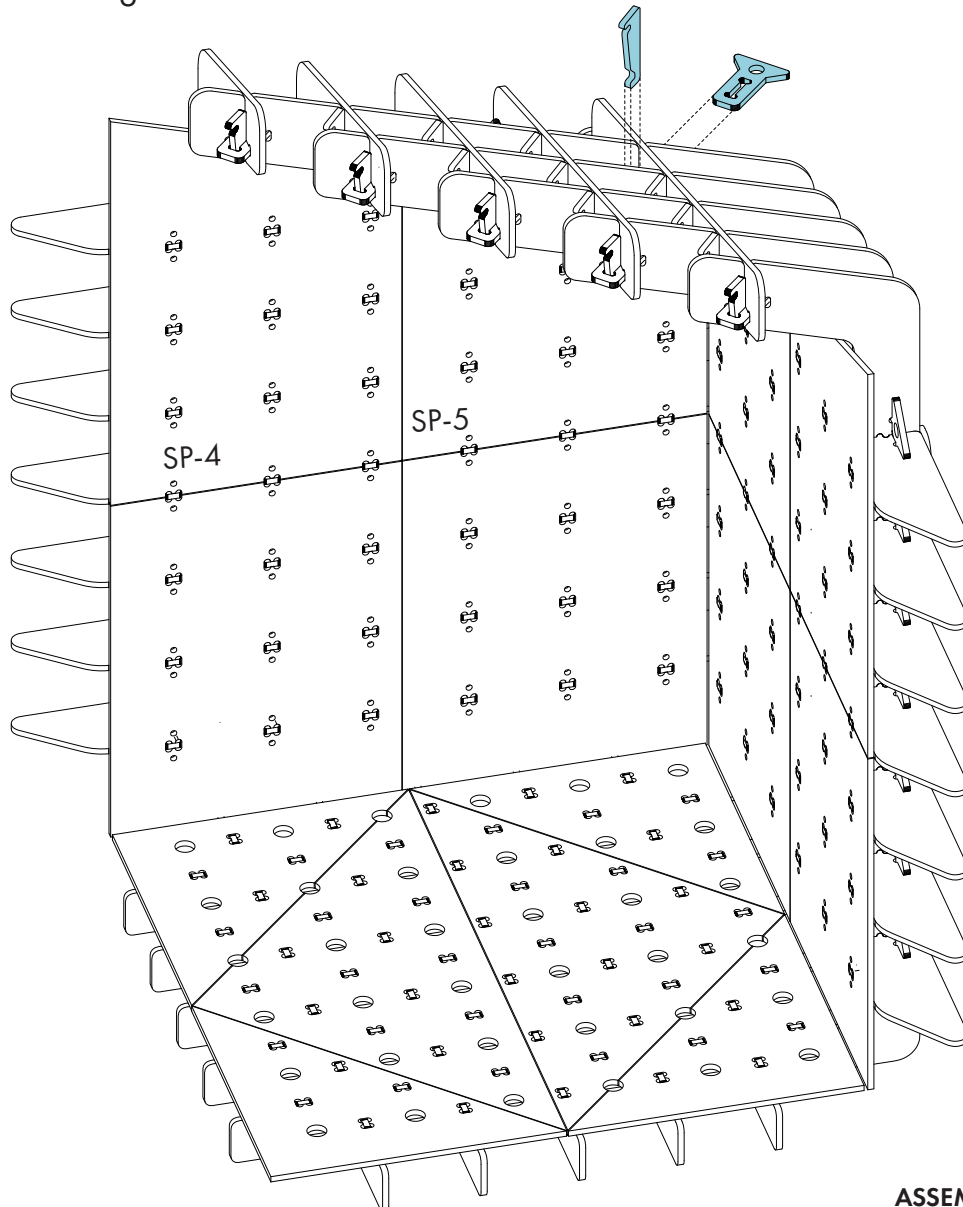
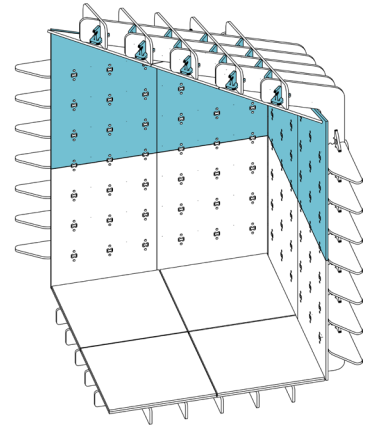
Assembly: Step 10

Pieces Required:

- (2) SP-4 
- (2) SP-5 
- (15) Y Locks 
- (10) Hooks 
- (5) Wedges 





Directions:

- Place (1) SP-4 and (1) SP-5 panel on each side of stage.
- Insert (1) Y lock in each slot in the roof structure as shown. Place (1) hook in each Y lock EXCEPT for the five in the front row. Place (1) wedge in each of the Y locks in the front row. See image below.



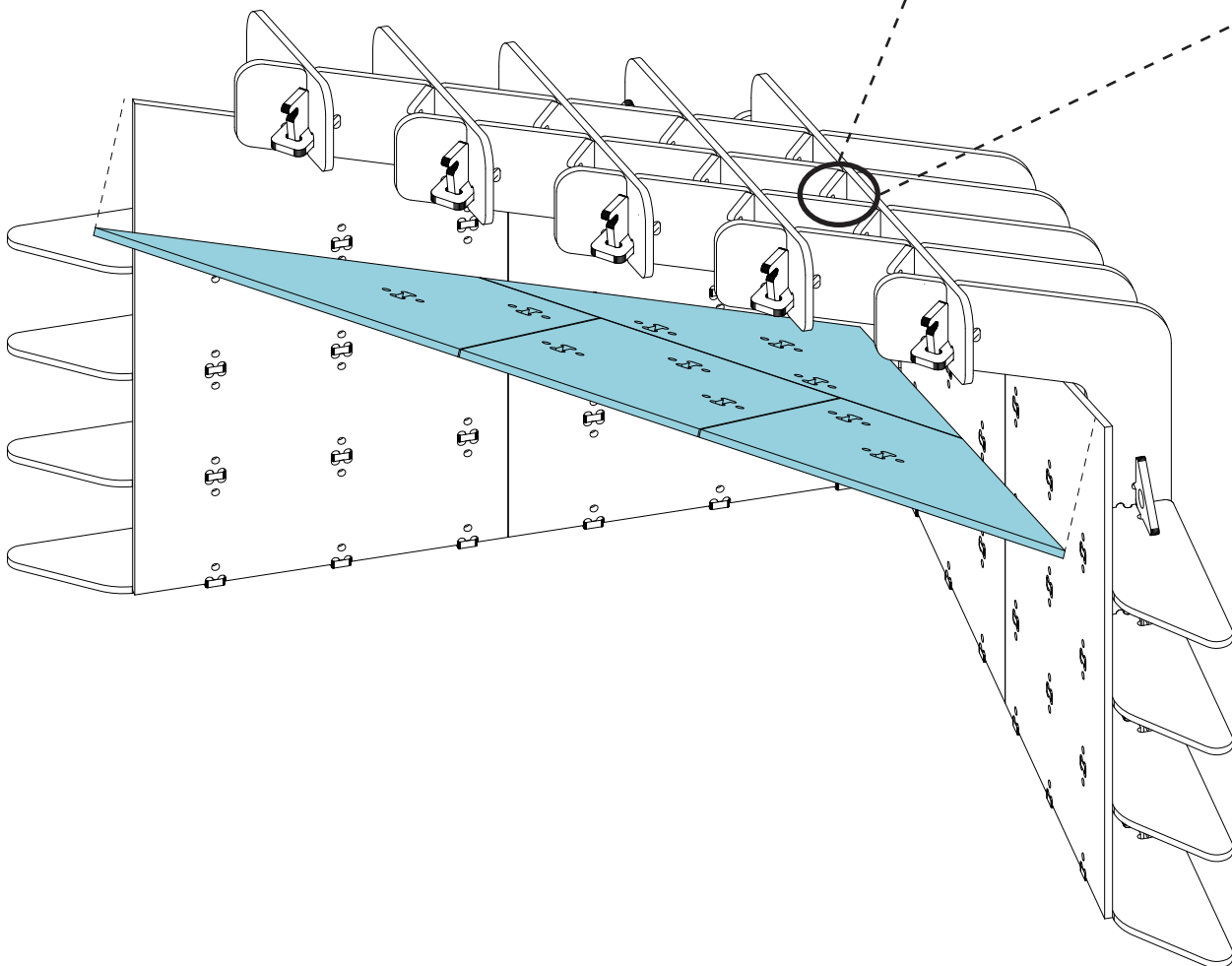
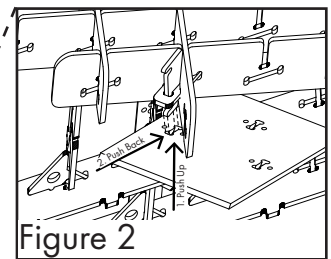
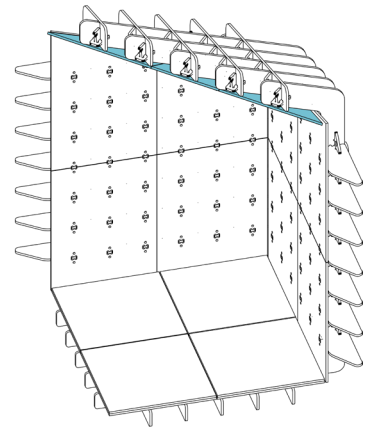
Assembly: Step 11

Pieces Required:

- (1) RP-1 
- (1) RP-2 
- (1) RP-3 
- (1) RP-4 





Directions:

- Insert the roof panels onto the hooks as shown below.
Refer to Figure 2 for hook attachment.



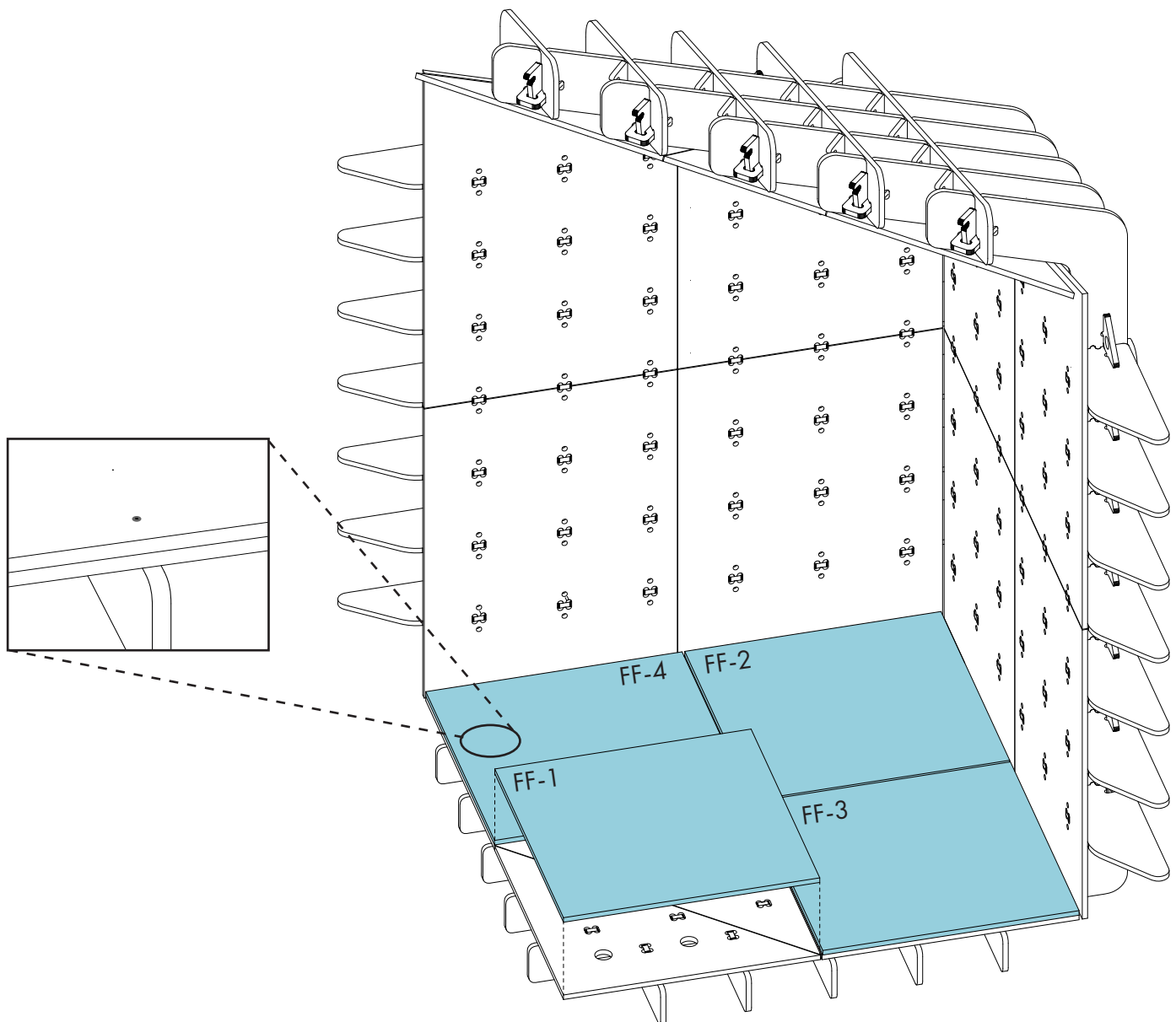
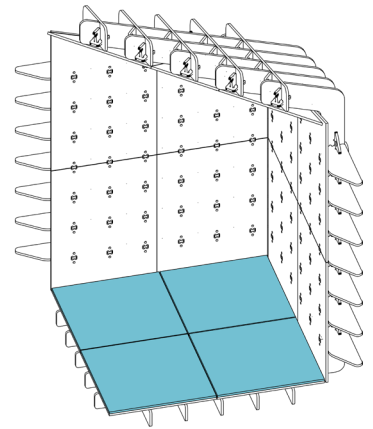
Assembly: Step 12

Pieces Required:

- (1) FF-1 
- (1) FF-2 
- (1) FF-3 
- (1) FF-4 




Directions:

- Place FF-1 - FF-4 in the pattern shown below. Secure with screws down into the floor structure using predrilled holes.



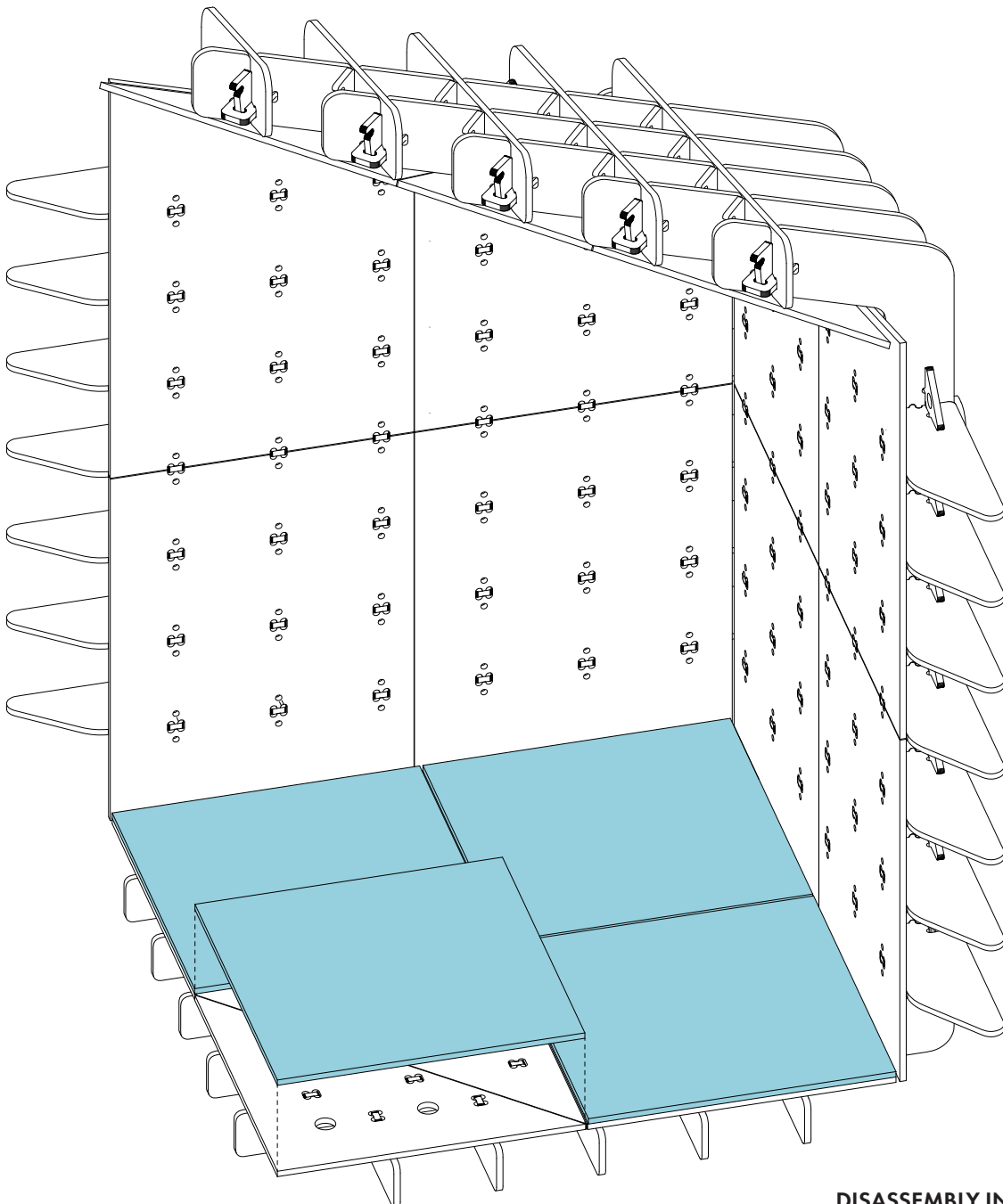
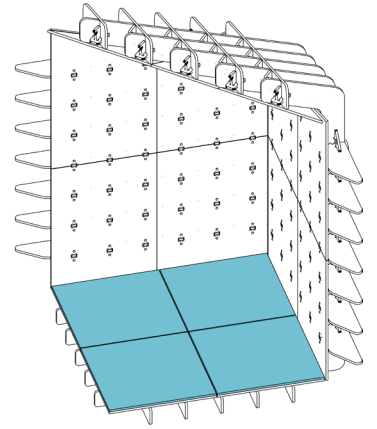
Disassembly: Step 1

Pieces Required:

- (1) FF-1 
- (1) FF-2 
- (1) FF-3 
- (1) FF-4 





Directions:

- Unscrew and remove the finished floor panels.



