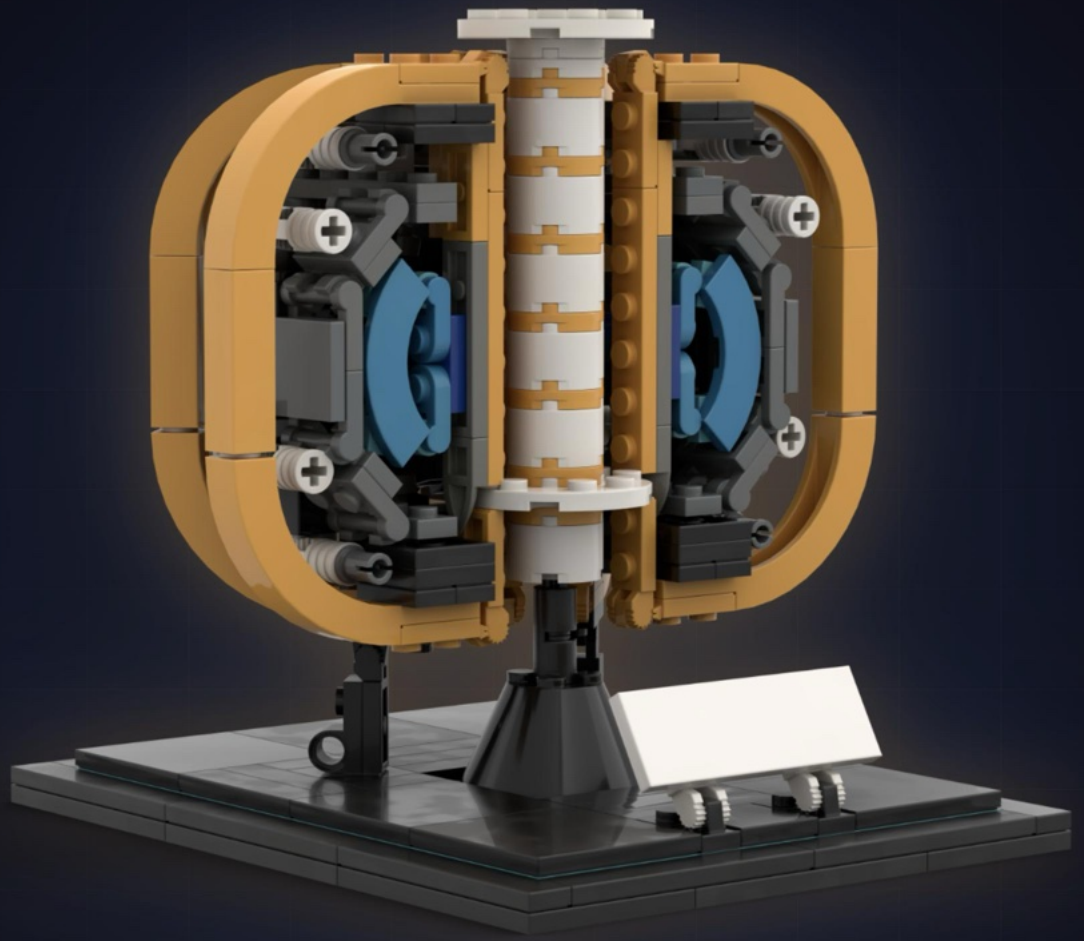
TOKAMAK



FUSION REACTOR BUILD SET

MAGNETIC PLASMA CONFINEMENT DEVICE

365	~2h	3D	DIFFICULTY
PIECES	BUILD TIME	CROSS-SECTION	●●●●○

WARNING: CHOKING HAZARD

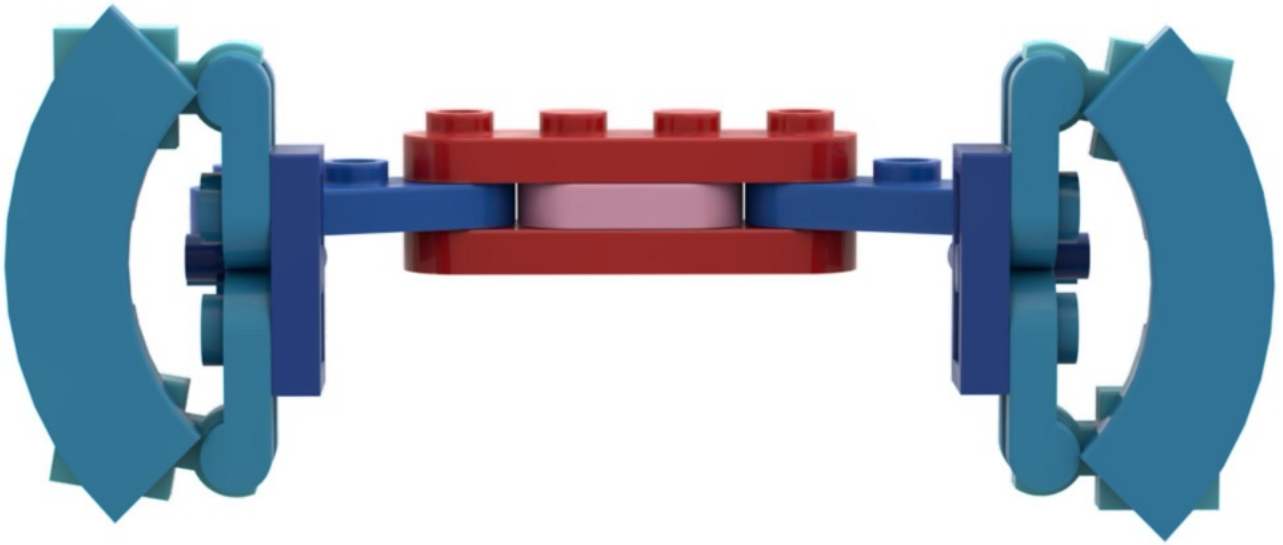
Recommended age: 6+
Adult supervision is recommended.
Keep small parts away from young children.

Plasma

A hot ionized gas where fusion reactions can occur under suitable temperature, density, and confinement conditions. Its visible color depends on the gas species, impurities, temperature, density, and observation conditions.

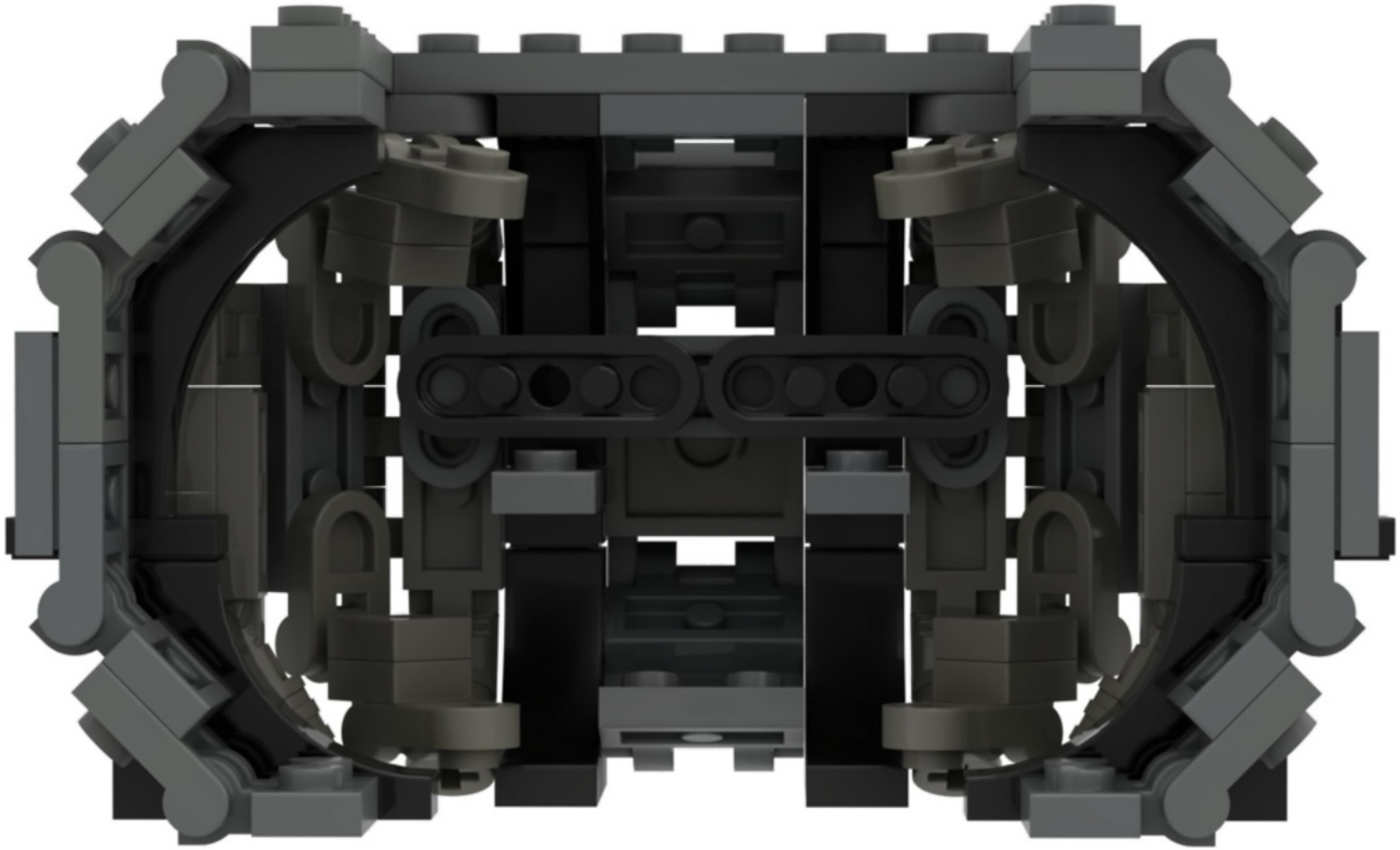
Blue / violet plasma can be associated with argon or nitrogen-rich discharges.

Red / pink plasma is often associated with hydrogen or deuterium emission, especially the H-alpha / D-alpha spectral line.



Vacuum Vessel

A sealed chamber that contains the plasma and provides the required vacuum environment for fusion experiments



PF Coils — Poloidal Field Coils

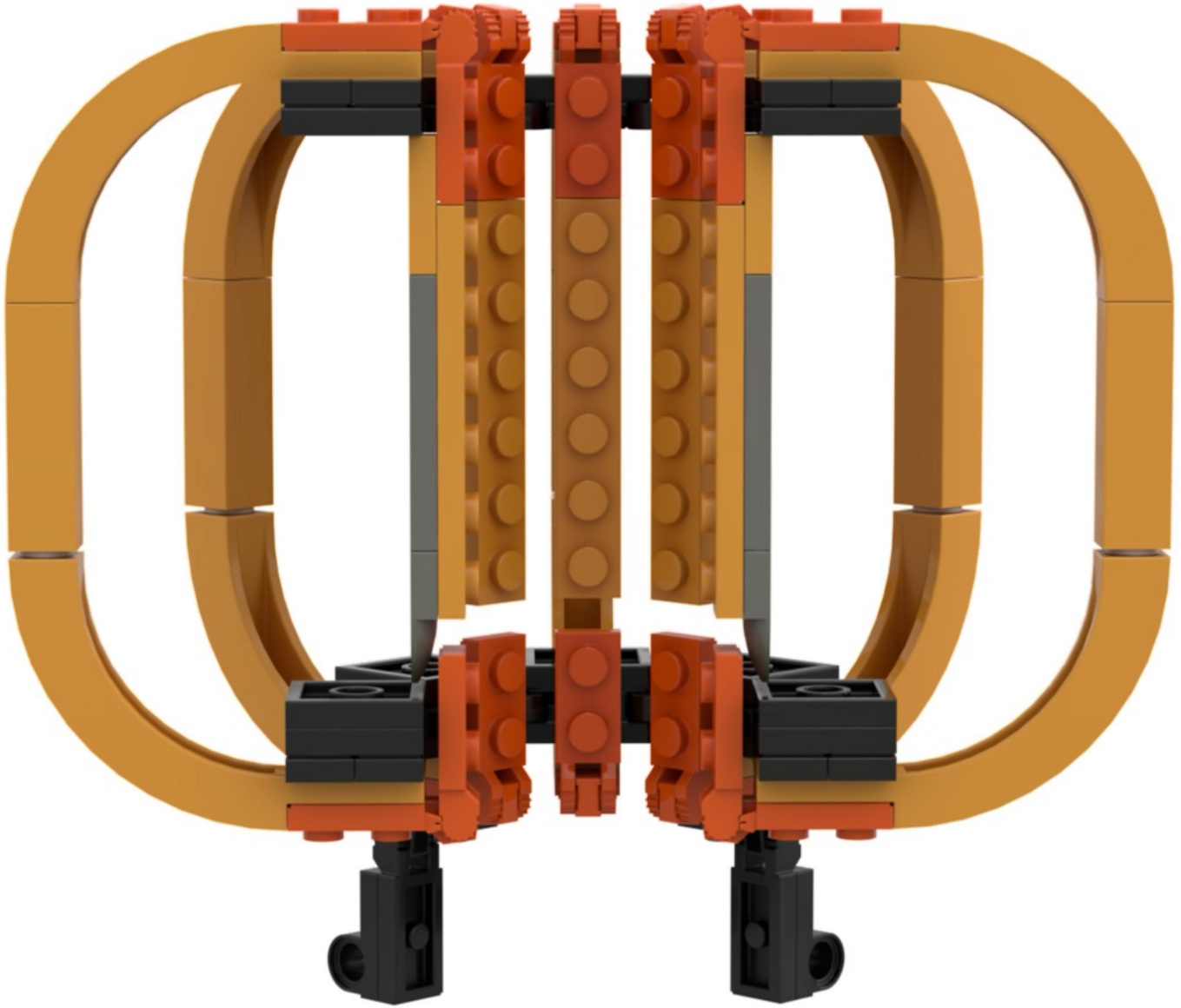
External magnetic coils are designed to control the shape, position and vertical stability of the plasma.

CS Coil — Central Solenoid

A central magnetic coil is designed to induce plasma current and assist with plasma formation and control

TF Coils — Toroidal Field Coils

Magnetic coils that generate the main toroidal magnetic field, helping to confine the plasma inside the tokamak.



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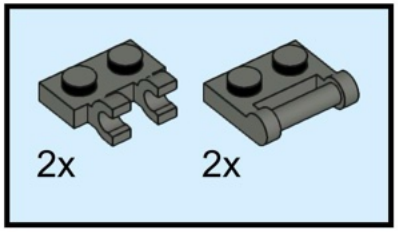

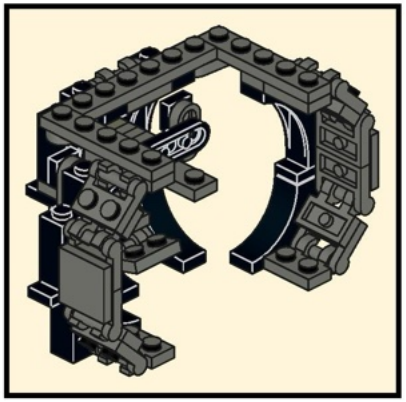

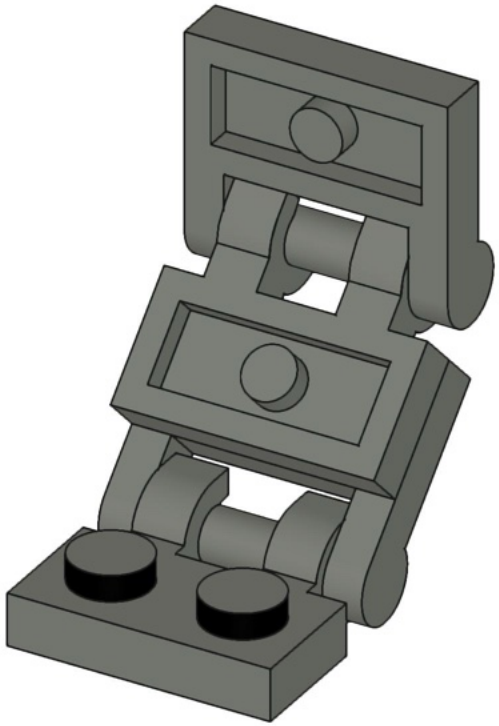

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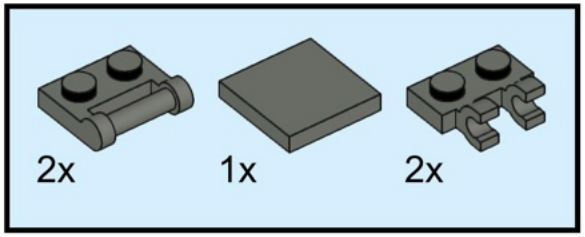

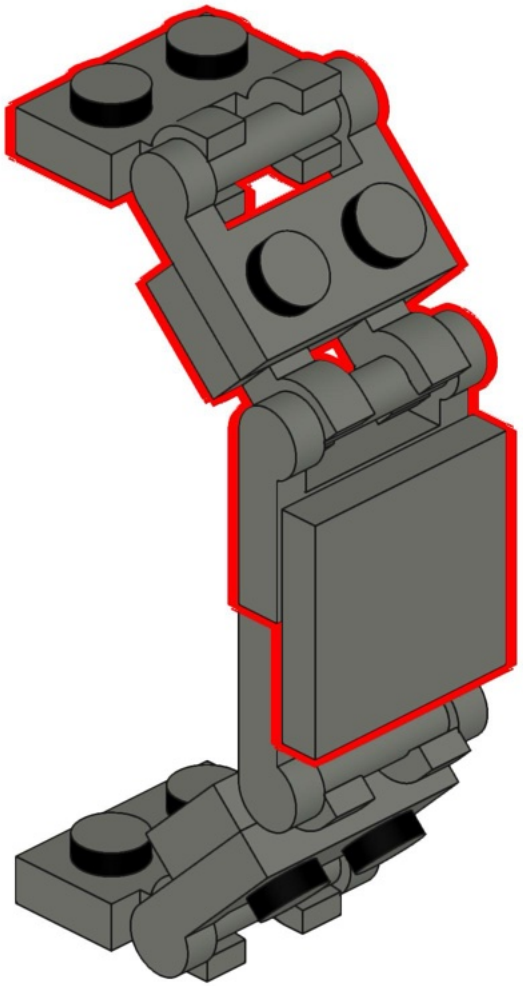

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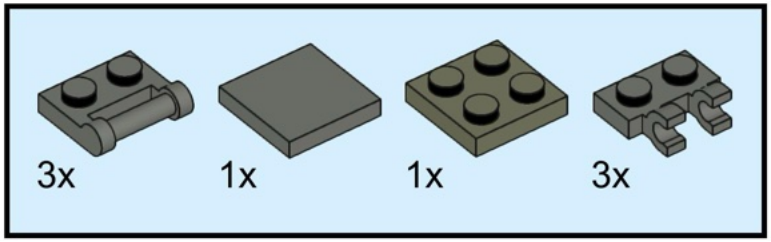

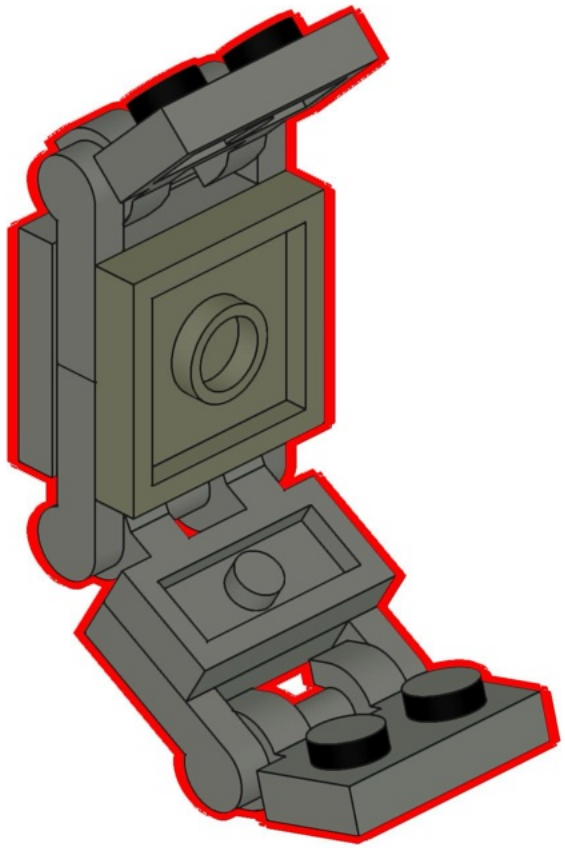

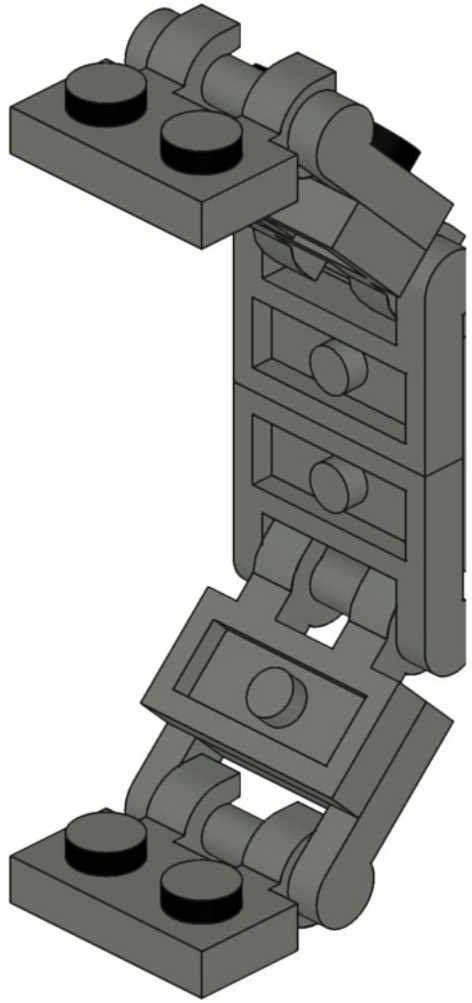

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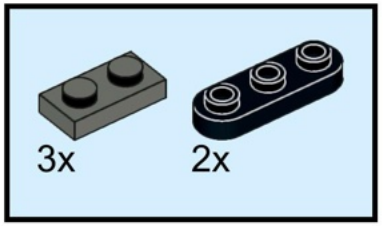

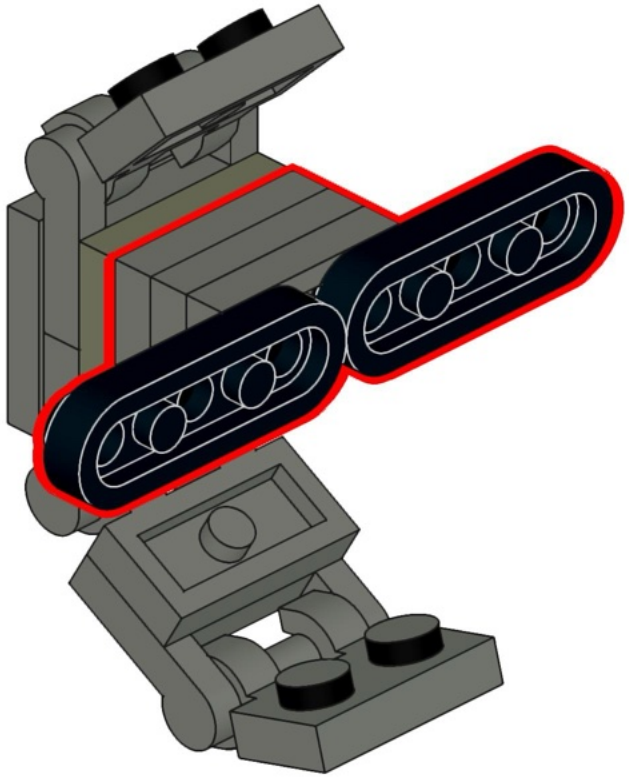

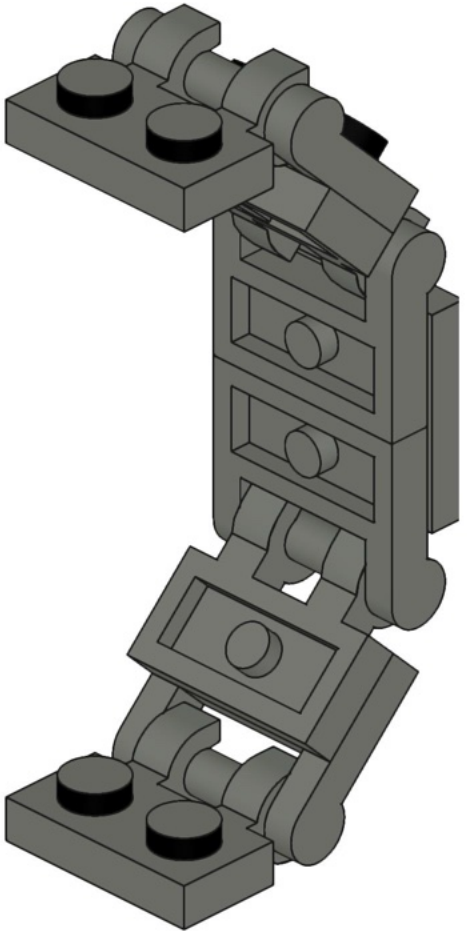

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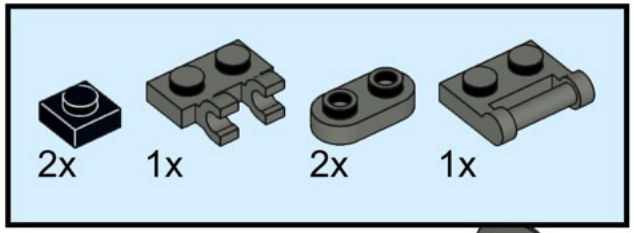

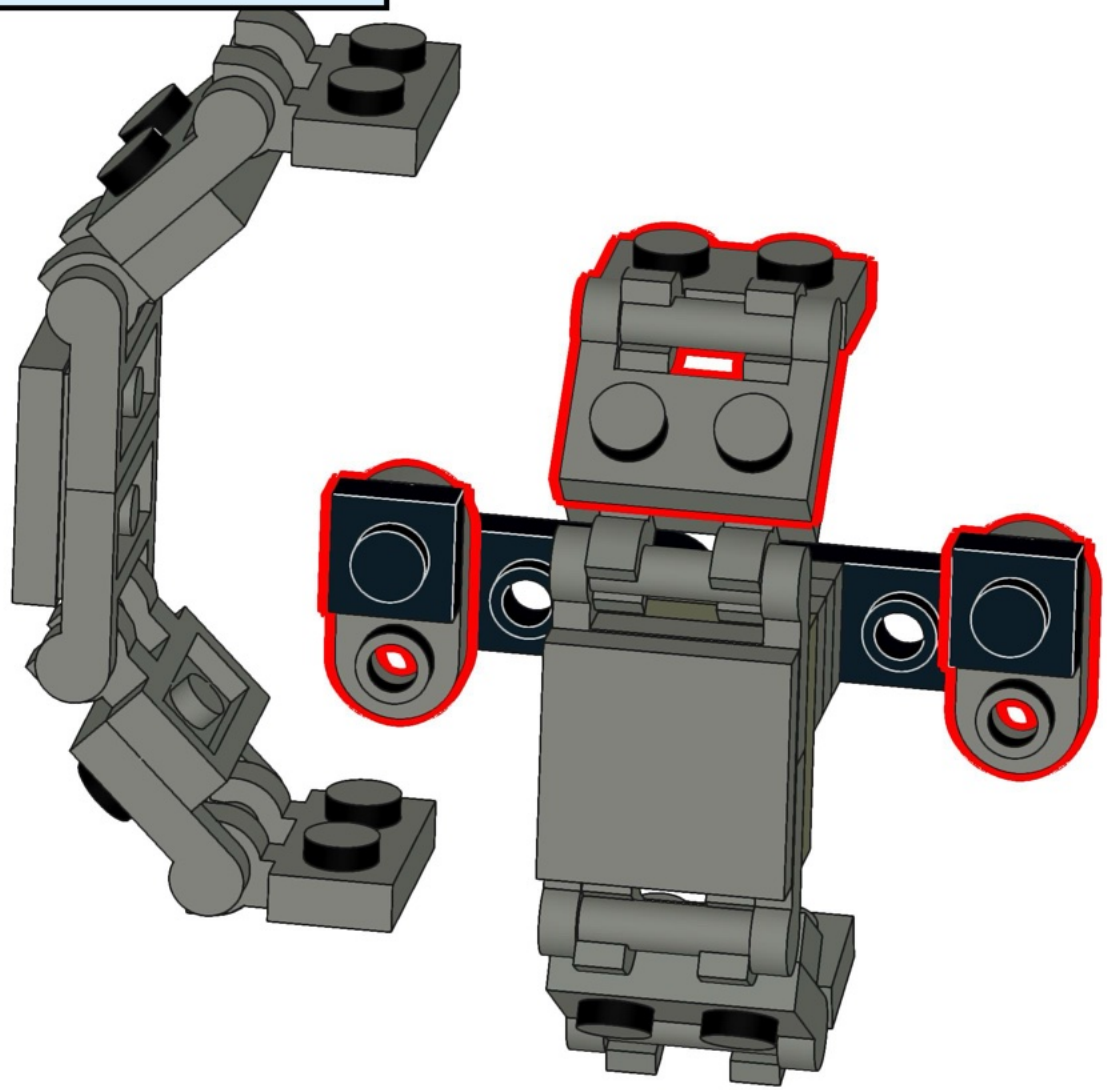

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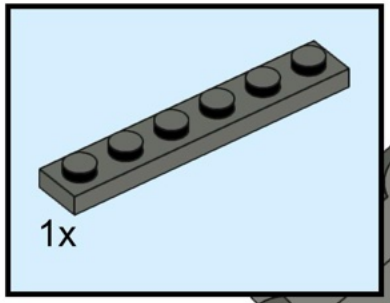

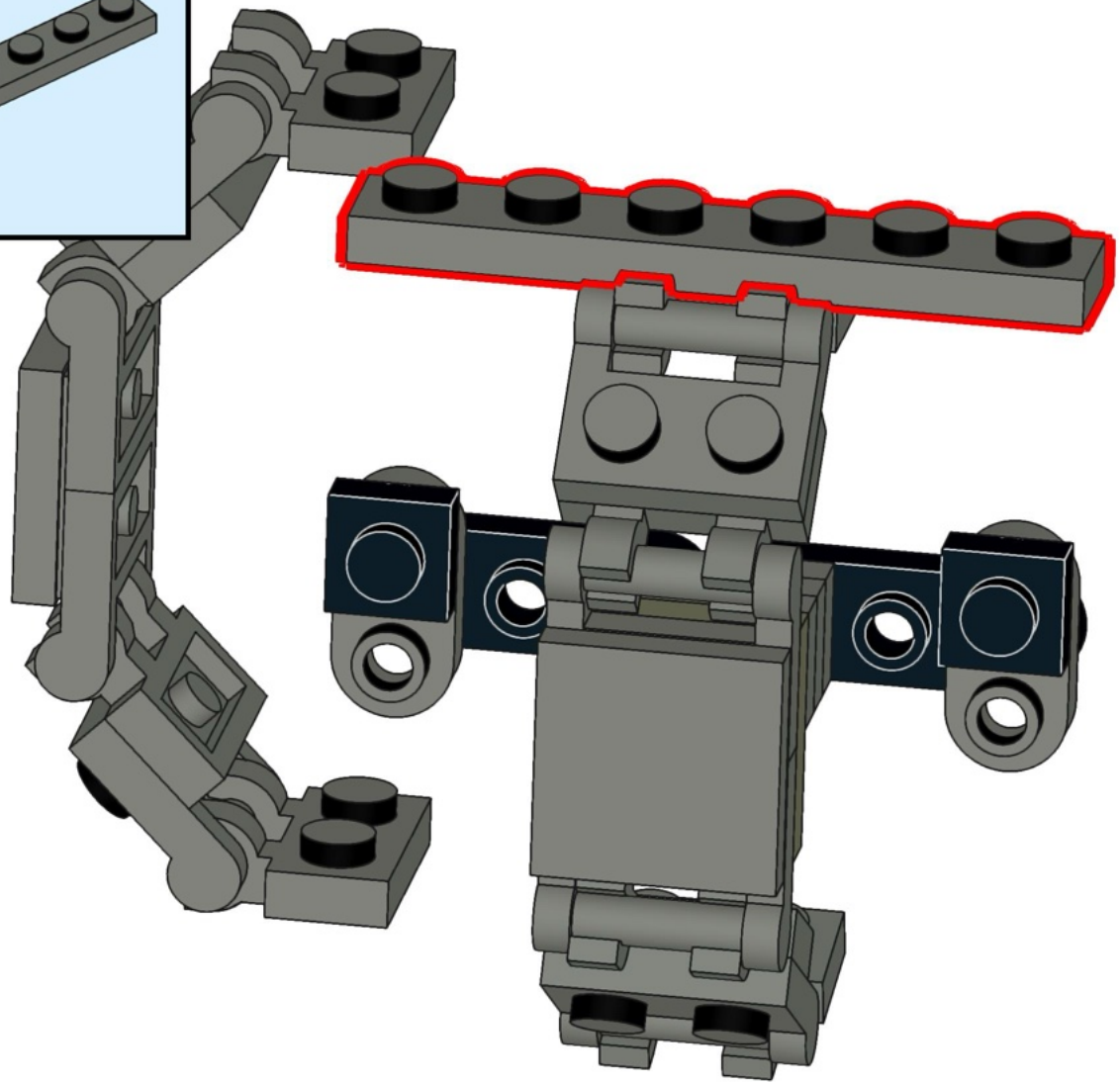

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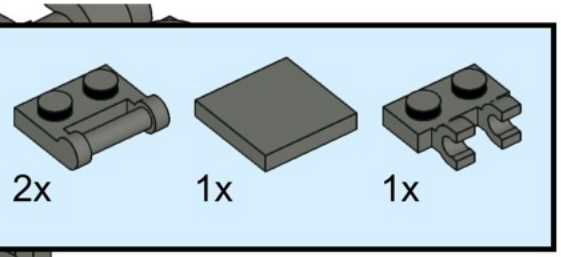

