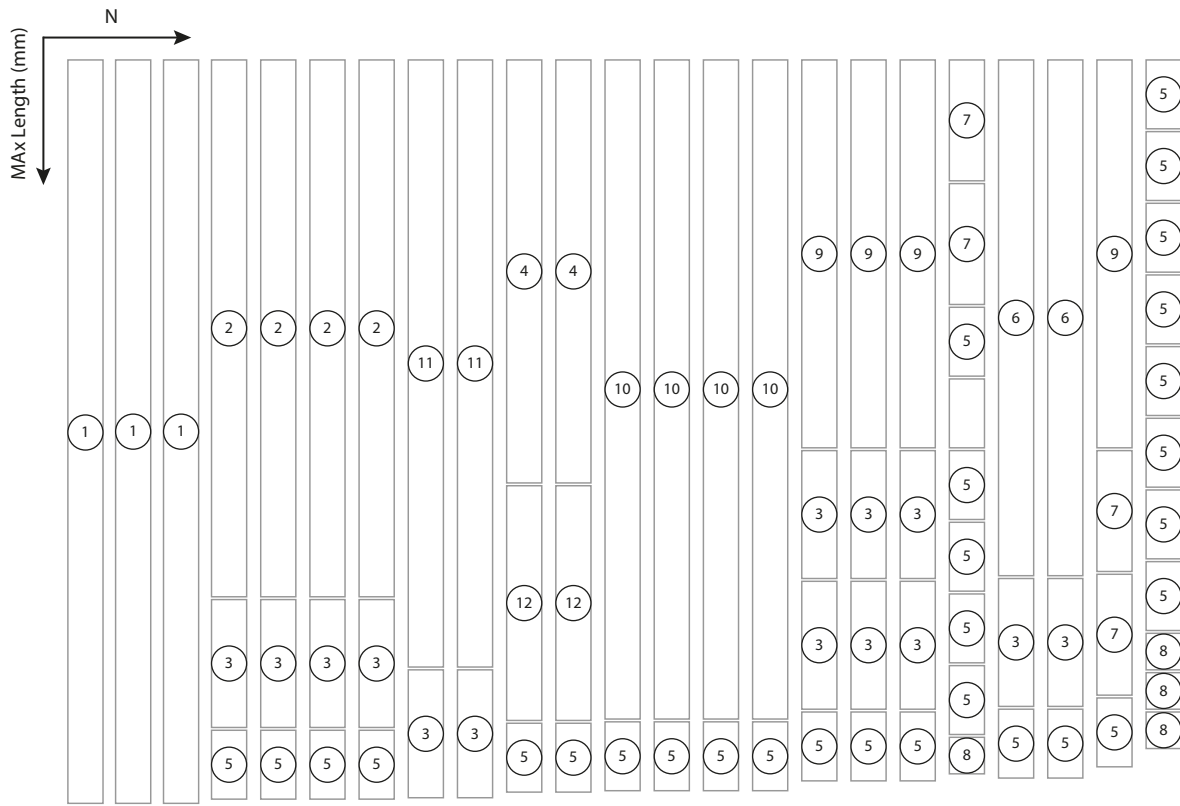
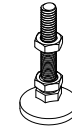


1. Connecting aluminium basic components that constitute the building blocks of the arena structure.
2. Place the aluminium extrusions as displayed and connect them with equally spaced shorter extrusions (ID 5-8) to create the arena floor (see step 1).
3. To create a thread for the adjustable feet, tap one end of each of the arena legs (ID 3) and screw the feet into it. Connect the legs to the arena floor using angle brackets in the locations shown in red. Note: if needed, the adjustable feet allow for levelling of the arena floor.
4. Connecting and assembly of the acrylic honeycomb that will support the hexagonal floor tiles.
5. Acrylic honeycomb assembly.
6. Some of the tiles have slots to accommodate the walls of the arena. The walls are supported by two acrylic wall holders that are attached to the underside of each tile with chloroform. The nest tile is only equipped with 2 smaller wall holders (dotted red lines).
7. Add the hexagonal floor tiles to the arena as shown. Tiles A,B and C have a cut out that will accommodate the walls to create a corridor around the arena.
8. Insertion of the arena walls. The inner walls are narrower compared to the outer walls.
9. Place inner and outer walls around the arena. Note: the inner wall with a slot across the middle allows access to the arena from the nest via the corridor. The nest tile has only an inner wall as the outer one is part of the nest assembly (see Nest Assembly Guideline).
10. Tap both ends of 4 aluminium extrusions (ID 10) that will provide support and stability to arena. Insert one adjustable foot at each end and connect the extrusion (ID 7) to the main arena structure with angle brackets as shown. Note: these feet can then be adjusted to apply pressure and stabilise the arena. We attached 10mm disks to each adjustable foot to distribute the force applied and avoid damaging the ceiling.
11. Add 8 support lateral aluminium extrusions (ID 2-9) to provide lateral stability to the arena.
12. Add 3 aluminium extrusions (ID 1) on top of the arena. This will be used to anchor the top cameras.
13. Assemble the Infrared LEDs extrusions (1m) by first applying a layer of heat resistant silicone onto the base of the extrusions.
14. Press 3 IR LEDs strips into the silicon. Note: take care to remove any excess silicon from connection points or the LEDs themselves.
15. Cover the LEDs with a diffusive panel.
16. Connect two LEDs extrusion with a metal plate and solder the strips. Equip the LEDs extrusion with cable attachment plate, and connect the adjustable suspension cables, two per plate.
17. Suspend 6 LEDs assembly from the top most lateral support aluminium extrusions of the arena. Note: use the adjustable suspension cable to vary the height and the angle of the LEDs as needed.
18. Attach the snap-on 3D printed wall joint to stabilise the inner and outer walls.



ALUMINIUM EXTRUSIONS

ID	Length (mm)
1	3000
2	2170
3	530
4	1715
5	290.34
6	2085
7	500
8	160.2
9	1572.15
10	2660
11	2455
12	955



