

DE Arm 25

Assembly Instructions

Dyson School of
Design Engineering

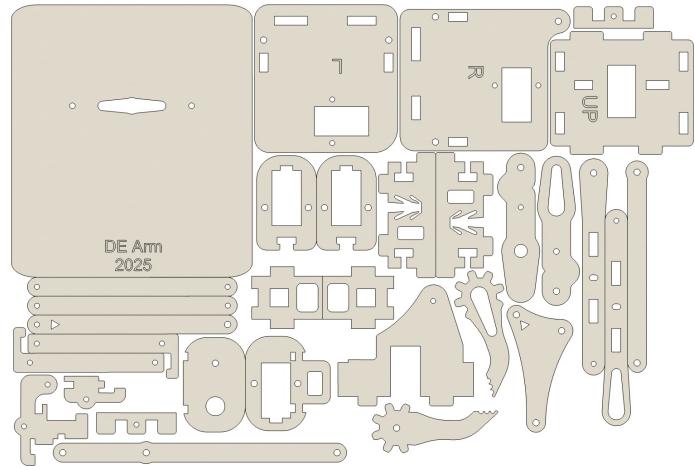
Important Notes:

- Joints should move freely, do not overtighten the screws. The arm should be like a marionette without the servo motors.
- Before assembly you **have to** test and calibrate your servo motors to the positions shown in page 5.
- Take it easy, parts should sit in place with little force, if you find yourself using excessive force, check the manual and orientation again.

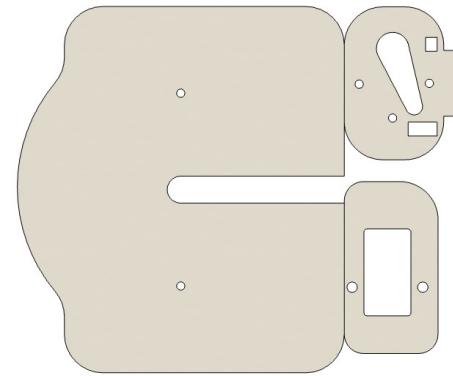


List of Parts

- 4mm Plywood Parts: 31 pcs



- 2mm MDF Parts: 3 pcs



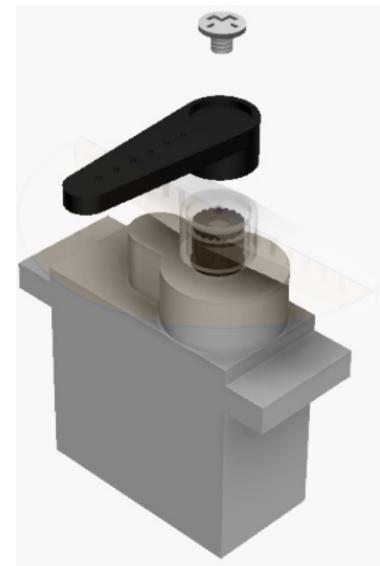
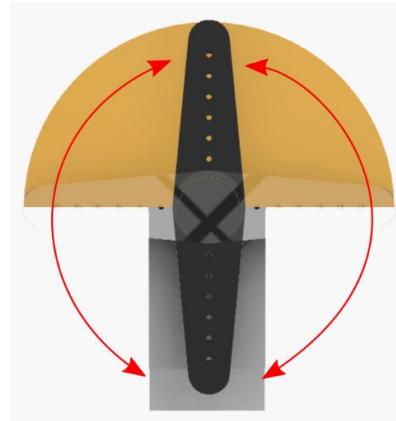
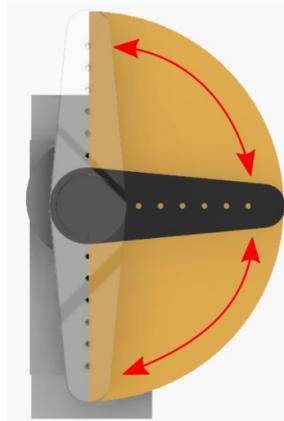
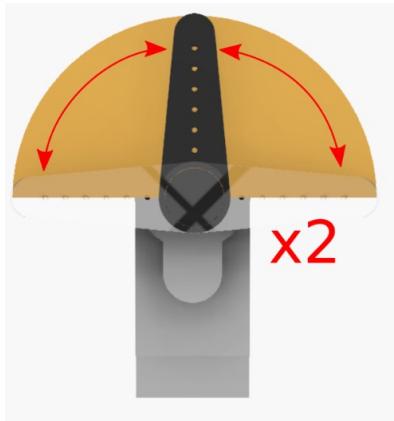
List of Parts

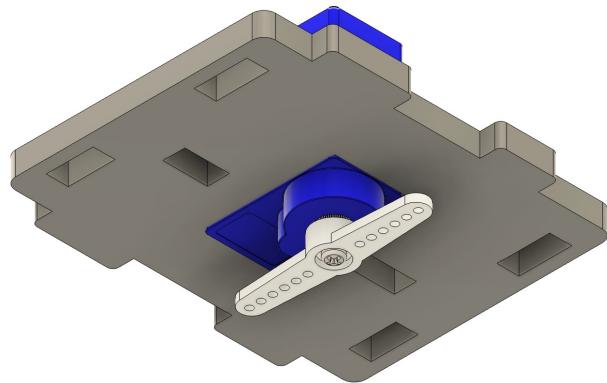
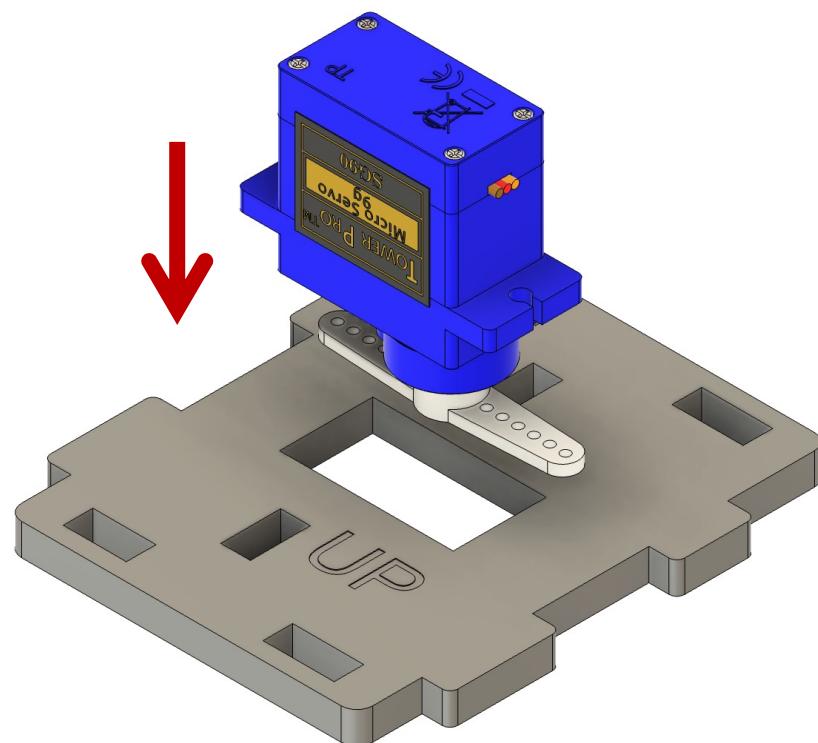
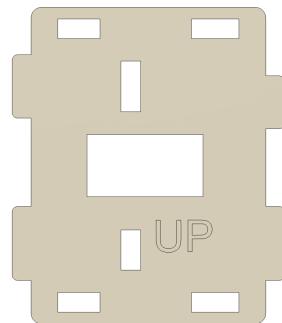
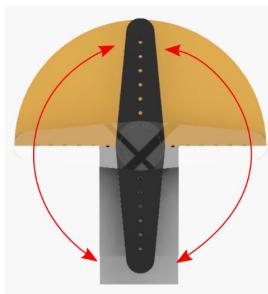
- M3 x 6mm Screw: 2 pcs
- M3 x 8mm Screw: 10 pcs
- M3 x 12mm Screw: 13 pcs
- M3 x 20mm Screw: 2 pcs
- SG90 Servo Motor: 4 pcs
- Stick-on Silicon Feet: 4 pcs

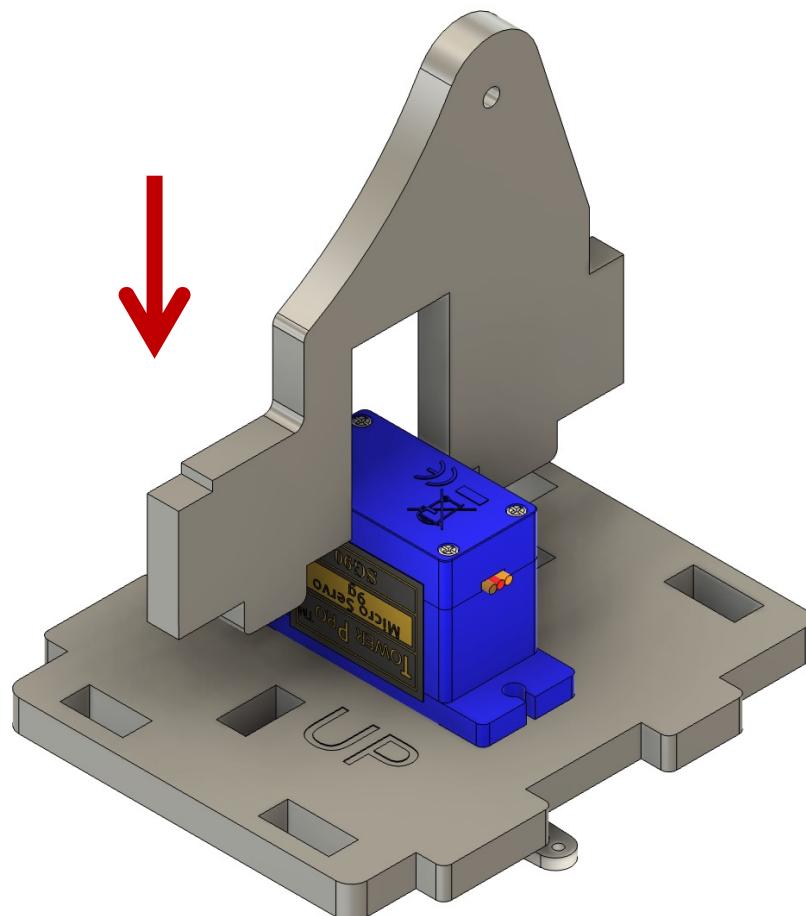
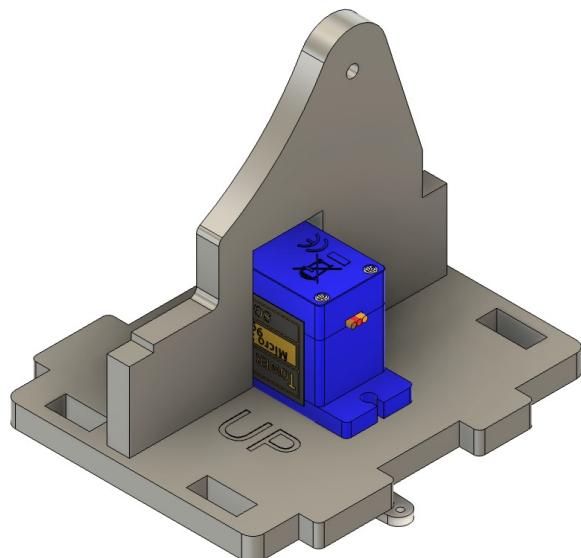
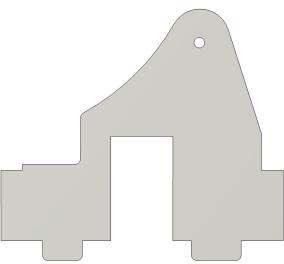


