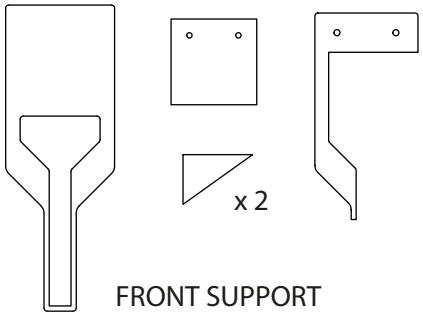
Commutation-Translation System

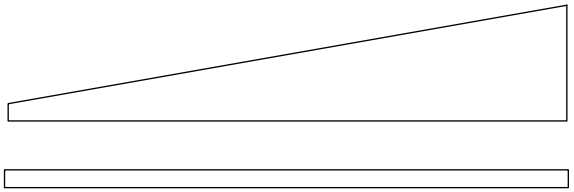
Assembly instructions

PARTS LIST

CABLE CHUTE



FRONT SUPPORT



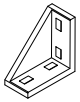
ID	Screw Type	Screw Size	Length (mm)	Quantity
1	CAP	M6	20	4
2	CAP	M6	30	2
3	CAP	M6	40	2
4	CAP	M3	16	4
5	CAP	M3	10	4
6	CAP	M5	30	3