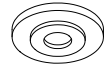
ADJUSTABLE FOOT



WALL JOINT



ANGLE BRACKET



CEILING DISK



INSERTION NUTS

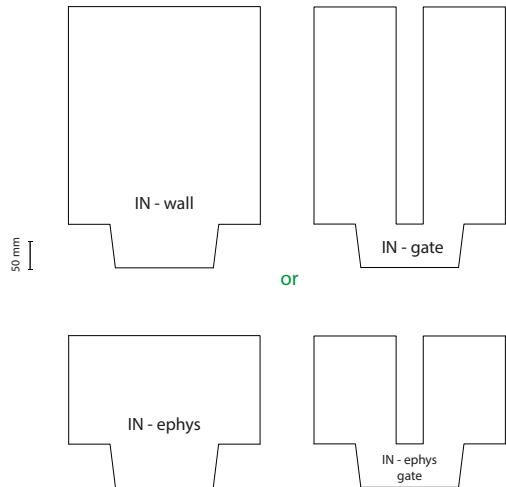


CAP SCREW M6

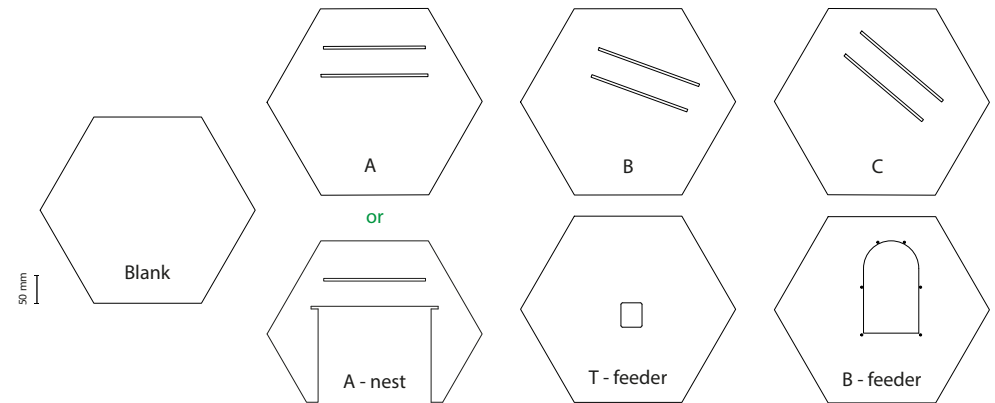


COUNTERSUNK SCREW M6

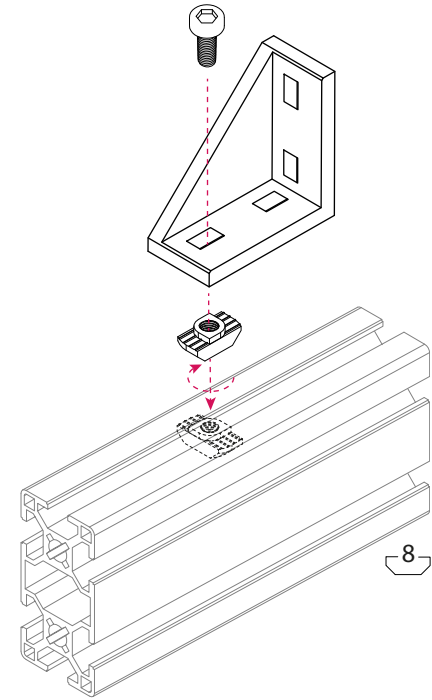
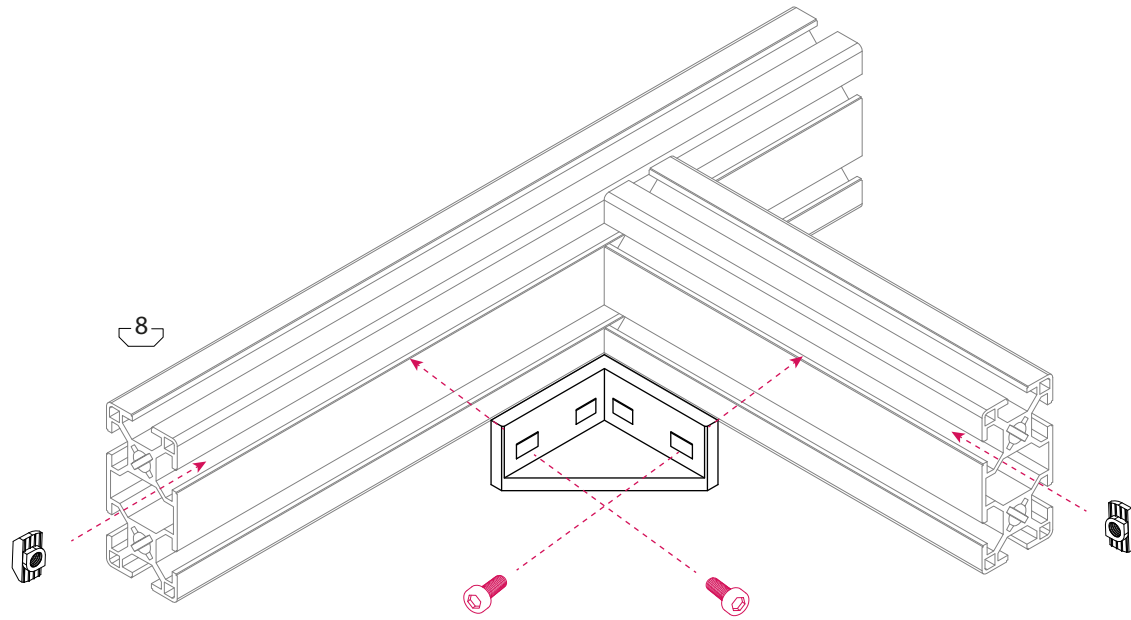
ARENA WALLS

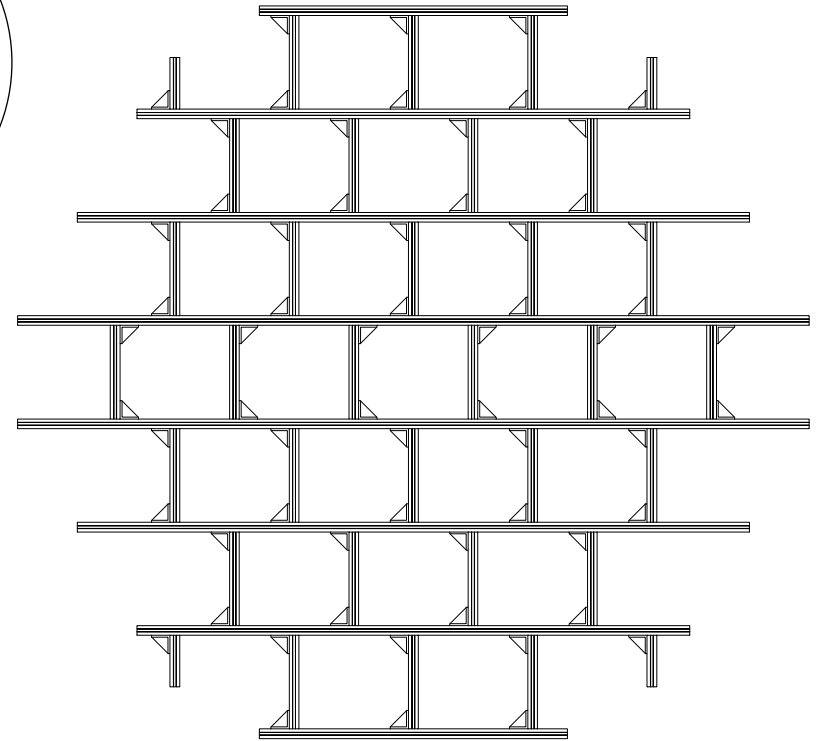
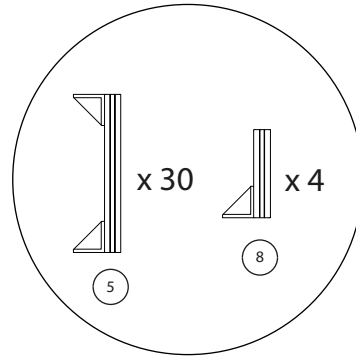
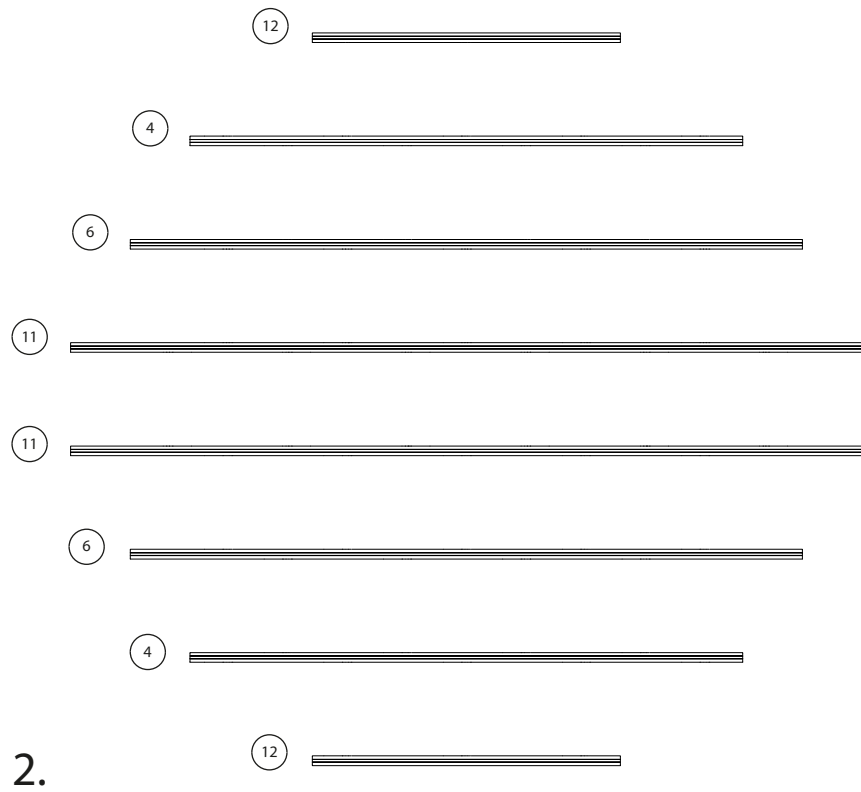