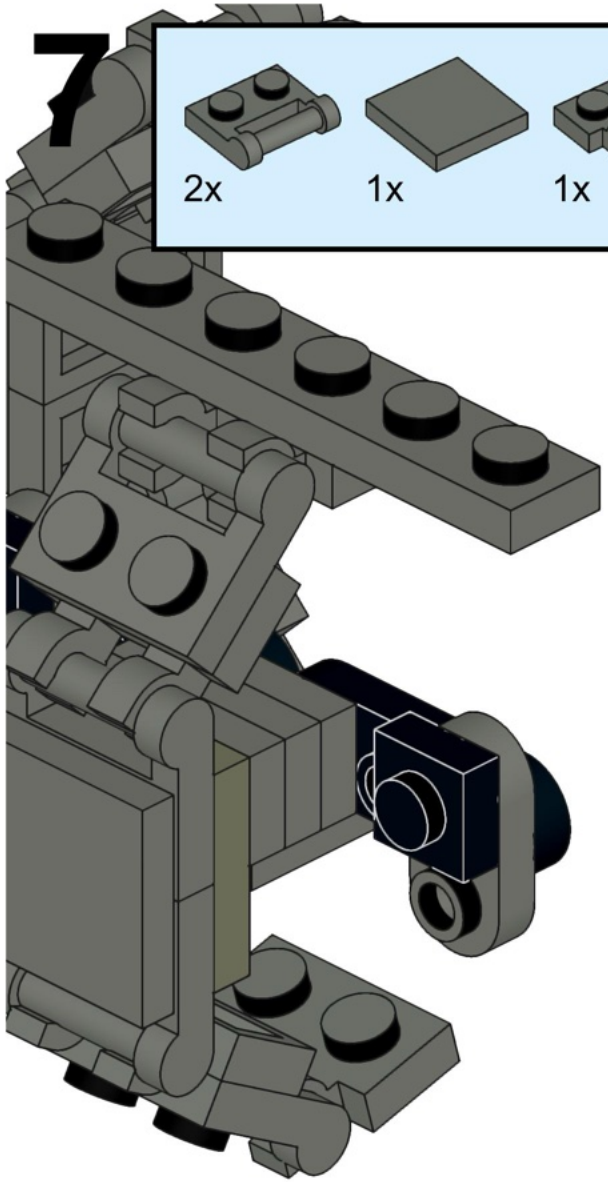

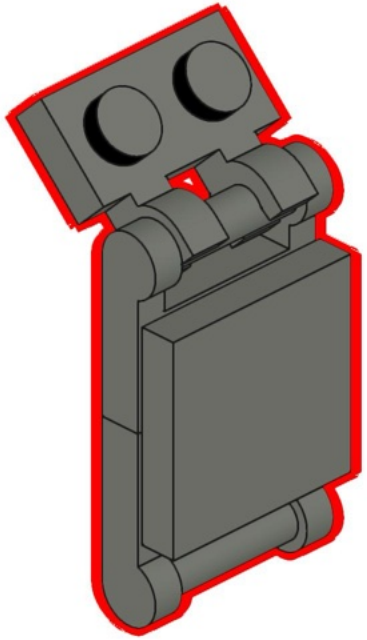

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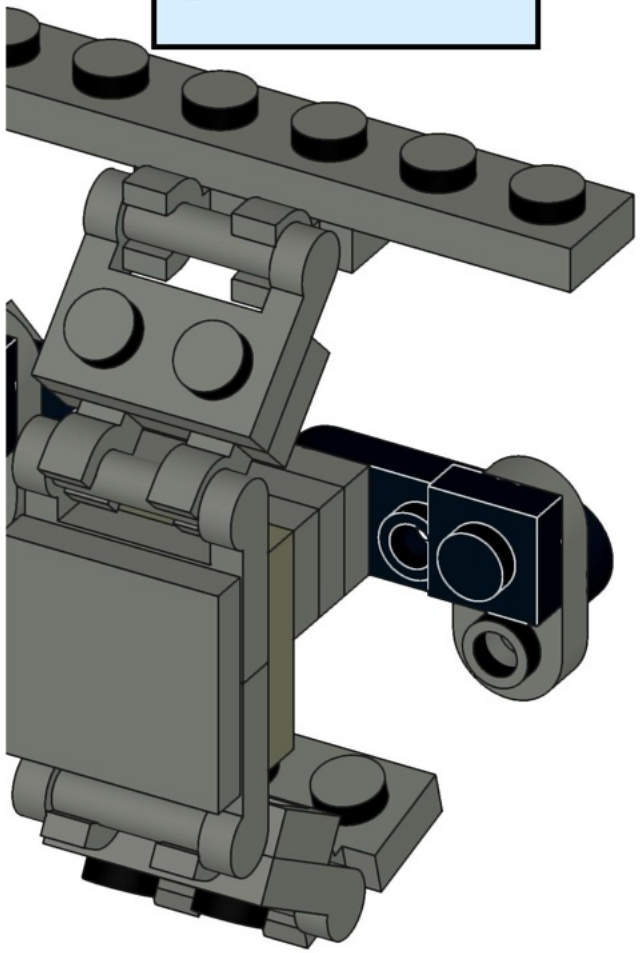

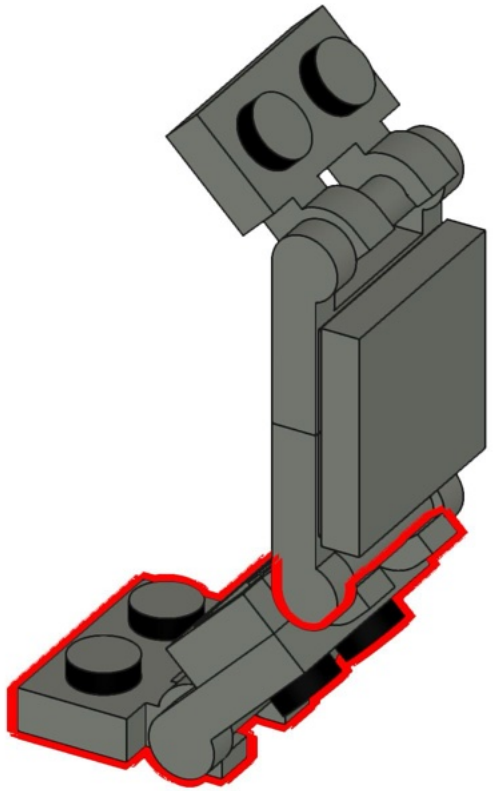

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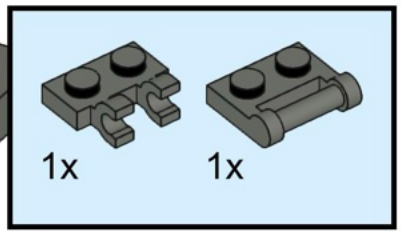

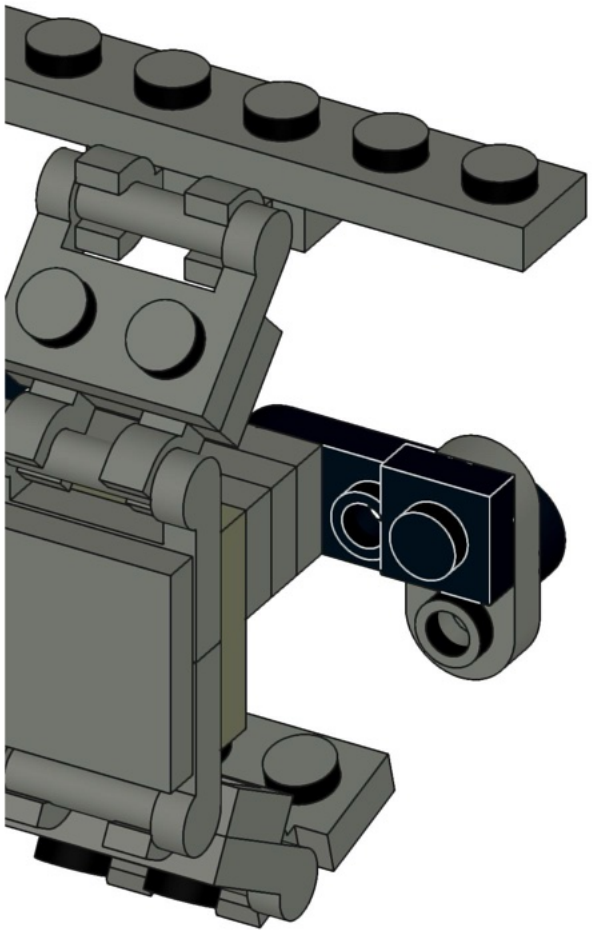

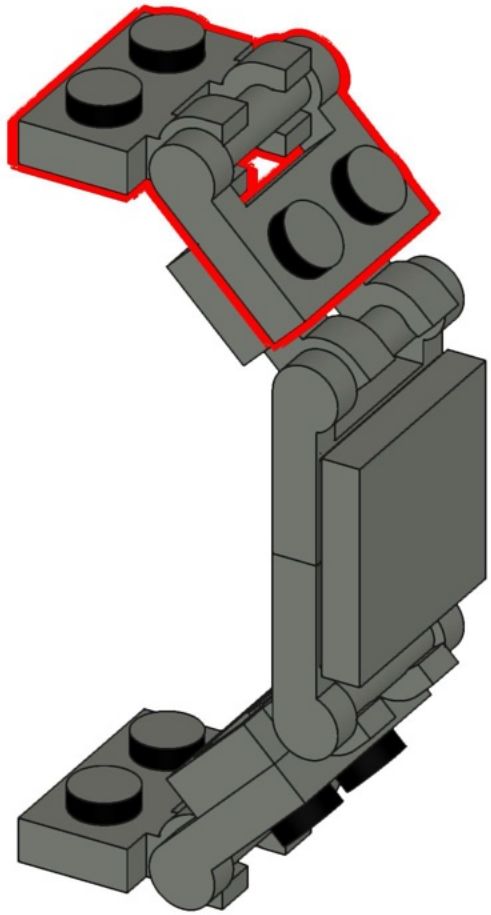

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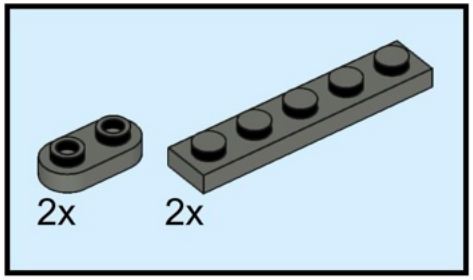

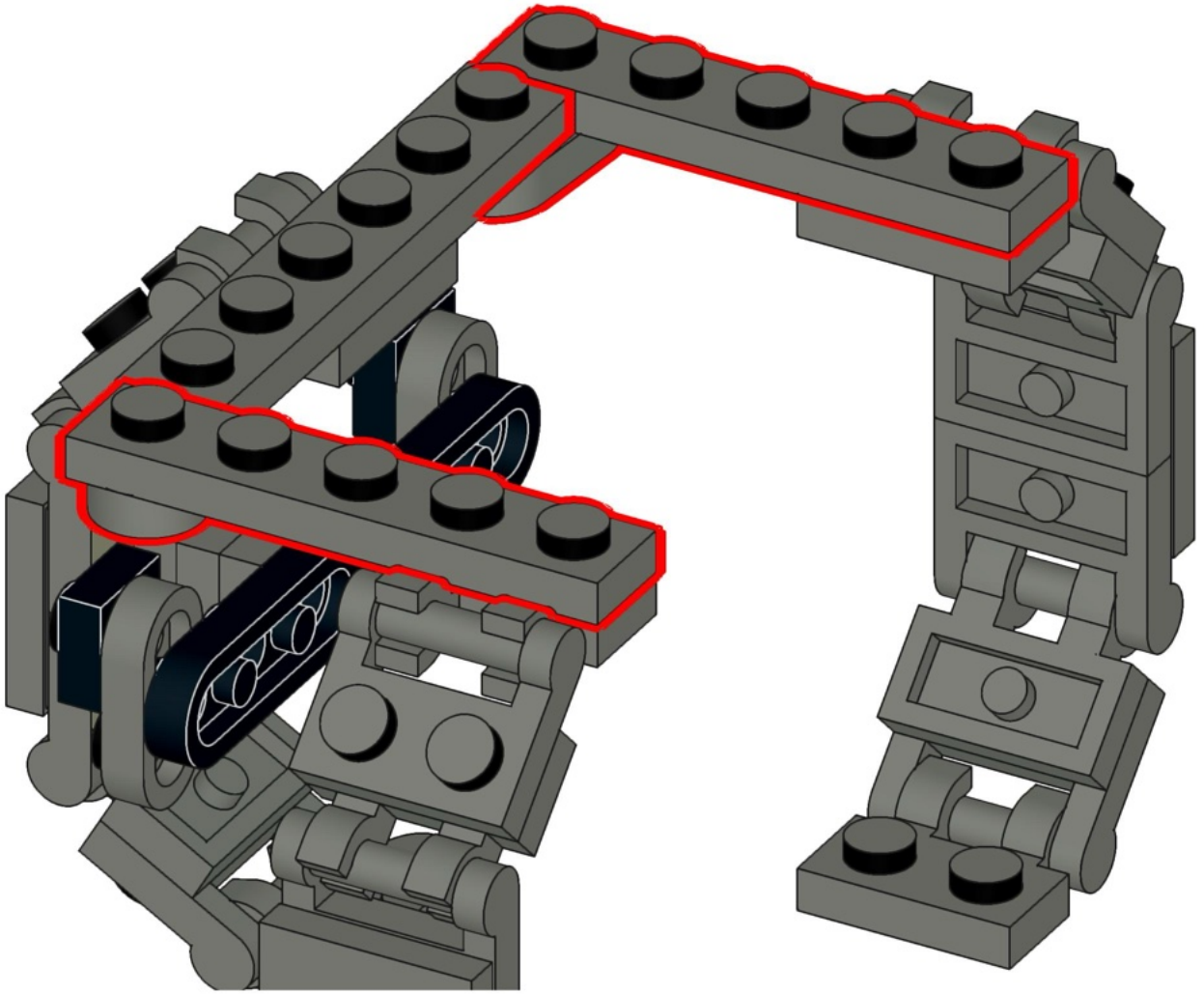

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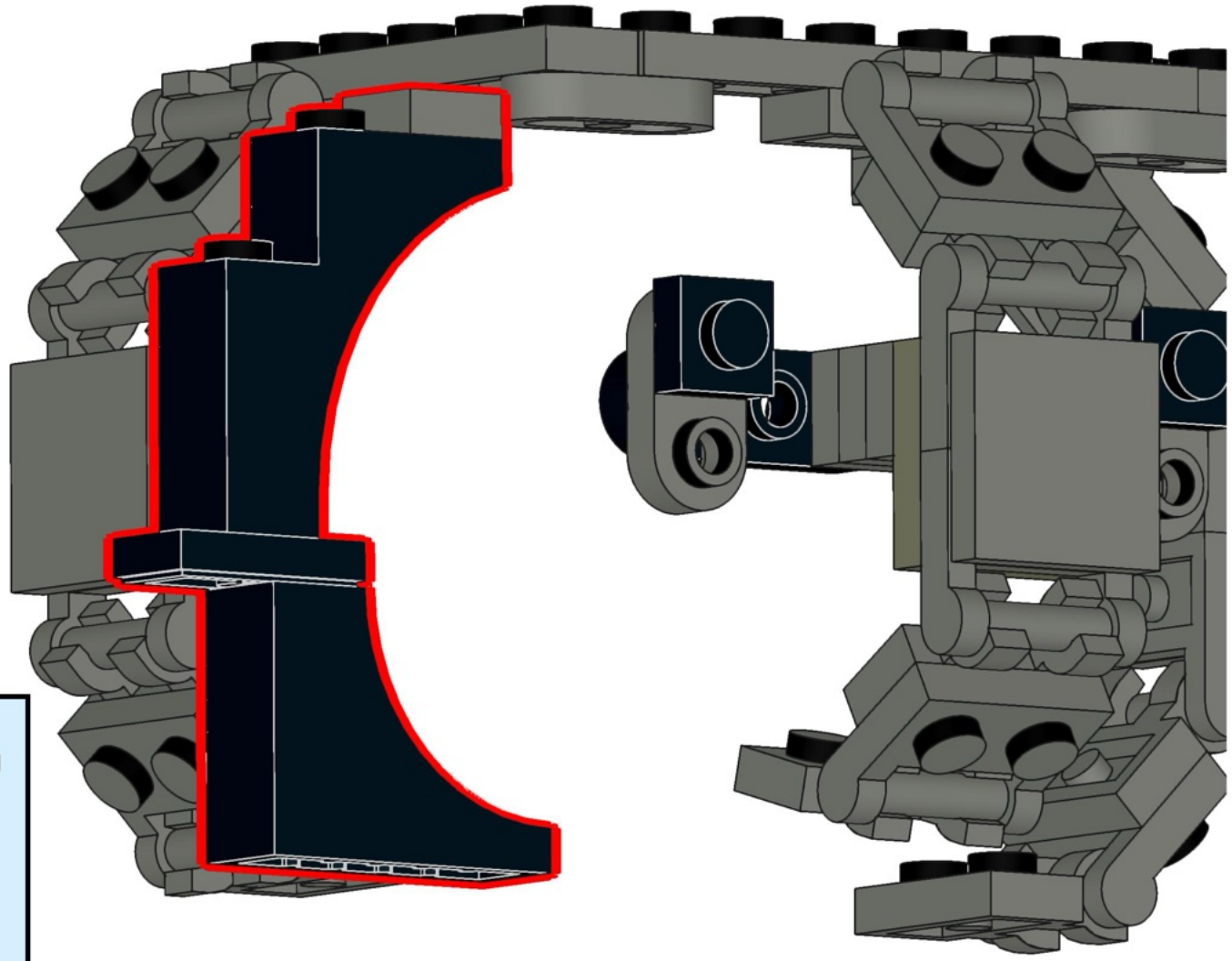

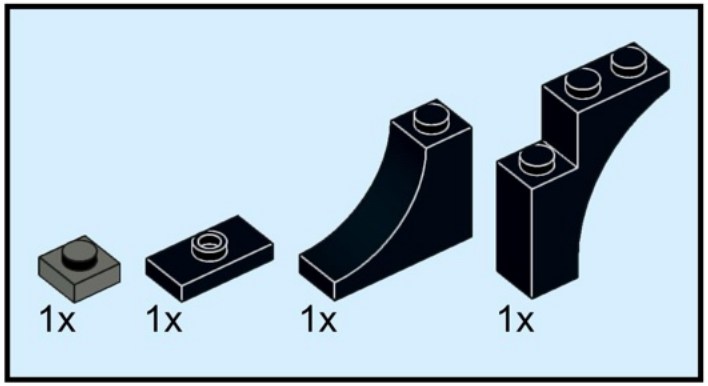

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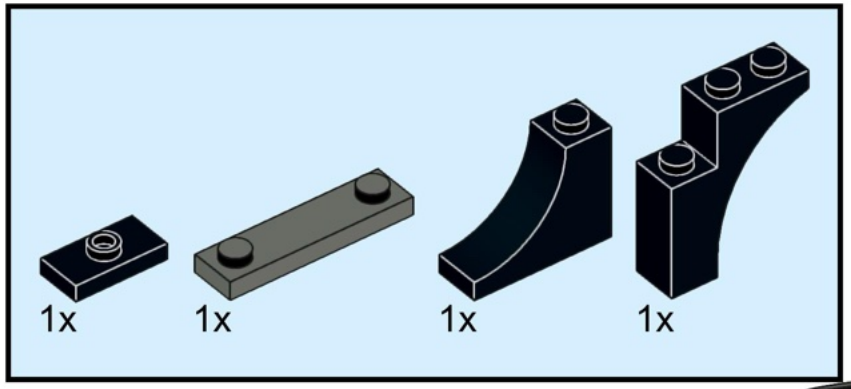

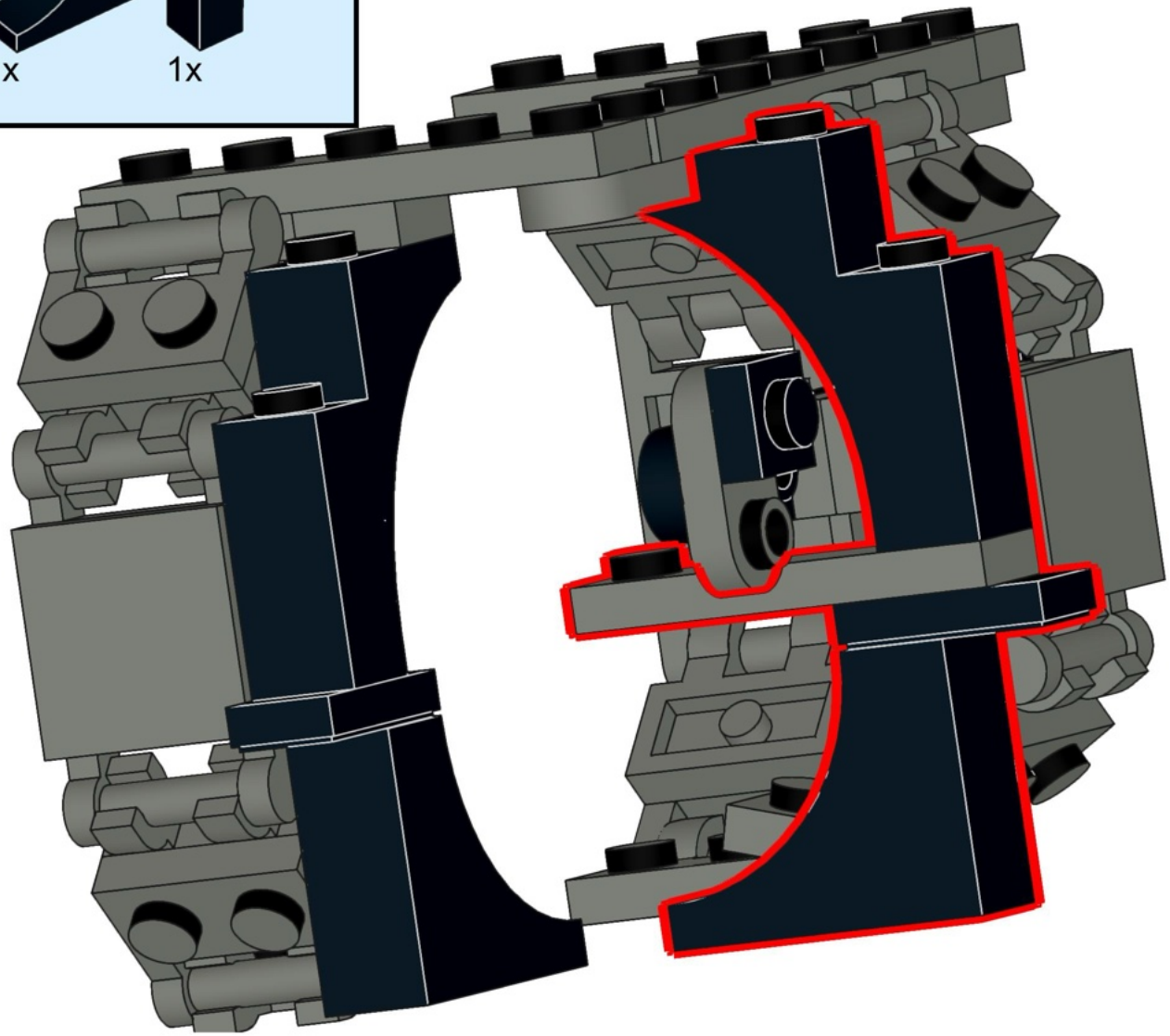

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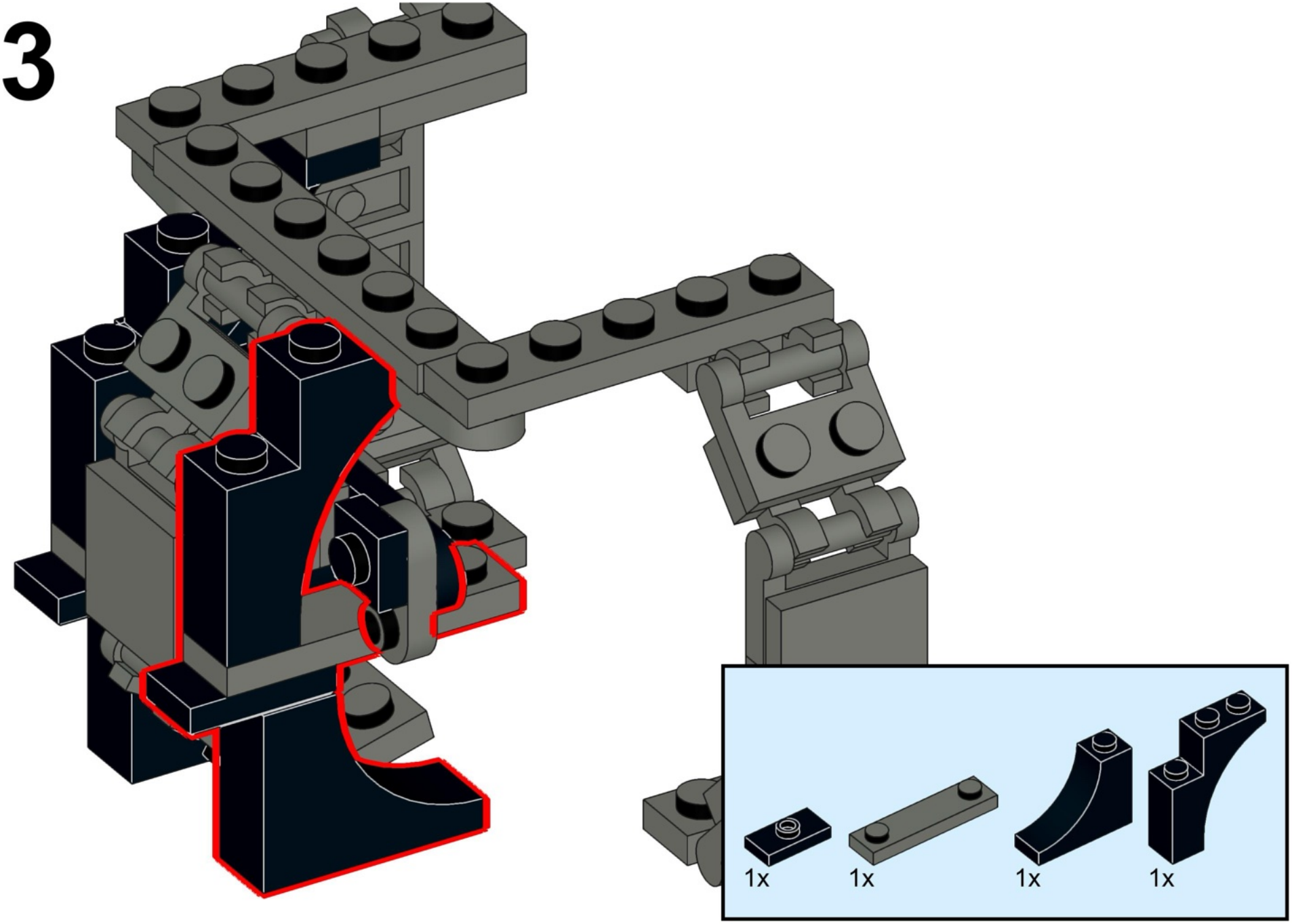

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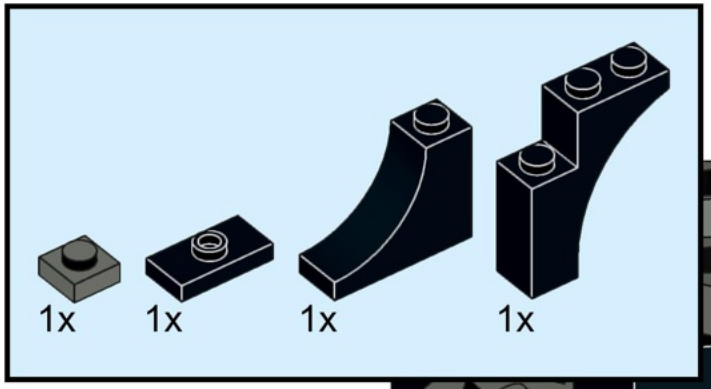