x 5

INSERTION NUTS
M6

x 3

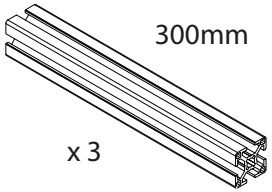
INSERTION NUTS
M5



ANGLE BRACKET

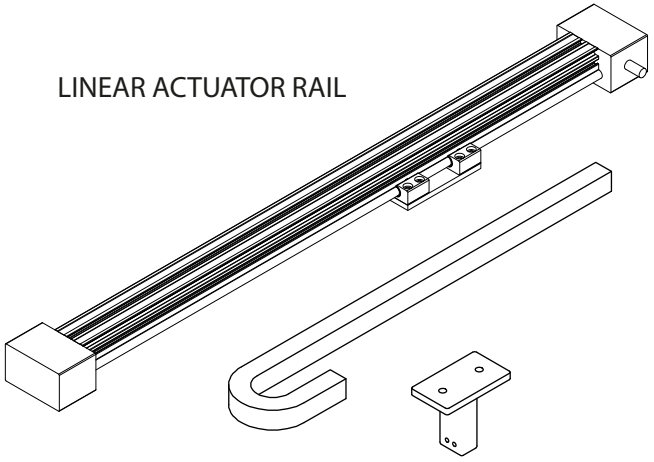
x 3

ALUMINIUM EXTRUSIONS

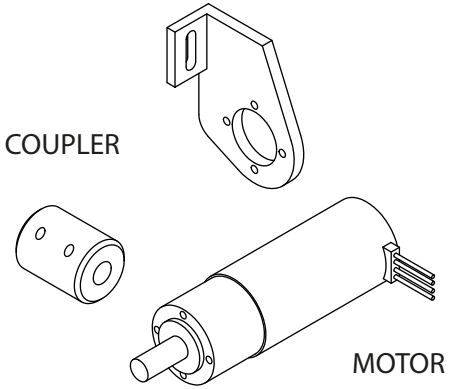


CAP SCREW M6
14mm

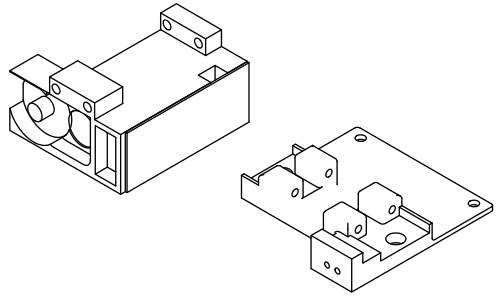
x 5



MOTOR SUPPORT

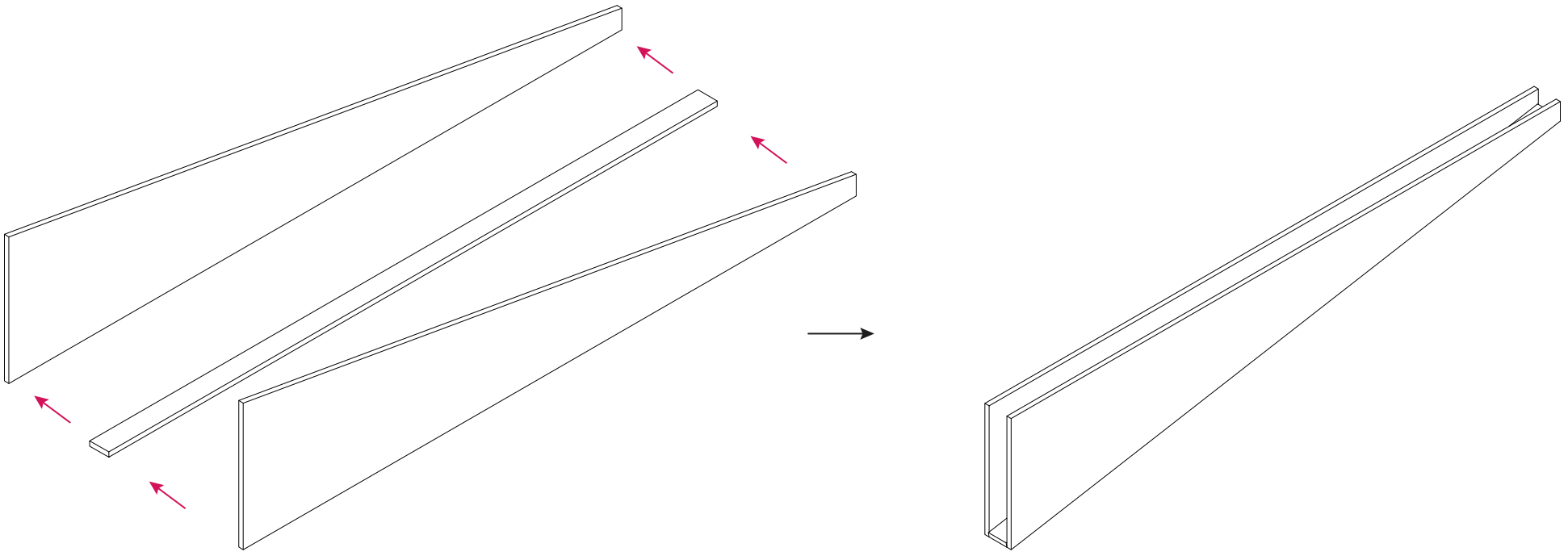


TORQUE FREE COAXIAL COMMUTATOR



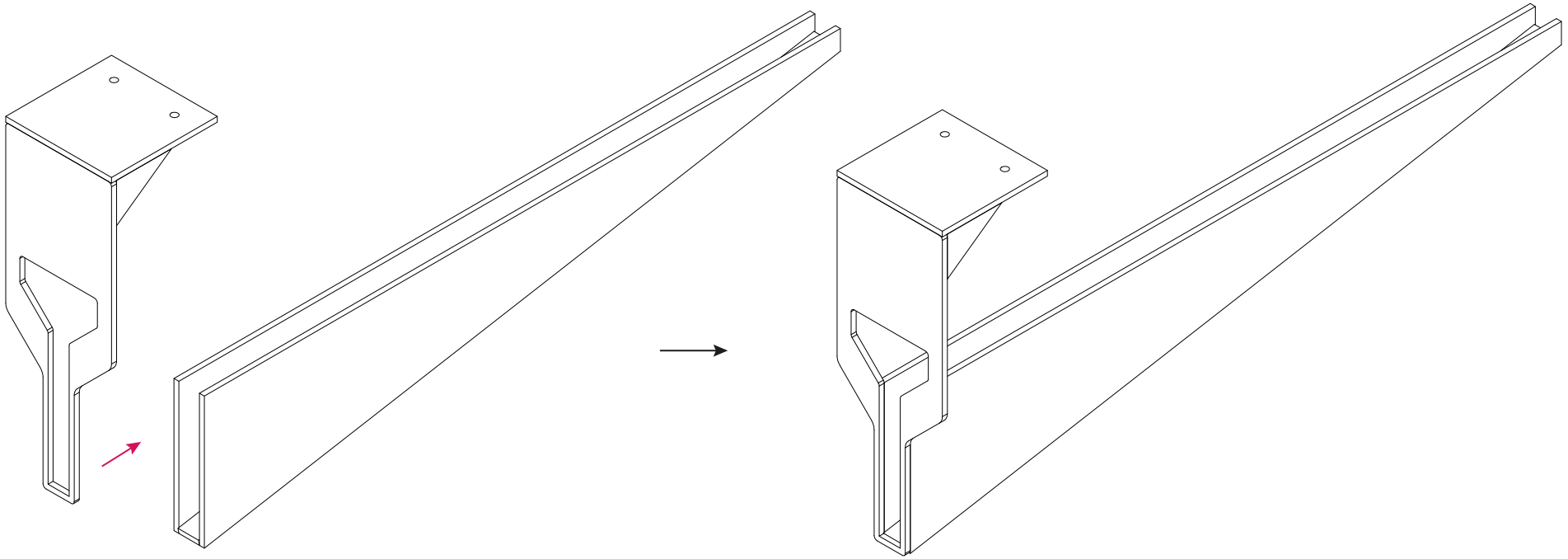
