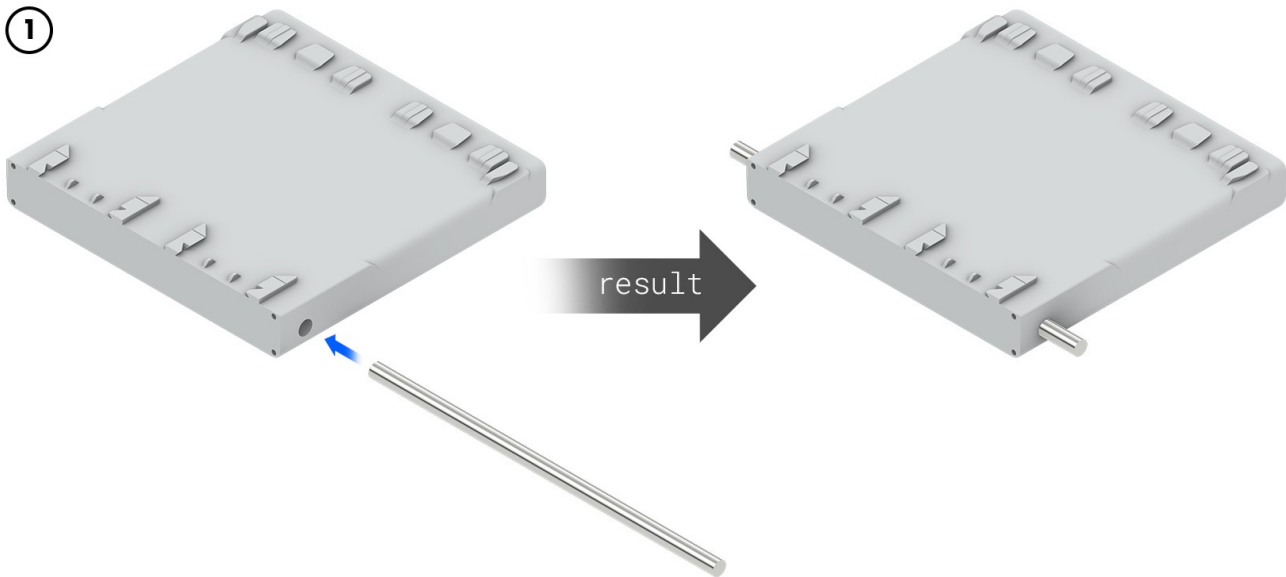


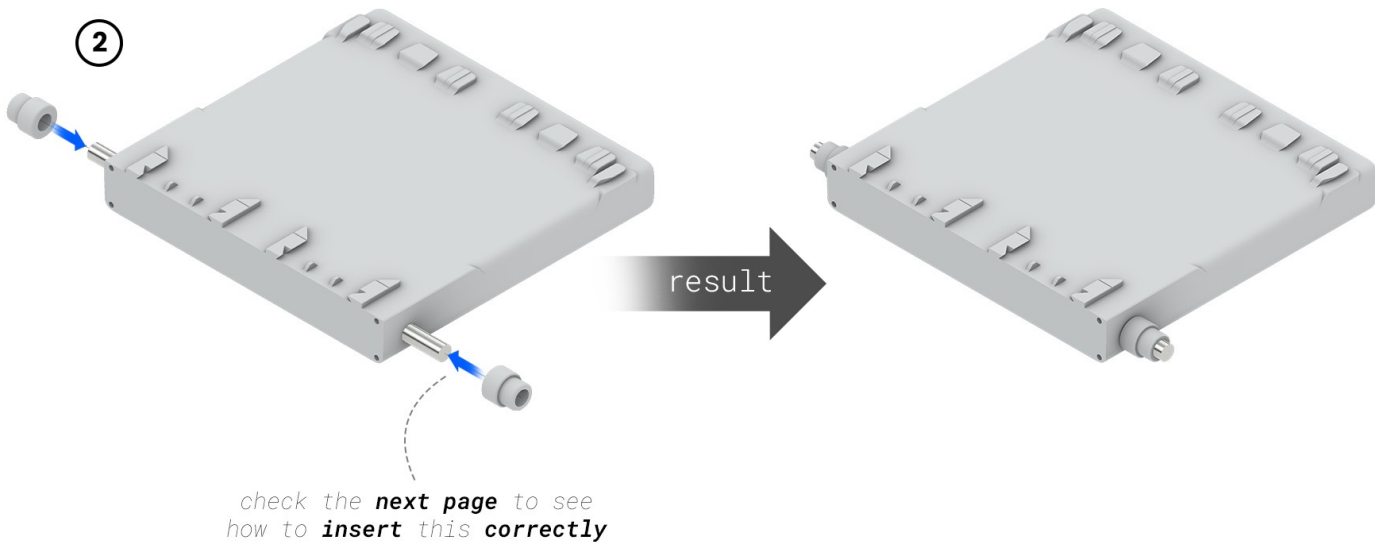


this is a tower made from L and S modules of different heights,
we can use both wide L-width backbone parts, or universal parts

①

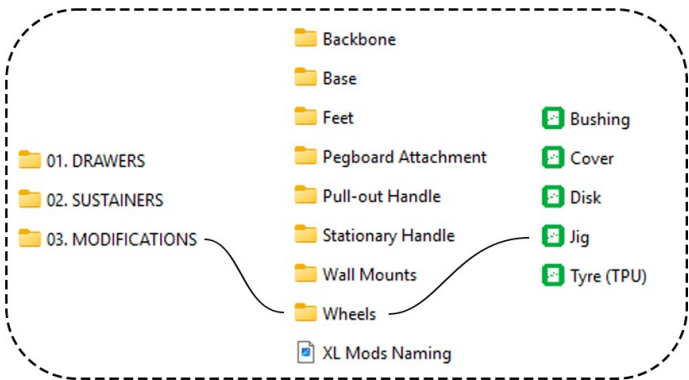
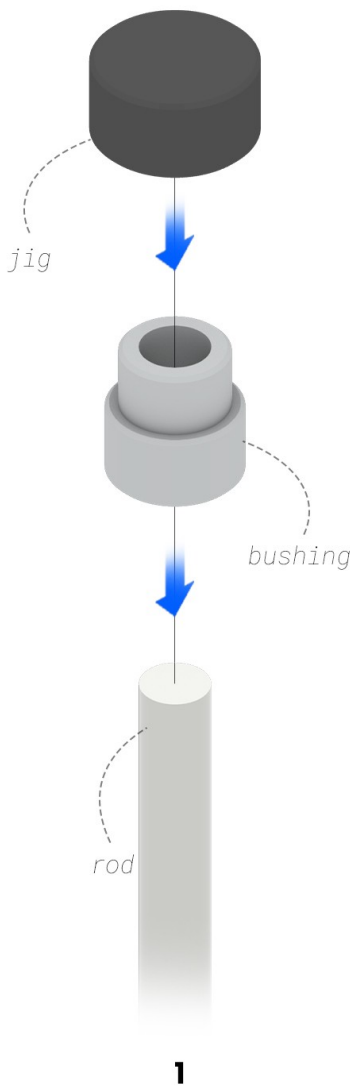