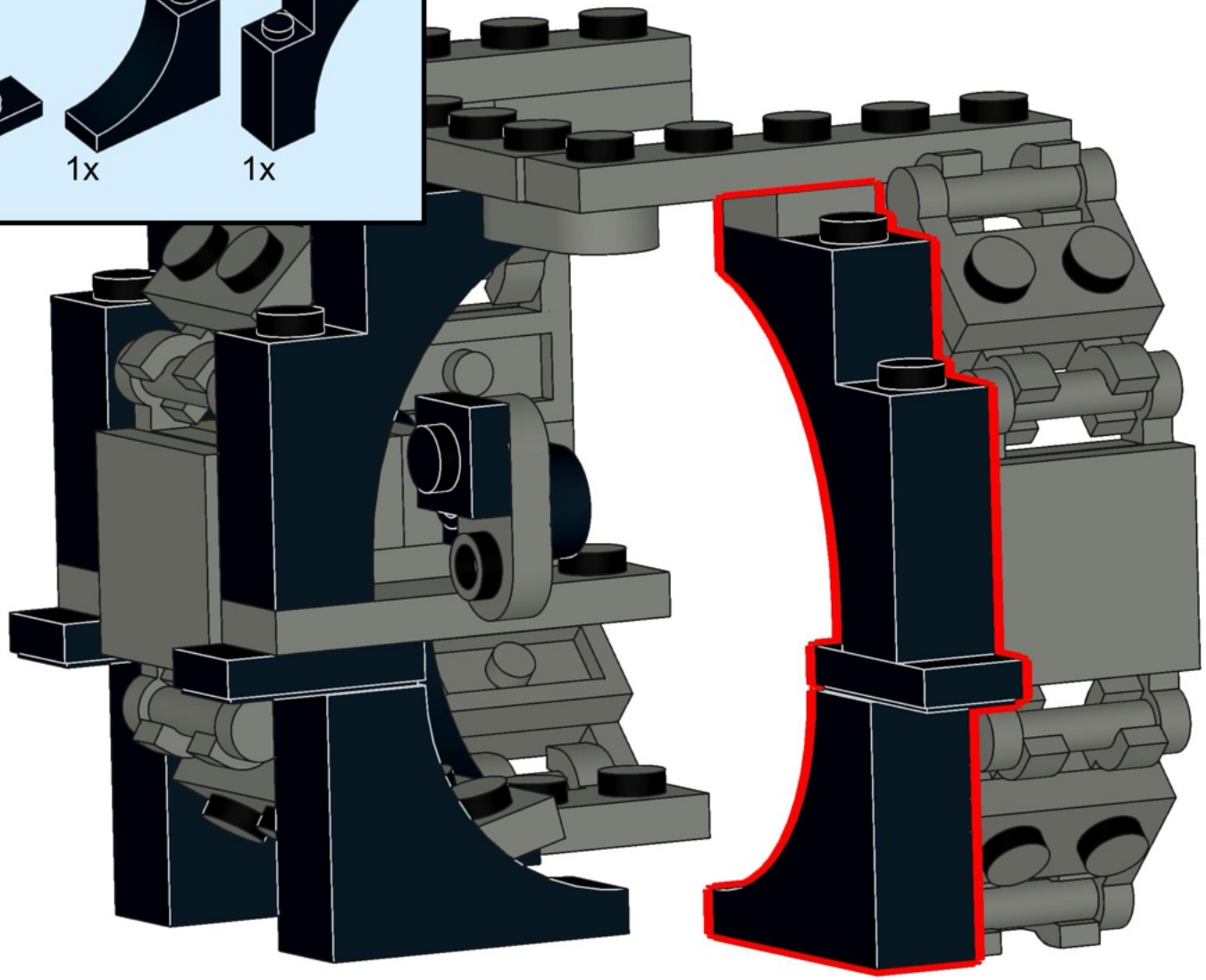

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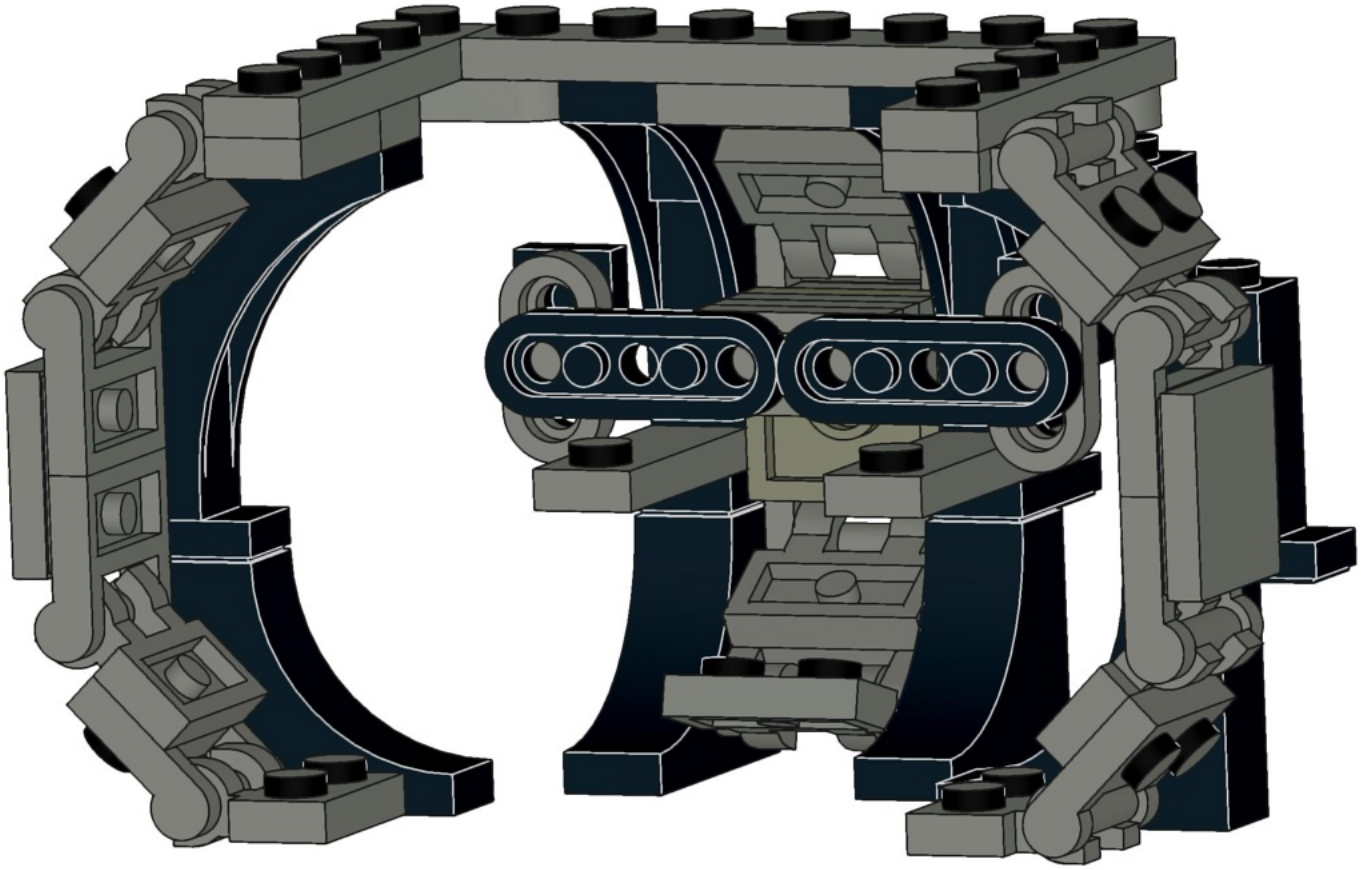

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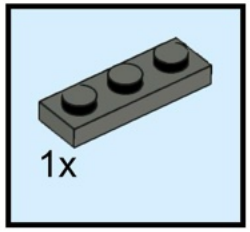

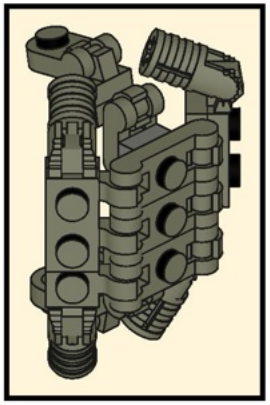

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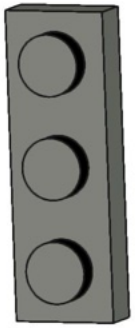

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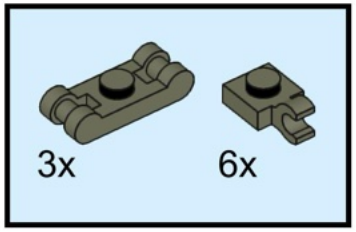

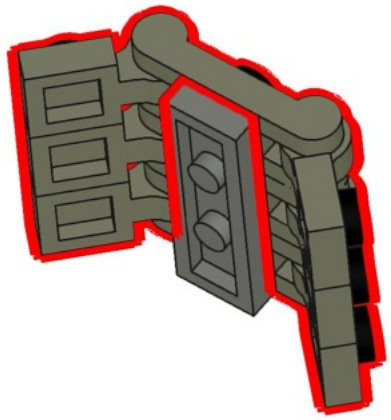

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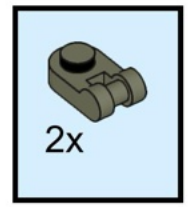

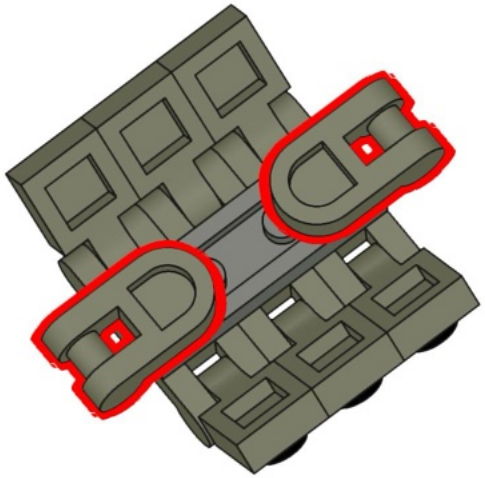

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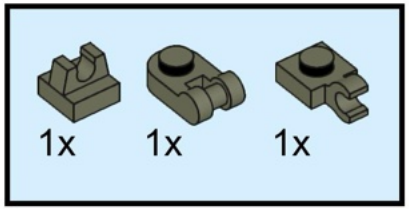

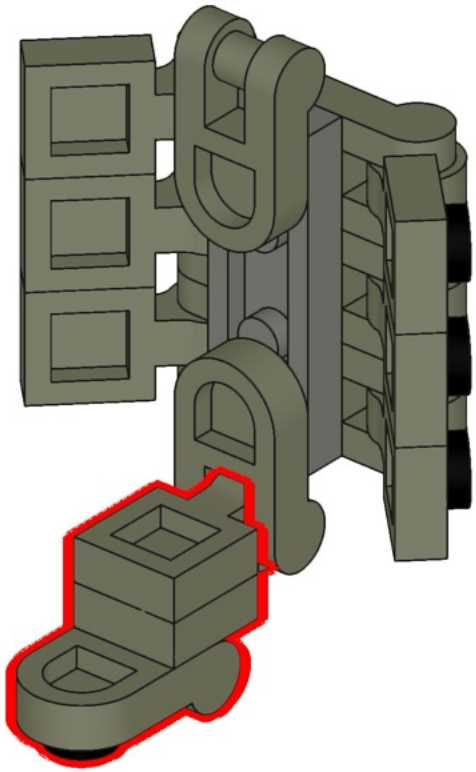

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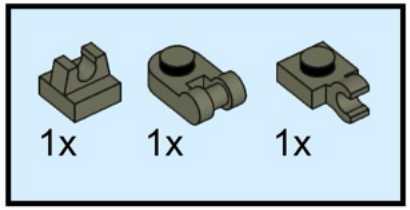

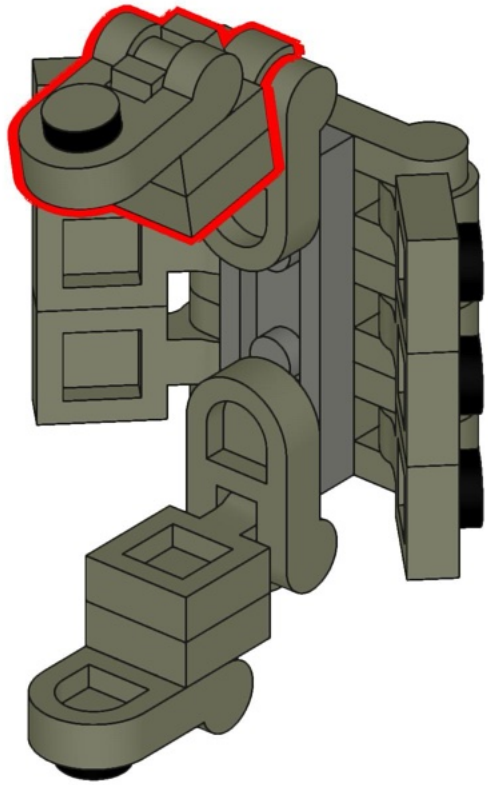

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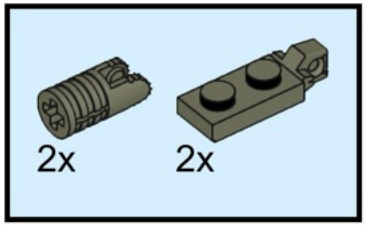

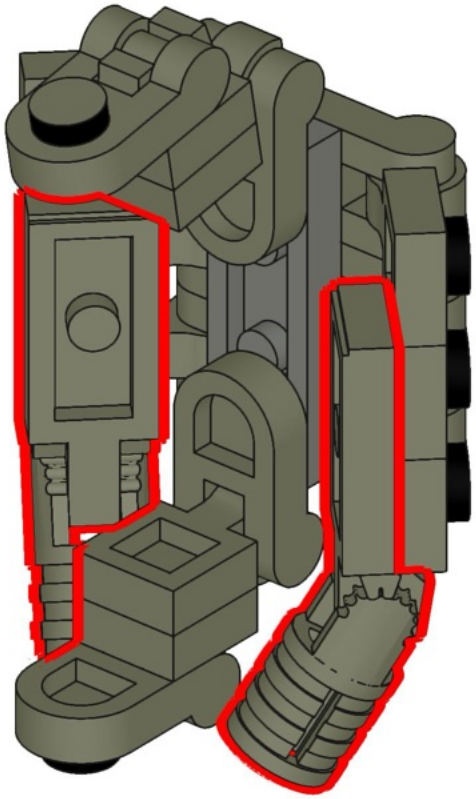

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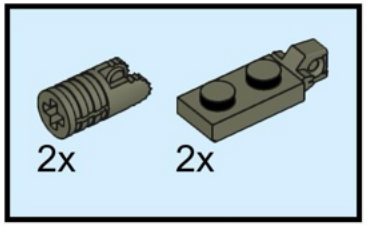

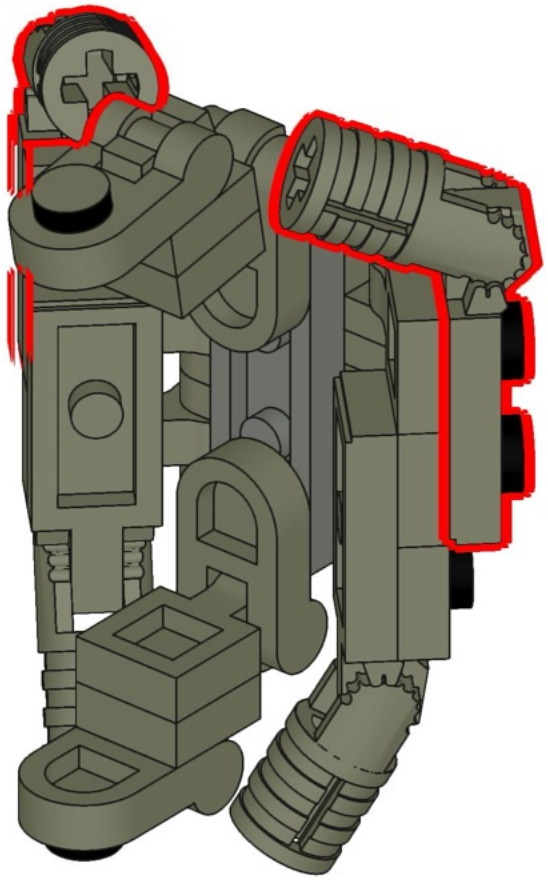

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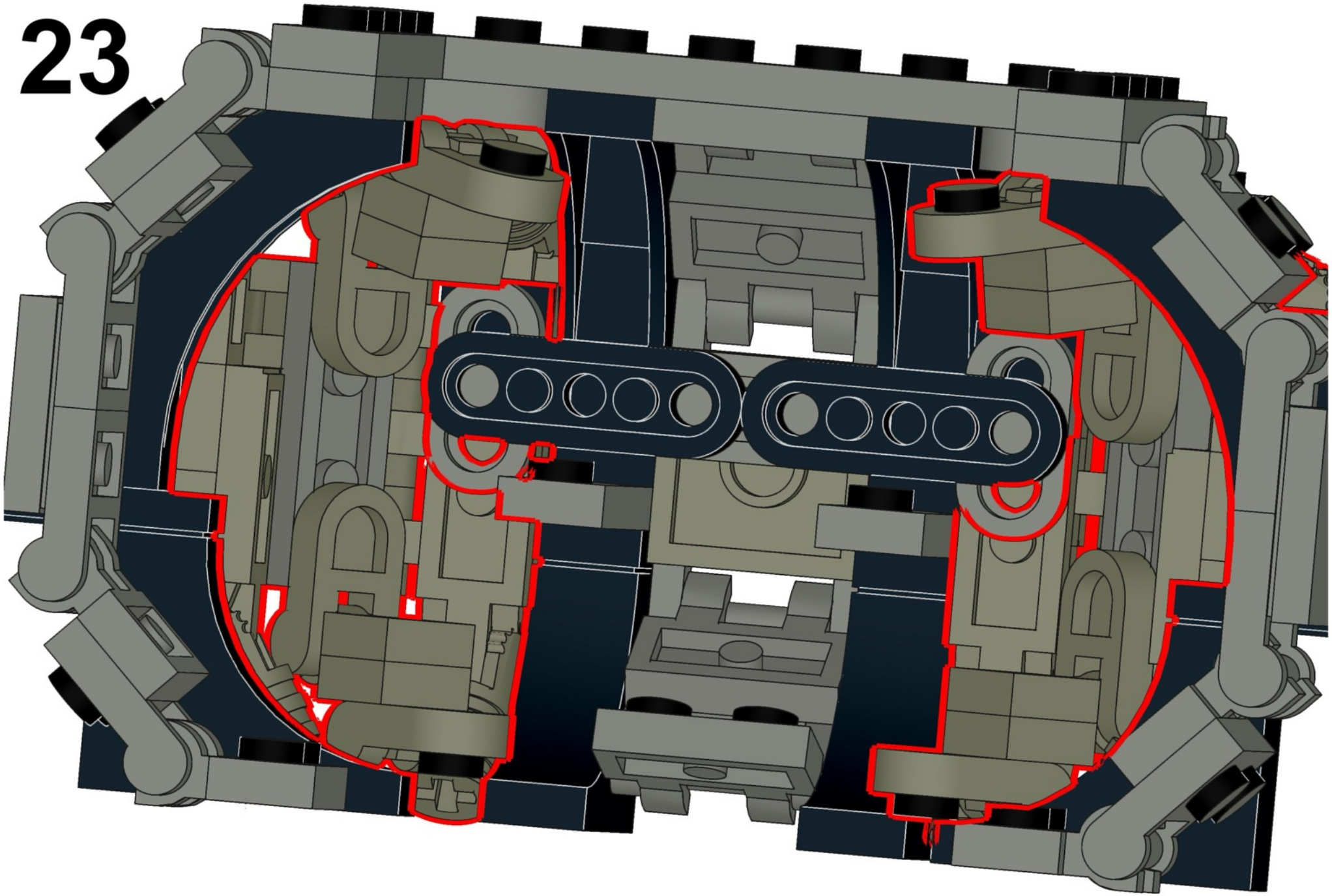

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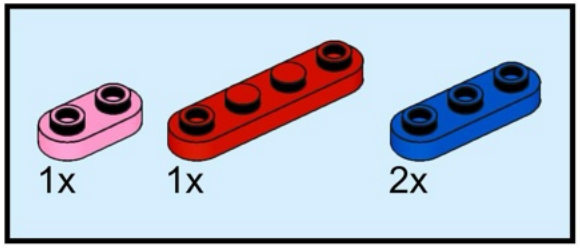

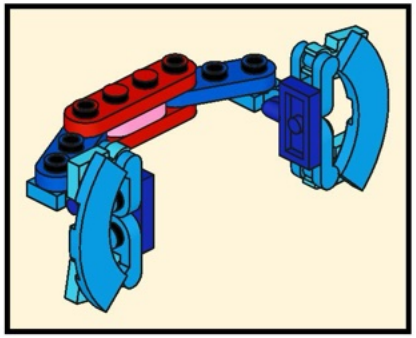

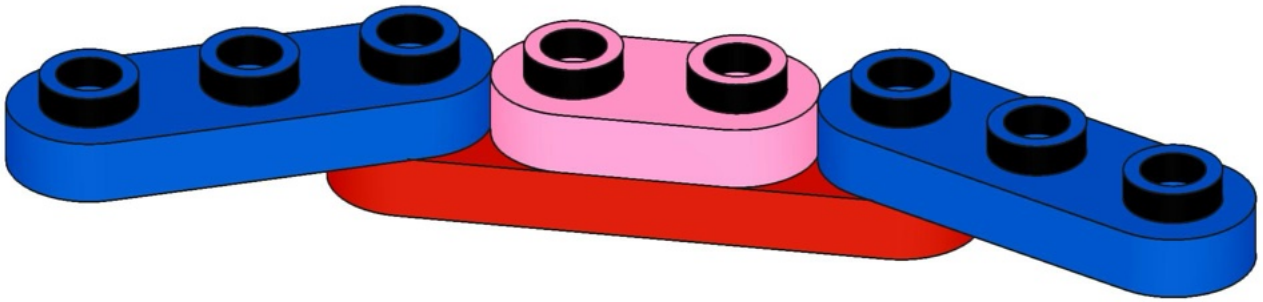

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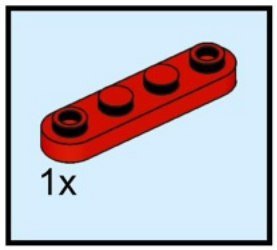

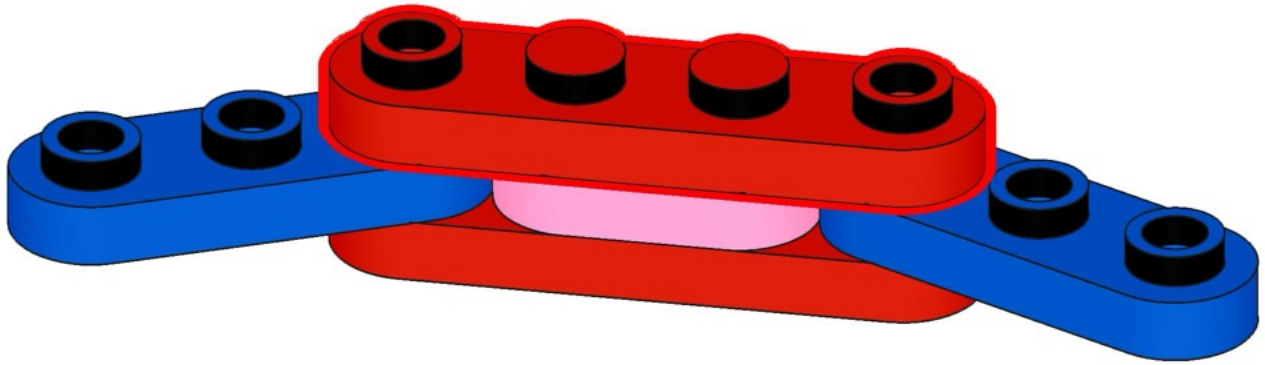

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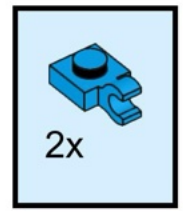

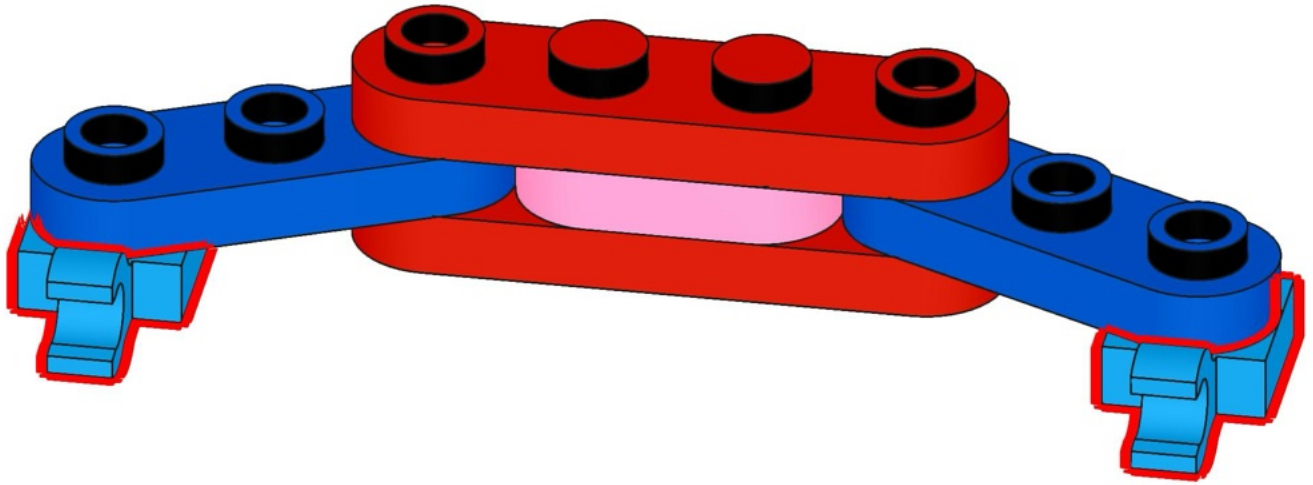

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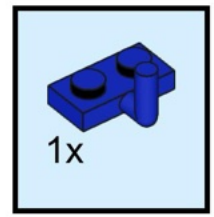

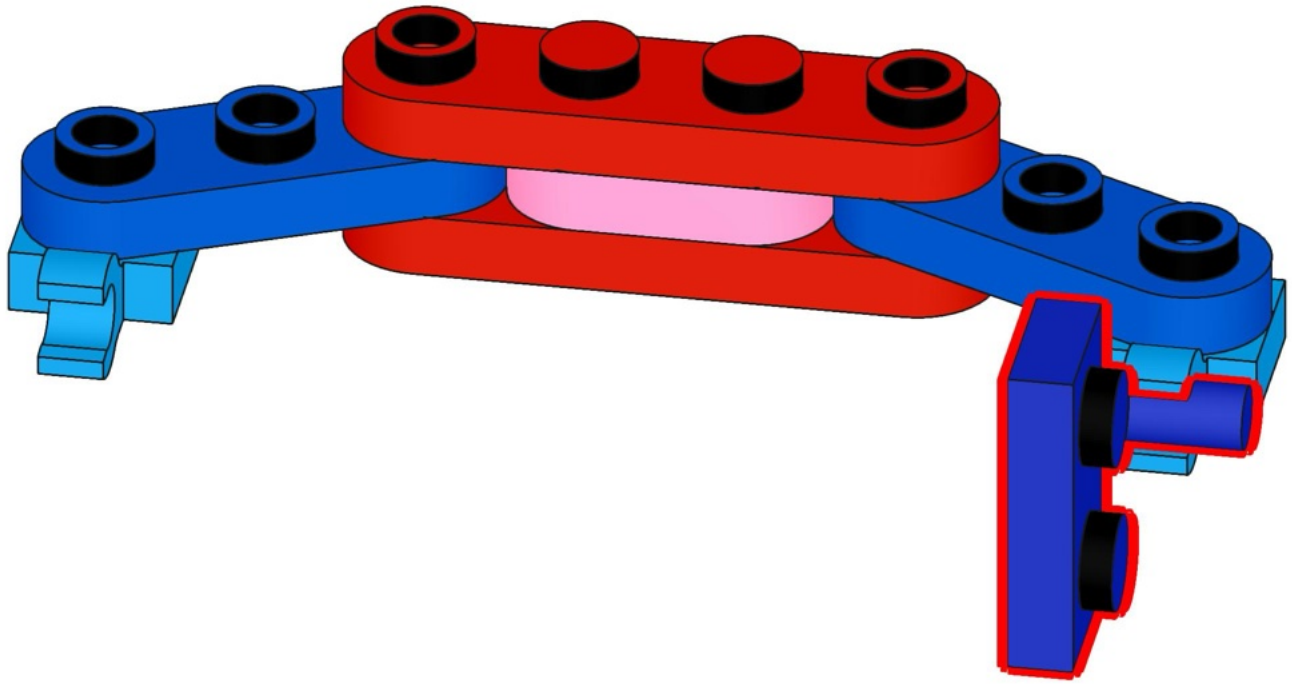

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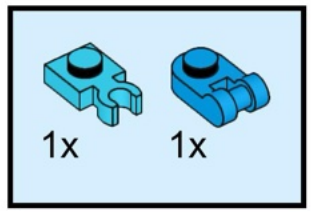

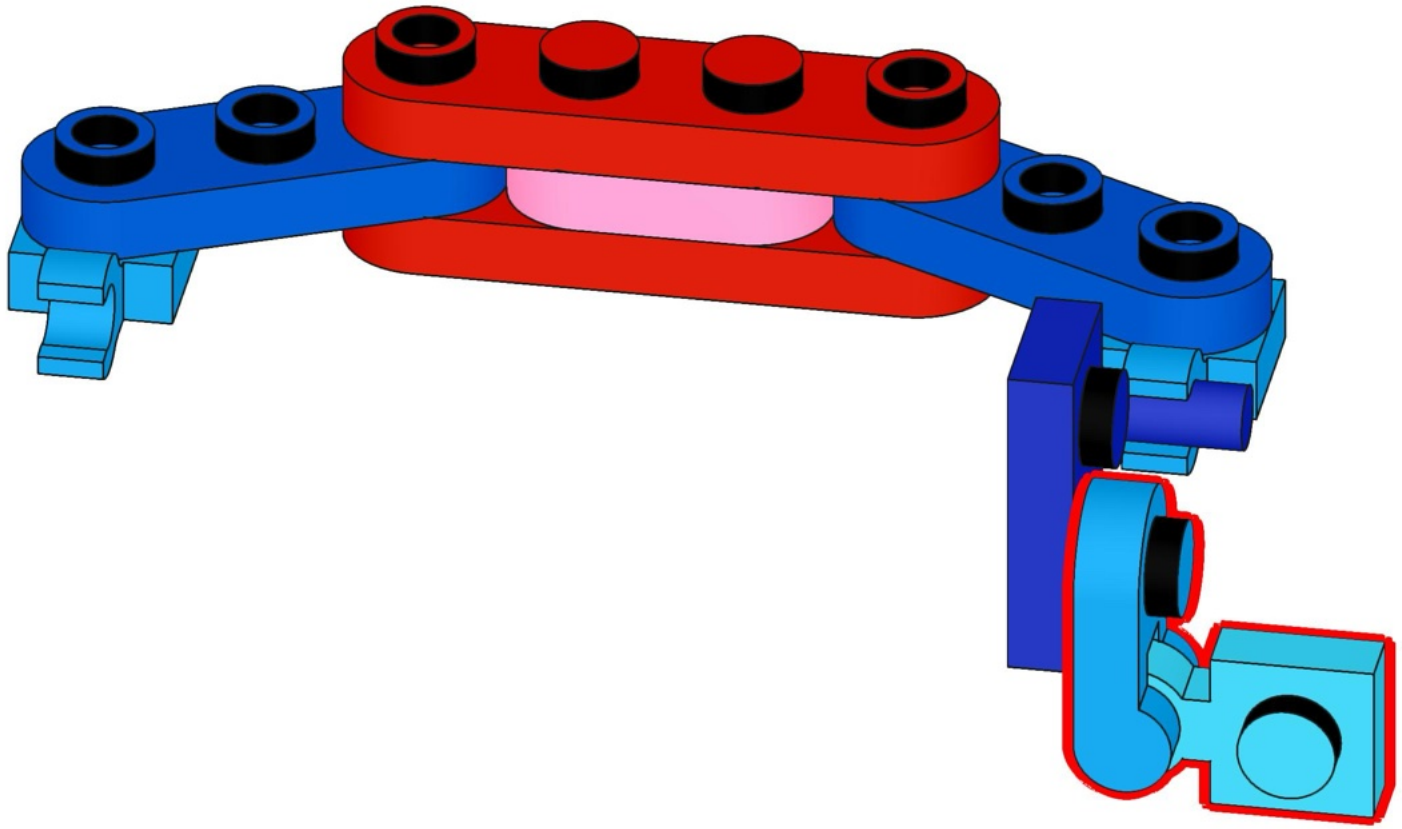

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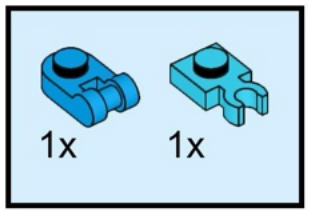

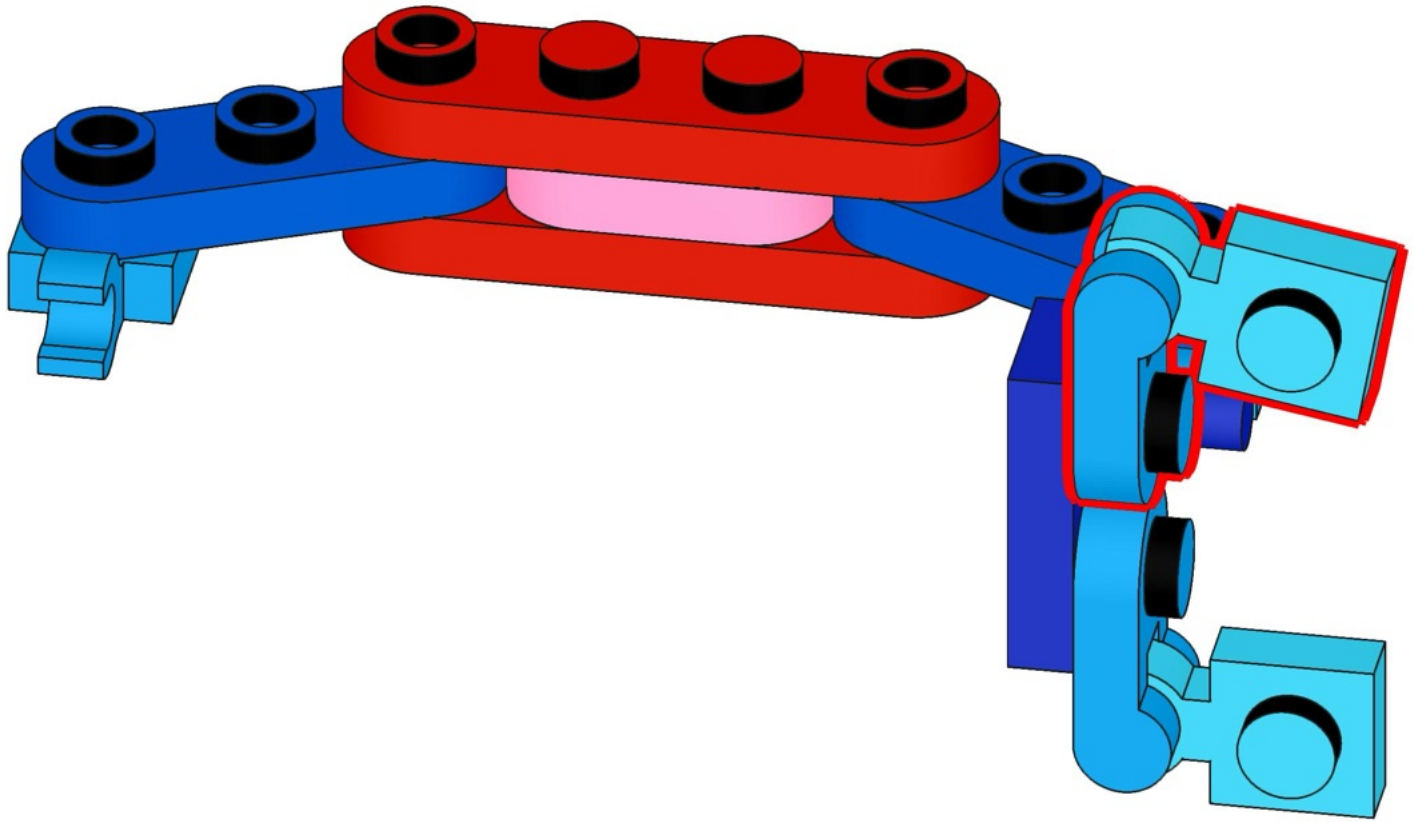

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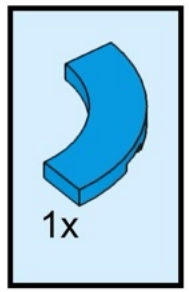

