

Bauanleitung
Trägerraketen der USA
für bemannte Flüge (Ergänzung)
International Space Station (ISS)

Maßstab
März
Kontakt

1:510
2024
bricks@hwlk.de

Building Instructions
US launcher vehicles
for manned flights (supplement)
International Space Station (ISS)

Scale
March
Contact

Allgemeine Bemerkungen

- An erster Stelle sollen die Größenverhältnisse einigermaßen nachempfunden werden, was mit den vorhandenen LEGO-Steinen im vorgegebenen Maßstab nicht immer einfach und manchmal unmöglich ist.
- Weiterhin ist die Grundform wichtig, dass also Rundungen oder andere Formen umgesetzt werden. Bei einem solchen Maßstab ist es auch durchaus sinnvoll auf Details zu verzichten,
- Wenn möglich sollen auch Farben des Originals übernommen werden.

In der vorliegenden Bauanleitung machen wir Vorschläge wie die ISS mit LEGO-Steinen gebaut werden kann.

**Eigene Ideen können
jederzeit implementiert
werden.**

**DAS ist das
was LEGO ausmacht.**

General remarks

- First of all, the proportions should be modeled to some extent, which is not always easy with the existing LEGO bricks at the given scale and sometimes impossible.
- The basic shape is also important, i.e. curves or other shapes are implemented. With such a scale it makes sense to forego details.
- If possible, colors from the original should also be adopted.

In these building instructions we make suggestions like the ISS can be built with LEGO bricks.

**Your own ideas can
be implemented
at any time.**

**THAT is what LEGO
is all about.**

Internationale Raumstation (ISS)

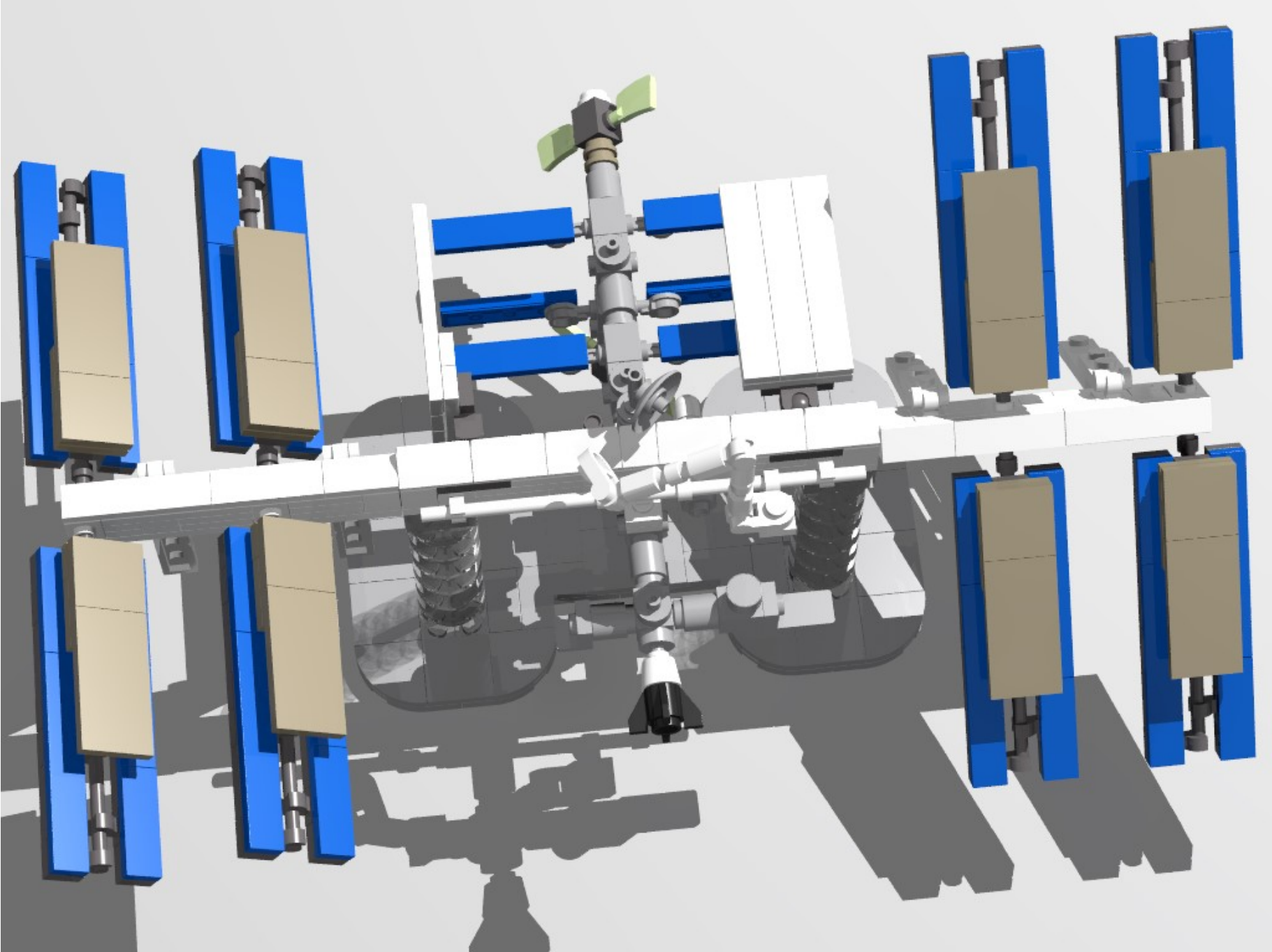
Die komplette Internationale Raumstation (ISS) im Maßstab 1:510 abzubilden ist mit den vorhandenen LEGO-Steinen nur bedingt möglich. Manche Maße (hauptsächlich Durchmesser) sind mit den verwendeten Rundsteinen mal zu klein, mal zu groß.

Die hier verwendeten LEGO-Steine werden so gezeigt wie man sie kaufen kann.

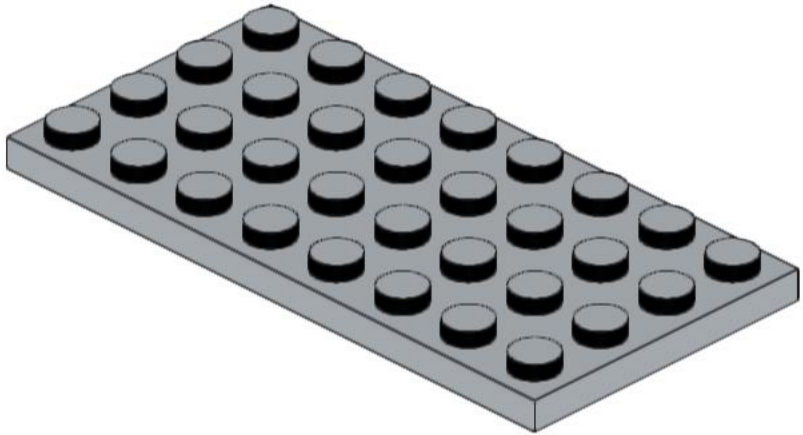
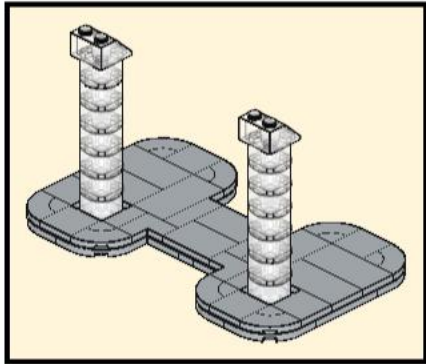
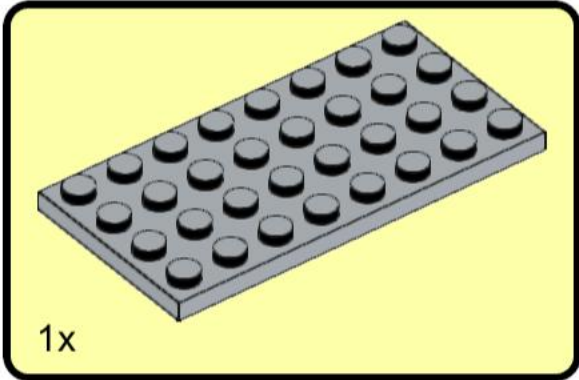
International Space Station (ISS)

Reproducing the complete Lunar Gateway (LGW) on a scale of 1:510 is only possible to a limited extent with the existing LEGO bricks. Some dimensions (mainly diameters) are sometimes too small and sometimes too large with the round stones used.

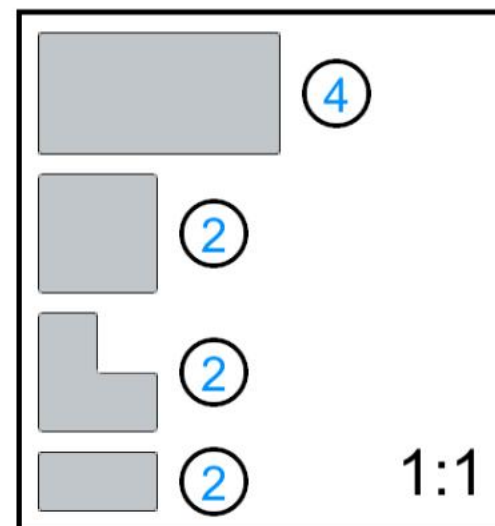
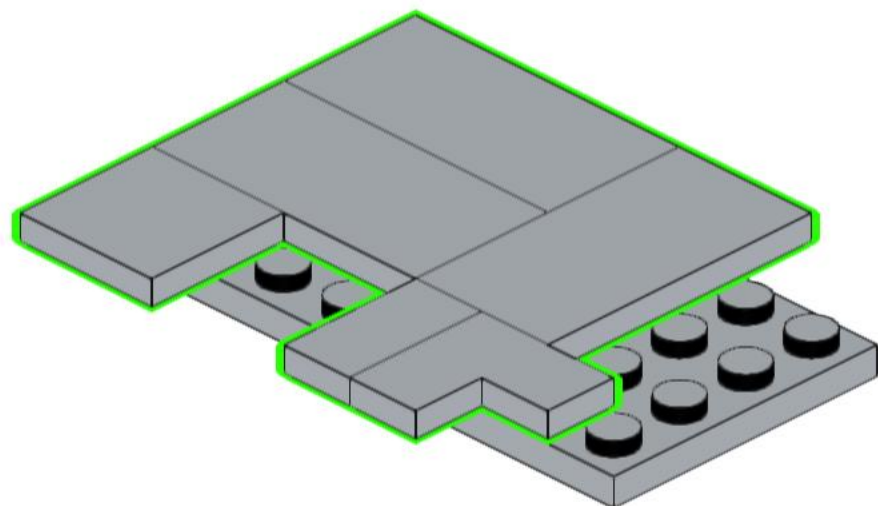
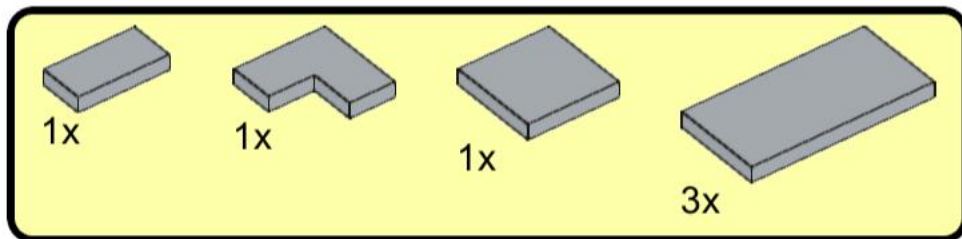
The LEGO bricks used here are shown as they can be purchased.