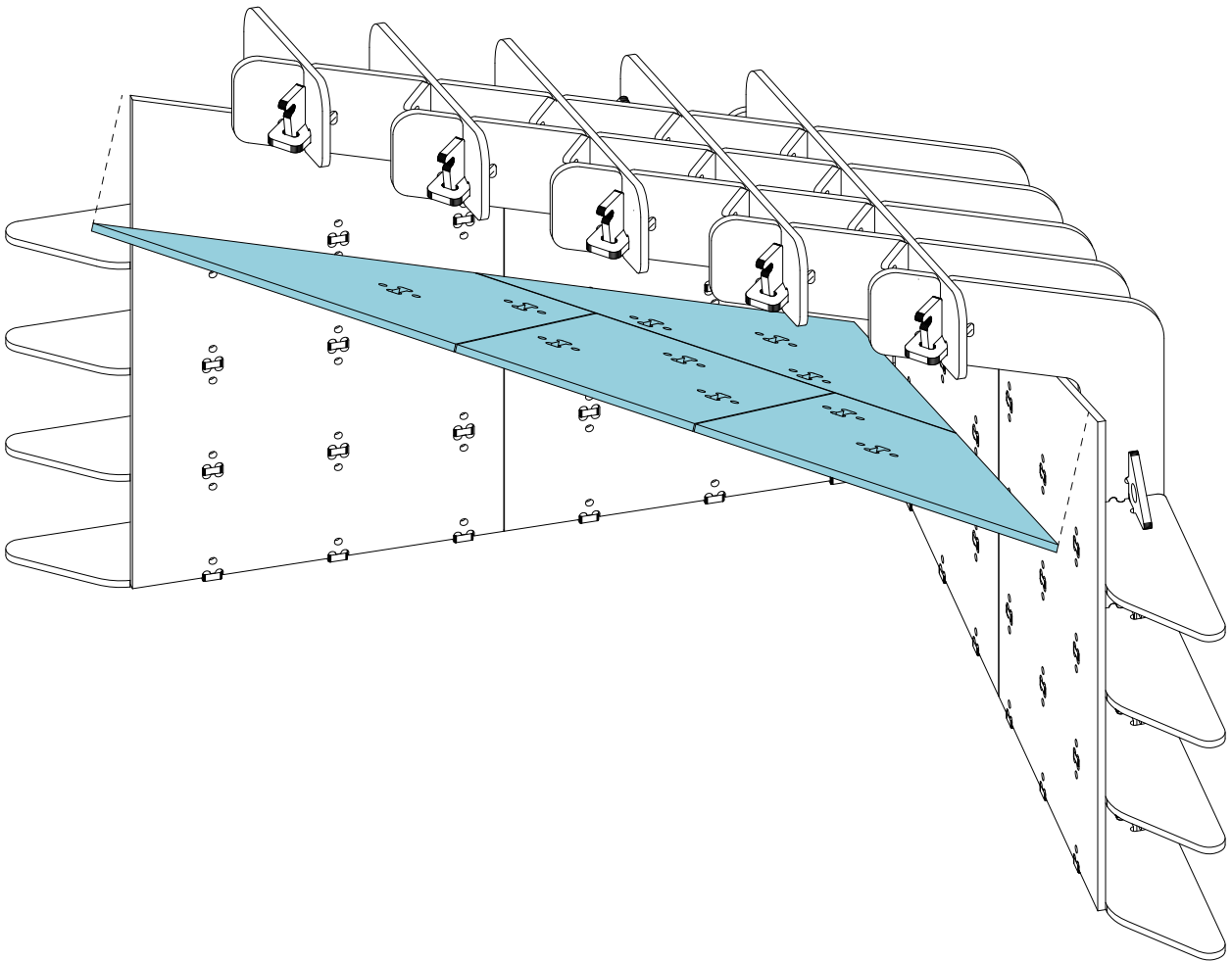
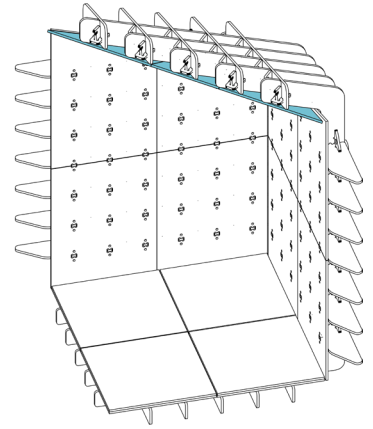
Disassembly: Step 2

Pieces Required:

- (1) RP-1 
- (1) RP-2 
- (1) RP-3 
- (1) RP-4 



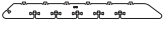
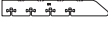


Directions:

- Remove the roof panels.



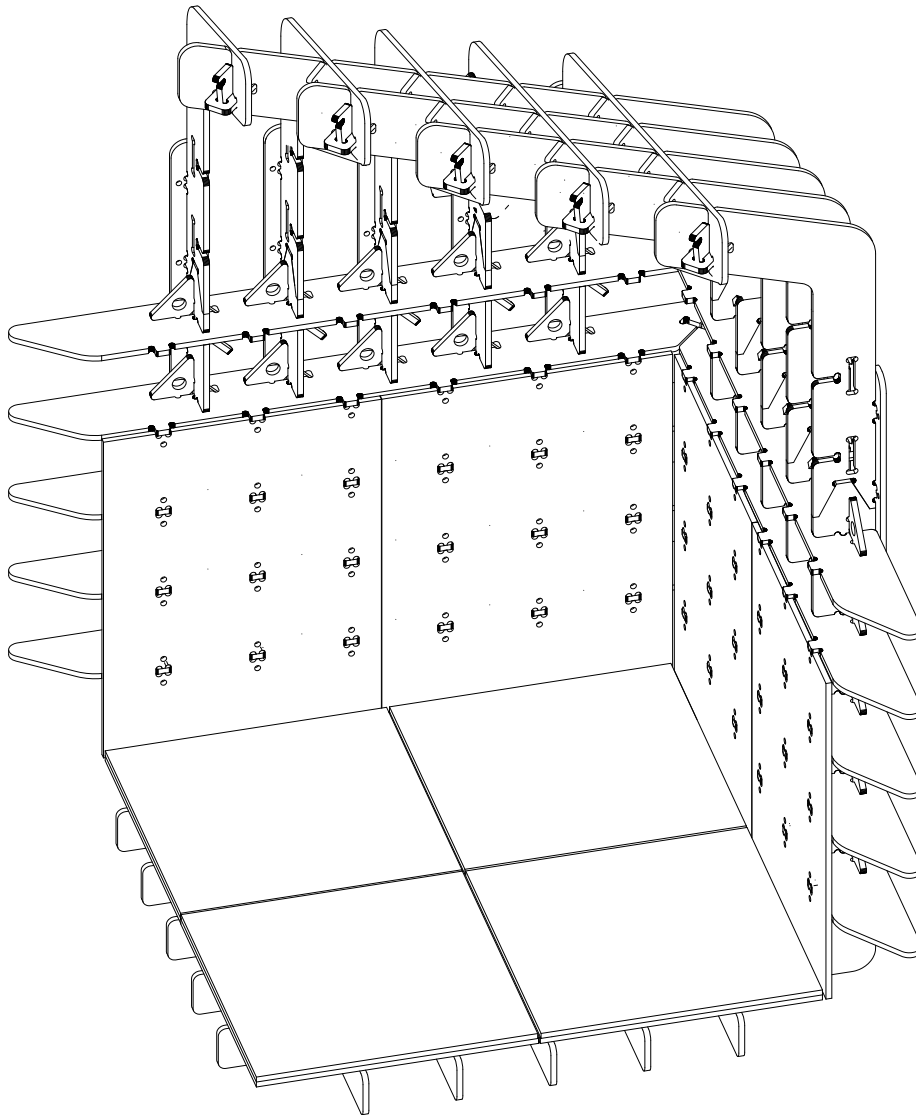
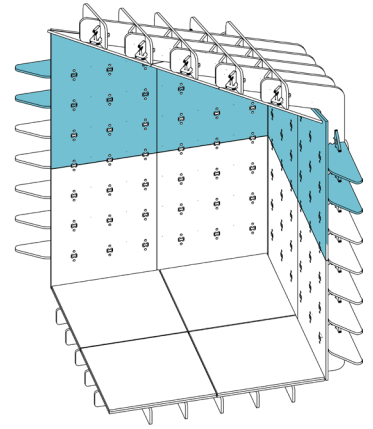
Disassembly: Step 3

Pieces Required:

- (2) SP-4 
- (2) SP-5 
- (2) SP-2 
- (2) SP-3 
- (18) Y Locks 
- (18) Wedges 

Directions:

- Remove SP-4 and SP-5 from each side of the structure.
- Remove the wedges and Y locks from the SP-3 and top SP-2 pieces on each side of the structure. Remove SP-3 and top SP-2 from each side.



Disassembly: Step 4

Pieces Required:

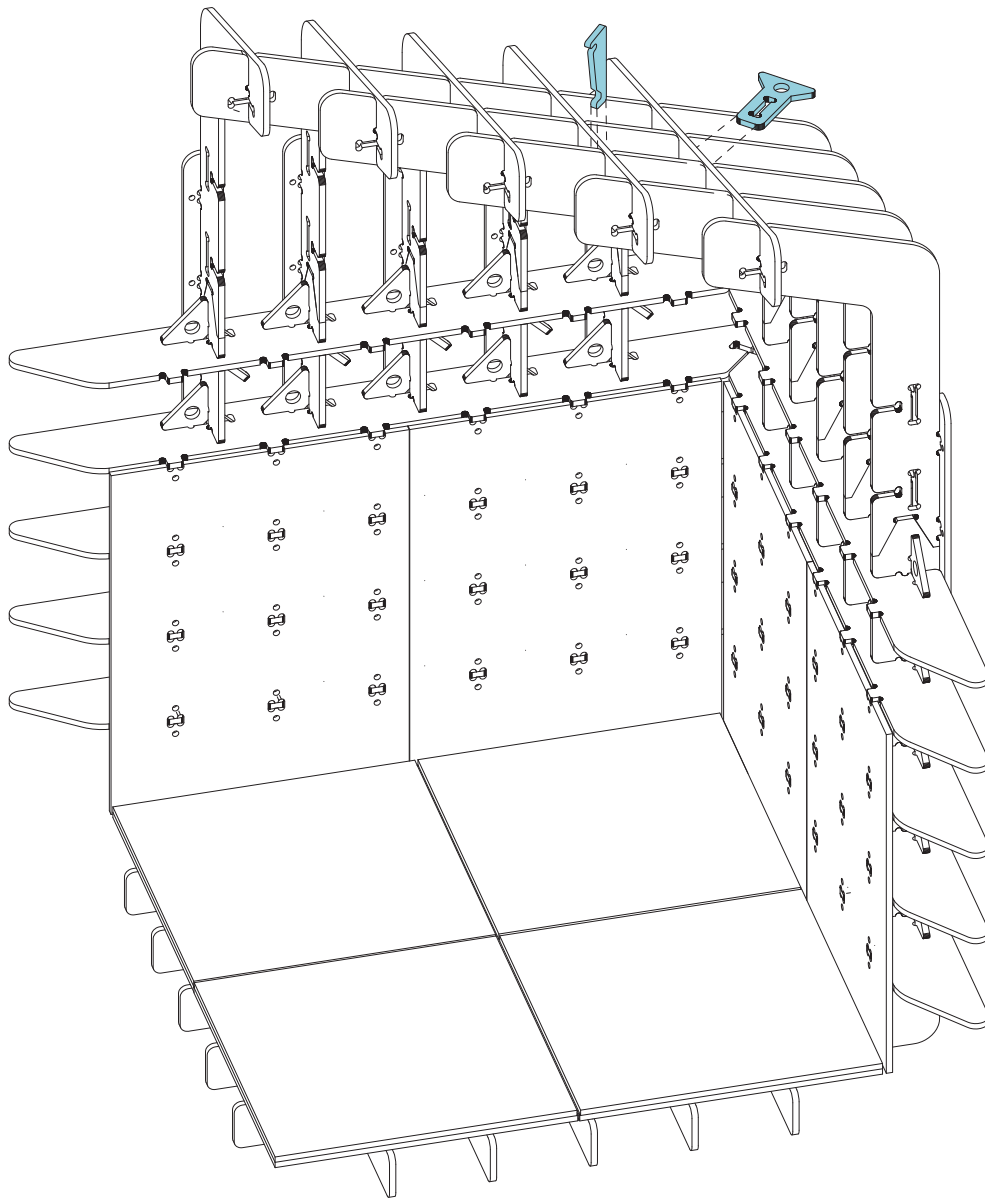
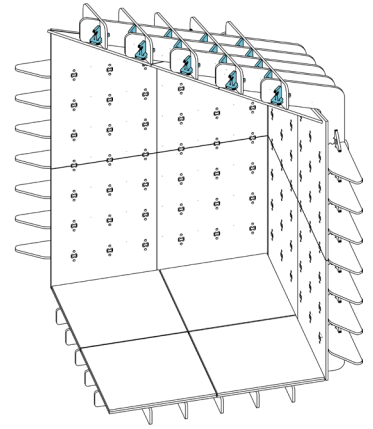
(15) Y Locks 

(10) Hooks 

(5) Wedges 

Directions:

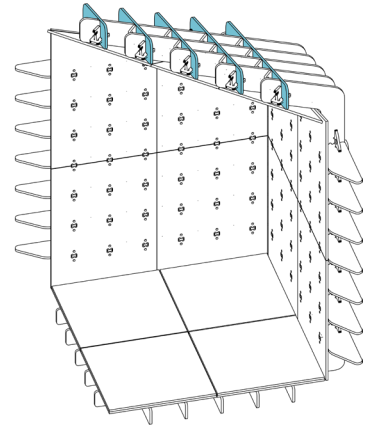
- Remove the Y locks, hooks, and wedges from the roof structure.



Disassembly: Step 5

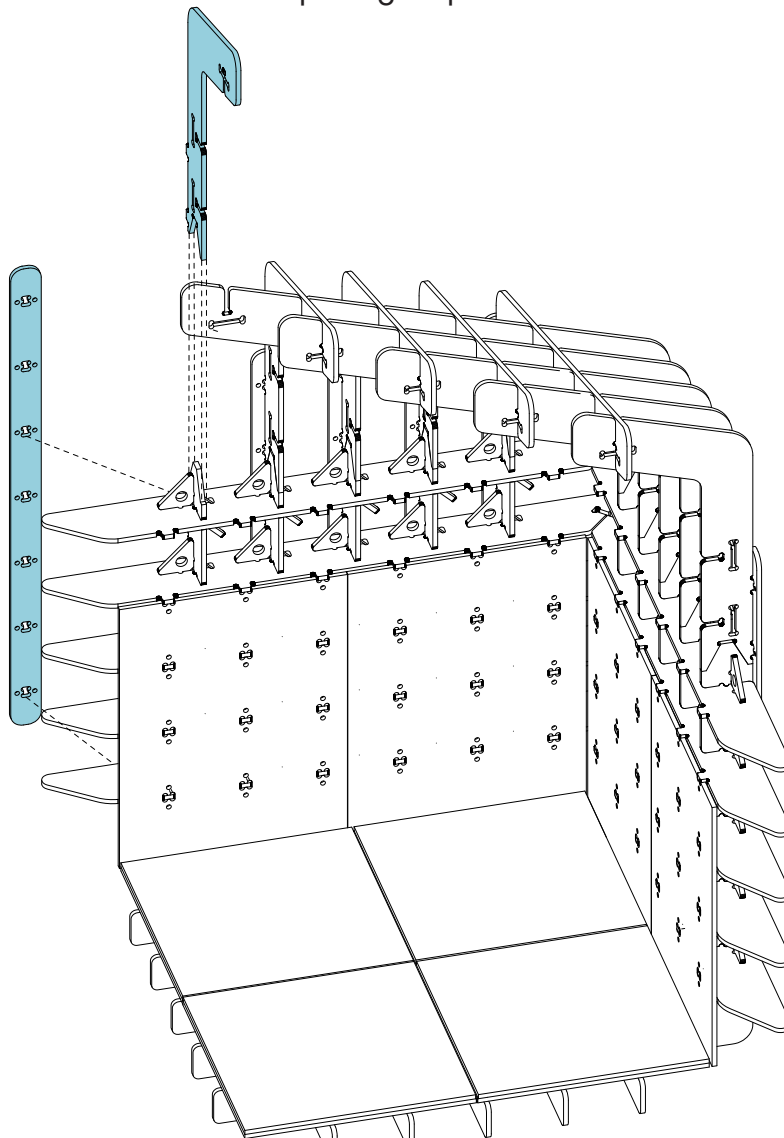
Pieces Required:

- (1) TP-6
- (1) TP-7
- (1) TP-8
- (1) TP-9
- (1) TP-10
- (5) LB-1



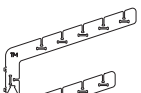
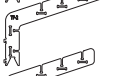




Directions:

- Moving one by one, going from outside of the structure in, remove (1) LB Piece and then its joining TP piece.



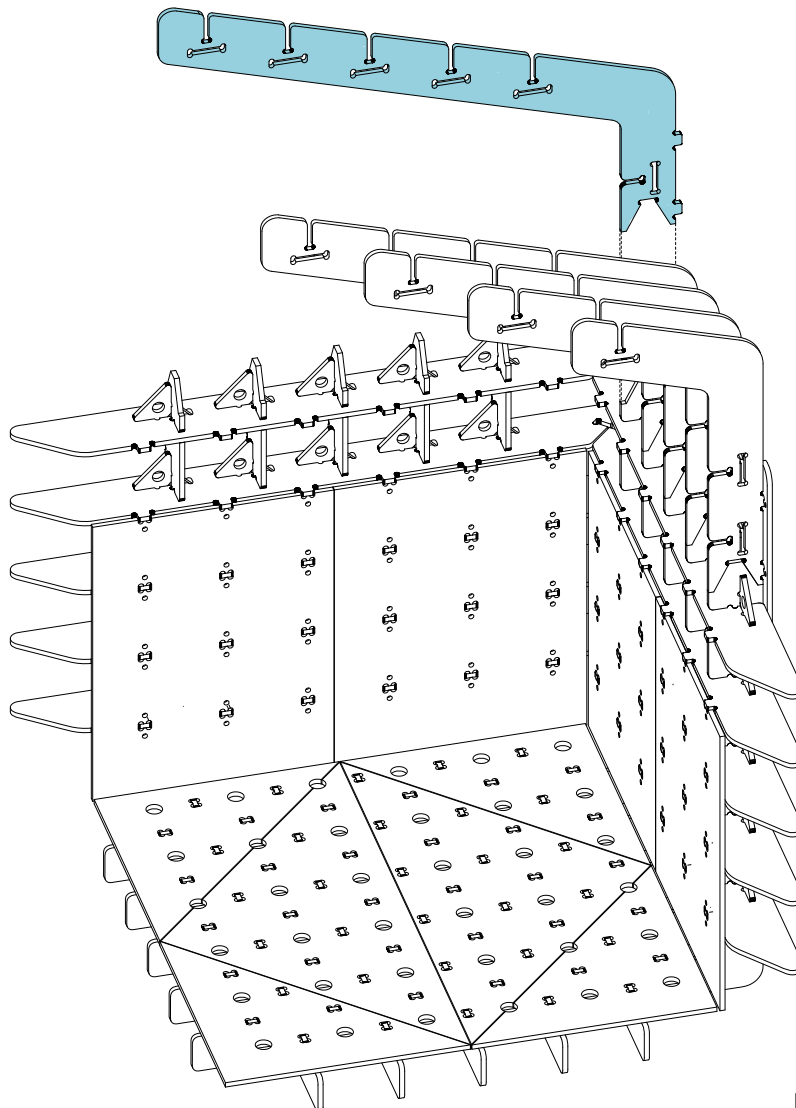
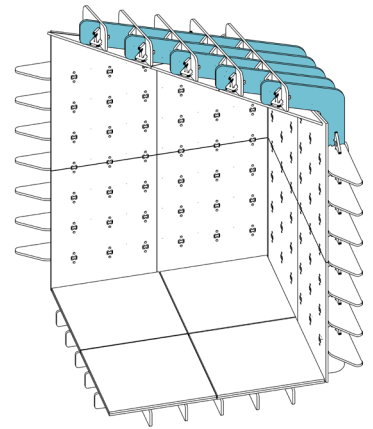
Disassembly: Step 6

Pieces Required:

- (1) TP-1 
- (1) TP-2 
- (1) TP-3 
- (1) TP-4 
- (1) TP-5 
- (5) LB-1 

Directions:

- Moving one by one, going from outside of the structure in, remove (1) LB Piece and then its joining TP piece.