②

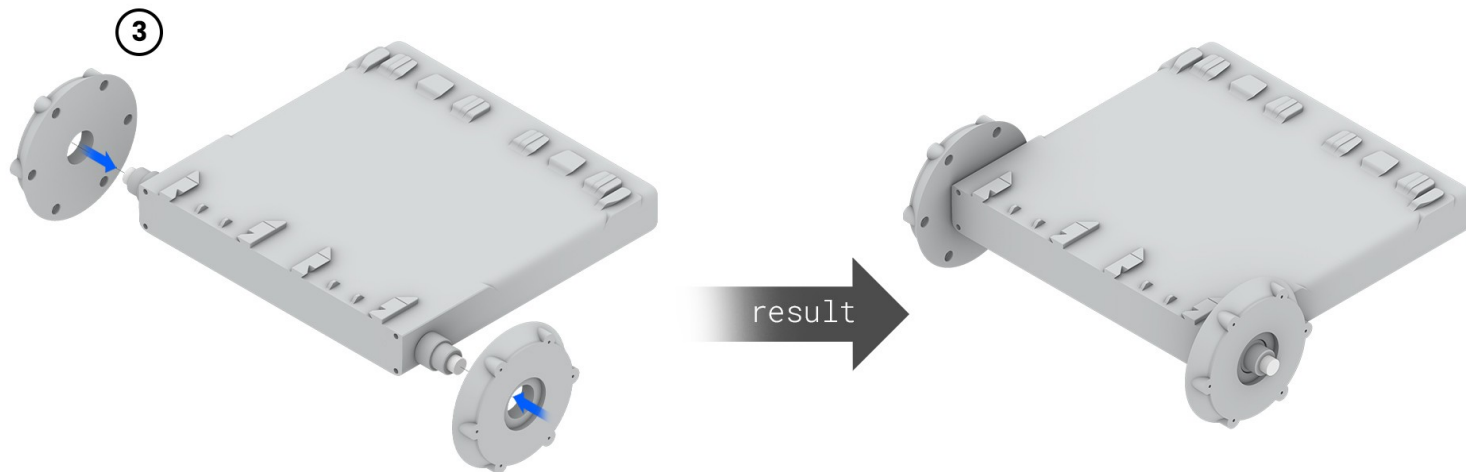
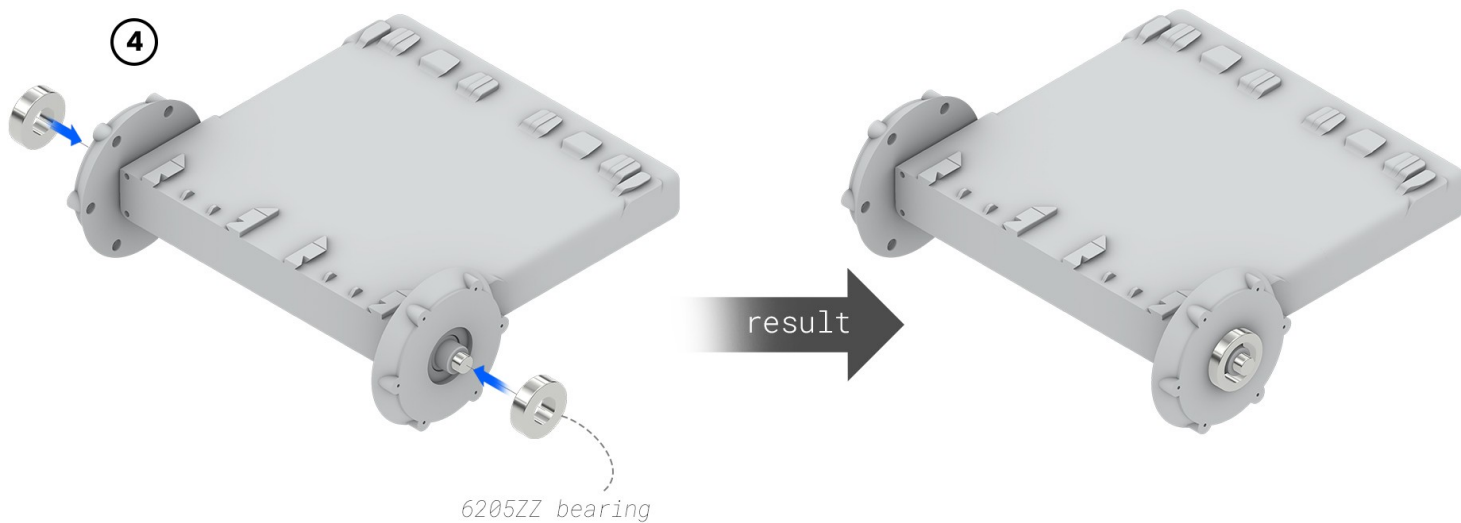


1. cut a rod to 504MM for XL, or 414MM=L, 338MM=M and 248=S, and push it into a base
2. use a special jig to push the bushings from both sides on a rod (see *next page*)

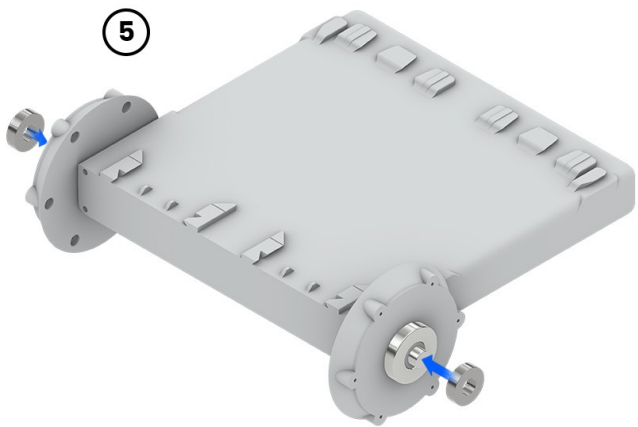
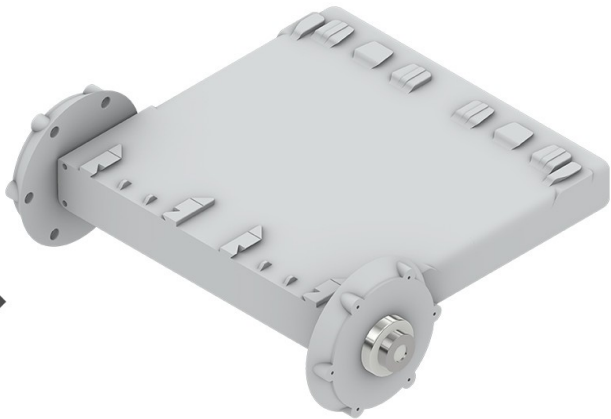
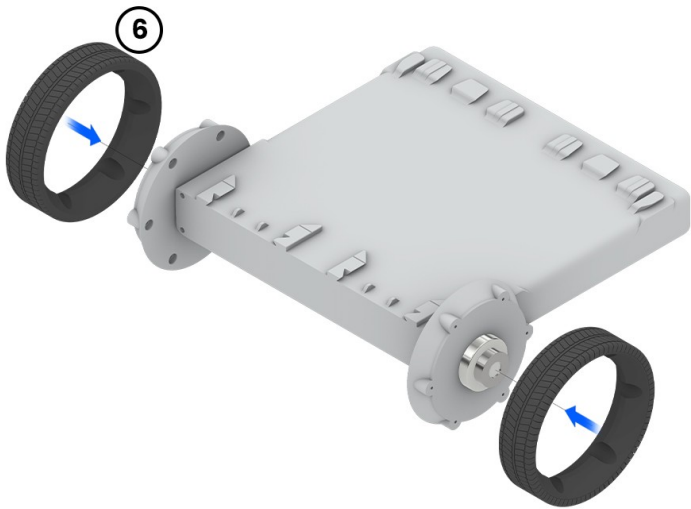
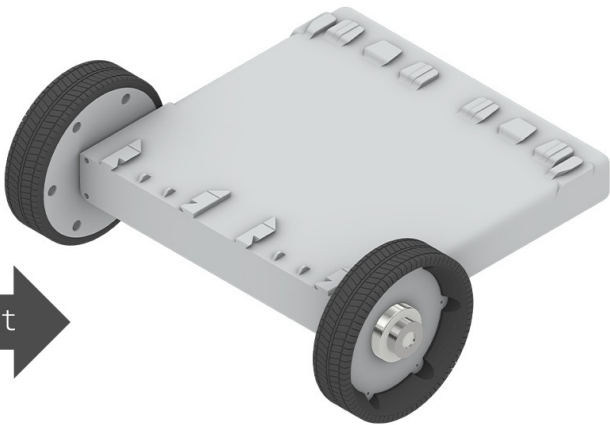
here's how to find jig