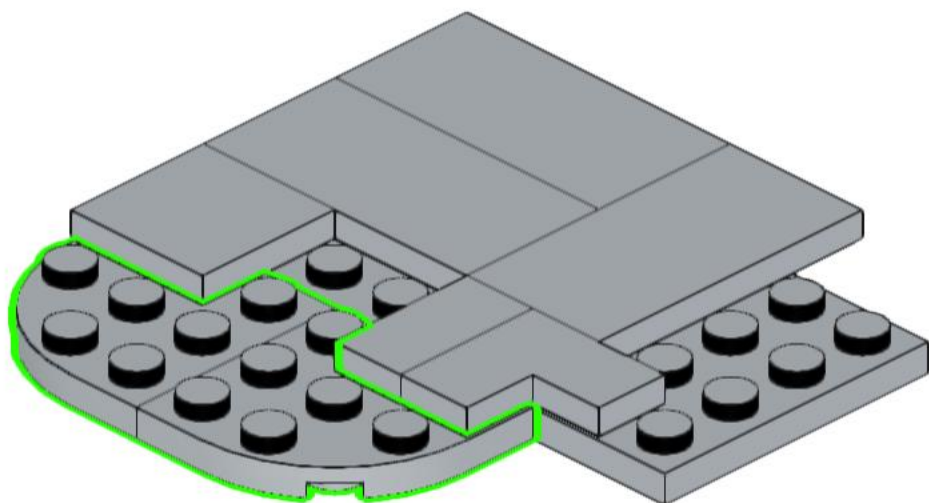
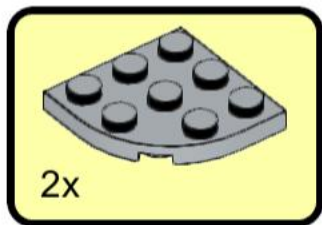
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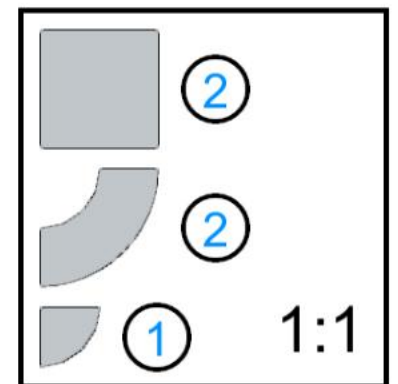
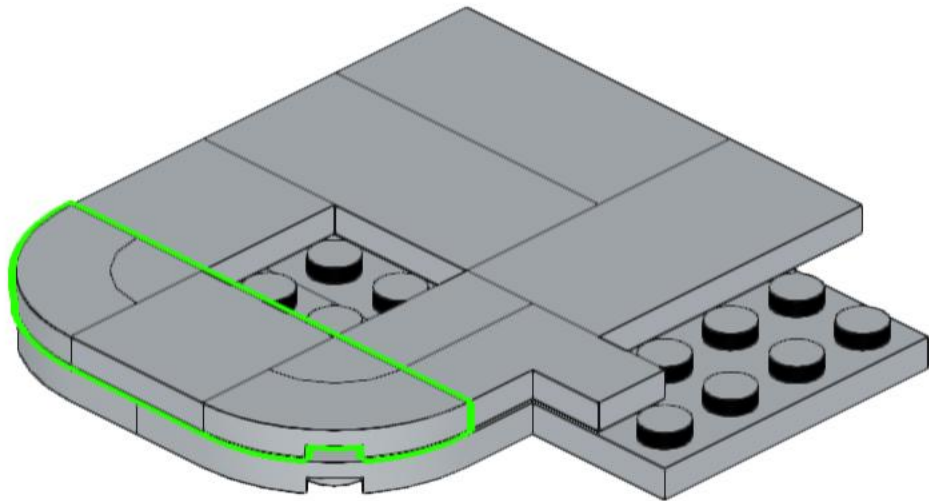
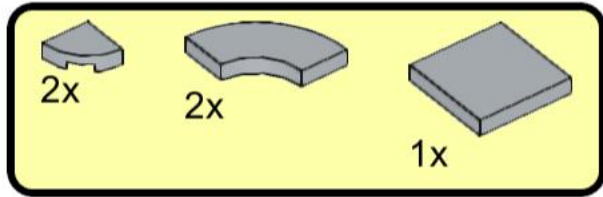
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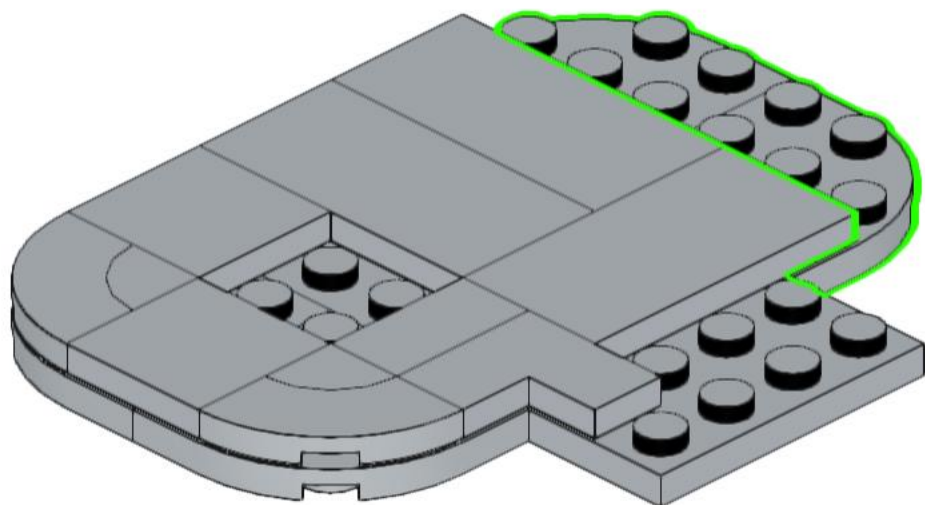
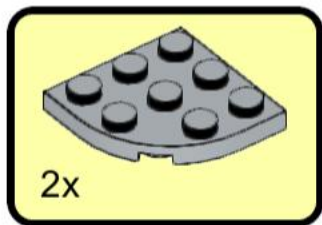
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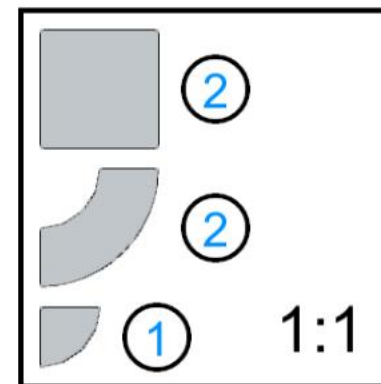
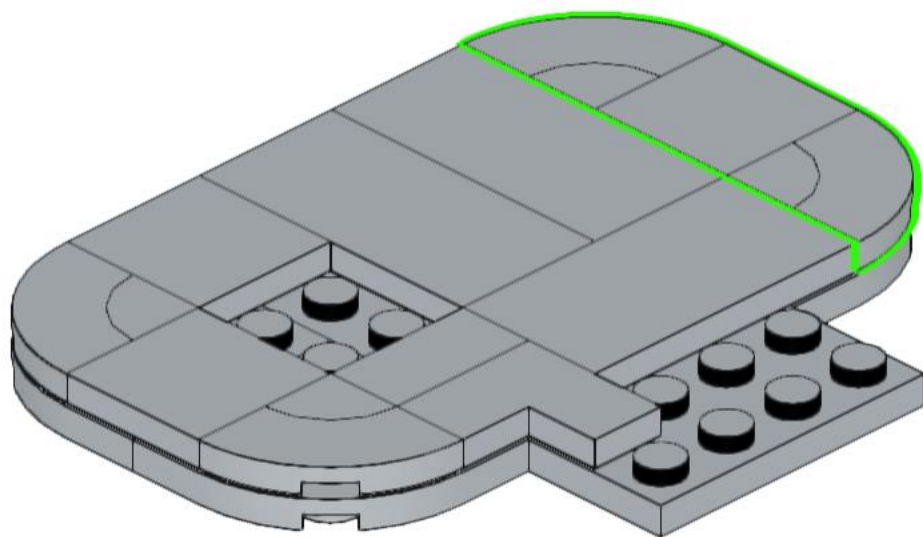
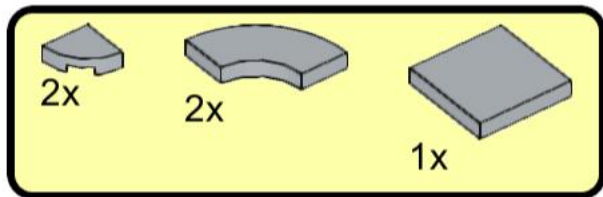
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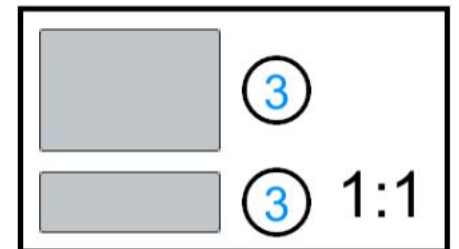