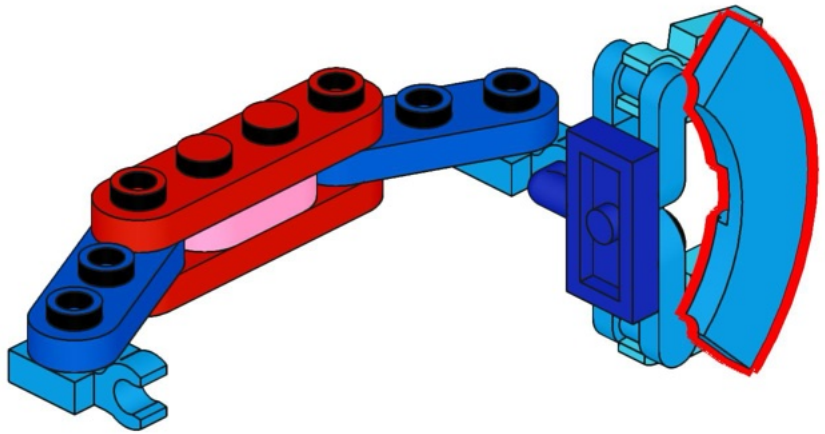

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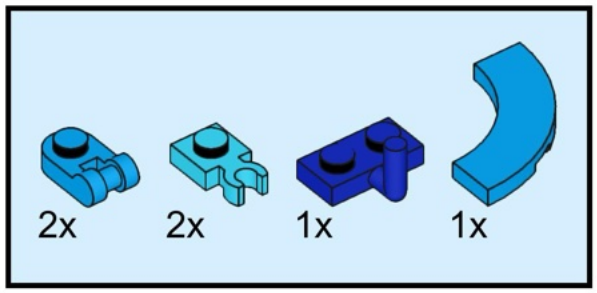

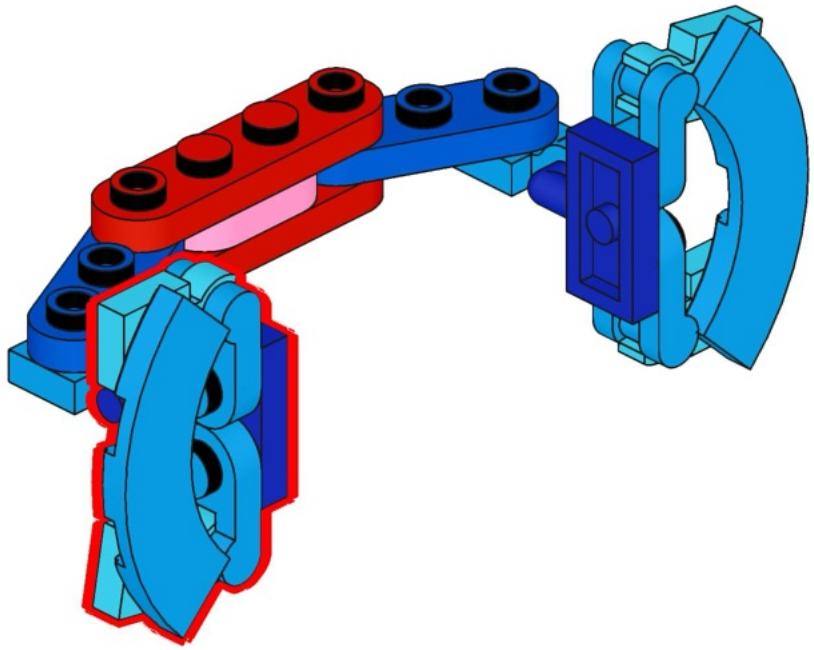

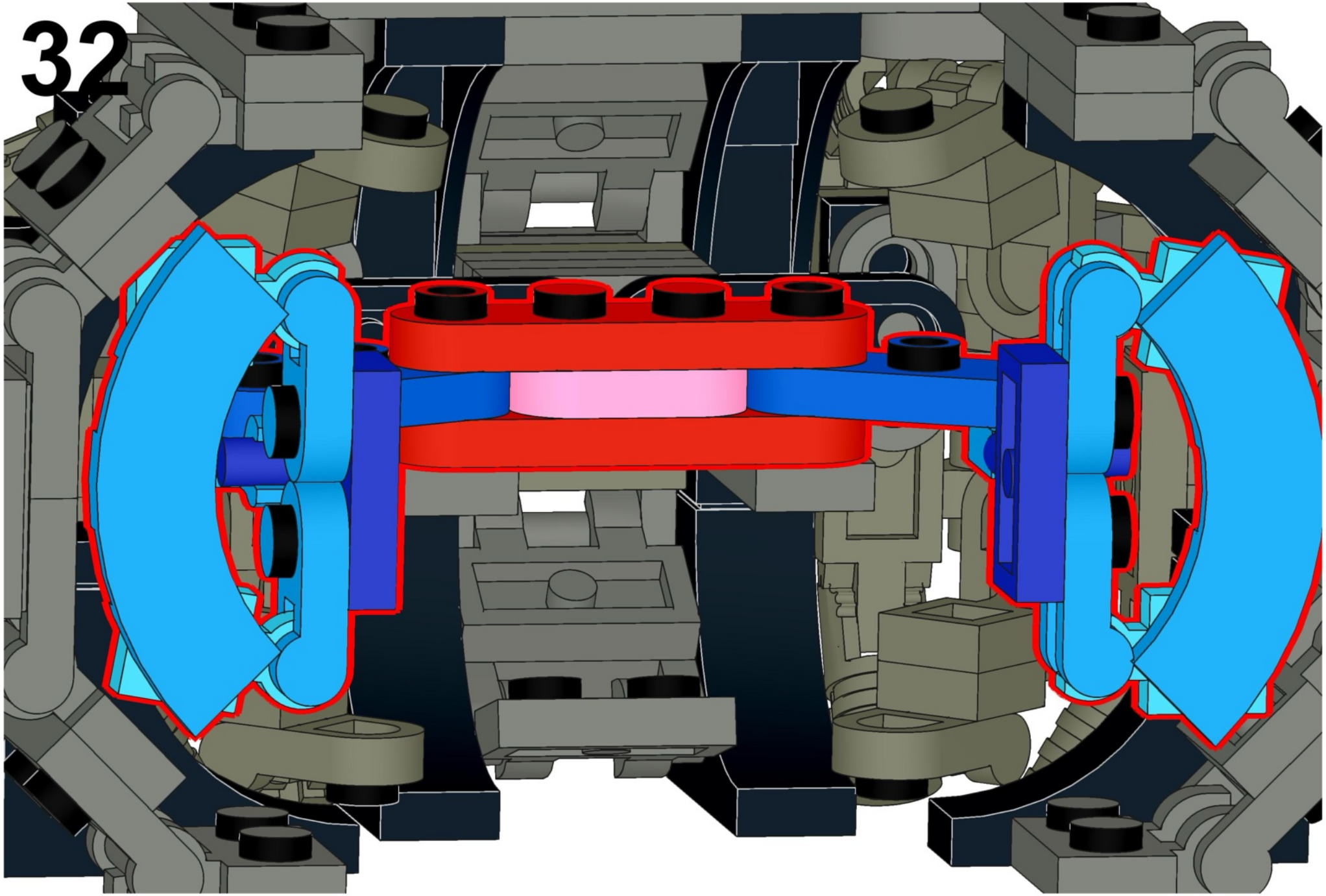

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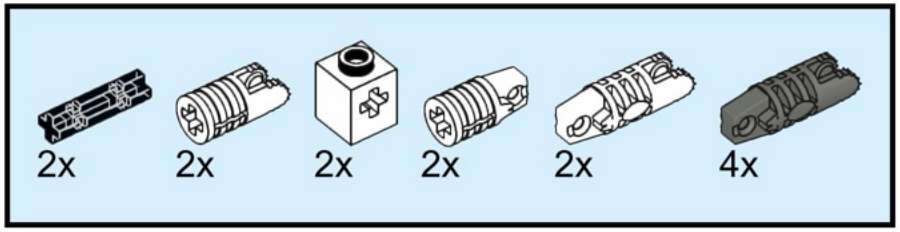

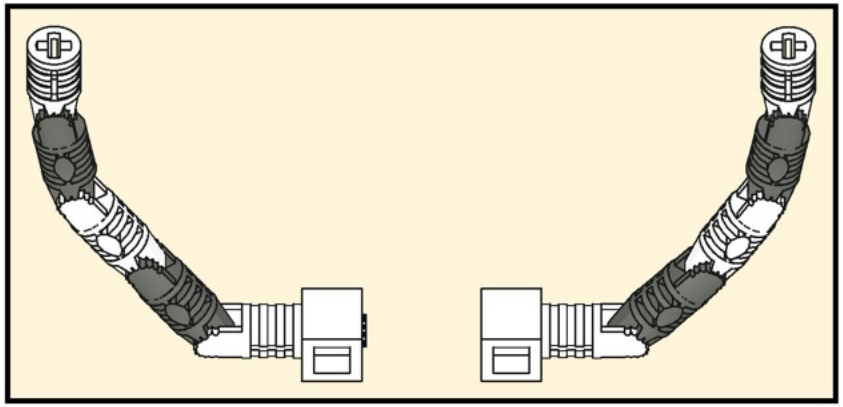

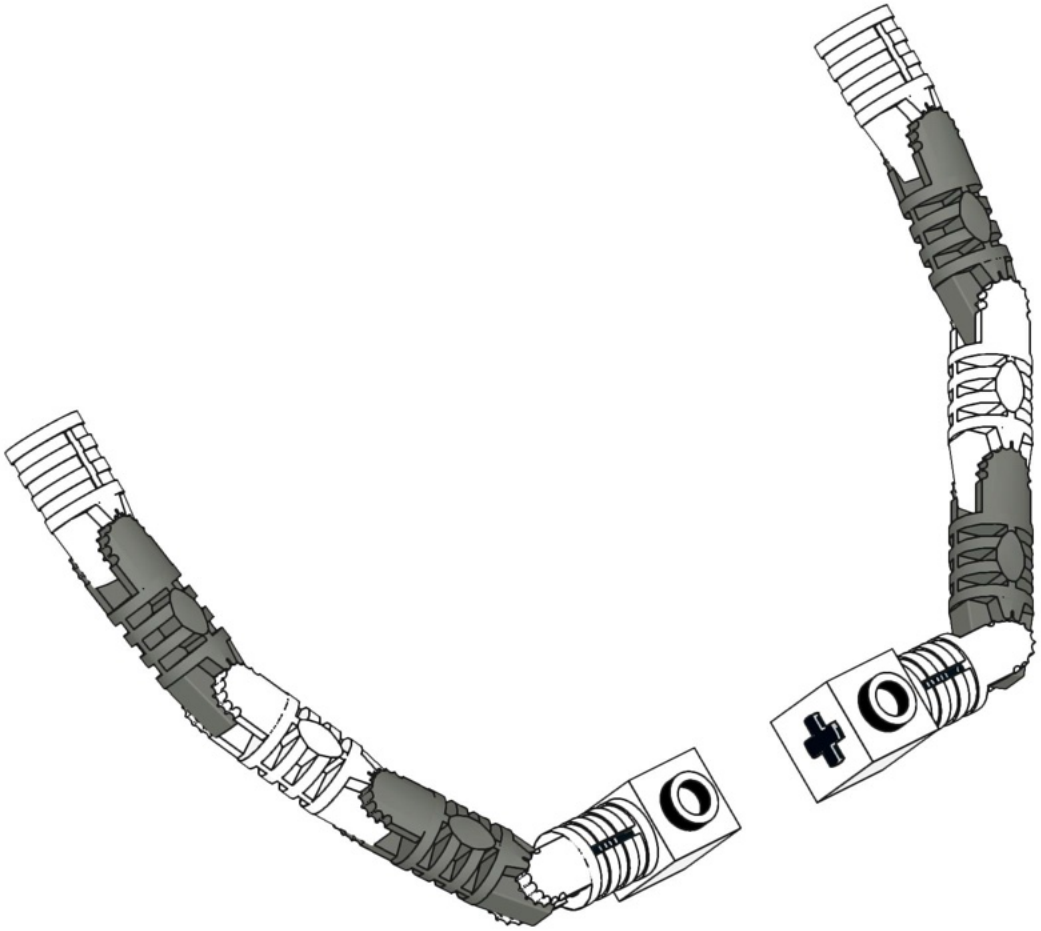

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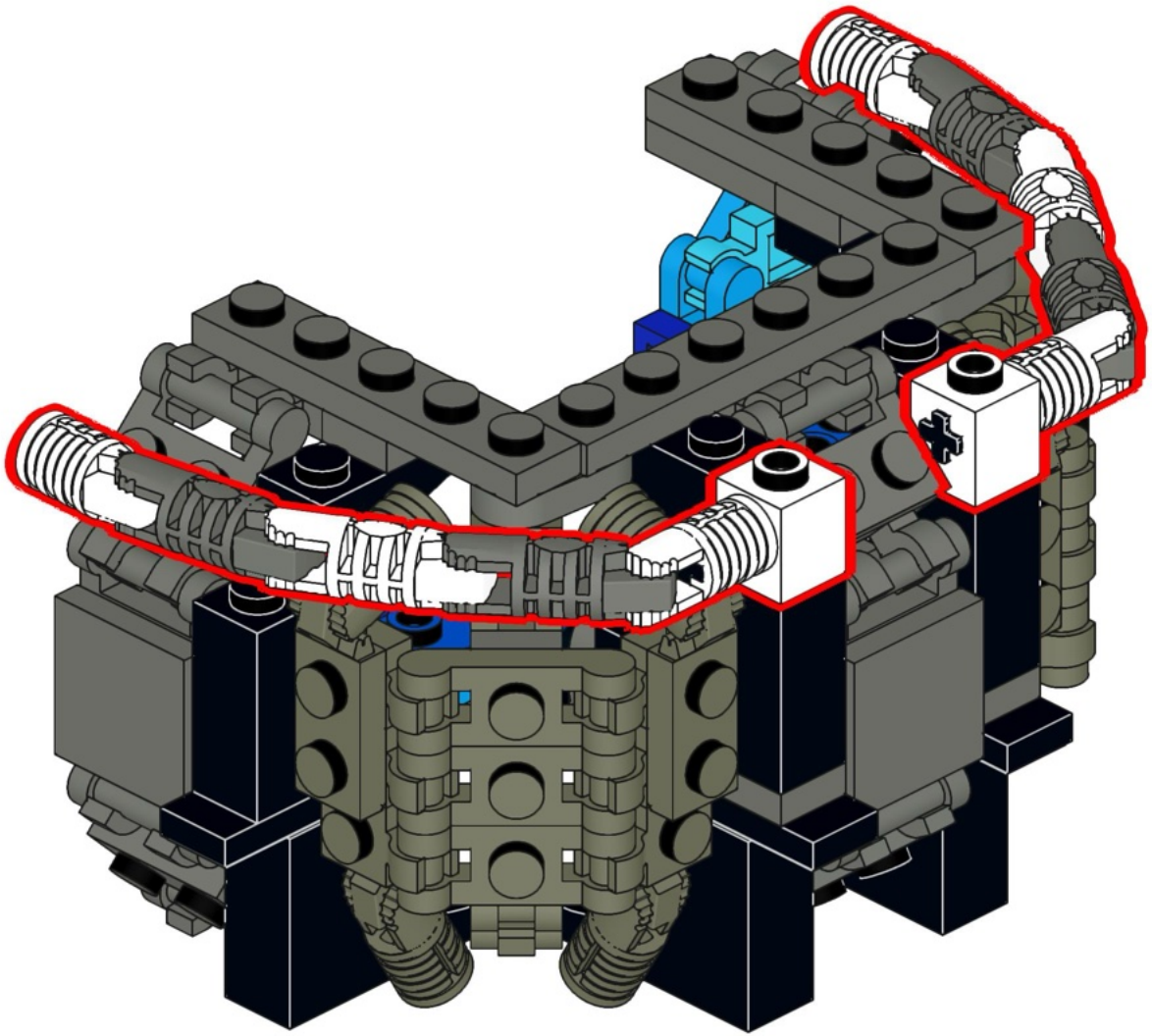

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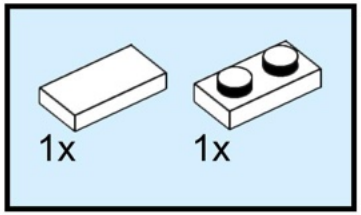

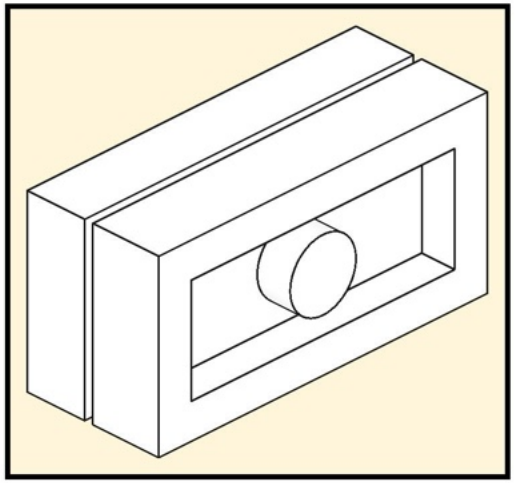

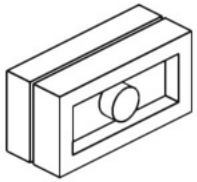

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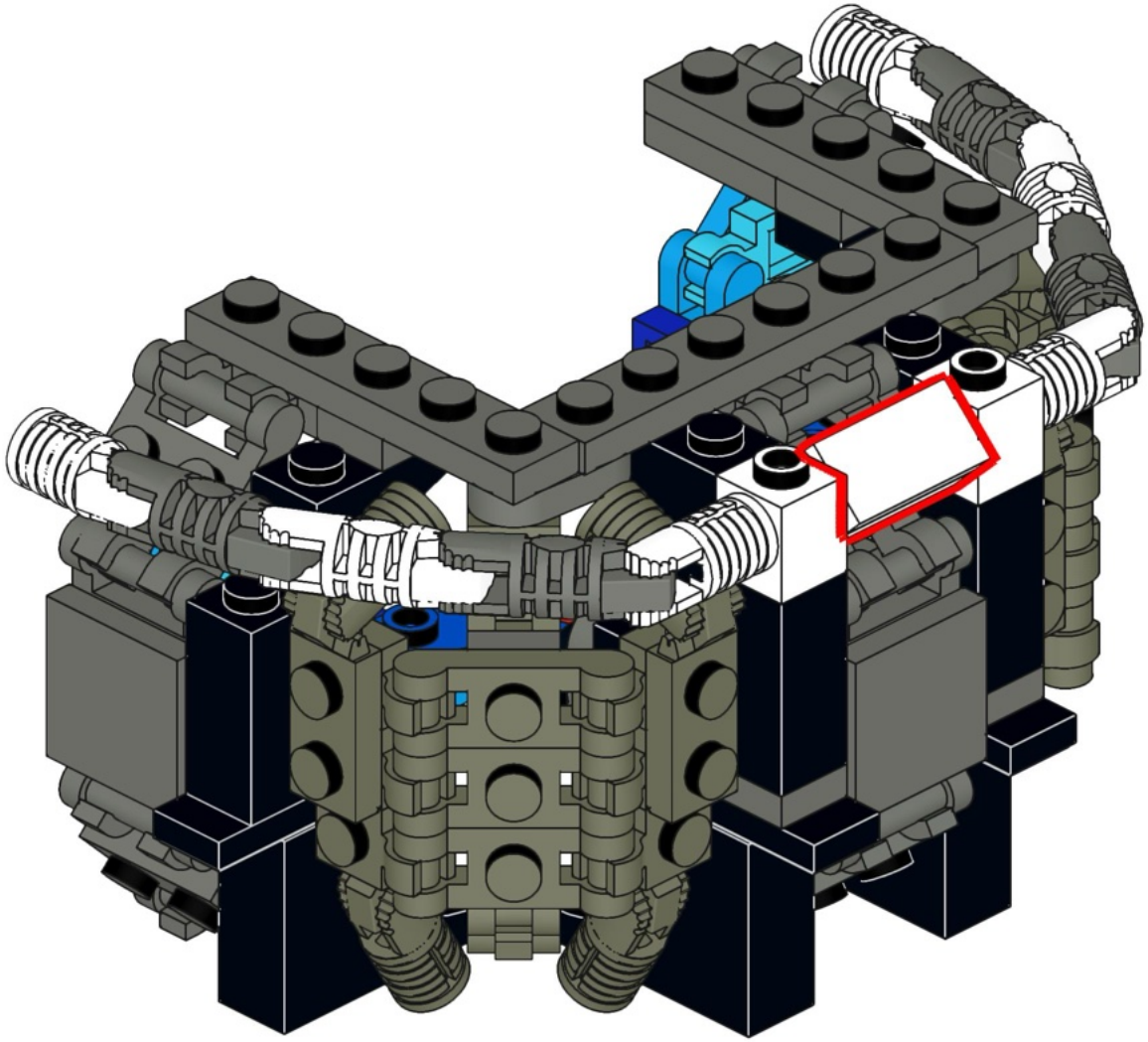

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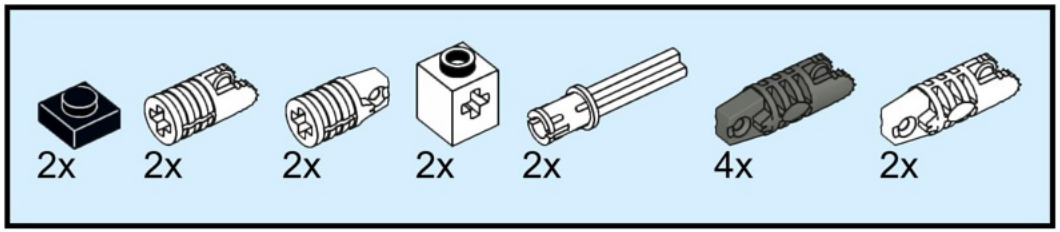

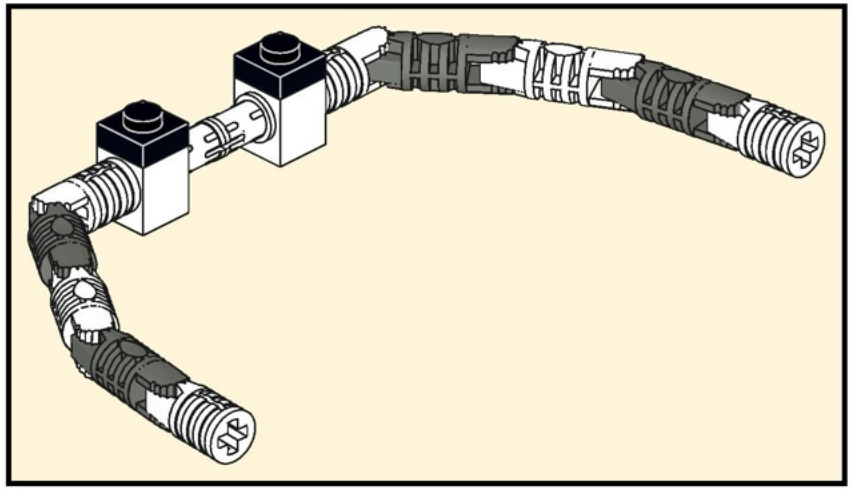

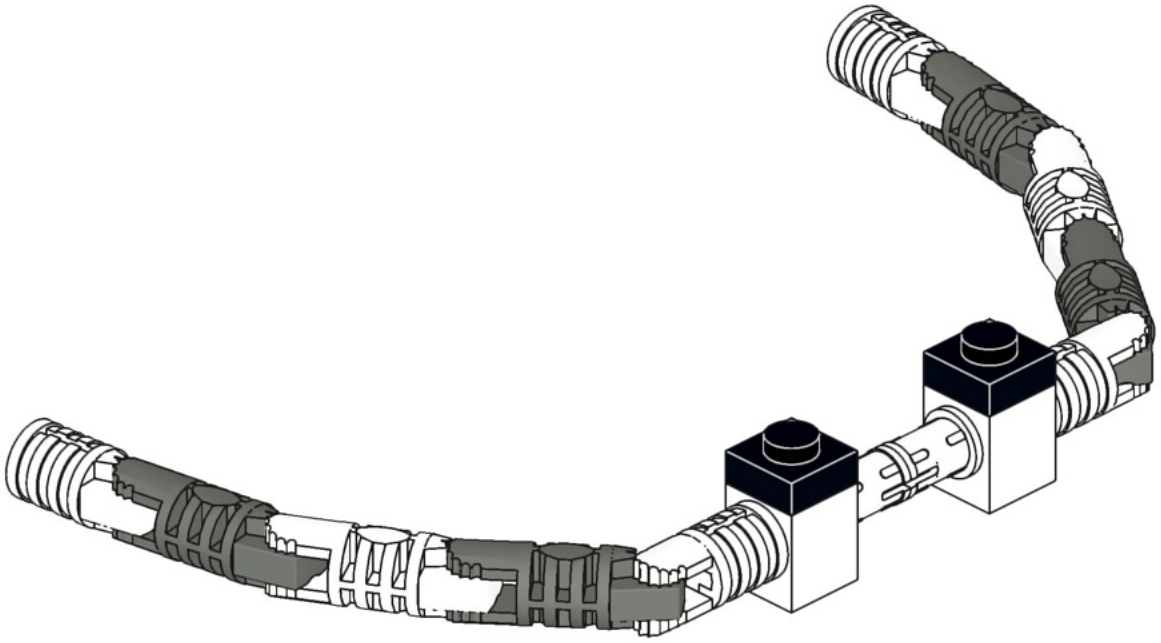

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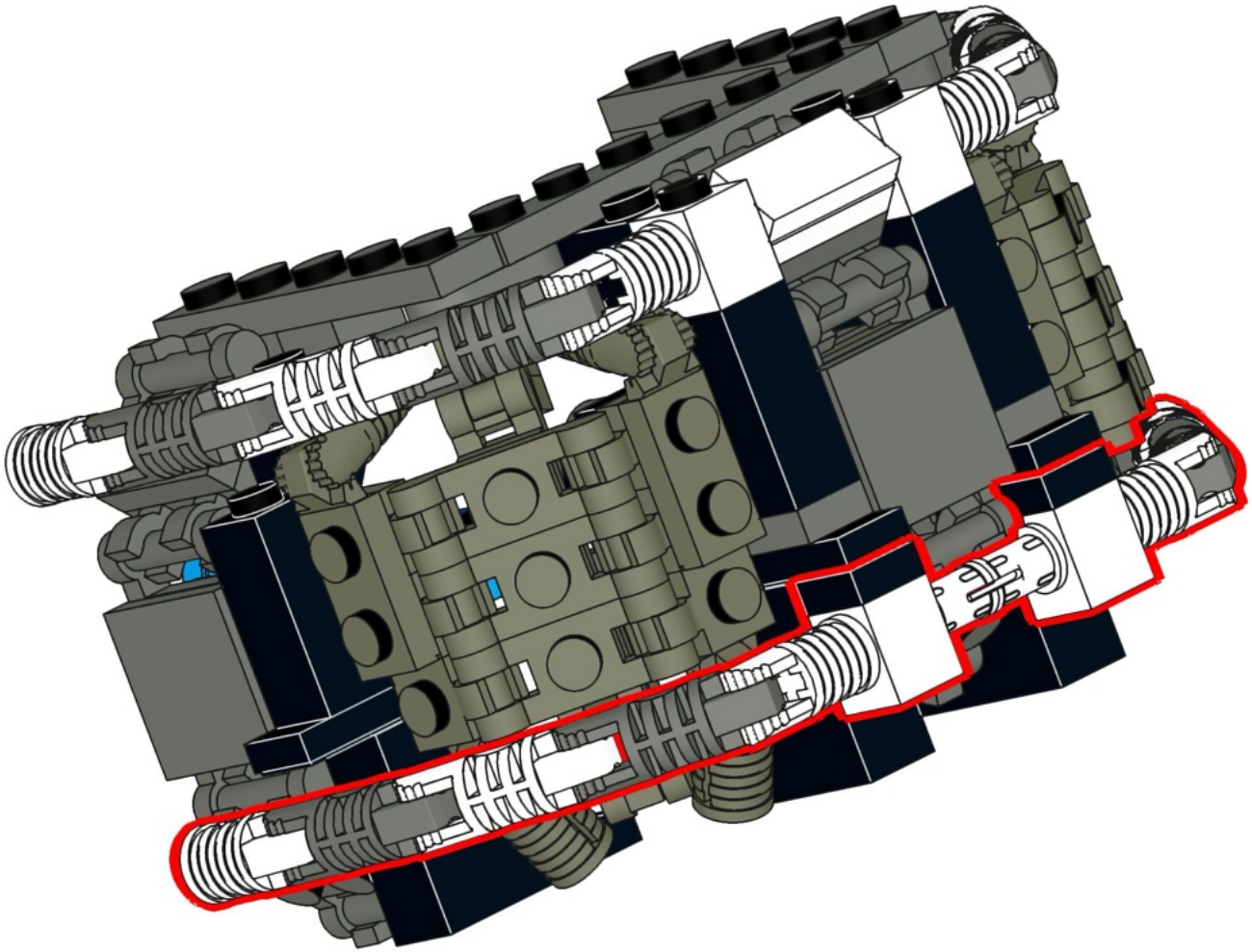

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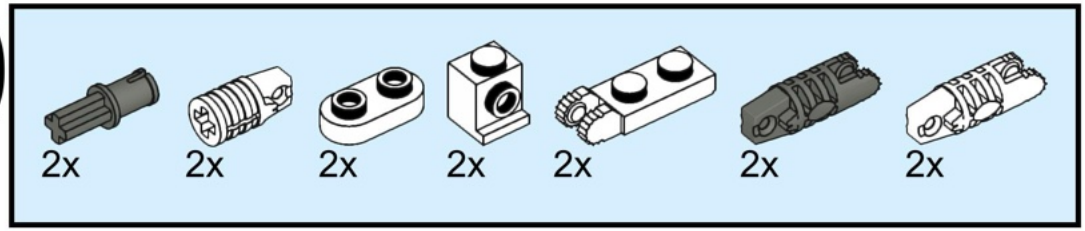