ADAPTOR PLATE

1. Assemble the cable chute by joining the acrylic base and sides.

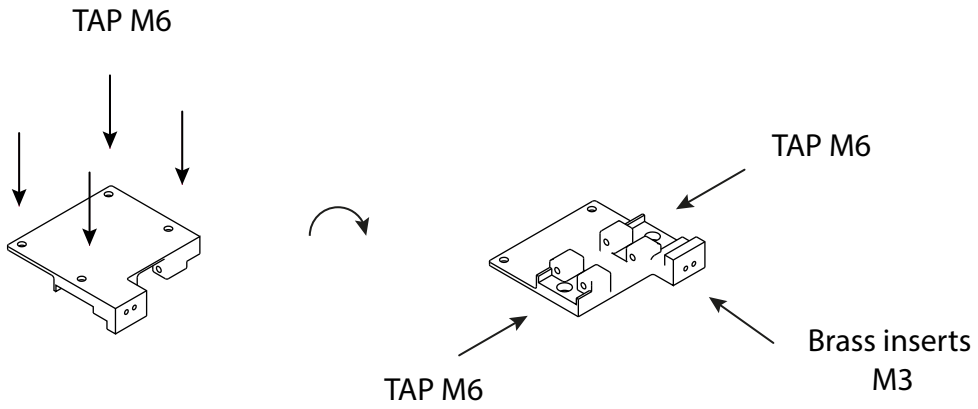


2. Assemble the front cable chute support to the end of the chute as shown.

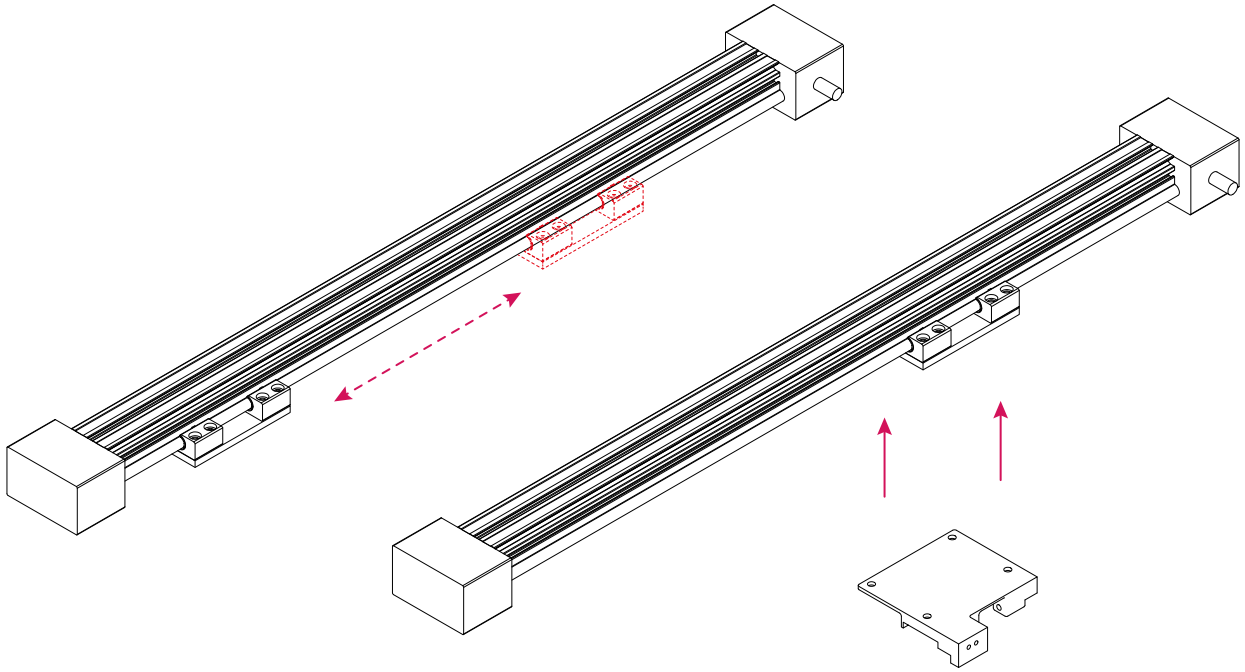
3. Attach the support to the end of the chute as shown. This will be connected to the aluminium extrusions. Step 1-3 require chloroform.