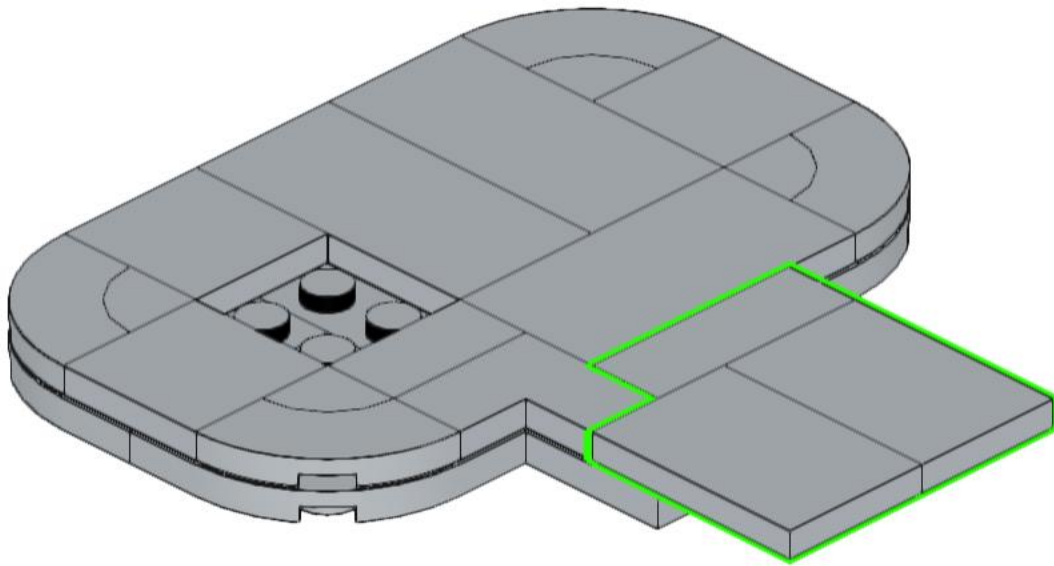
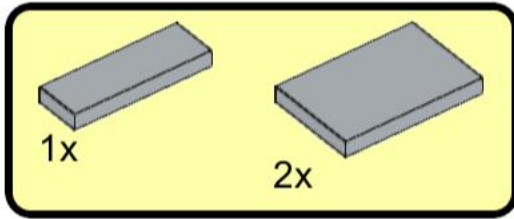
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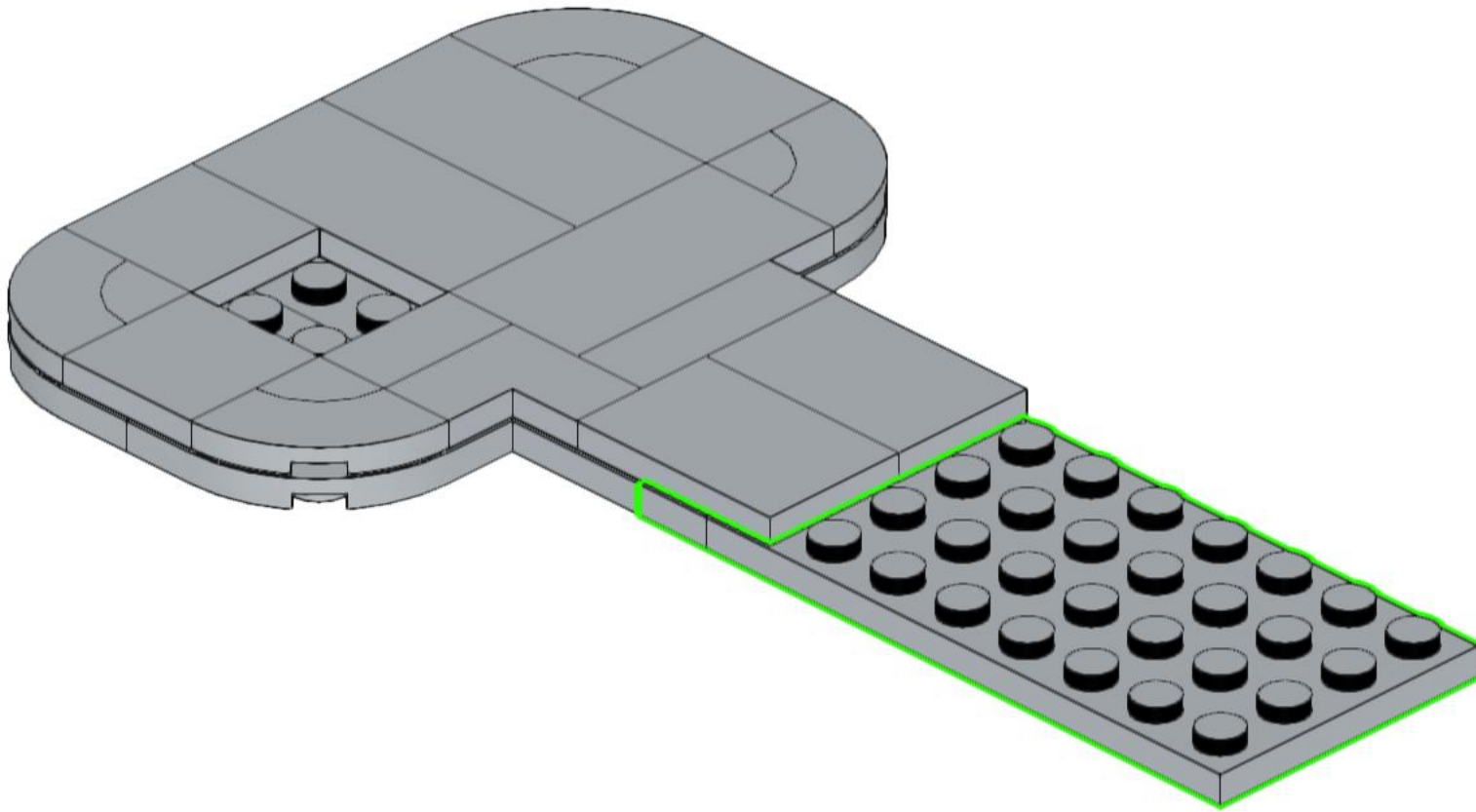
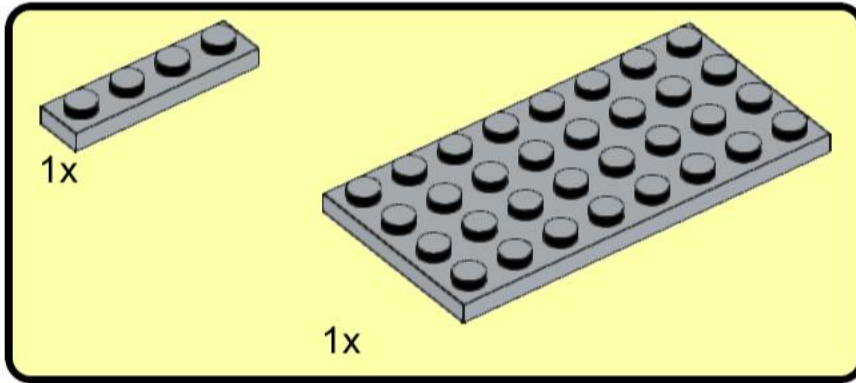
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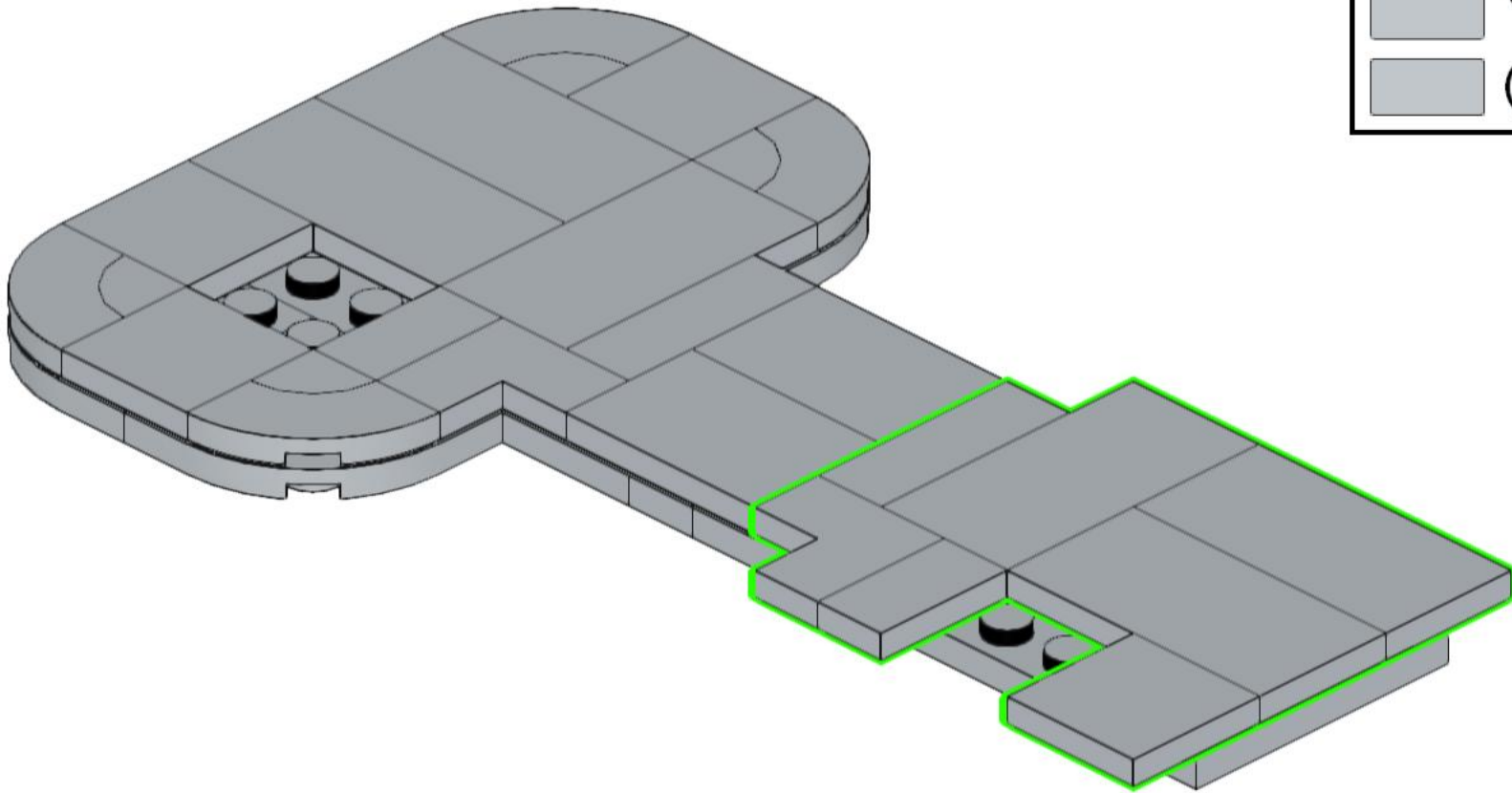
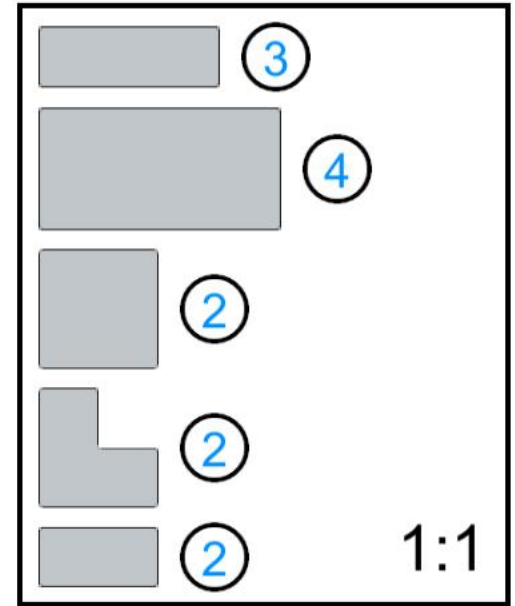
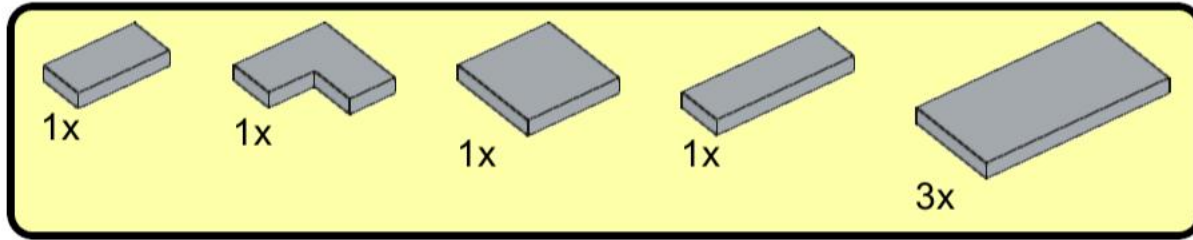
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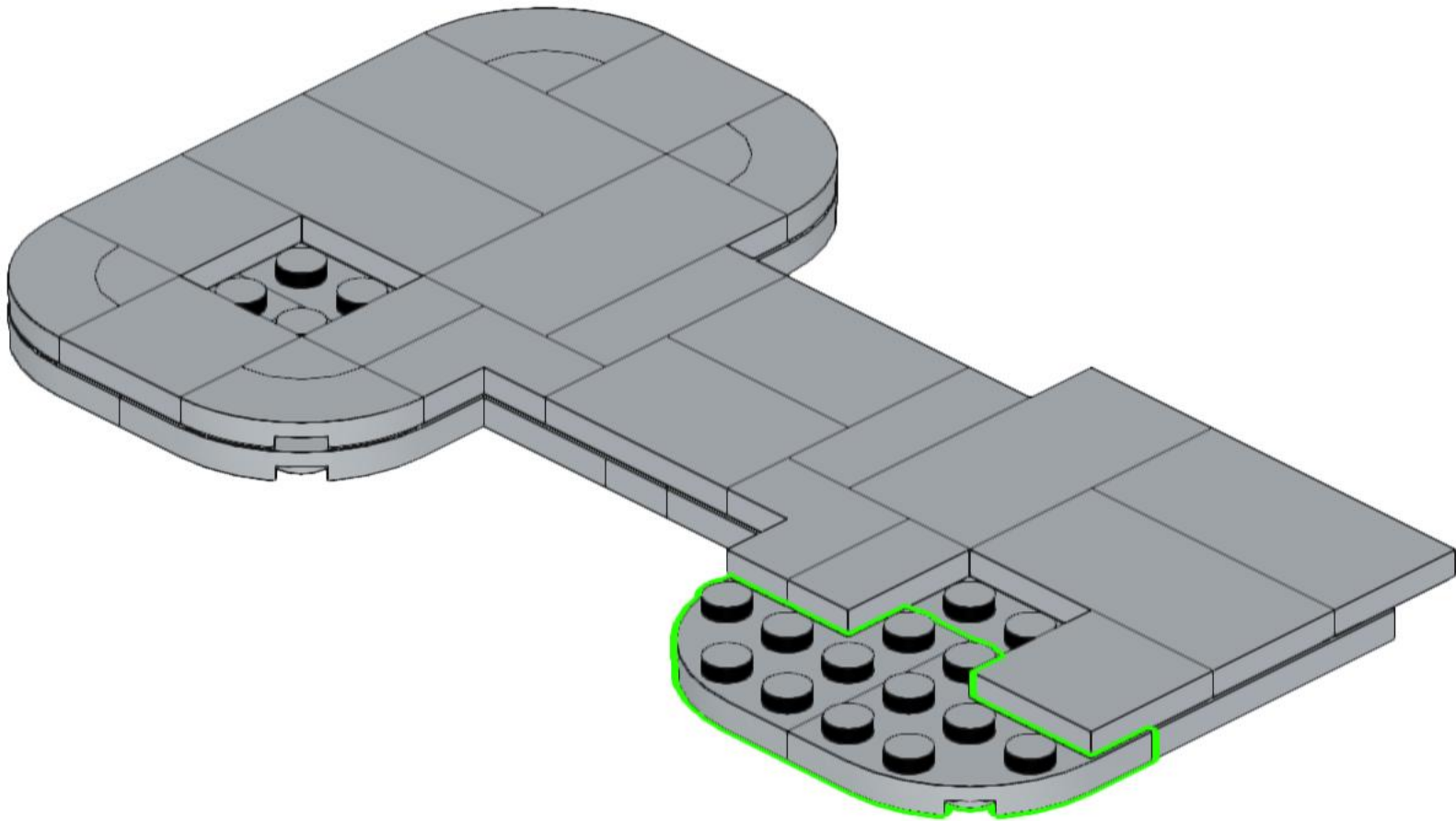
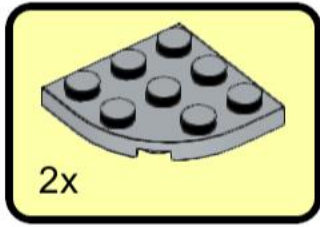
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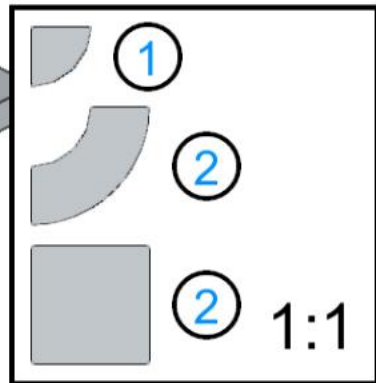