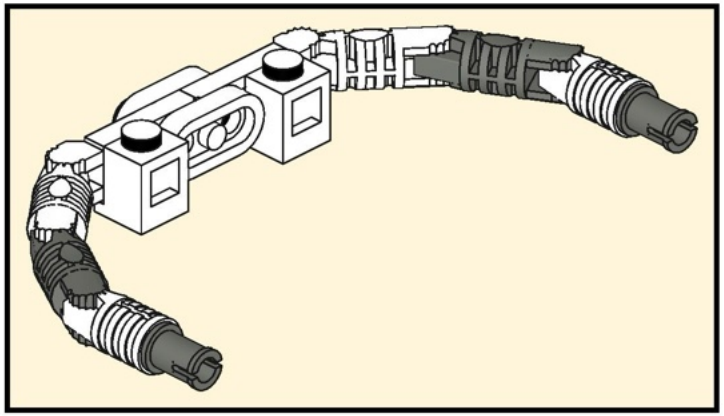

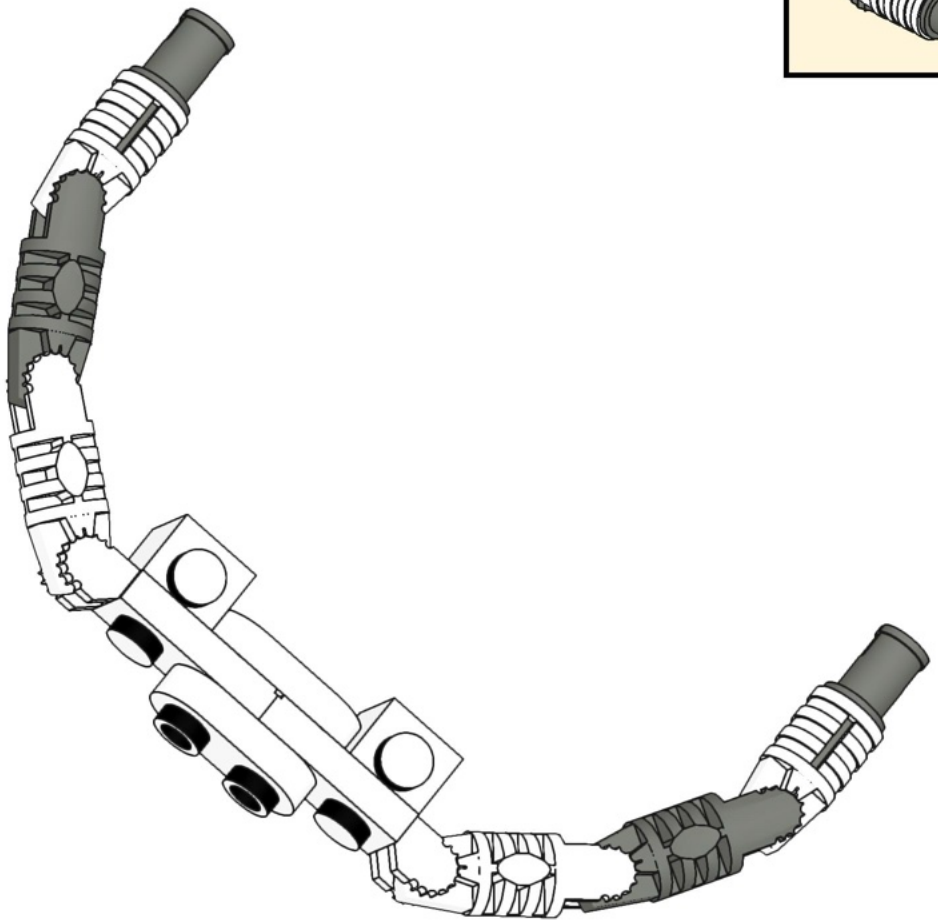

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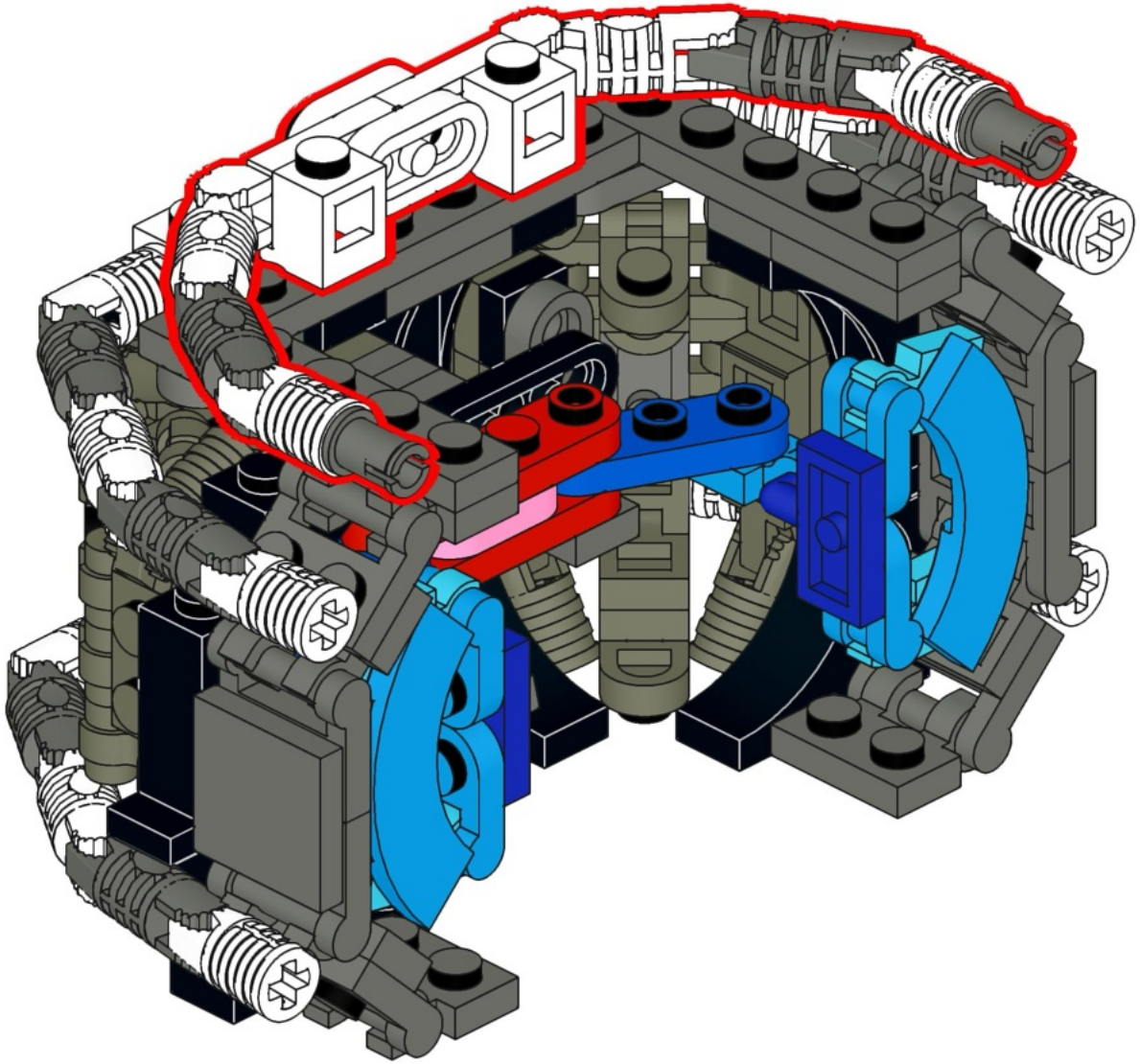

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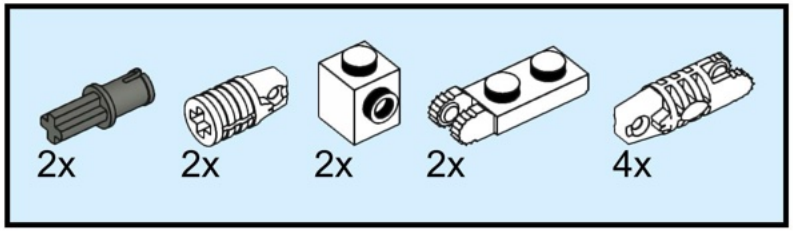

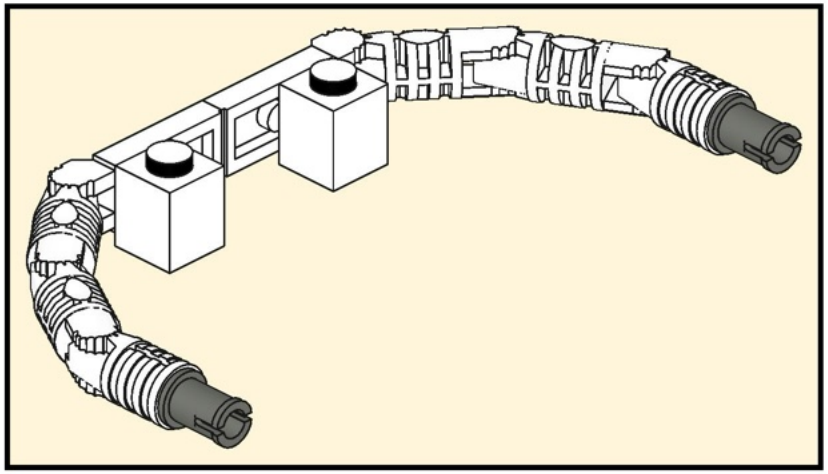

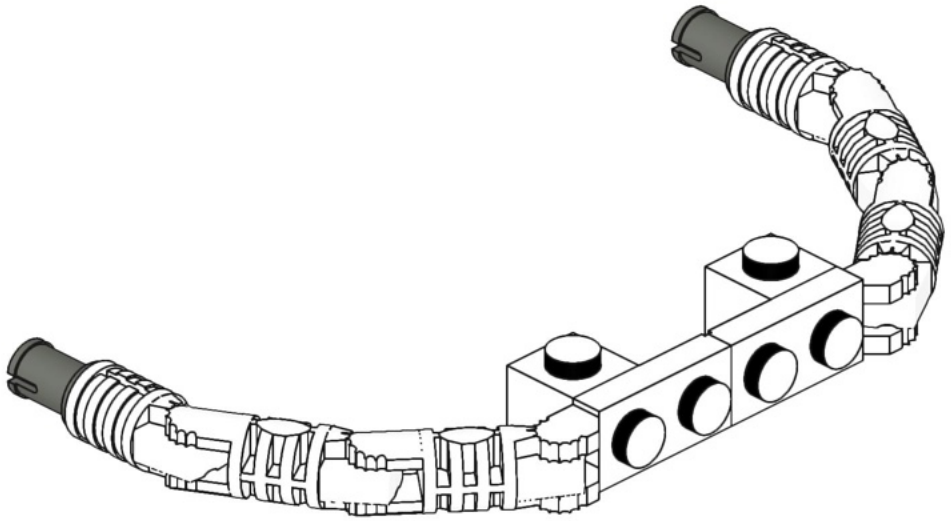

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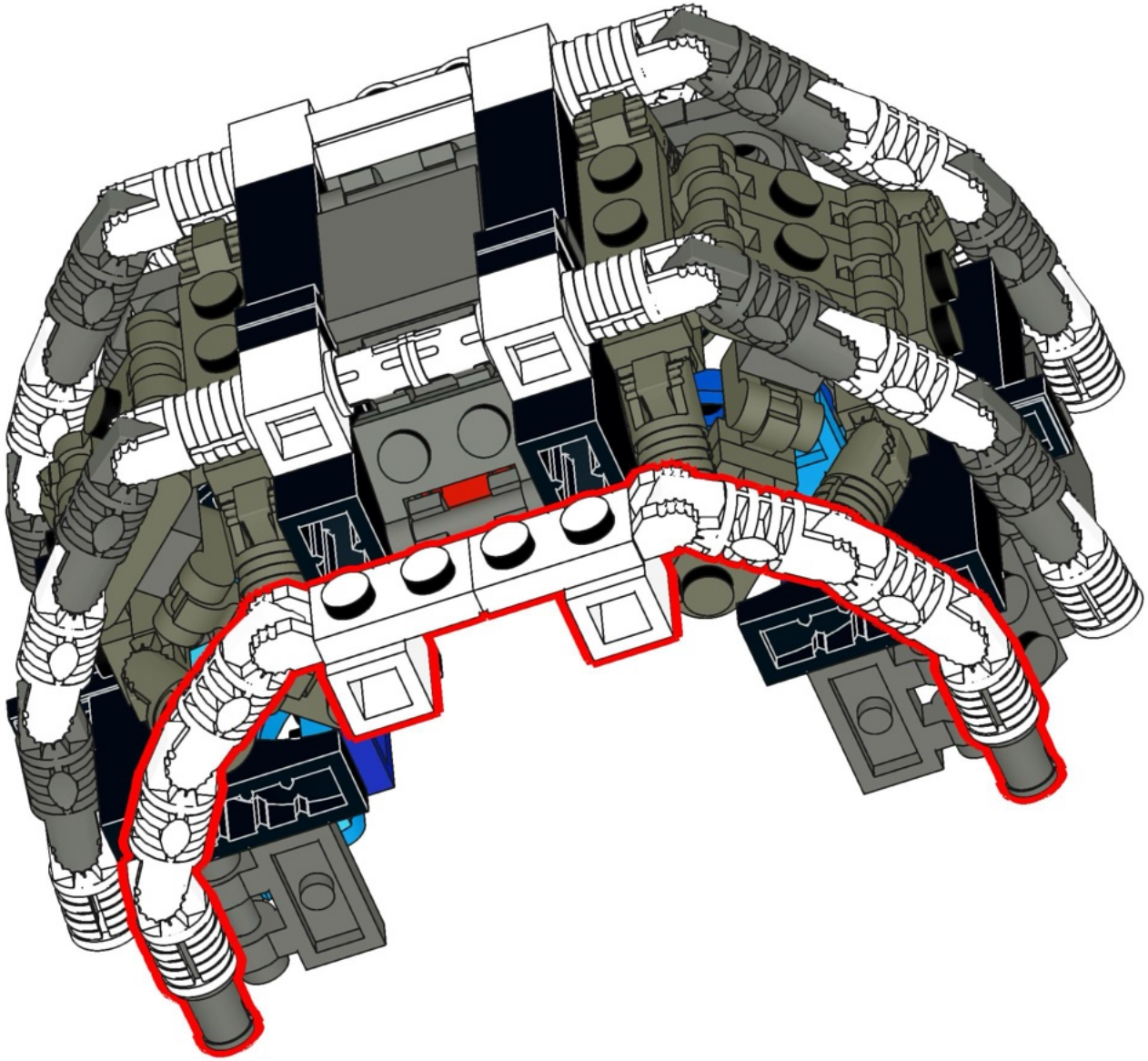

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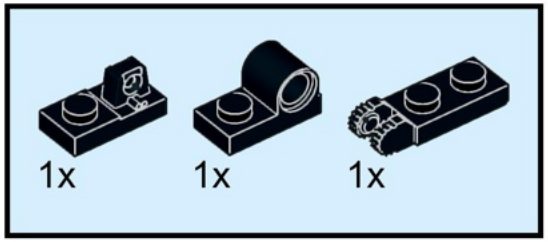

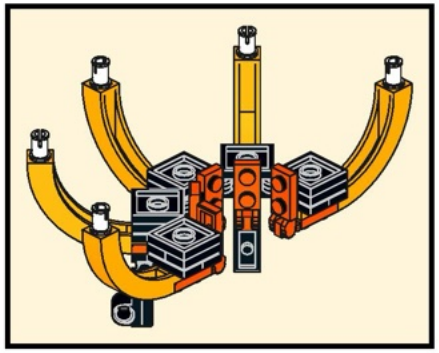

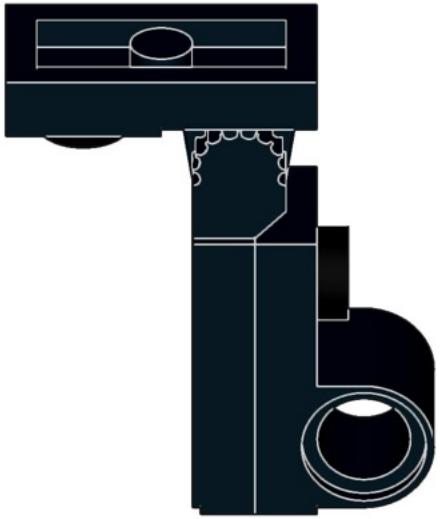

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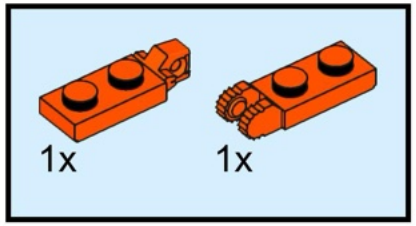

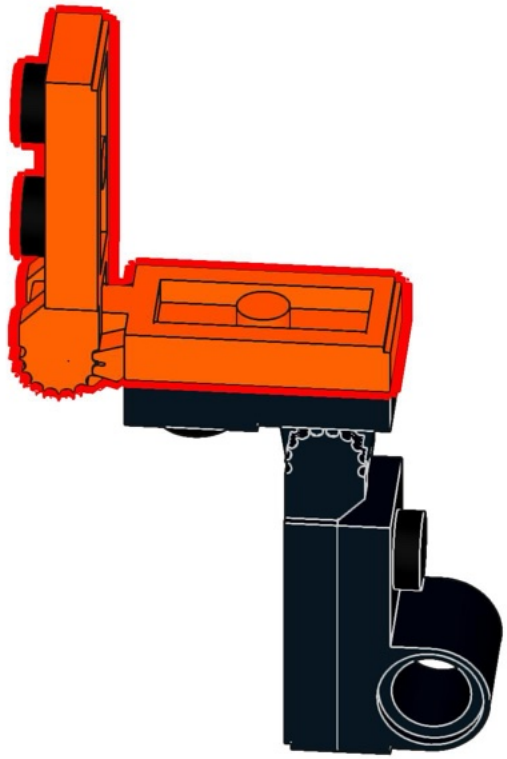

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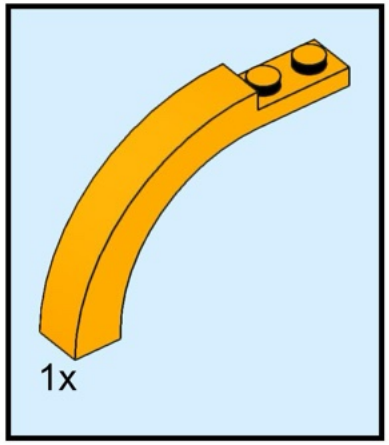

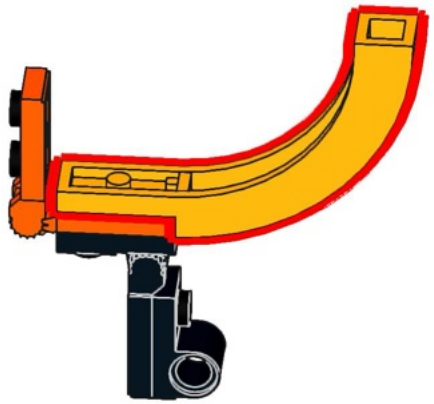

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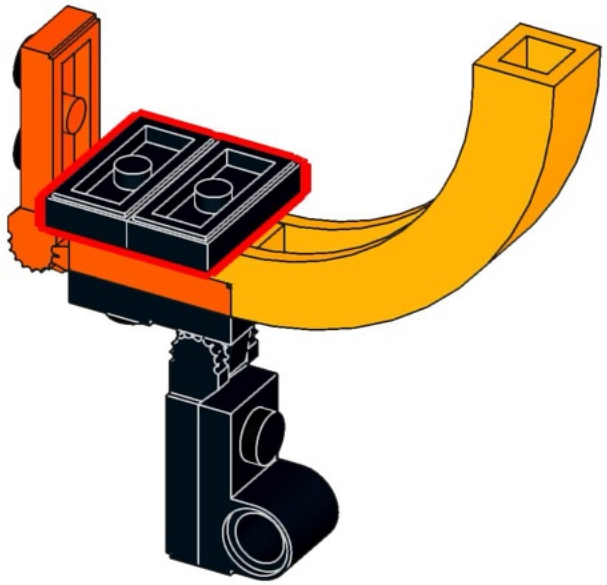

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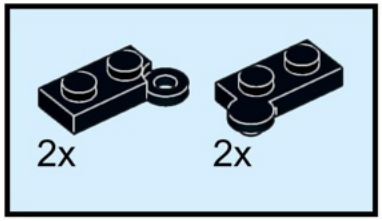

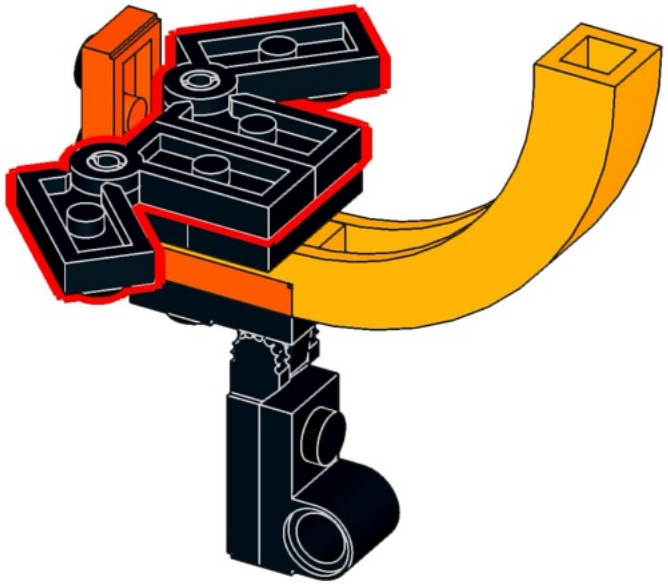

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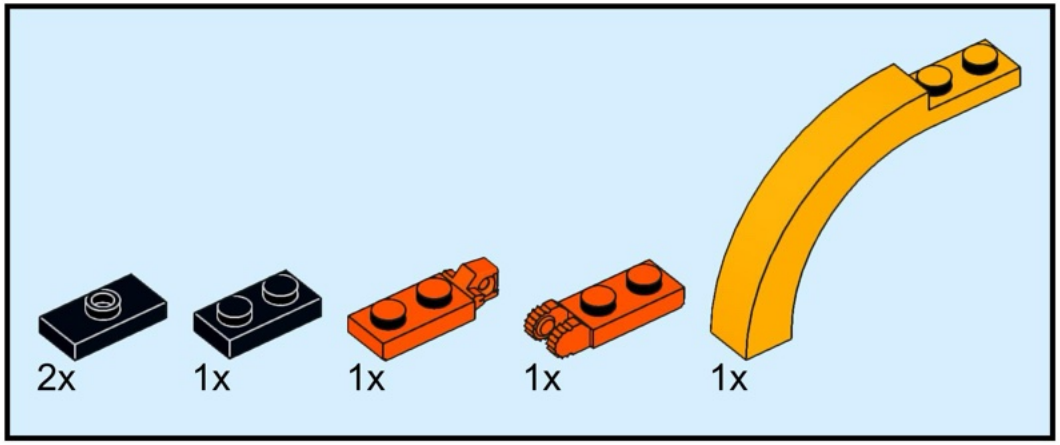

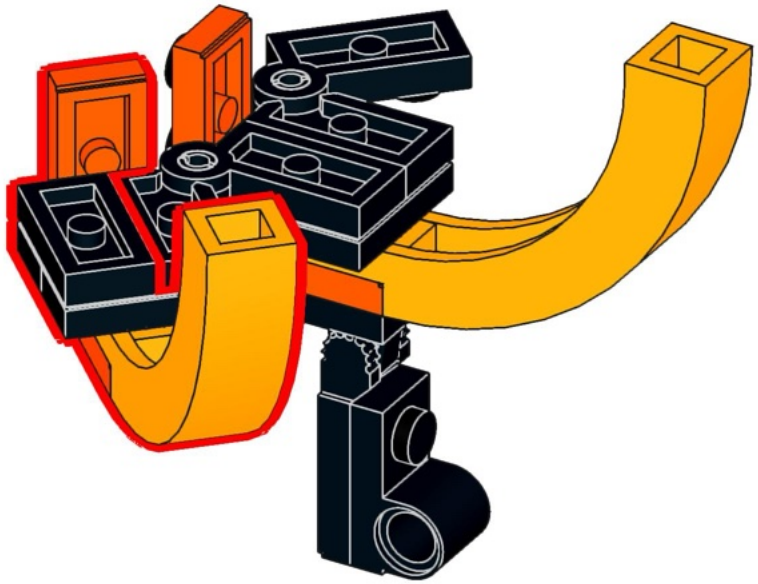

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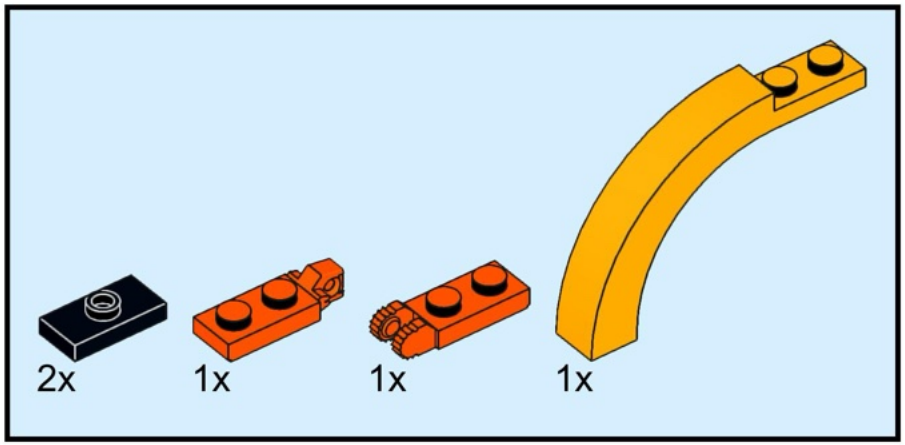

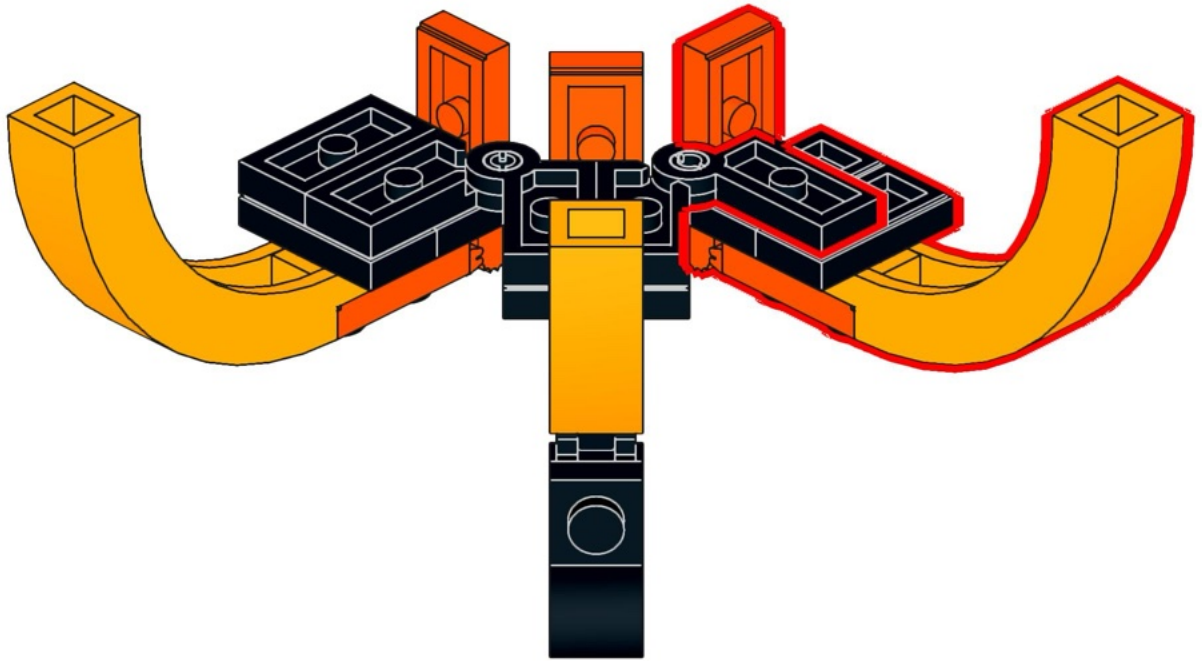

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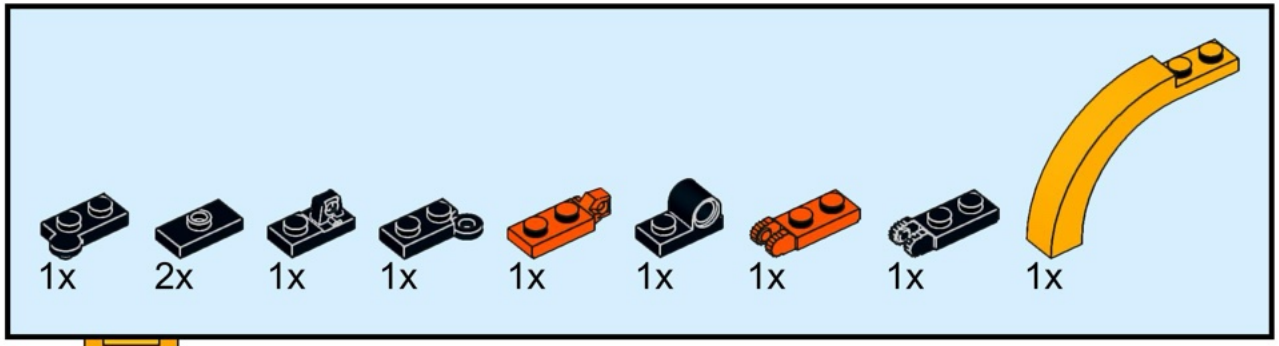

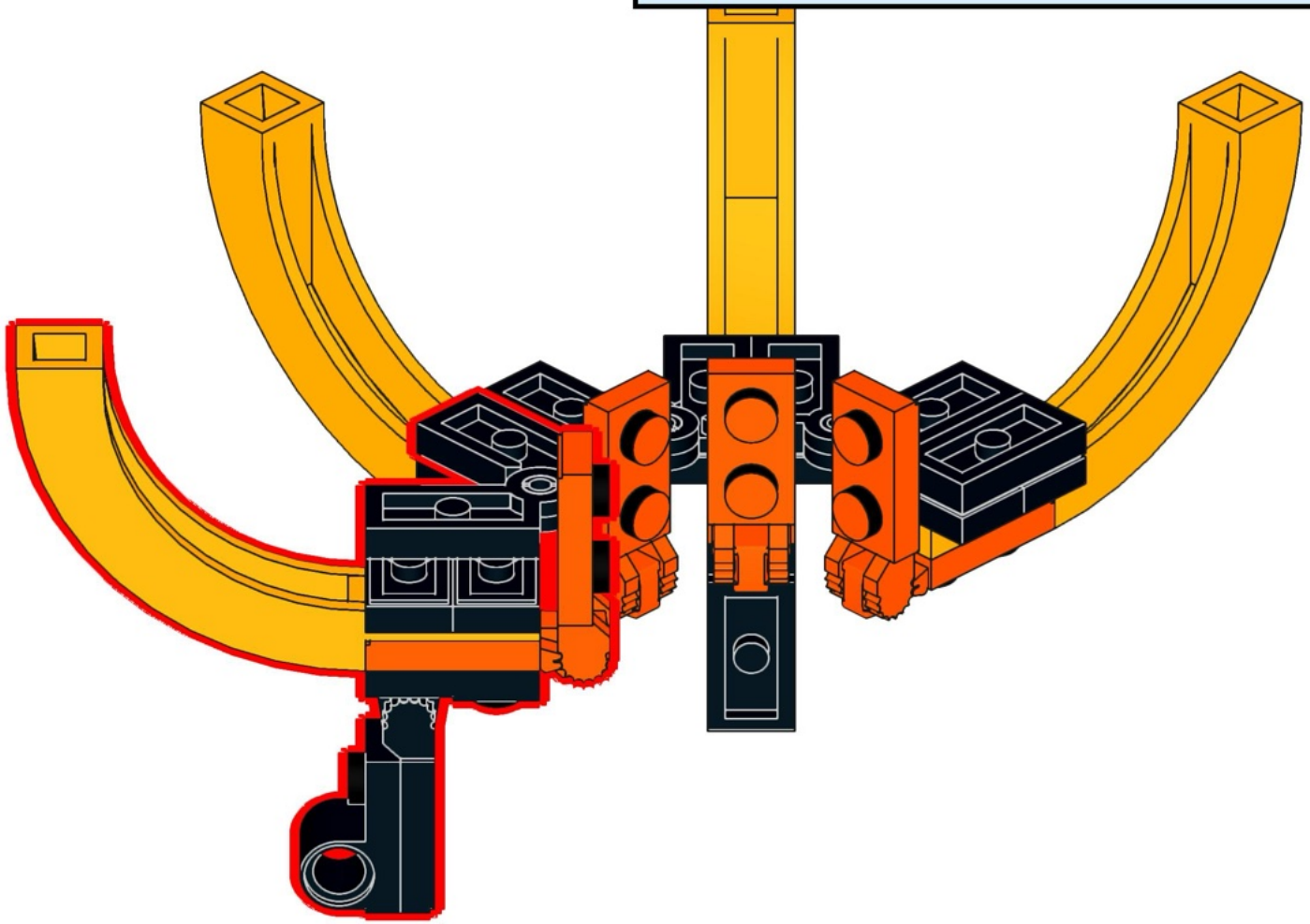

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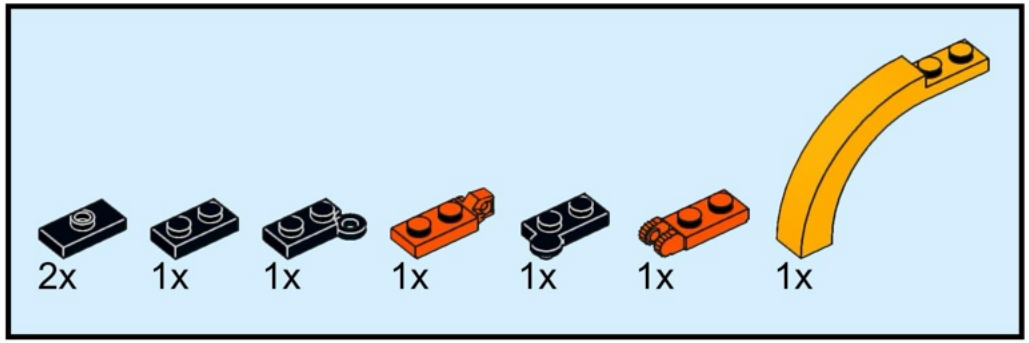