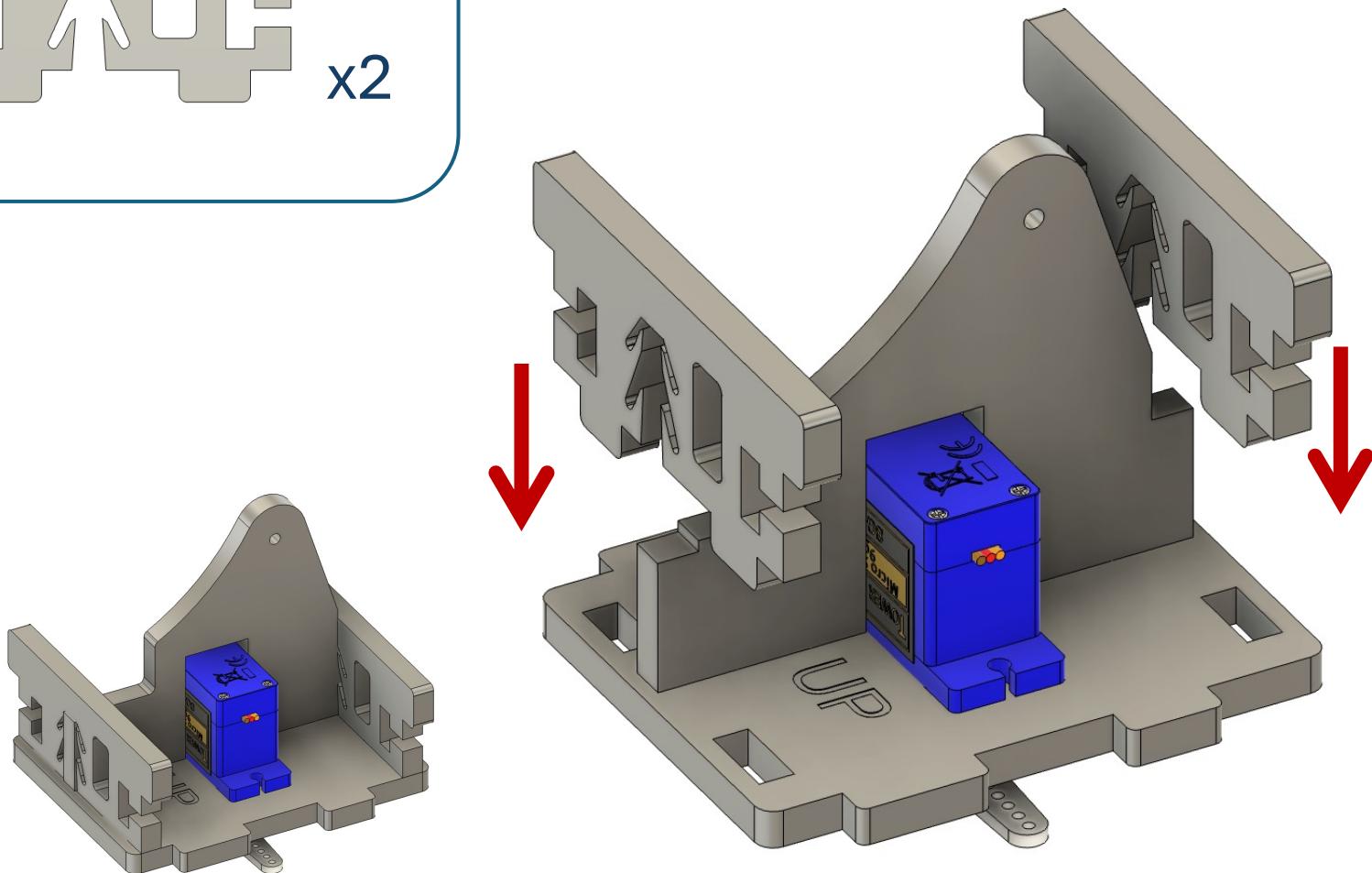
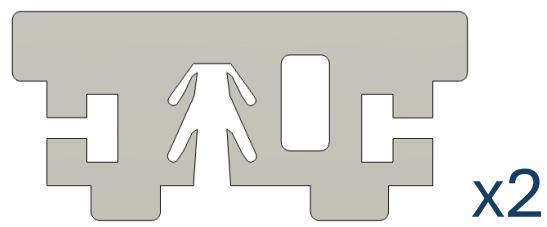
Servo Calibration

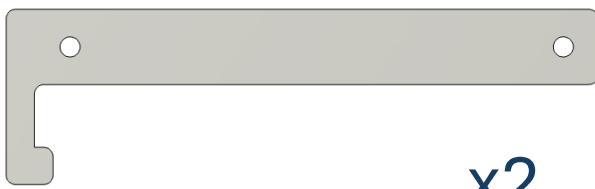
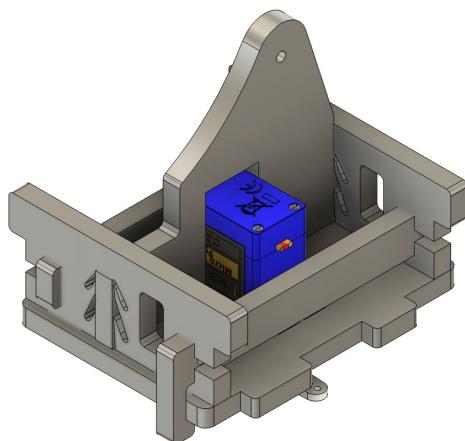
*You should have a total of 4 servos, calibrated as followed,
They will be identified and used in the assembly.



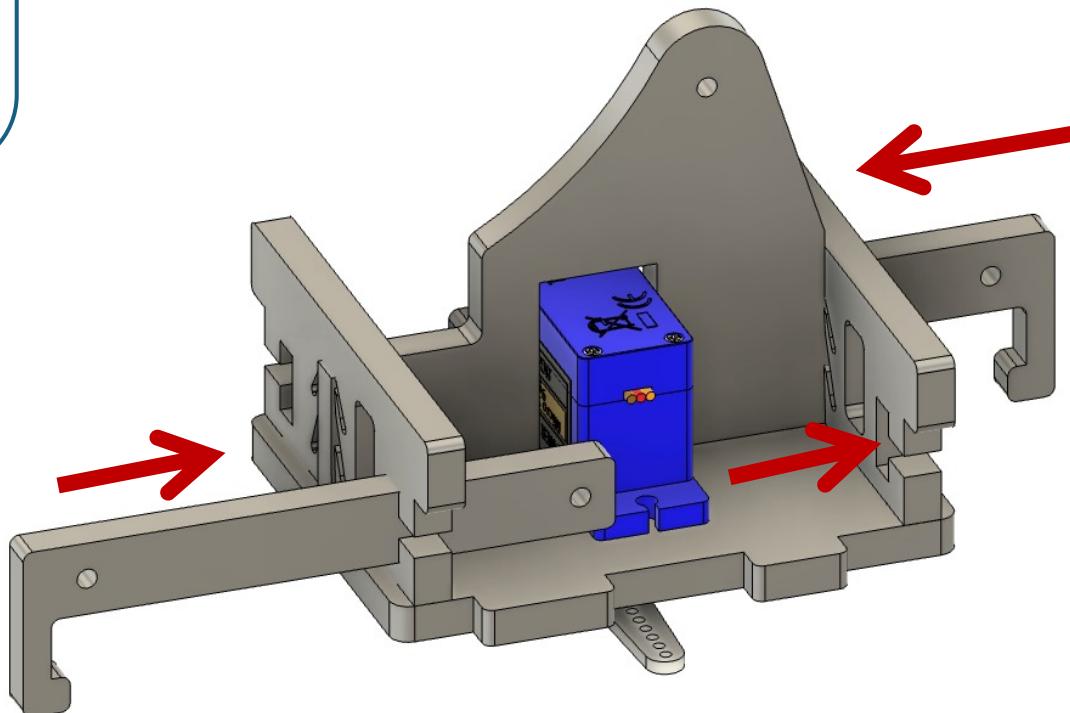


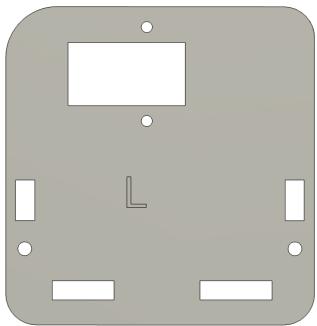




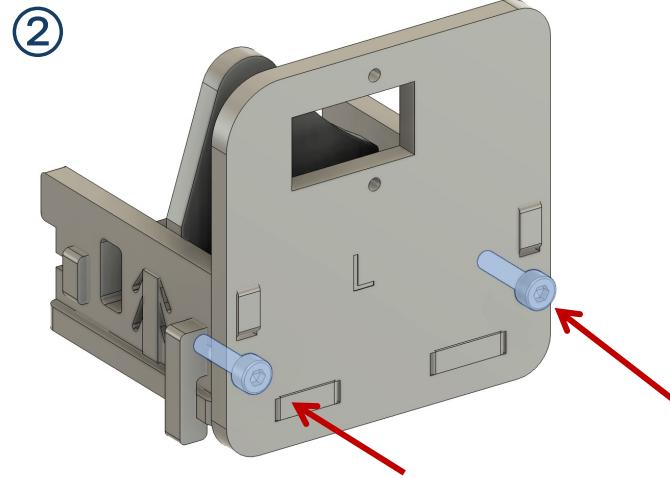
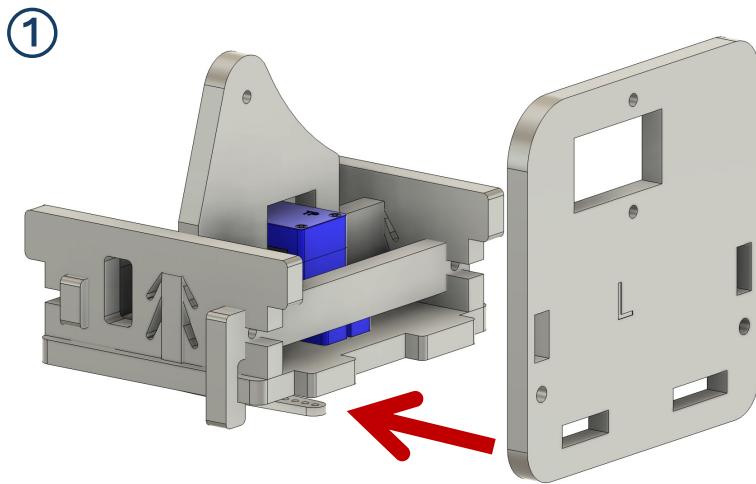