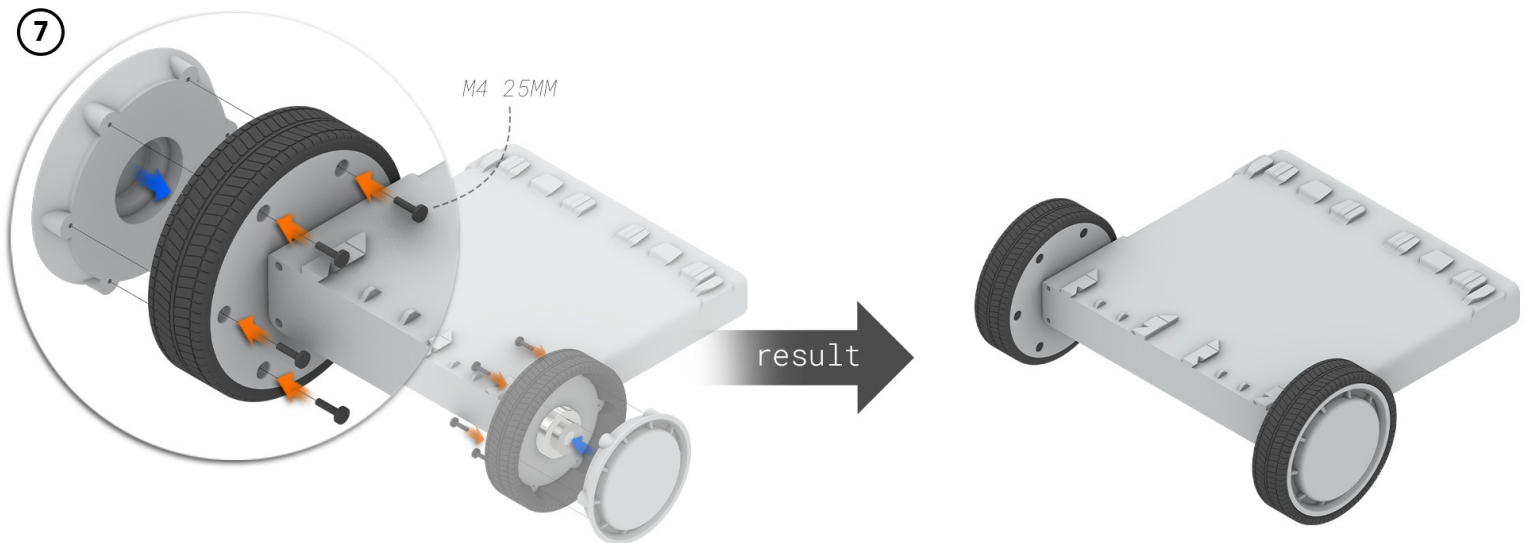
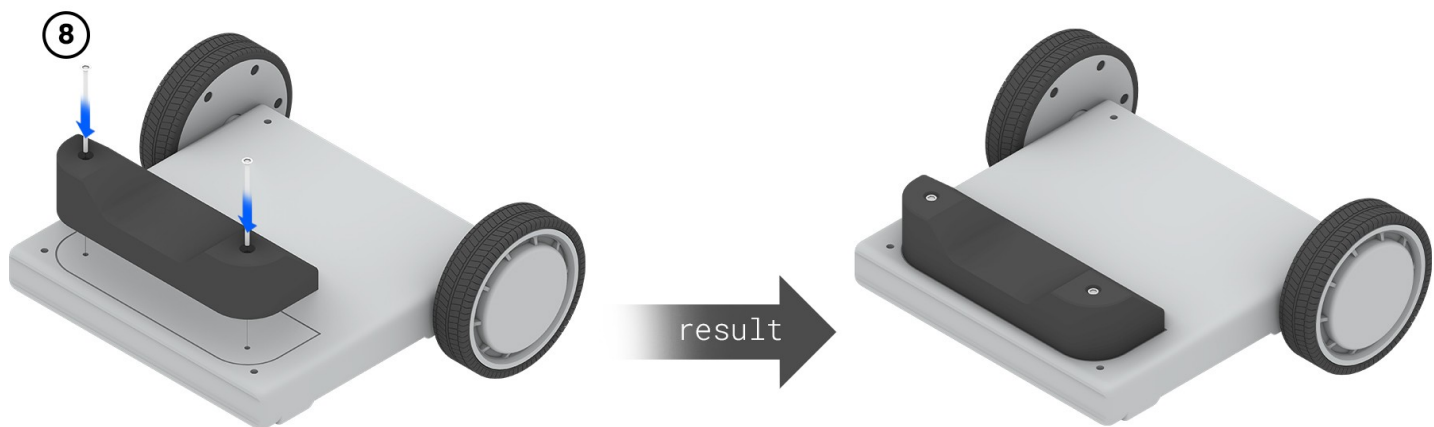
1. push bushing in first, then a jig, to have 10MM of a rod sticking out of the bushing
2. it should look like this, after the first step
3. take out the jig, after that