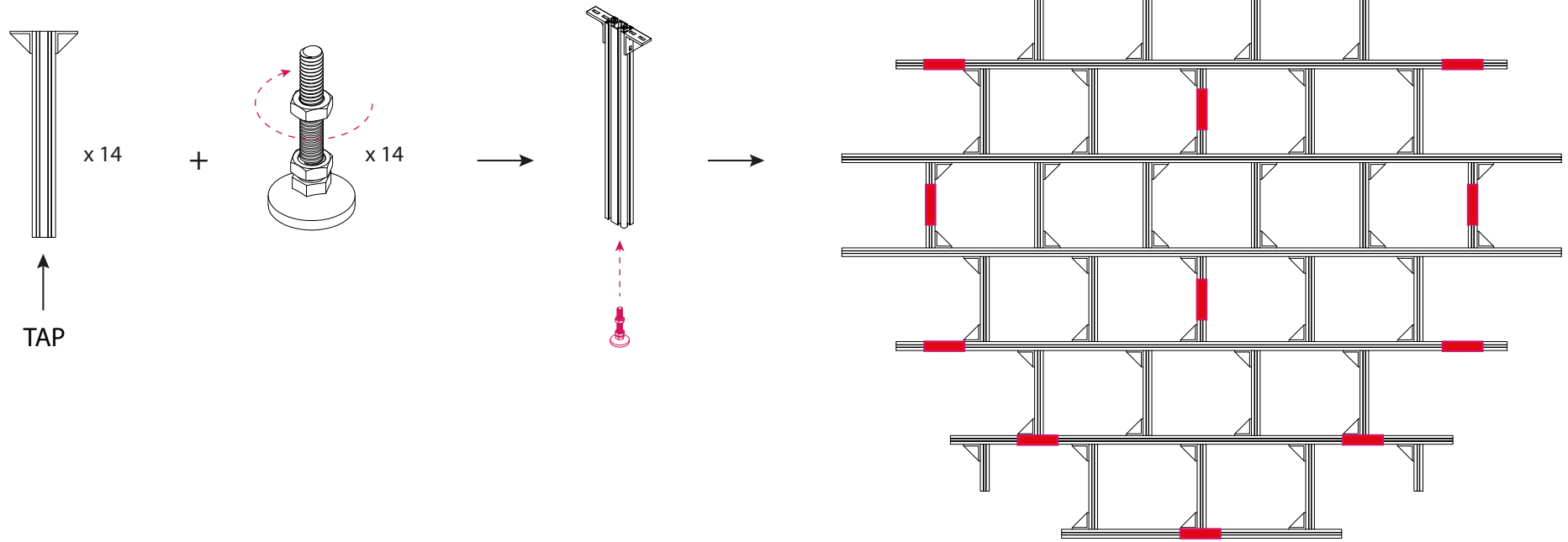
HEXAGONAL FLOOR TILES



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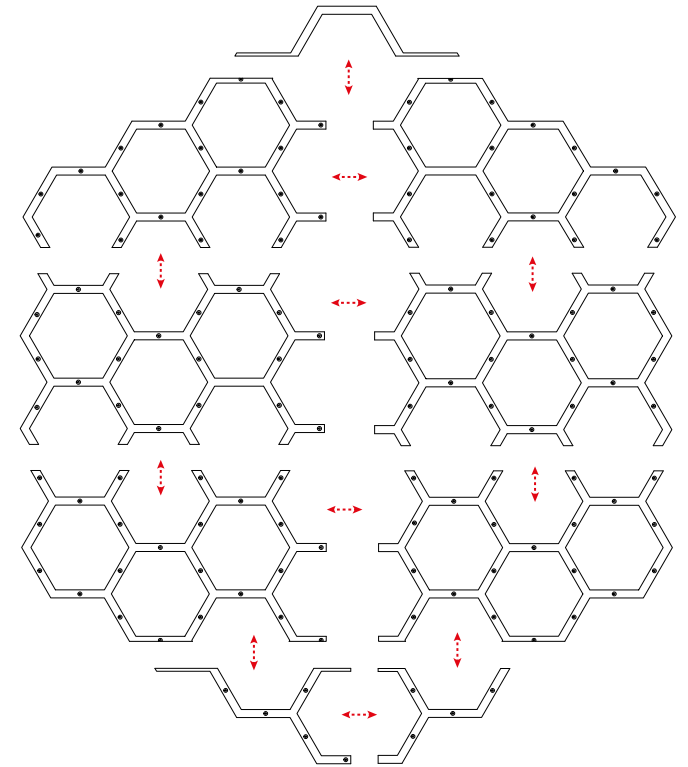
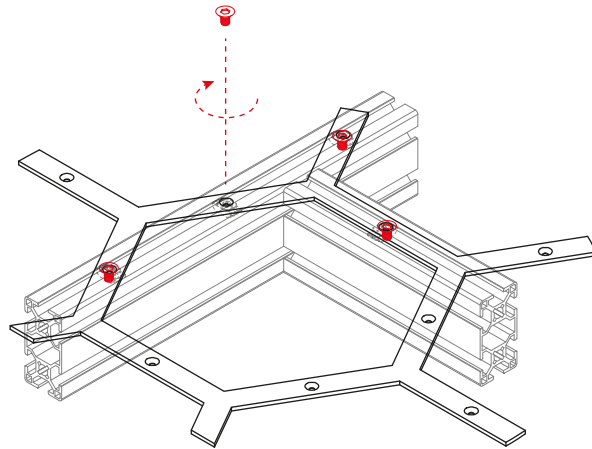
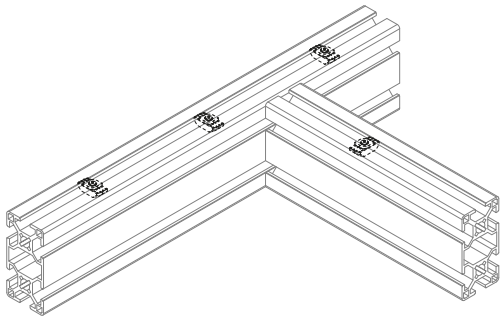
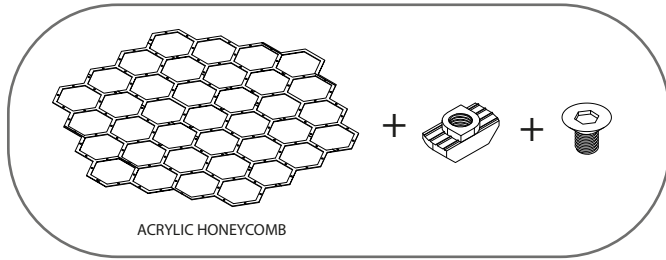