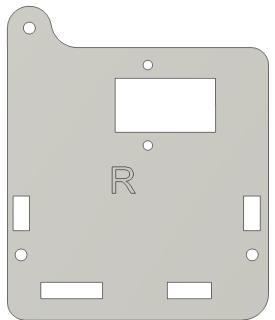
x2





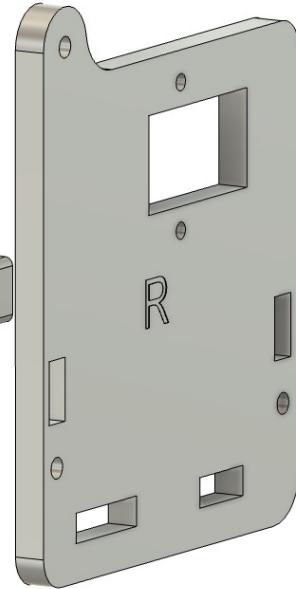
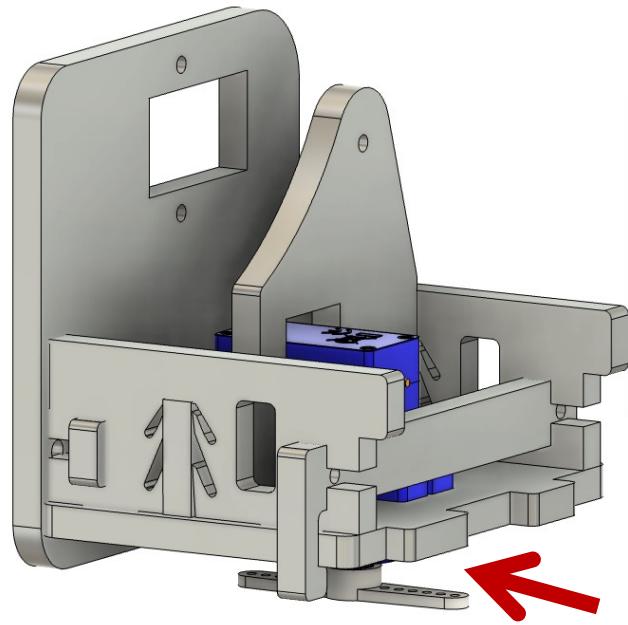
12mm x2



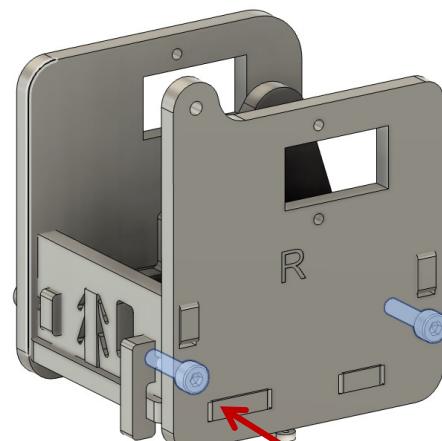


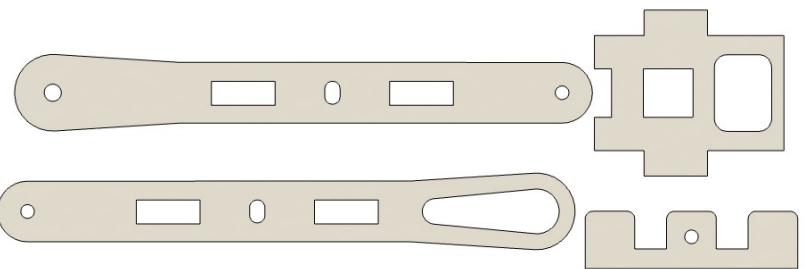
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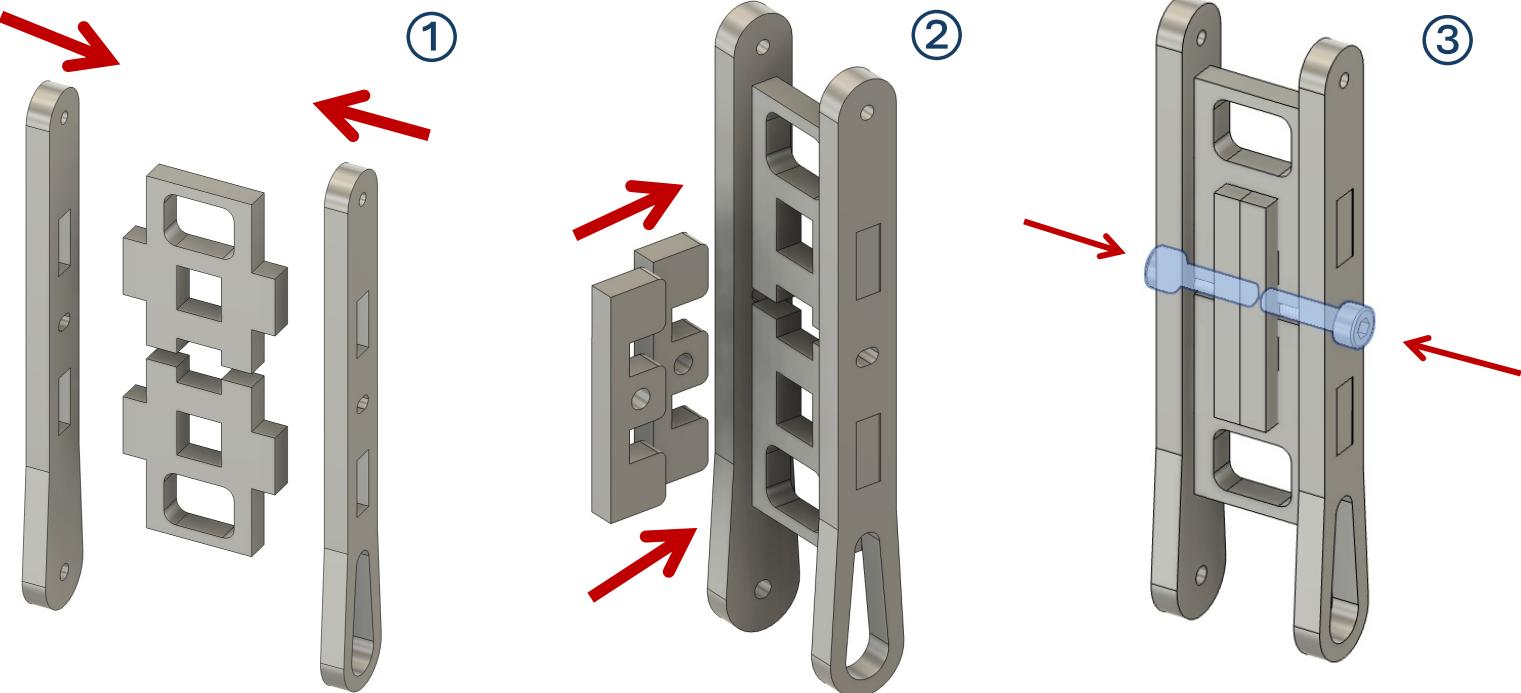
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12mm x2