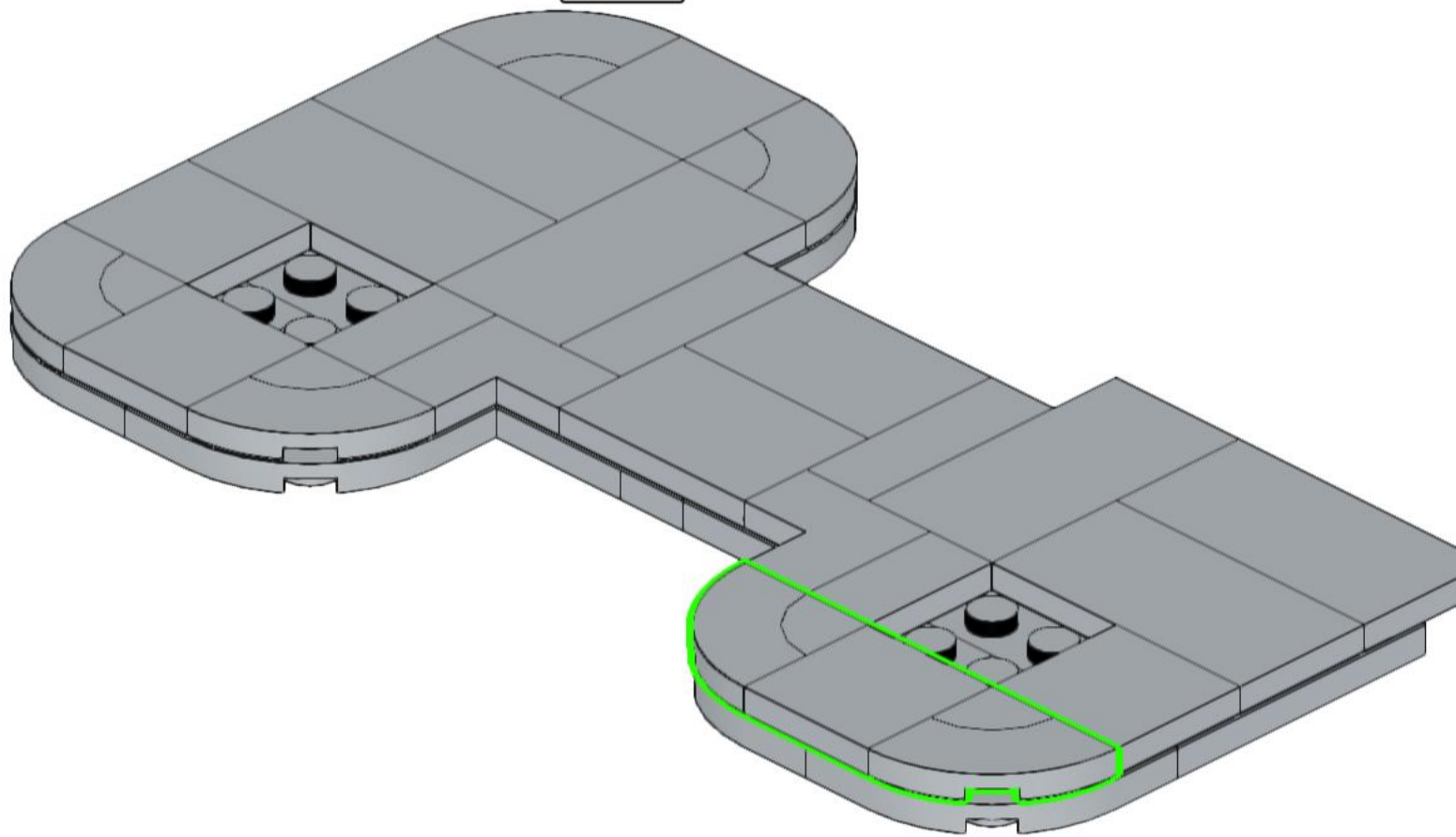
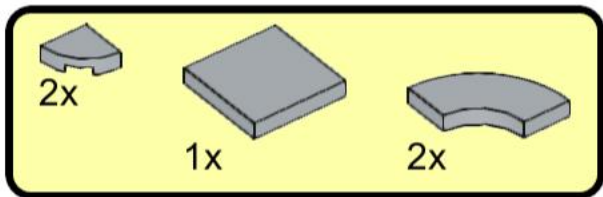
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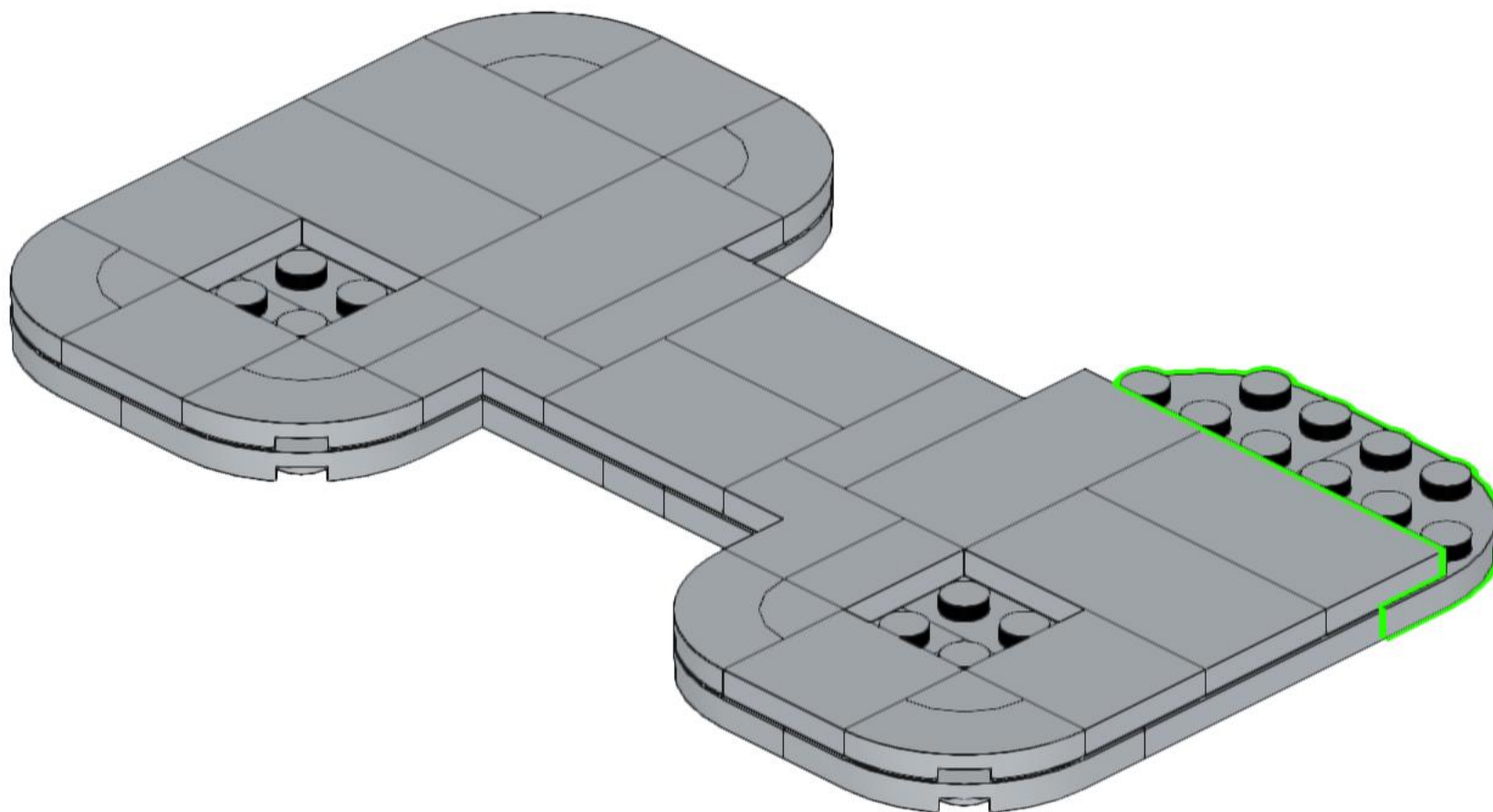
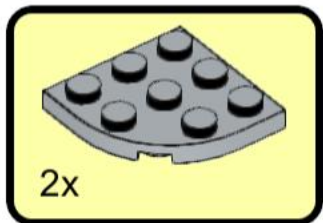
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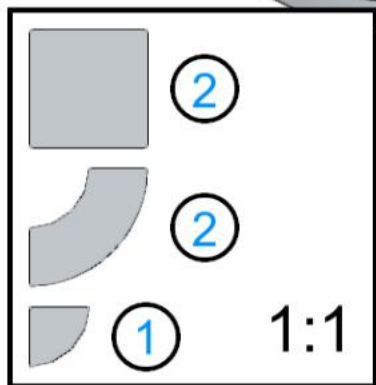
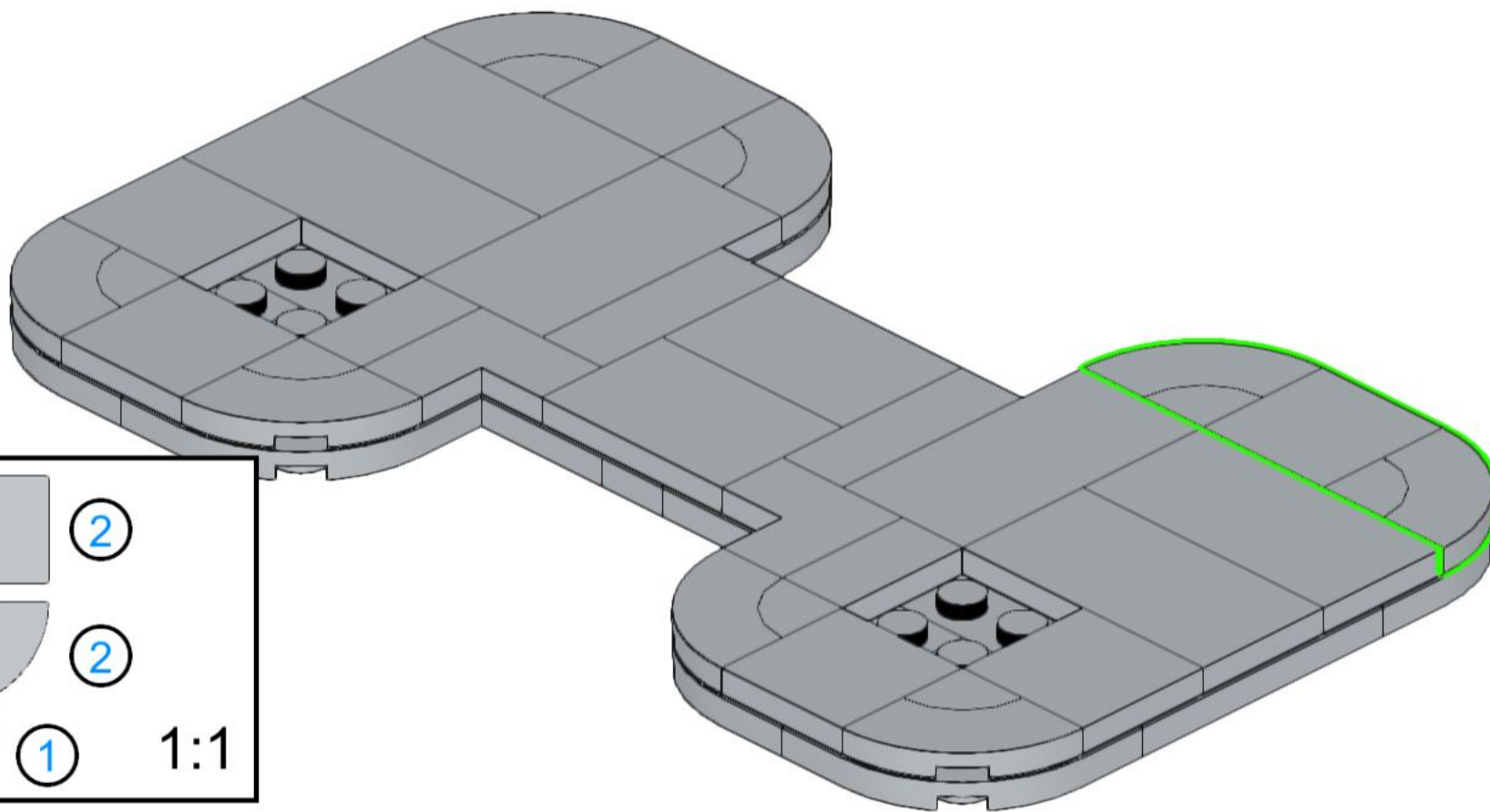
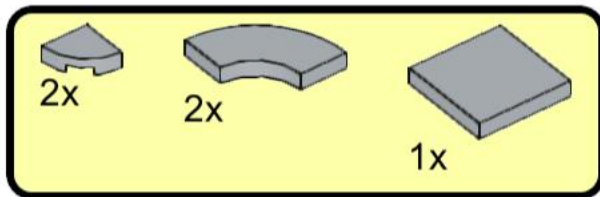
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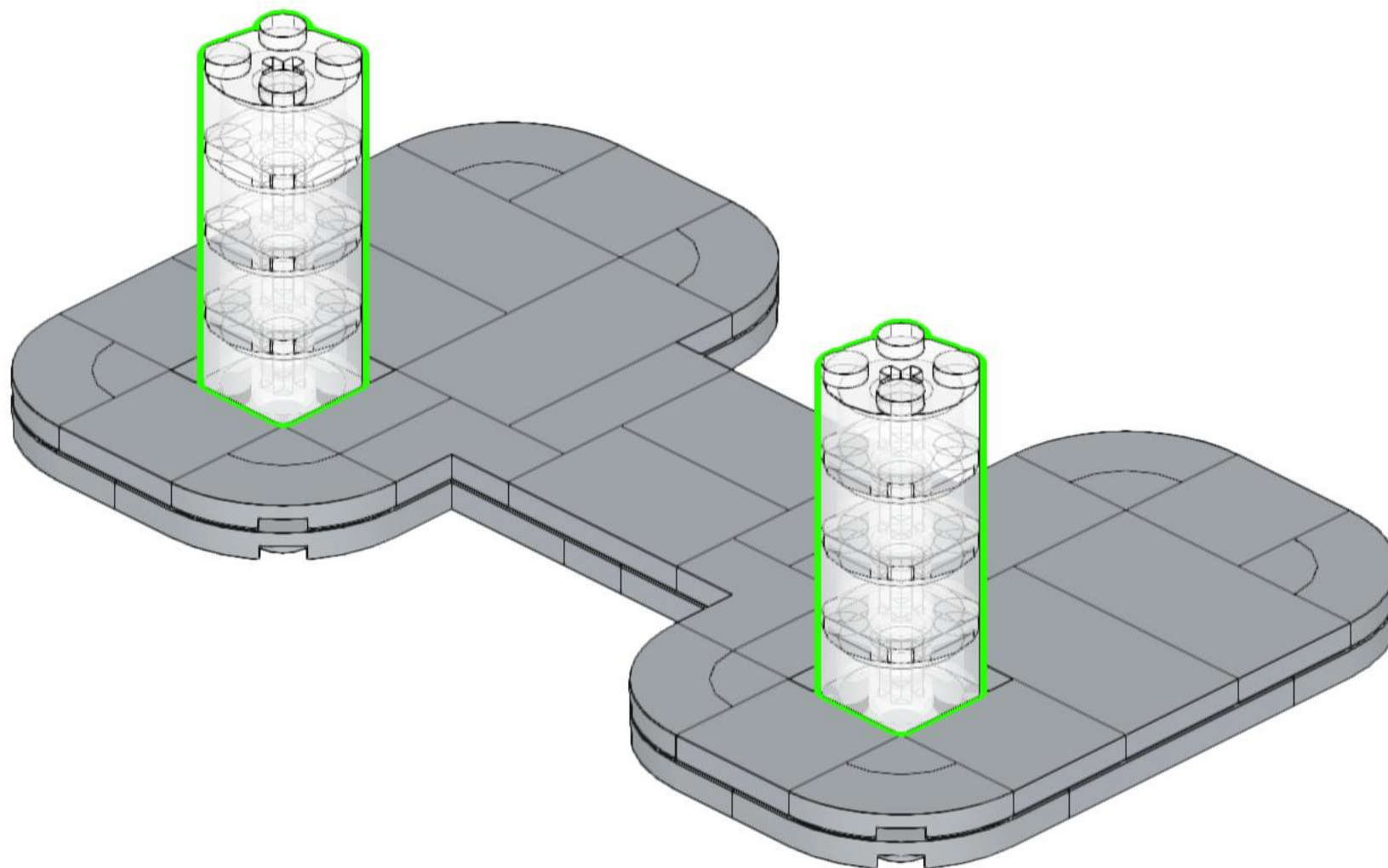
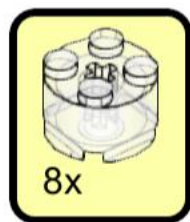
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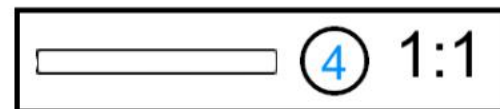
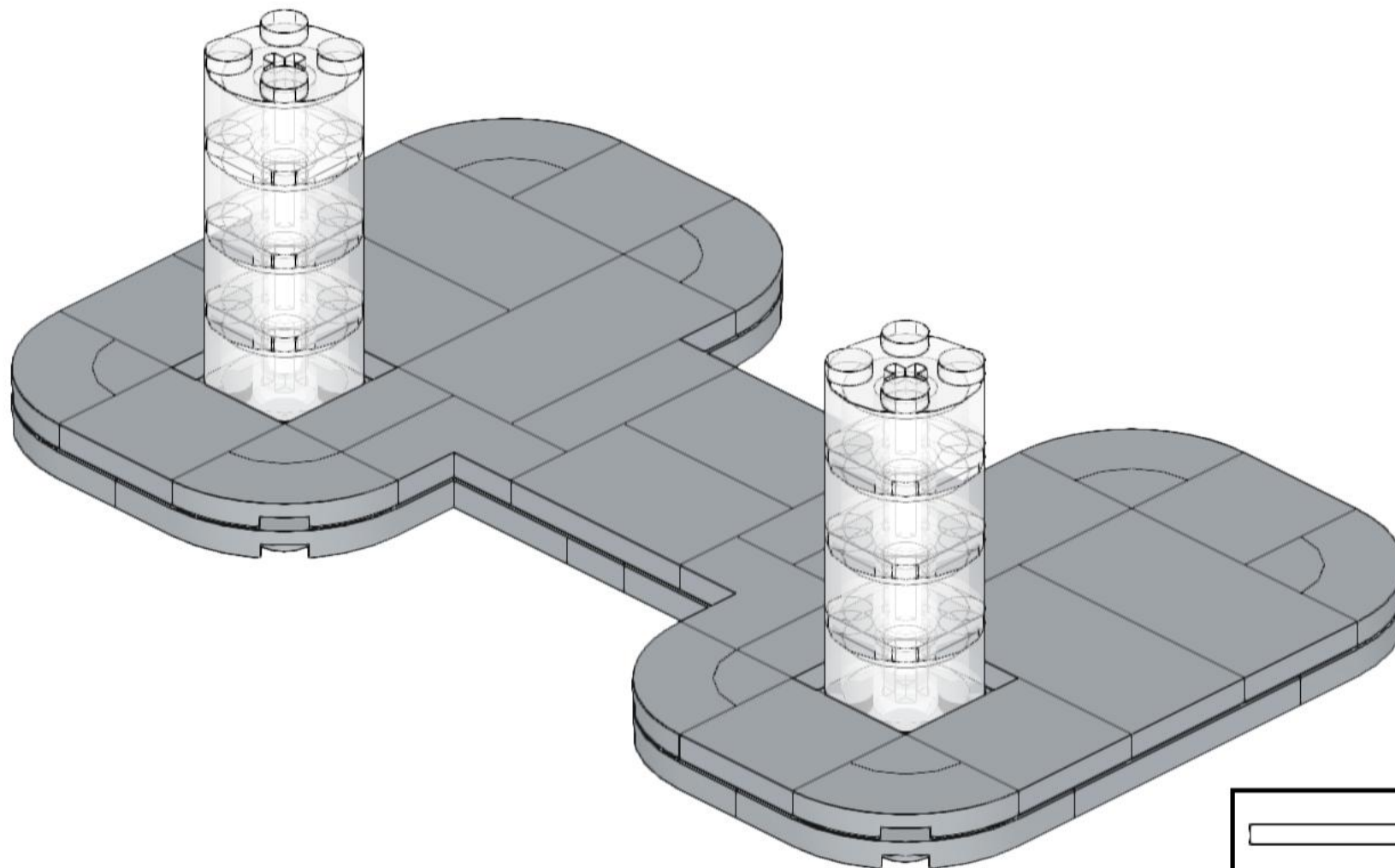