Disassembly: Step 7

Pieces Required:

(2) SP-6

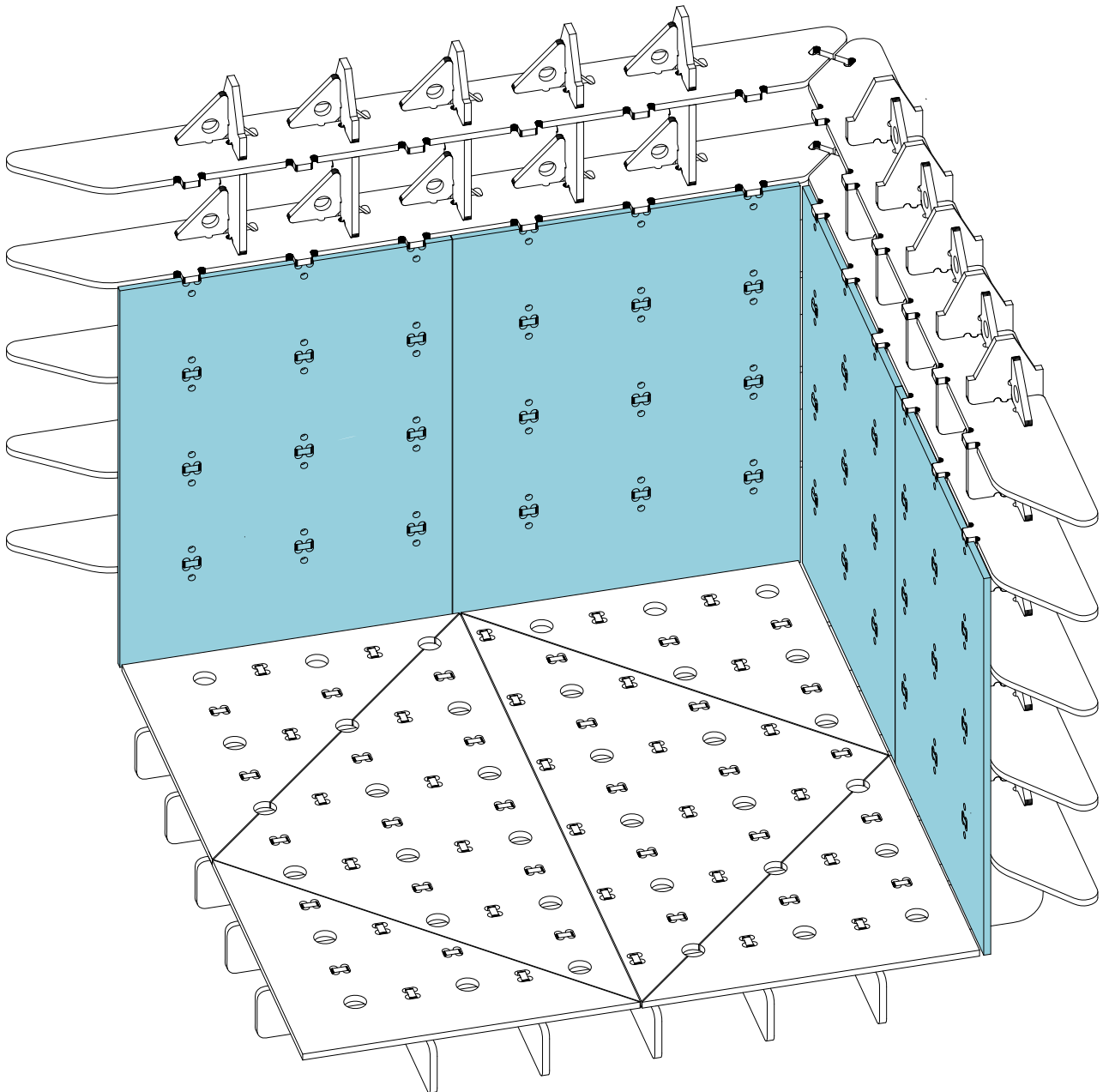
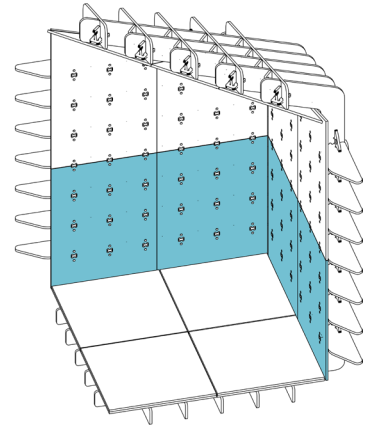


(2) SP-7



Directions:

- Remove panels SP-6 and SP-7 from each side of structure.



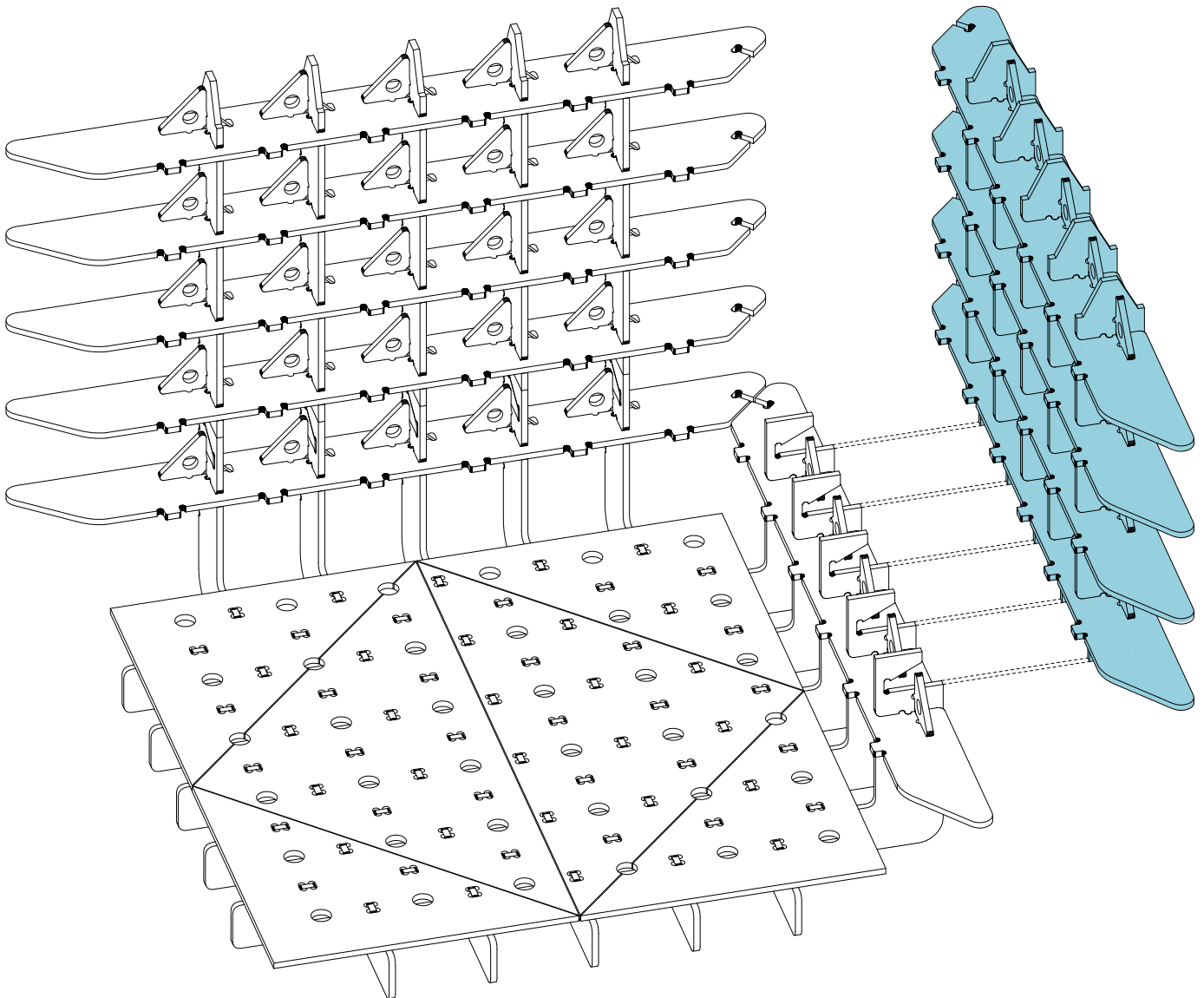
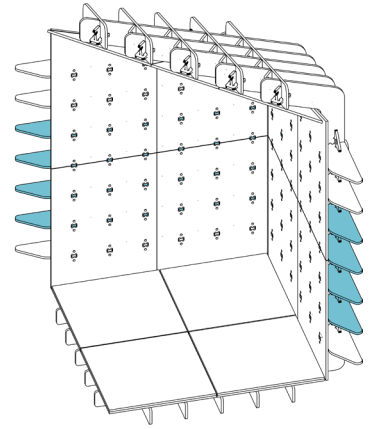
Disassembly: Step 8

Pieces Required:

N/A


Directions:

- Remove the assembled wall structure from each side of the stage as shown below. Lie flat on the ground.



Disassembly: Step 9

Pieces Required:

(10) SP-1 

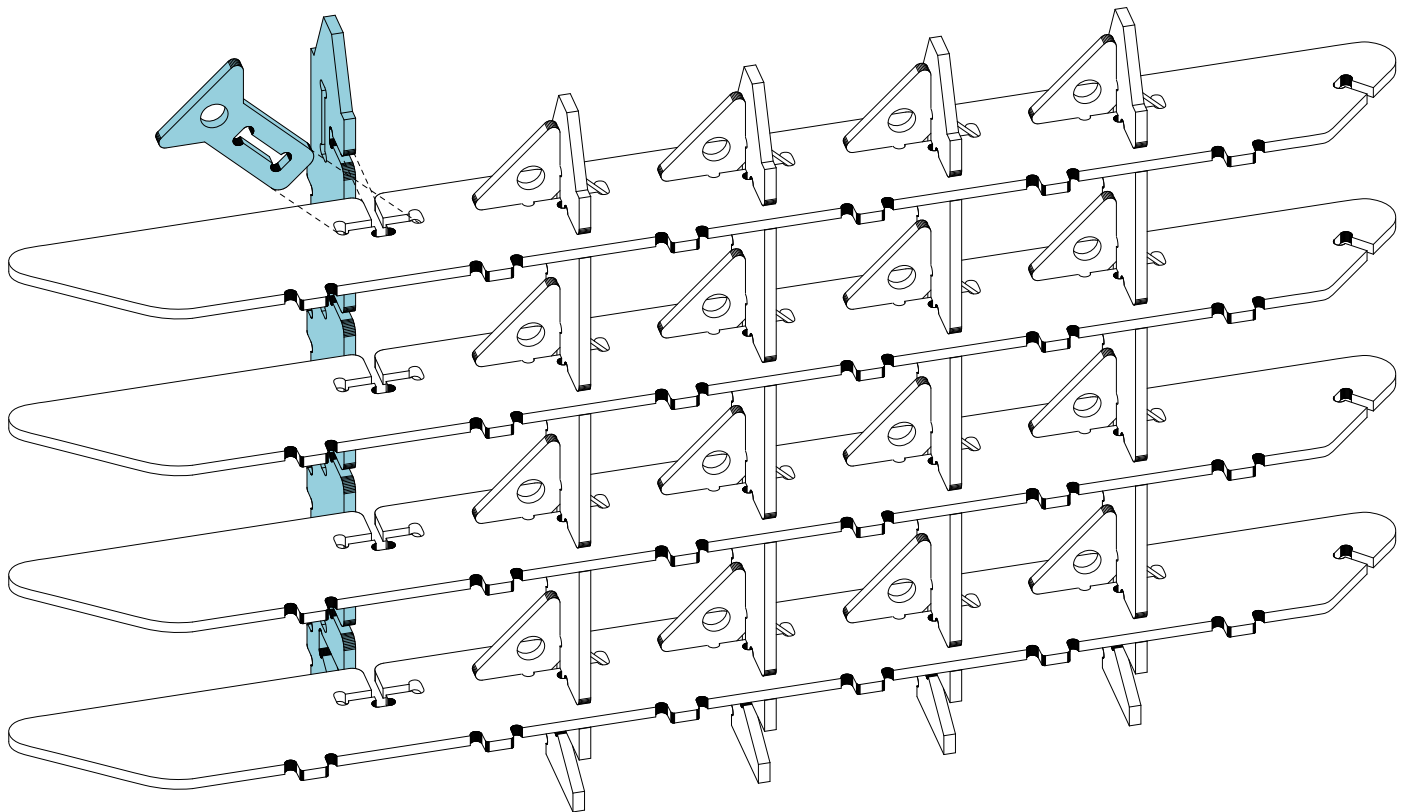
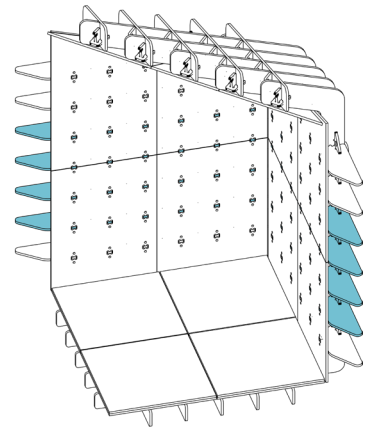
(8) SP-2 

(40) Y Locks 

(40) Wedges 

Directions:

- Disassemble each of the side wall structures by removing all of the wedges, Y locks, and SP-2 pieces from the SP-1 pieces.



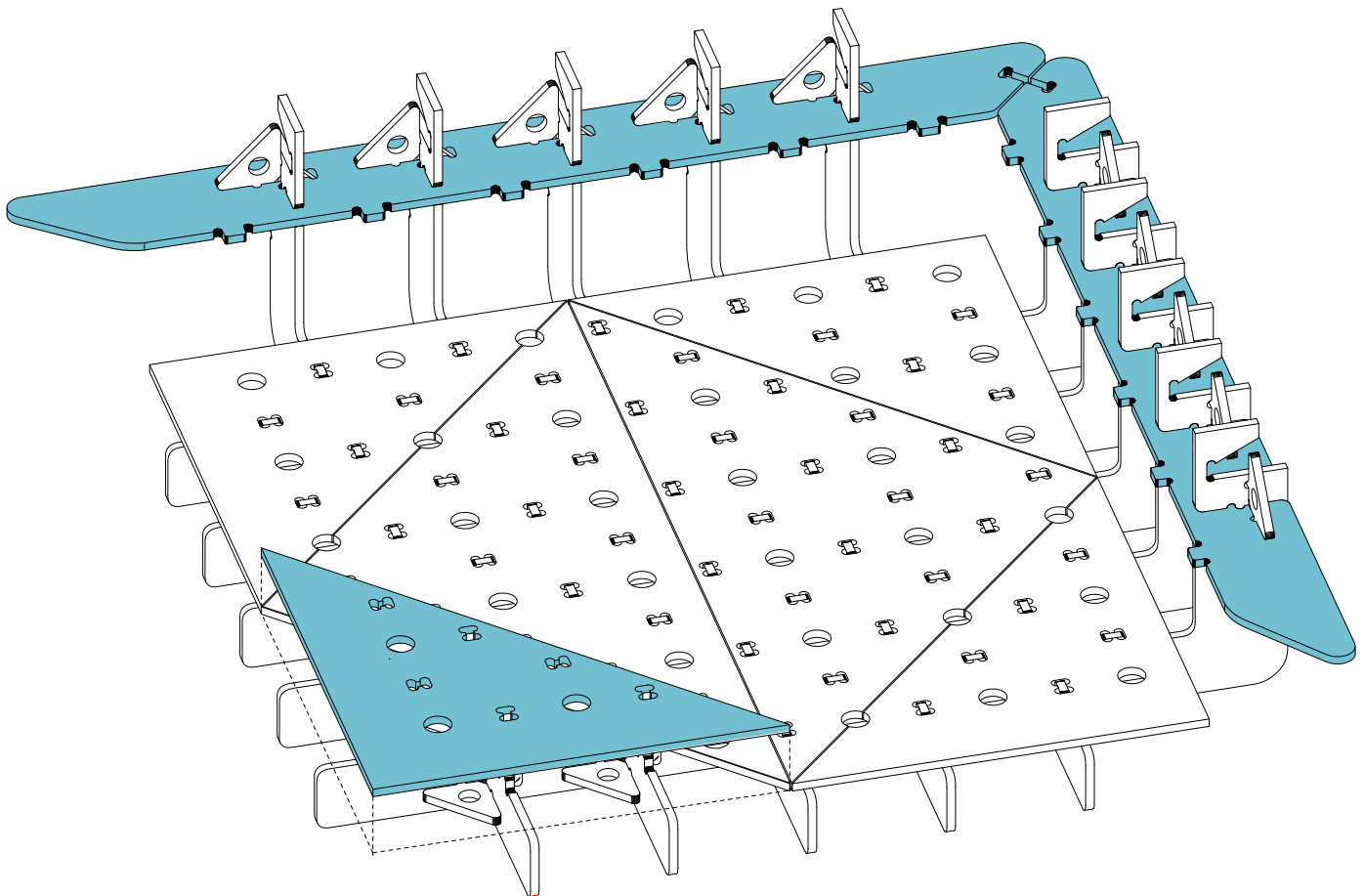
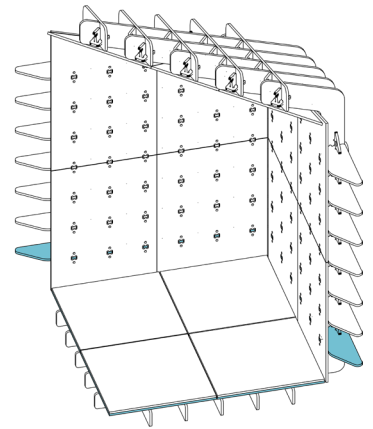
Disassembly: Step 10

Pieces Required:

- | | | | |
|----------|--|--------------|--|
| (2) SP-2 | | (1) FP-7 | |
| (1) FP-3 | | (1) FP-8 | |
| (1) FP-4 | | (10) Y Locks | |
| (1) FP-5 | | (10) Wedges | |
| (1) FP-6 | | | |

Directions:

- Remove the Y locks and wedges from the remaining (2) SP-2 pieces and then remove the SP-2 pieces.
- Remove the sub-floor structure.



Disassembly: Step 11

Pieces Required:

(5) FP-1 

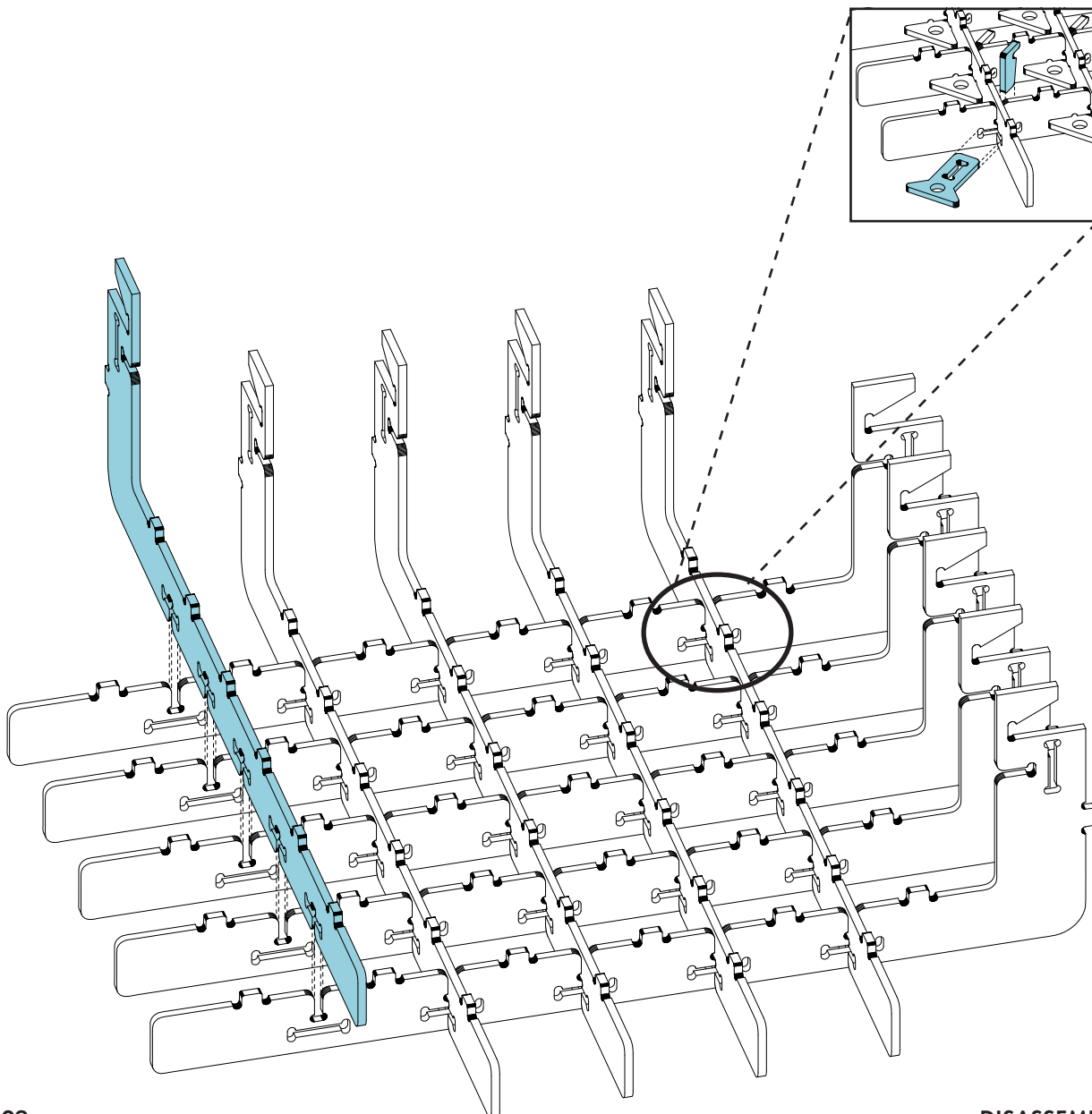
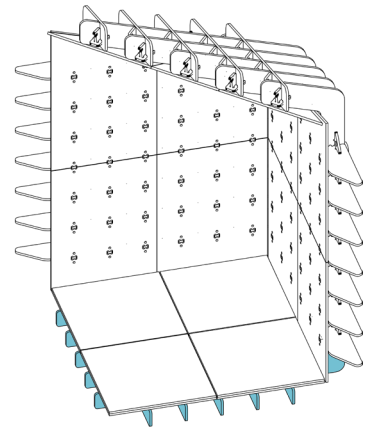
(5) FP-2 