All x2



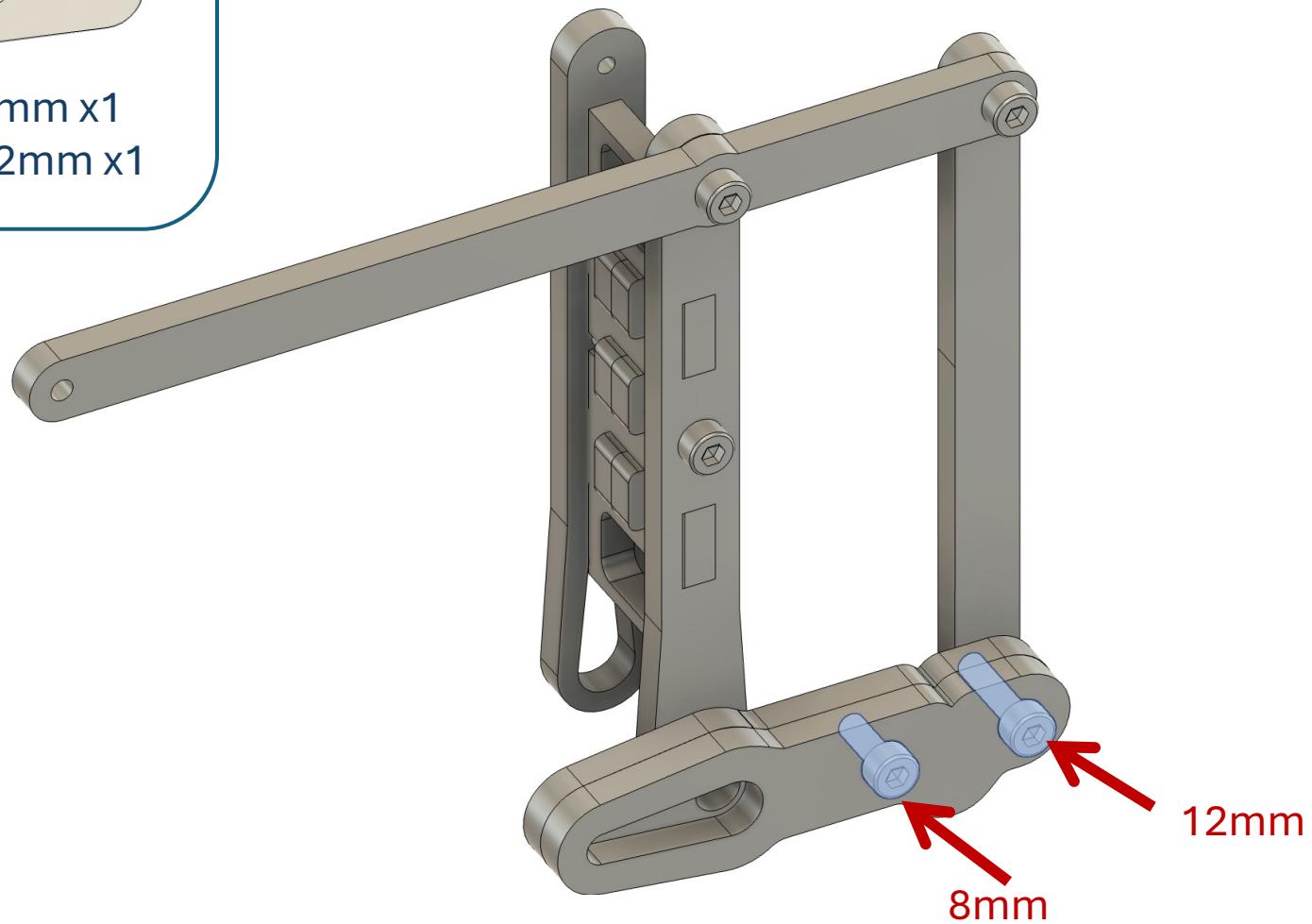


8mm x2



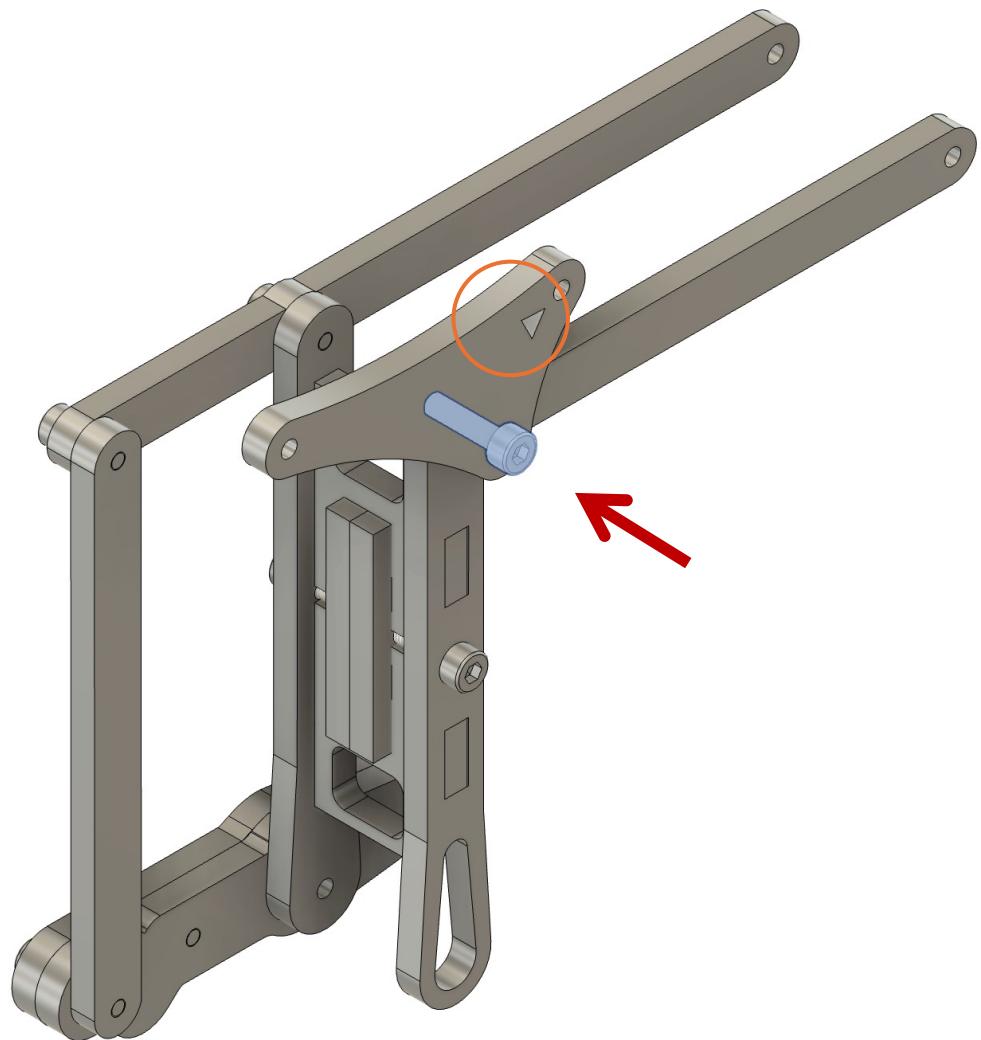
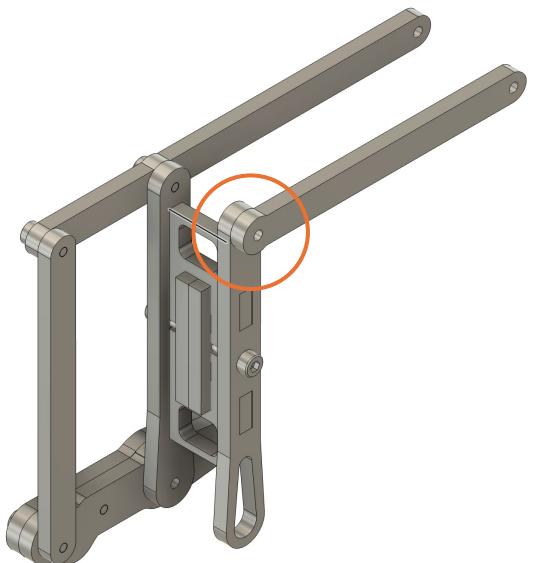
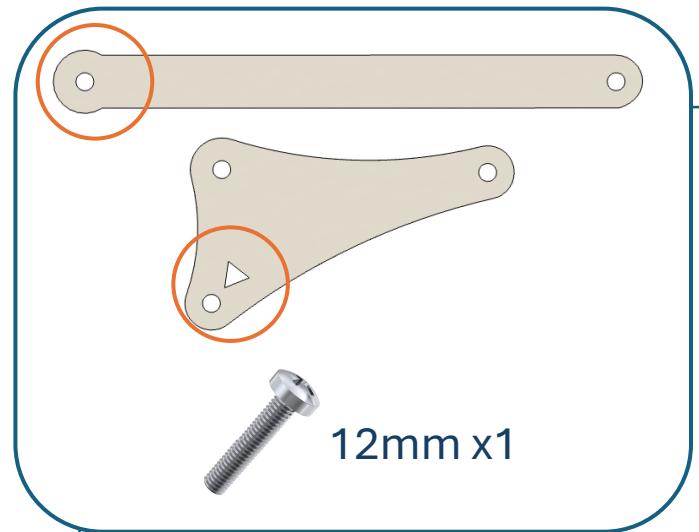


8mm x1
12mm x1



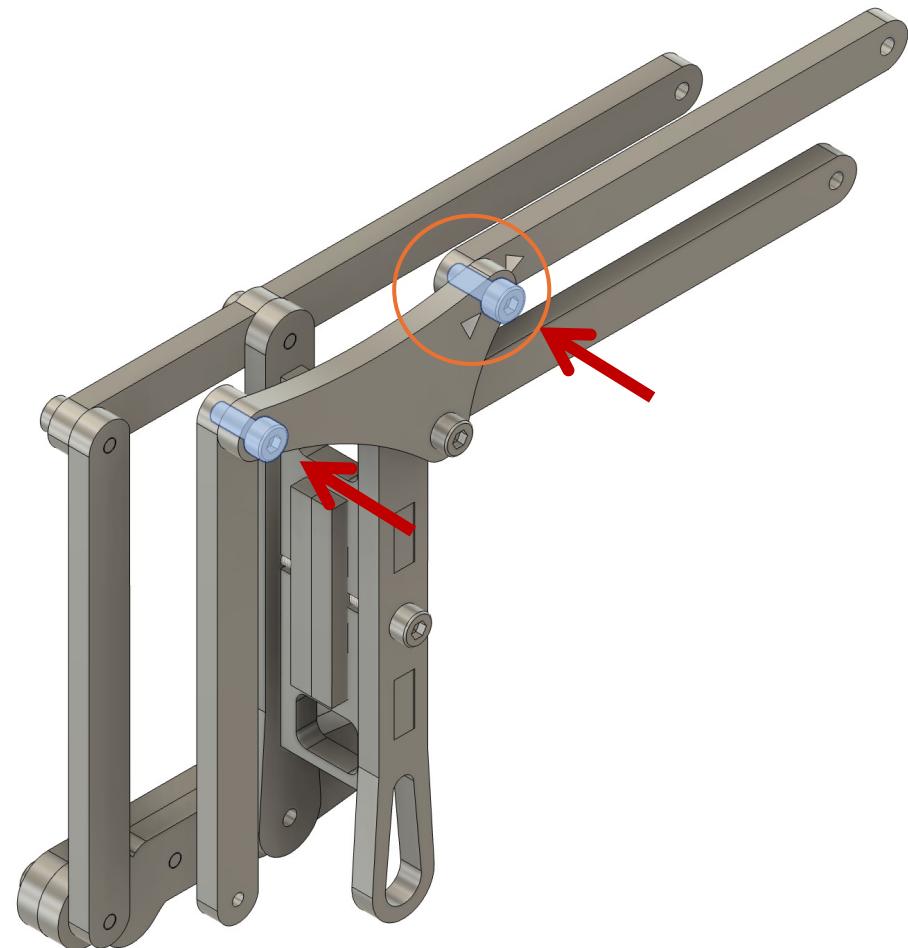
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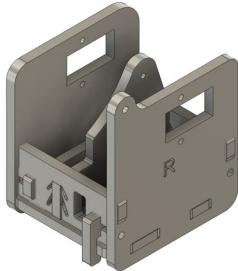
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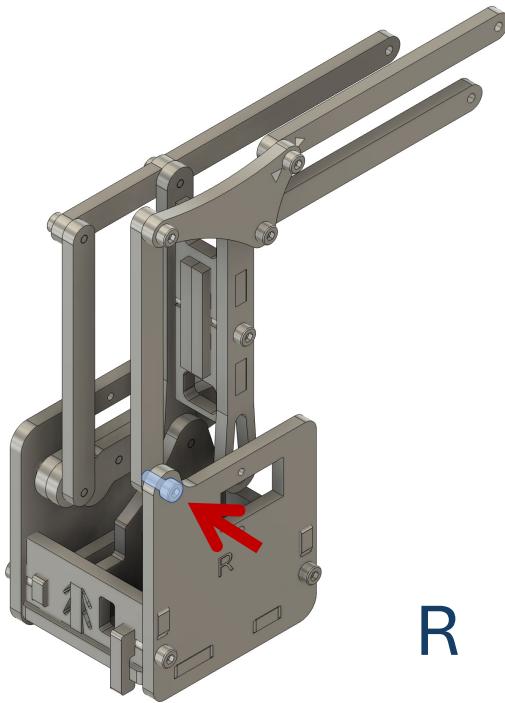