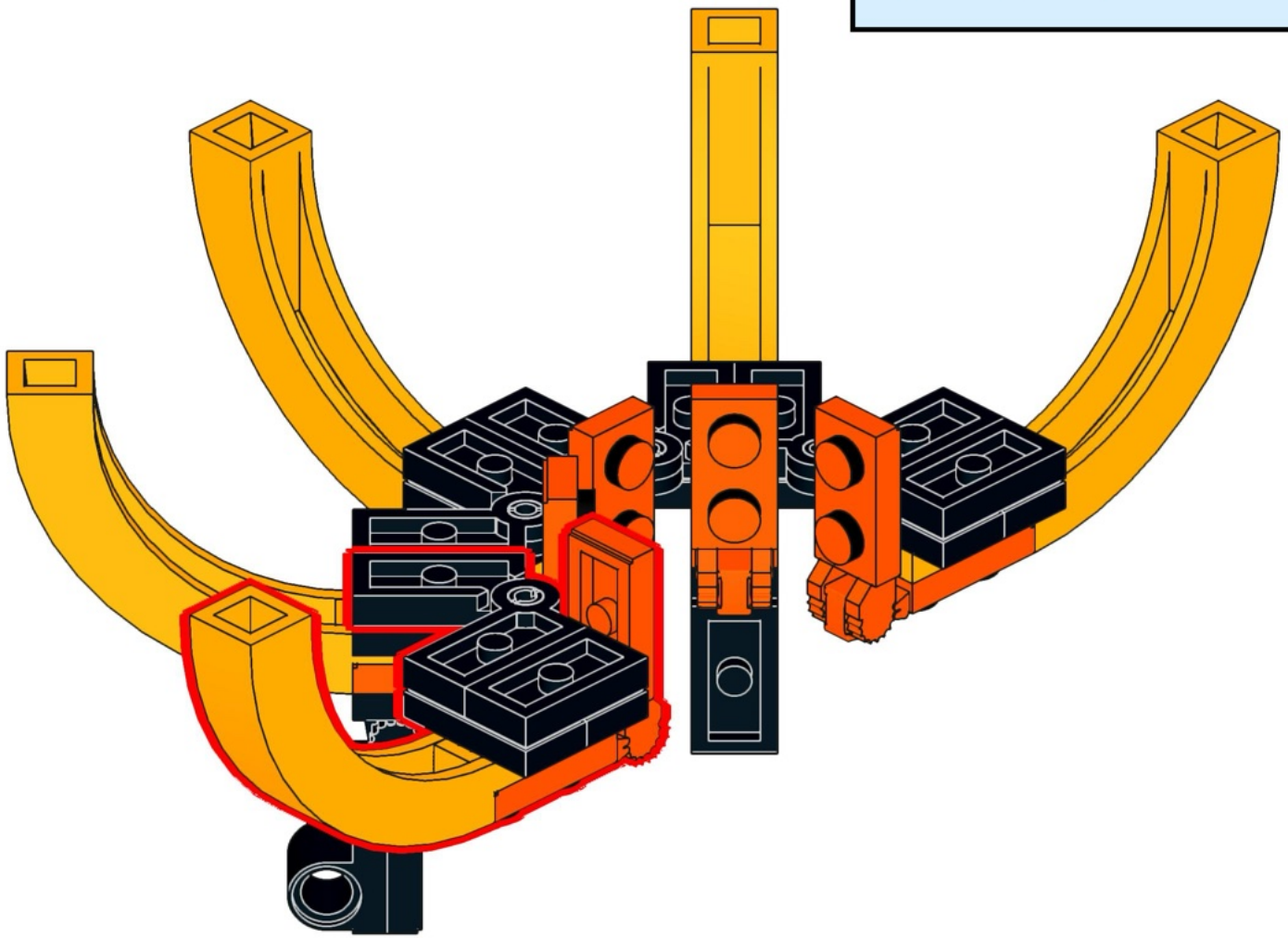

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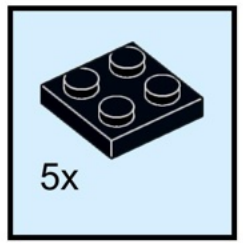

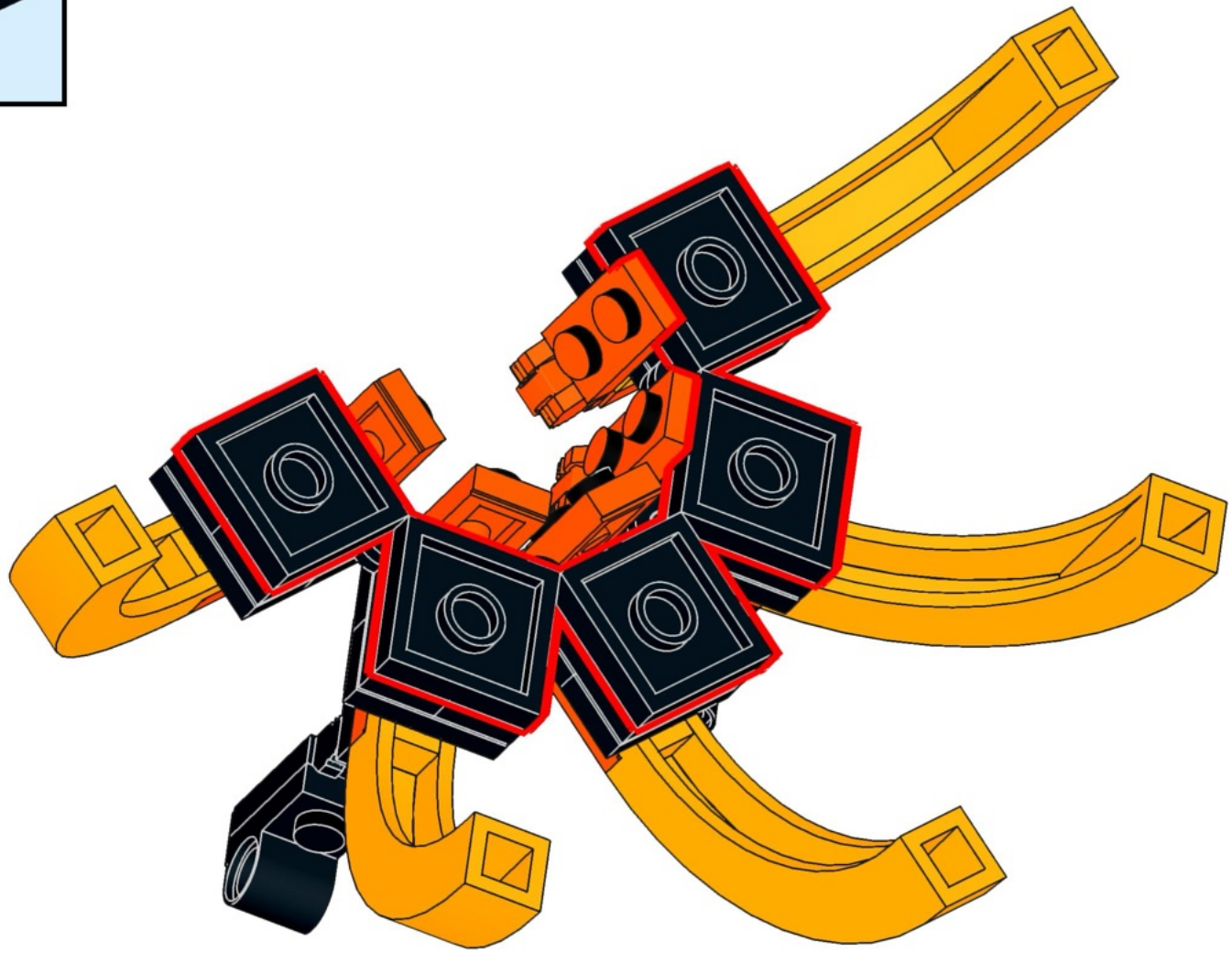

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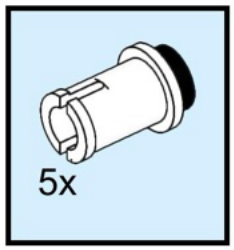

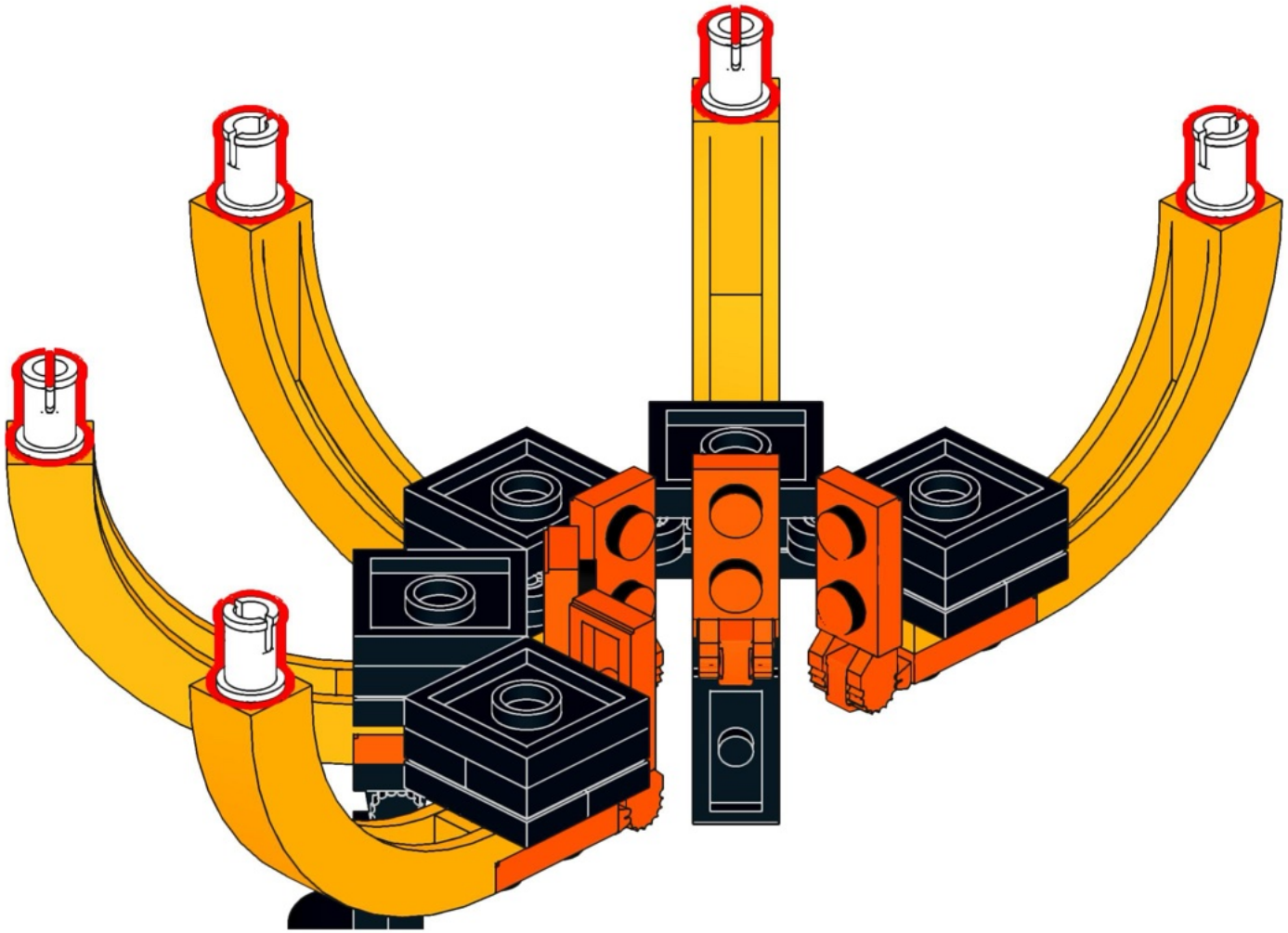

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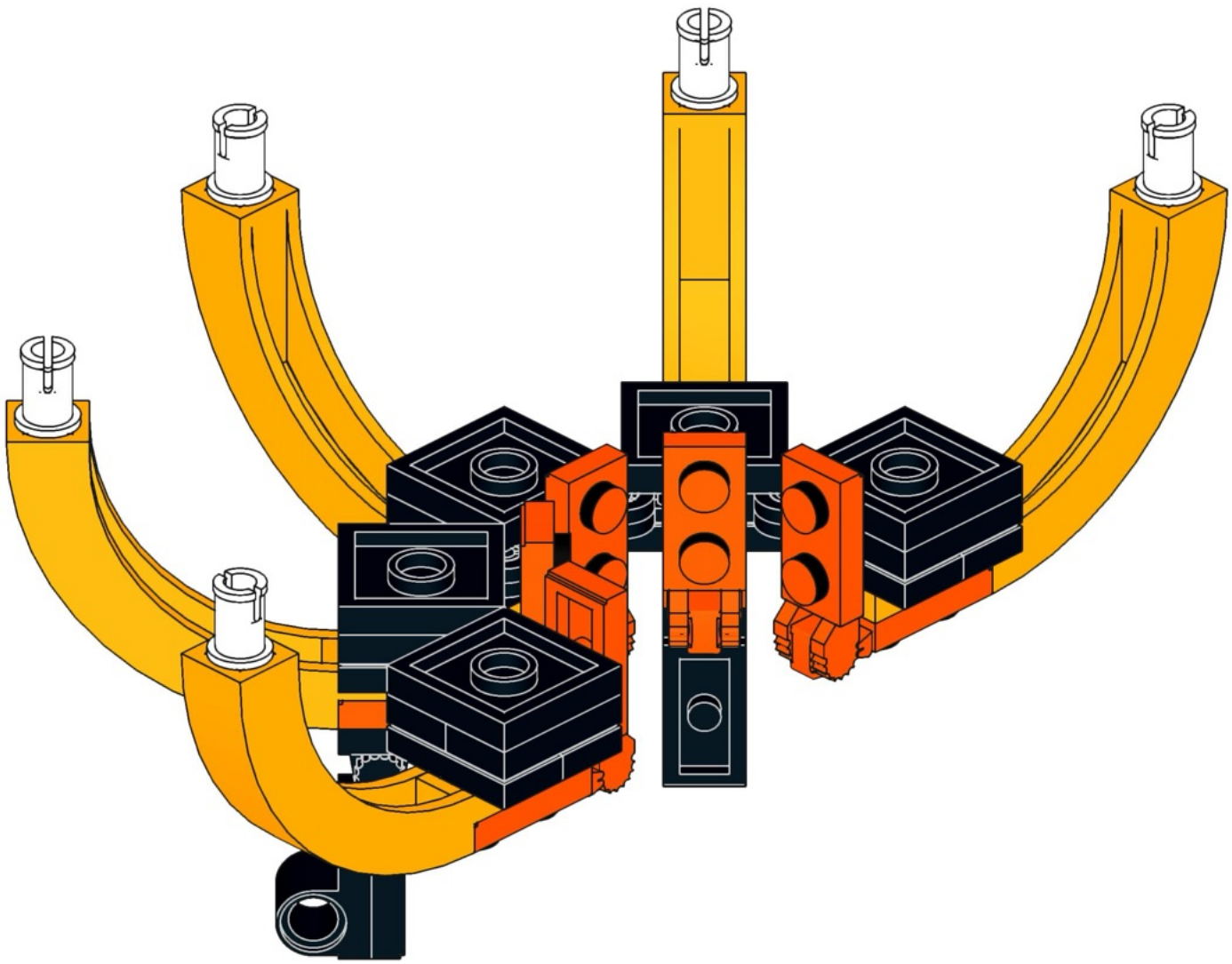

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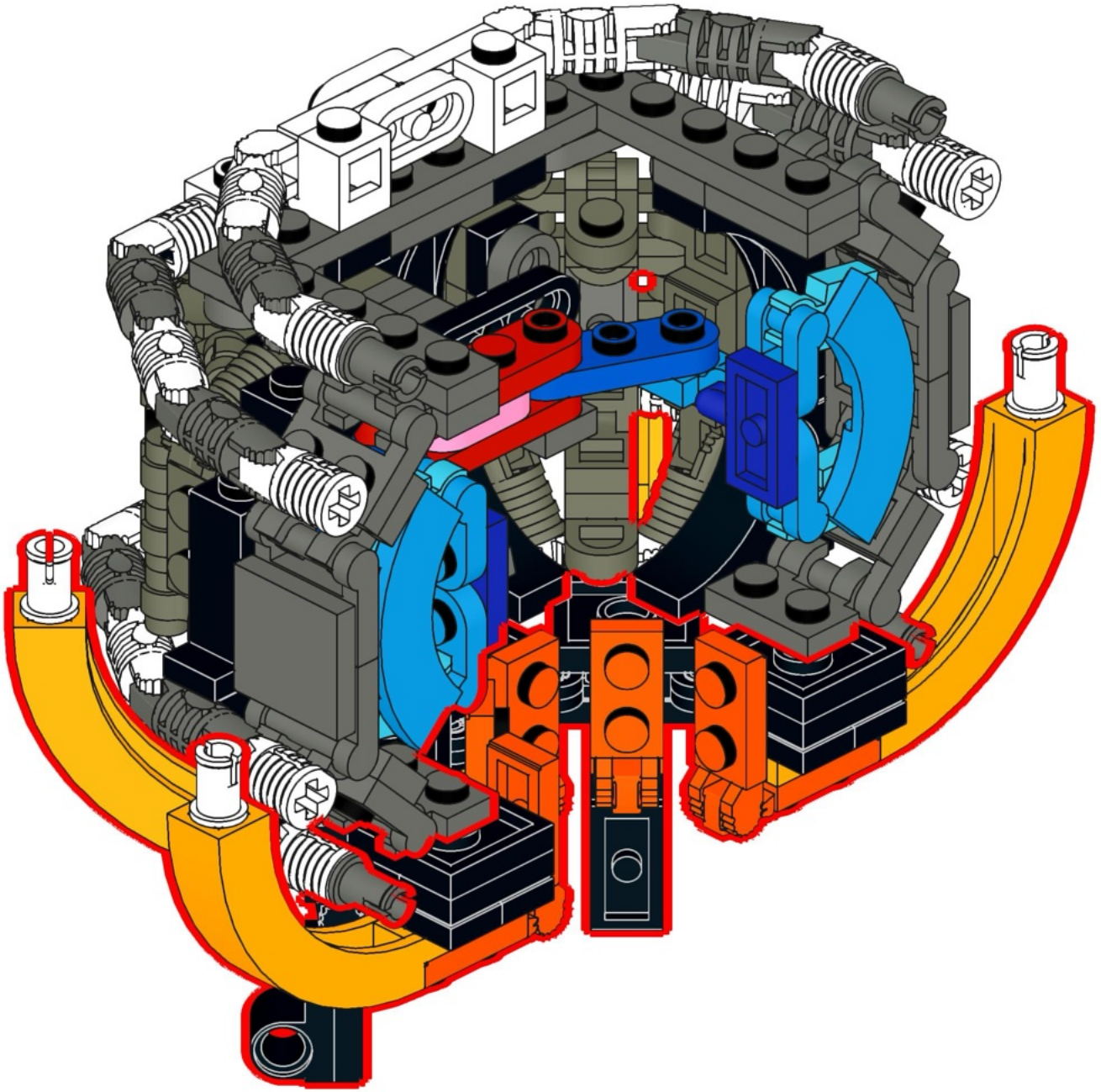

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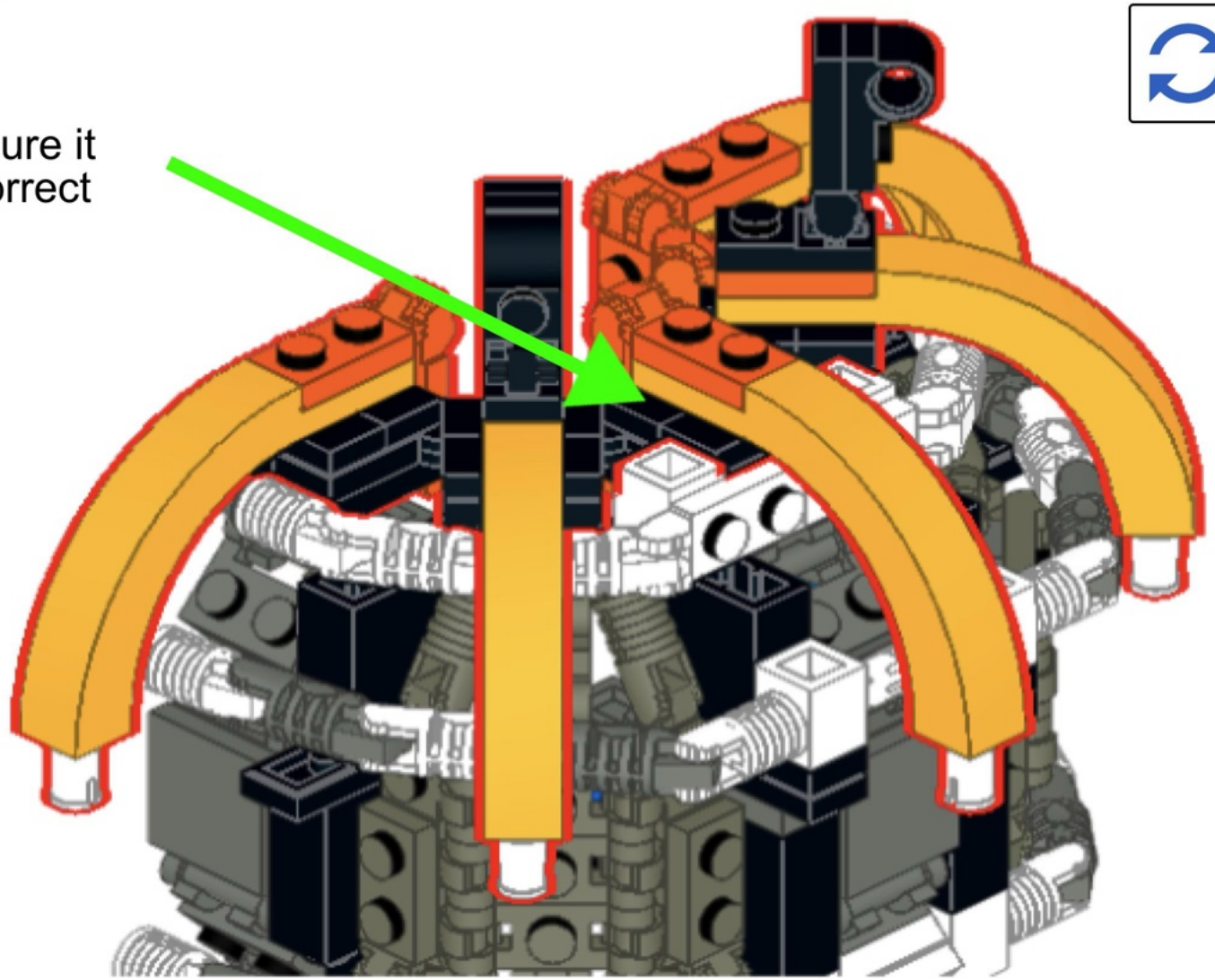
Be sure it
fit correct



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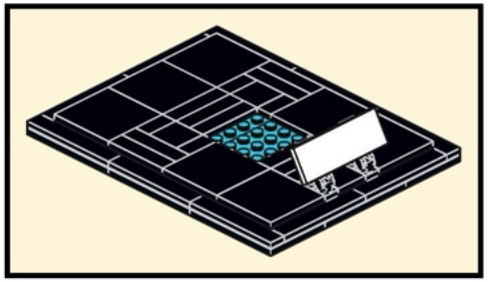

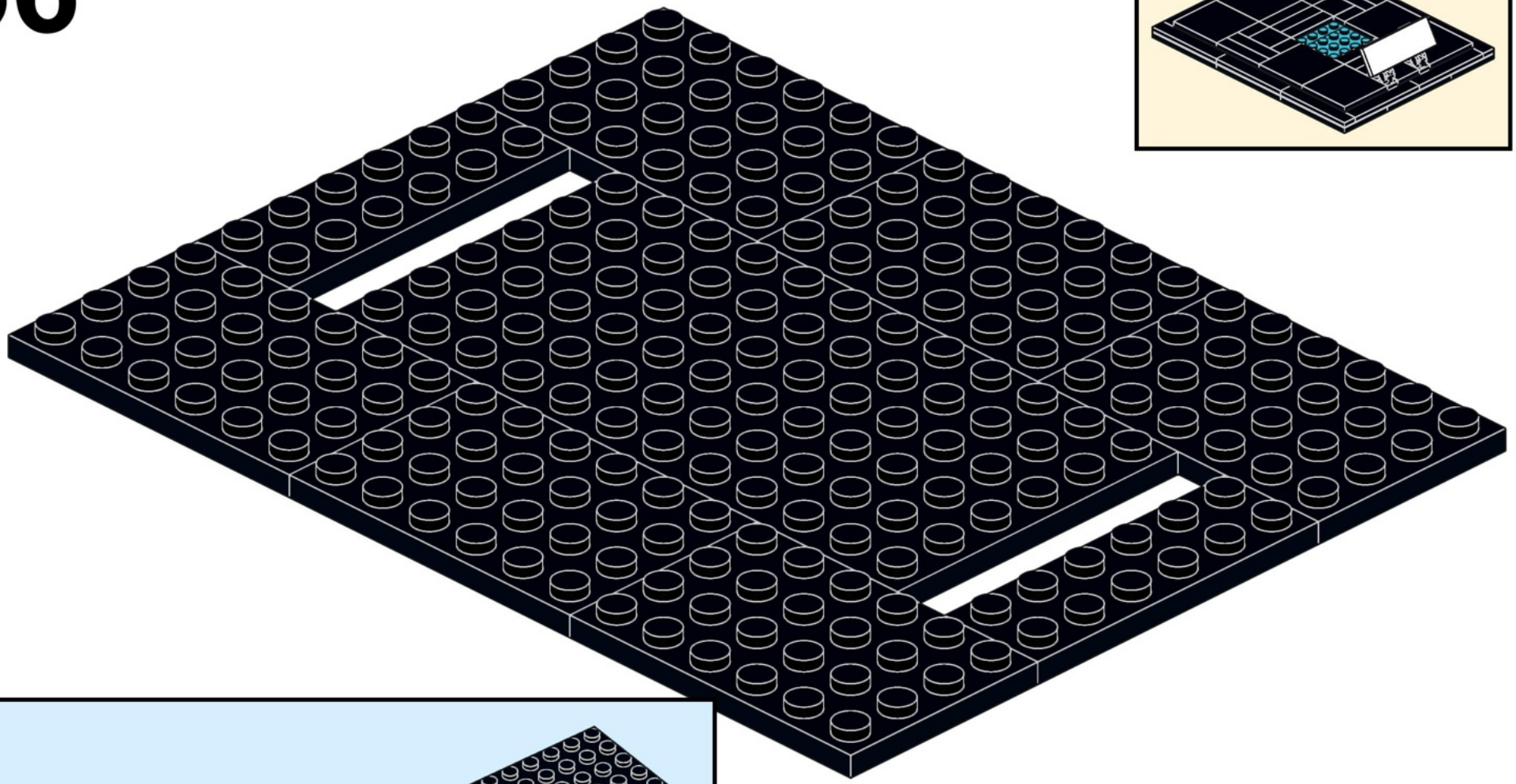

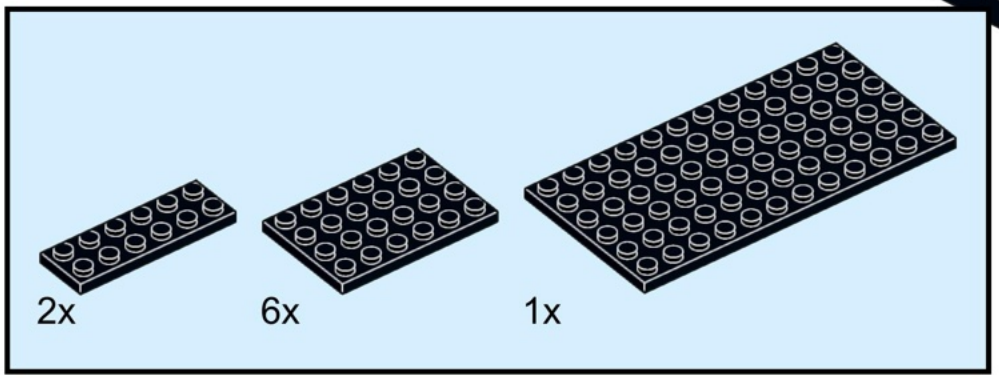

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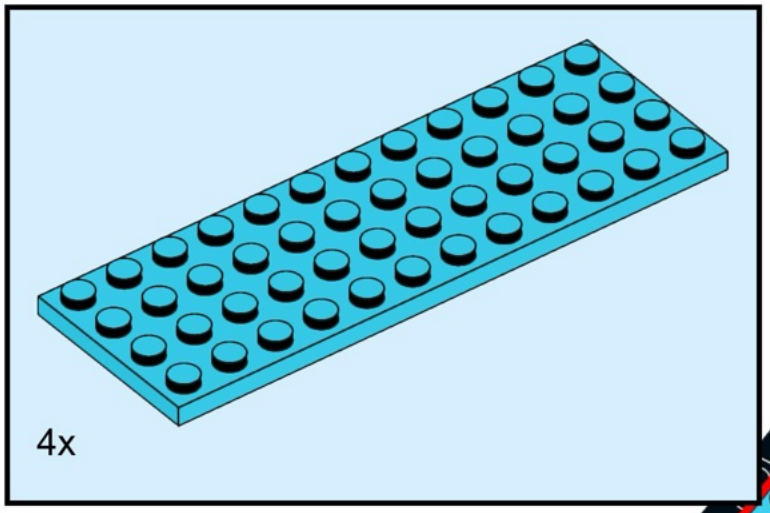