(25) Y Locks 

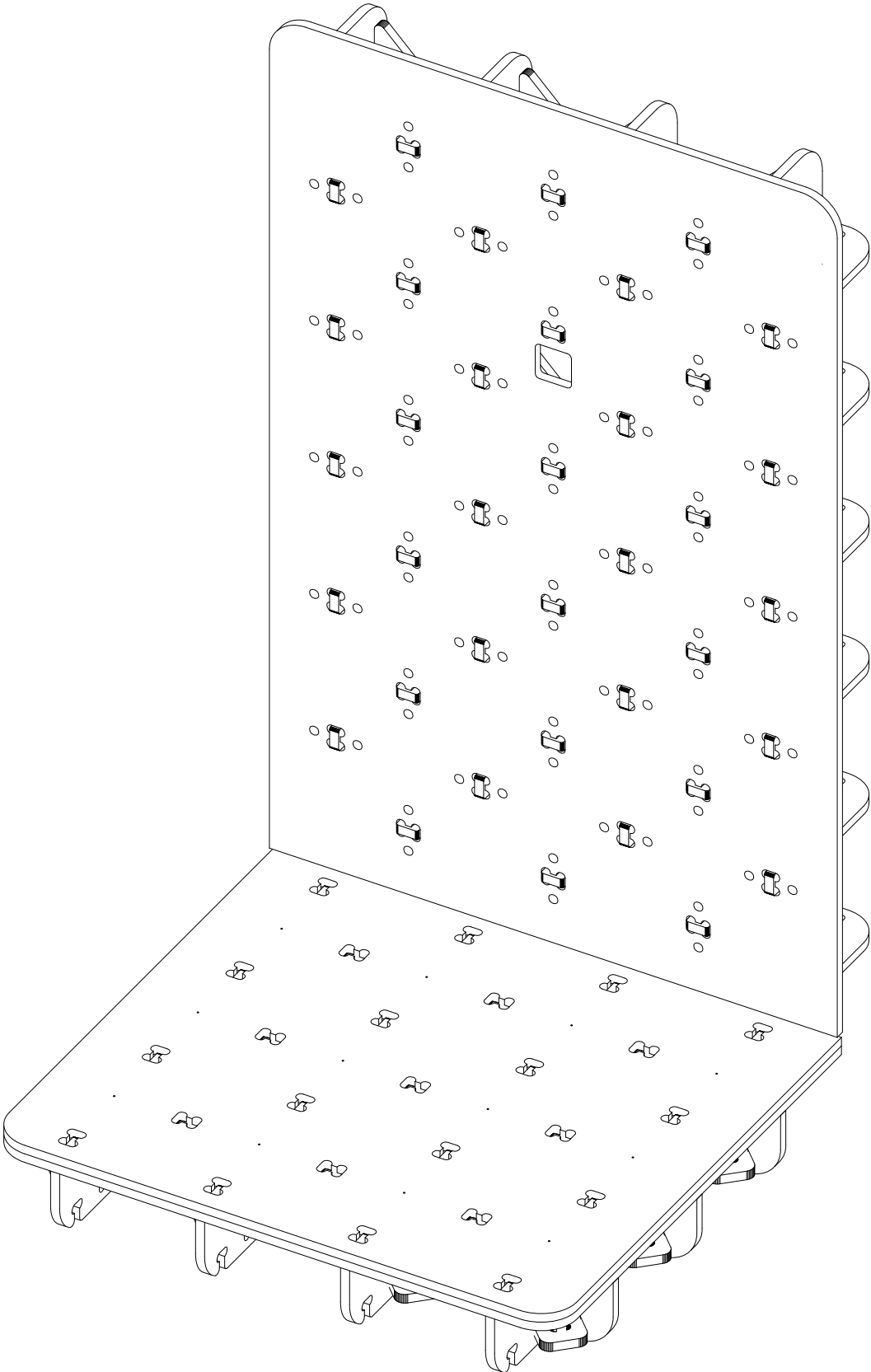
(25) Wedges 

Directions:

- Remove all of the wedges and Y locks from the floor structure.
- Disassemble all of the FP-1 and FP-2 pieces.



Appendix A: Viewing Wall



Naming System/Inventory

Structure (YY-00)

W Wall Structure

Panels (YY-00)

WP Floor Panel

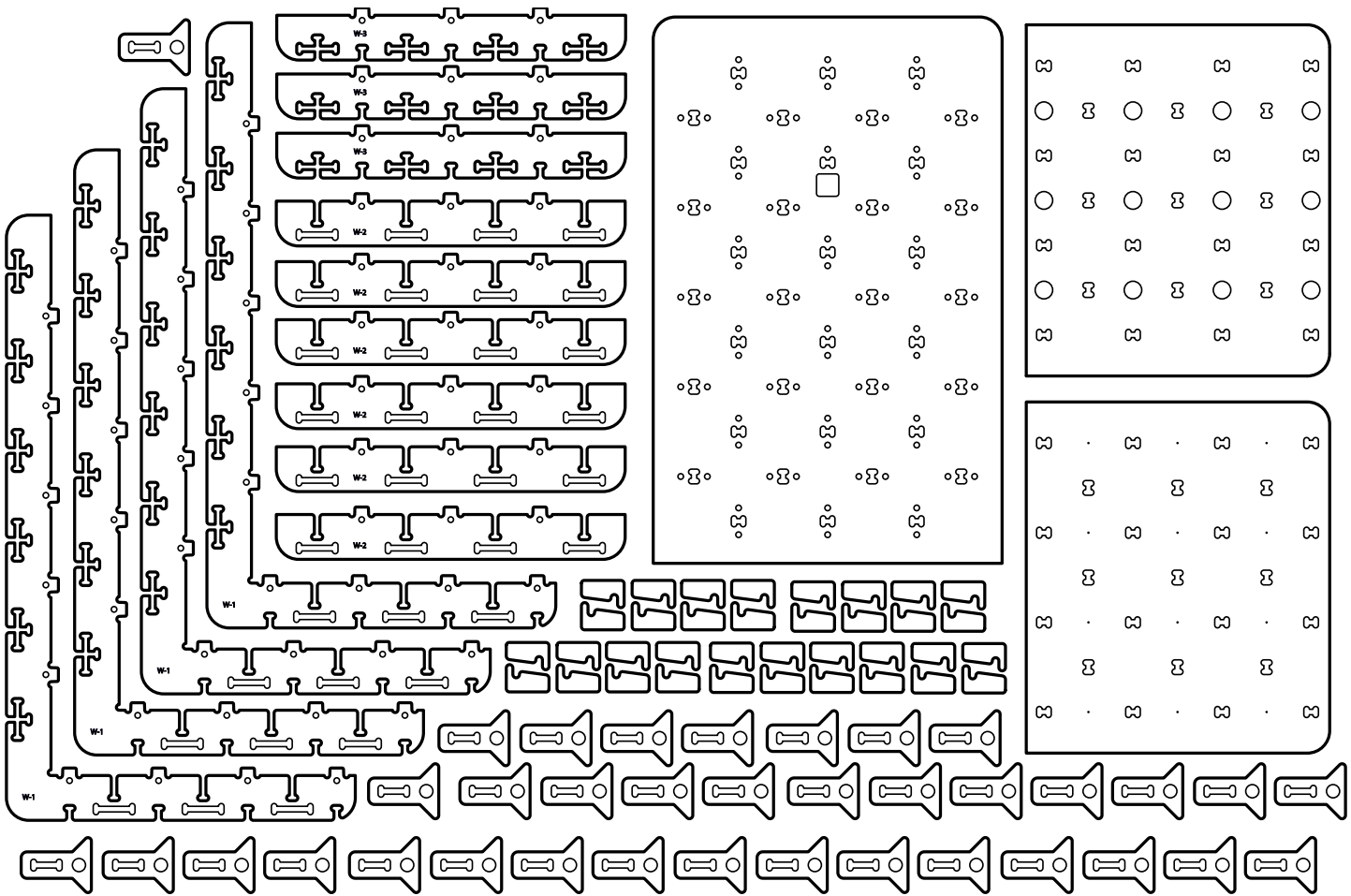
Locks (Unmarked)

Y Locks

Wedges


POSITION	COMPONENT NAME	QUANTITY
WALL STRUCTURE	W-1	4
	W-2	6
	W-3	3
WALL PANELS	WP-1	1
	WP-2	1
	WP-3	1
Y LOCKS	N/A	36
WEDGES	N/A	36


OTHER ITEMS NEEDED	QUANTITY
ZIP TIES	10
DRILL	1
SCREWS	15



Assembly: Step 1

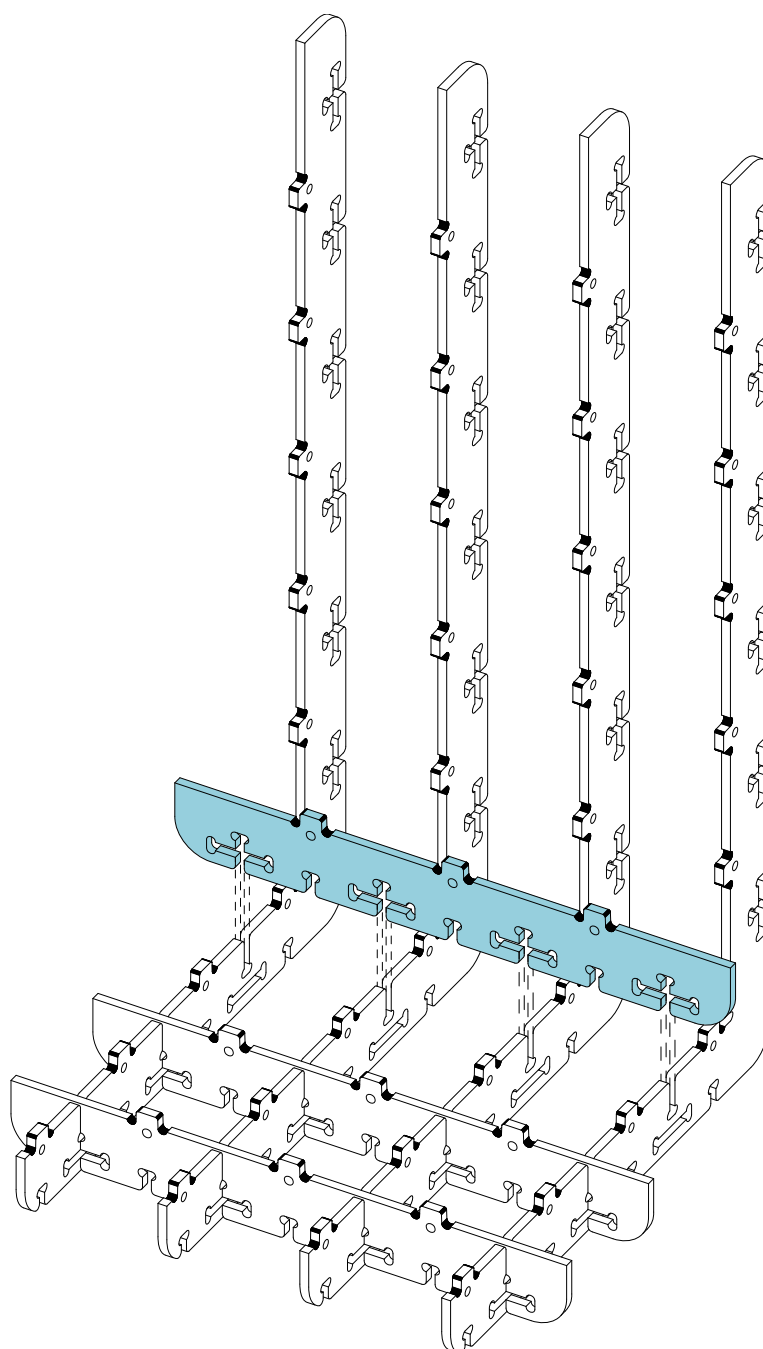
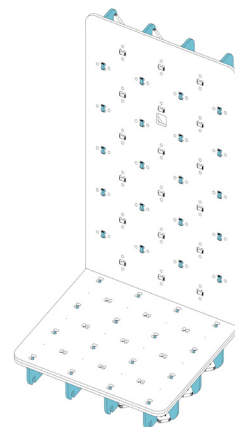
Pieces Required:

(4) W-1 

(3) W-3 

Directions:

- Place (4) W-1 side by side and insert (3) W-3 into the short side as shown.



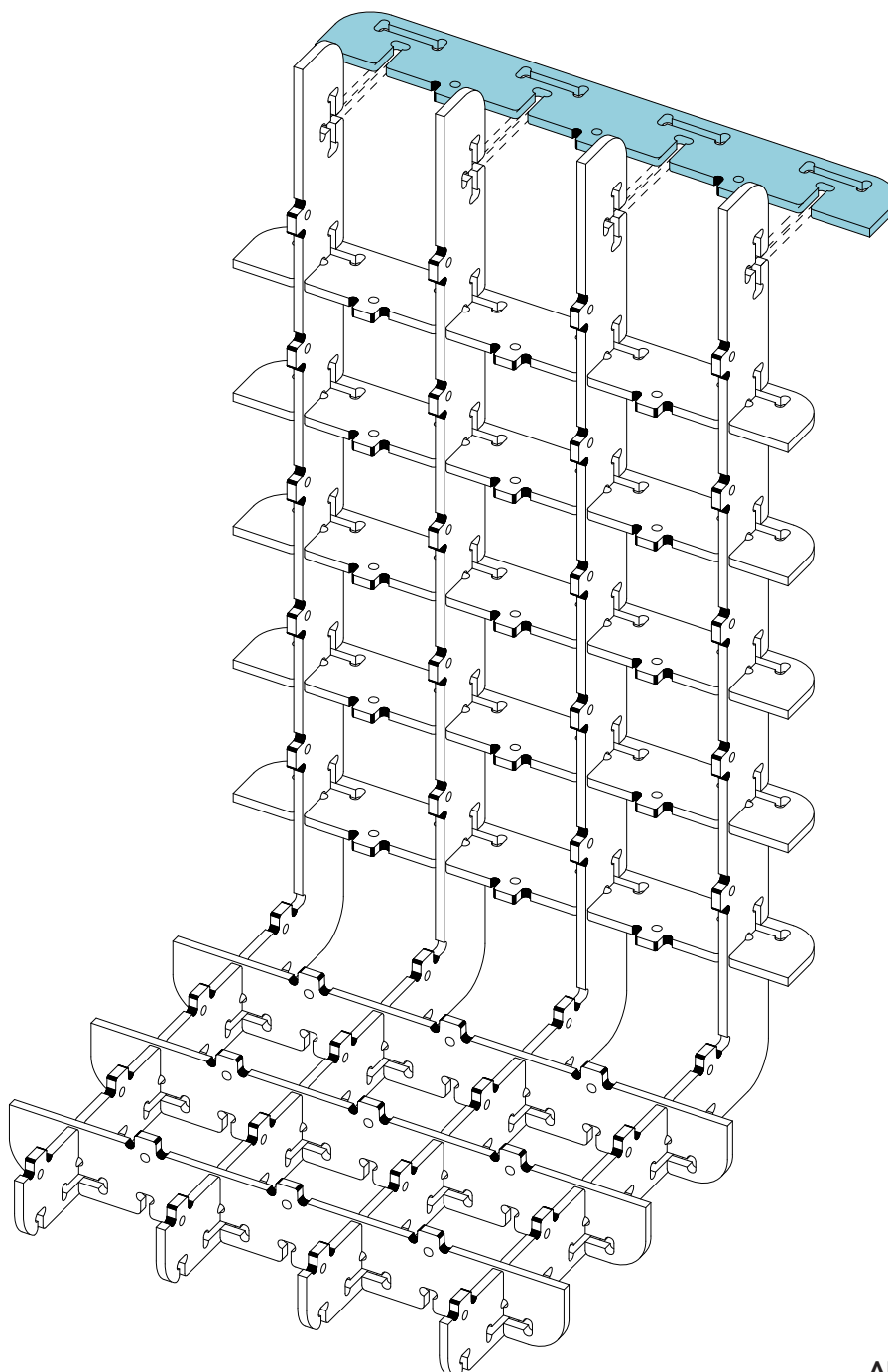
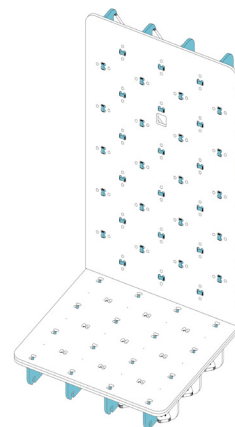
Assembly: Step 2

Pieces Required:

(6) W-2 

Directions:

- Place (6) W-2 in long side of W-1 pieces.



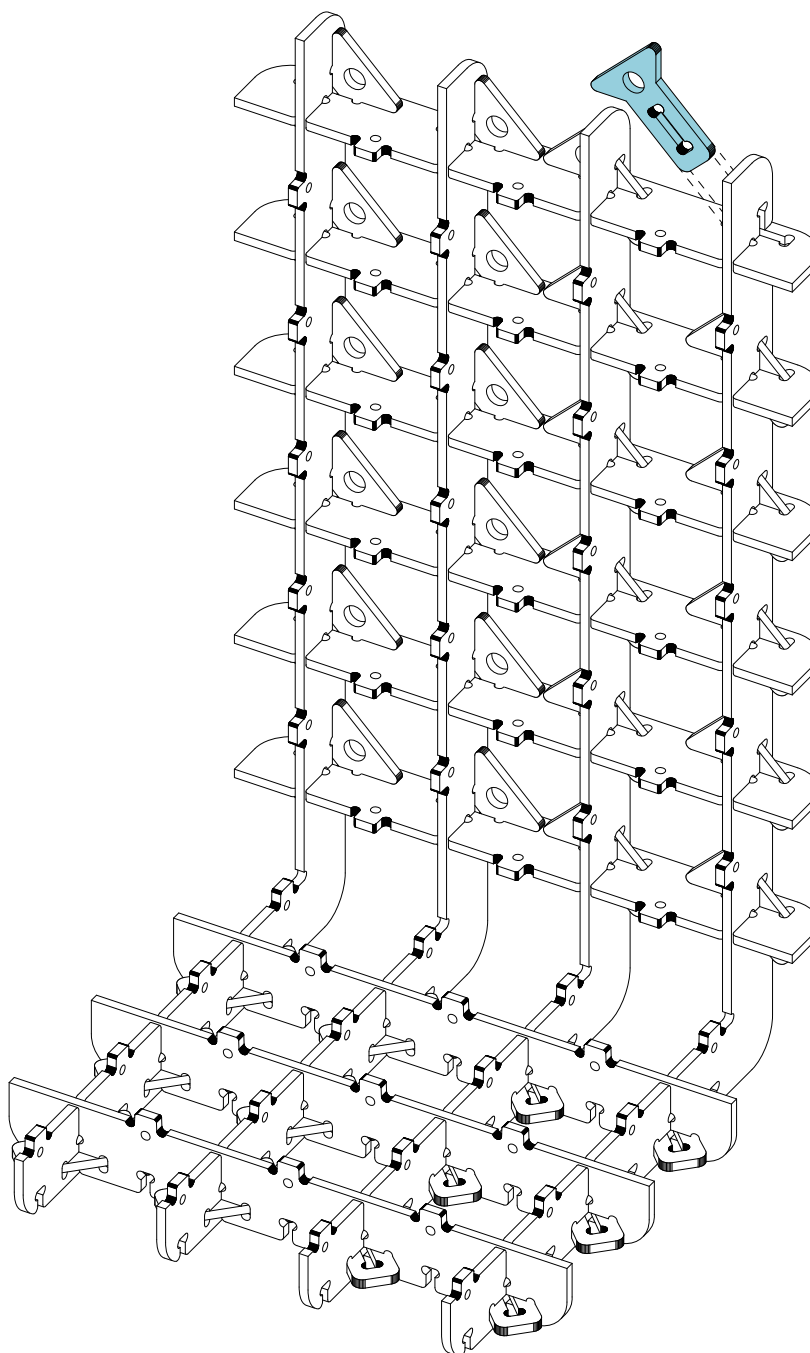
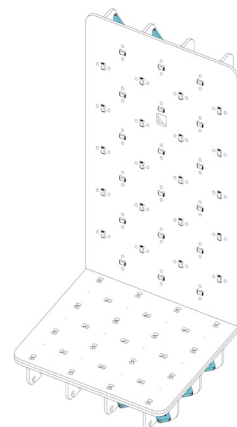
Assembly: Step 3

Pieces Required:

(36) Y Locks 

Directions:

- Insert Y locks and wedges into each of the slots on the structure.