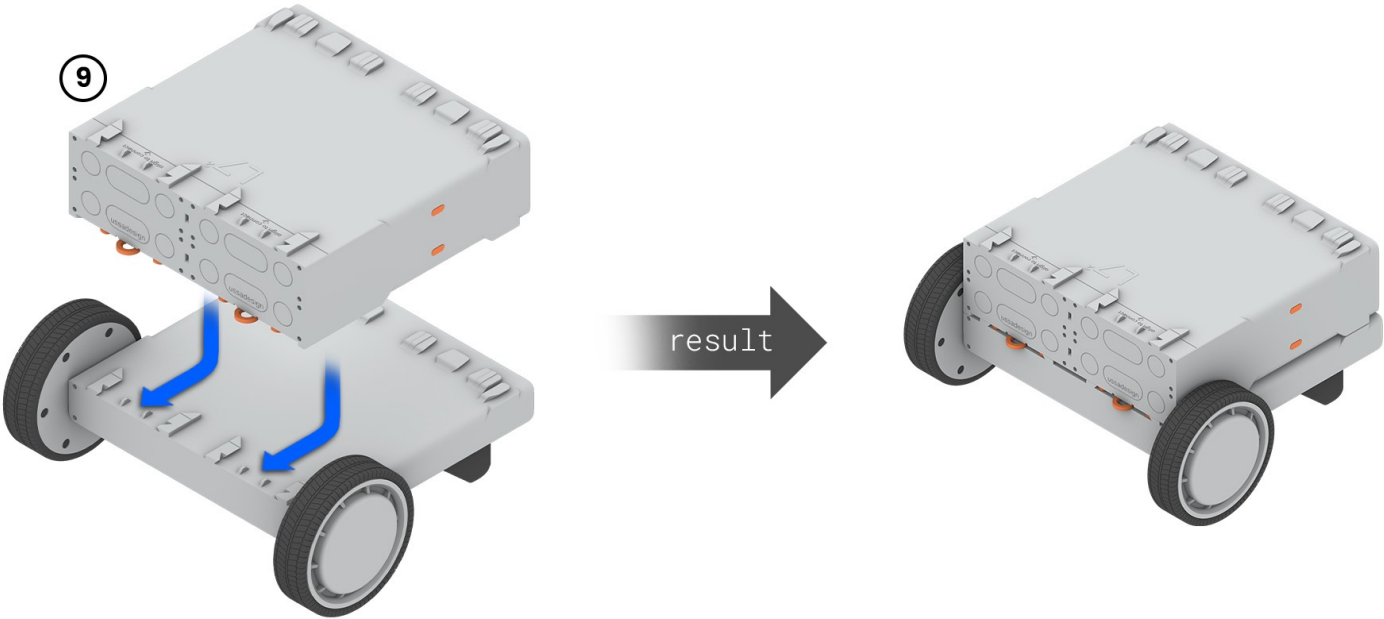
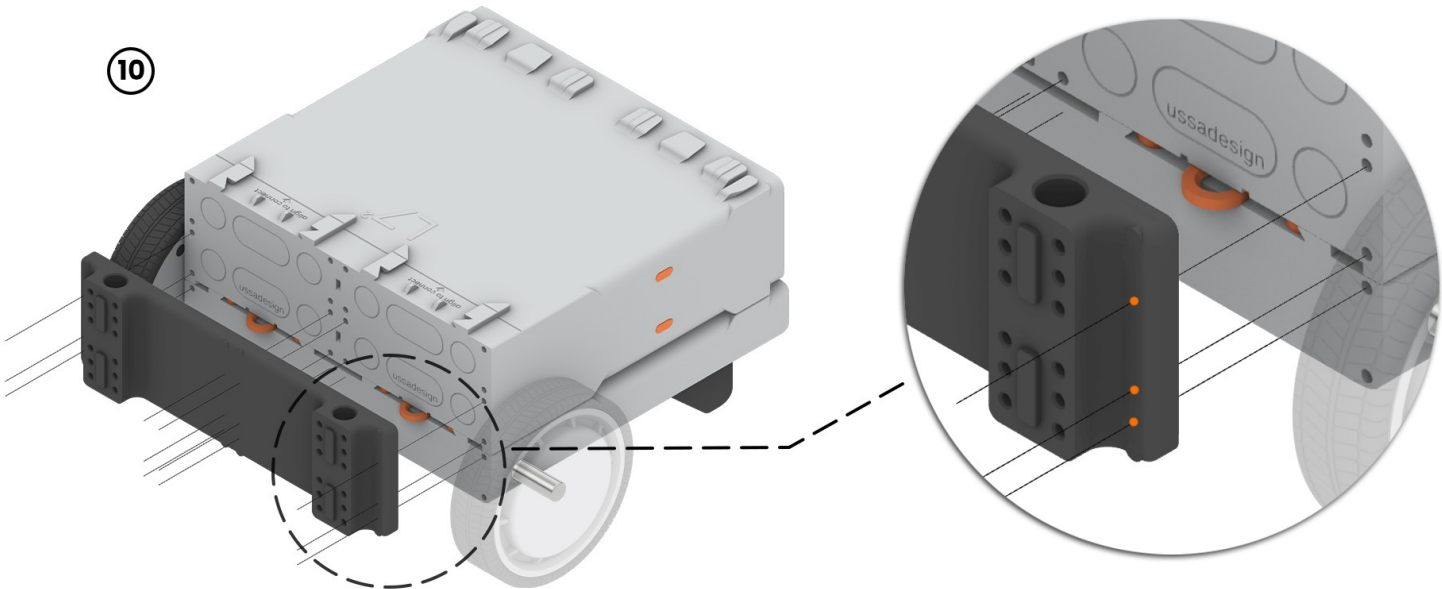
3. place disks from both sides of the rod, it should get on a bushing
4. push bearings (6205ZZ, 25d-52D-15MM thickness) on printed bushings



5. after you get bearings on, we need to stop them with SCSAWs (16d, 30D, 10MM thick)
6. we recommend using TPU for the tires, after printing, slide them on disks