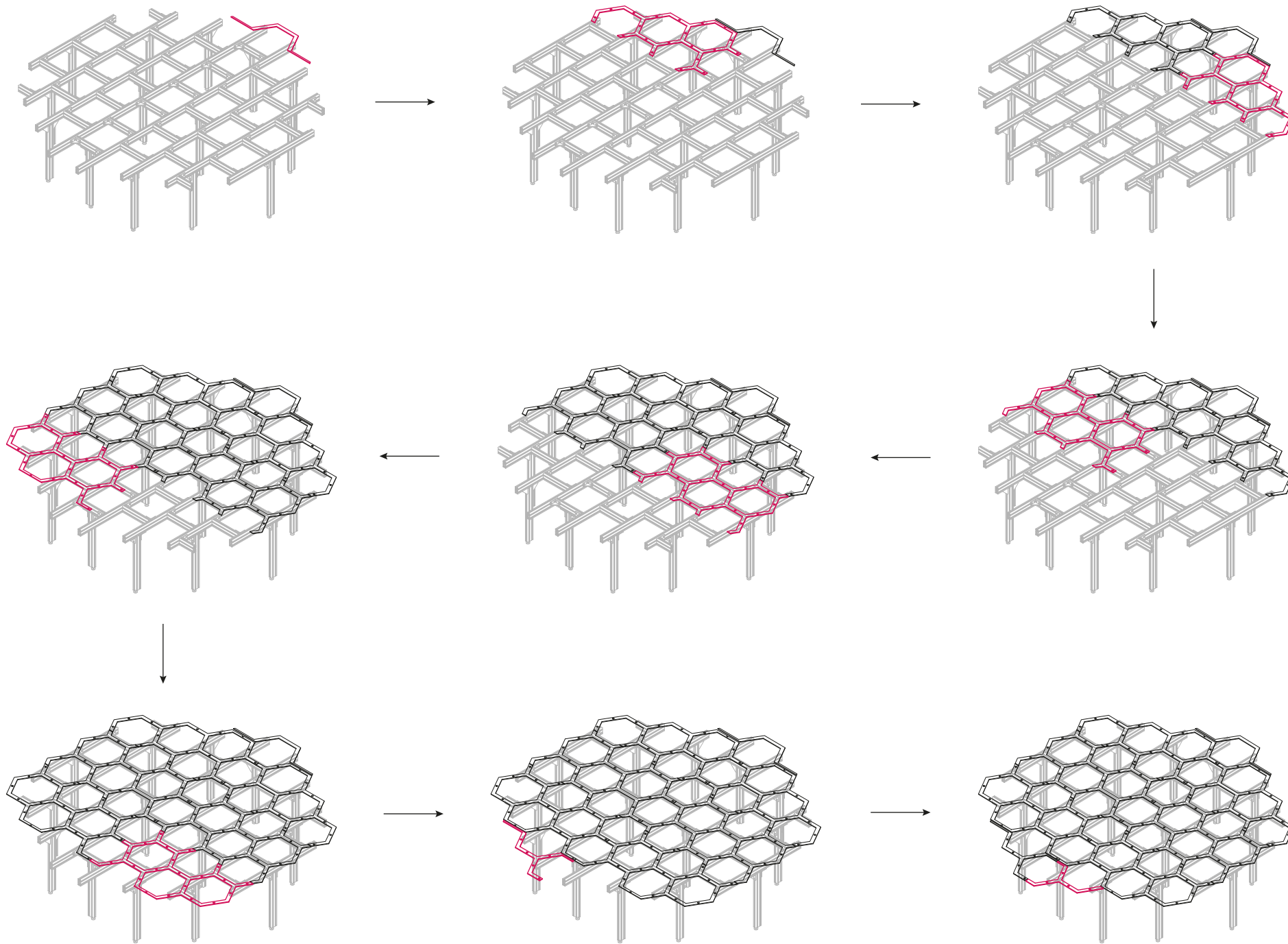


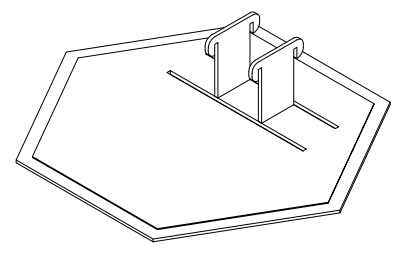
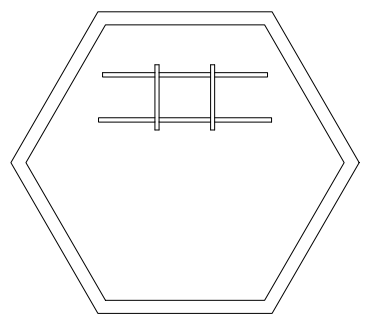
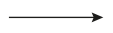
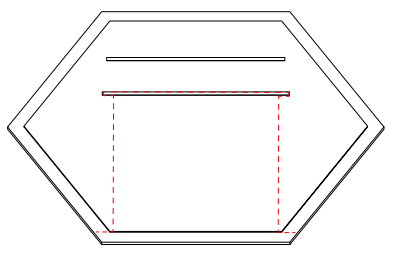
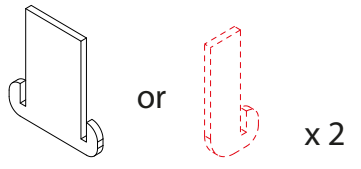