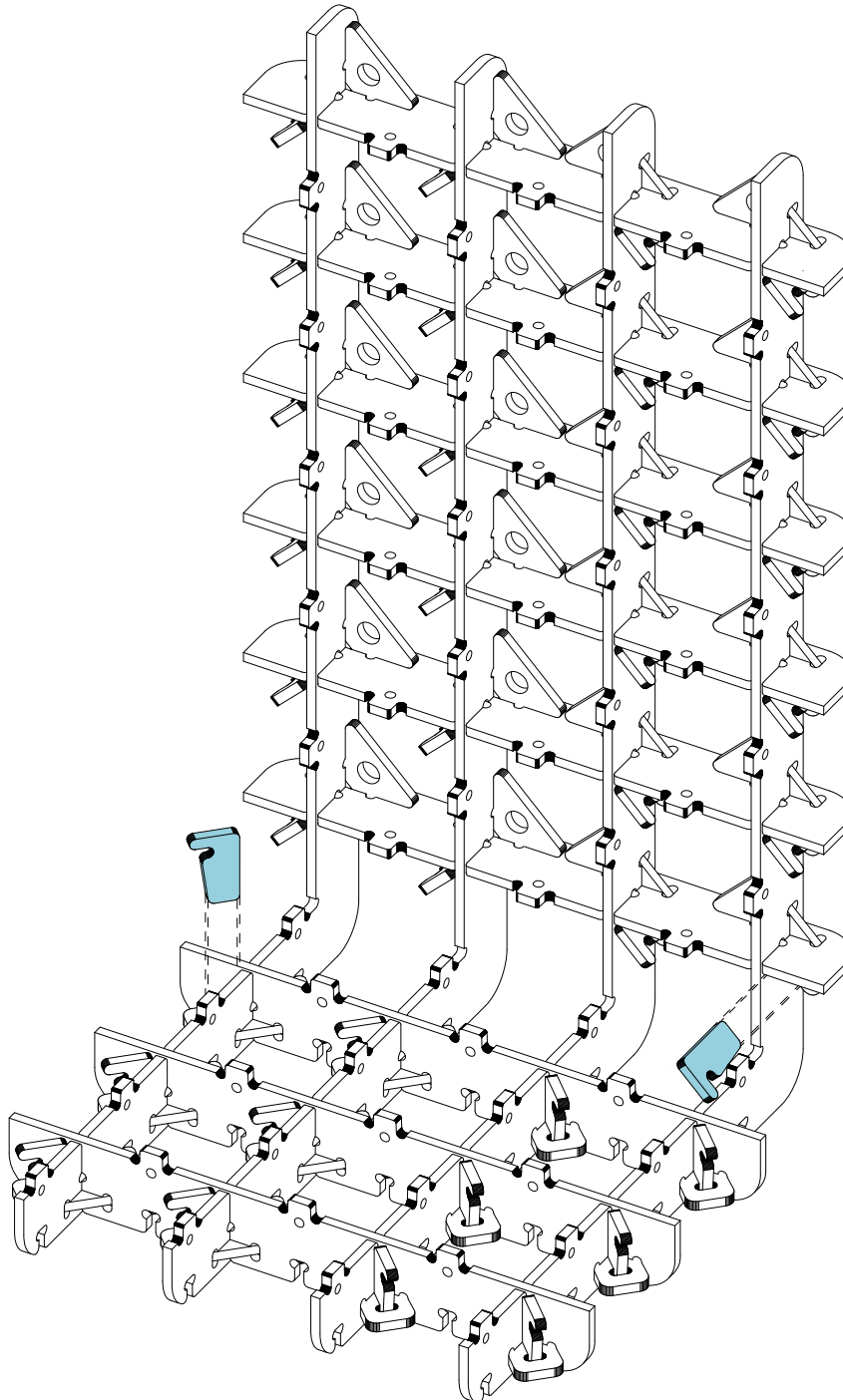
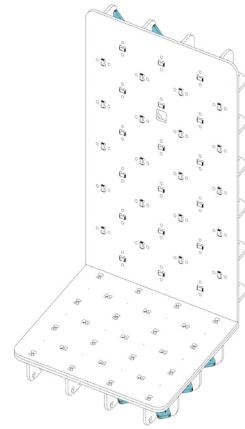
Assembly: Step 4

Pieces Required:

(36) Wedges 

Directions:

- Insert wedges into each of the Y locks. Do not tighten the wedges until the panels are in place.



Assembly: Step 5

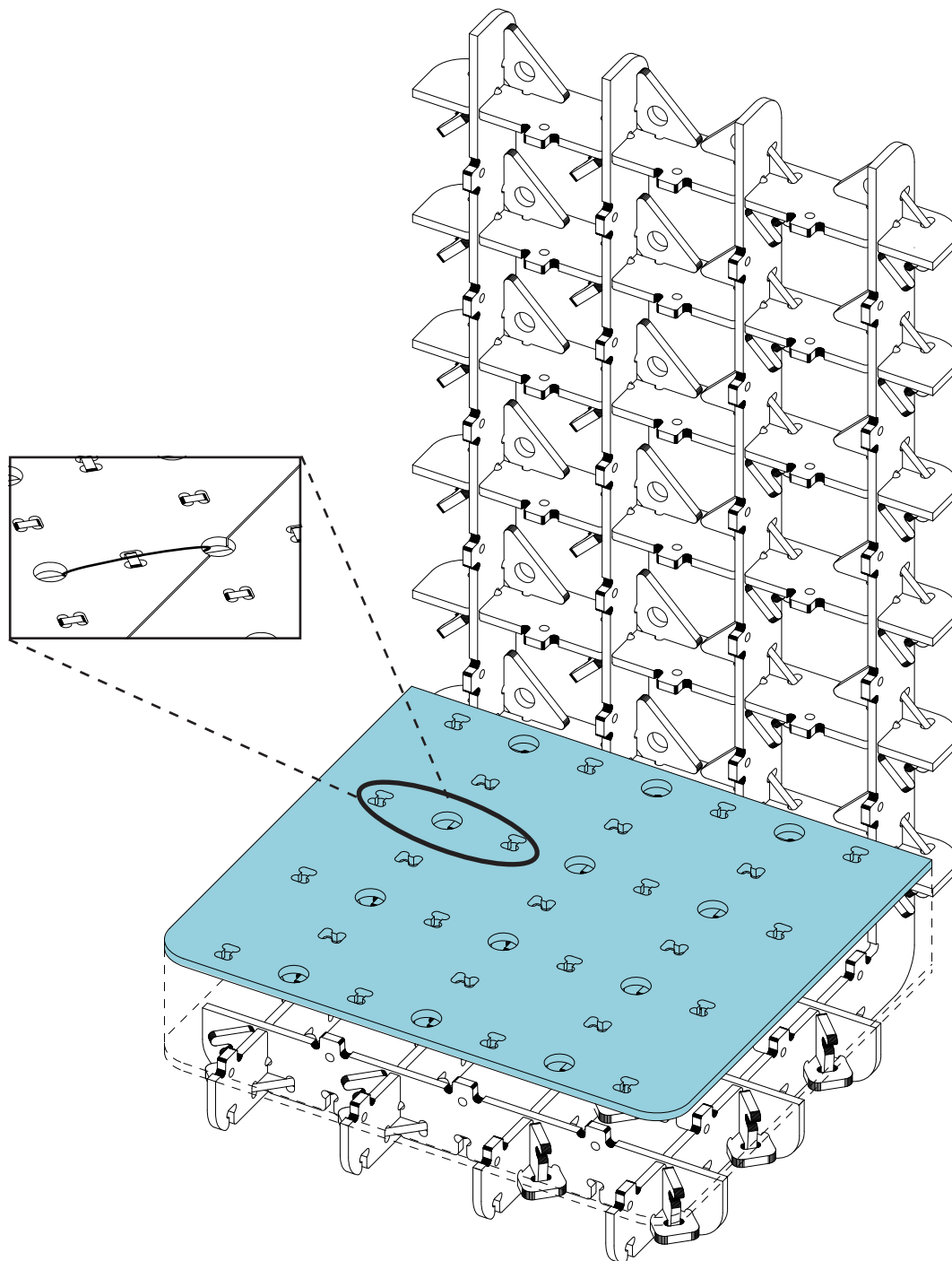
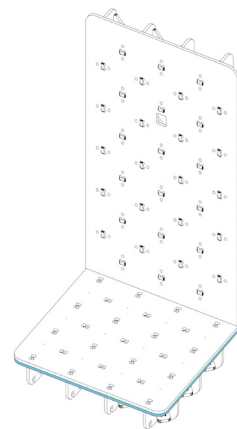
Pieces Required:

(1) WP-1



Directions:

- Place the floor sub structure as shown below.



Assembly: Step 6

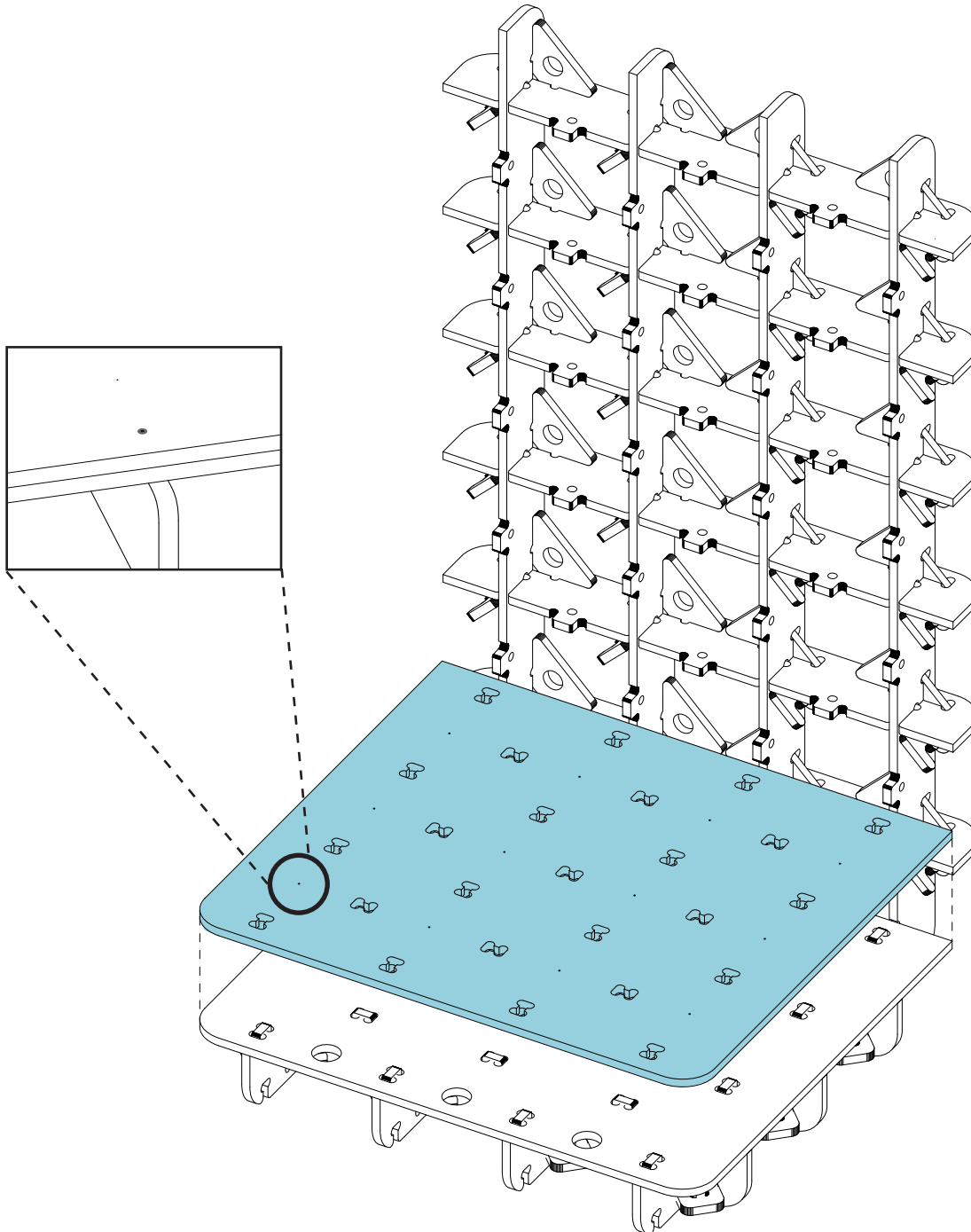
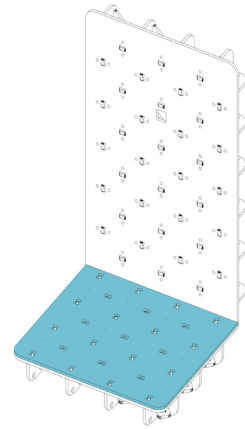
Pieces Required:

(1) WP-2



Directions:

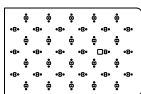
- Place the finished floor panel on the structure and screw down to secure using predrilled holes.



Assembly: Step 7

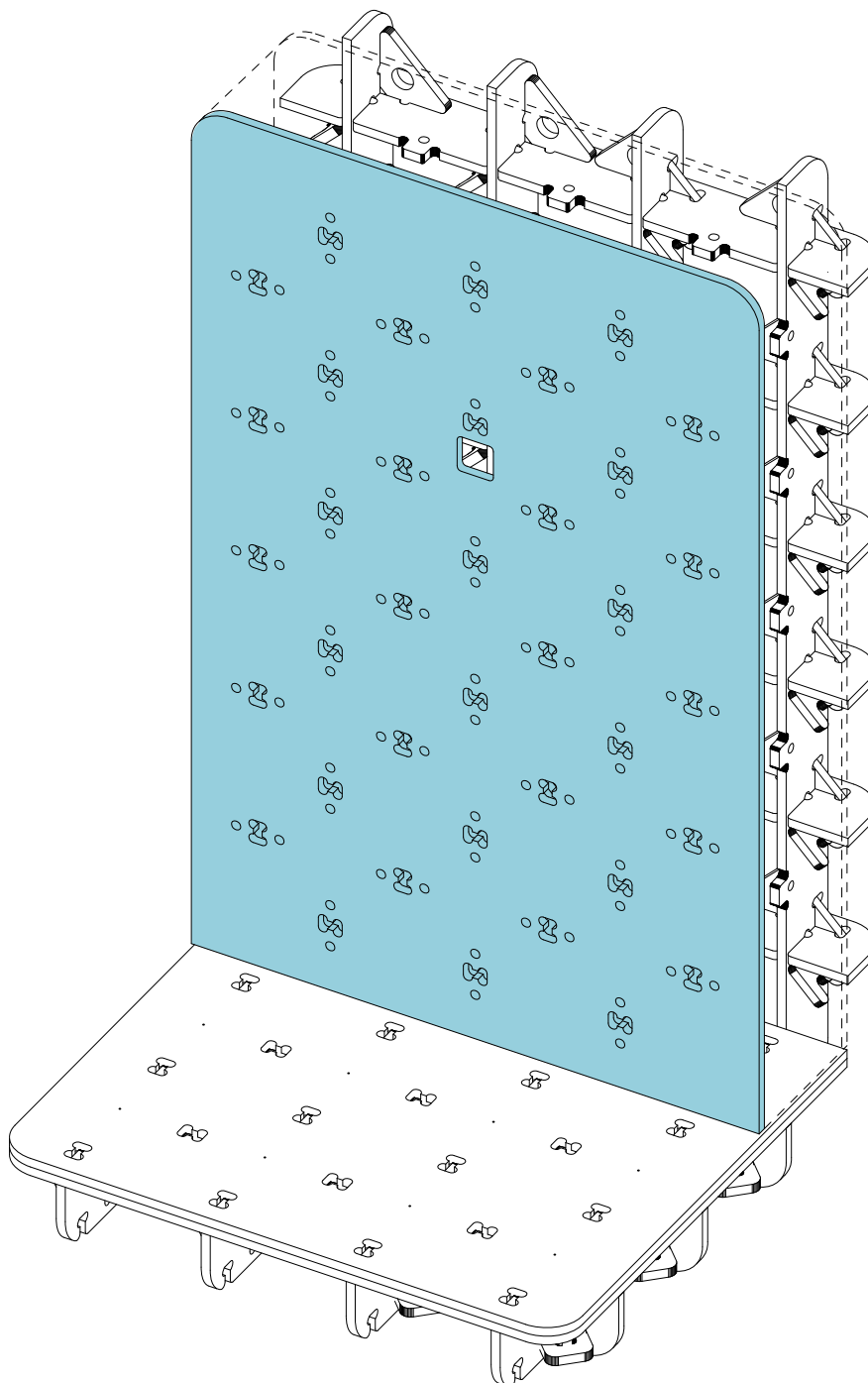
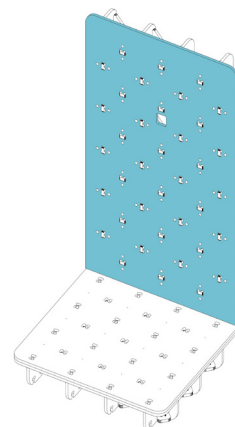
Pieces Required:

(1) WP-3



Directions:

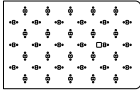
- Place the wall panel onto the structure as shown below.



