

ORION

ROBOTICS

Razor
Assembly Guide

Introduction

All Orion Robotics brackets are made in the USA. We fabricate them using a large in-house industrial laser. We anodized our brackets to prevent oxidation. This gives the bracket a much better look and longer life.

Tools

There are some basic tools you will need to get started. A good set of Phillips screw drivers and small pliers. Different sized screws are used throughout each robot. So more than one size Phillips is a good ideal.

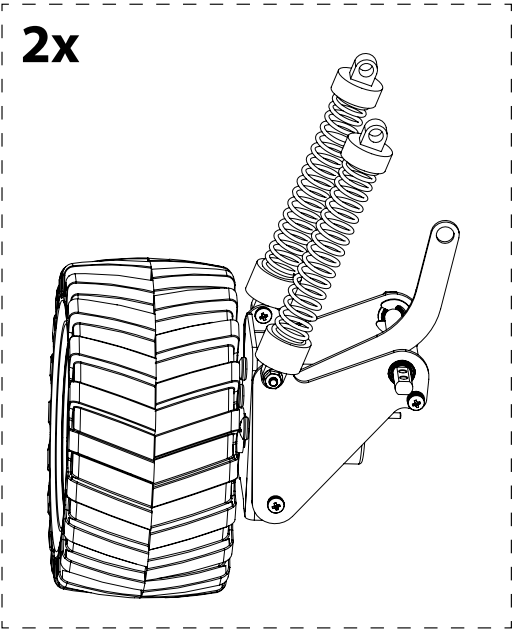
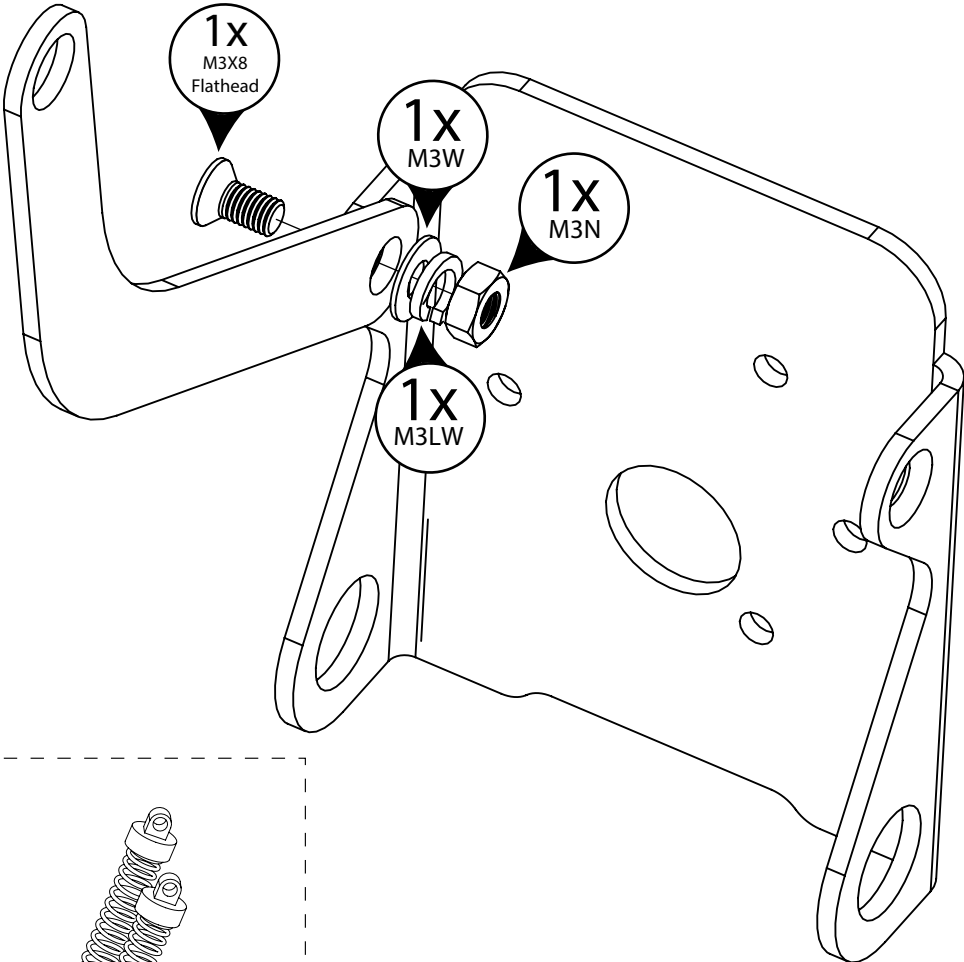
Safety

When working with robots some basic safety rules should be followed:

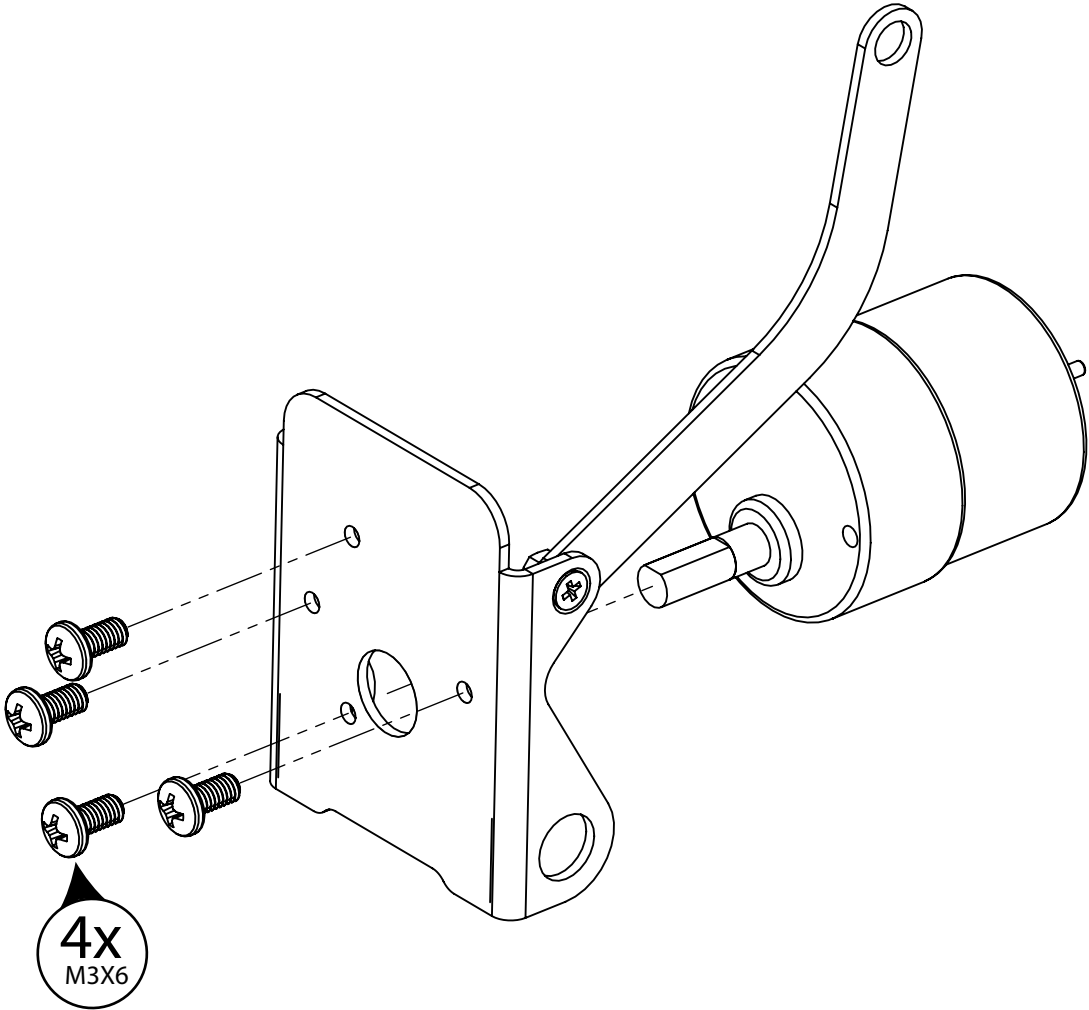
1. Eye protection should be worn at all times.
2. Some bracket edges can be sharp and can easily cut you.
3. The robots are powered from lithium polymer, or Li-Po batteries with high discharge rates. If shorted or incorrectly connected they can easily cause fire or other damaged.
4. When working with the robots there are several pinch points. Be aware as this will hurt if you get caught in them.
5. Don't be in a rush when assembly your robots. Injury or damaged parts can easily result. Take your time and double check each step.

STEP

1

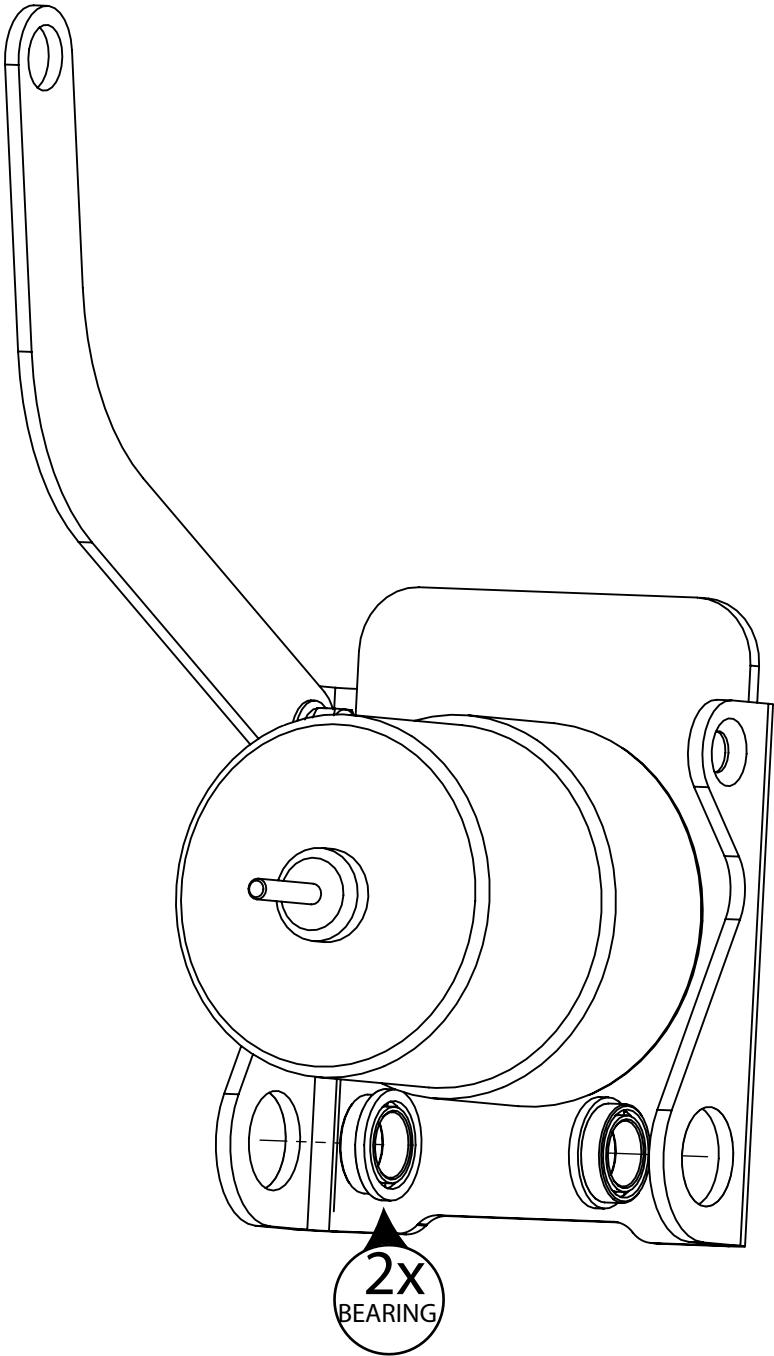


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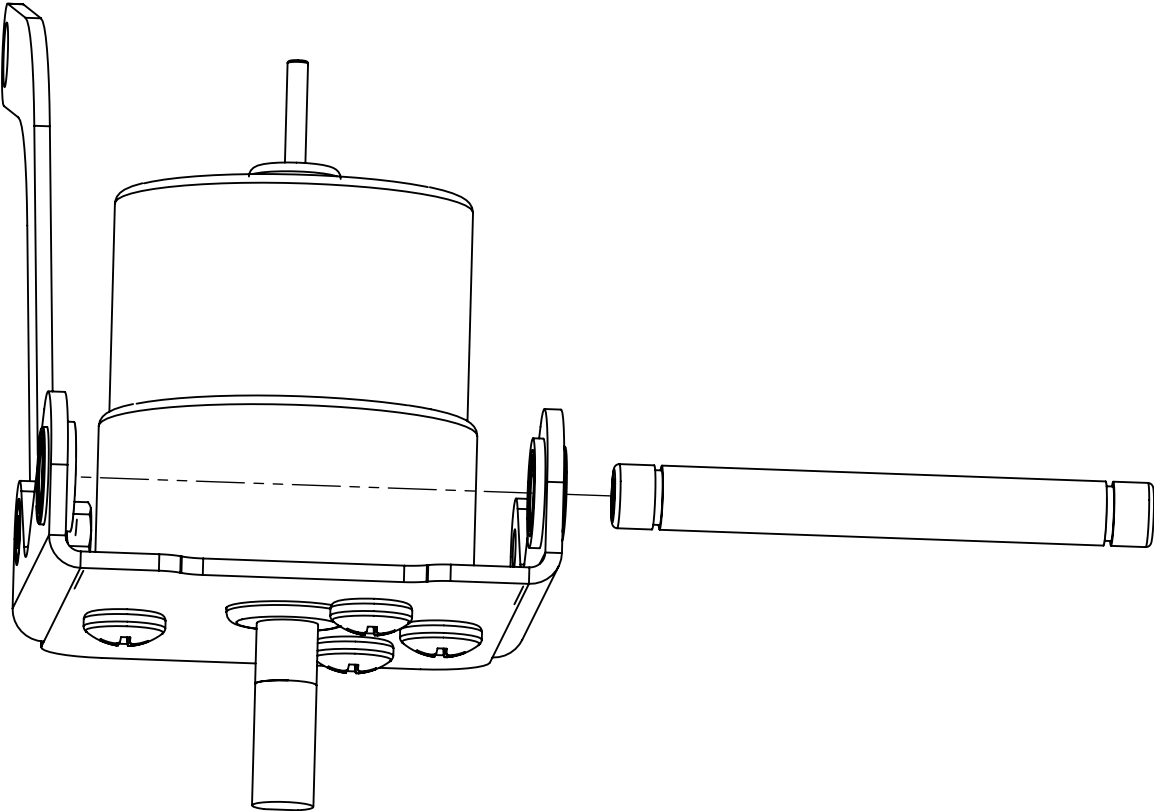