8mm x2

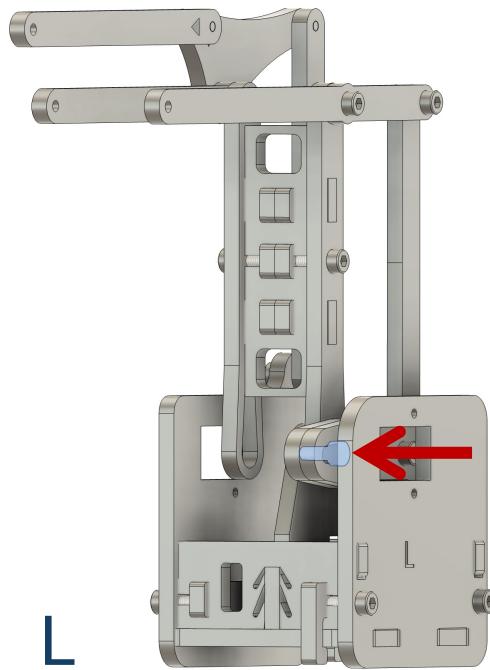




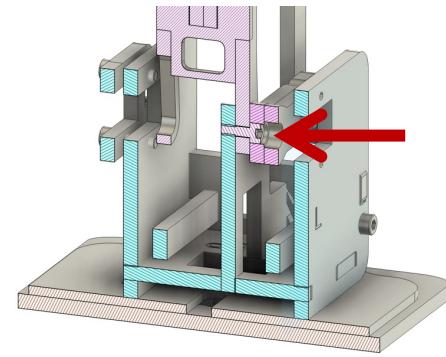
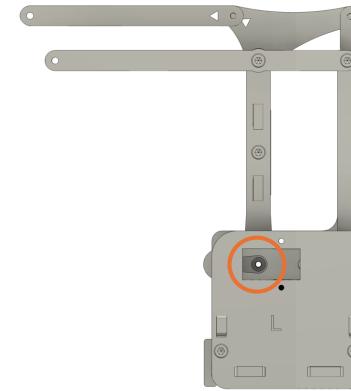
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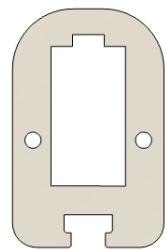
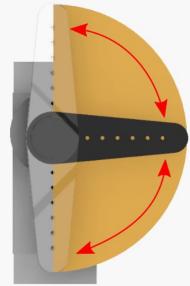


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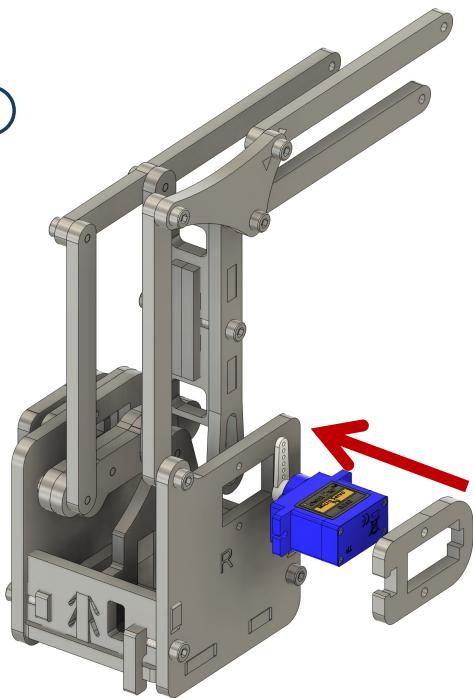
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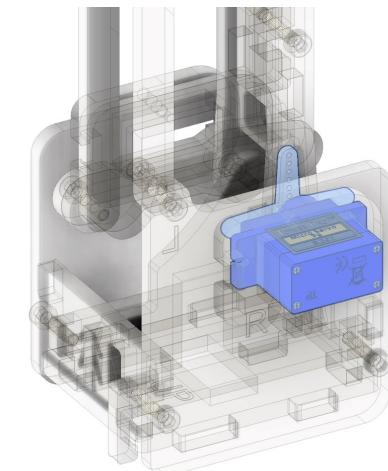
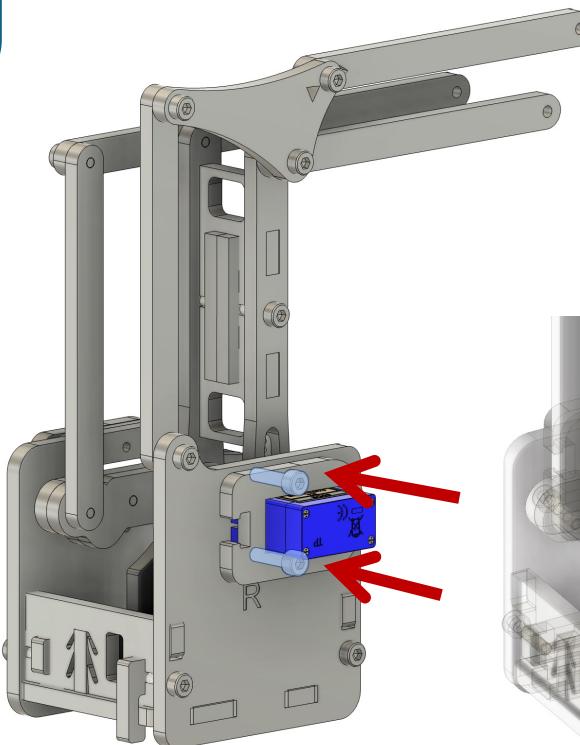


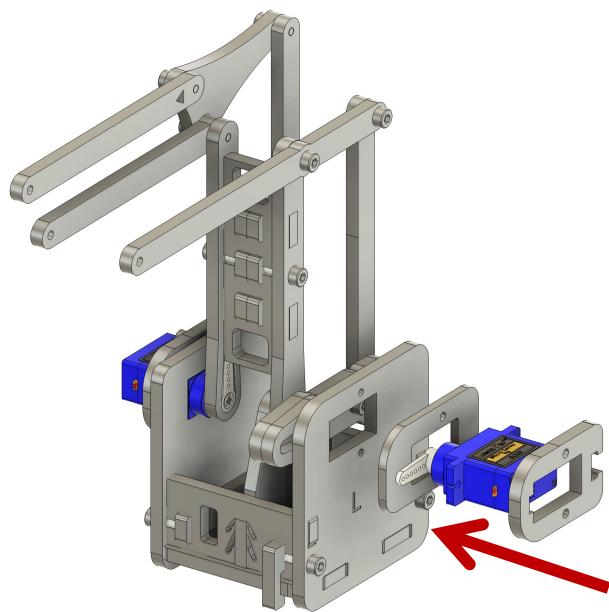
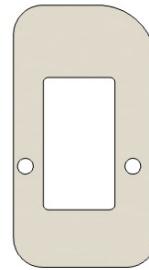
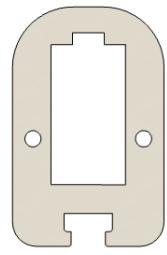
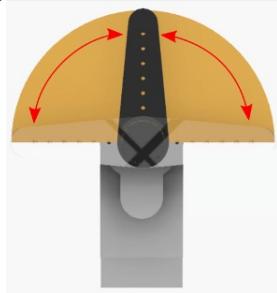
12mm x2

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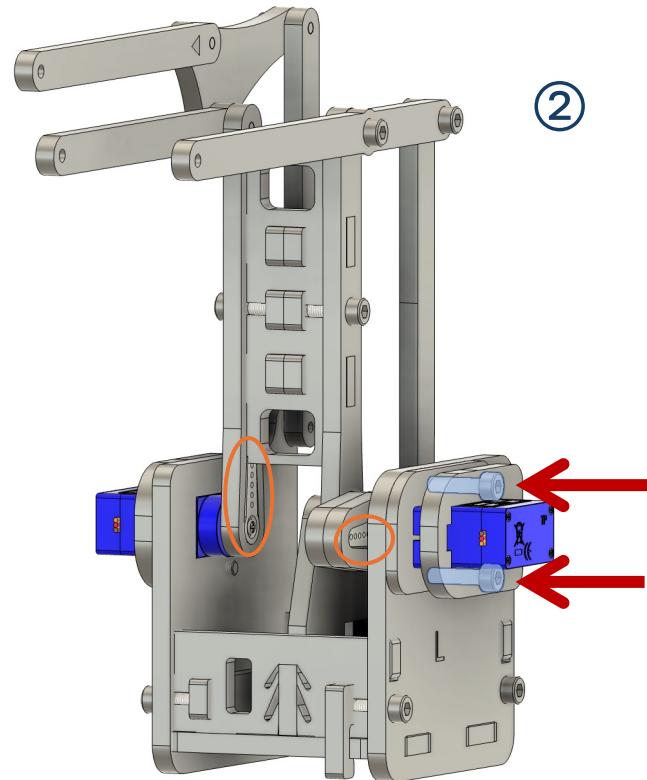


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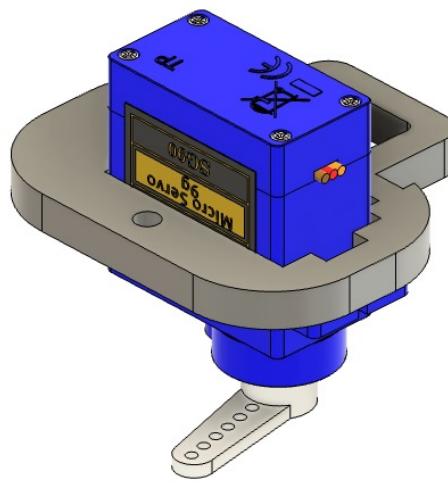
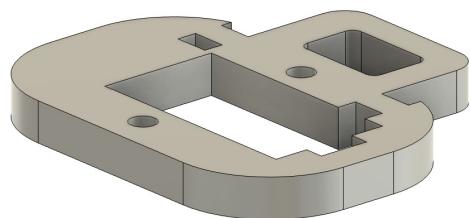
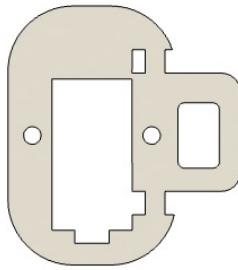
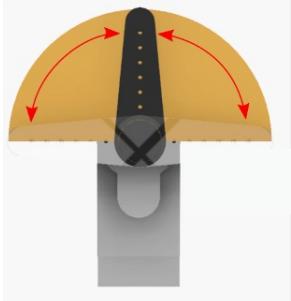