Disassembly: Step 1

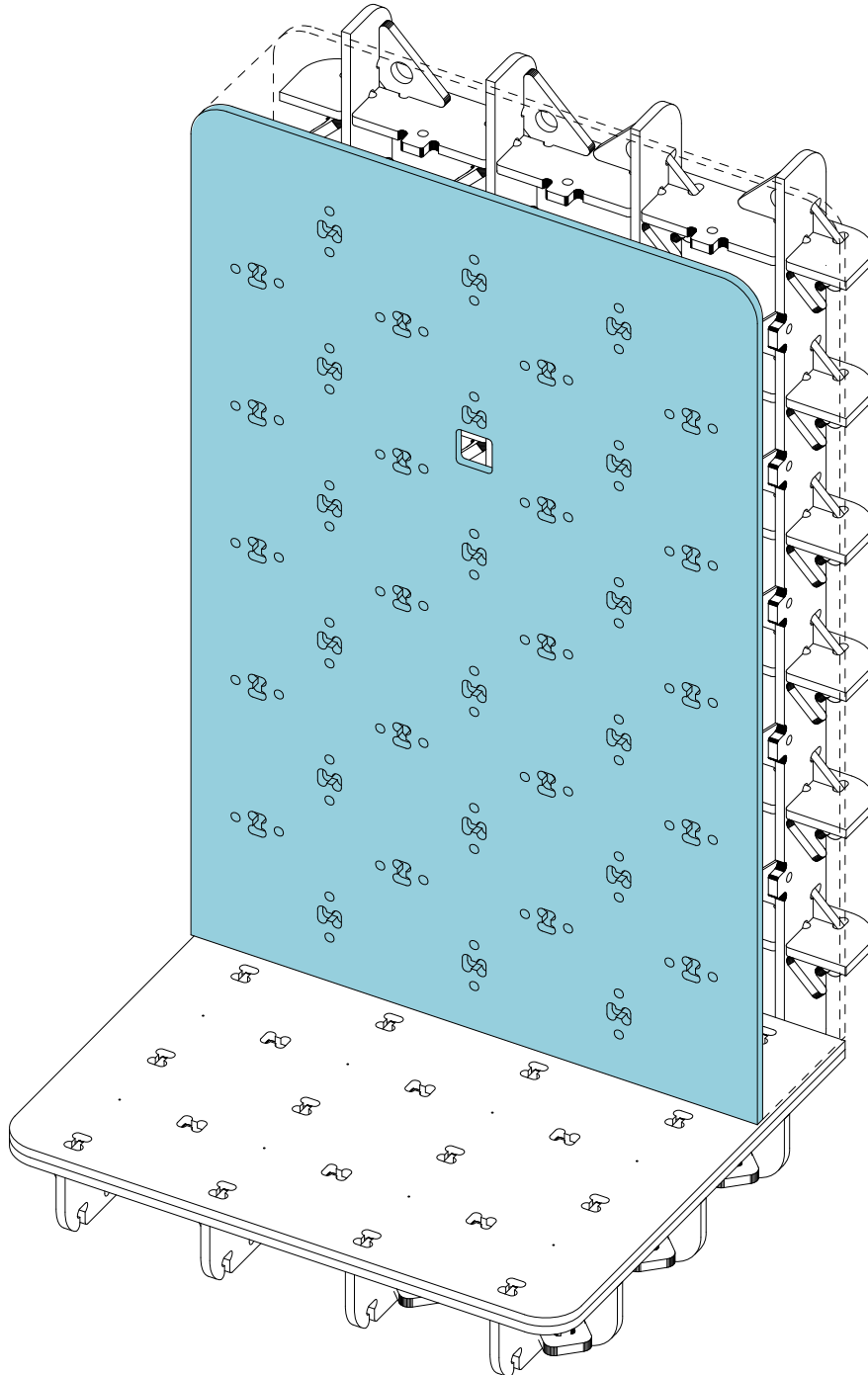
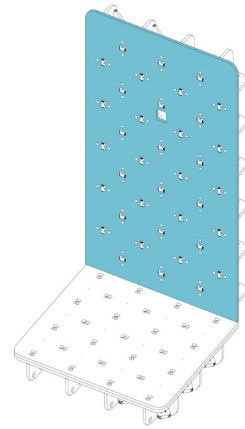
Pieces Required:

(1) WP-3




Directions:

- Remove the wall panel from the structure.



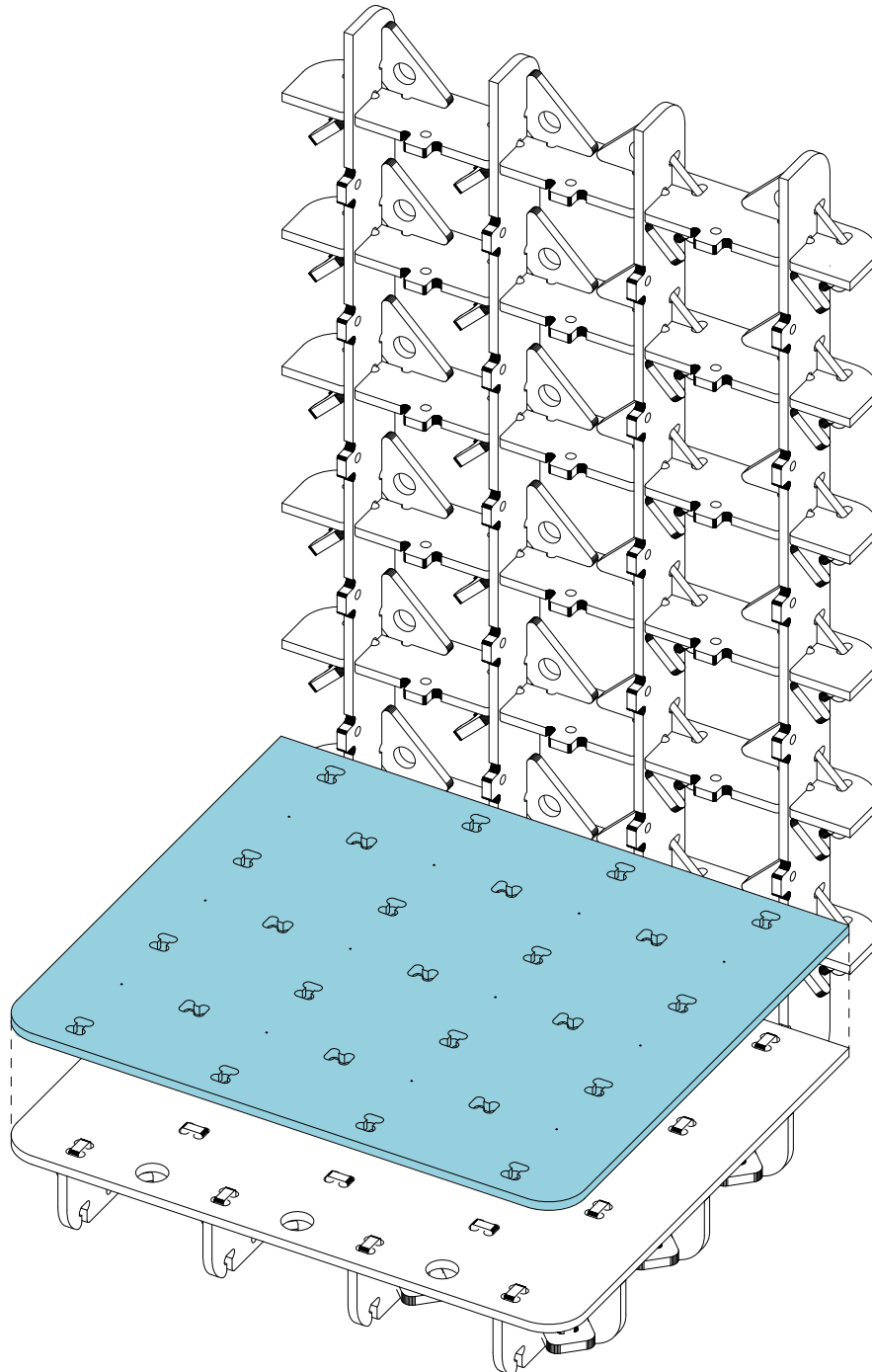
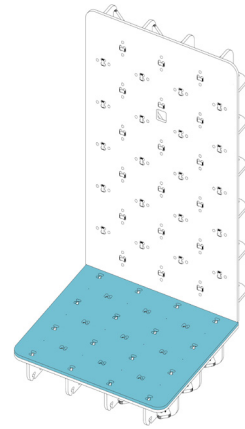
Disassembly: Step 2

Pieces Required:

(1) WP-2 

Directions:

- Remove the screws and the finished floor panel.



Disassembly: Step 3

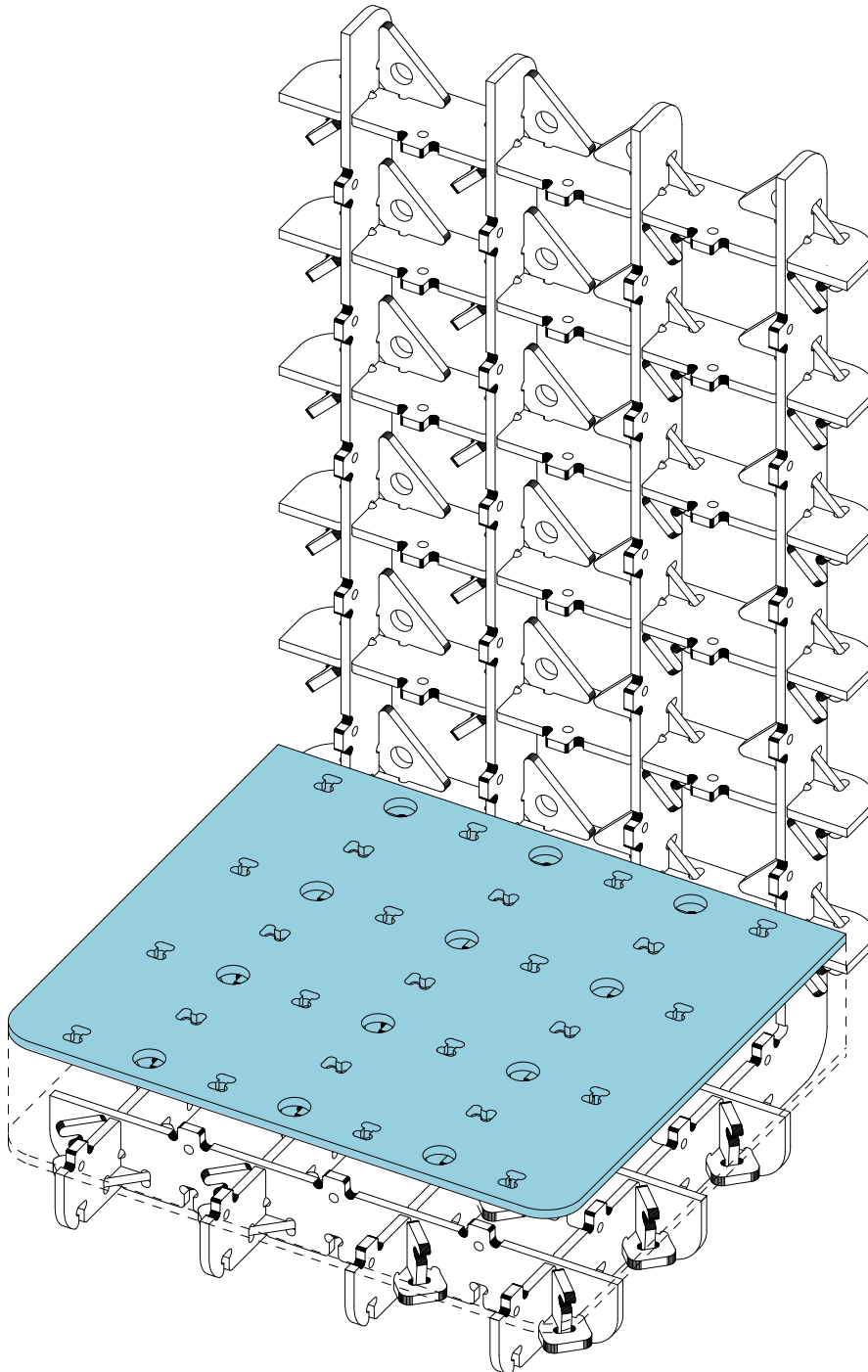
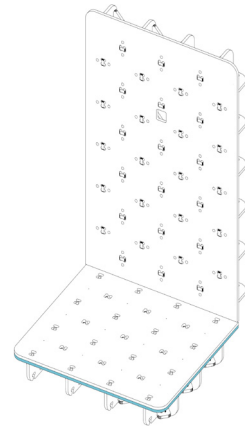
Pieces Required:

(1) WP-1



Directions:

- Remove the sub floor structure as shown below.



Disassembly: Step 4

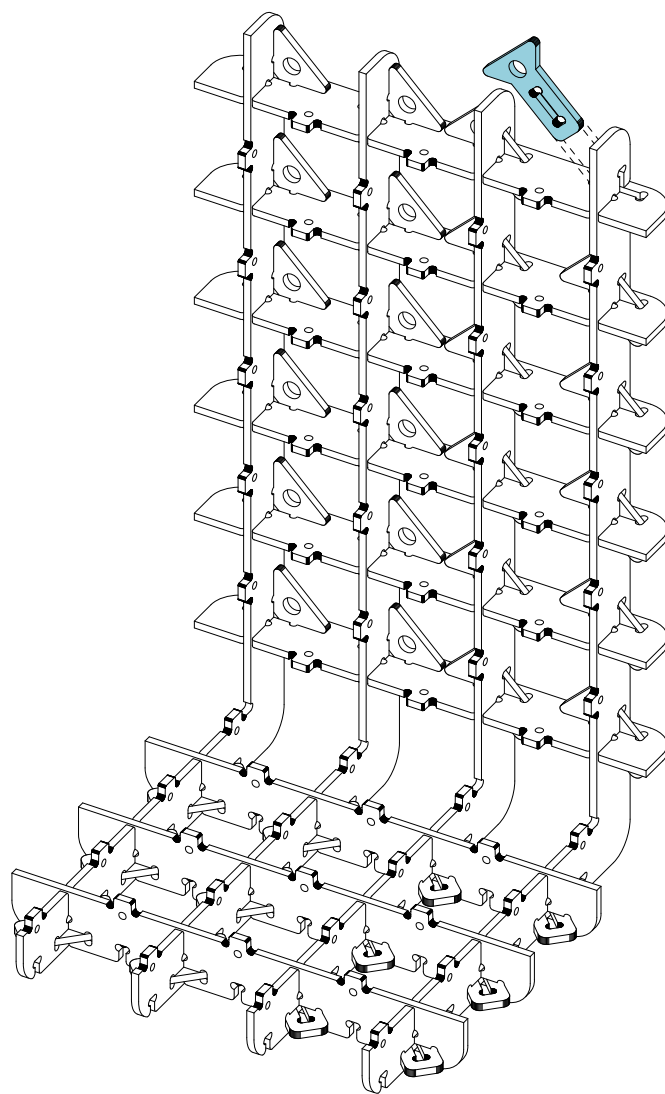
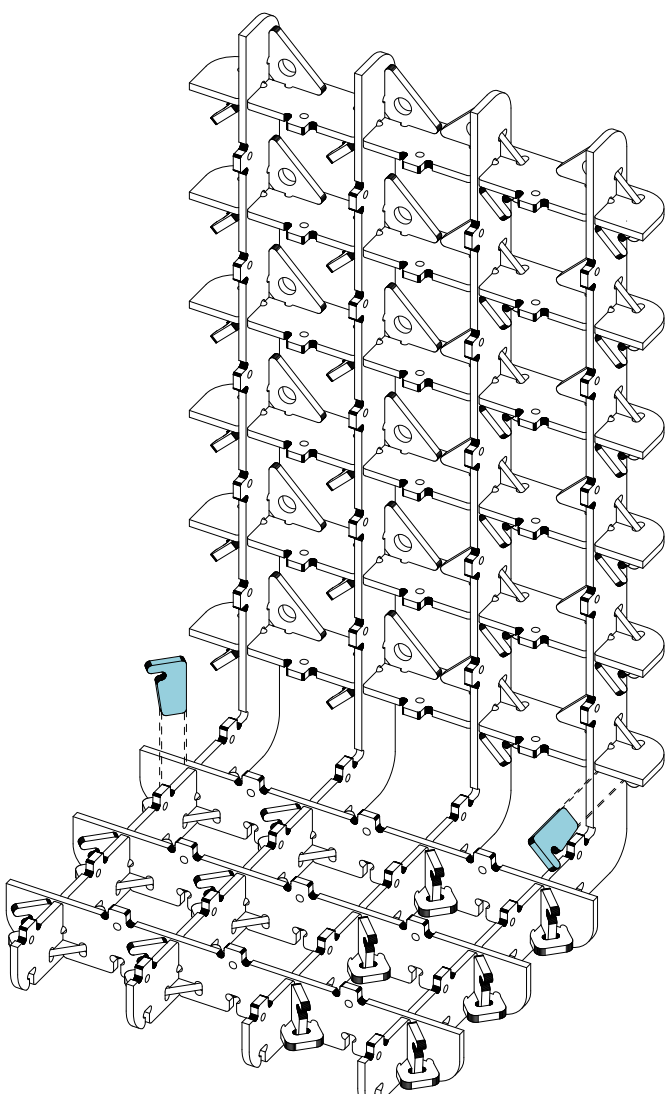
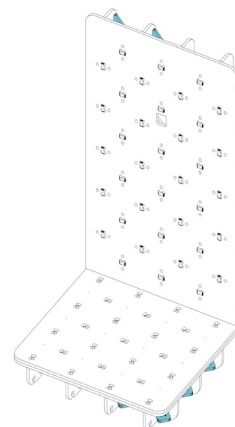
Pieces Required:

(36) Y Locks 

(36) Wedges 

Directions:

- Remove all of the wedges and Y locks from the entire structure.



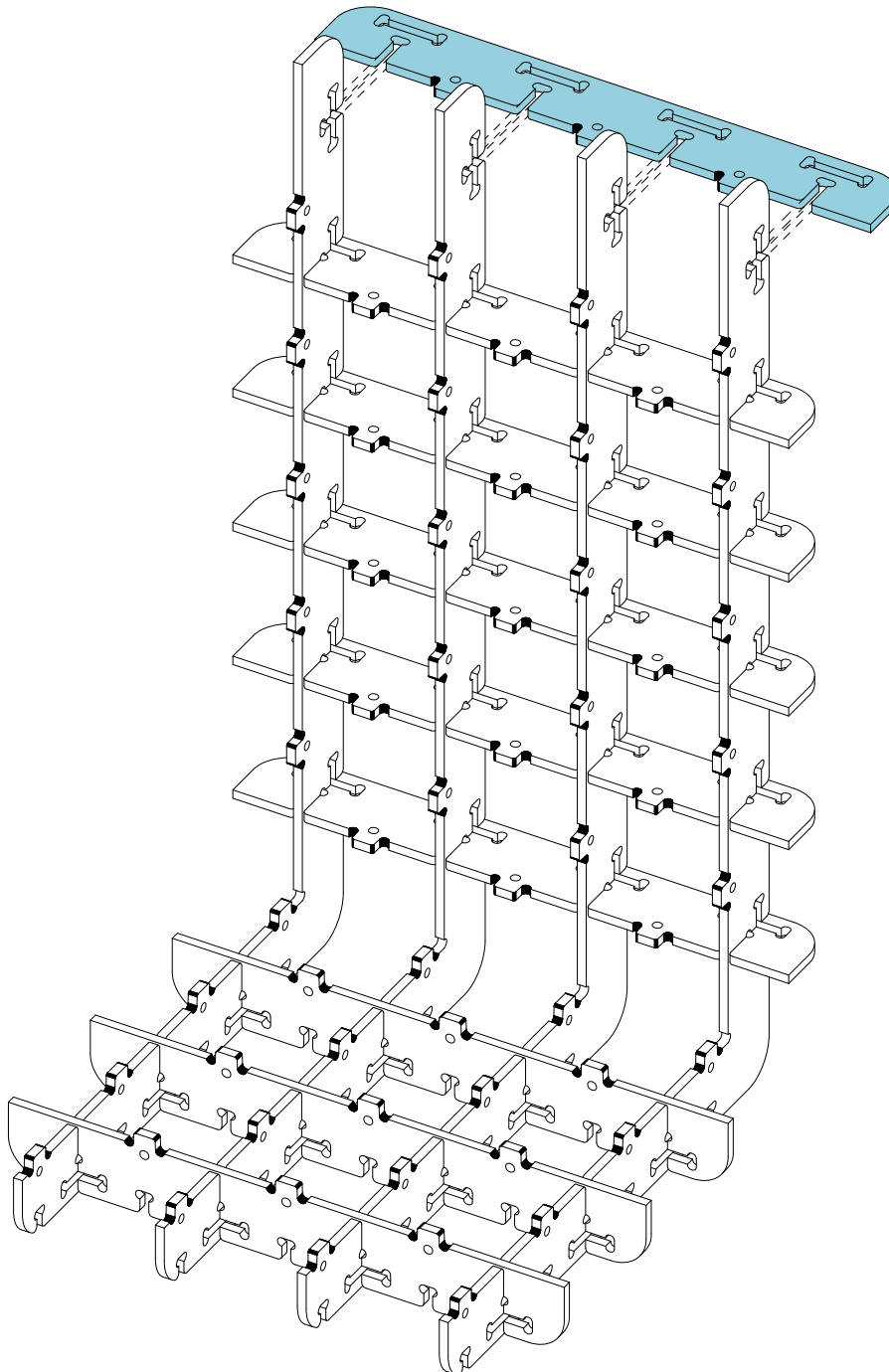
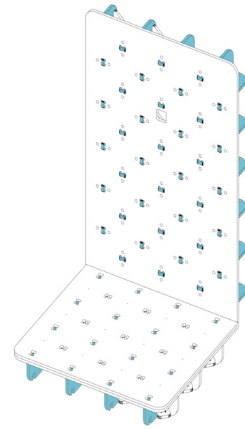
Disassembly: Step 5

Pieces Required:

(6) W-2 

Directions:


- Remove each of the W-2 pieces from the W-1 pieces.