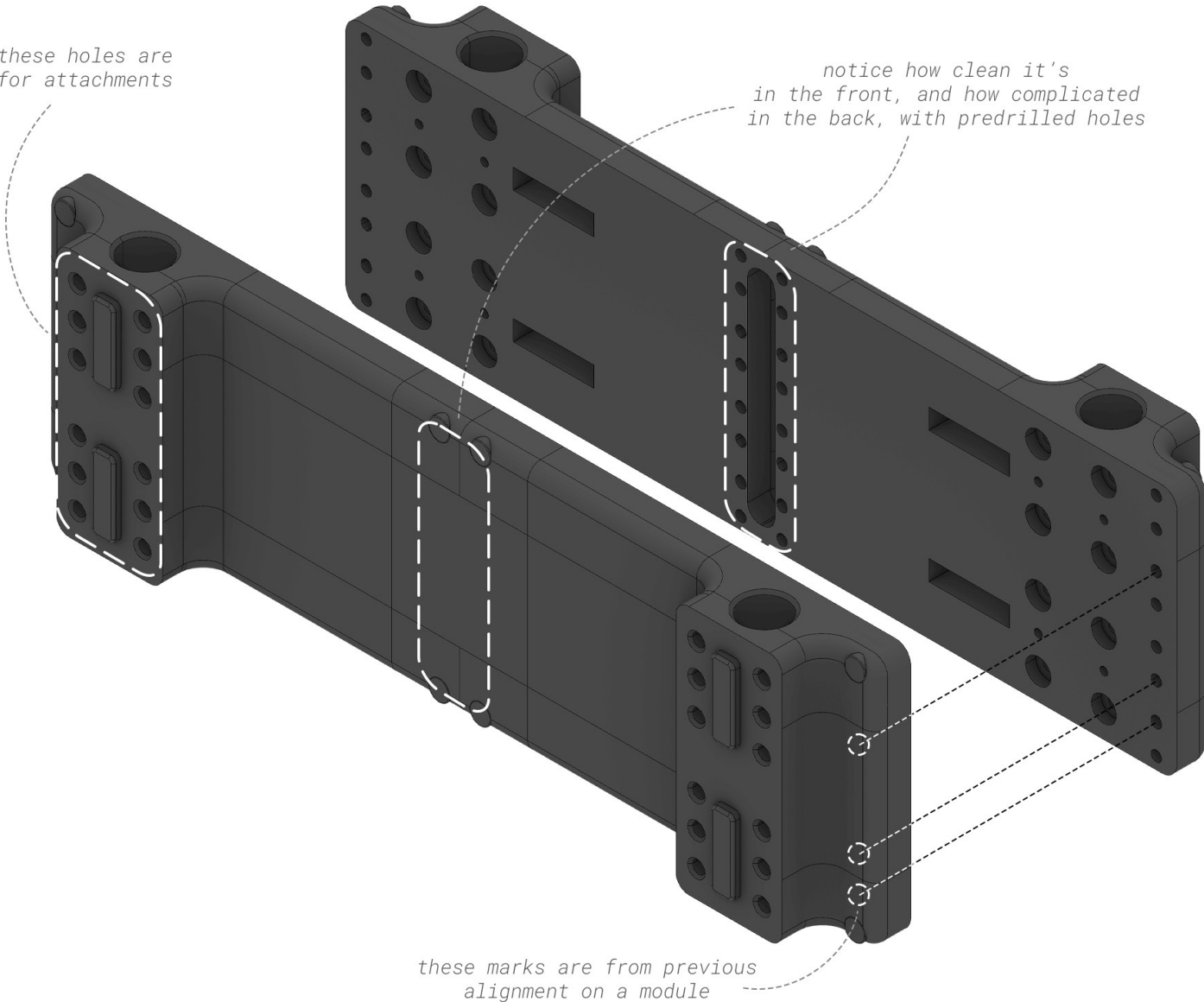


7. use a "cover" part to close it up with 6 M4 25MM bolts per wheel
8. flip it upside down and attach the necessary size foot with M6 90MM