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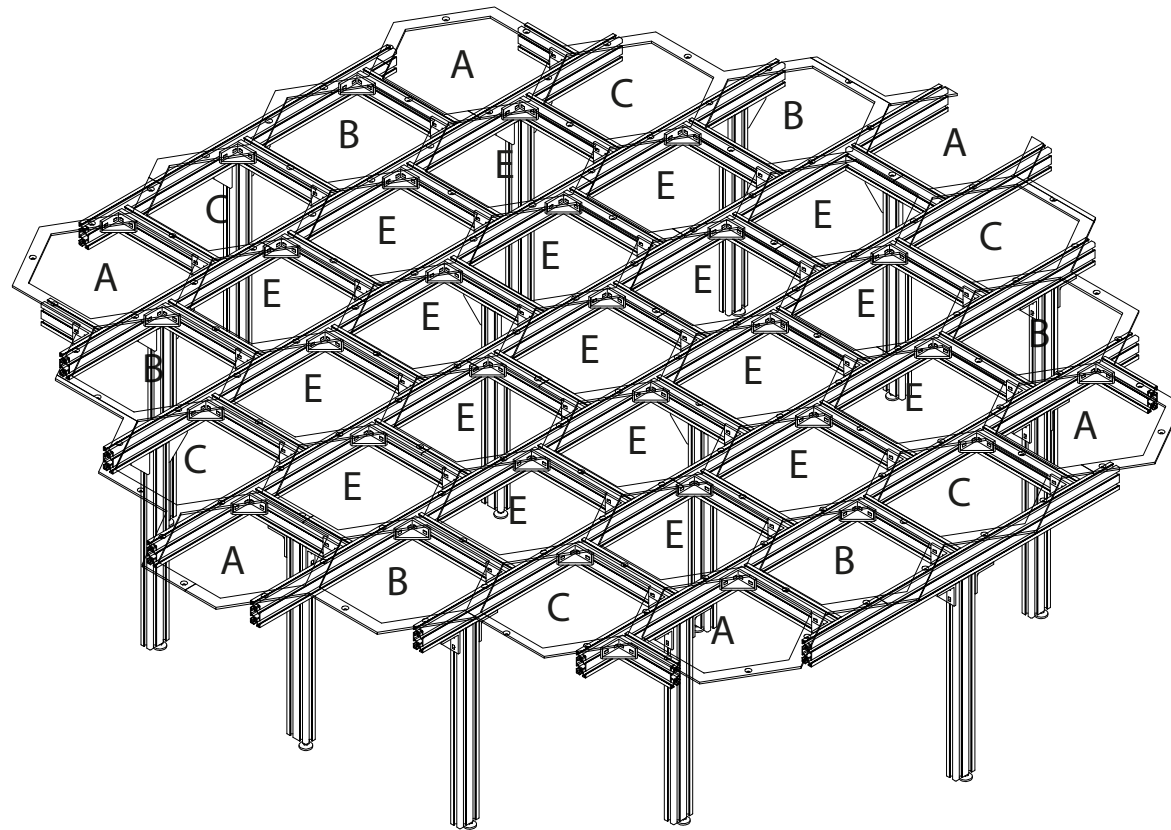
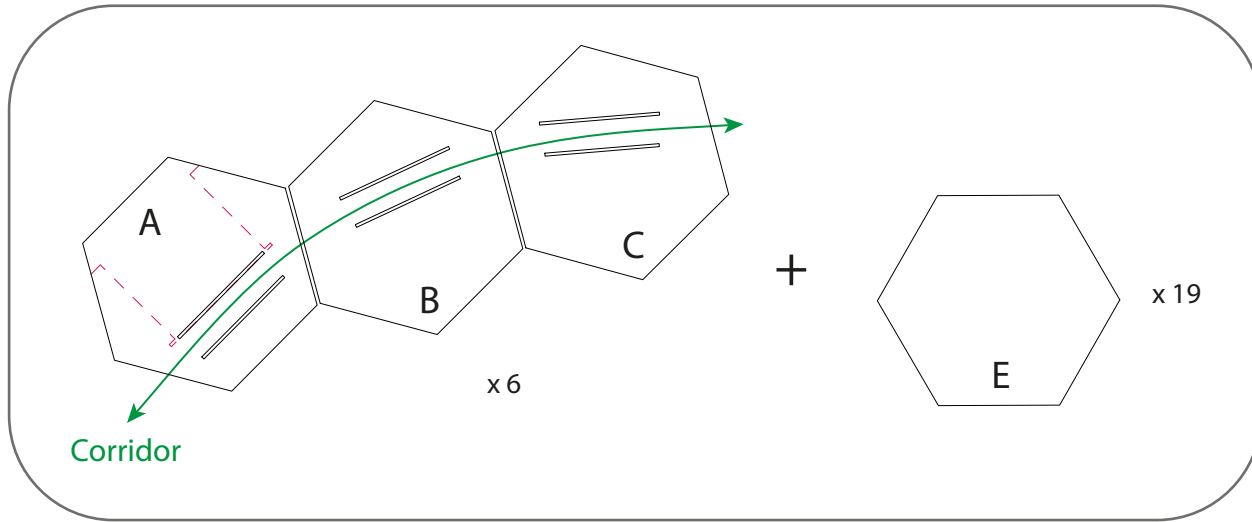
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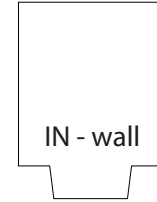
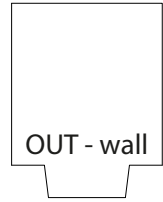




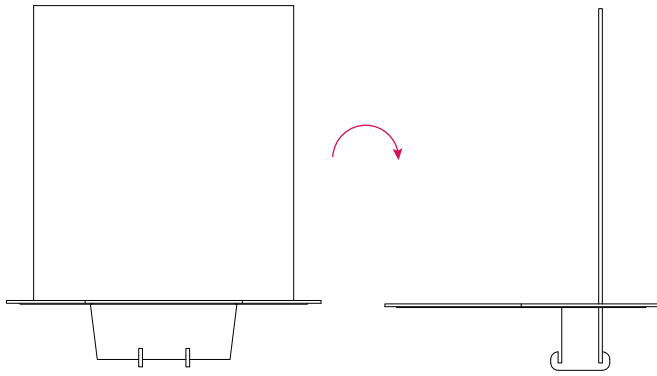


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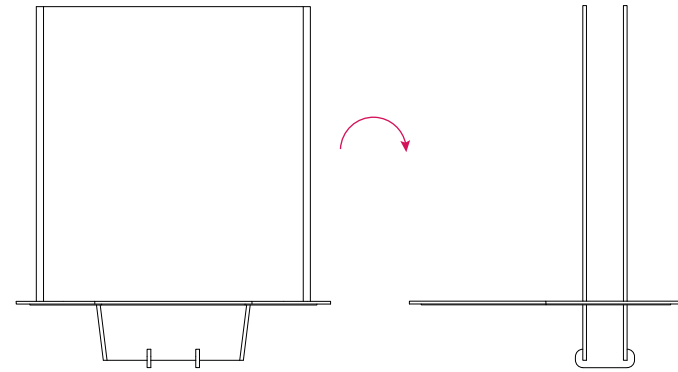