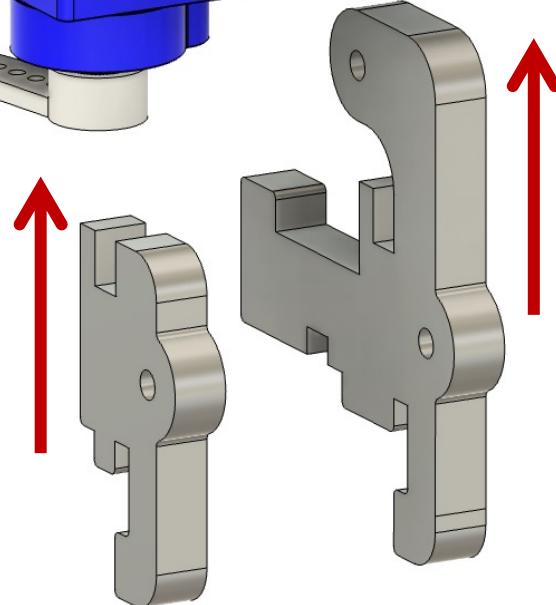
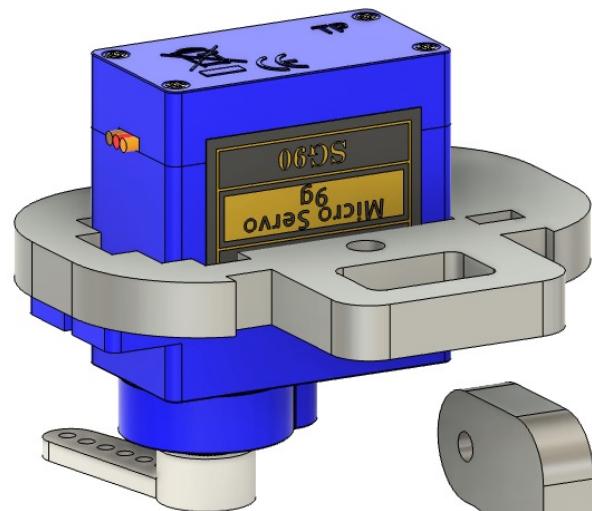
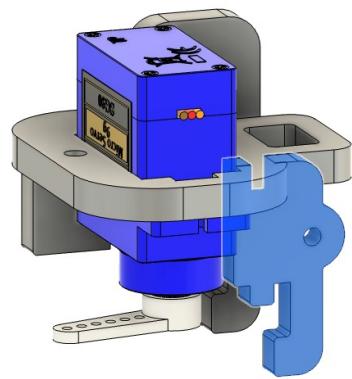
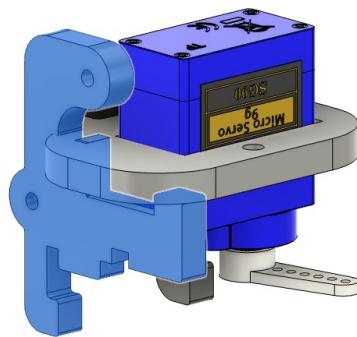
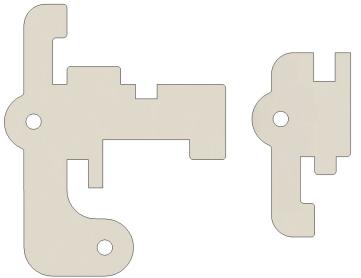


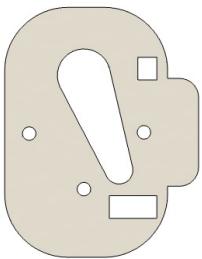
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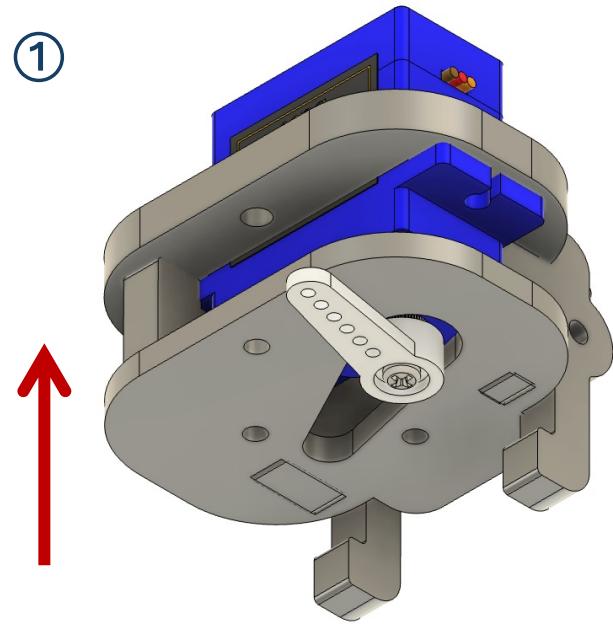
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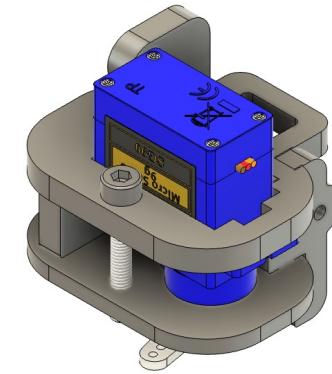
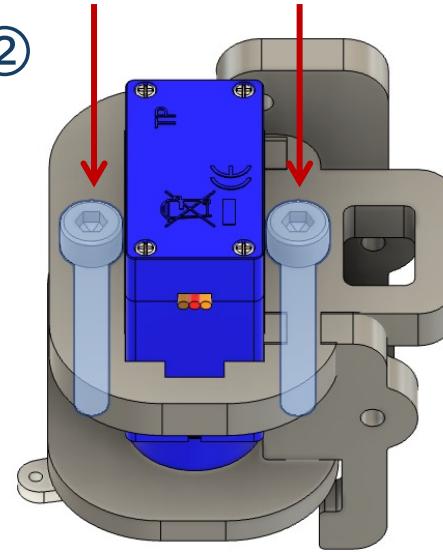


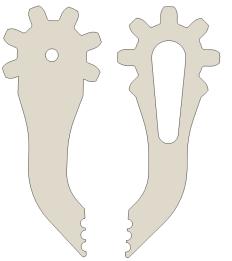
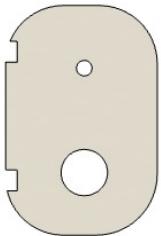


20mm x2

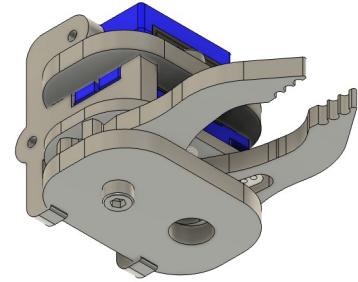
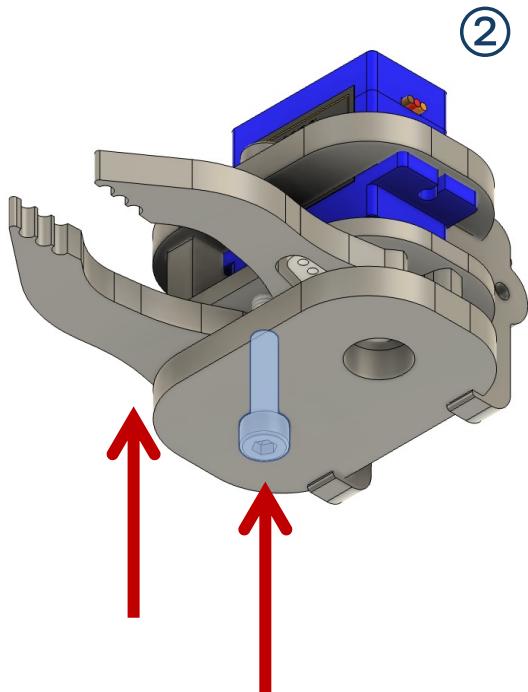
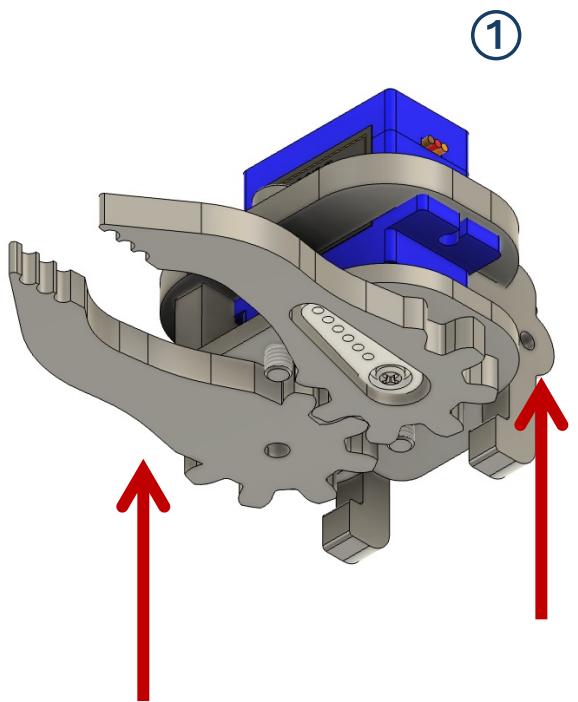


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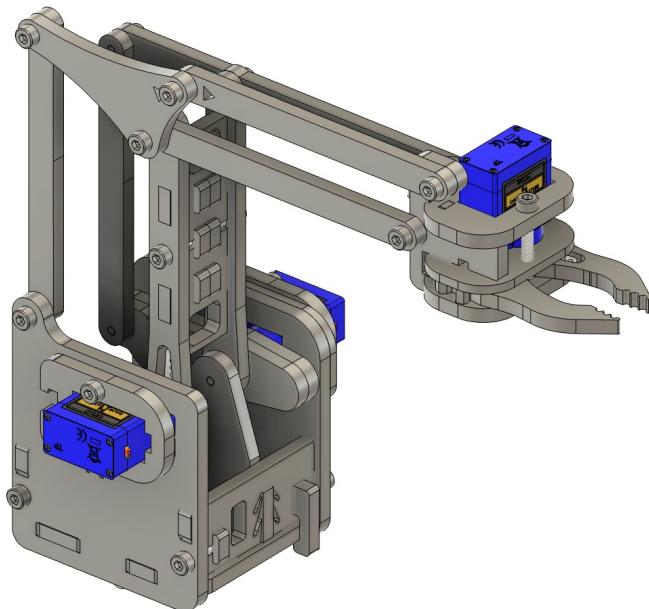
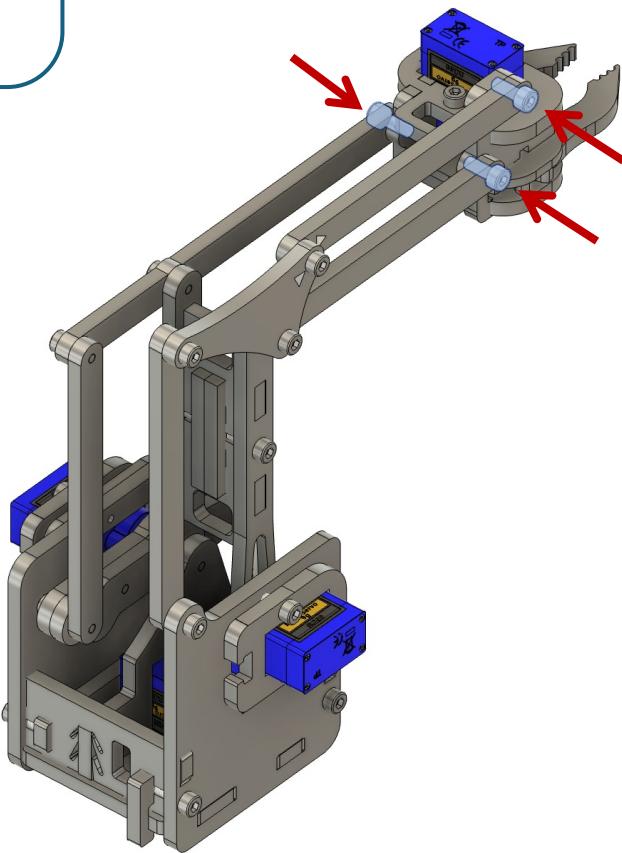