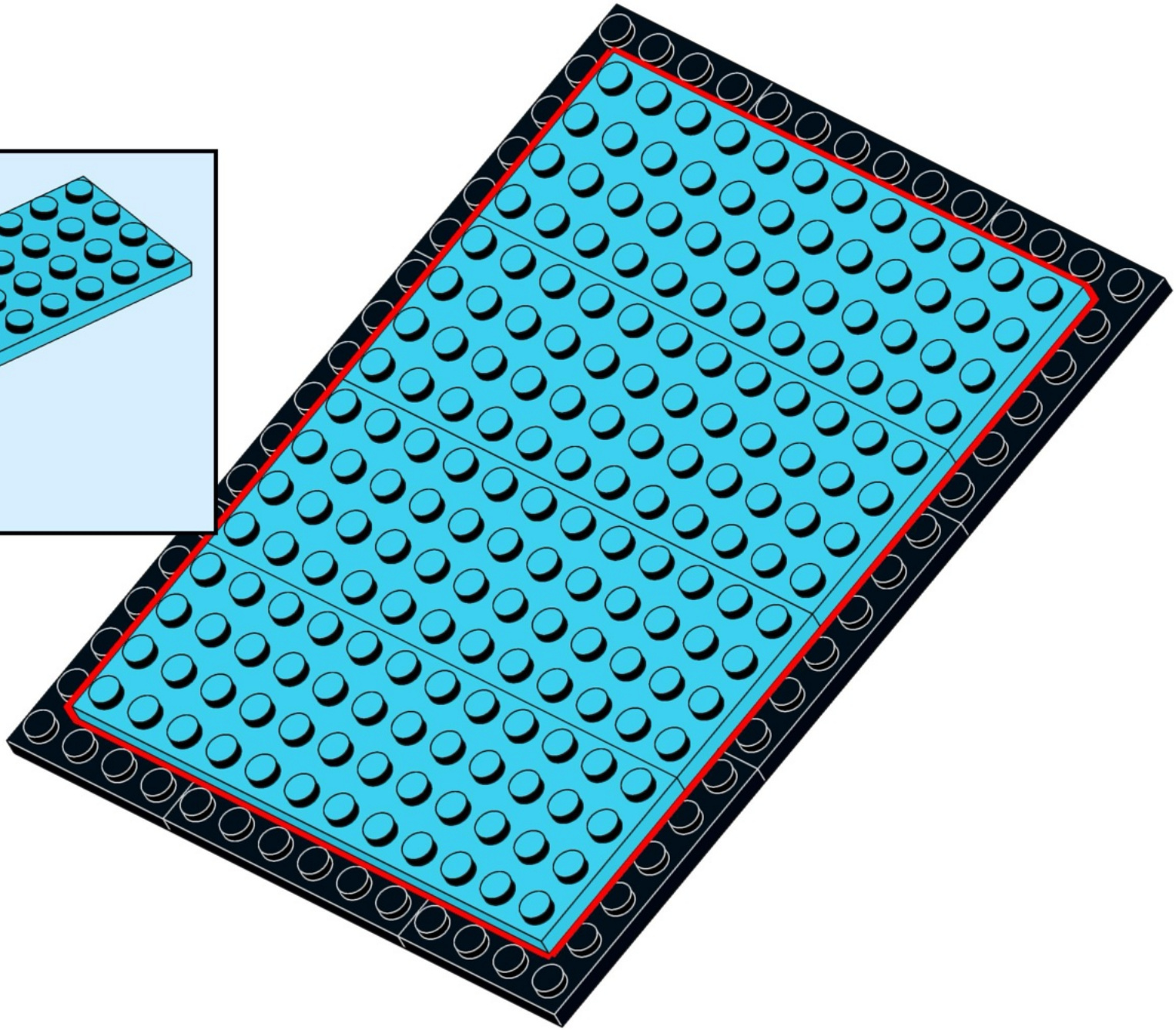

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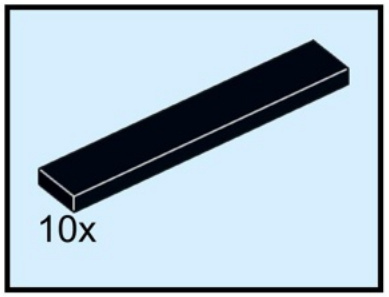

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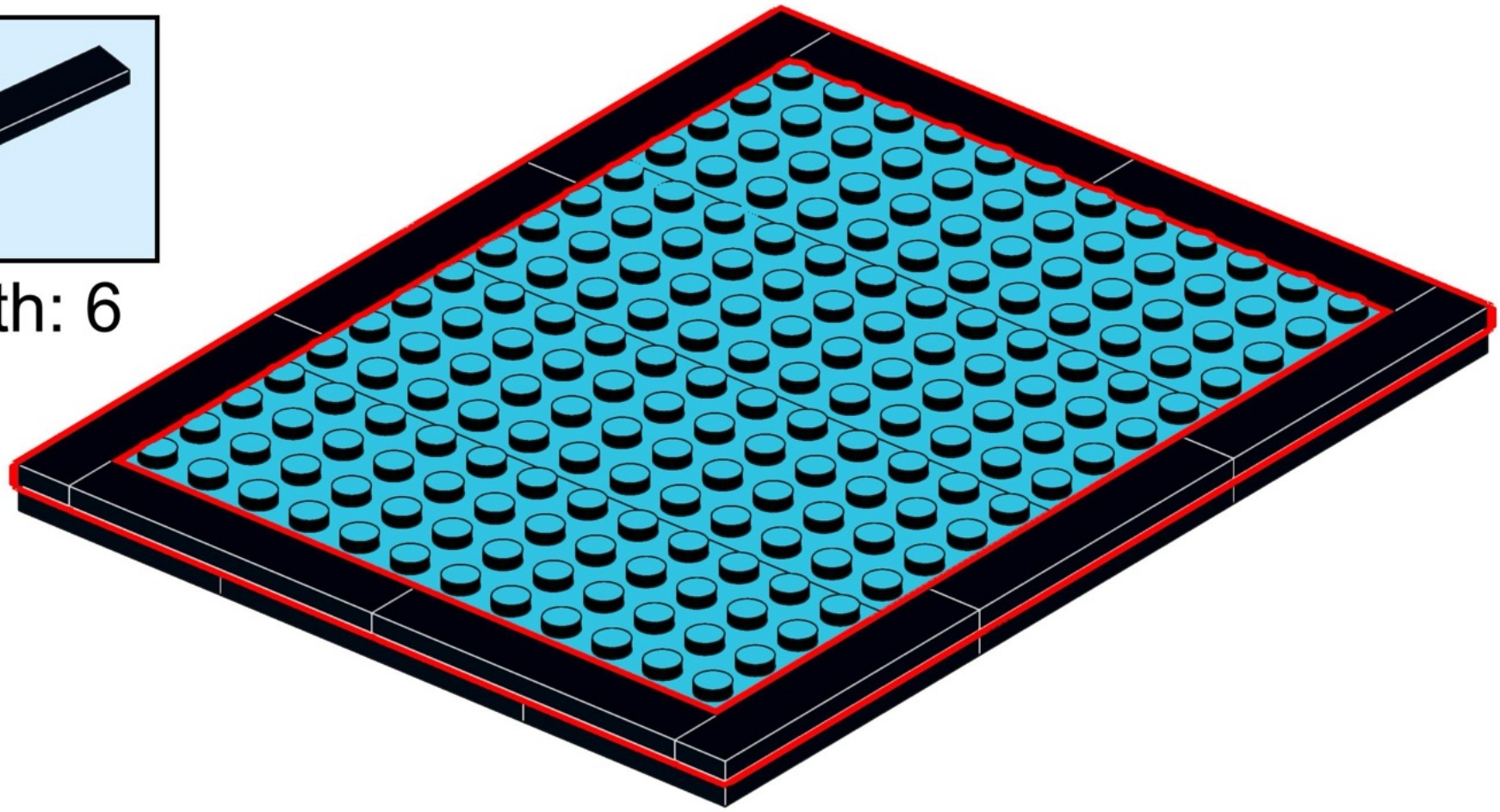

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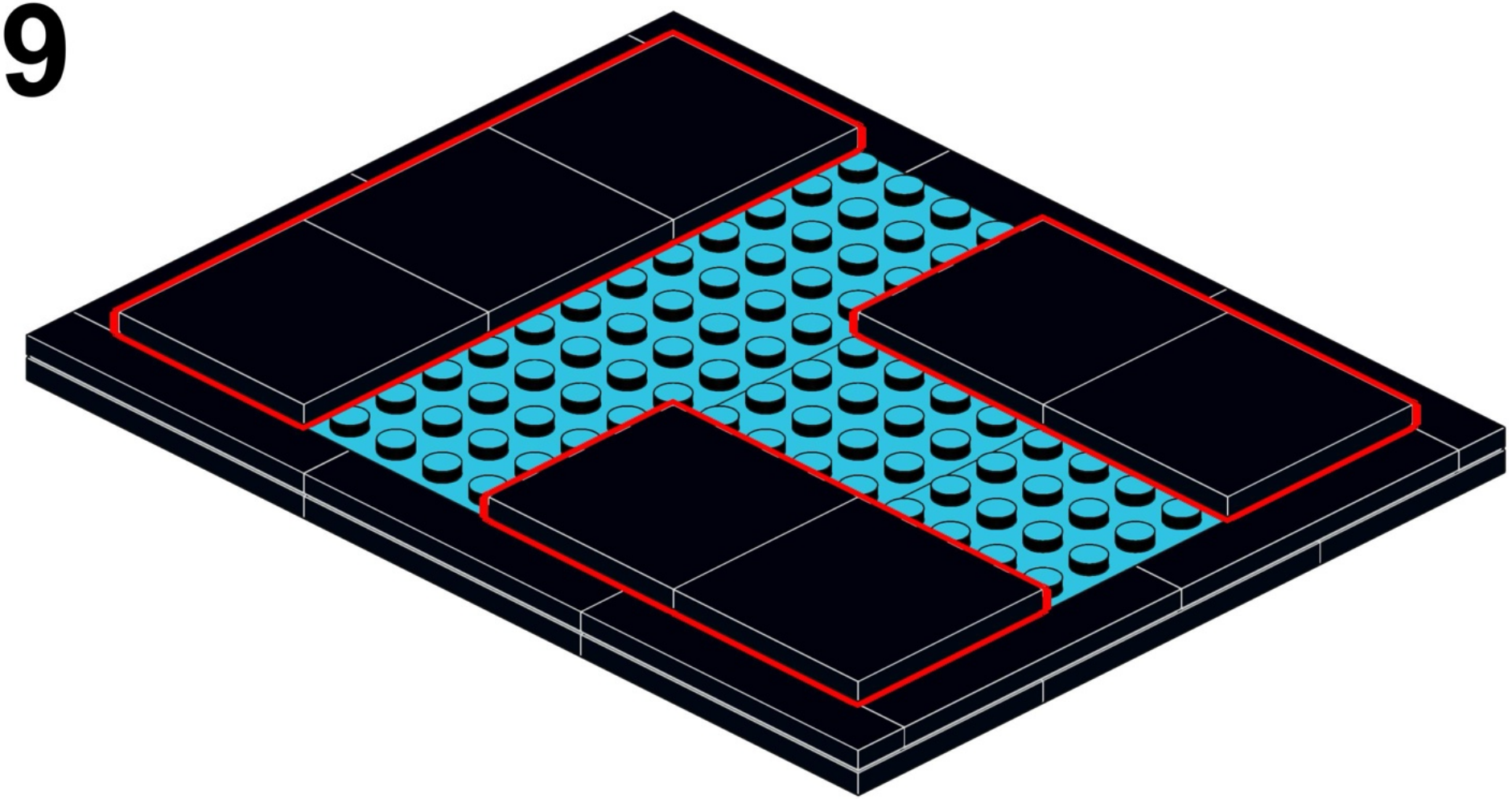

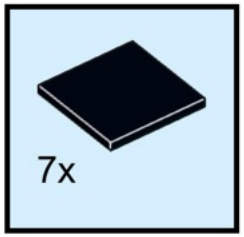

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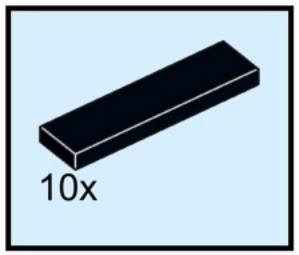

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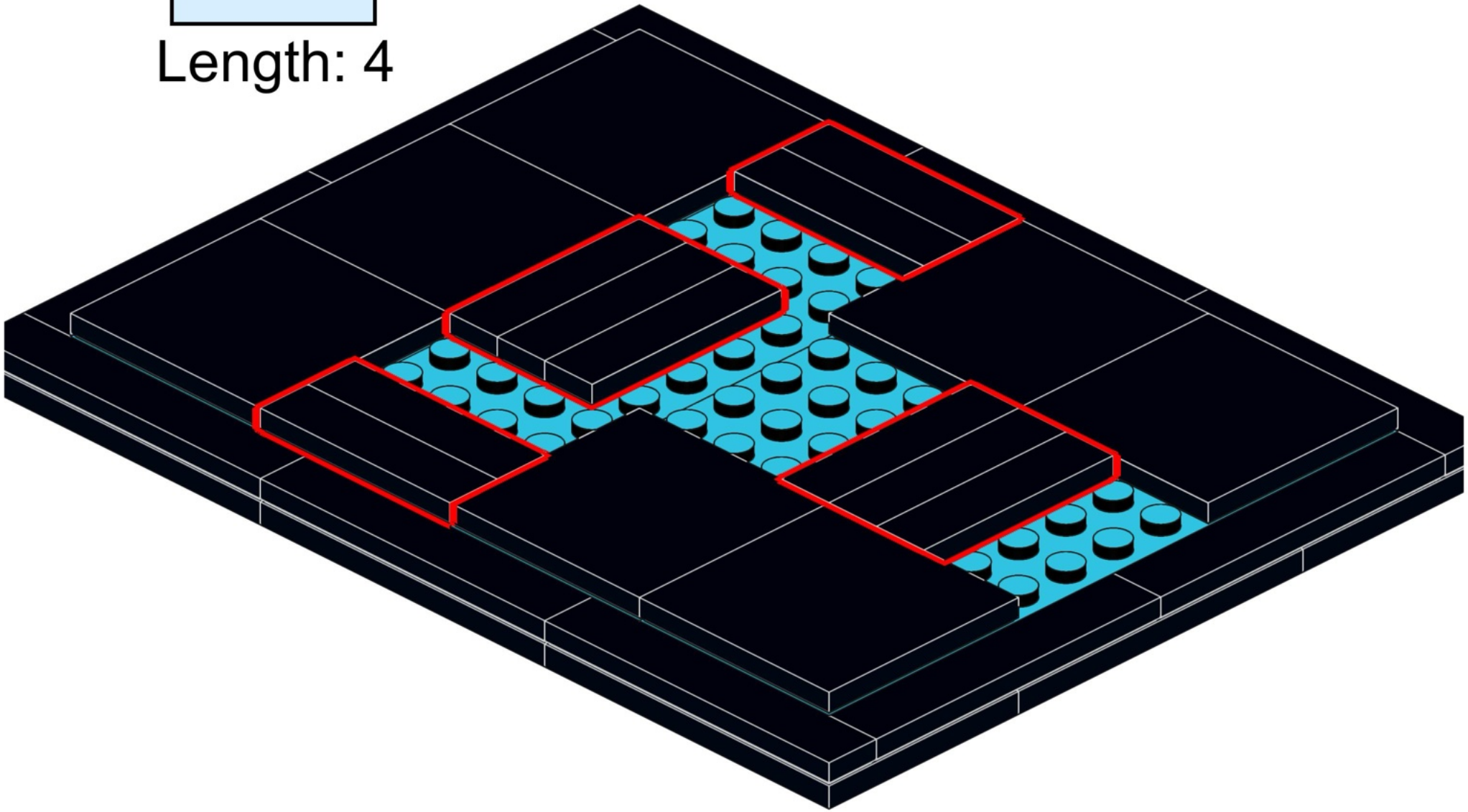

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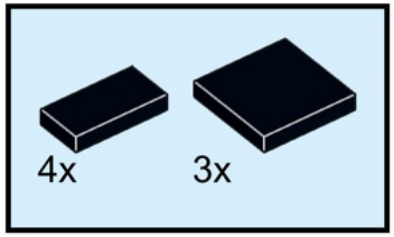

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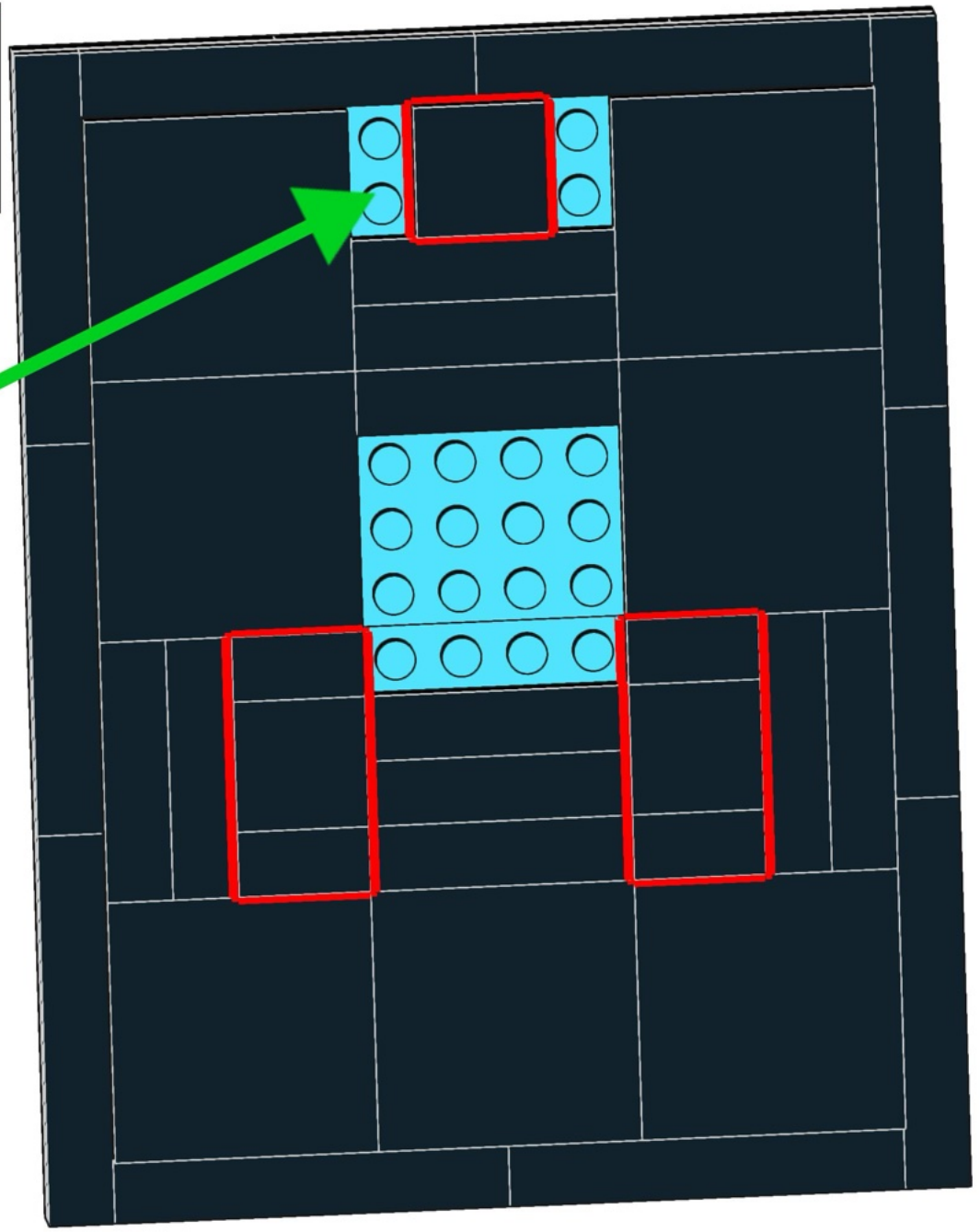

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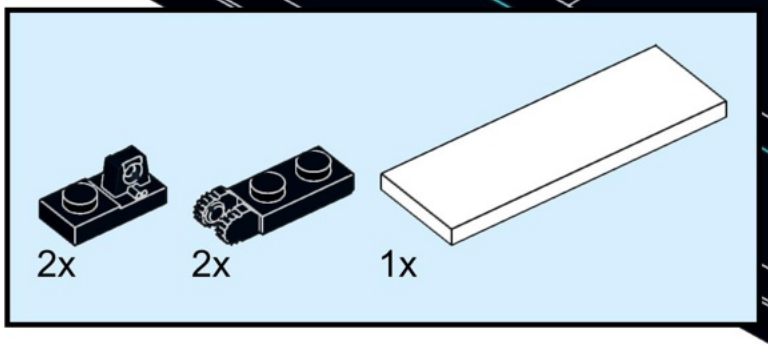
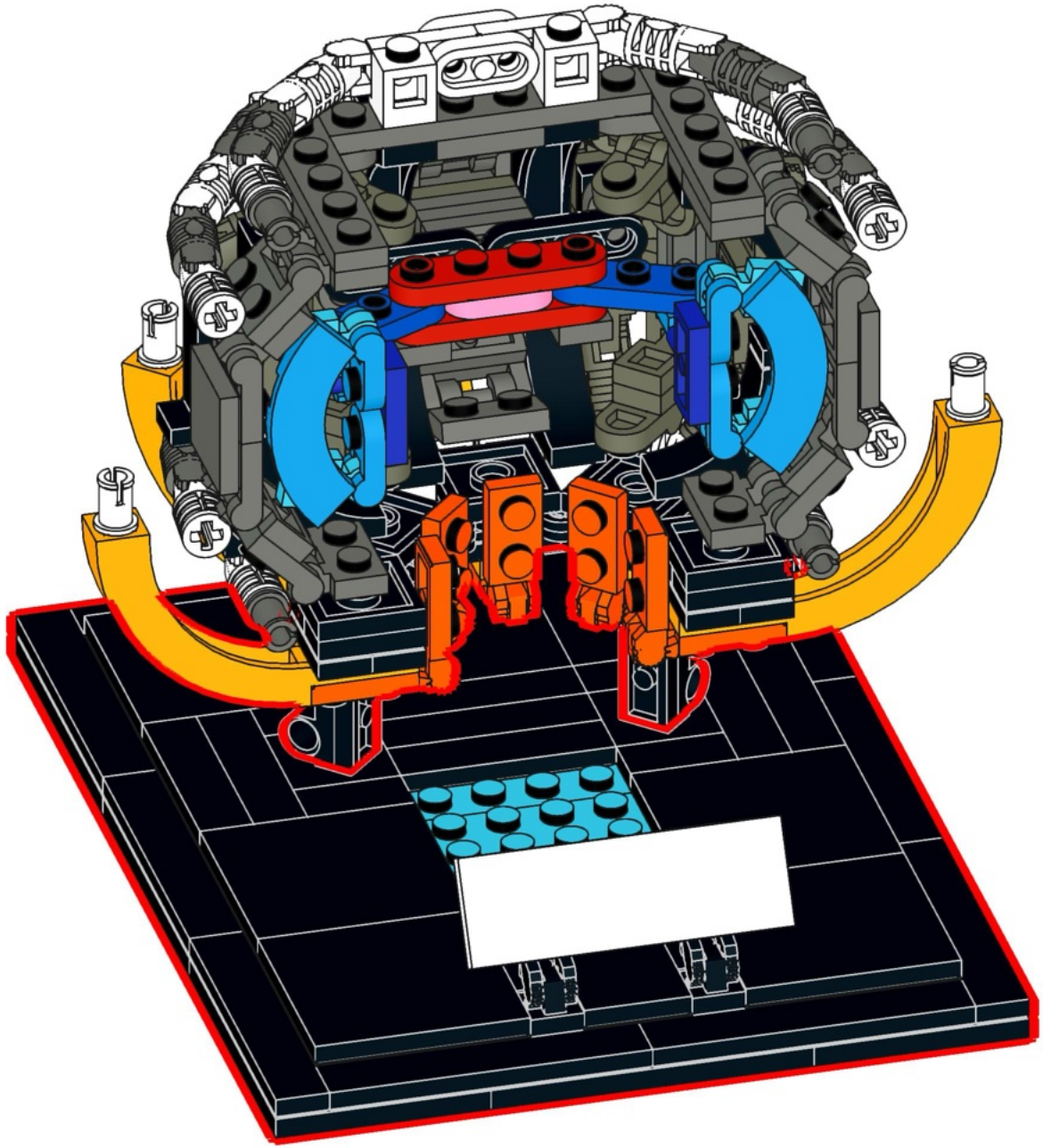


63

This view is provided for reference only. In this configuration, the structure cannot be stably assembled until the Central Solenoid is installed.



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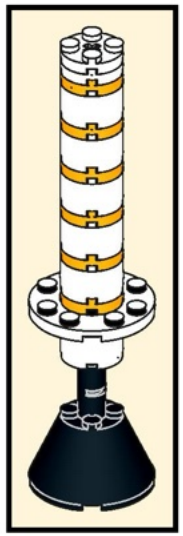

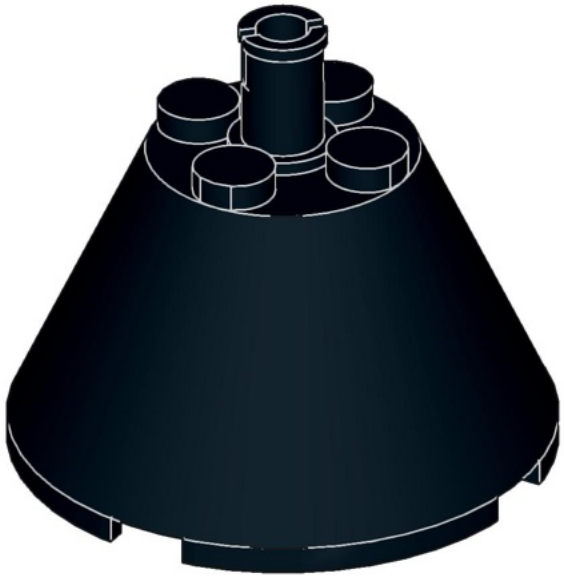

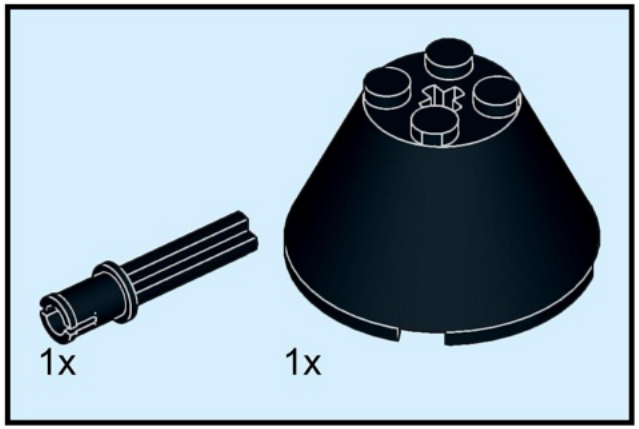

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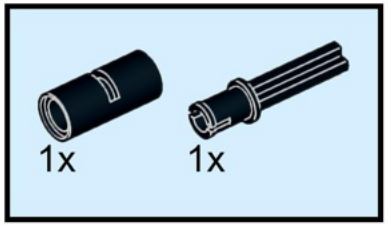

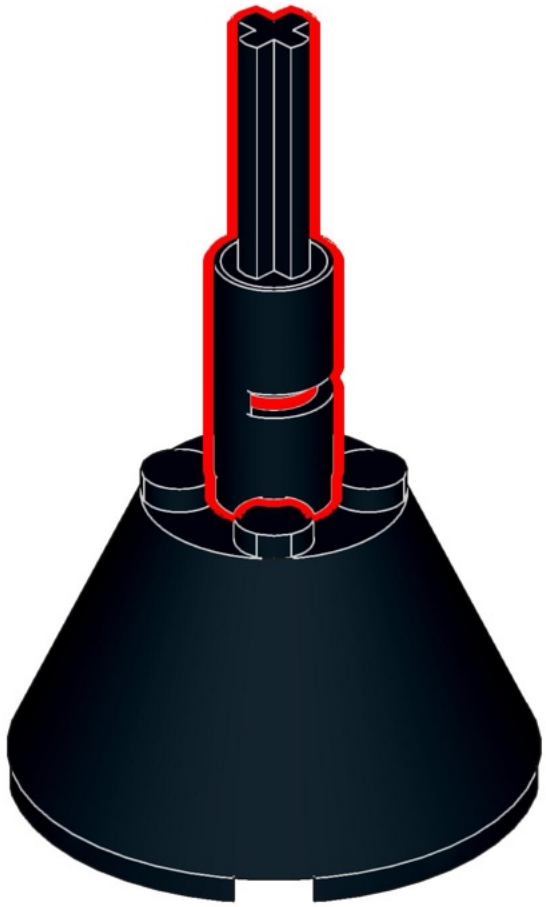

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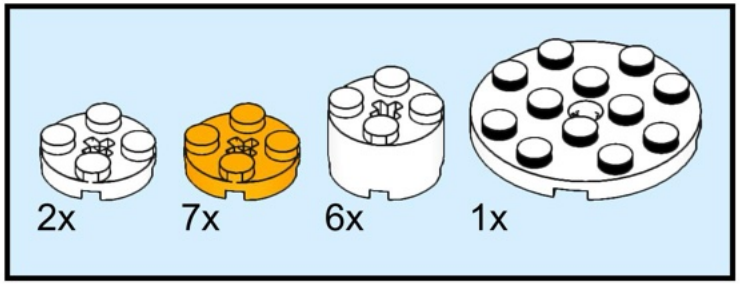

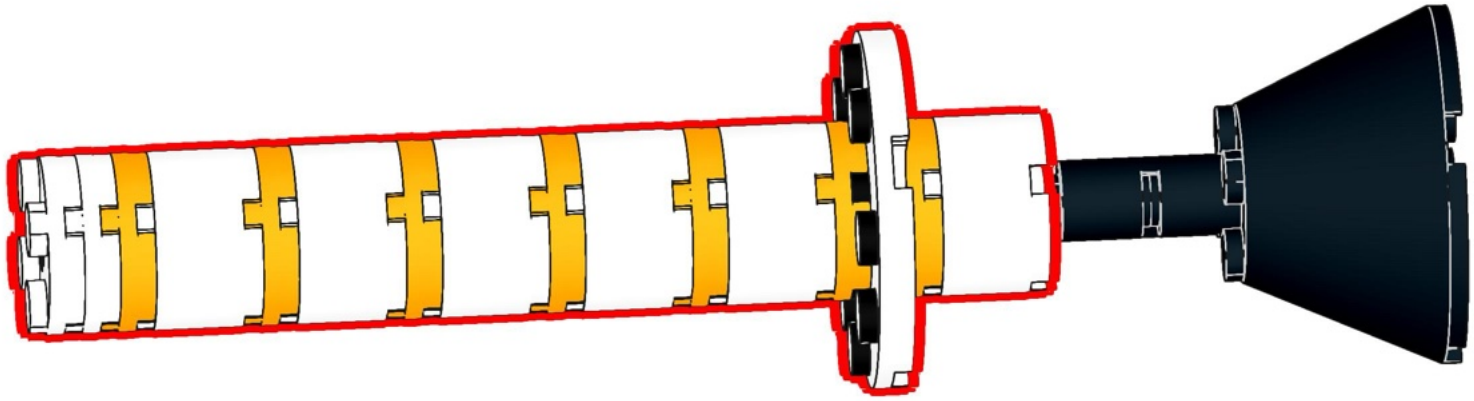

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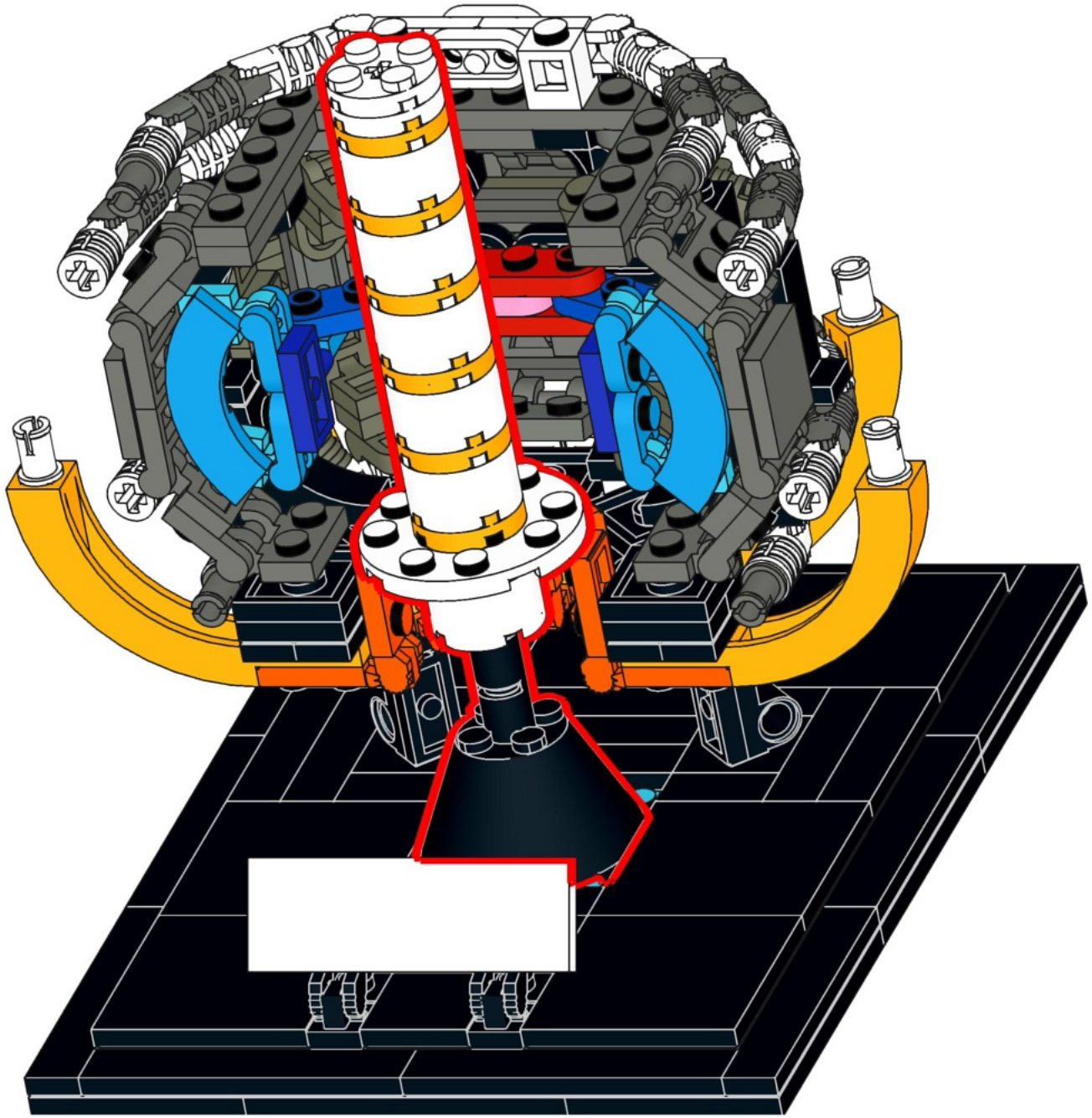