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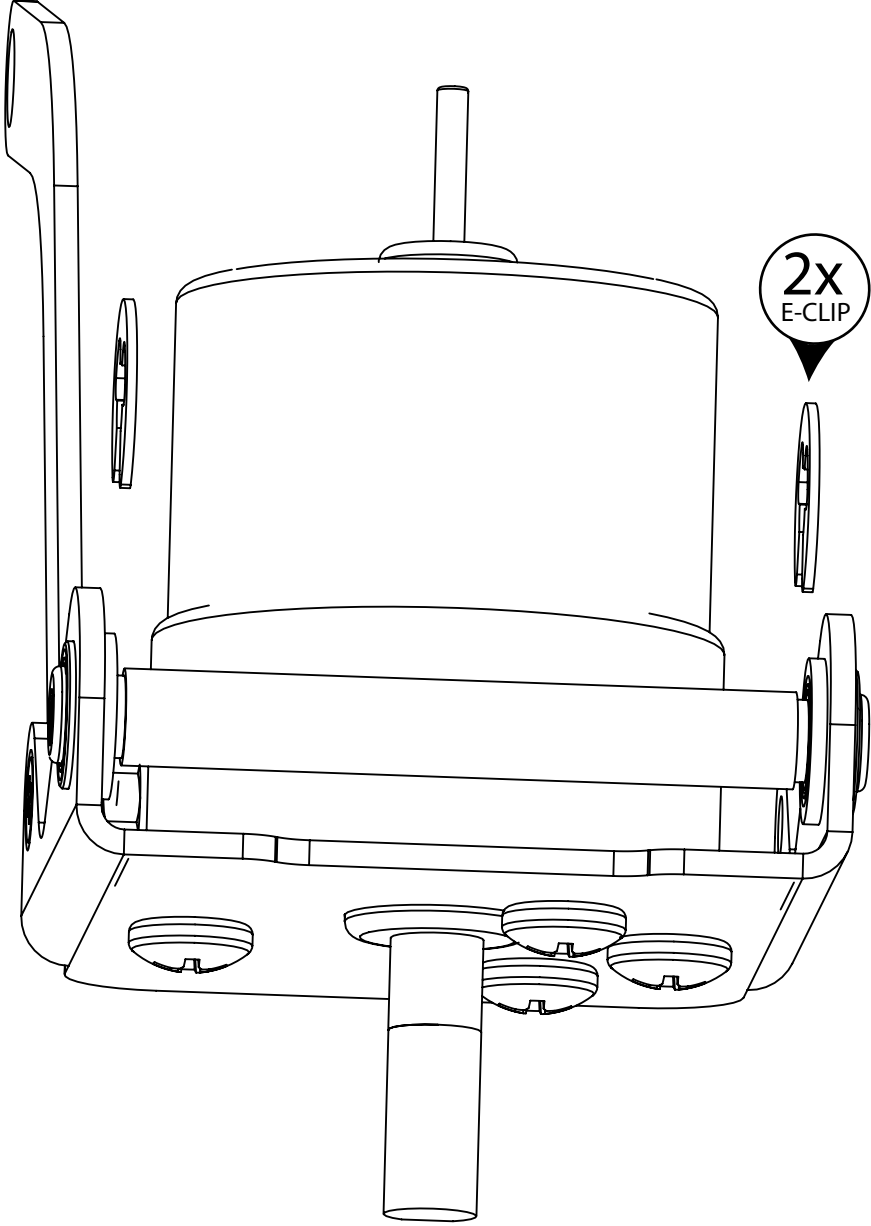
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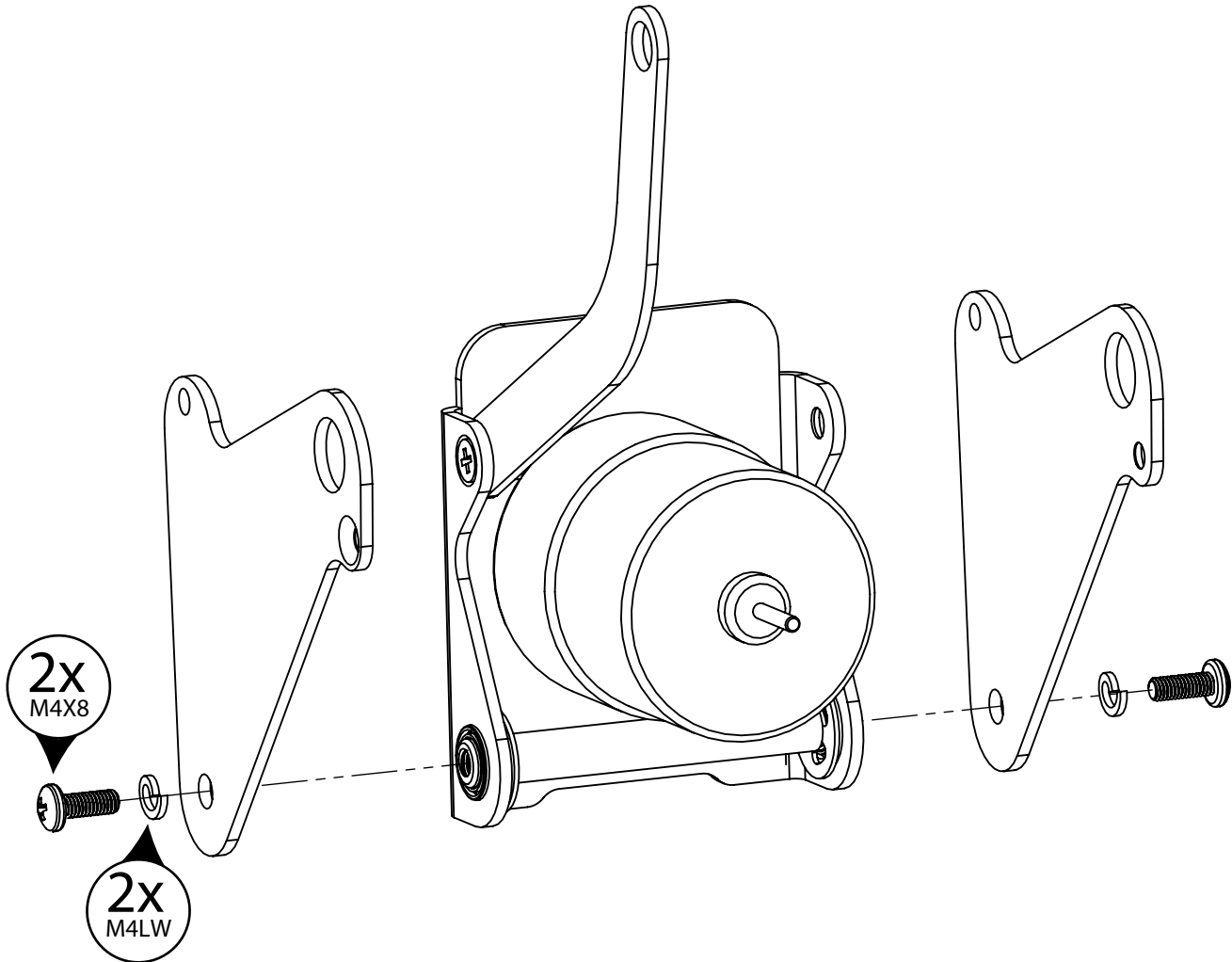
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STEP 5

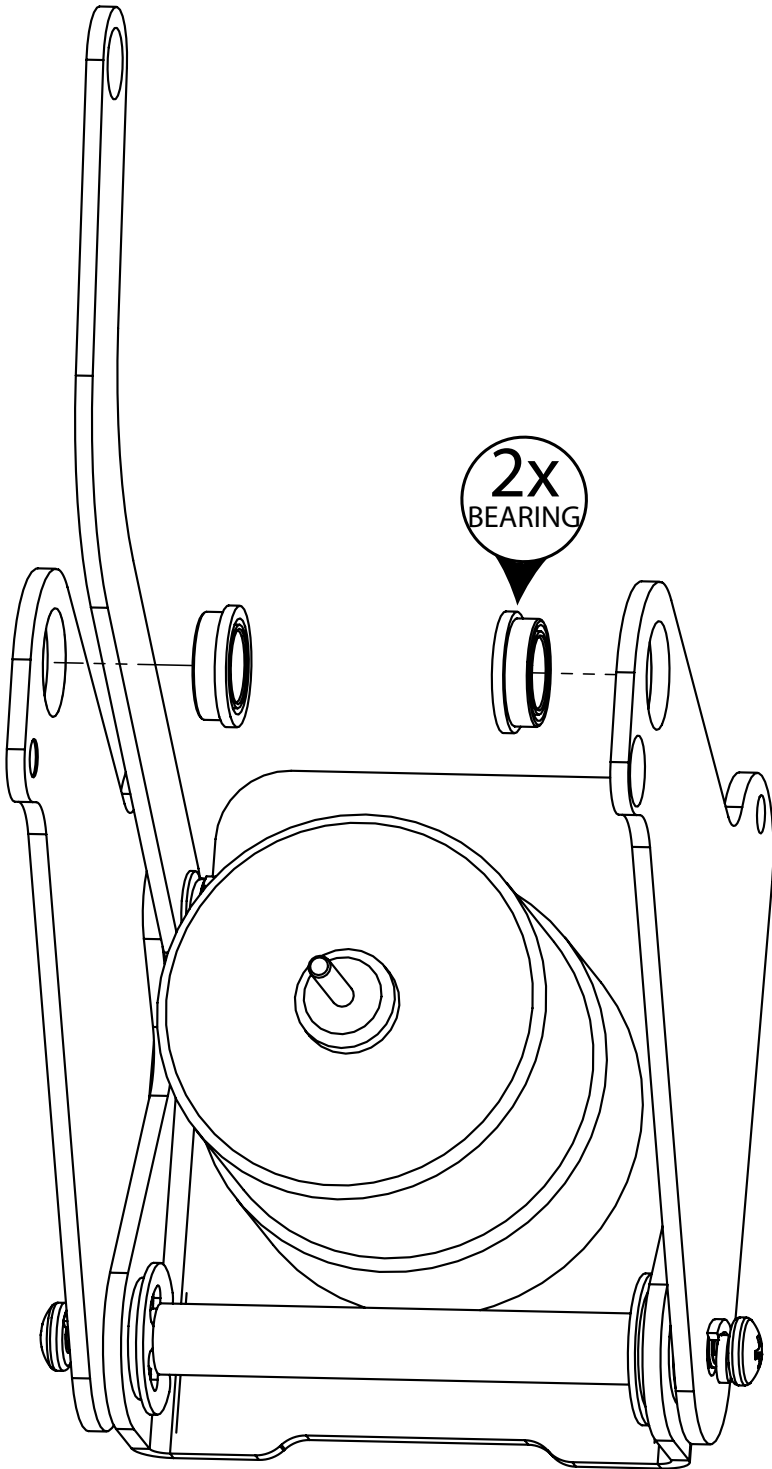


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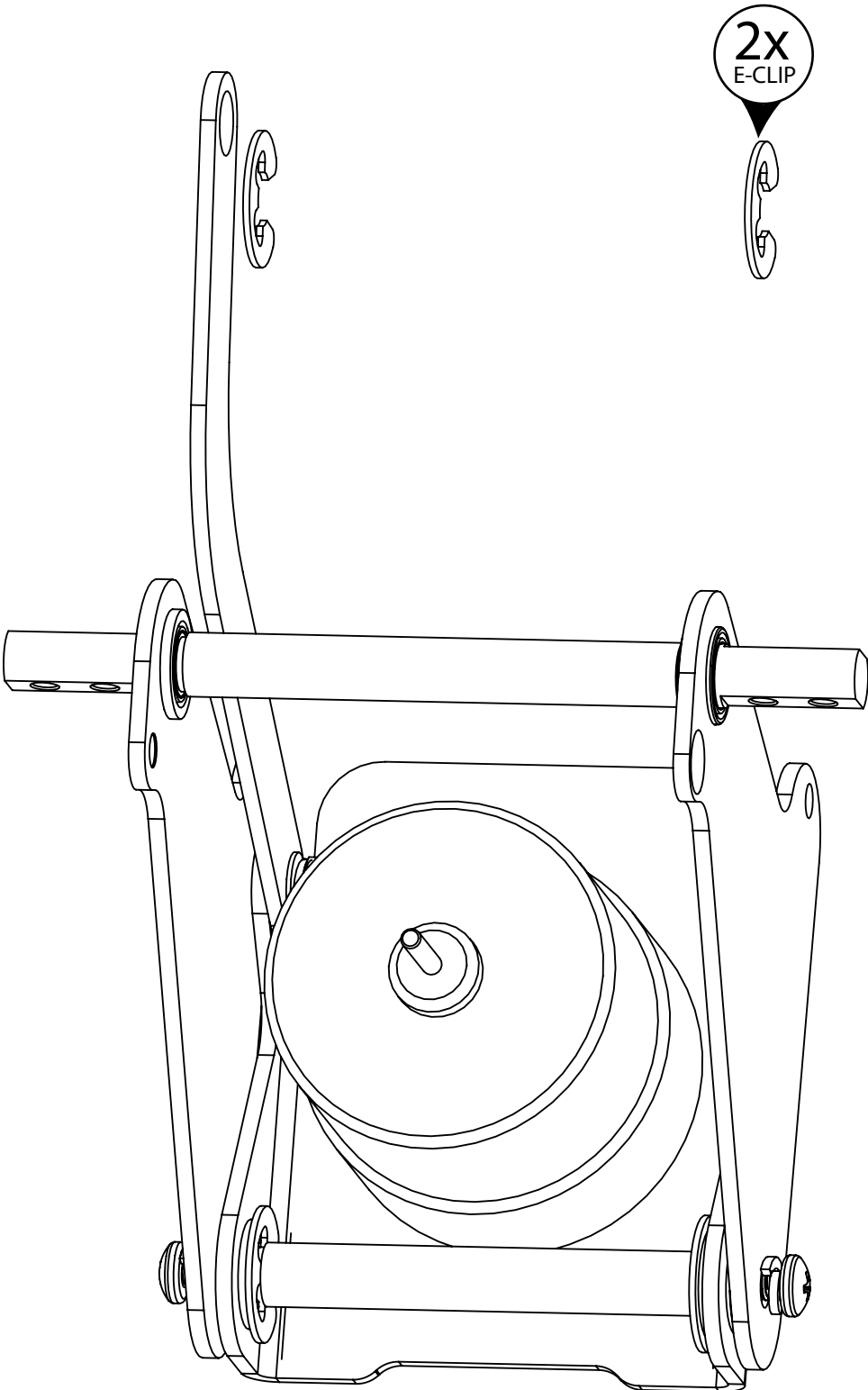


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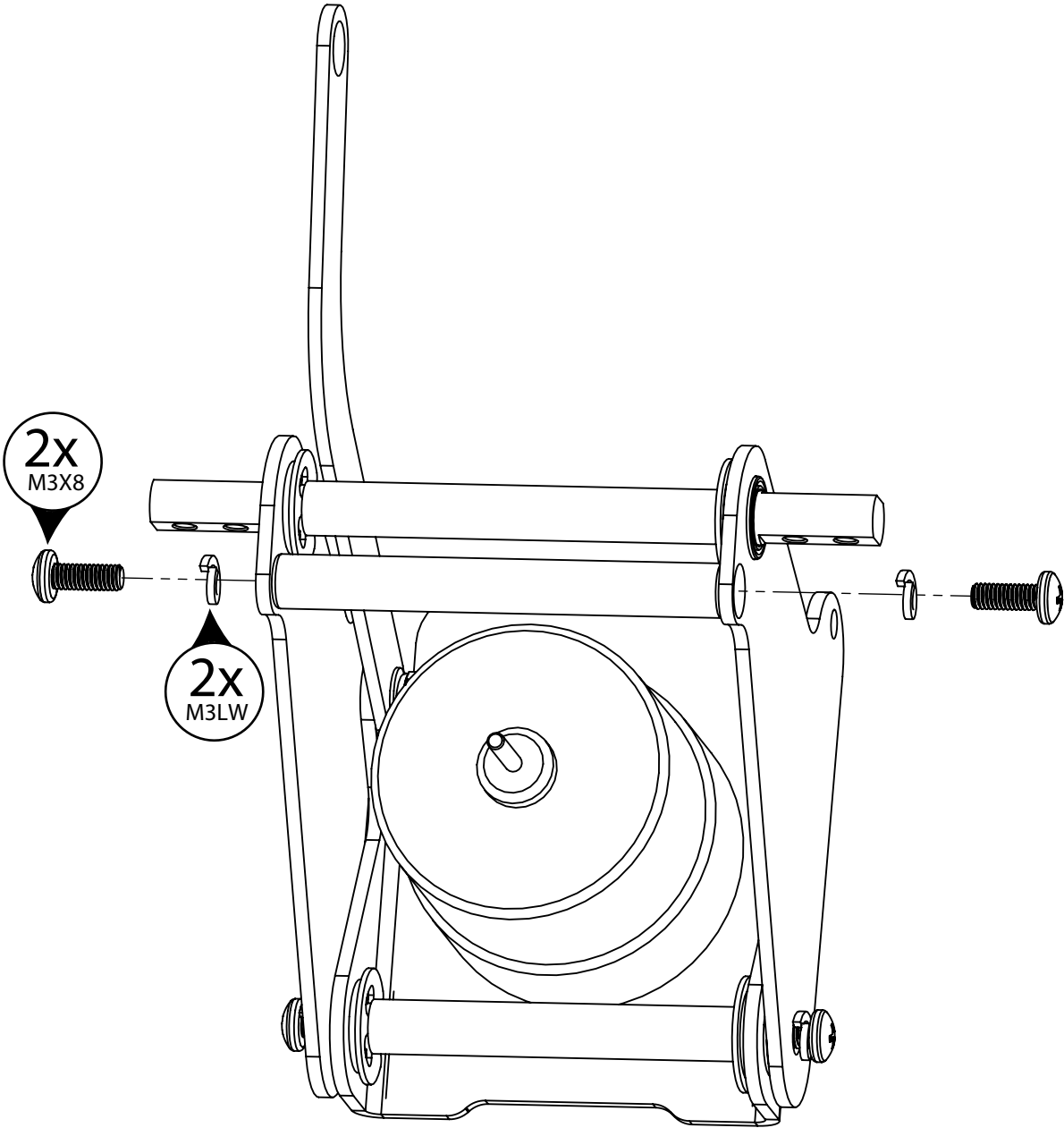