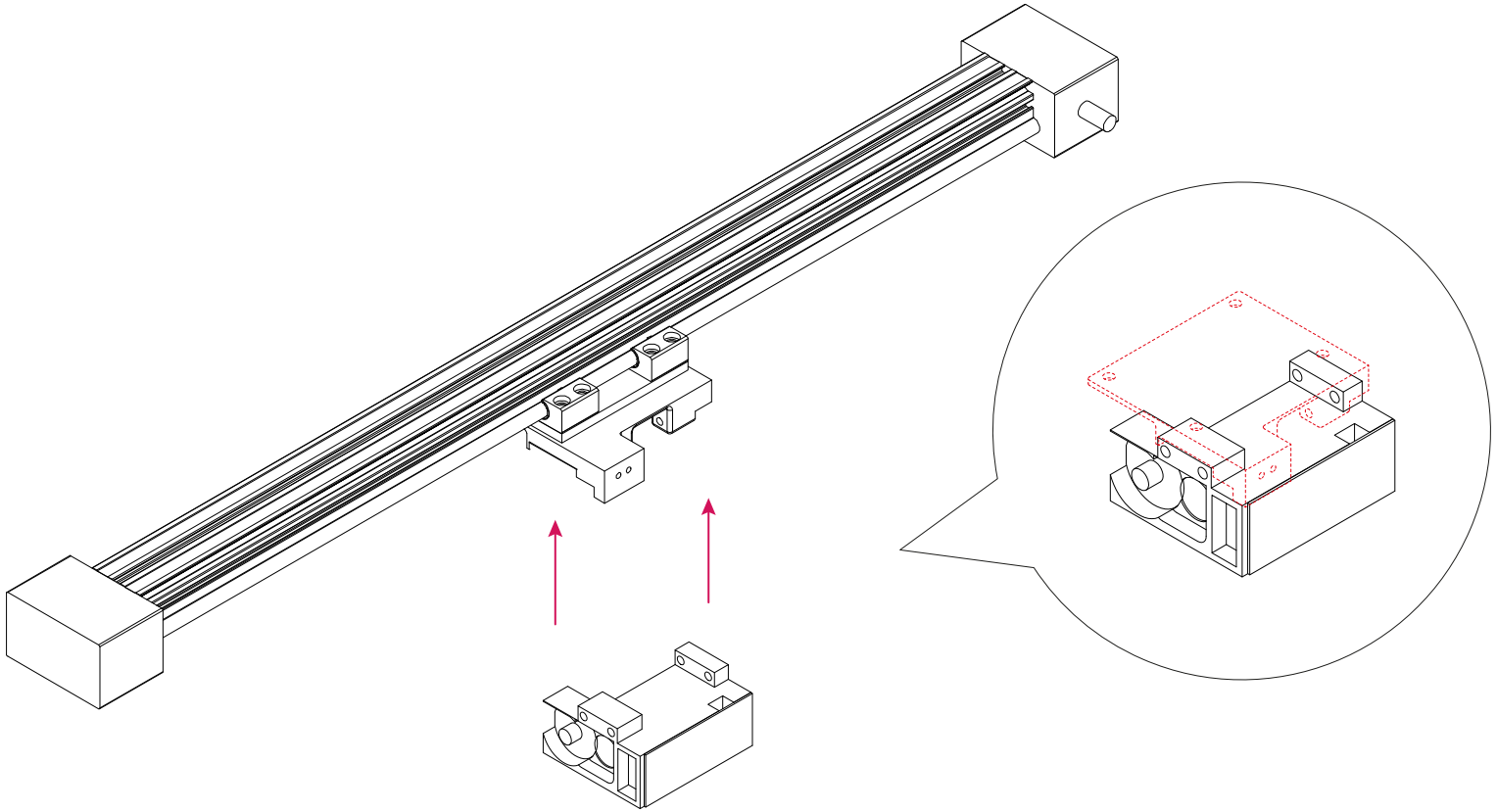
4. Prepare the 3D printed adaptor as shown.



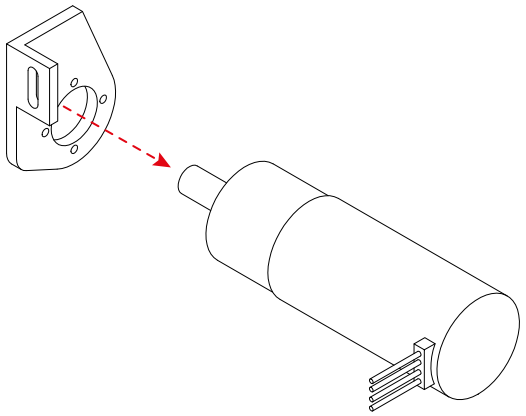
5. Attach the adaptor to the sliding carriage of the linear actuator (ID 1).



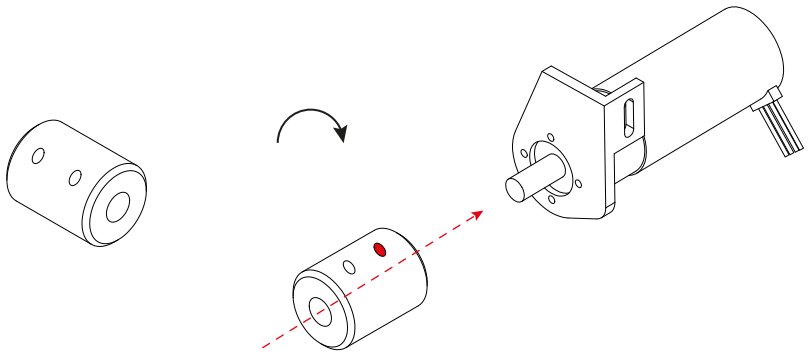
6. Bolt the commutator to the adaptor (ID 2, ID 3).