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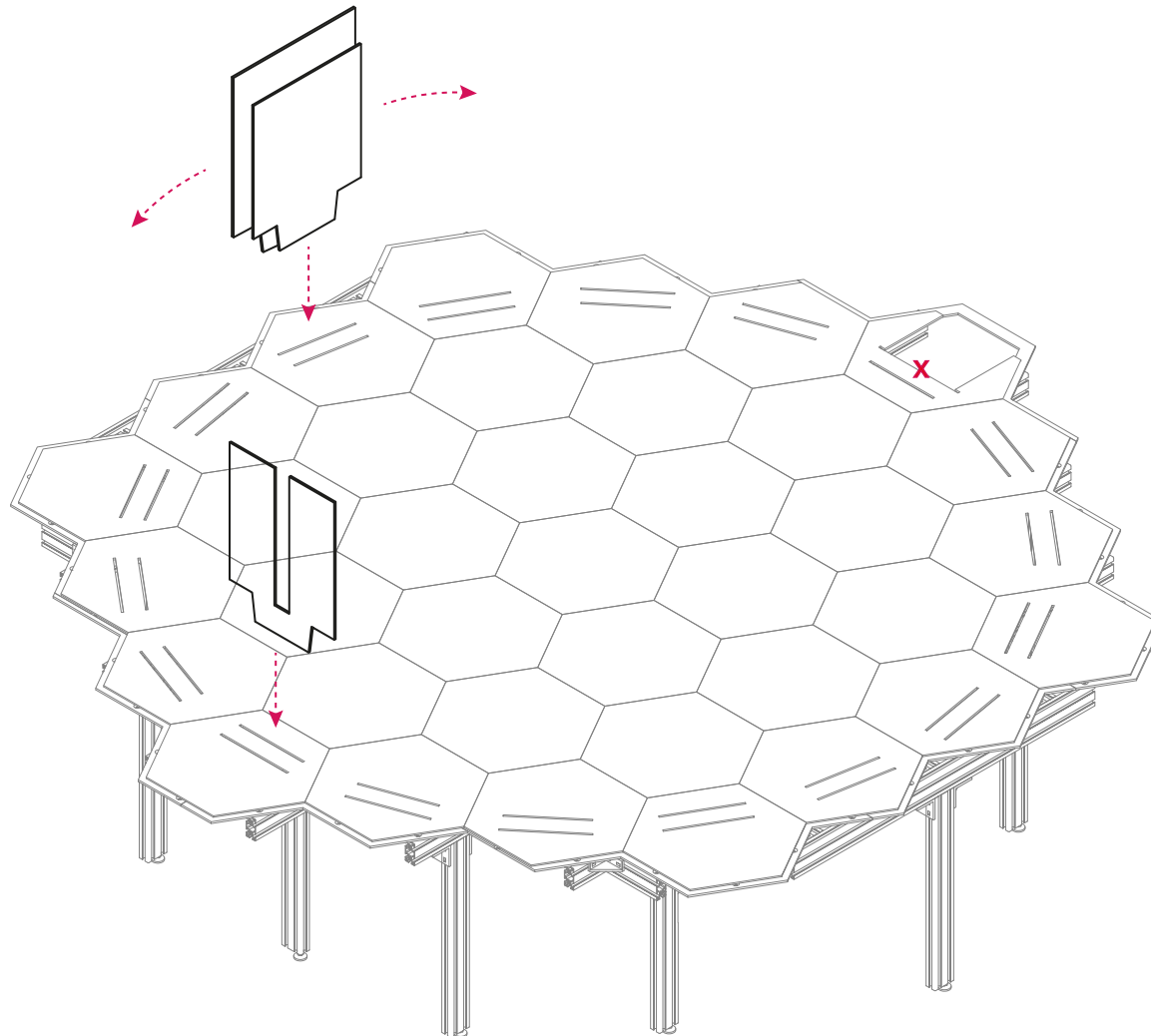
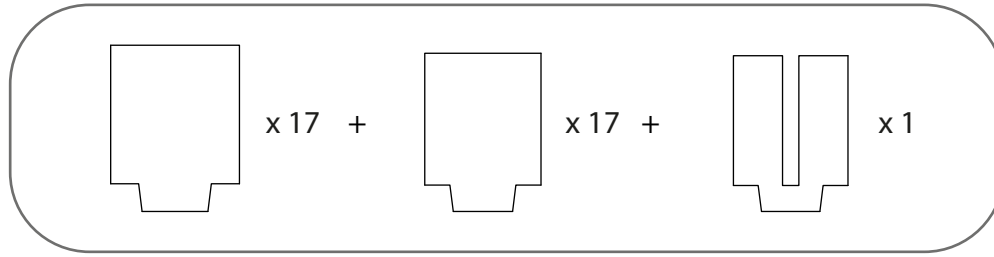
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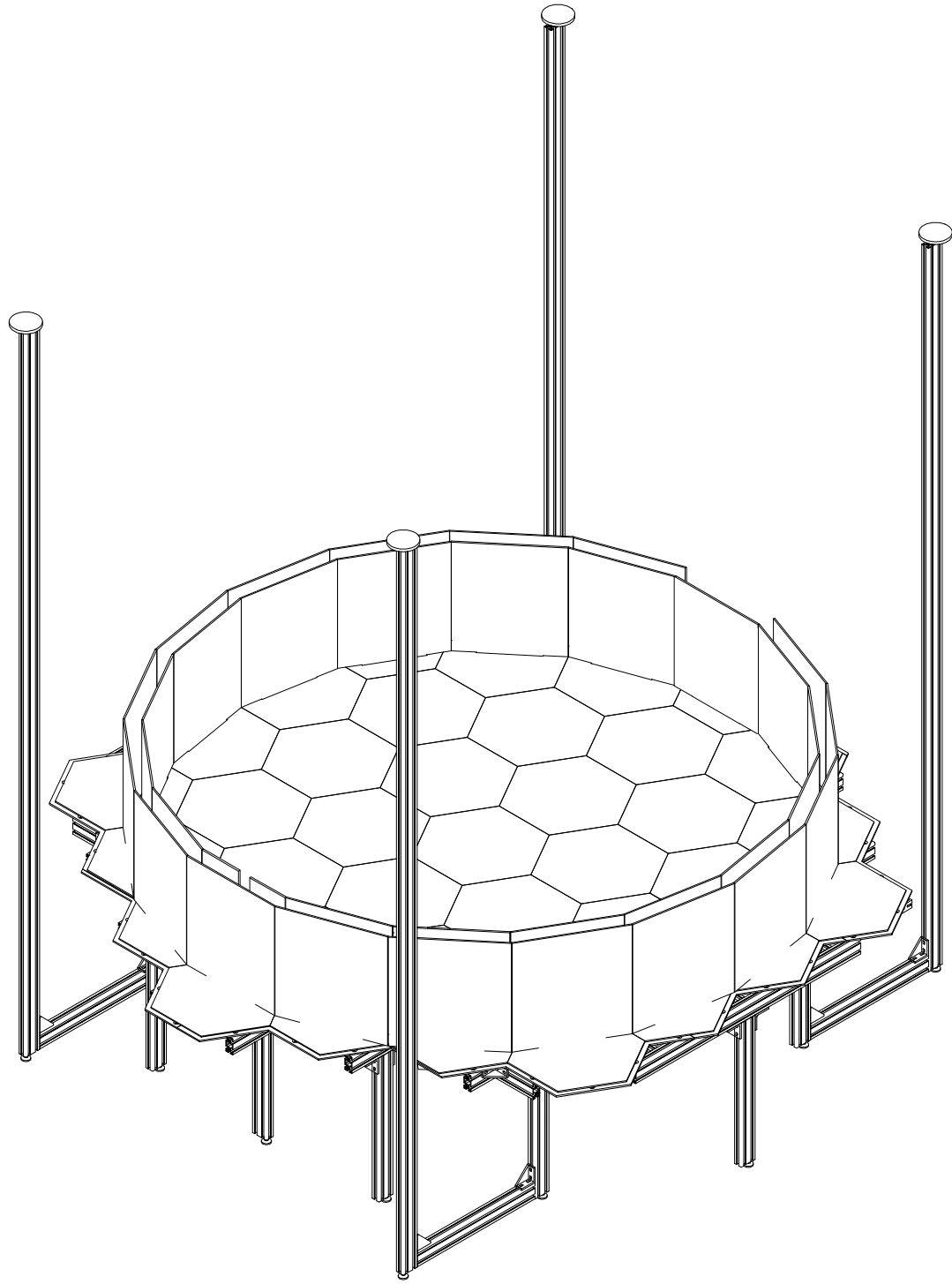
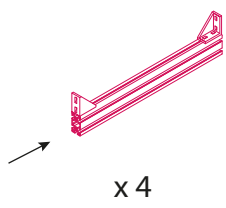
SIDE VIEW