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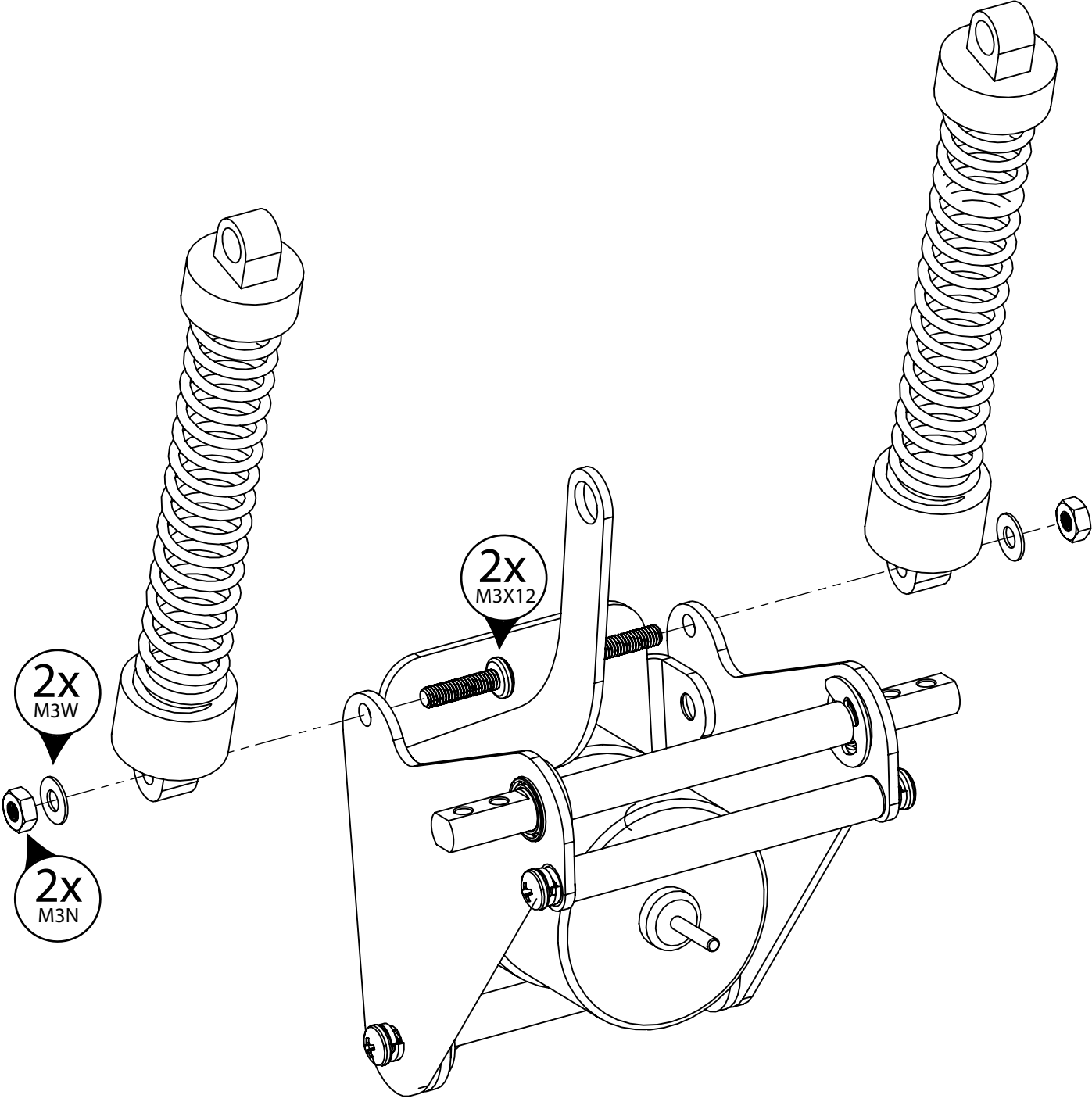
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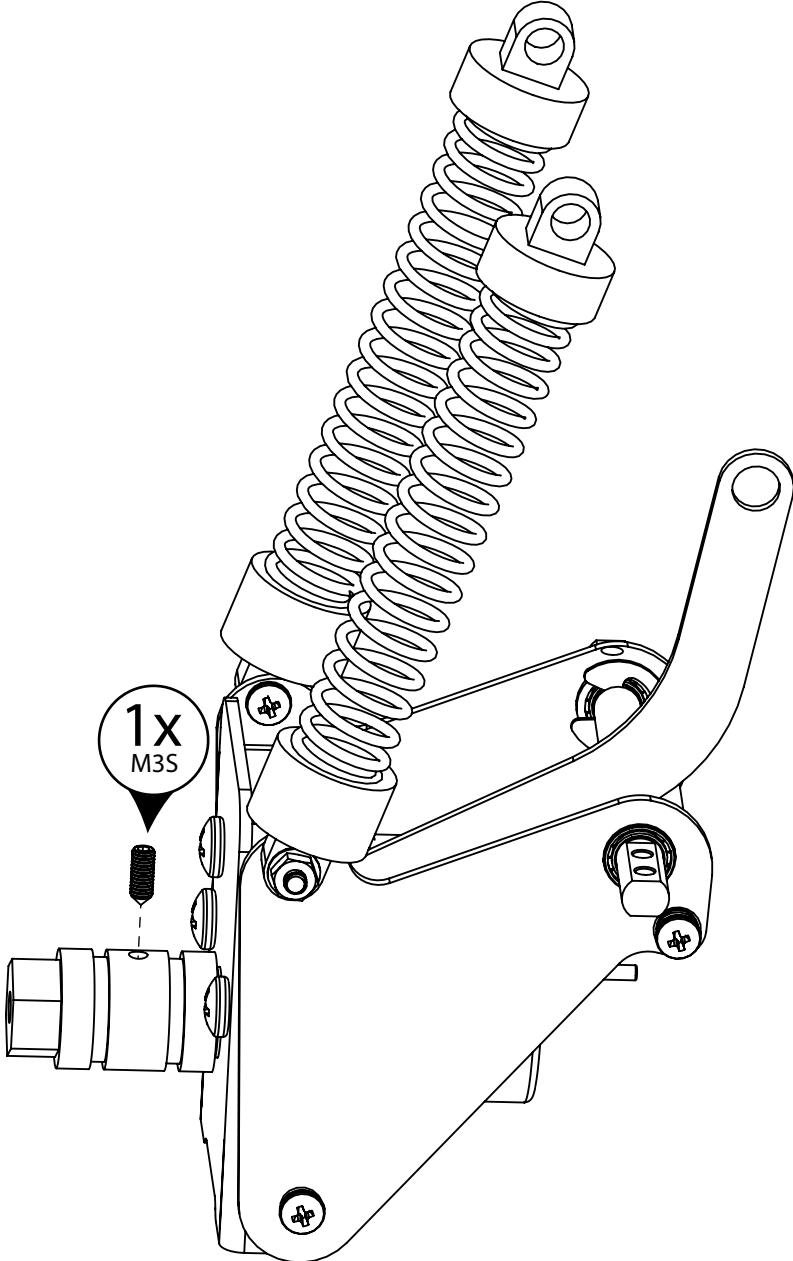
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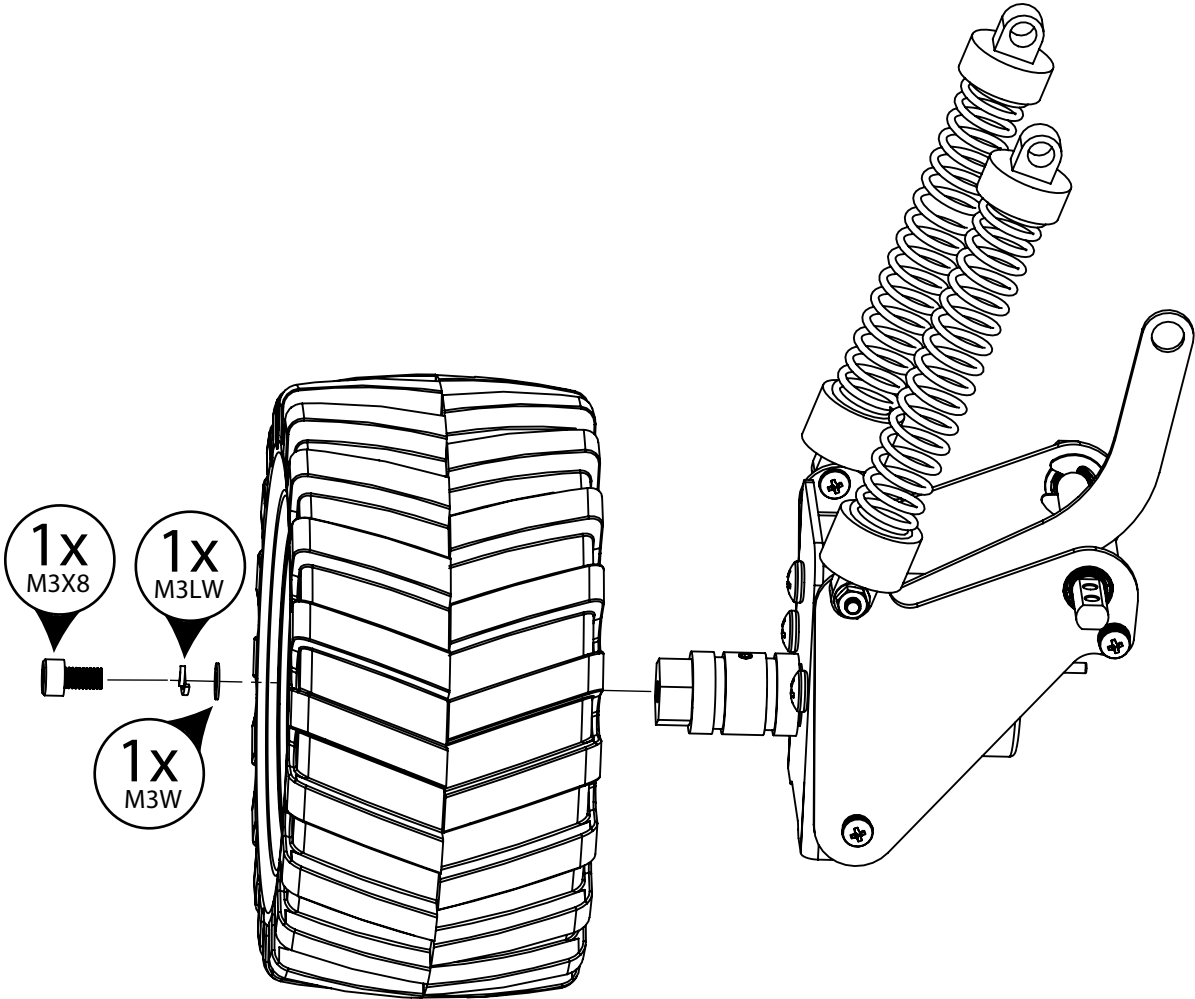


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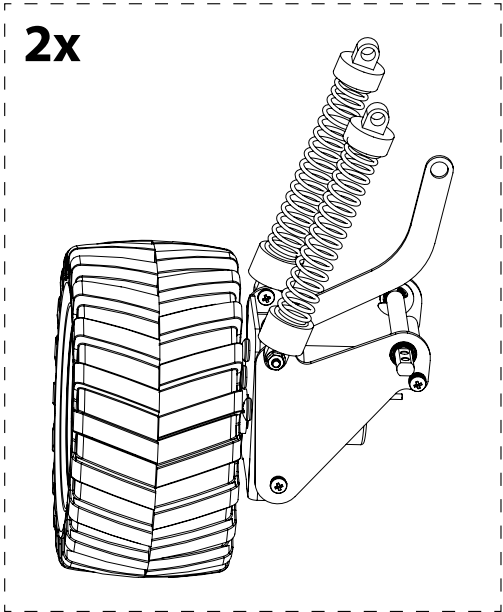
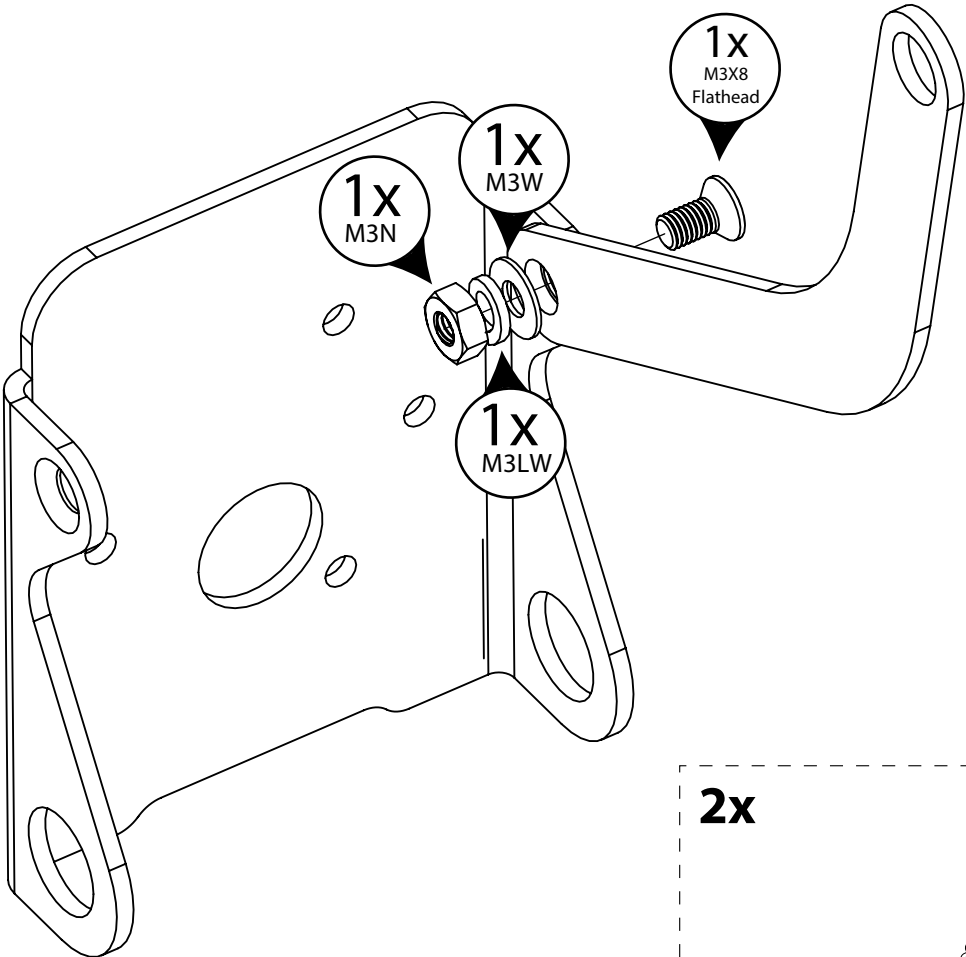