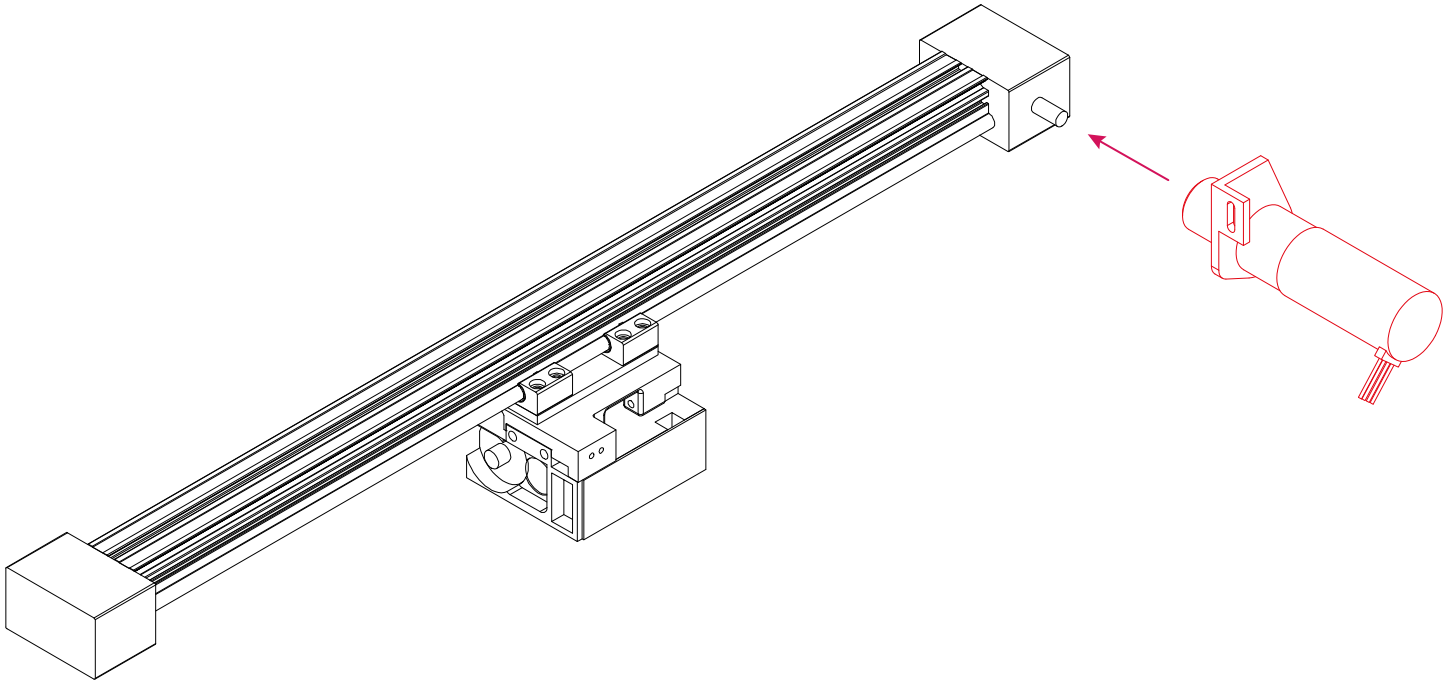
7. Assemble the motor to the 3D printed motor bracket (ID 4).



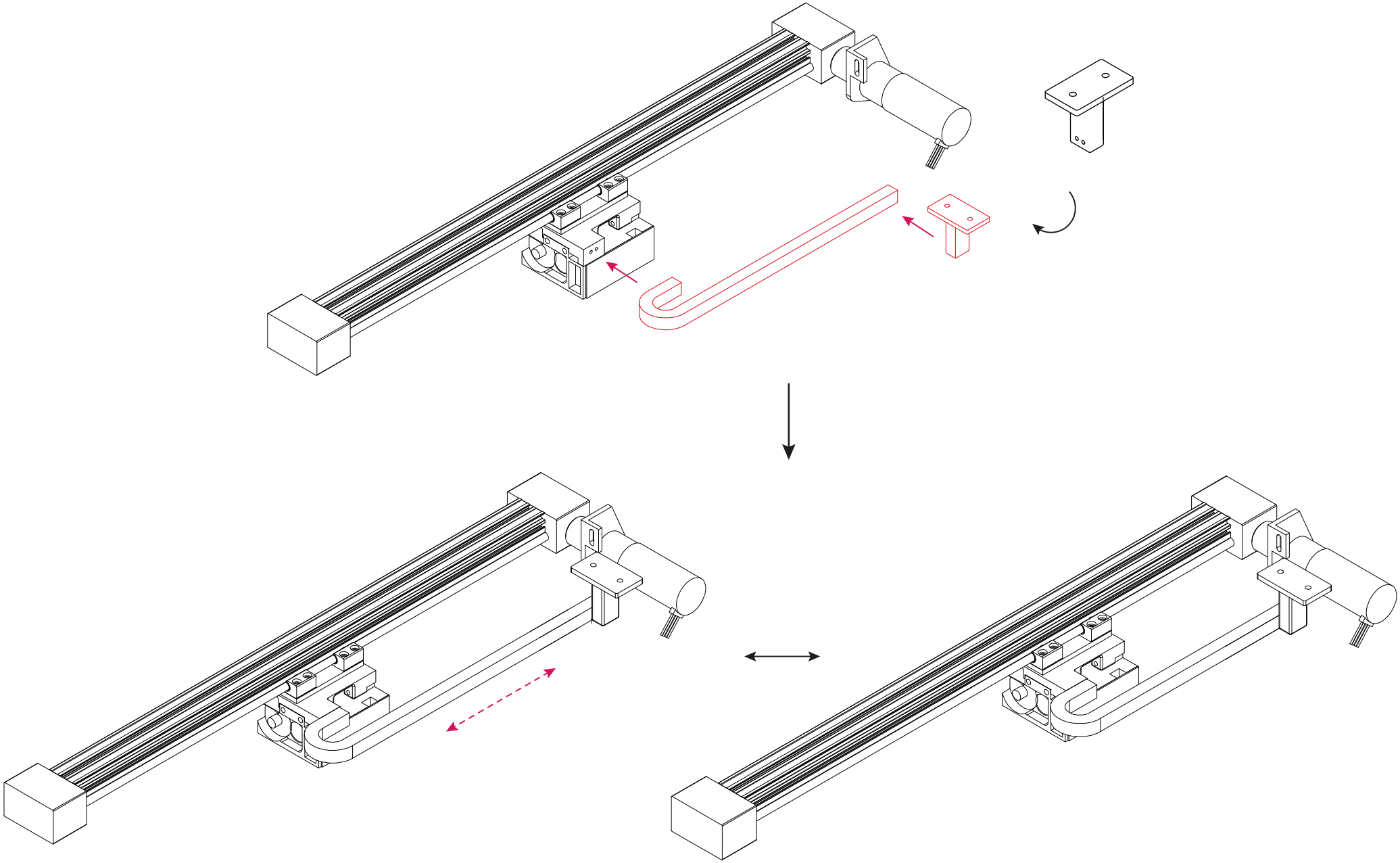
8. Slide the coupler onto the motor drive shaft and tighten the grub screw.