Disassembly: Step 6

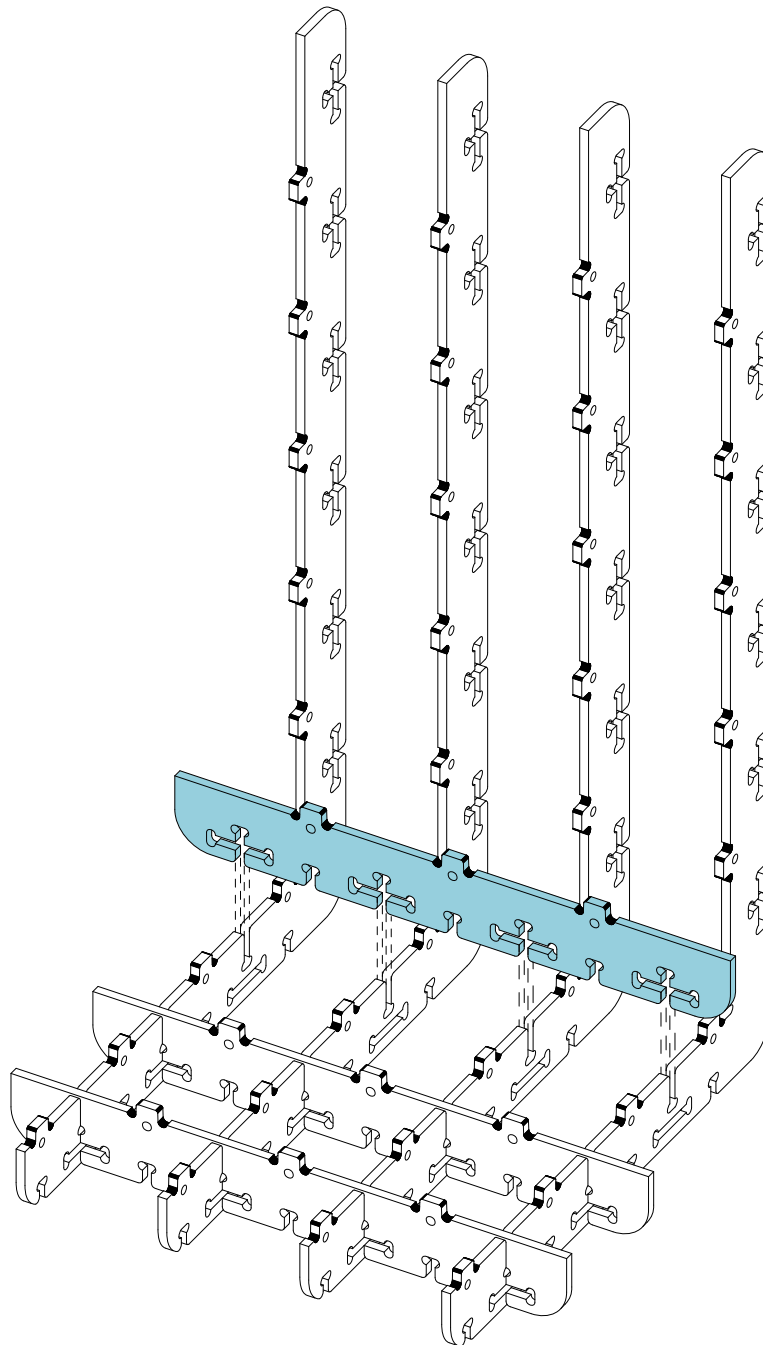
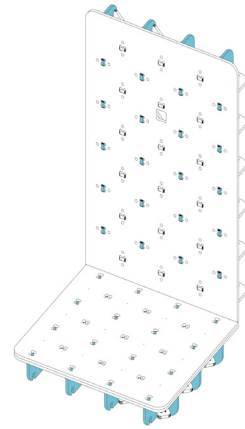
Pieces Required:

(4) W-1 

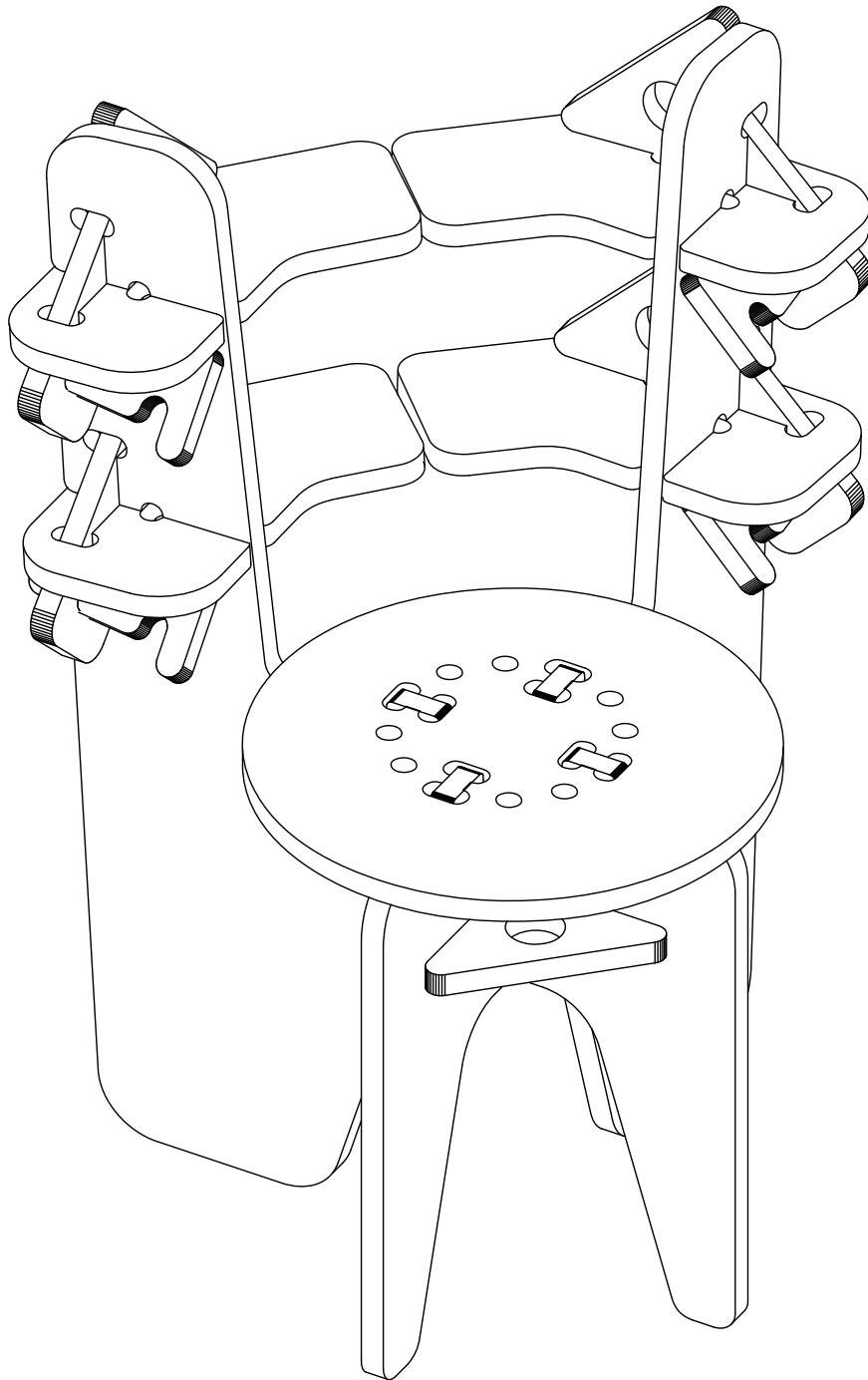
(3) W-3 

Directions:

- Remove each of the W-3 pieces from the W-1 pieces.



Appendix B: Chair



Naming System/Inventory

Structure (Unmarked)

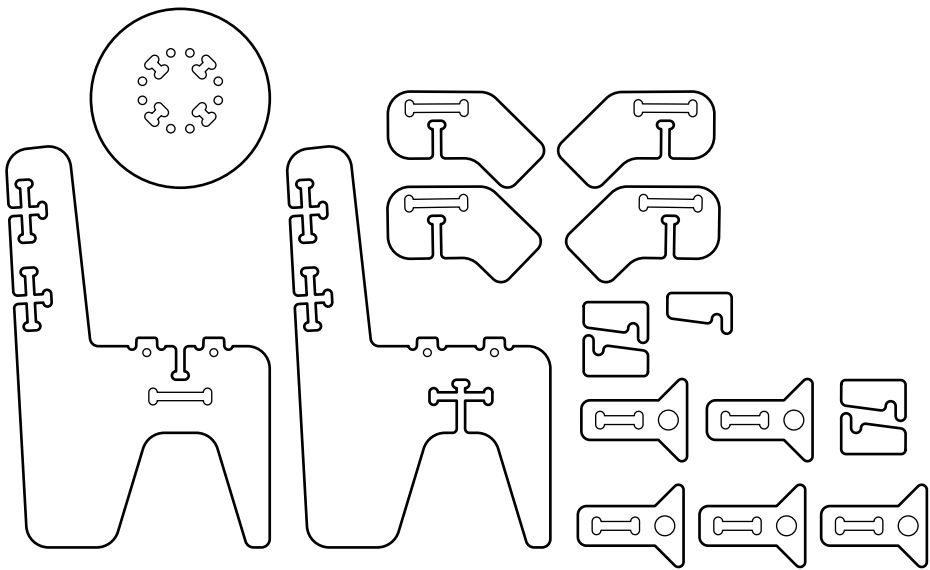
- Chair Back/Legs
- Chair Back
- Seat

Locks (Unmarked)

- Y Locks
- Wedges

POSITION	COMPONENT NAME	QUANTITY
CHAIR STRUCTURE A	N/A	1
CHAIR STRUCTURE B	N/A	1
CHAIR BACK UPPER	N/A	2
CHAIR BACK LOW	N/A	2
SEAT	N/A	1
Y LOCKS	N/A	5
WEDGES	N/A	5

OTHER ITEMS NEEDED	QUANTITY
ZIP TIES	4



Assembly: Step 1

Pieces Required:

(1) Chair Structure A

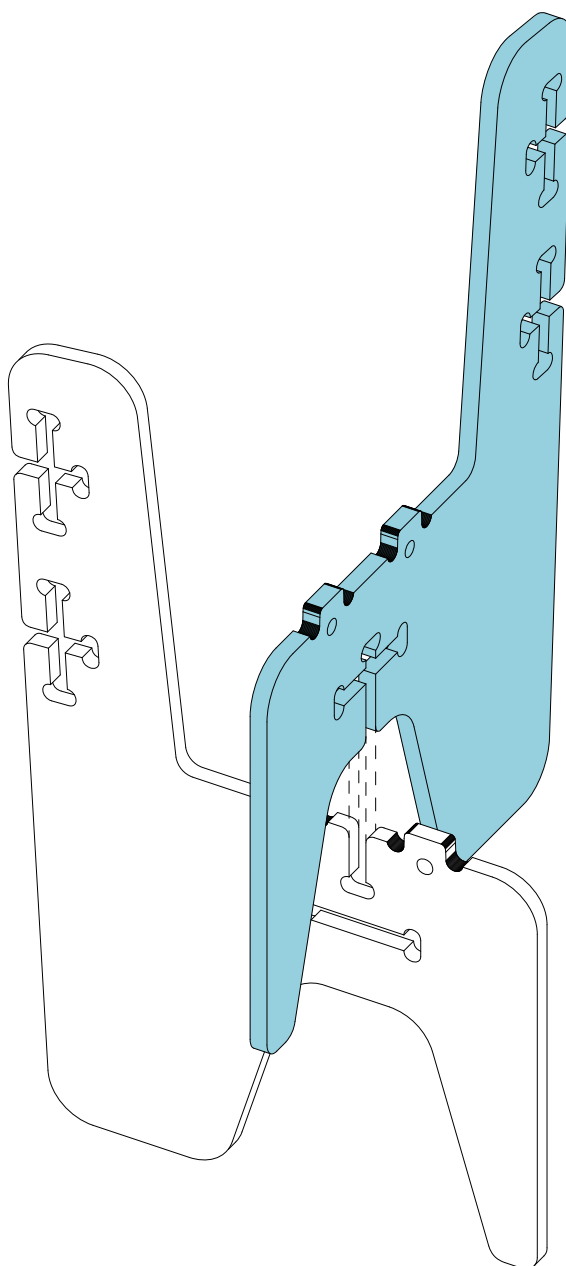
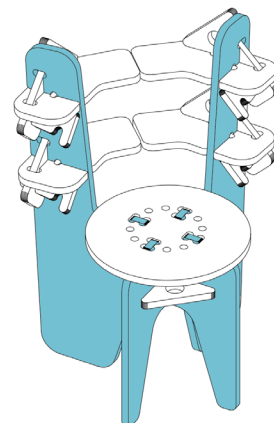


(1) Chair Structure B



Directions:

- Insert each of the chair structure pieces into each other as shown in the image below.



Assembly: Step 2

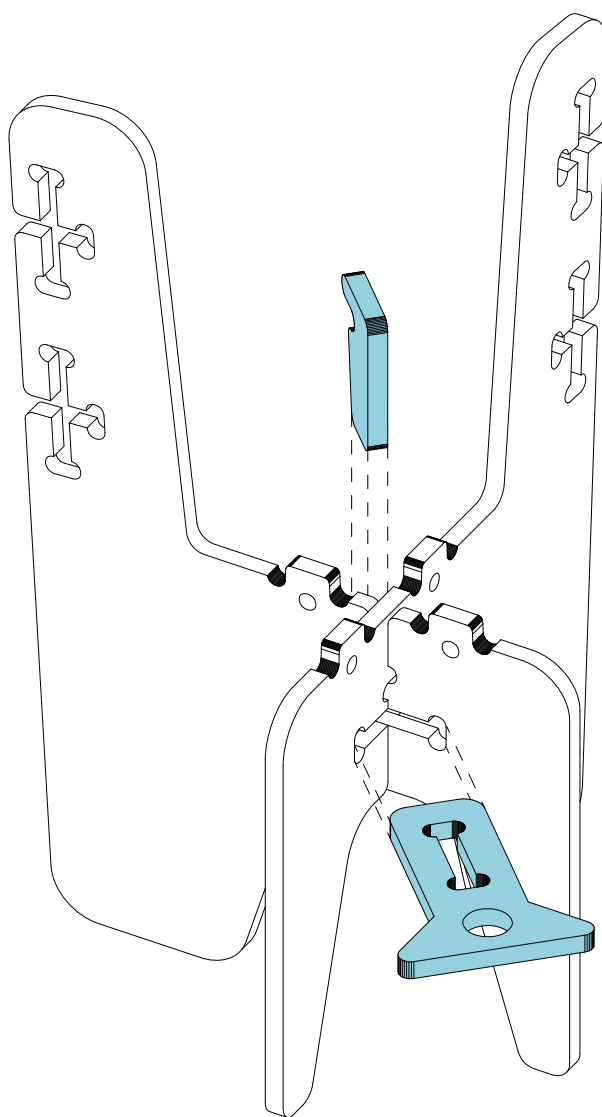
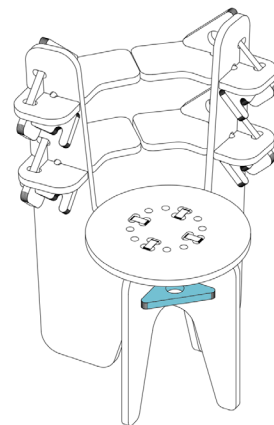
Pieces Required:

(1) Y Lock 

(1) Wedge 

Directions:

- Insert (1) Y lock and (1) wedge in the bottom of the chair structure as shown below.



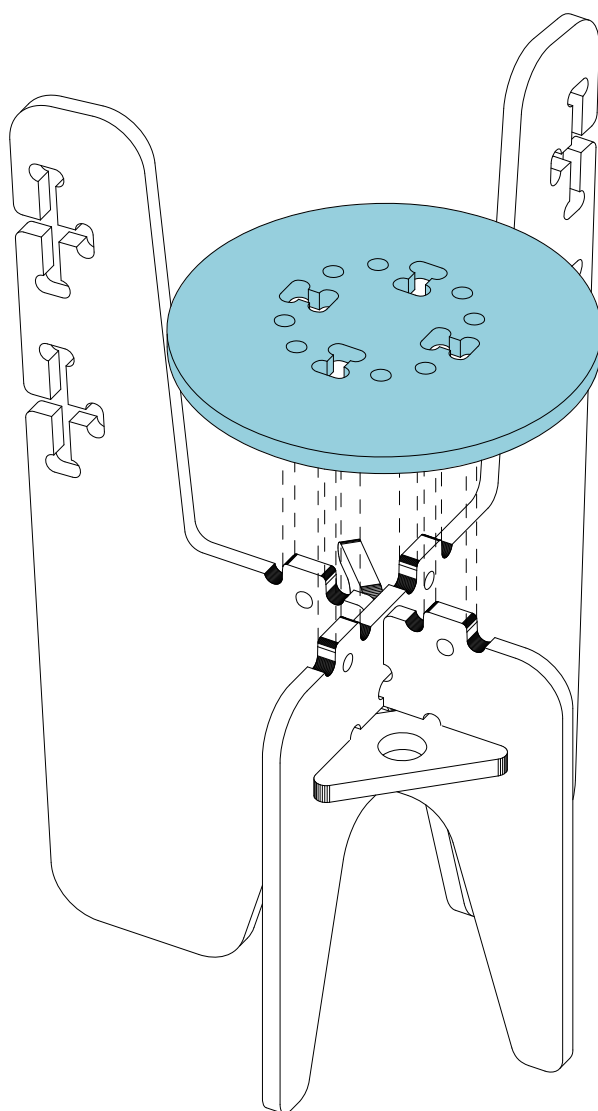
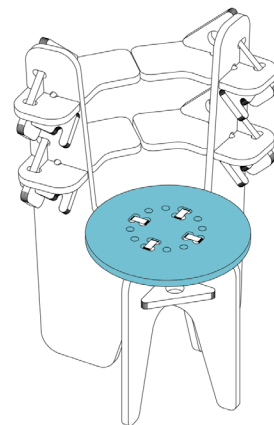
Assembly: Step 3

Pieces Required:

(1) Seat 

Directions:

- Insert the seat onto the structure as shown below. Secure with zip ties and trim flat.



Assembly: Step 4

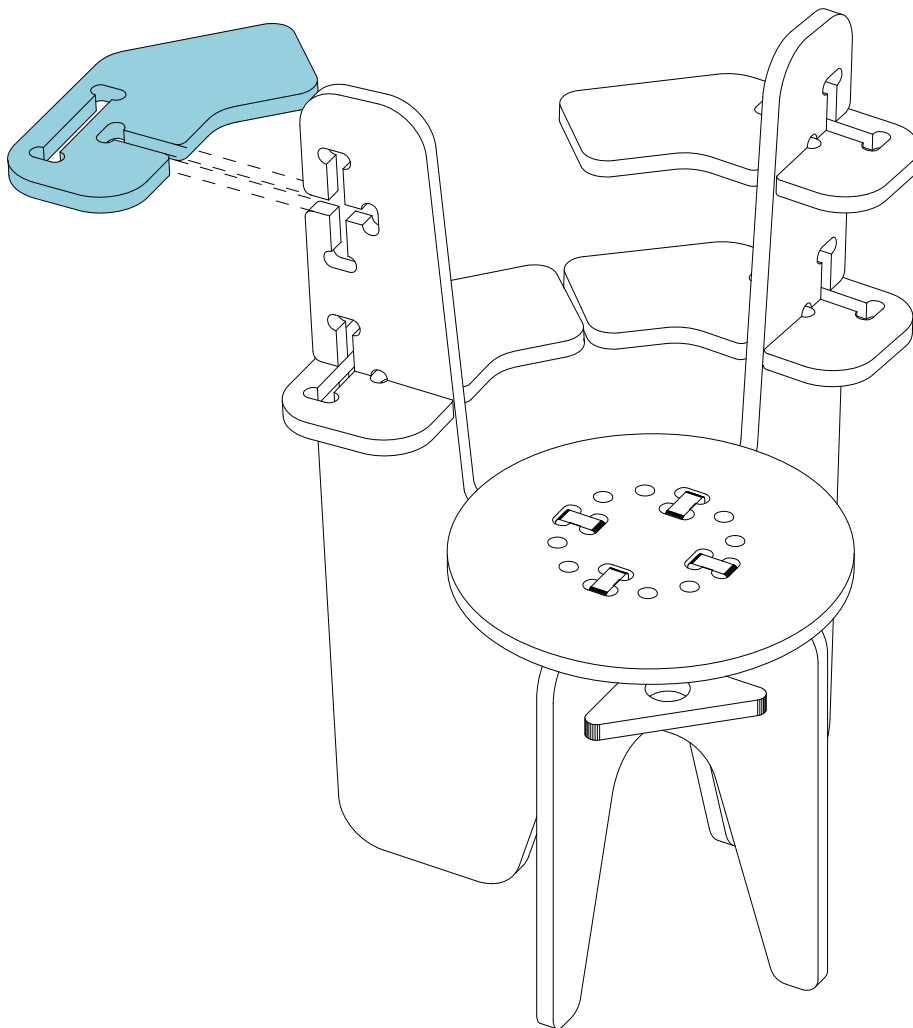
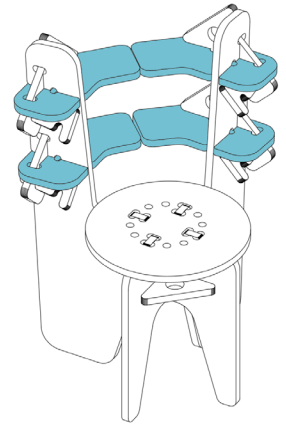
Pieces Required:

(2) Chair Backs Upper 

(2) Chair Backs Lower 

Directions:

- Insert the chair backs on the back of the chair structure as shown below. The shorter back goes on the bottom, the longer on the top.