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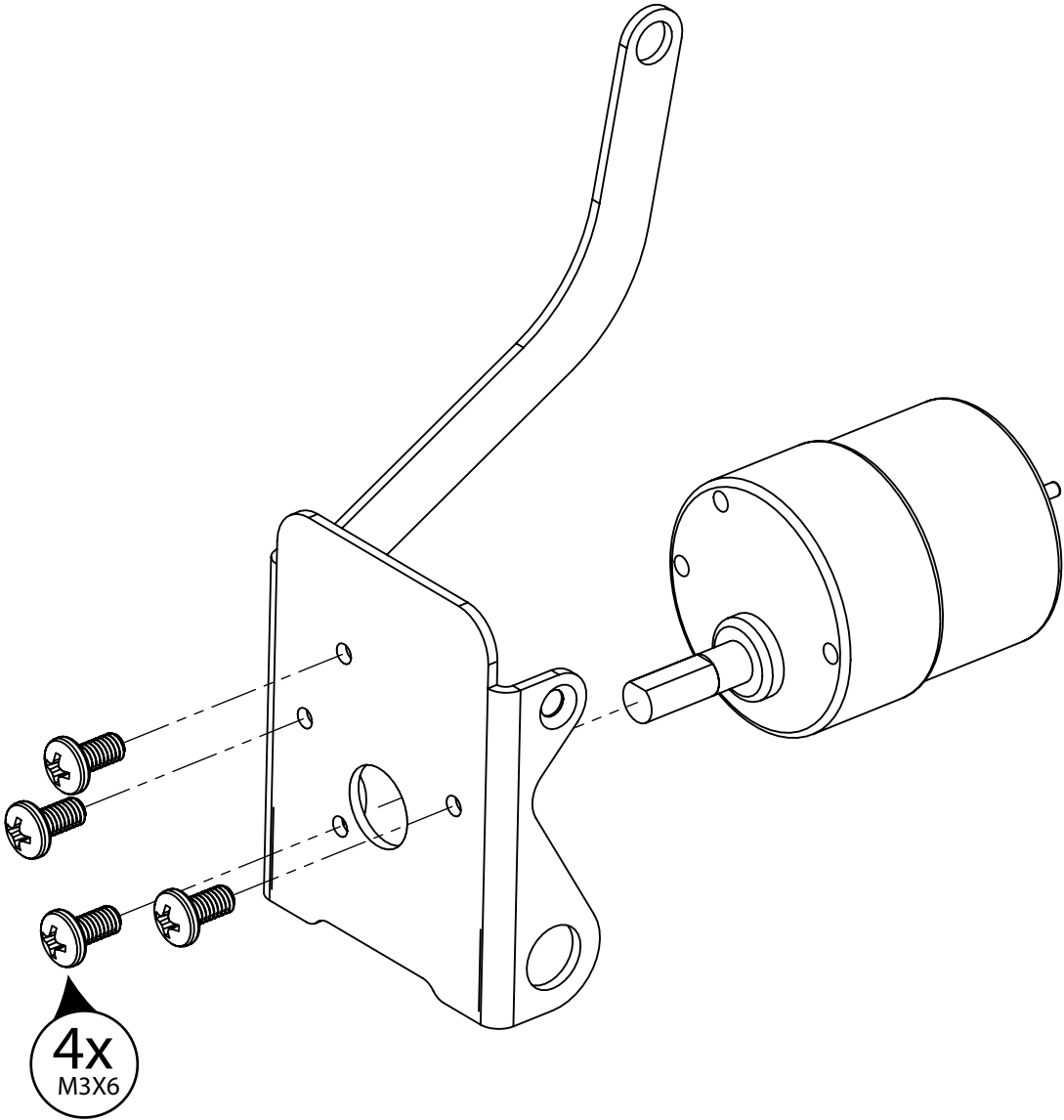
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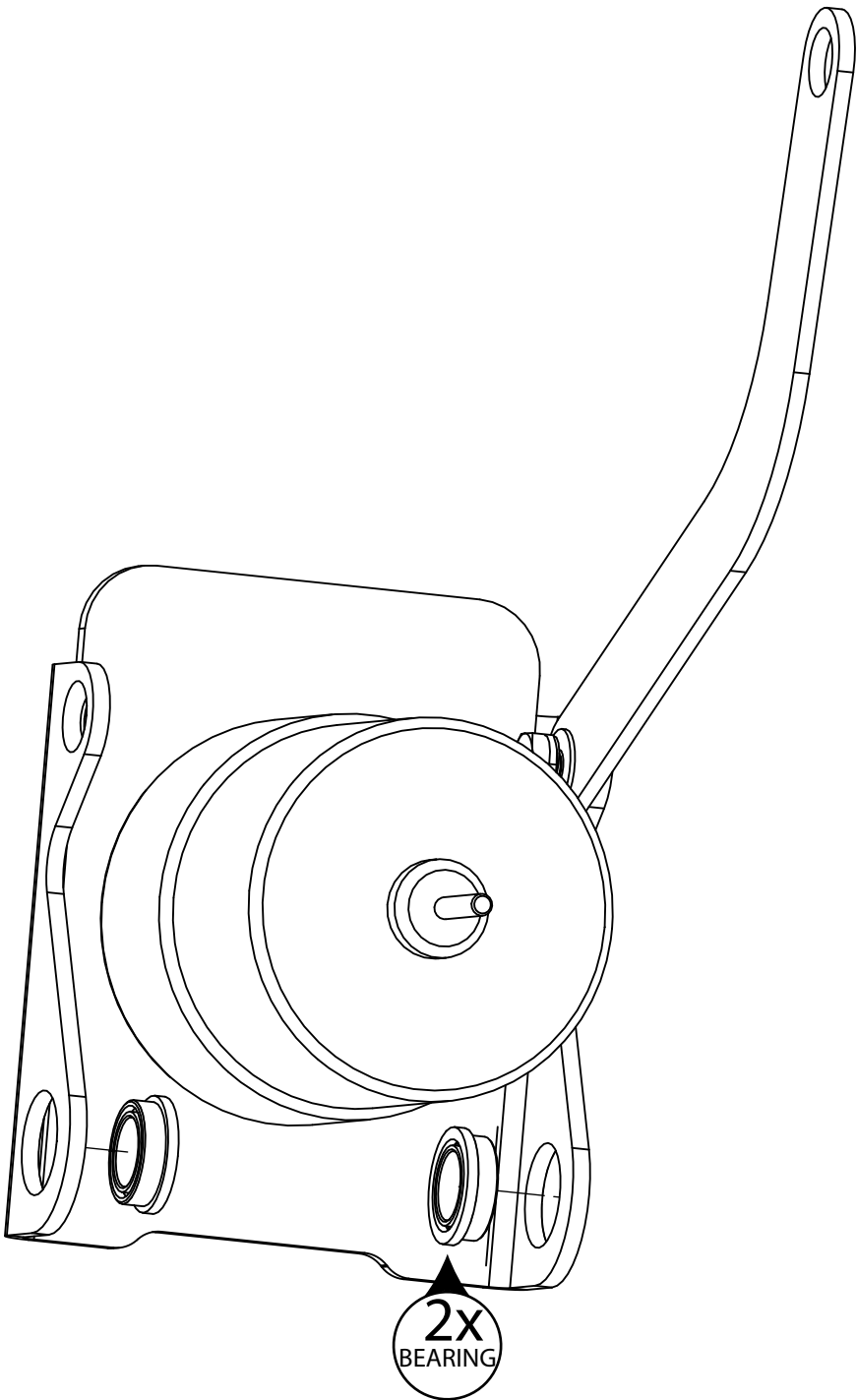
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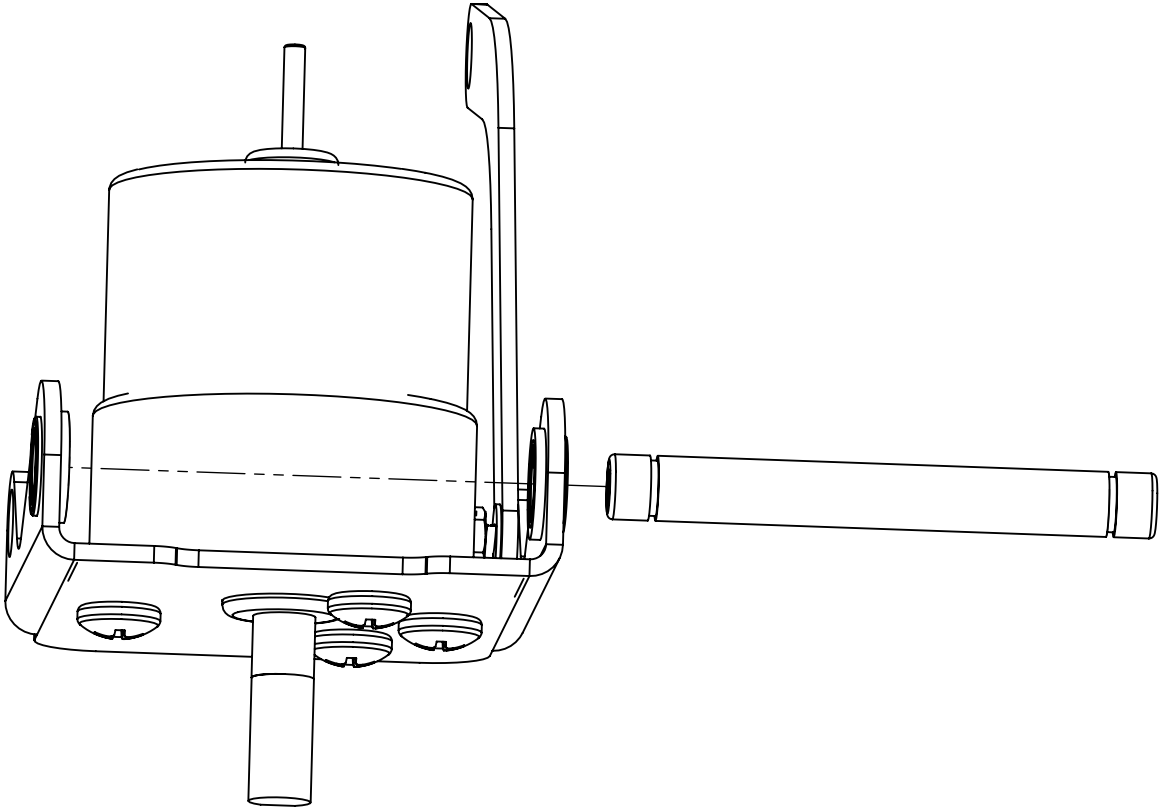


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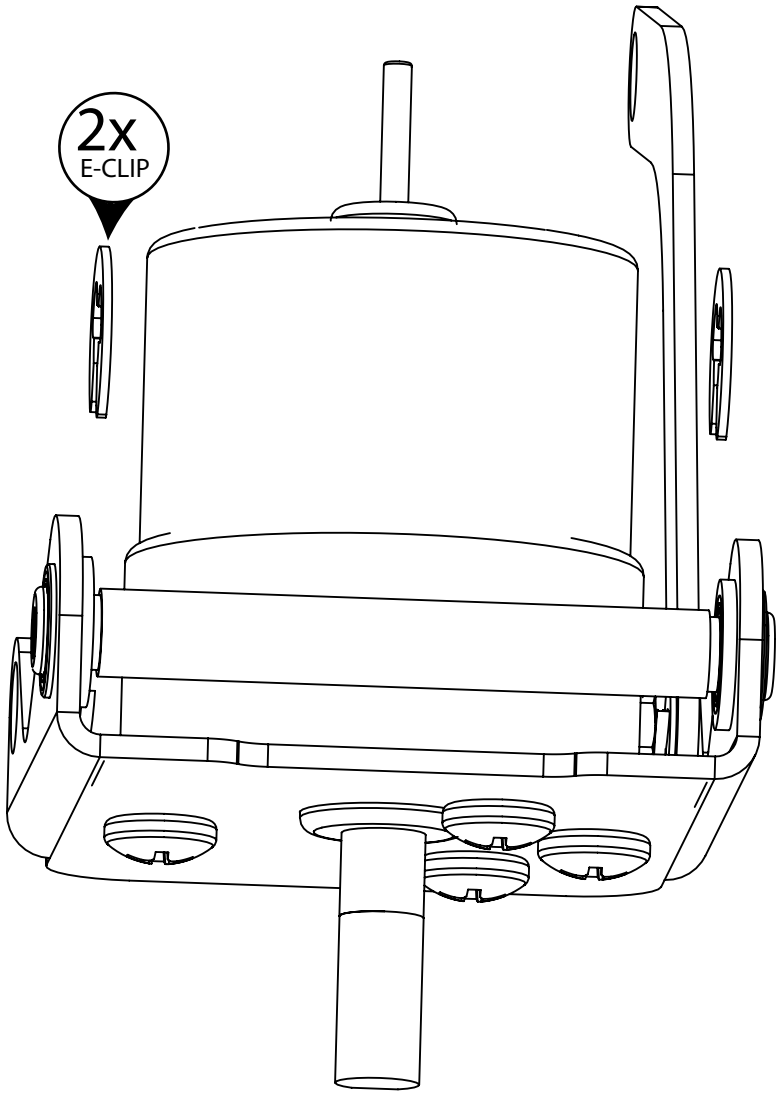