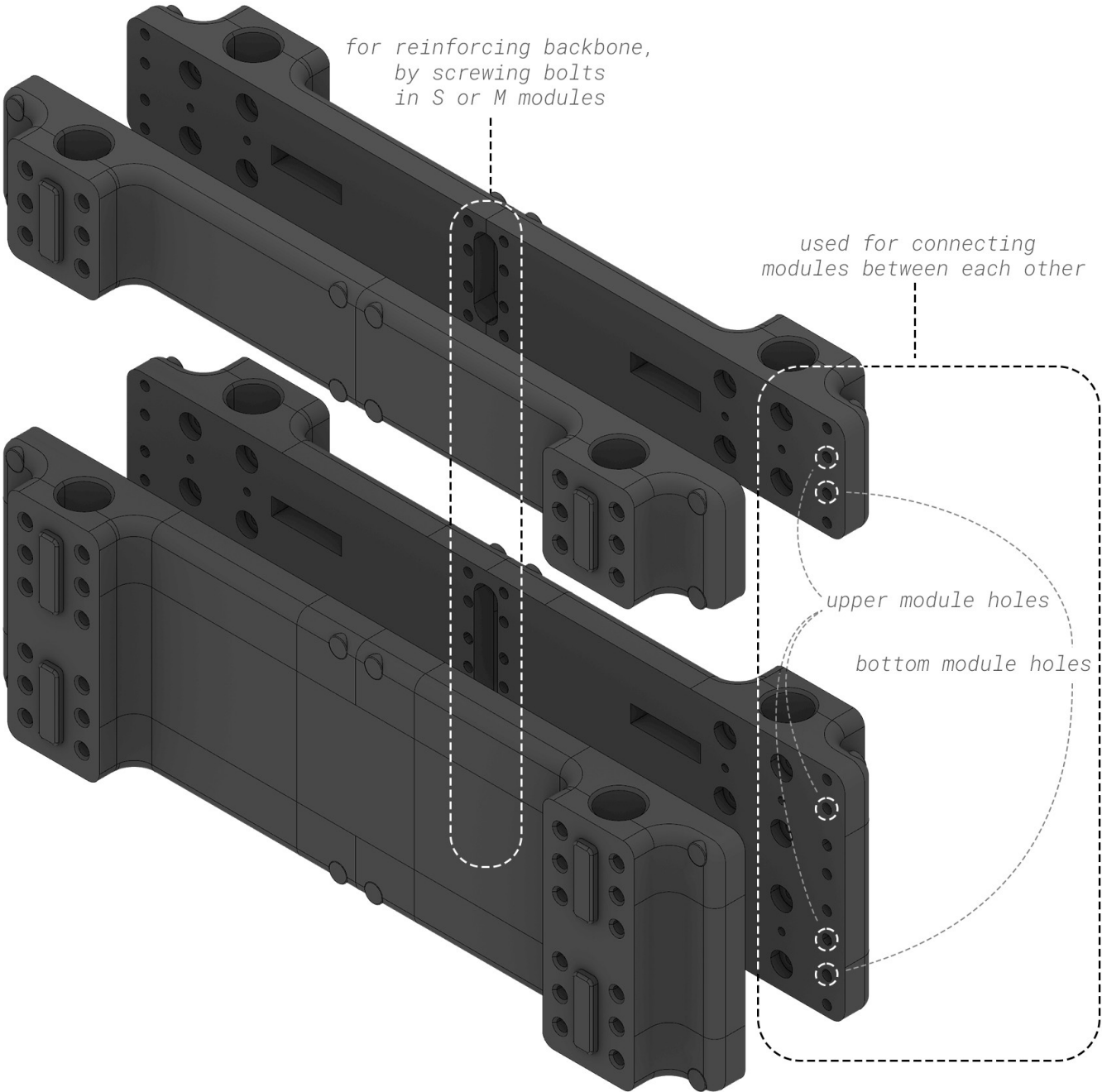


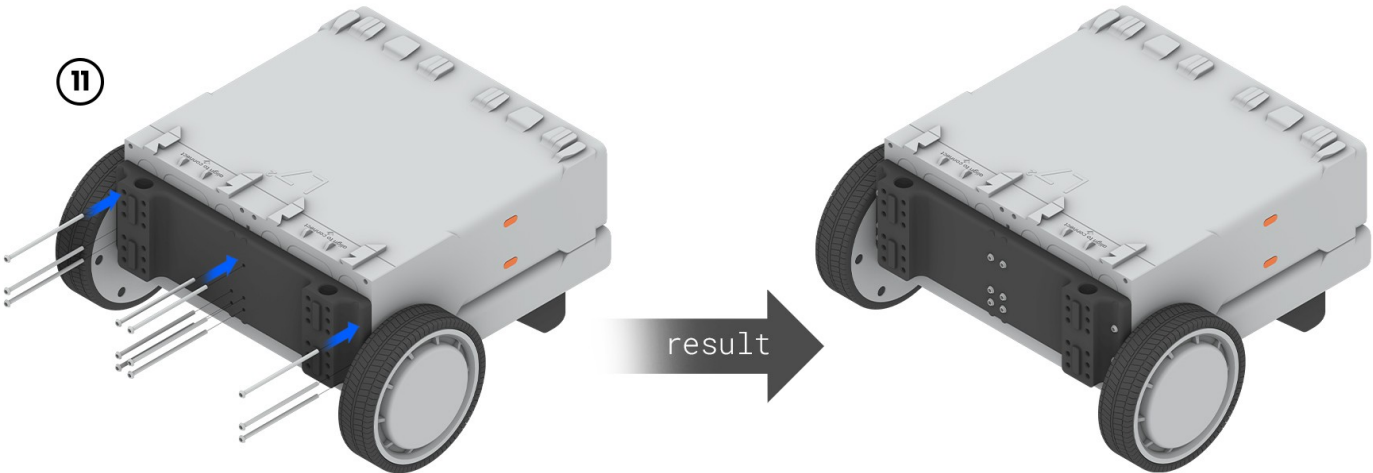
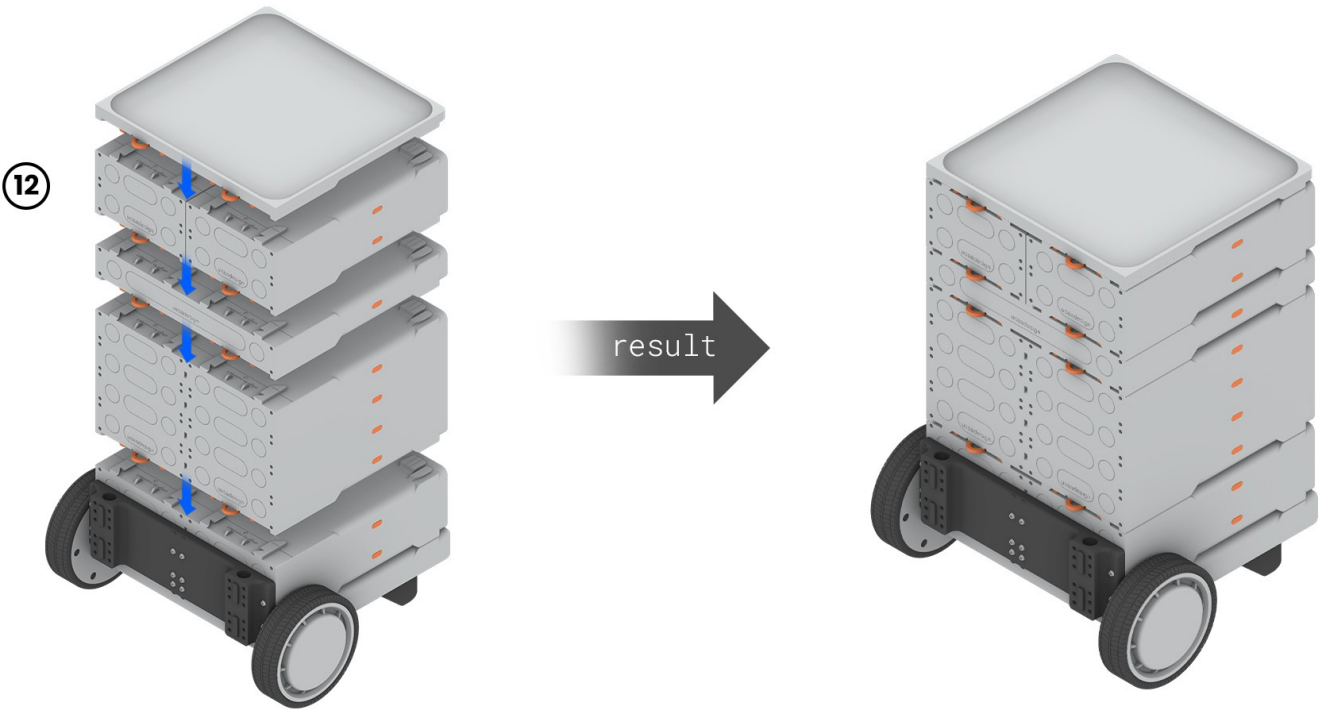
9. WE HIGHLY RECOMMEND USING 2F MODULE AFTER BASE

10. prepare a 2F backbone for drilling holes, they come sealed. Mark the three spots

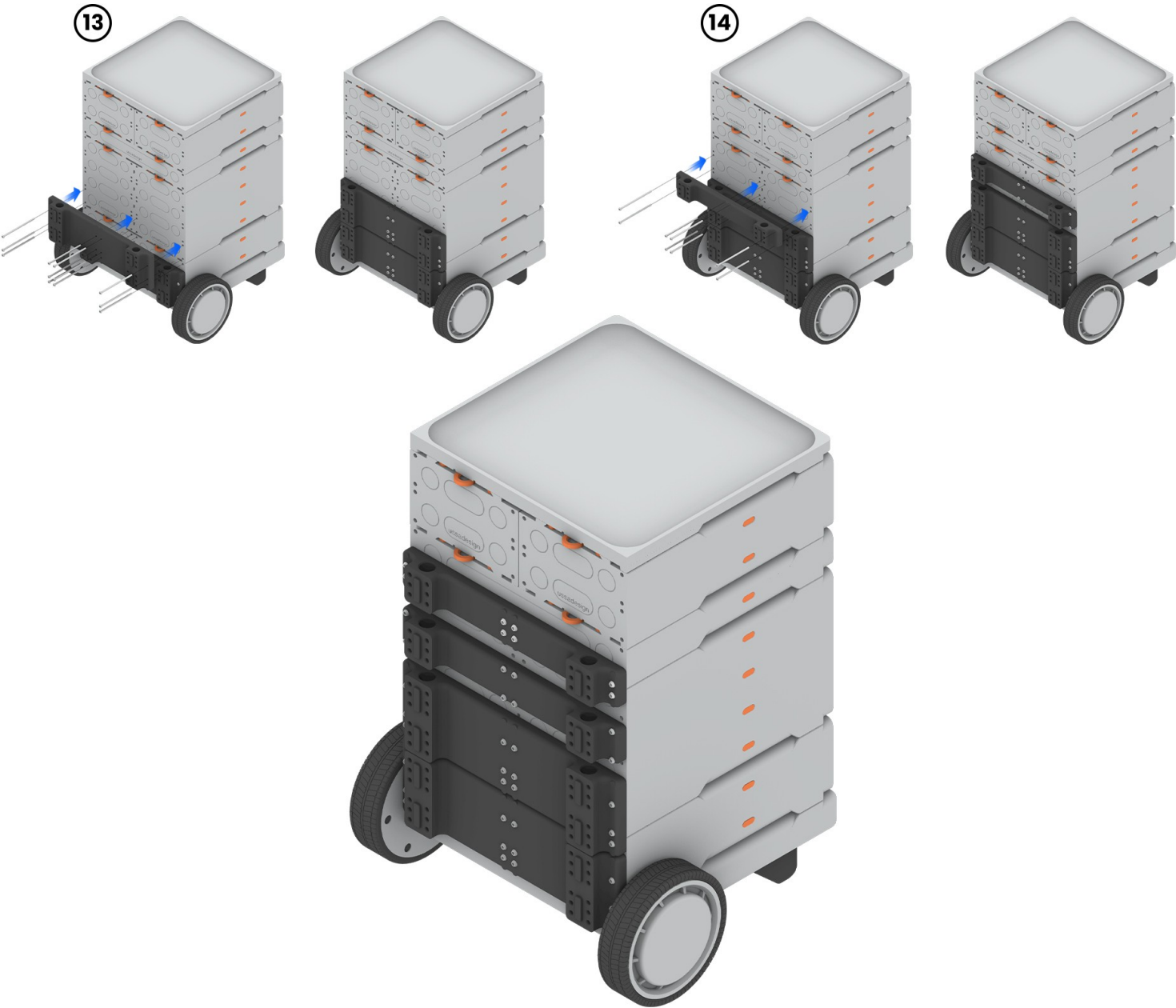


after you mark necessary spots, you can go ahead and drill them through with 4mm bit