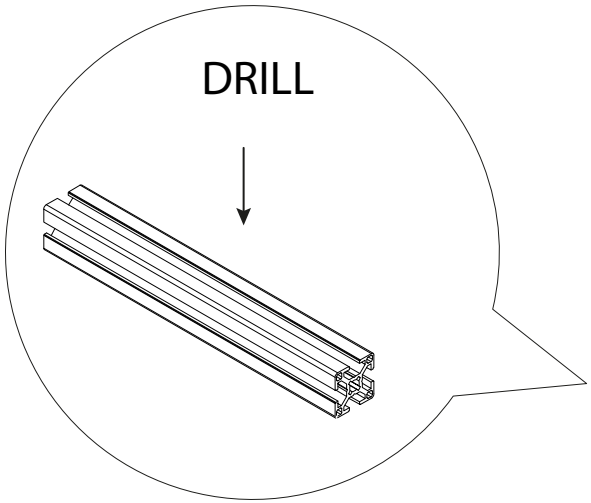
9. Insert the motor bracket and coupler assembly onto the linear rail shaft and tighten the other coupler grub screw onto it.

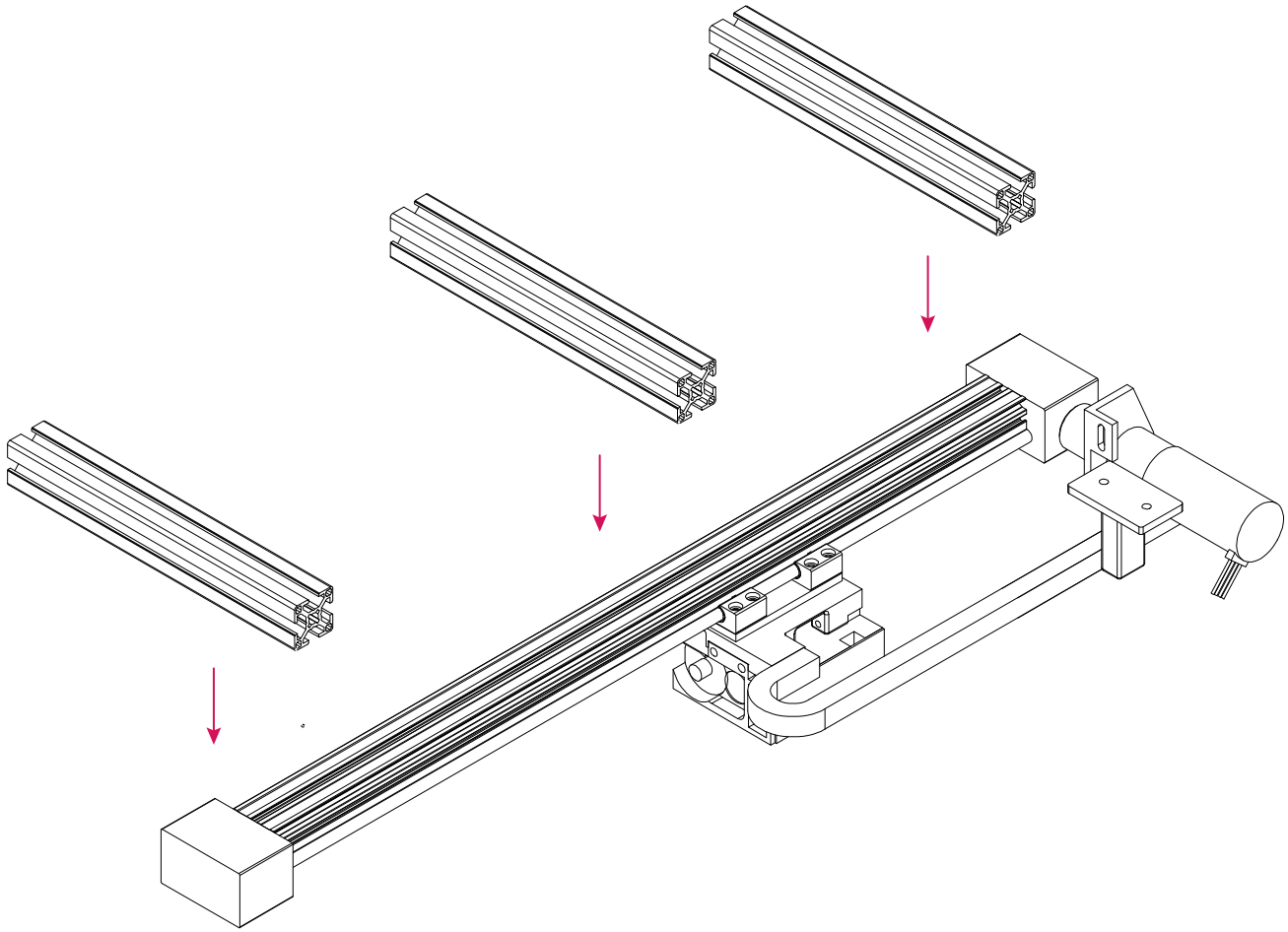


10. Bolt a cable chain to the adaptor plate and to the 3D printed stopper (ID 5).

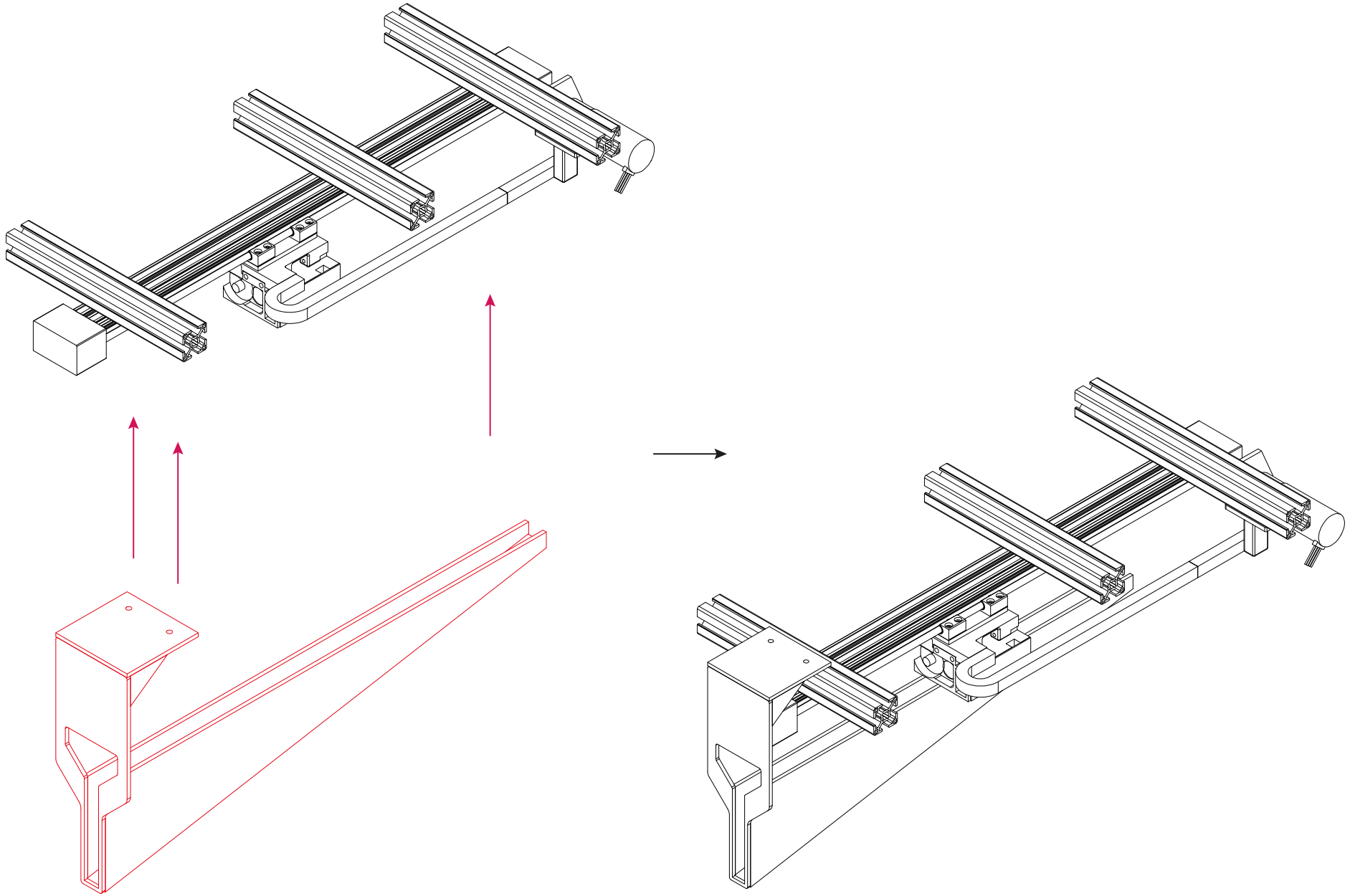