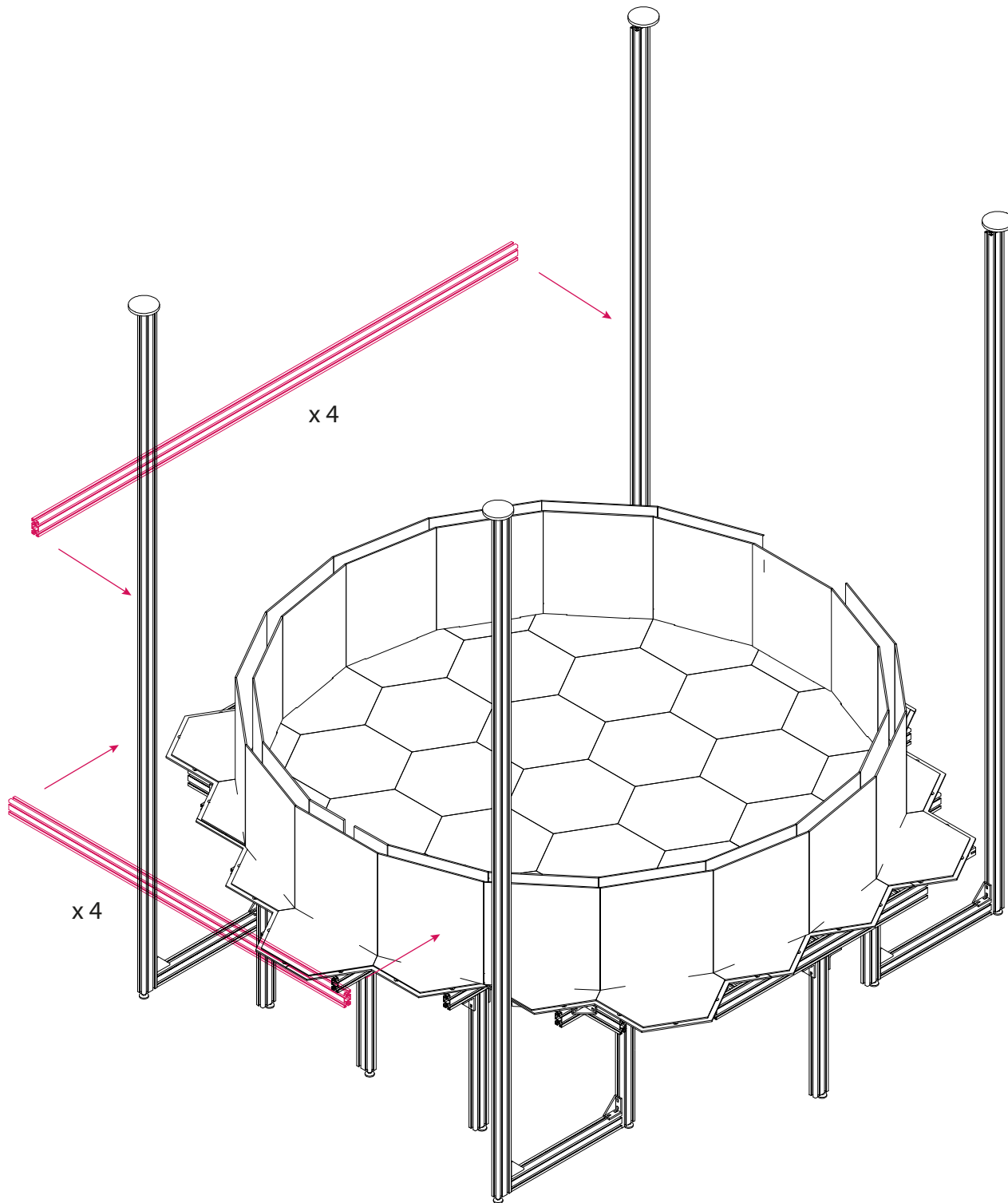
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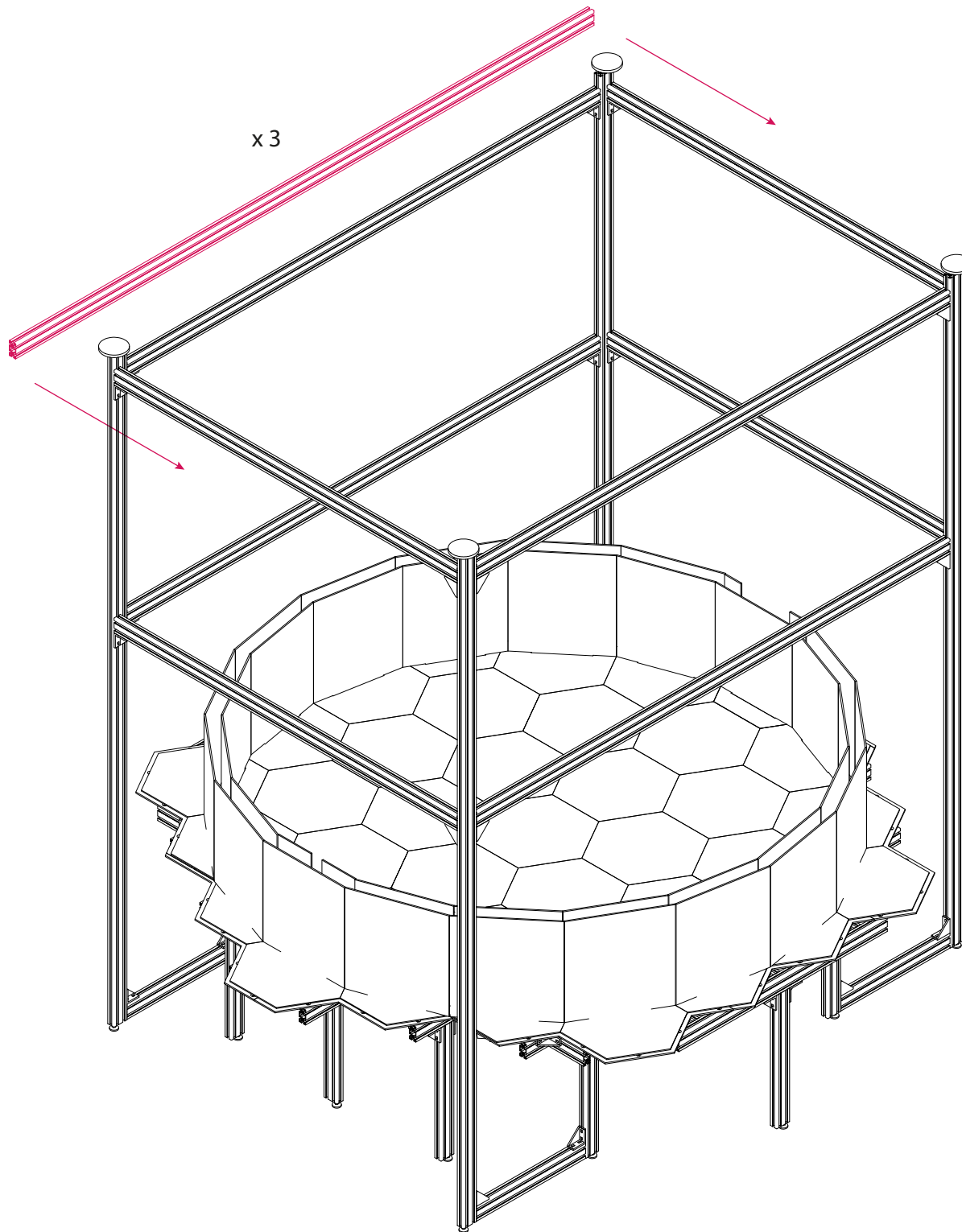
SIDE VIEW



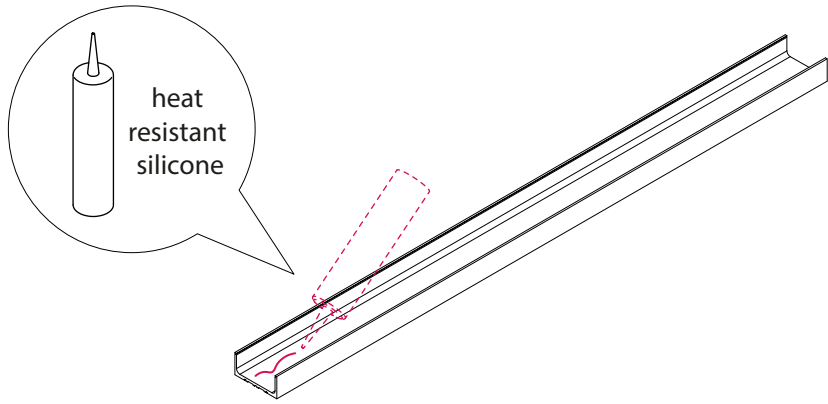


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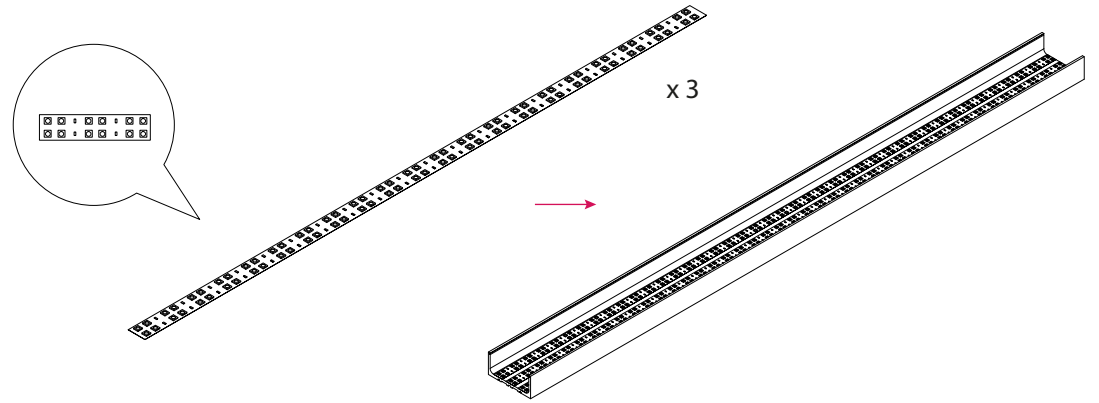