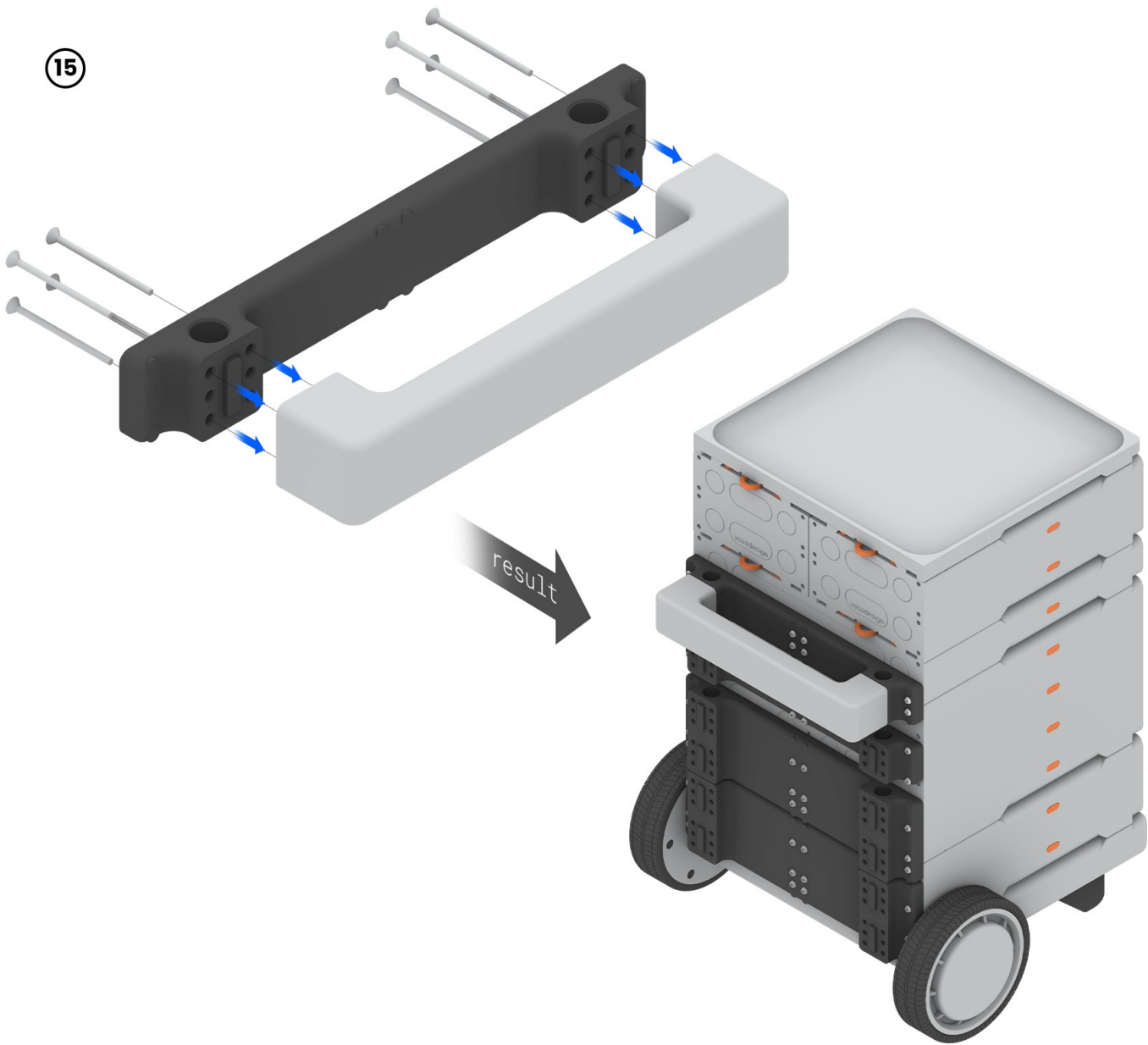




11. now you can attach the backbone both to base and module
 12. WE HIGHLY RECOMMEND ENDING WITH 2F MODULE BEFORE ROOF

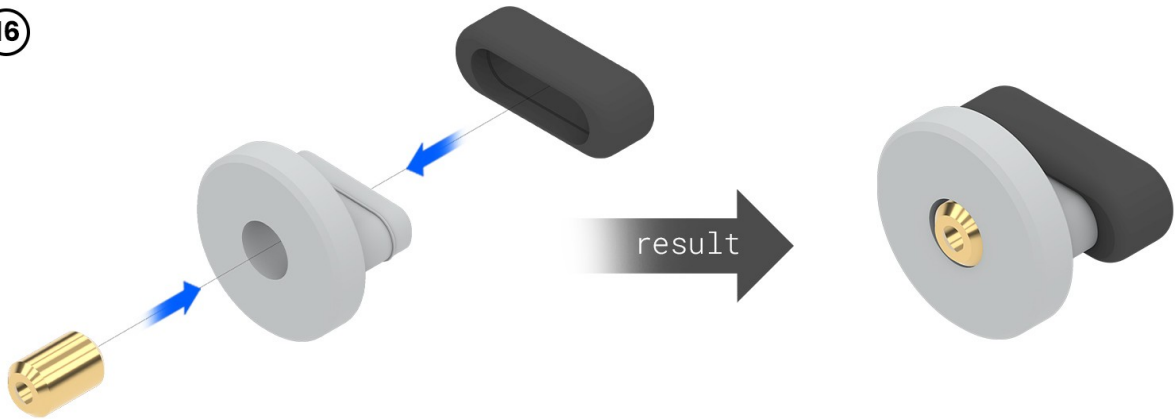


- 13. connect the remaining modules with each other
- 14. you can use 1F backbone for connecting modules as well



15. if you want to use a stationary handle, you need to attach it from the other side of a backbone, before attaching backbone part to a module

16



17



16. heat up heat insert, and push it straight in a "knob", then cap it
17. use Hex M4 35MM bolts from another side of a backbone to tighten the lock