11. Drill a hole in the middle of the aluminium extrusions and equip the linear rail groove with 3 insertion nuts. Bolt the aluminium extrusion to the rail.
Note: the chain cable stopper and motor bracket are bolted onto one of the three extrusions (ID 6).

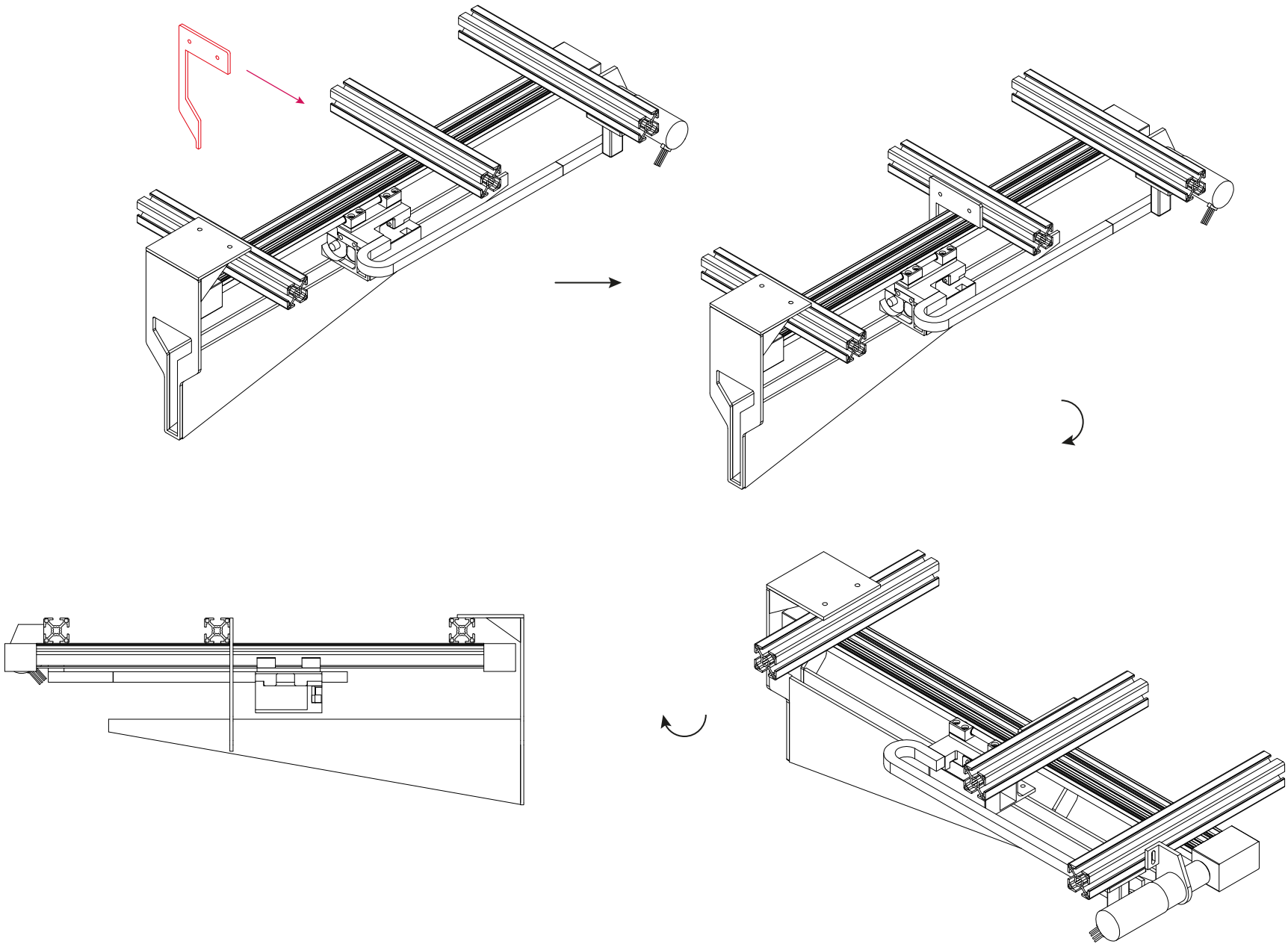




12. Connect the cable chute to the assembled actuator via the front support by bolting to the extrusion.



13. Attach the chute side support to the chute itself and bolt it to the middle aluminum extrusion.



14. Attach the commutation system to the top of the AEON habitat using three angle brackets. The positon should ensure that the cable falls in the centre of the habitat.