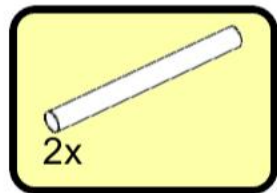
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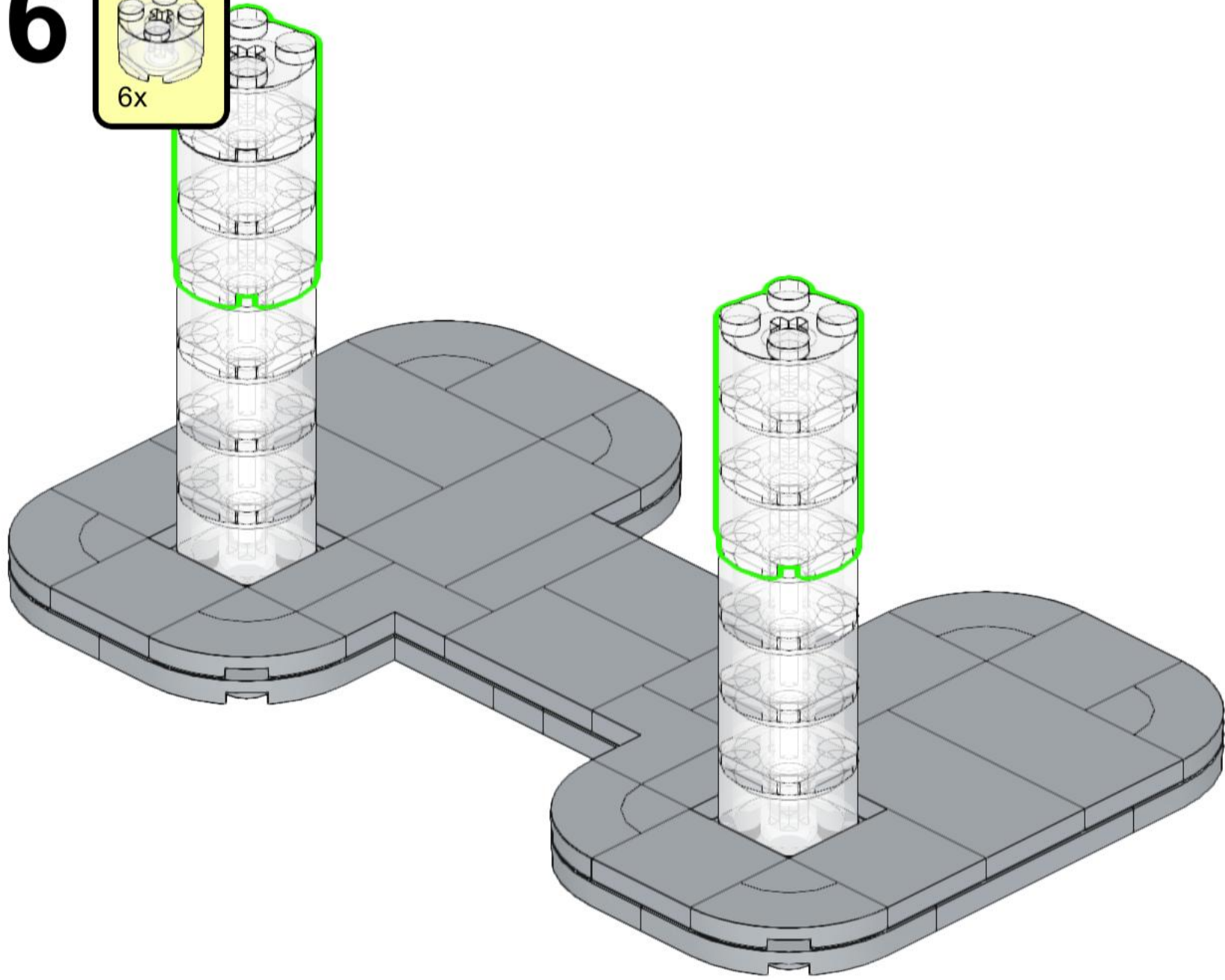
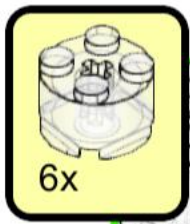
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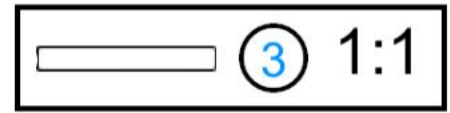
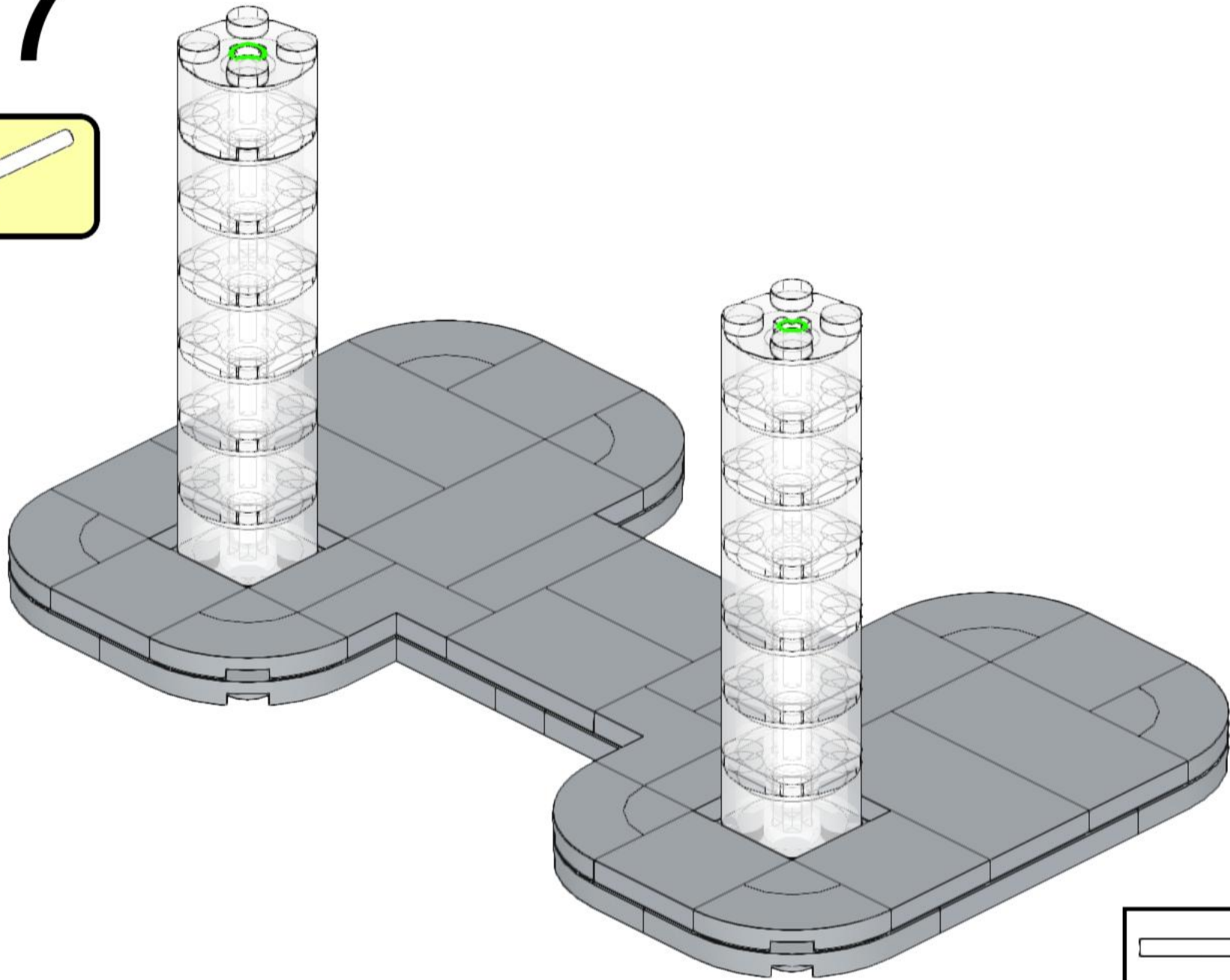
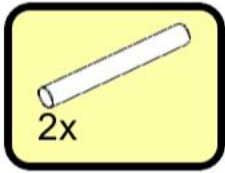
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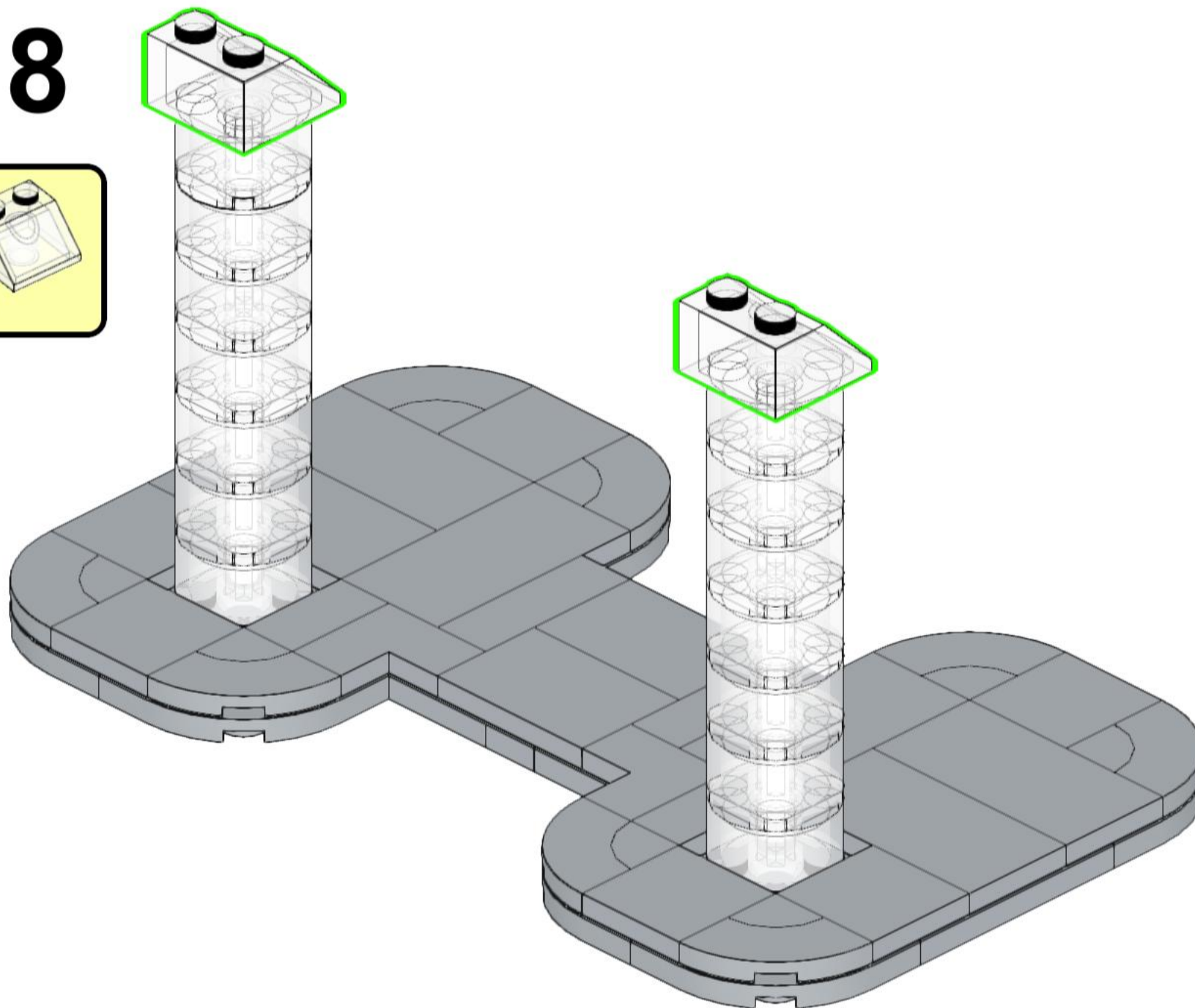
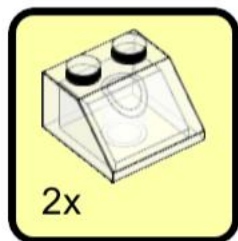
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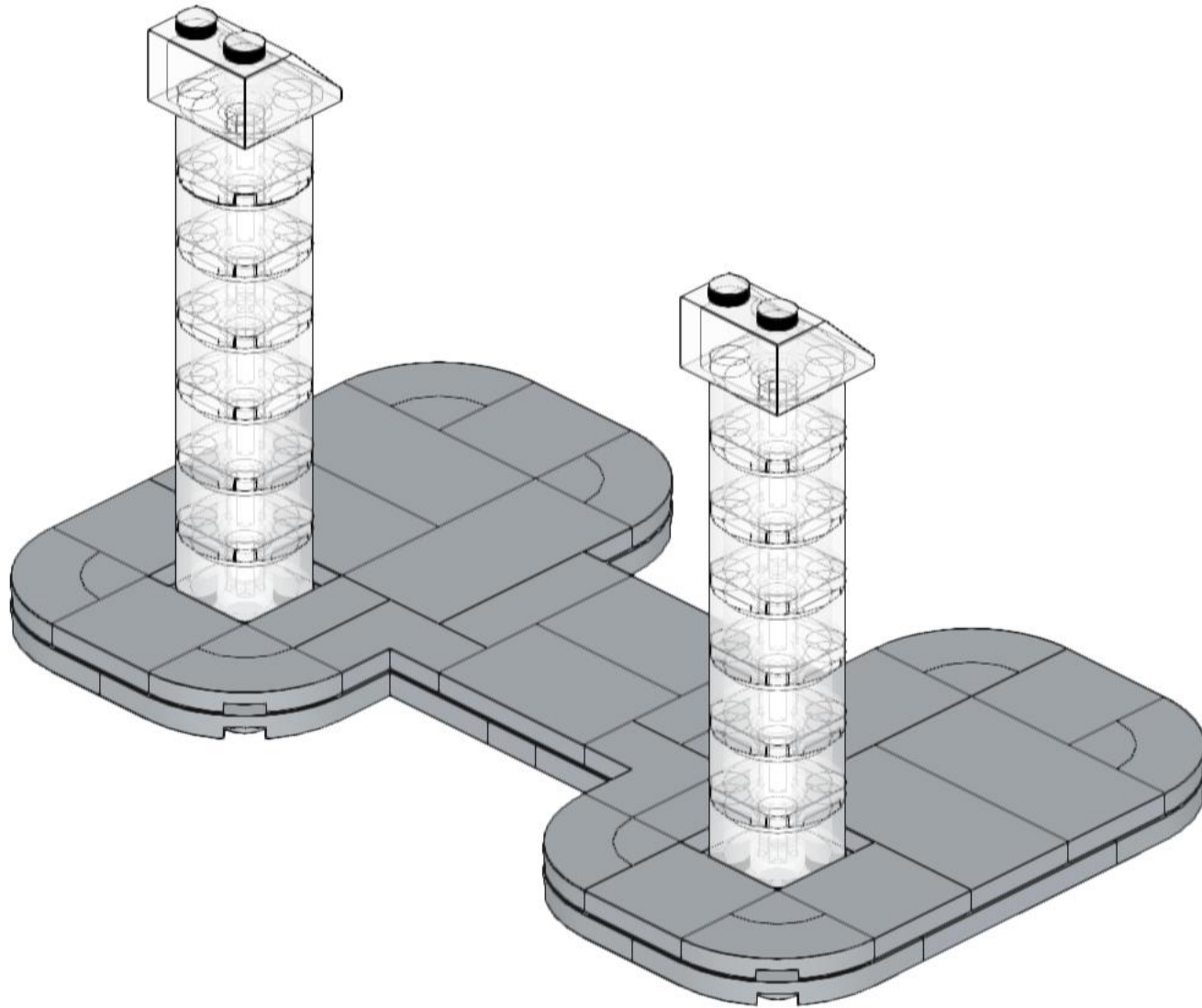
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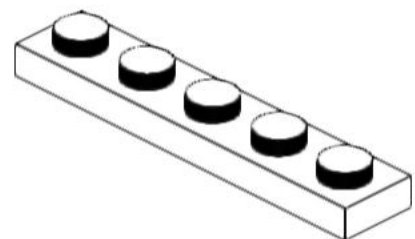