12mm x2

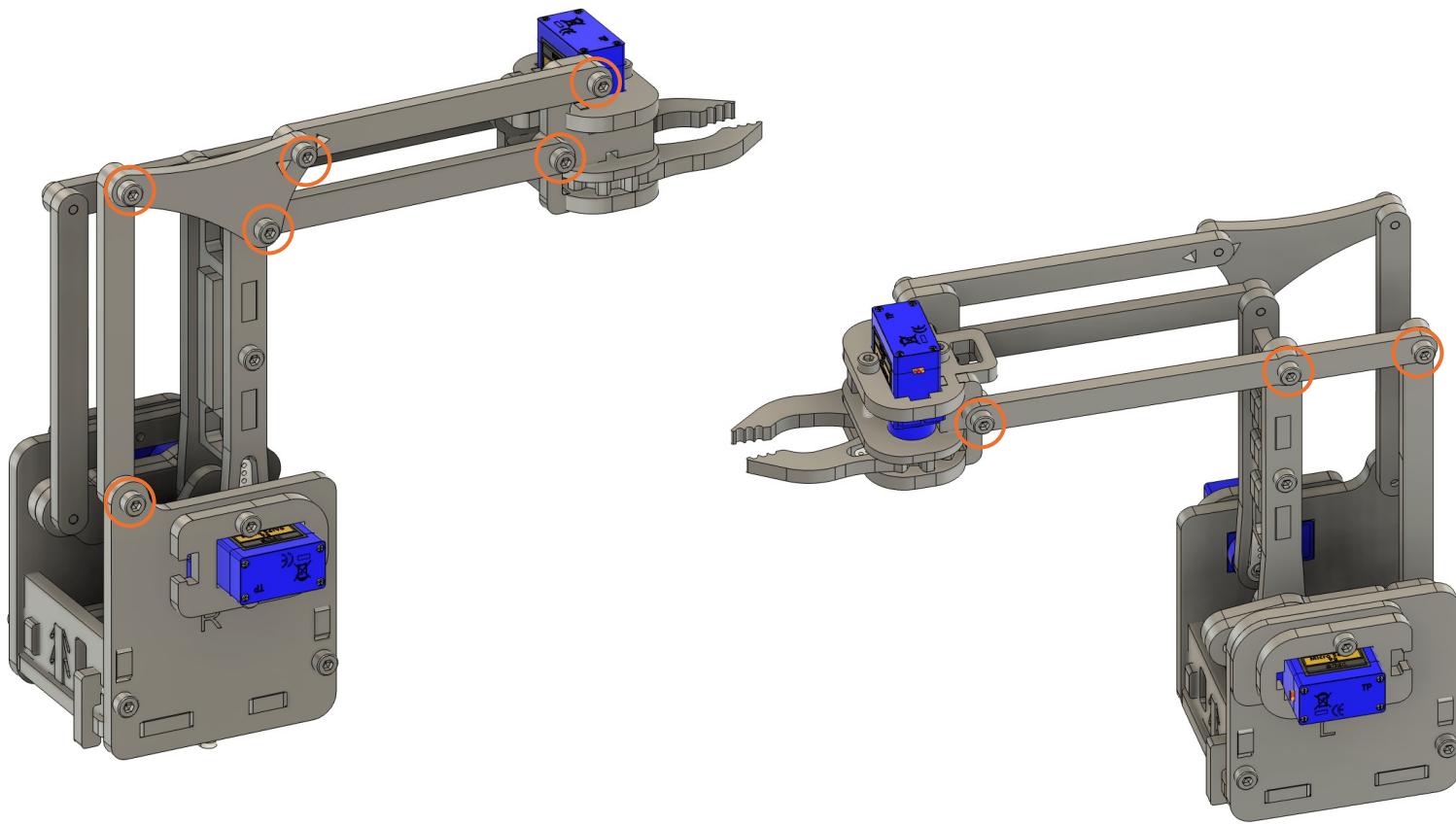


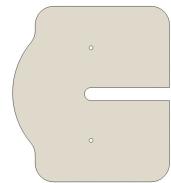
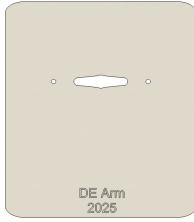


8mm x3

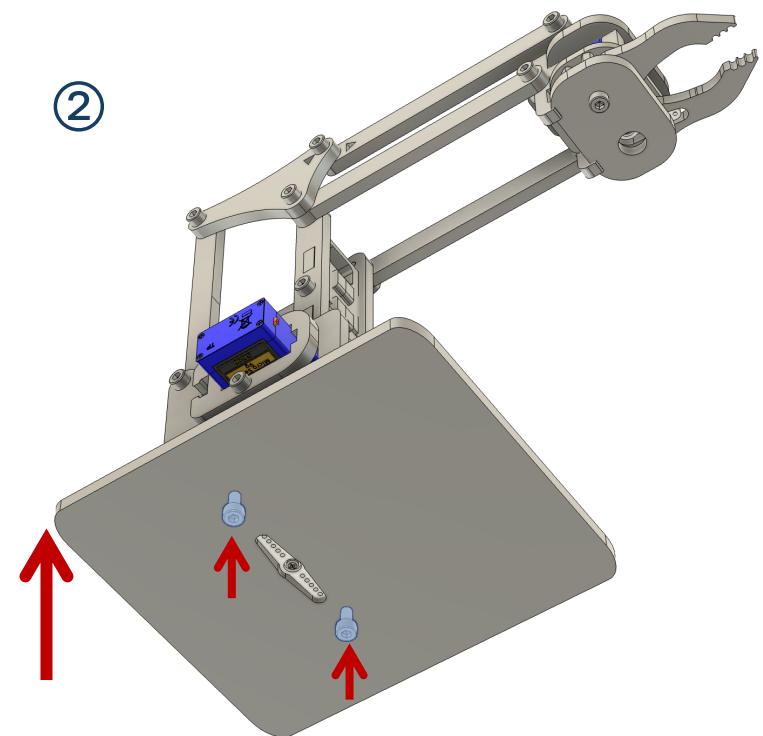


*Check if all joints move with little friction, if not, loosen the screw a few turns.