18



result



19

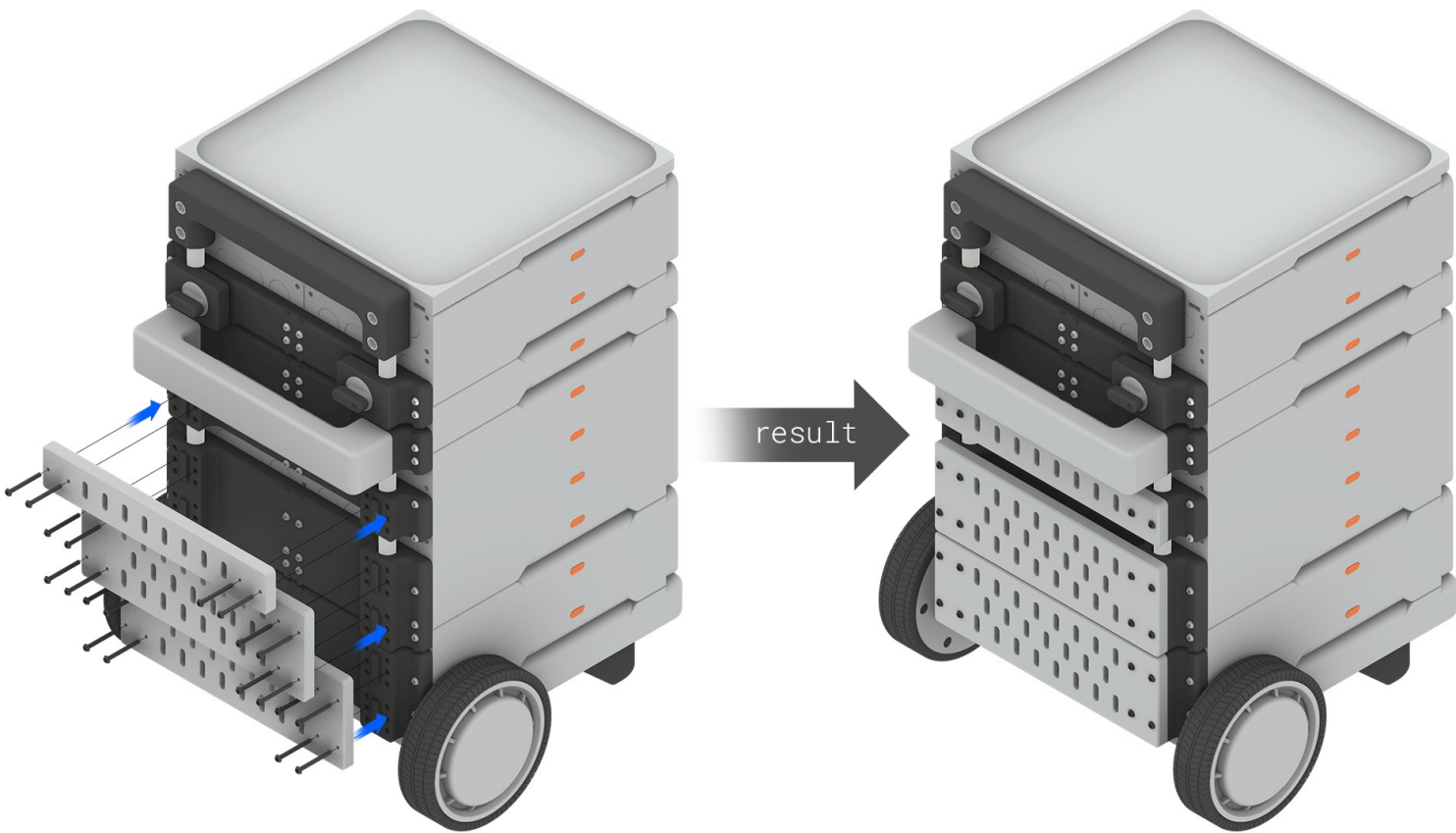


result



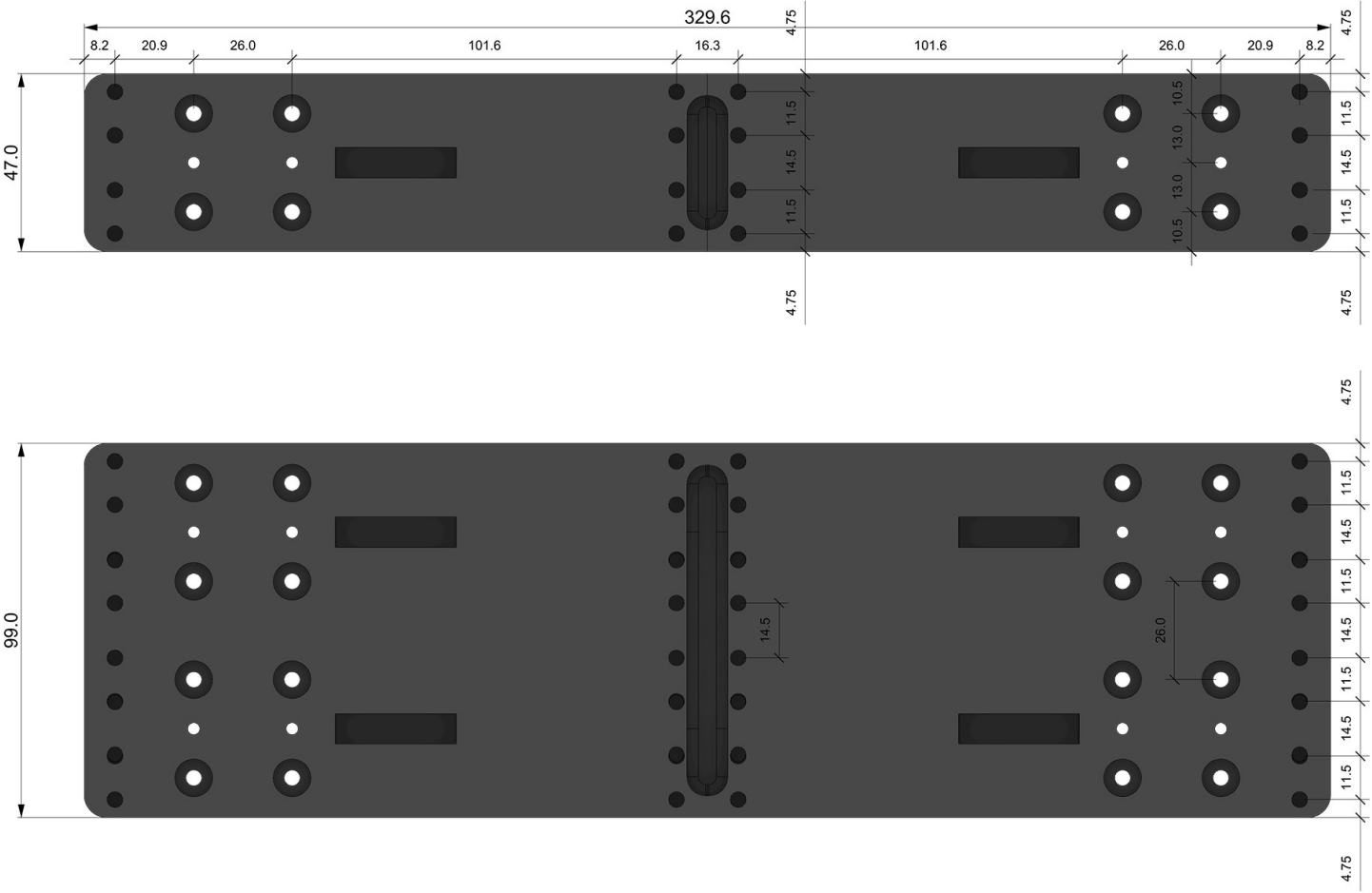
18. cut 2 M16 rods to the height of your tower, and slide them along with a handle
19. drill M6 holes and tap the rods to attach the pull-out handle

20



20. attach IKEA or USSA pegboards on backbones, USSA pegboard link:
<https://www.ussadesign.com/products/multifunctional-bench>

1F&2F L Backbone Dimensions



Casters Mode



flip the base, insert 4 casters with M8 bolts and flip it back