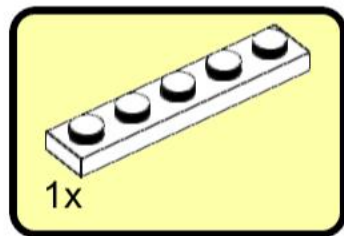
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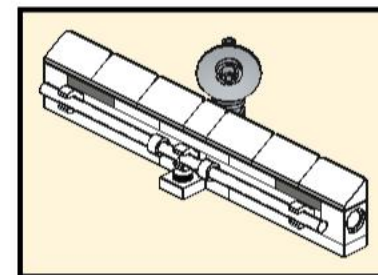
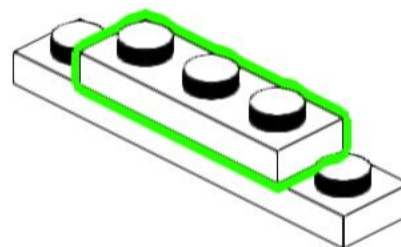
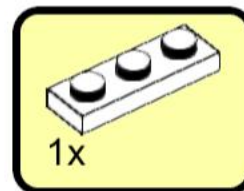
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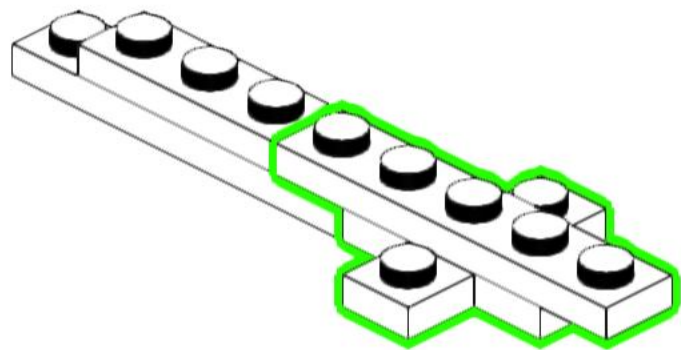
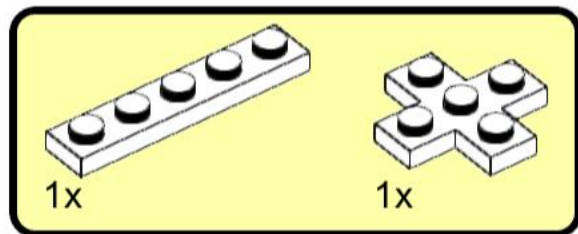
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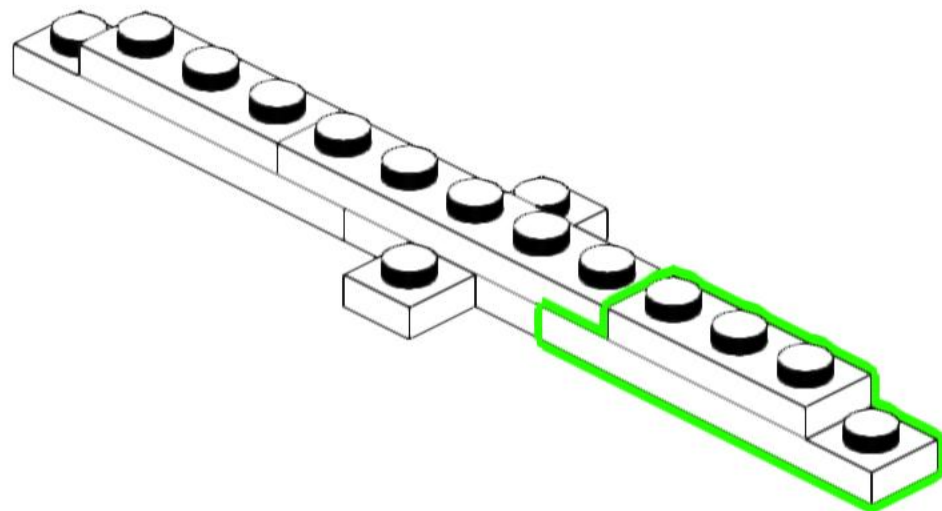
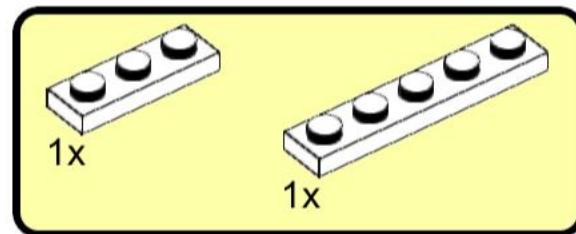
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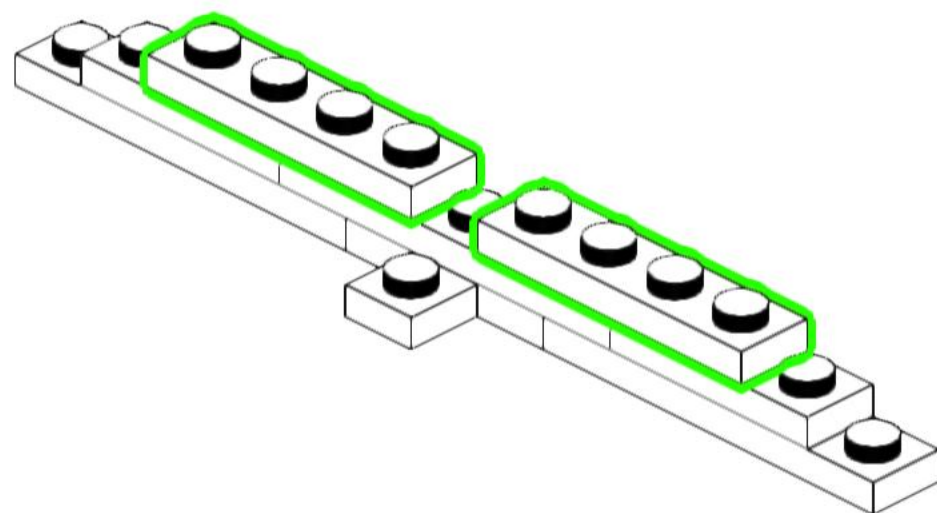
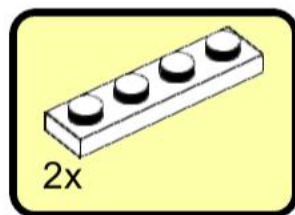