Assembly: Step 5

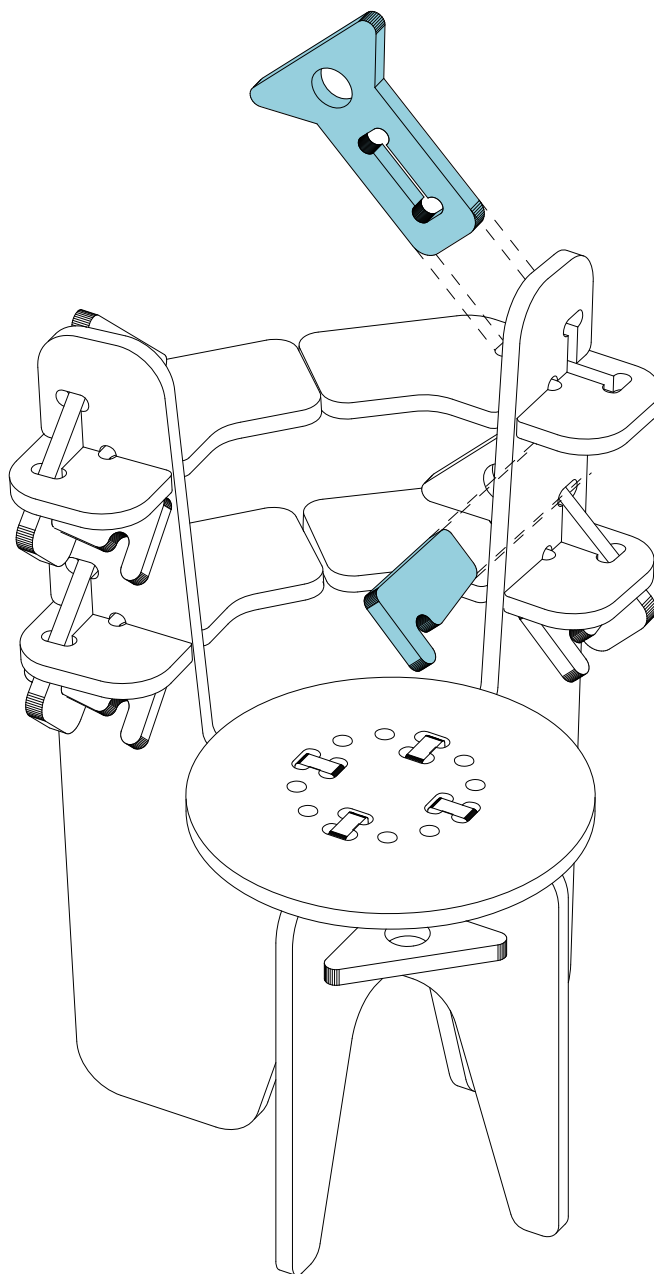
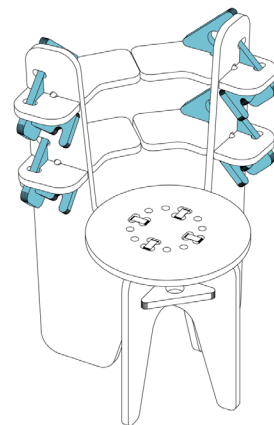
Pieces Required:

(4) Y Locks 

(4) Wedges 

Directions:

- Insert Y locks and wedges into chair backs.



Disassembly: Step 1

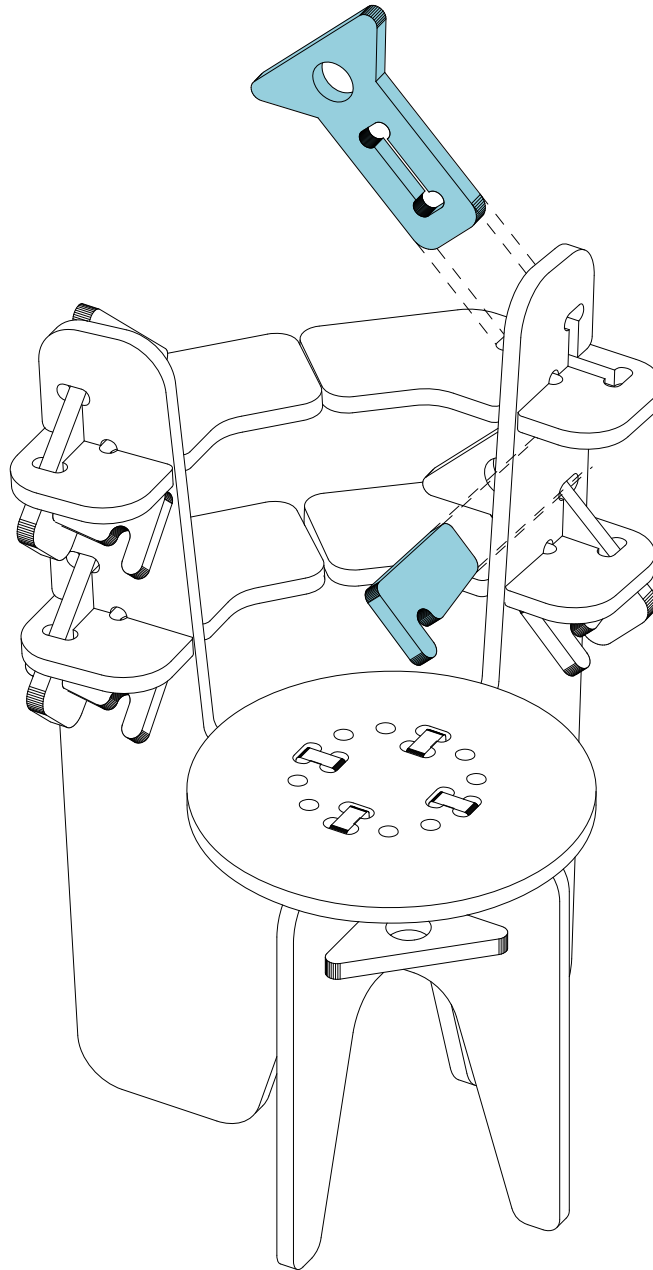
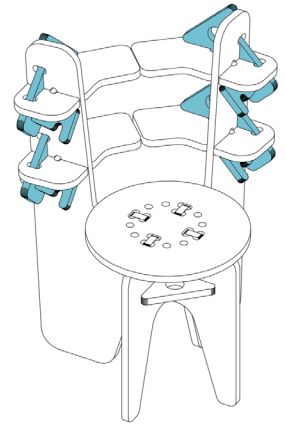
Pieces Required:

(4) Y Locks 

(4) Wedges 

Directions:

- Remove Y locks and wedges from chair backs.



Disassembly: Step 2

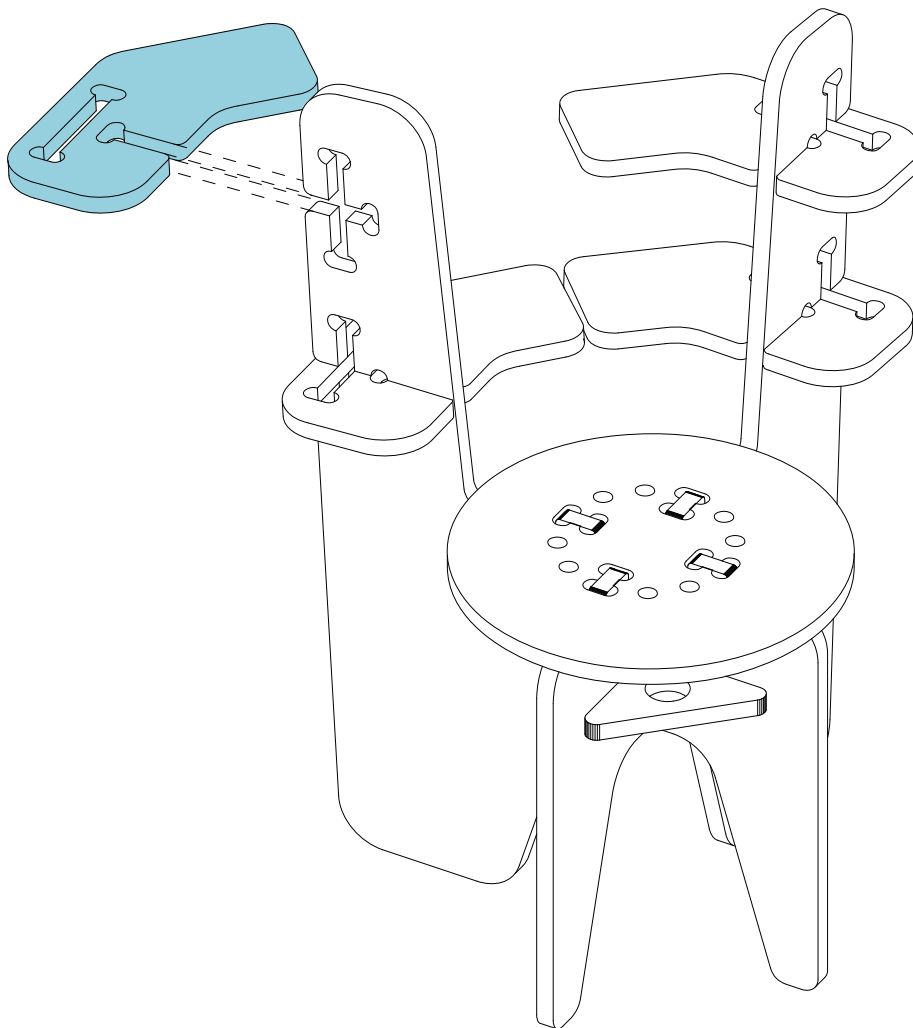
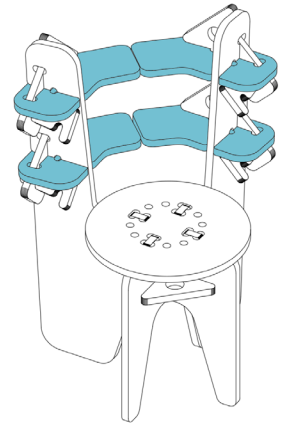
Pieces Required:

(2) Chair Backs Upper 

(2) Chair Backs Lower 


Directions:

- Remove the chair backs from the back of the chair structure as shown below.



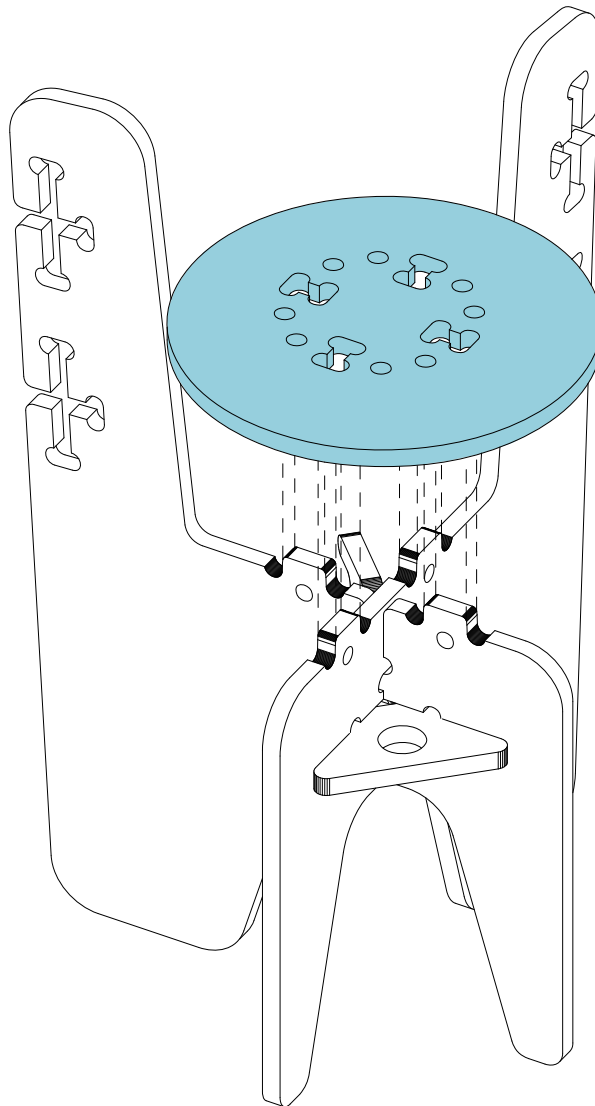
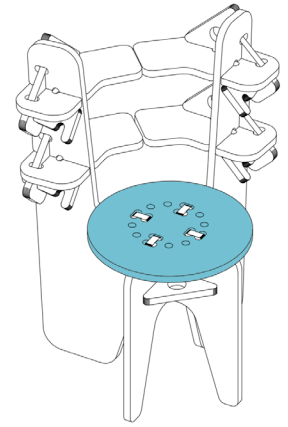
Disassembly: Step 3

Pieces Required:

(1) Seat 

Directions:

- Remove the seat from the structure as shown below.



Disassembly: Step 4

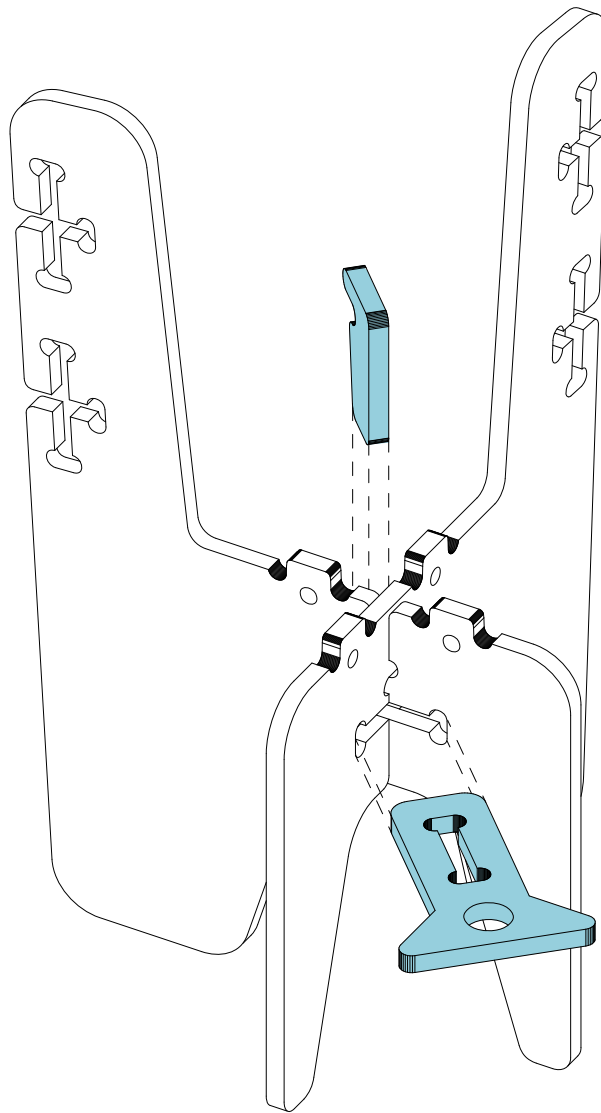
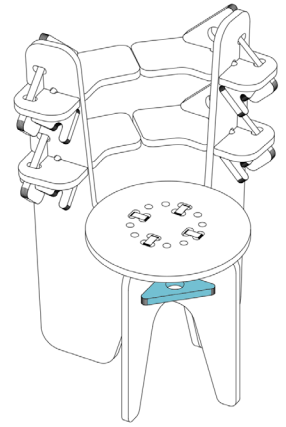
Pieces Required:

(1) Y Lock 

(1) Wedge 

Directions:

- Remove the Y lock and wedge from the bottom of the chair structure.



Disassembly: Step 5

Pieces Required:

(1) Chair Structure A

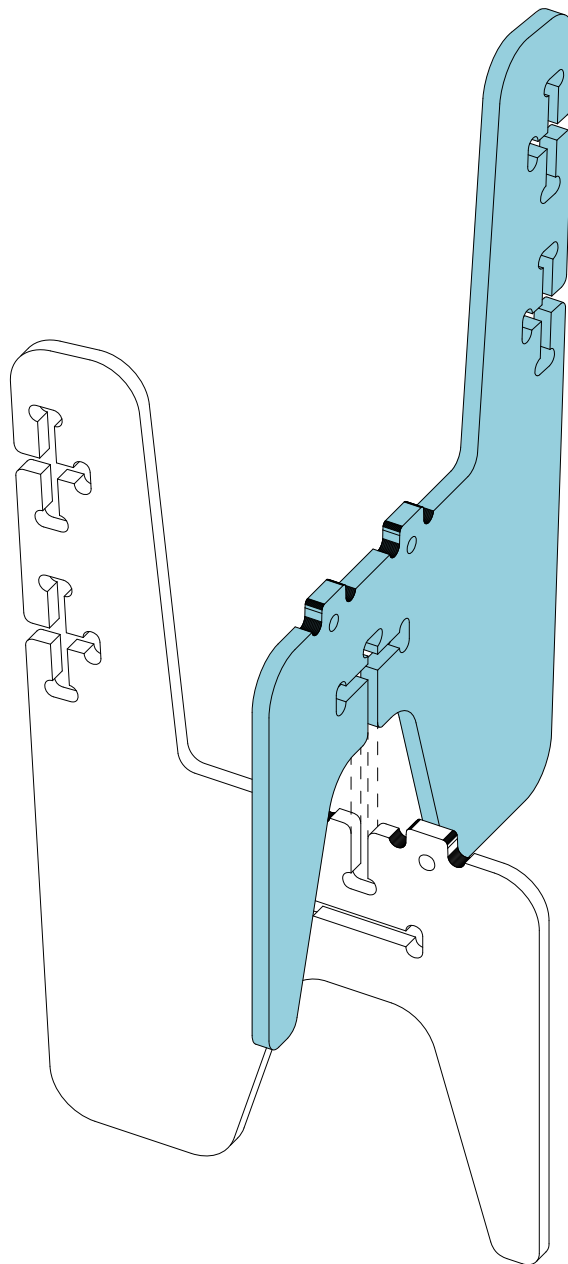
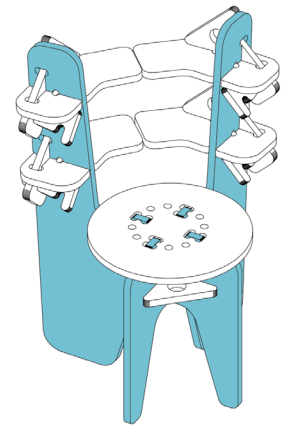


(1) Chair Structure B



Directions:

- Remove the chair structure pieces from each other.



CLEMSON

SCHOOL OF ARCHITECTURE

STUDIO Community + Build

PROFESSOR Dan Harding

YEAR Spring 2018

STUDENTS Linette Green, Ed Moore,
Stevie Chen, Katie Kowalski