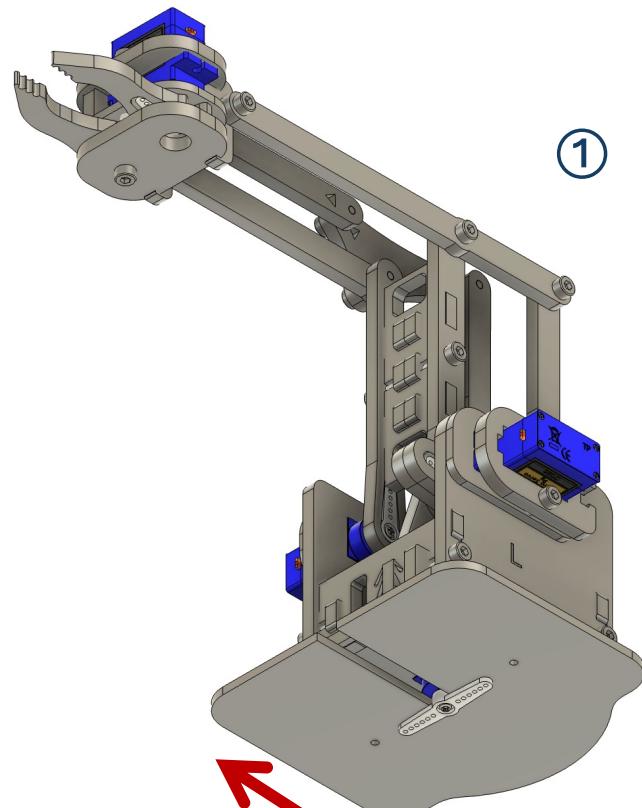




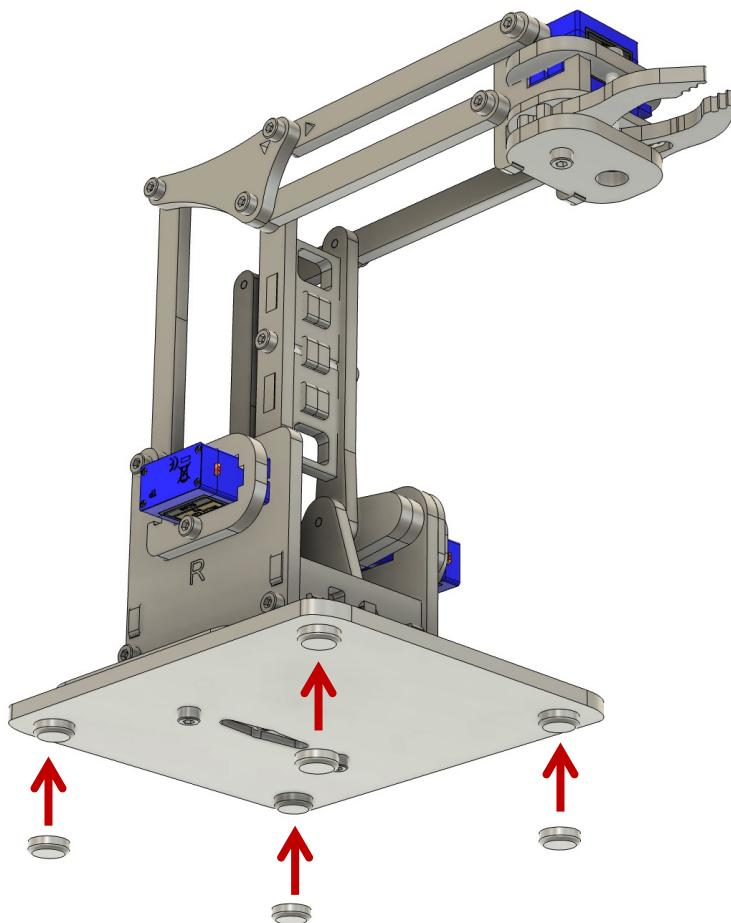
6mm x2



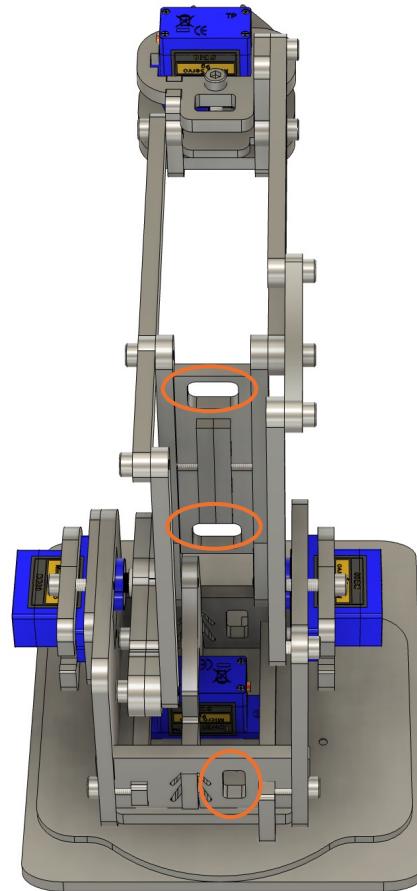
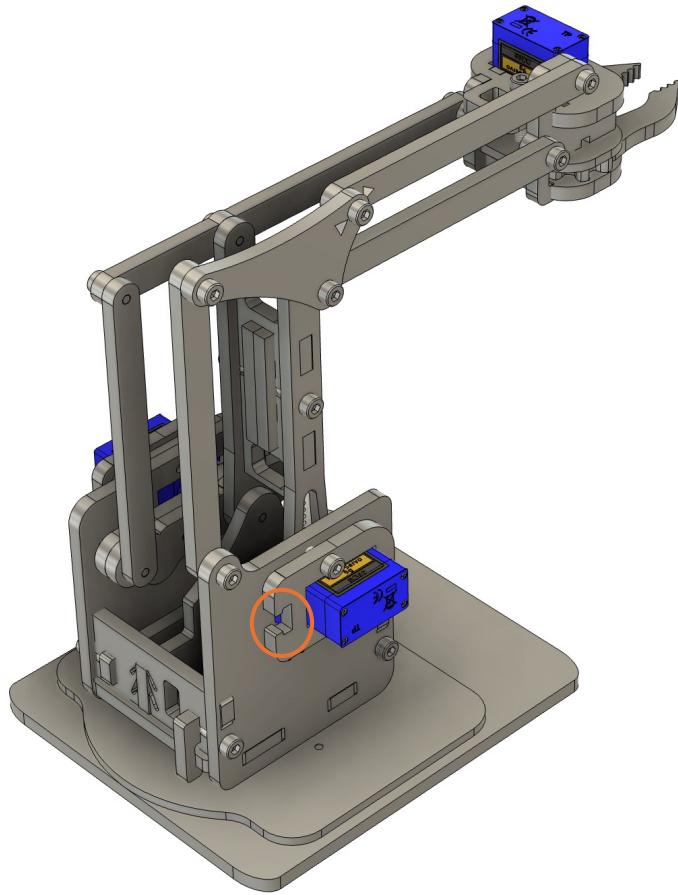
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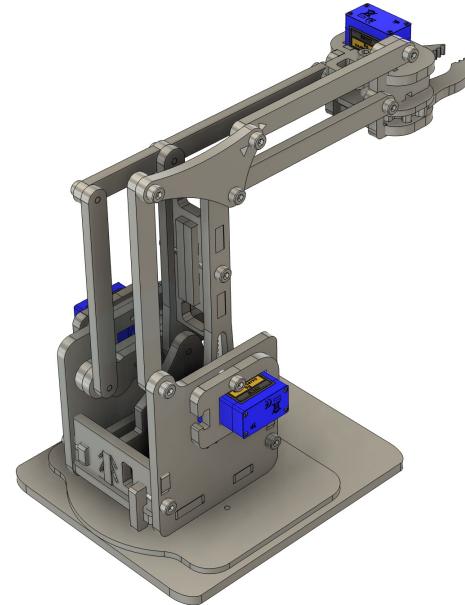
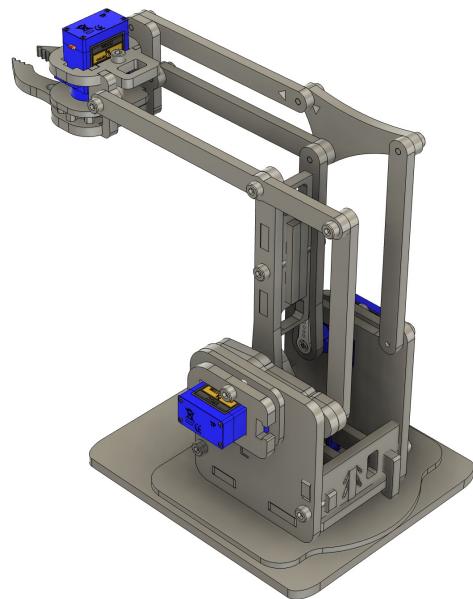
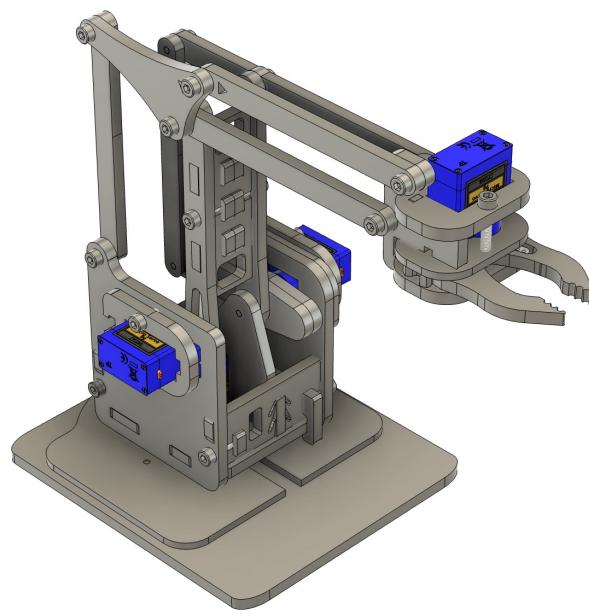
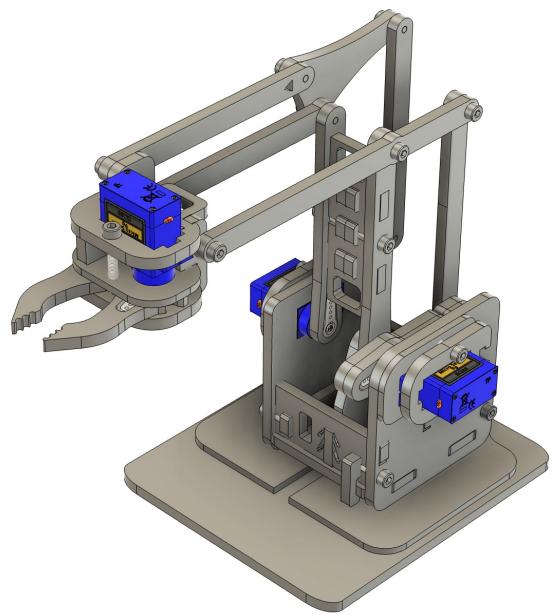


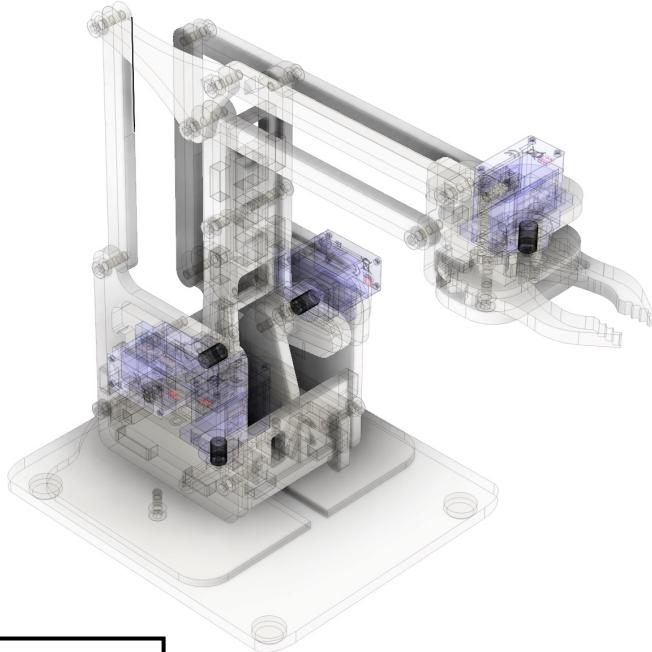
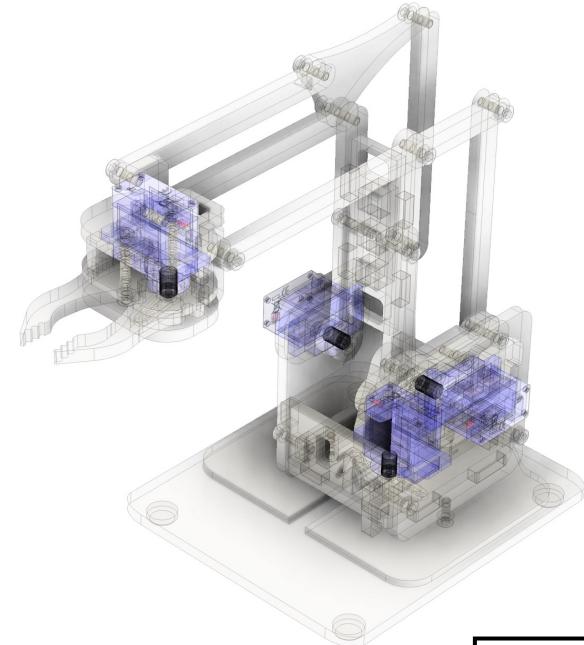
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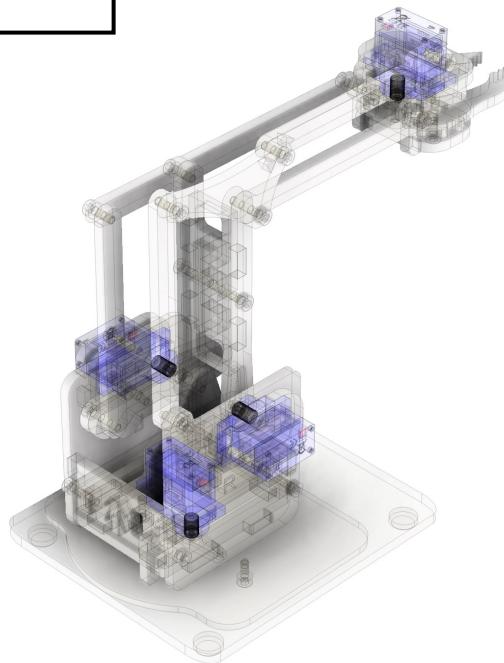
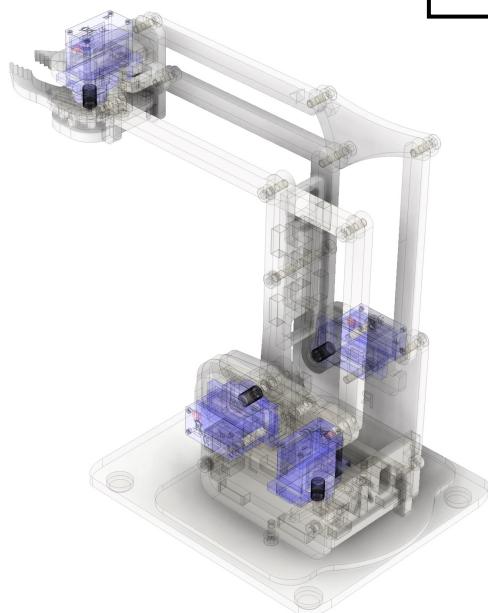
*Use the holes to manage the servo cables.







Congratulations!



Development Notes:

The DE-Arm is remastered by Tong Zhang and Dr Rebecca Stewart, from the open source MeArm V3 from [[MeArm Robotics Lab](#)].

The original build instructions for the MeArm can be found on the [[company website](#)] and [[Instructables](#)]. The original laser cutting file that was modified to create the DE-Arm is available on [[Thingiverse](#)].

This module is taught at the [[Dyson School of Design Engineering](#)] at [[Imperial College London](#)].