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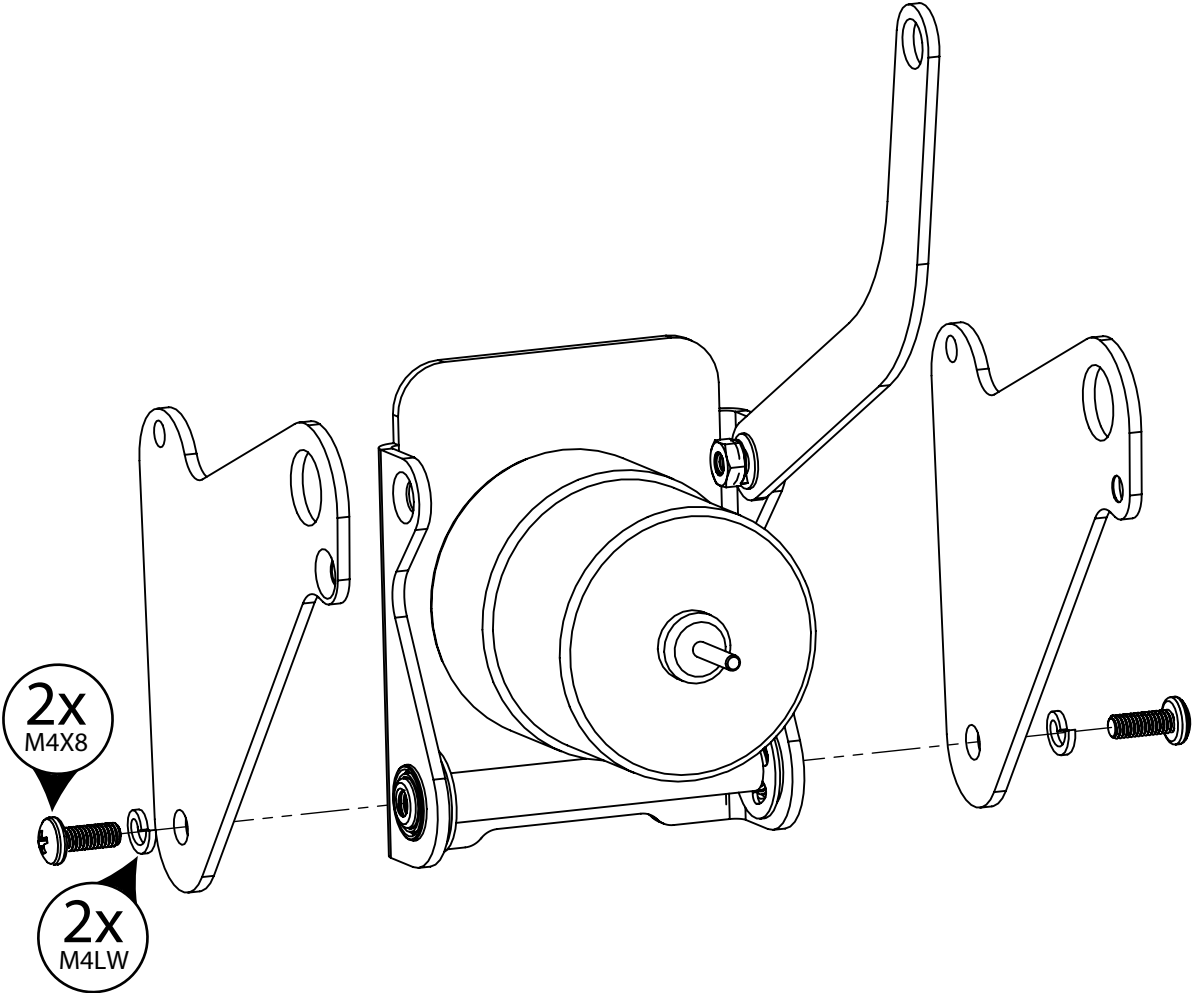
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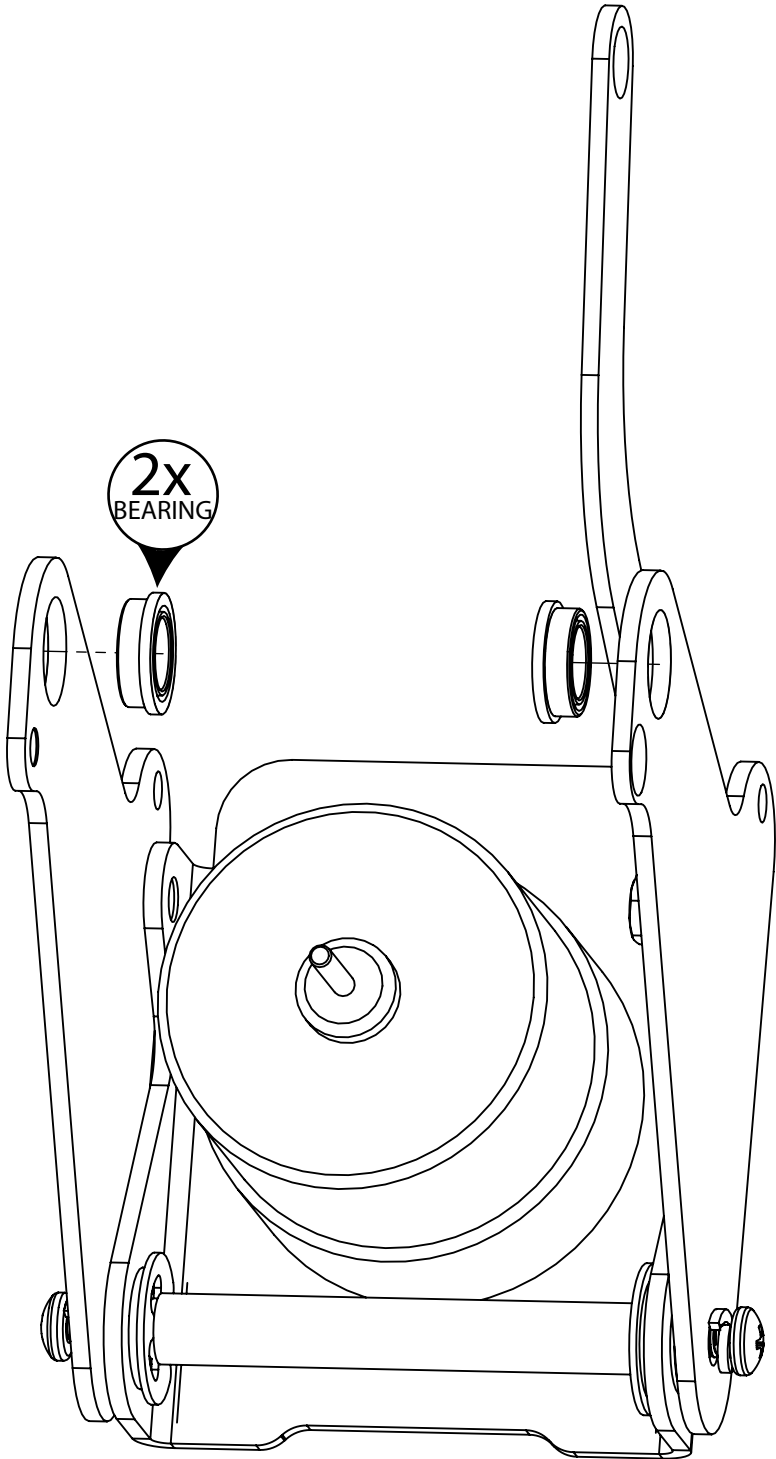
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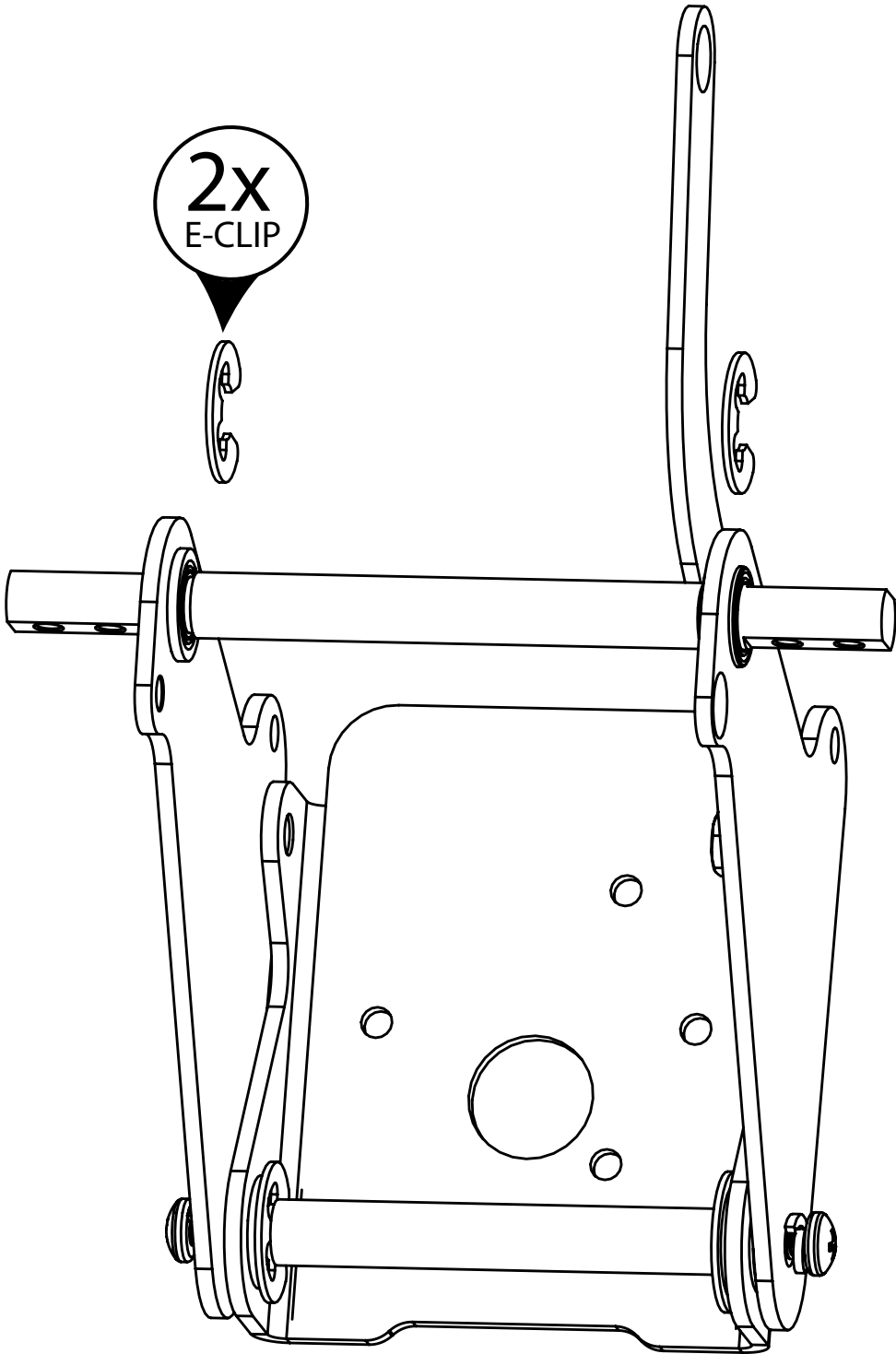
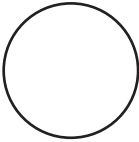


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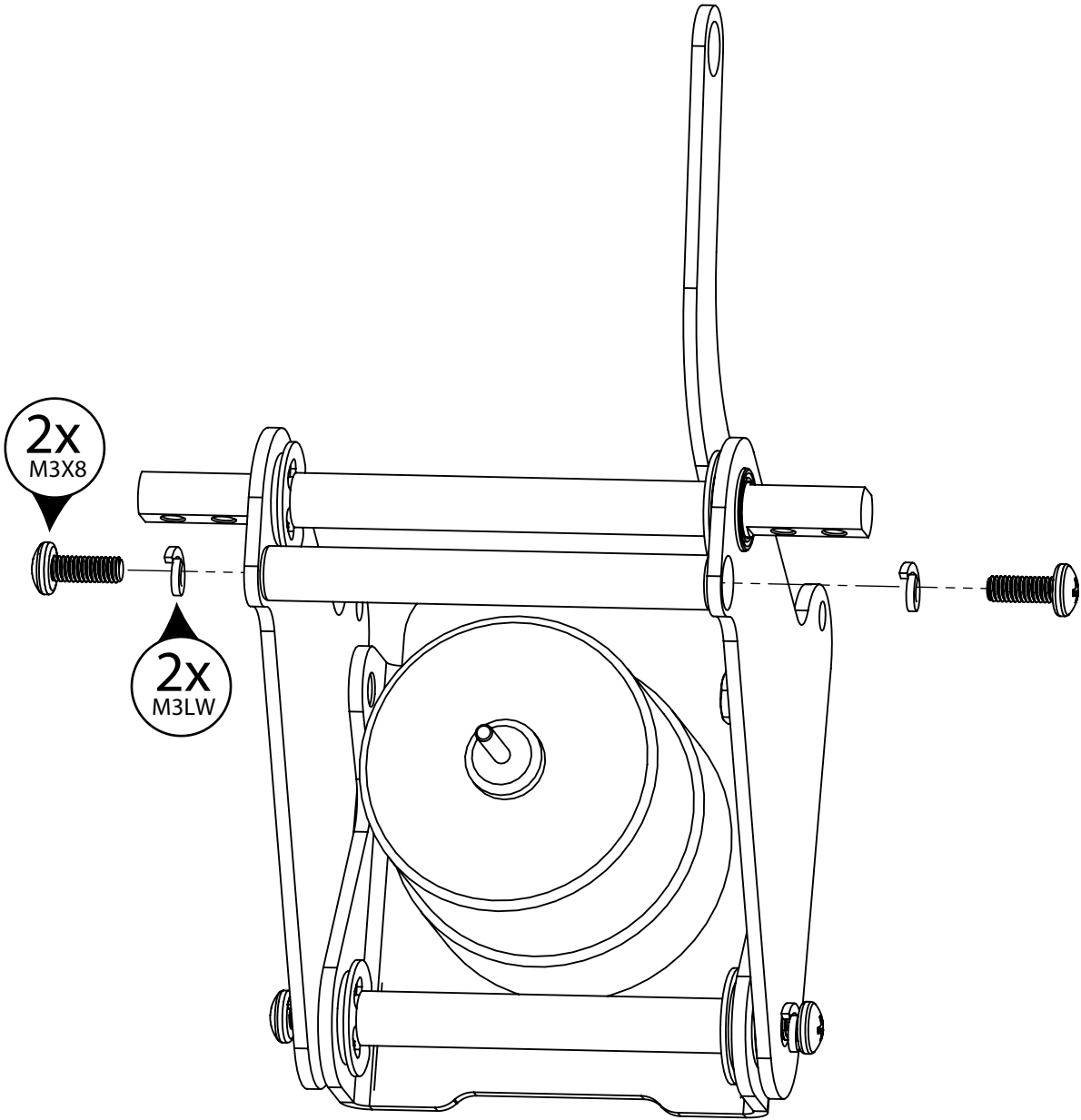


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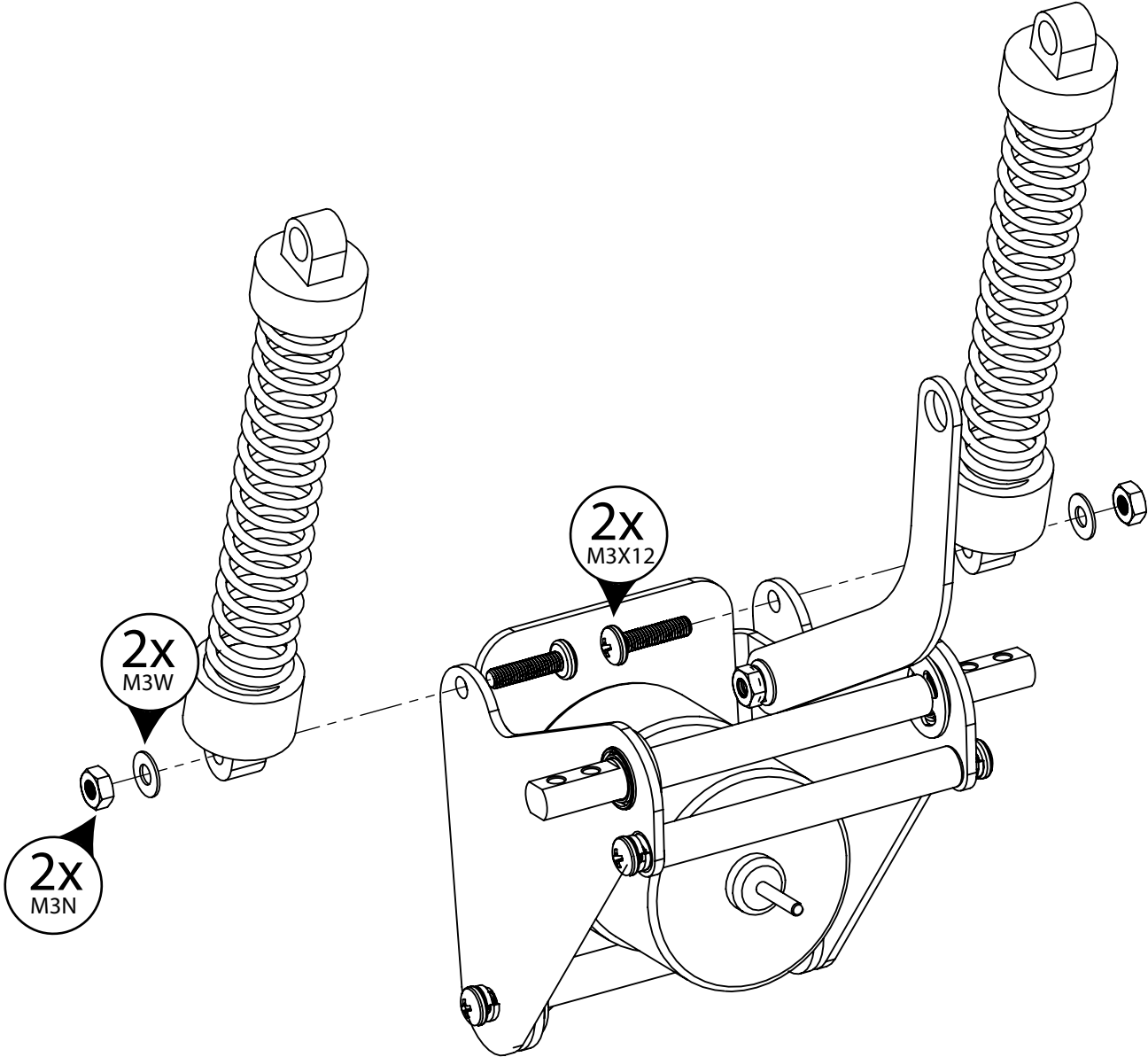


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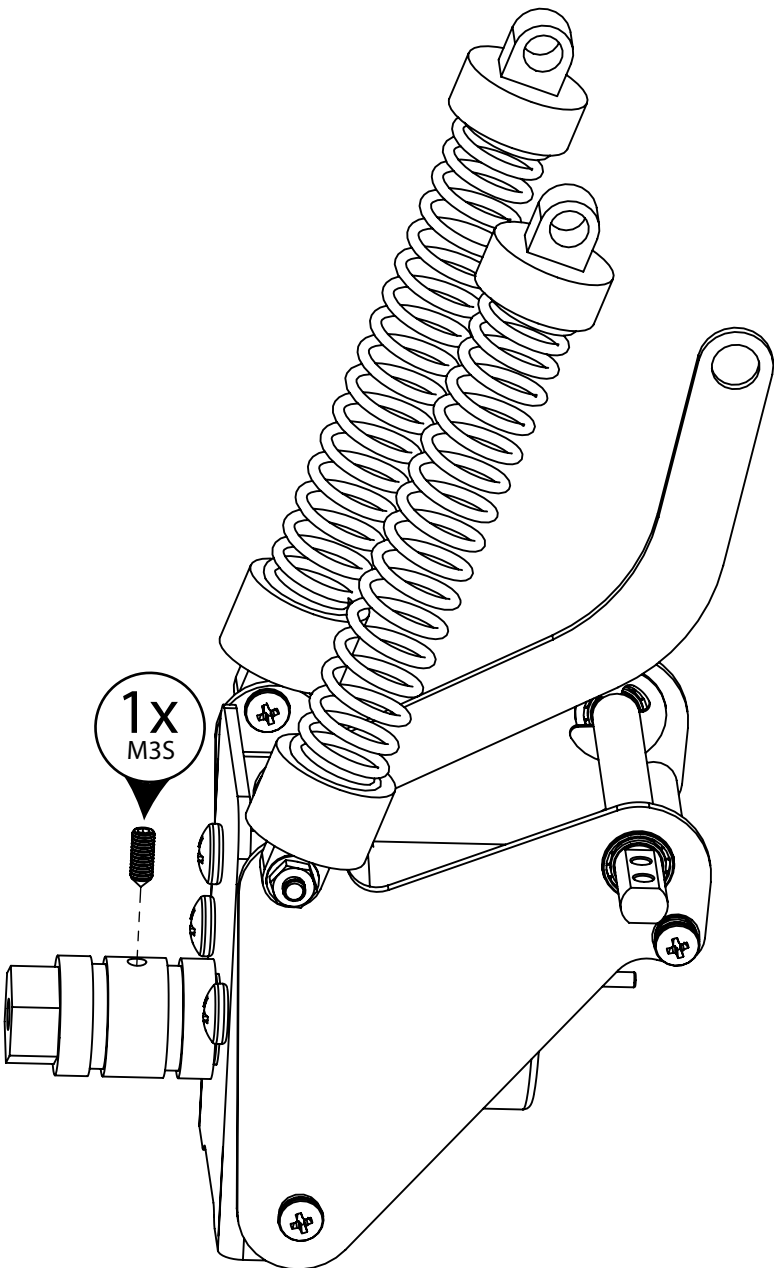