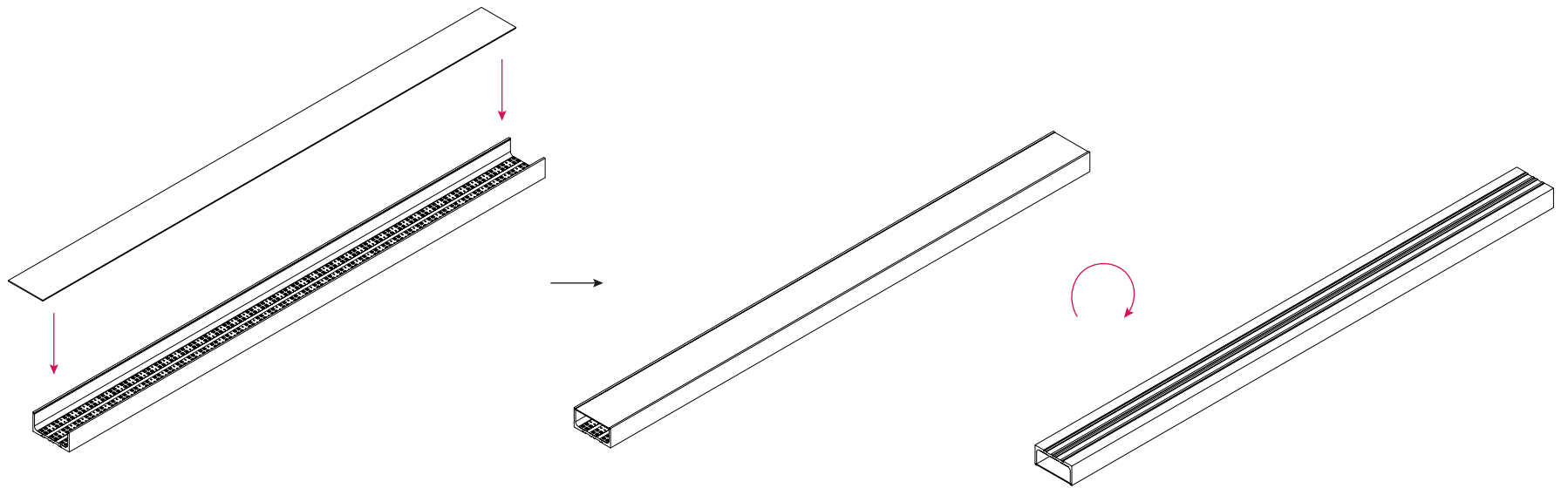
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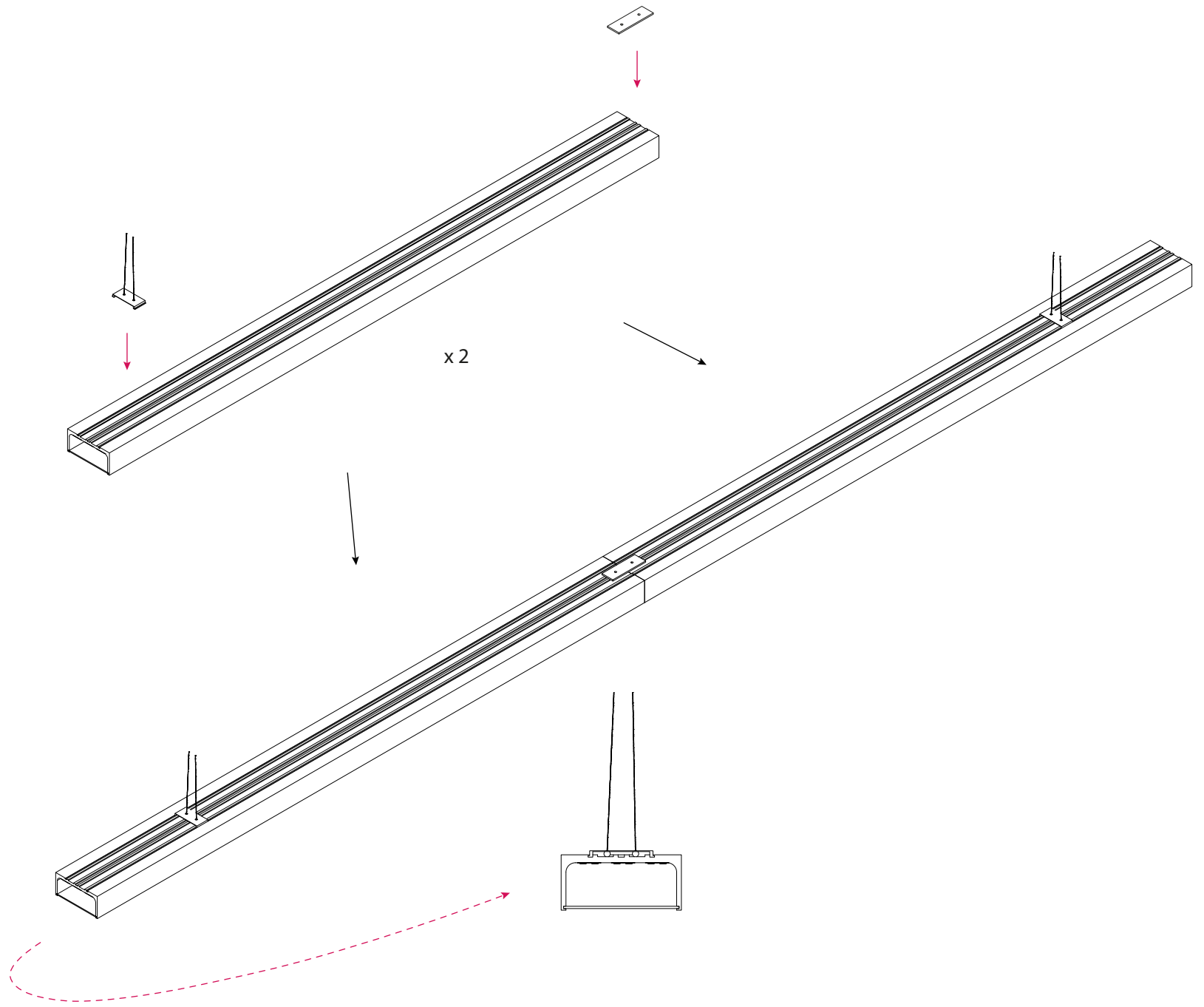
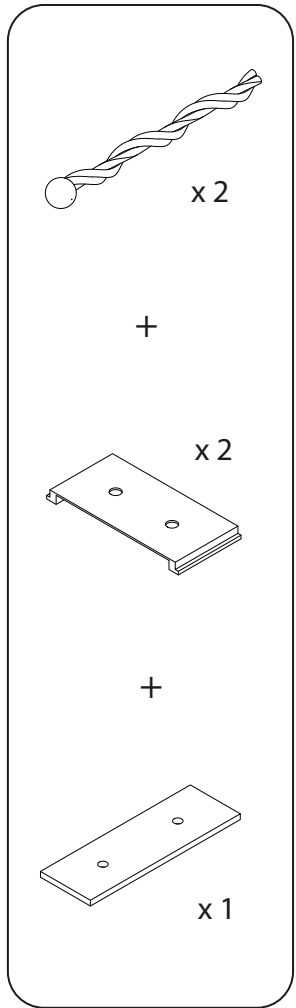
13.



14.



15.



16.

x6