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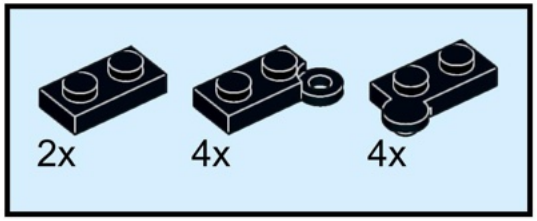

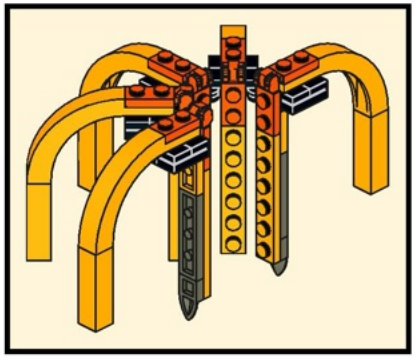

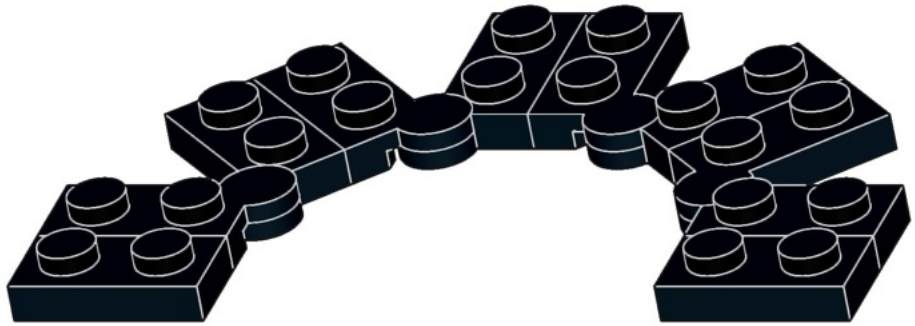

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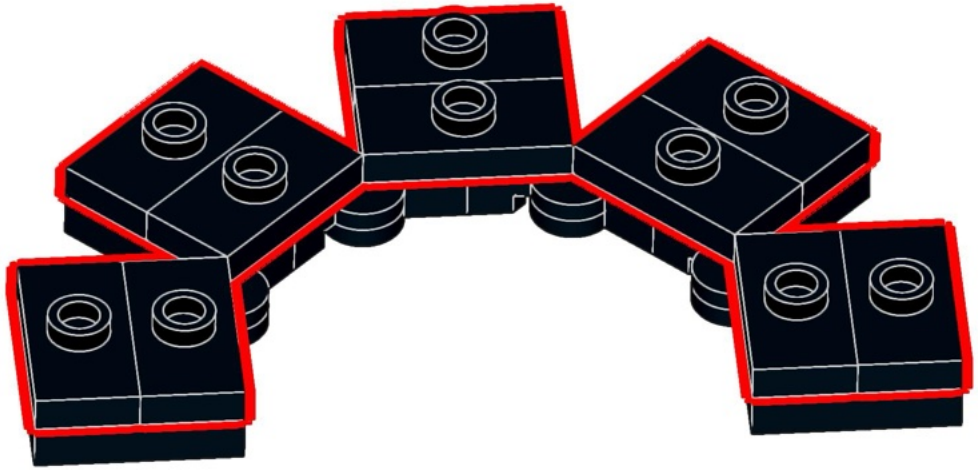

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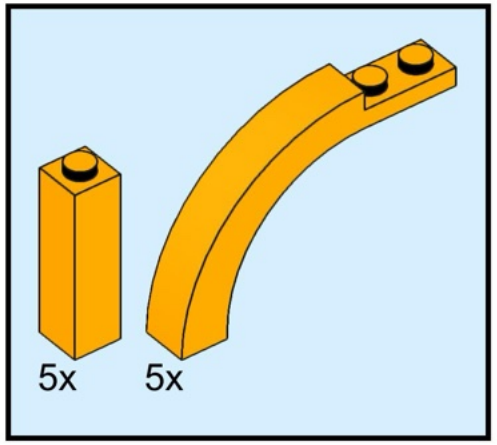

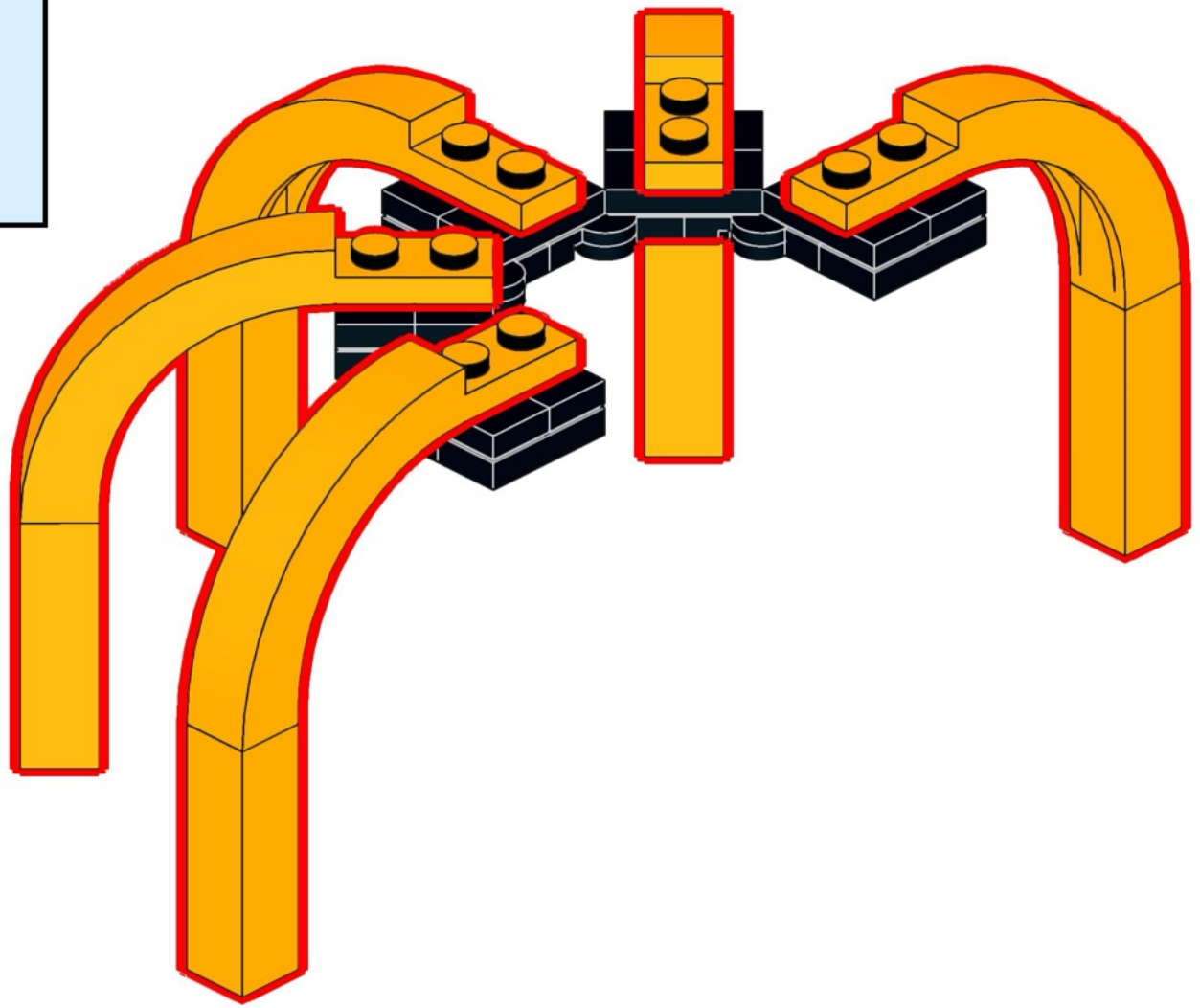

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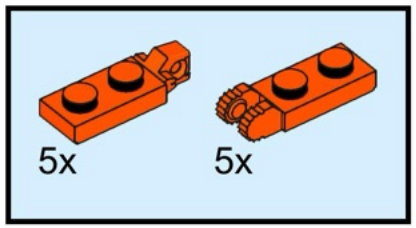

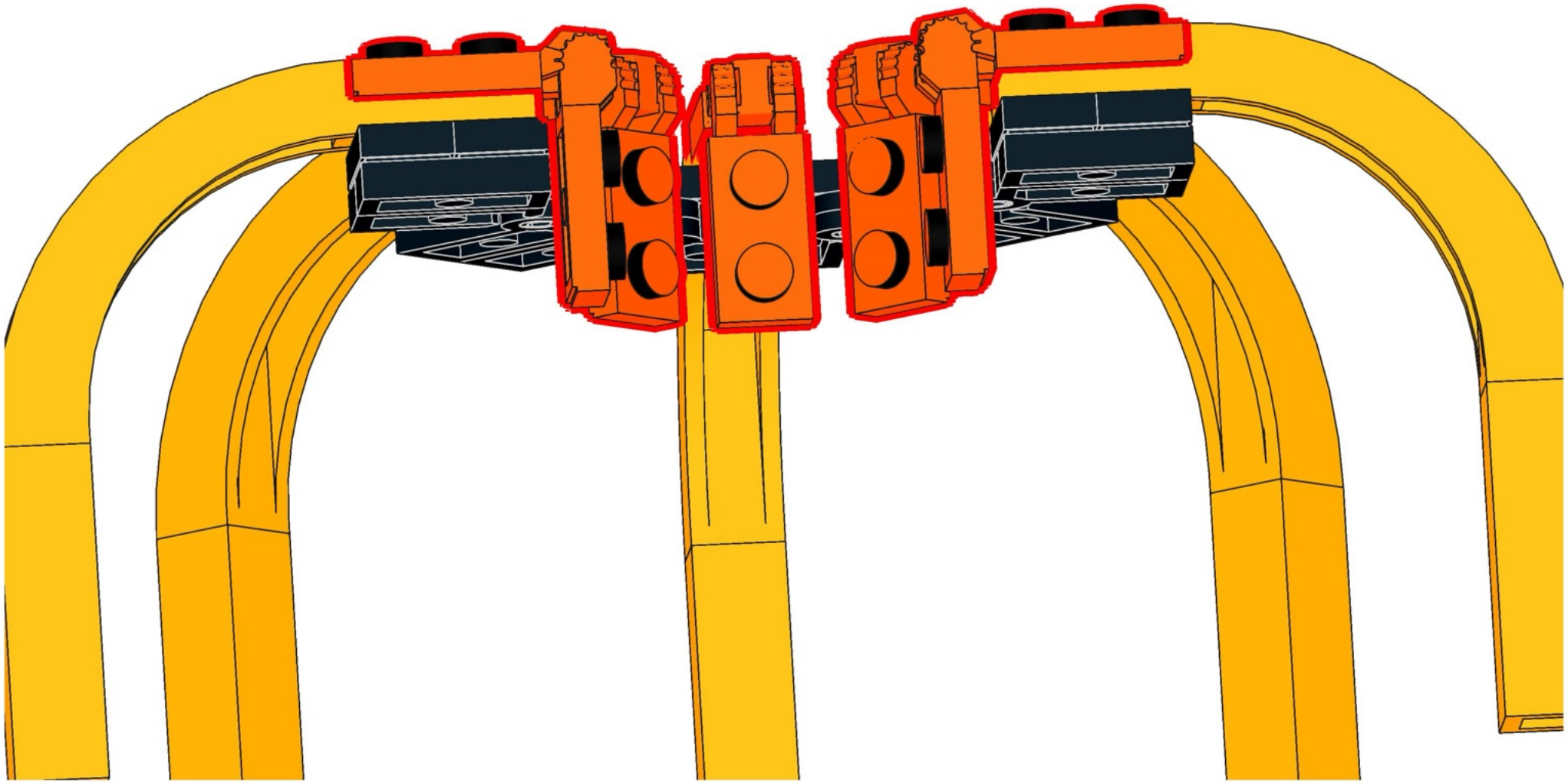

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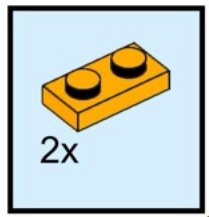

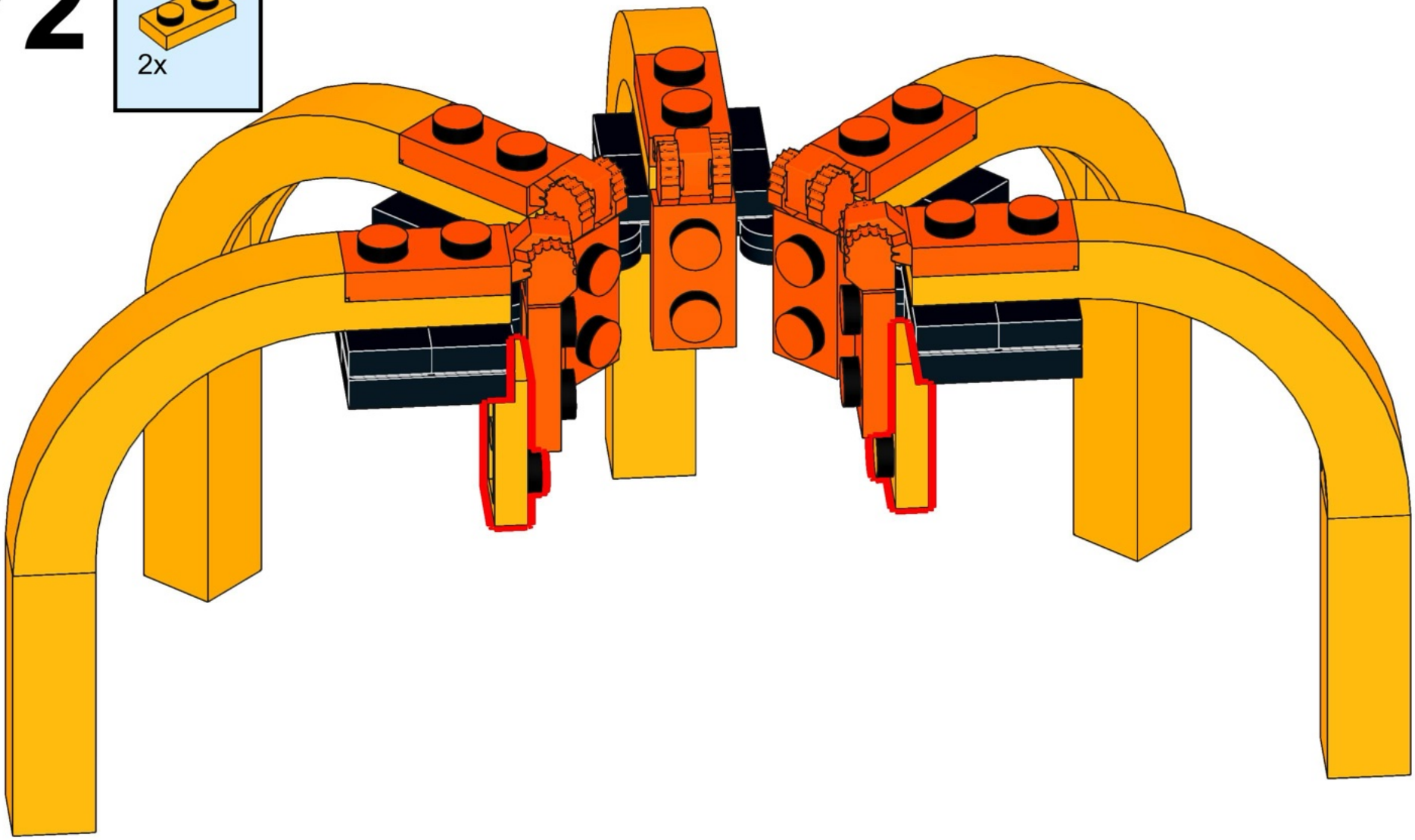

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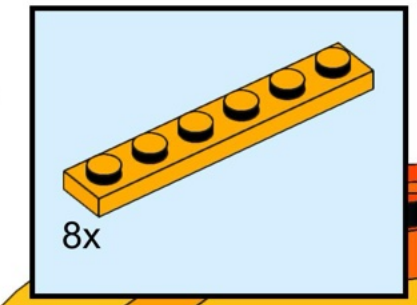

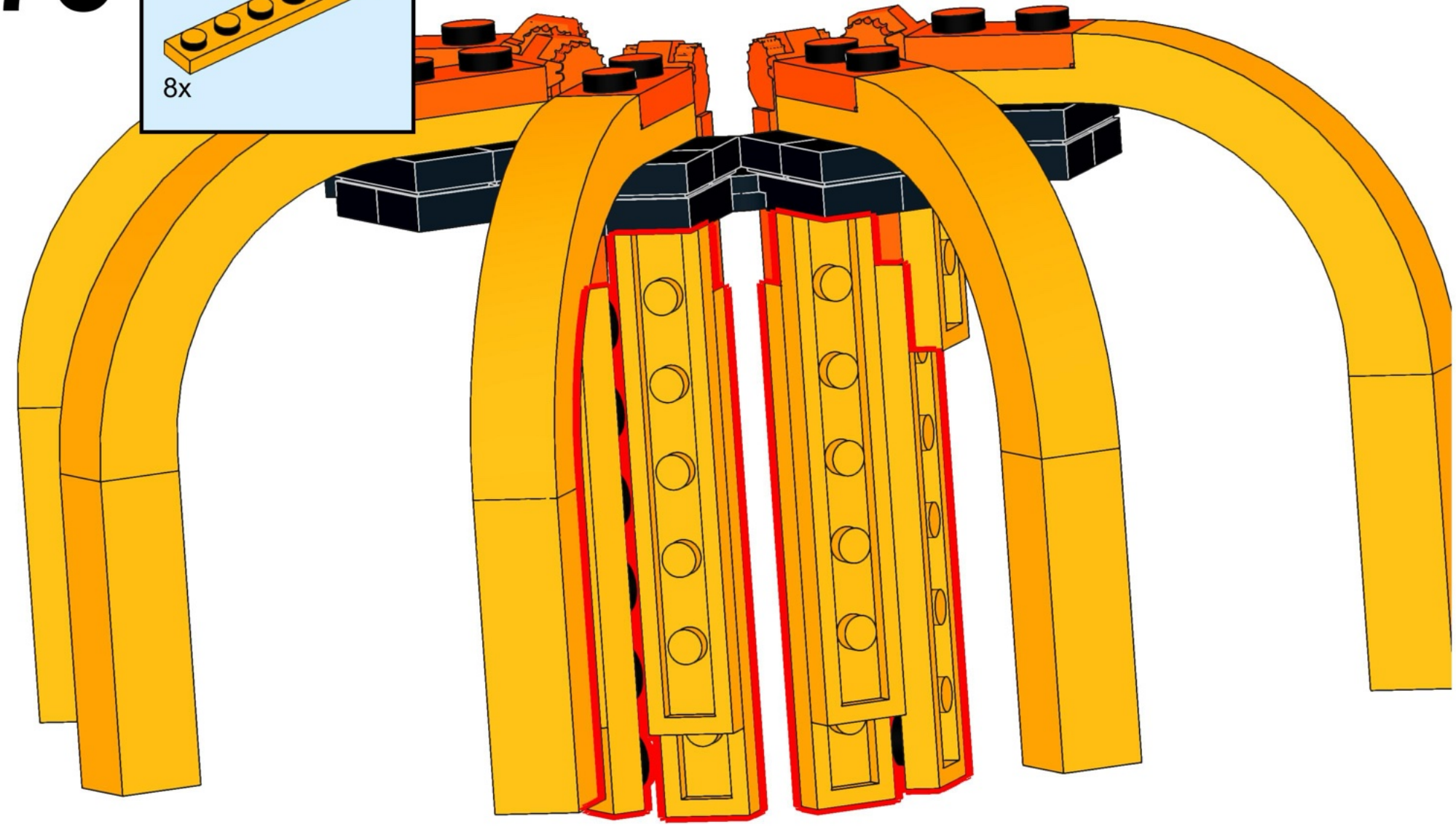

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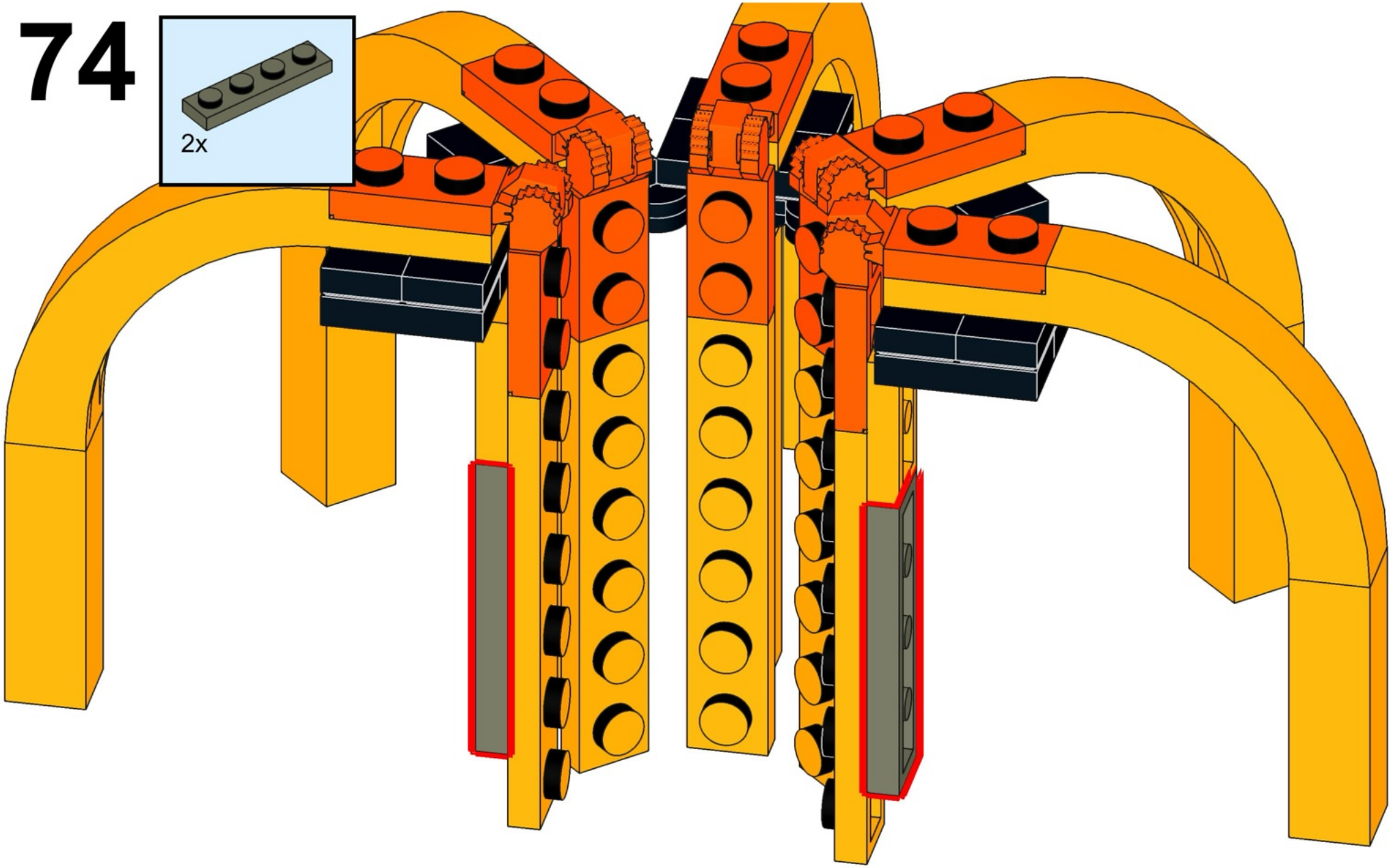

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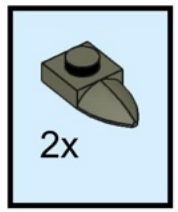

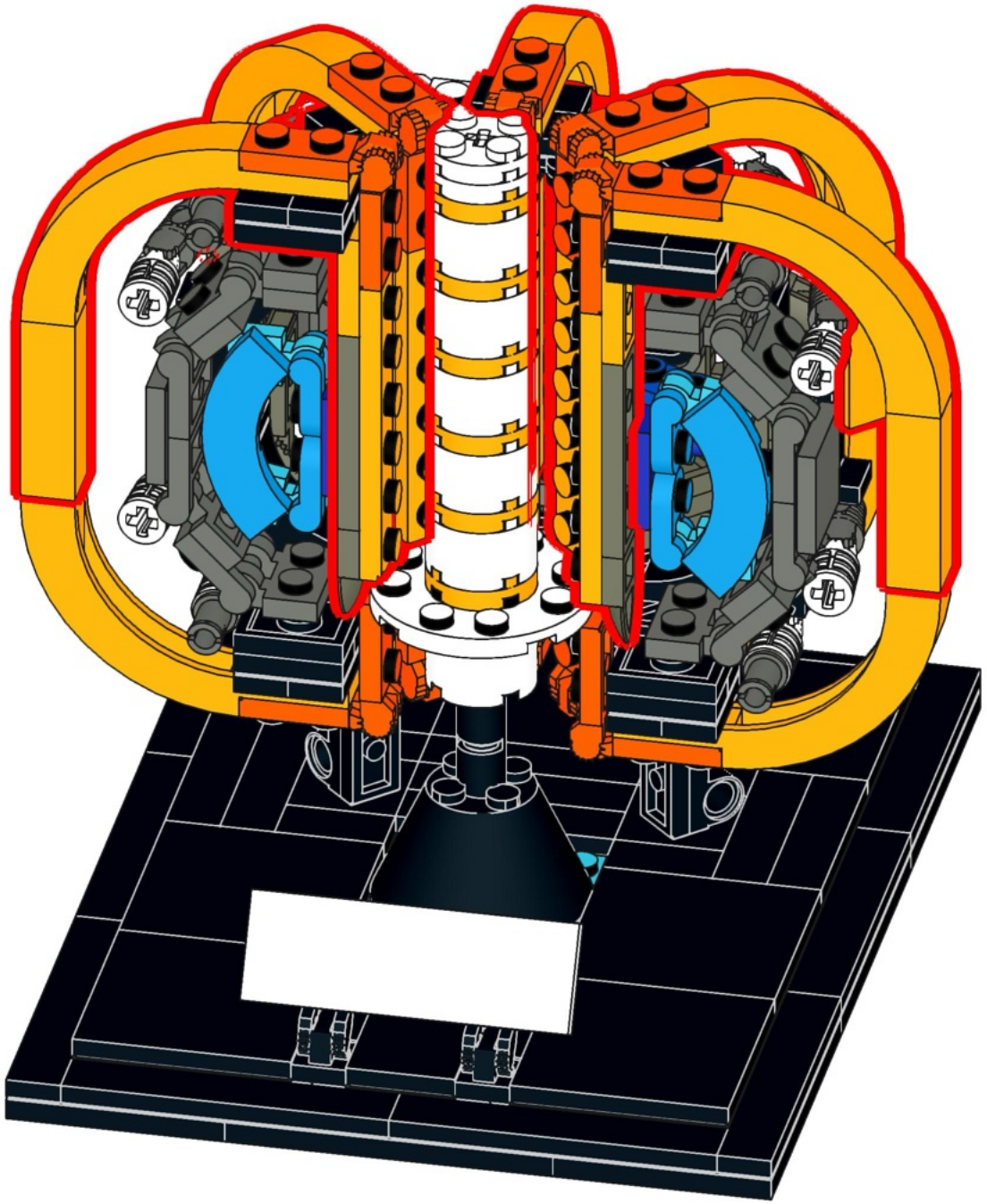

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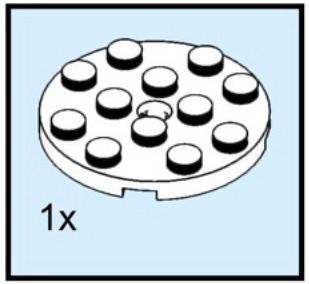

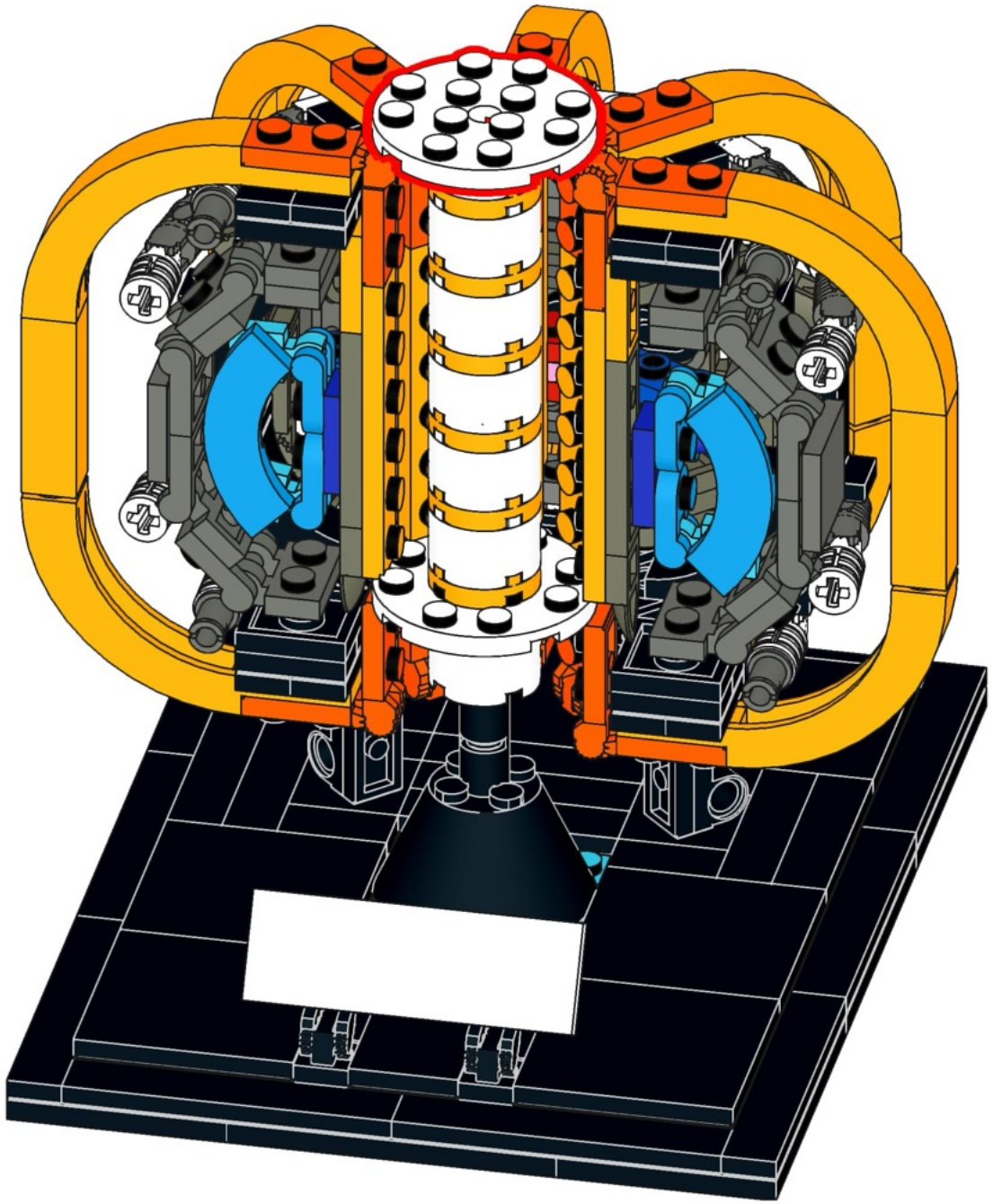

NEXT STEP FUSION

Congratulations!
You have built your own tokamak!
You are breathtaking!

Now place the sticker on the white front panel of the display stand and enjoy the final result

It was quite a challenging build, but We hope it was also an interesting one.

Real tokamaks are similar to this model in many ways: they are fascinating, complex and truly impressive — both during their construction and operation.

Good luck with your future projects and new beginnings!

— The Next Step Fusion Team