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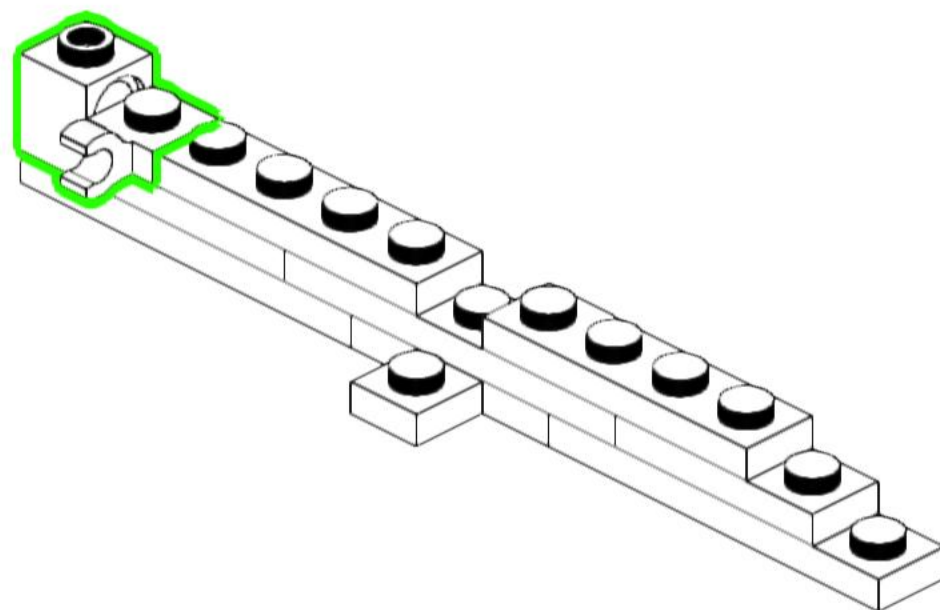
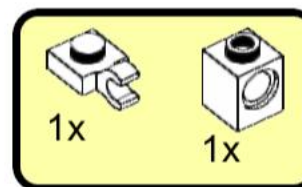
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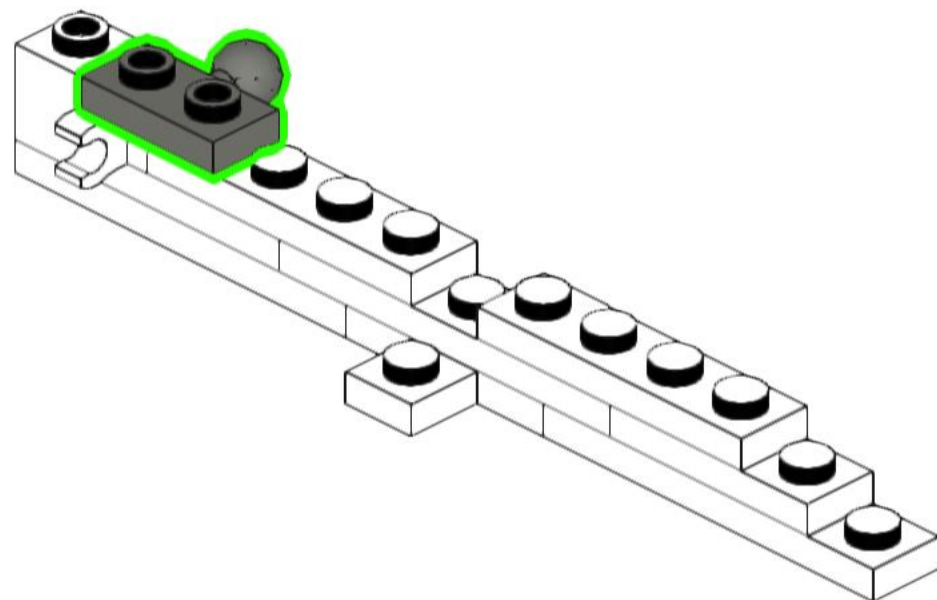
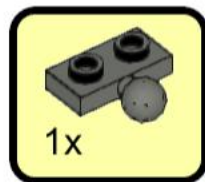
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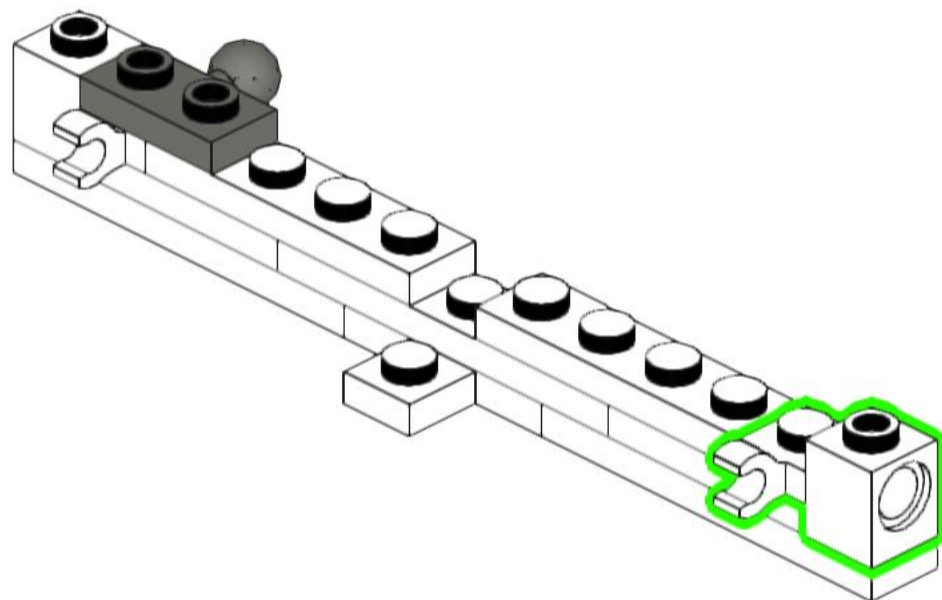
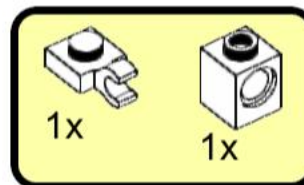
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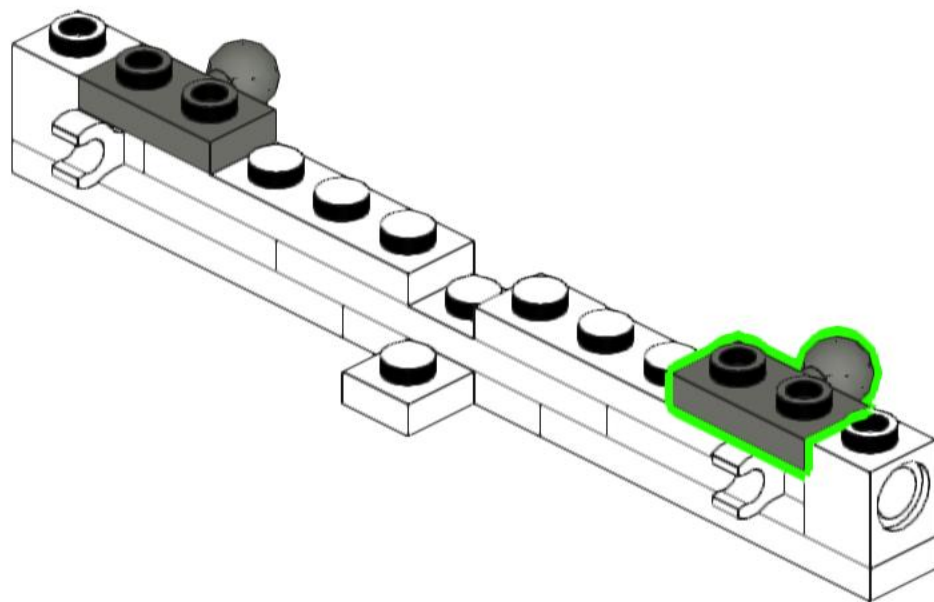
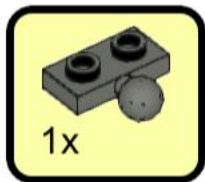
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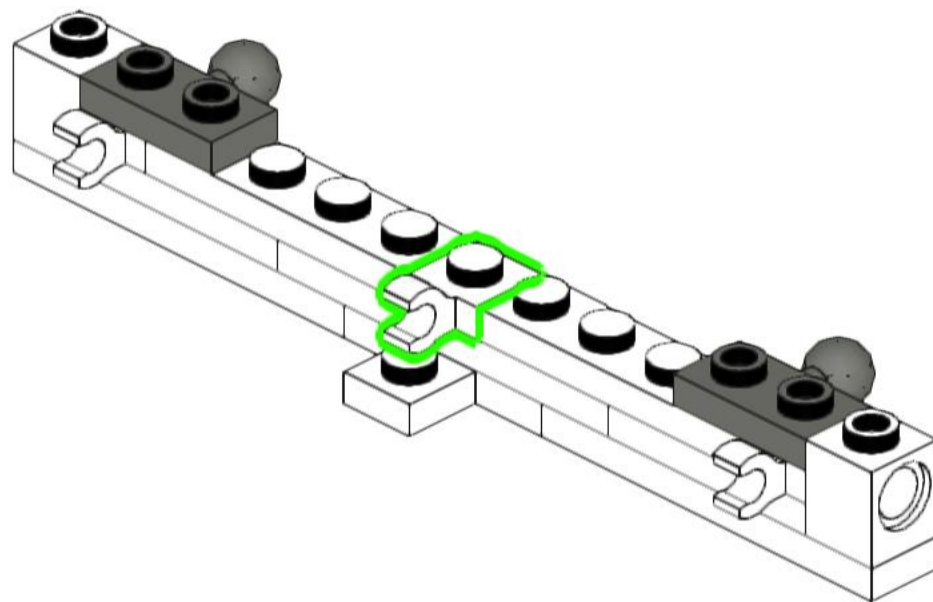
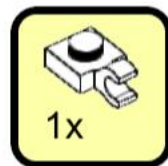