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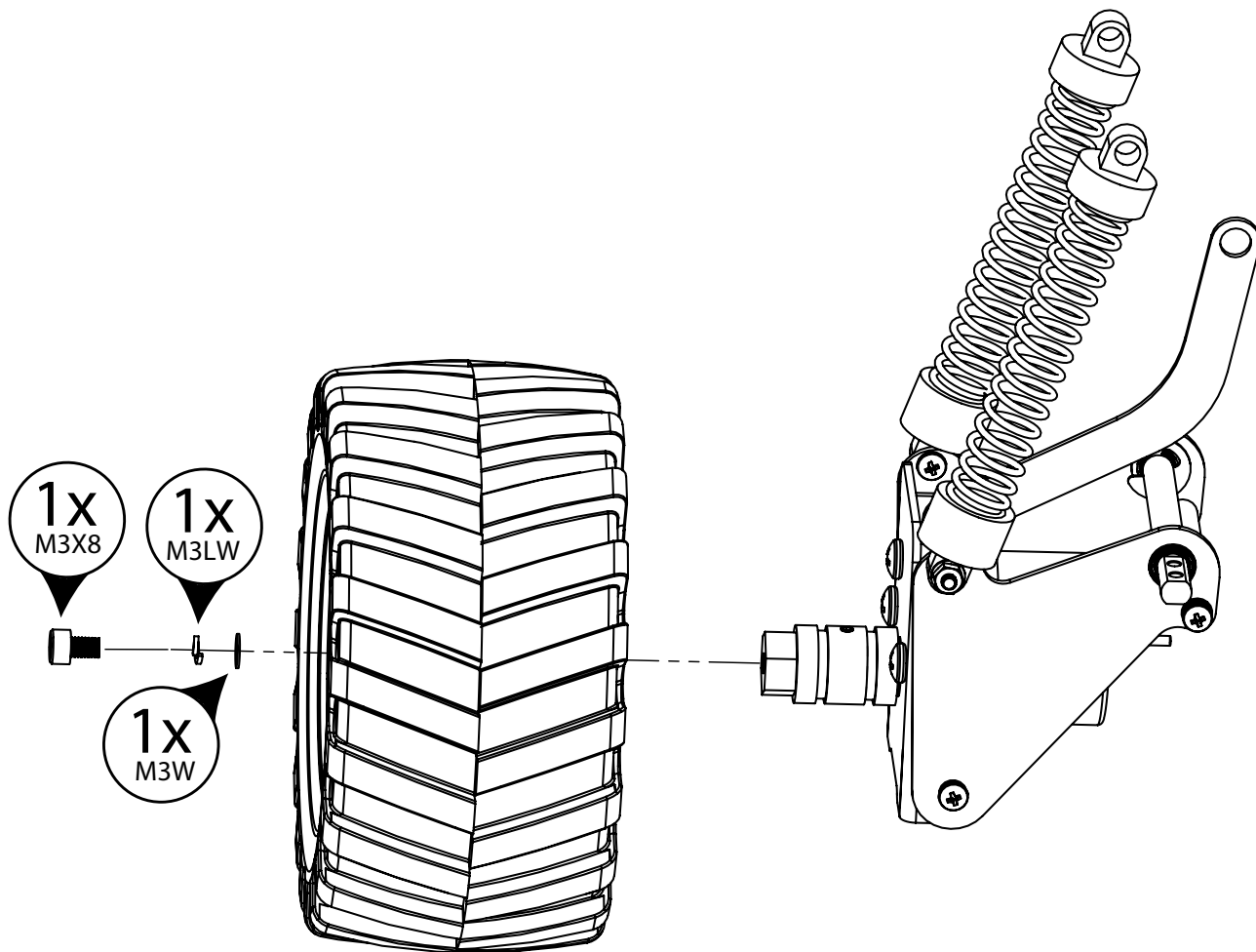
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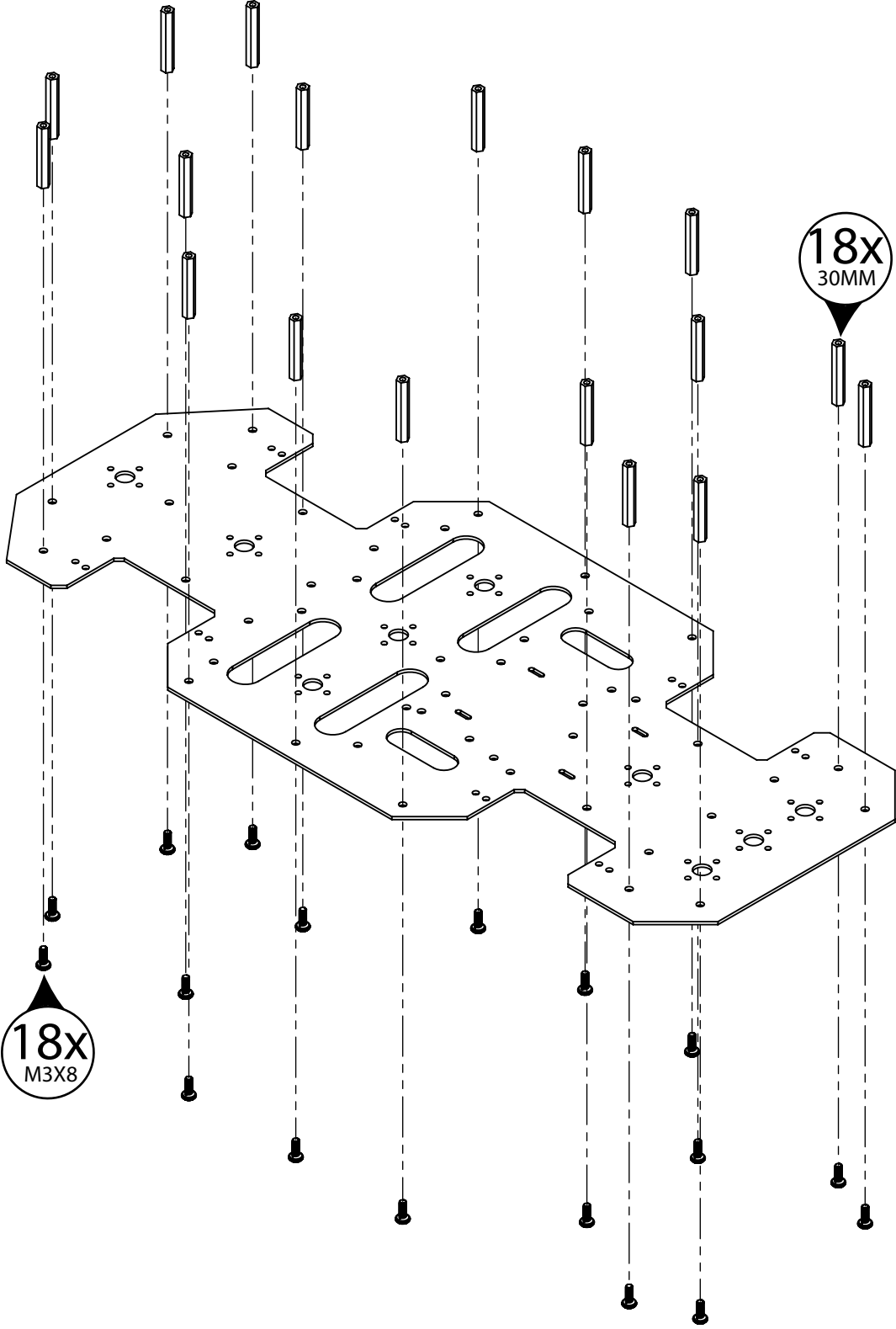
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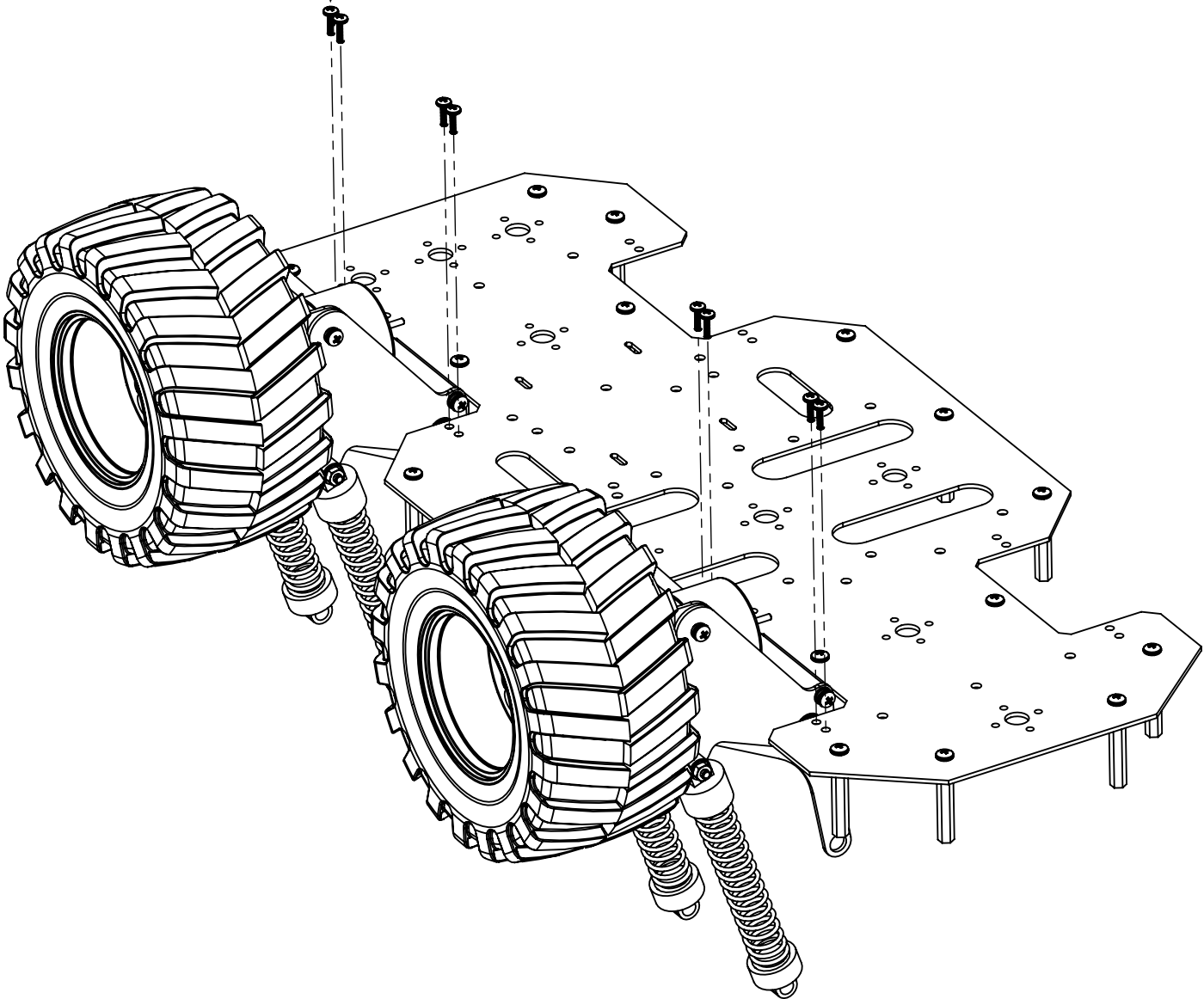
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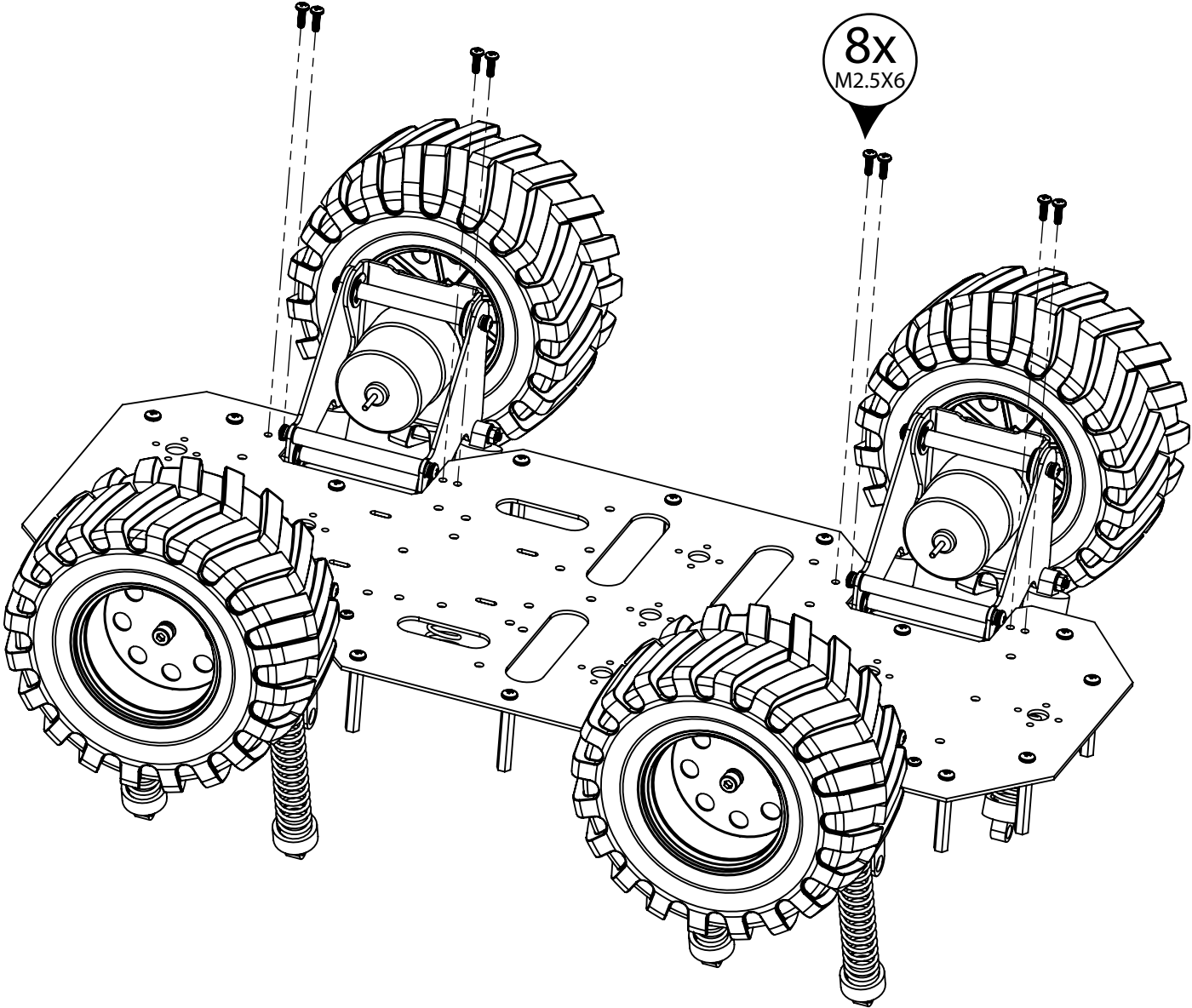
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8x
M2.5X6



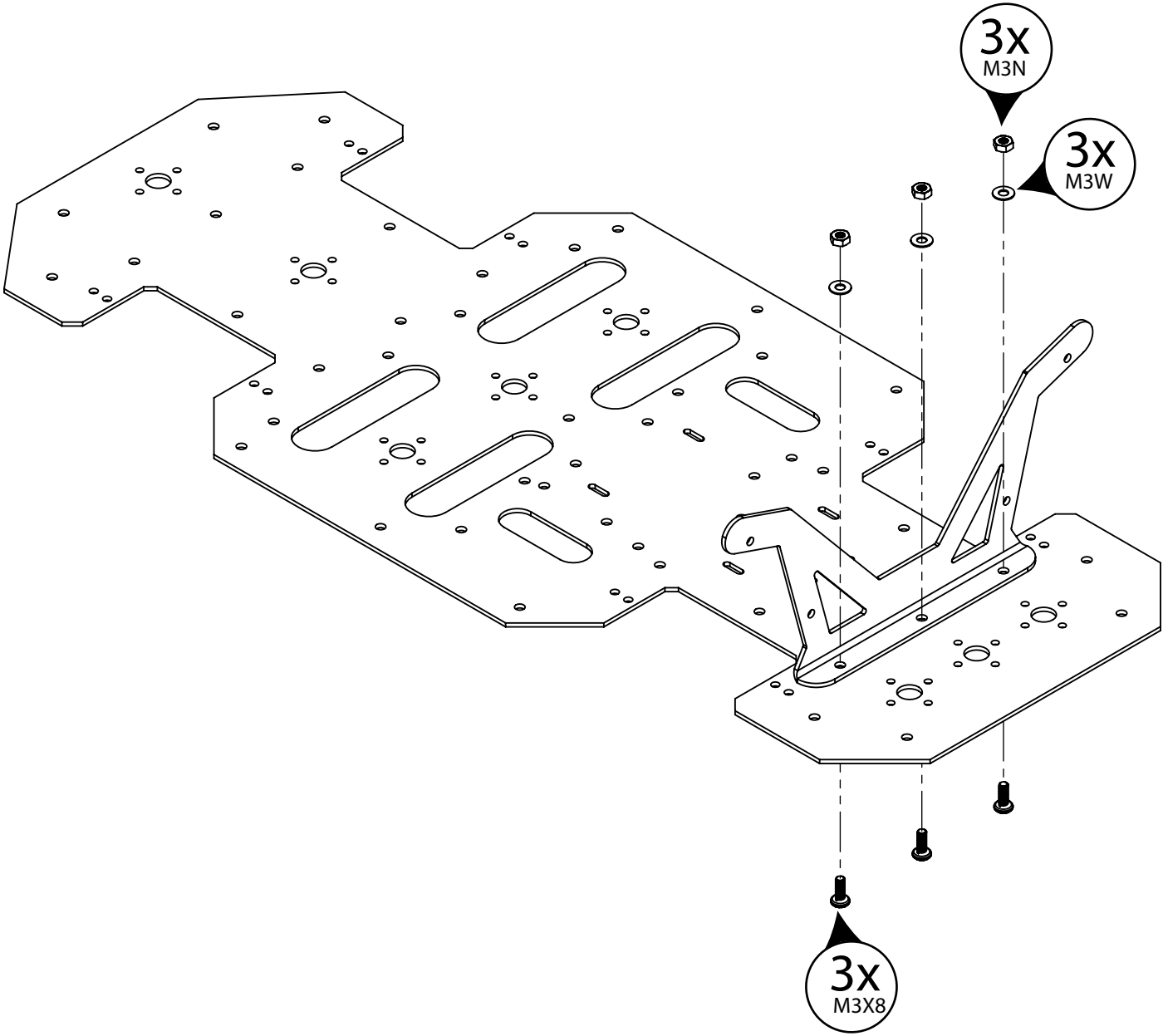
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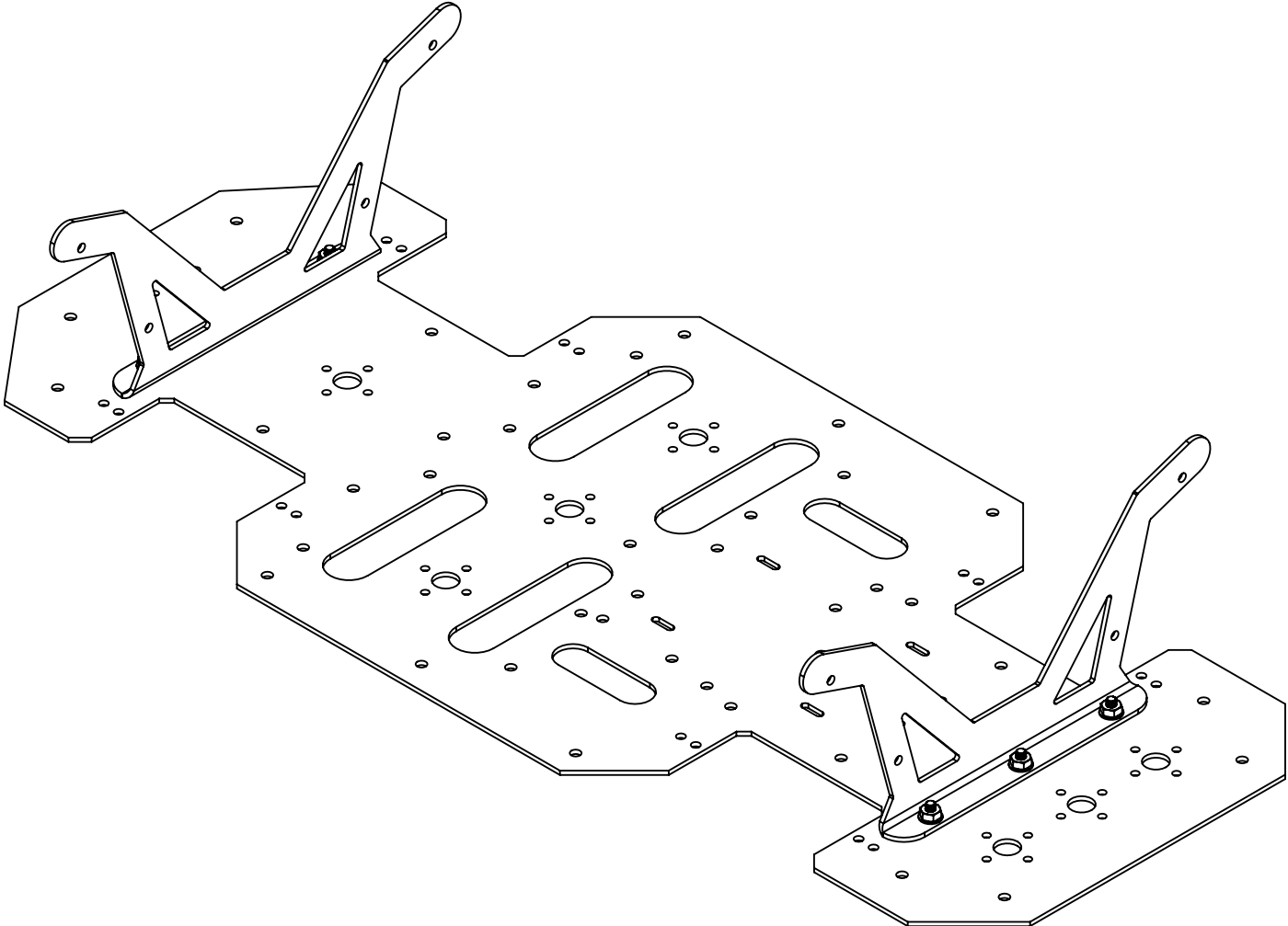
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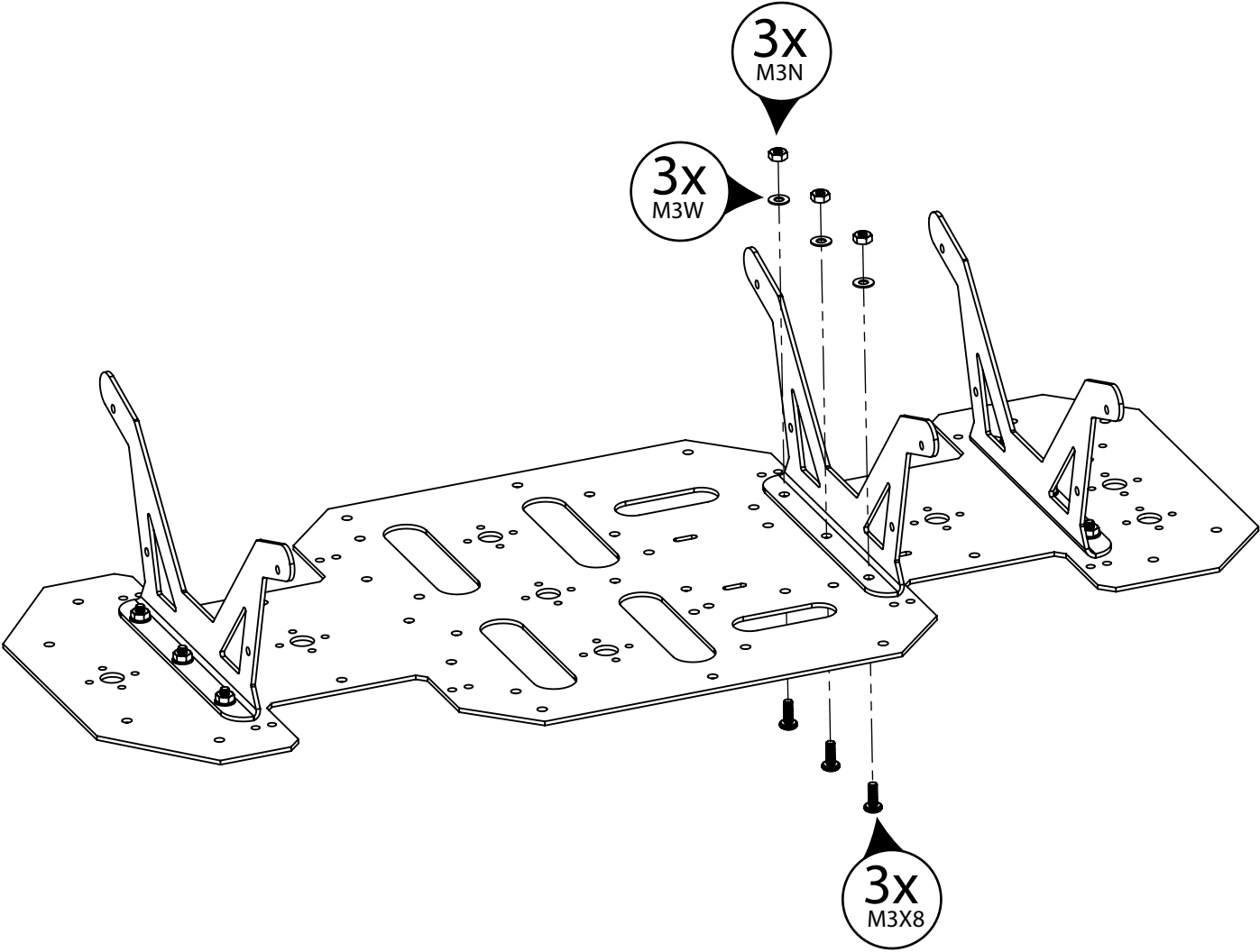
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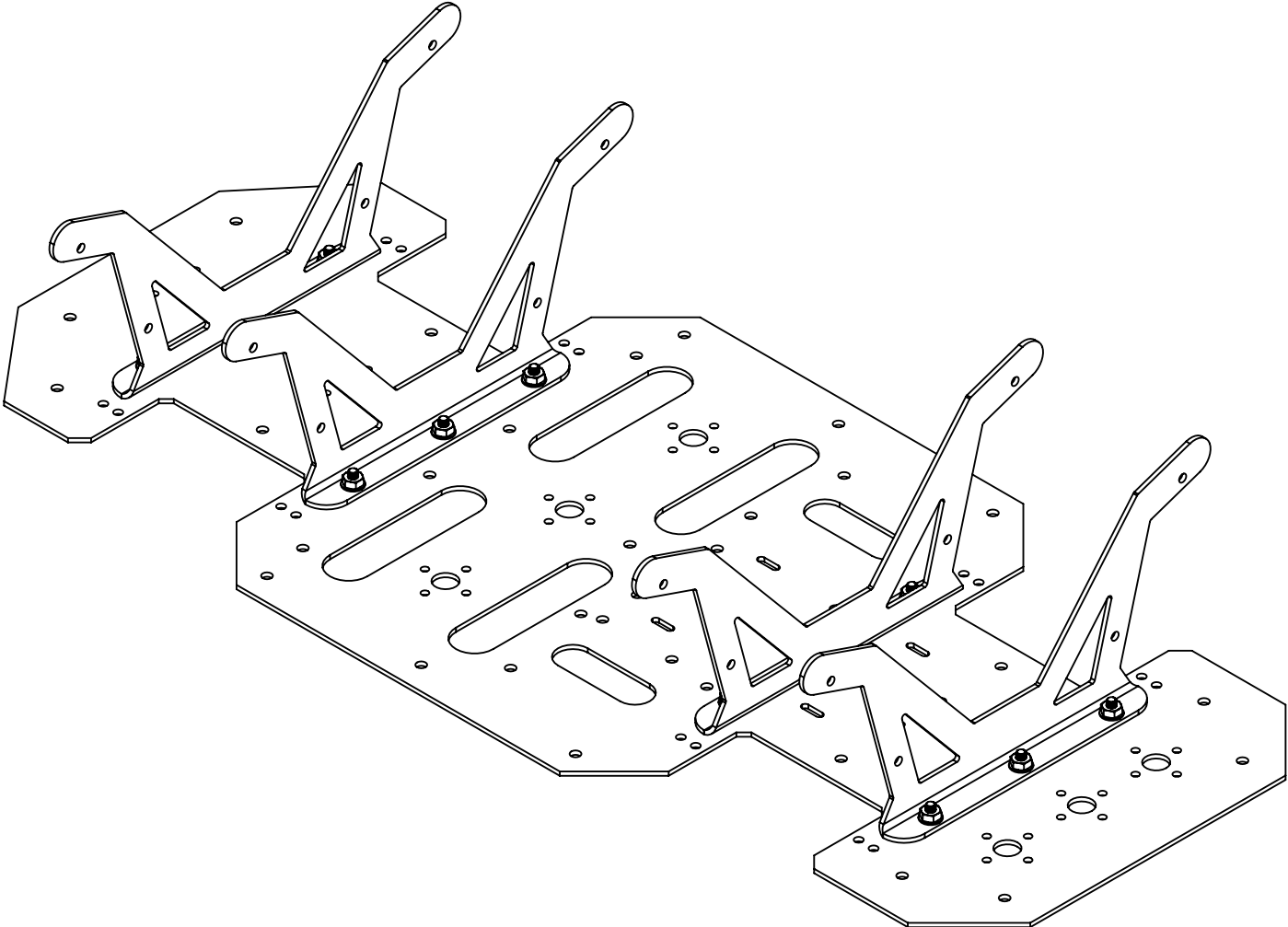
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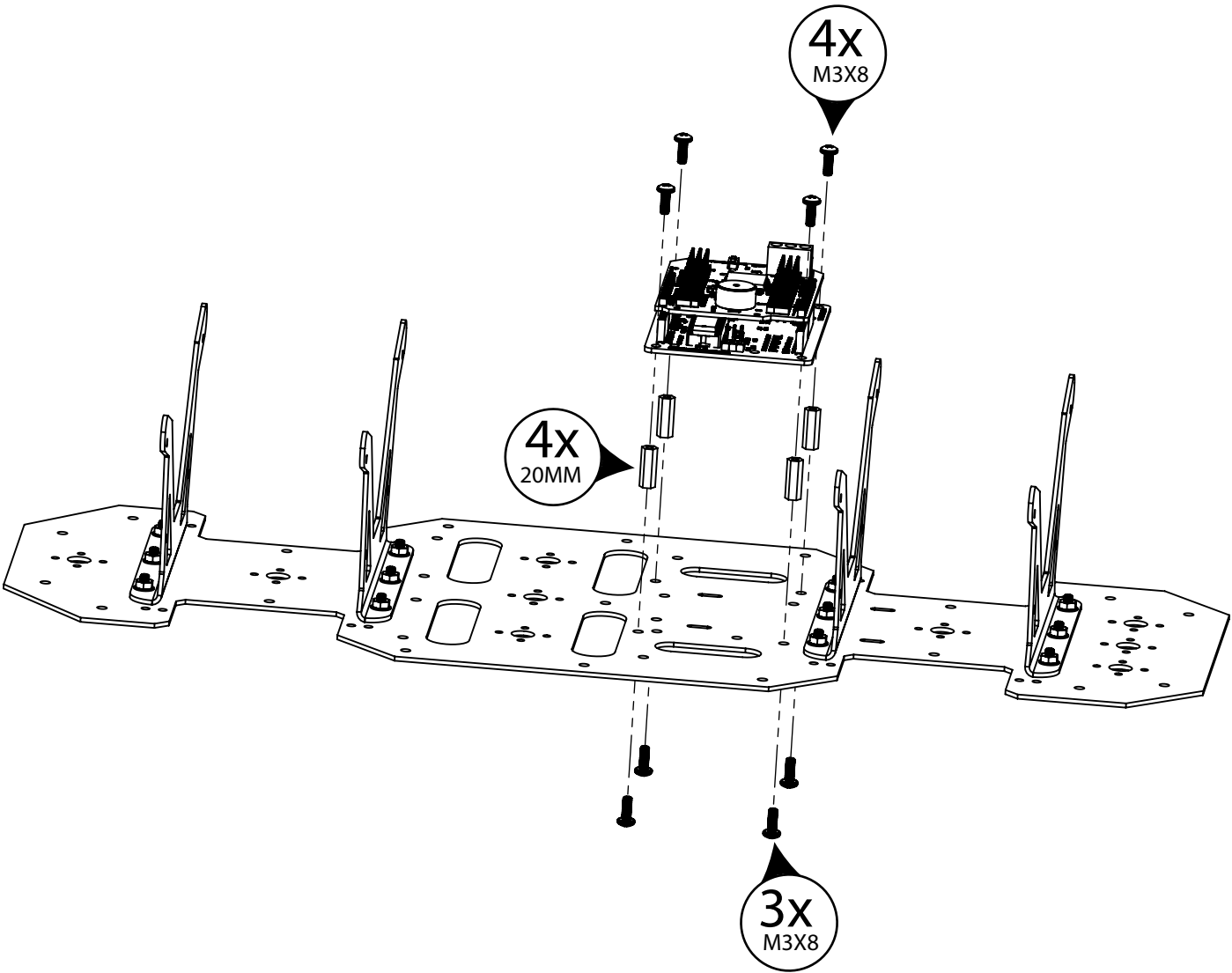
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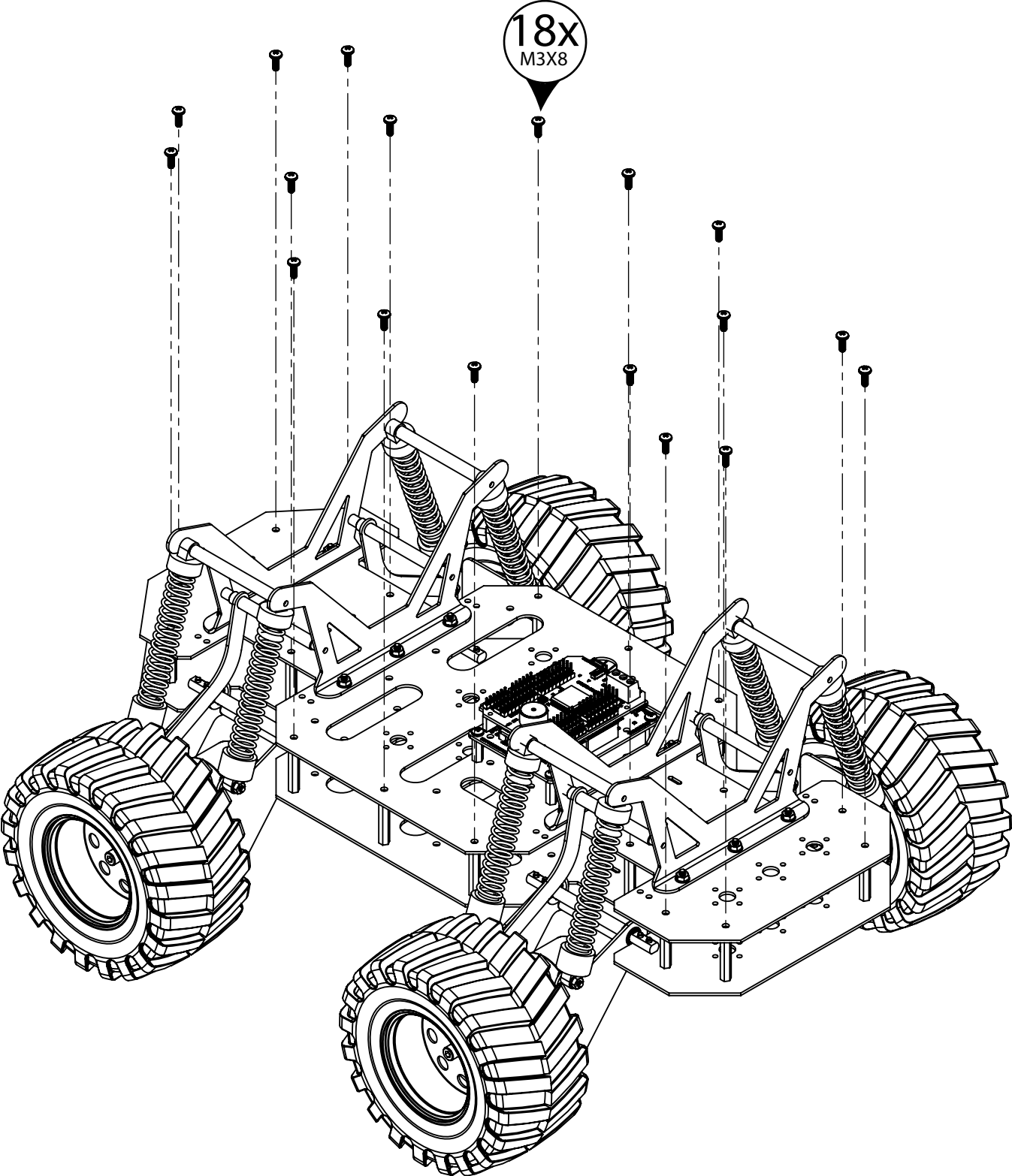


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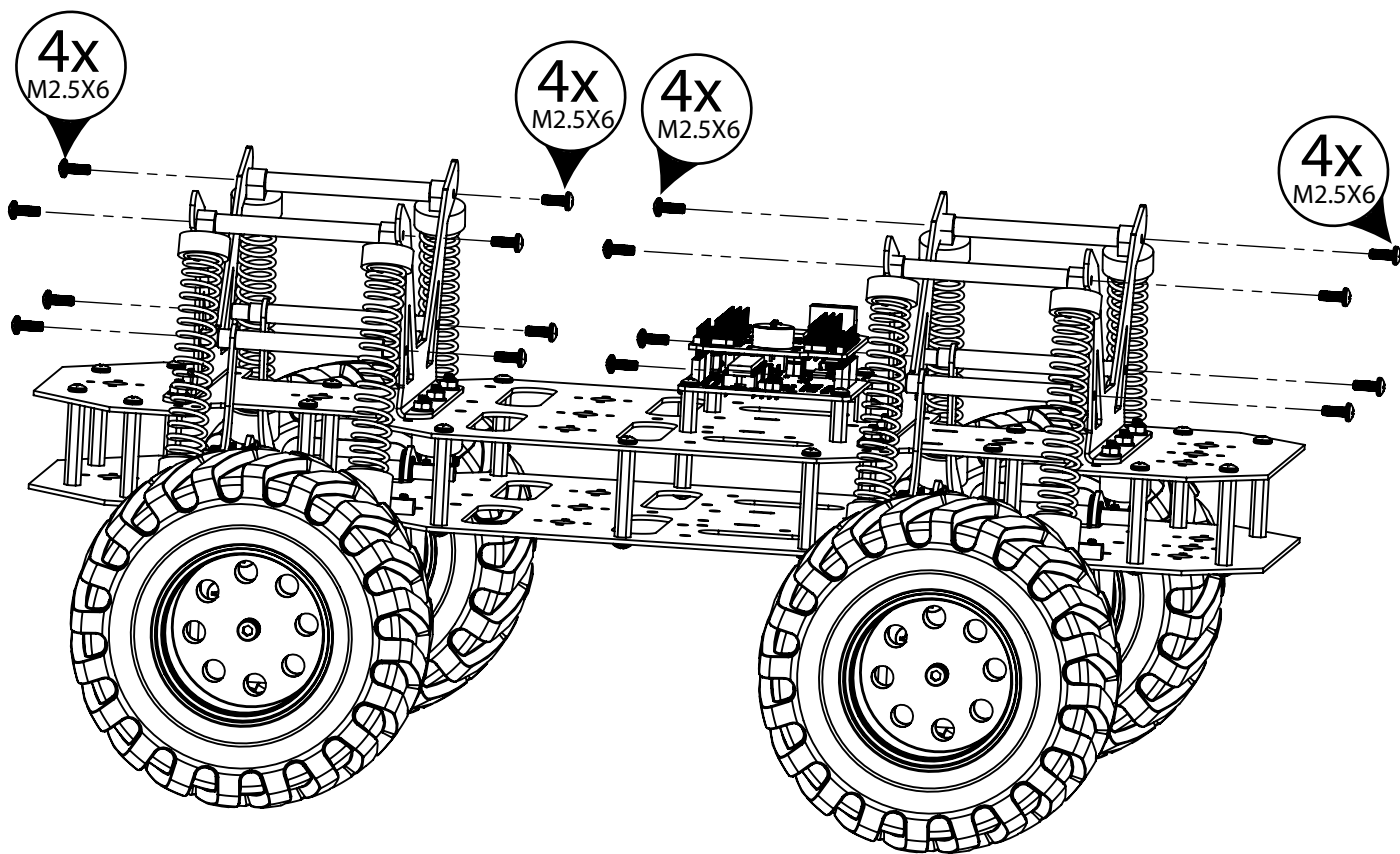


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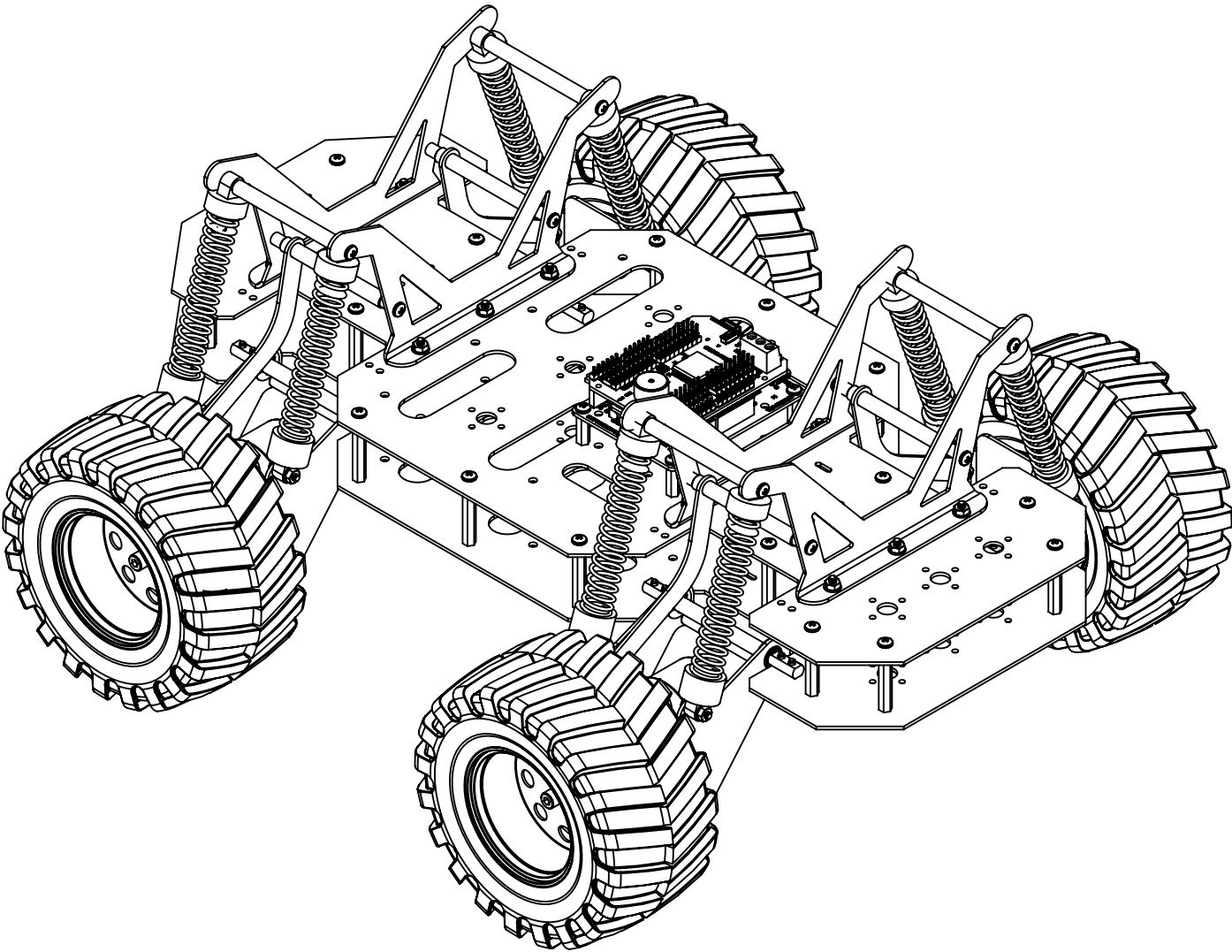
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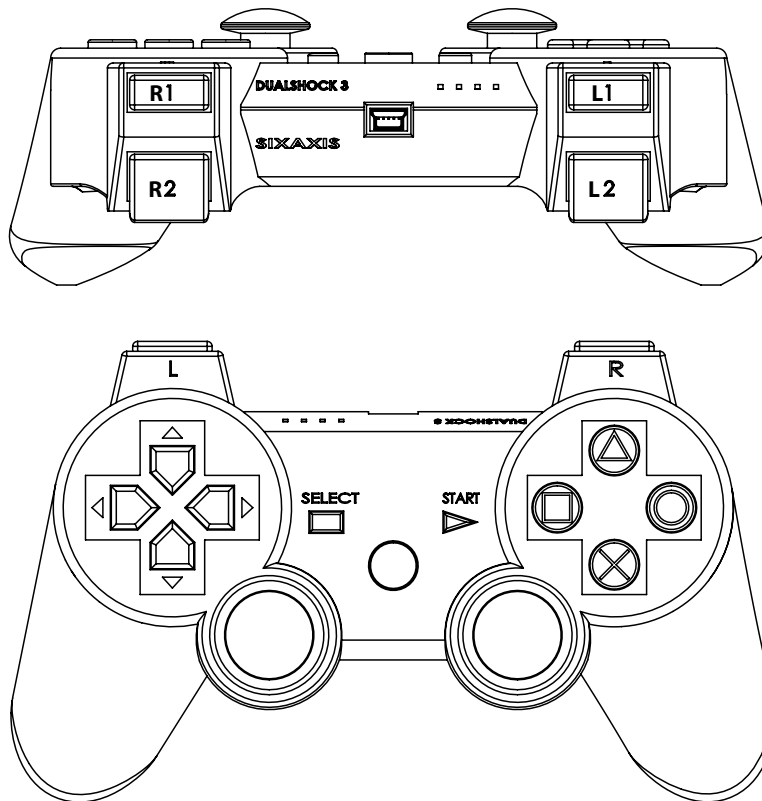
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Controller Functions

The following tables defines each PS2 controller button function in the default Arduino program.

| PS2 Button | Function | Notes |
|----------------------|---------------------|-------|
| Right Joystick Up | Forward | |
| Right Joystick Down | Reverse | |
| Right Joystick Left | Turn Left | |
| Right Joystick Right | Turn Right | |
| Select | Activate/Deactivate | |



Wiring Table

| From | To |
|----------------|--------------|
| Battery + | Vin |
| Battery - | GND |
| Right Motor + | Roboclaw M1+ |
| Right Motor - | Roboclaw M1- |
| Left Motor + | Roboclaw M2+ |
| Left Motor - | Roboclaw M2- |
| Roboclaw S1 | P0 |
| Roboclaw S2 | P1 |
| PS2 Controller | P6 |

Warranty

Orion Robotics warrants its products against defects in material and workmanship for a period of 90 days. If a defect is discovered, Orion Robotics will, at our discretion, repair, replace, or refund the purchase price of the product in question. Contact us at support@orionrobotics.com. No returns will be accepted without the proper authorization.

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Contacts

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Web: <http://www.orionrobotics.com>

Discussion List

A web based discussion board is maintained at <http://www.orionrobotics.com>.

Technical Support

Technical support is made available by sending an email to support@orionrobotics.com. All email will be answered within 48 hours. All general syntax and programming questions, unless deemed to be a software issue, will be referred to the on-line discussion forums.