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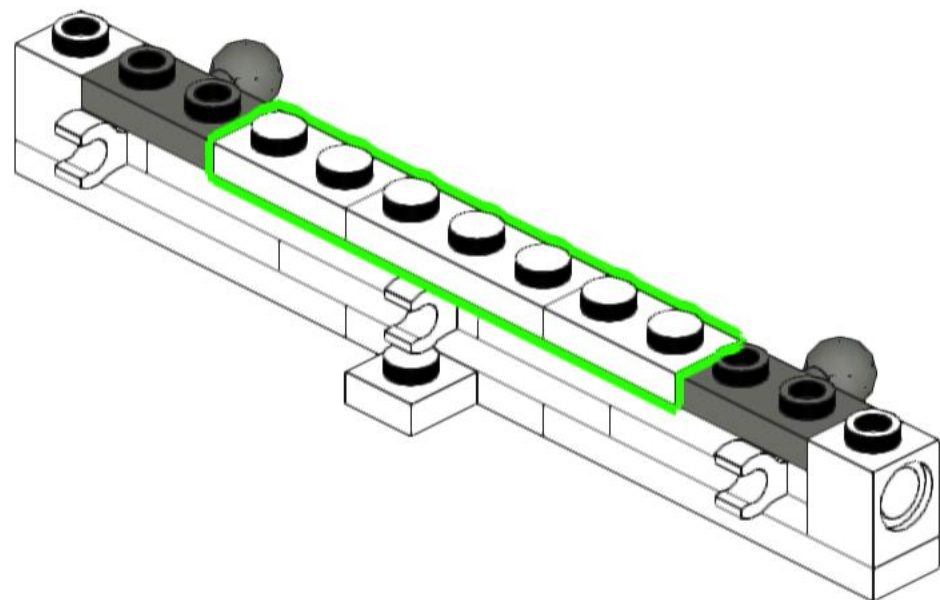
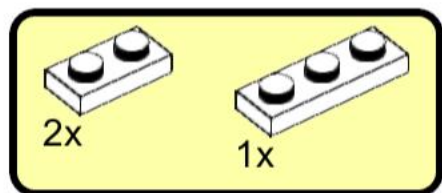
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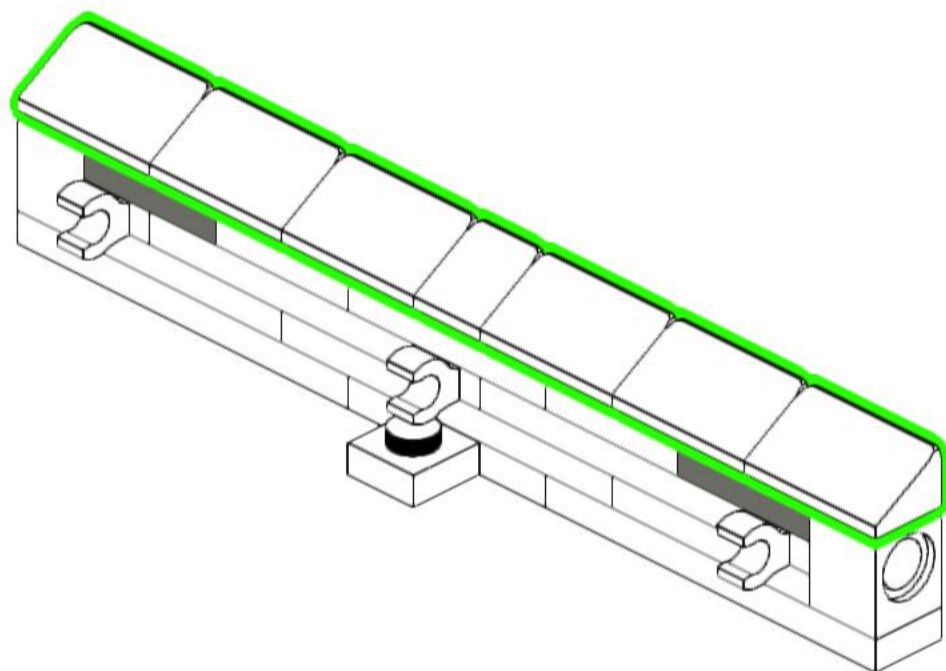
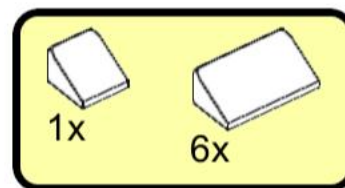
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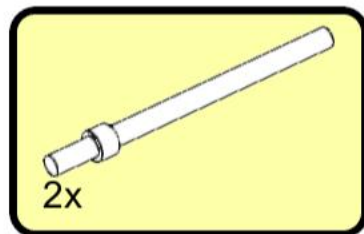
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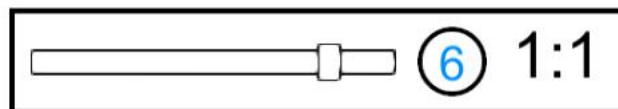
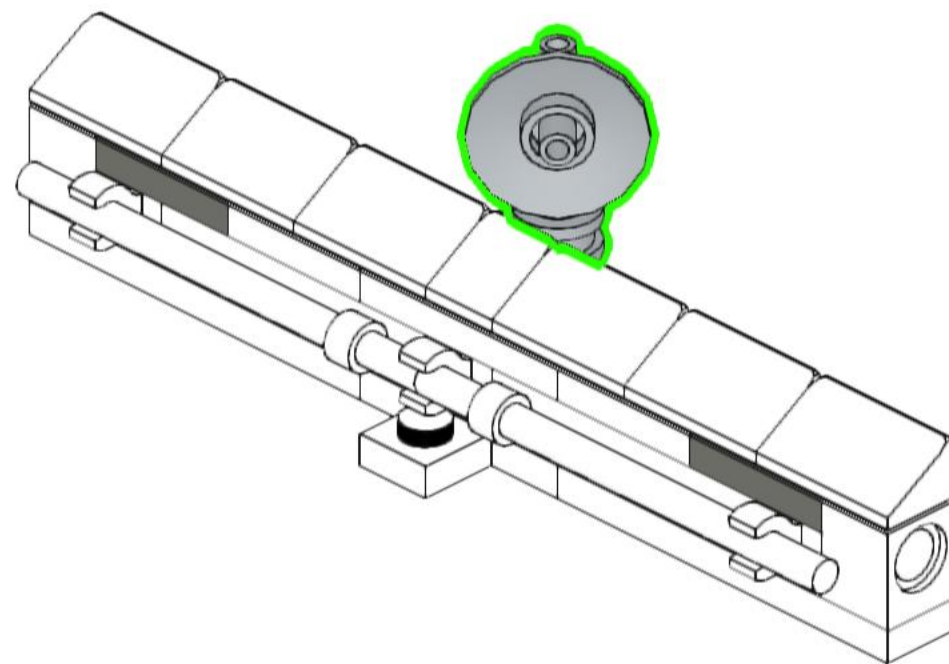
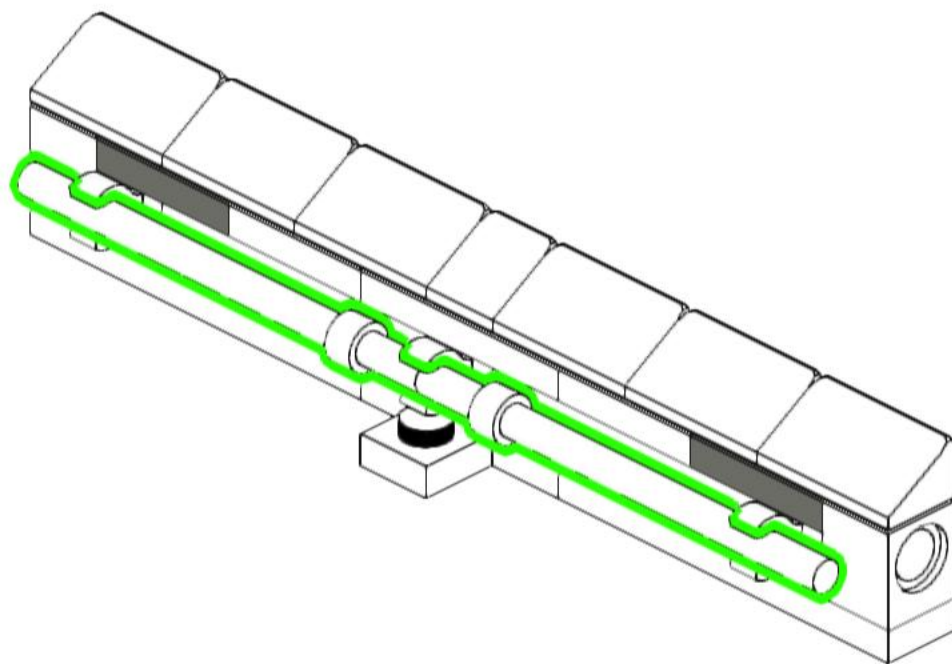
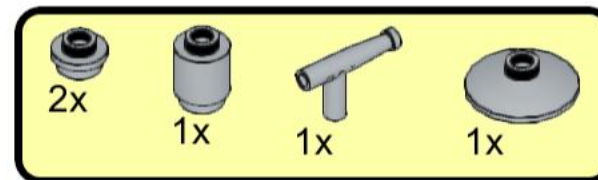
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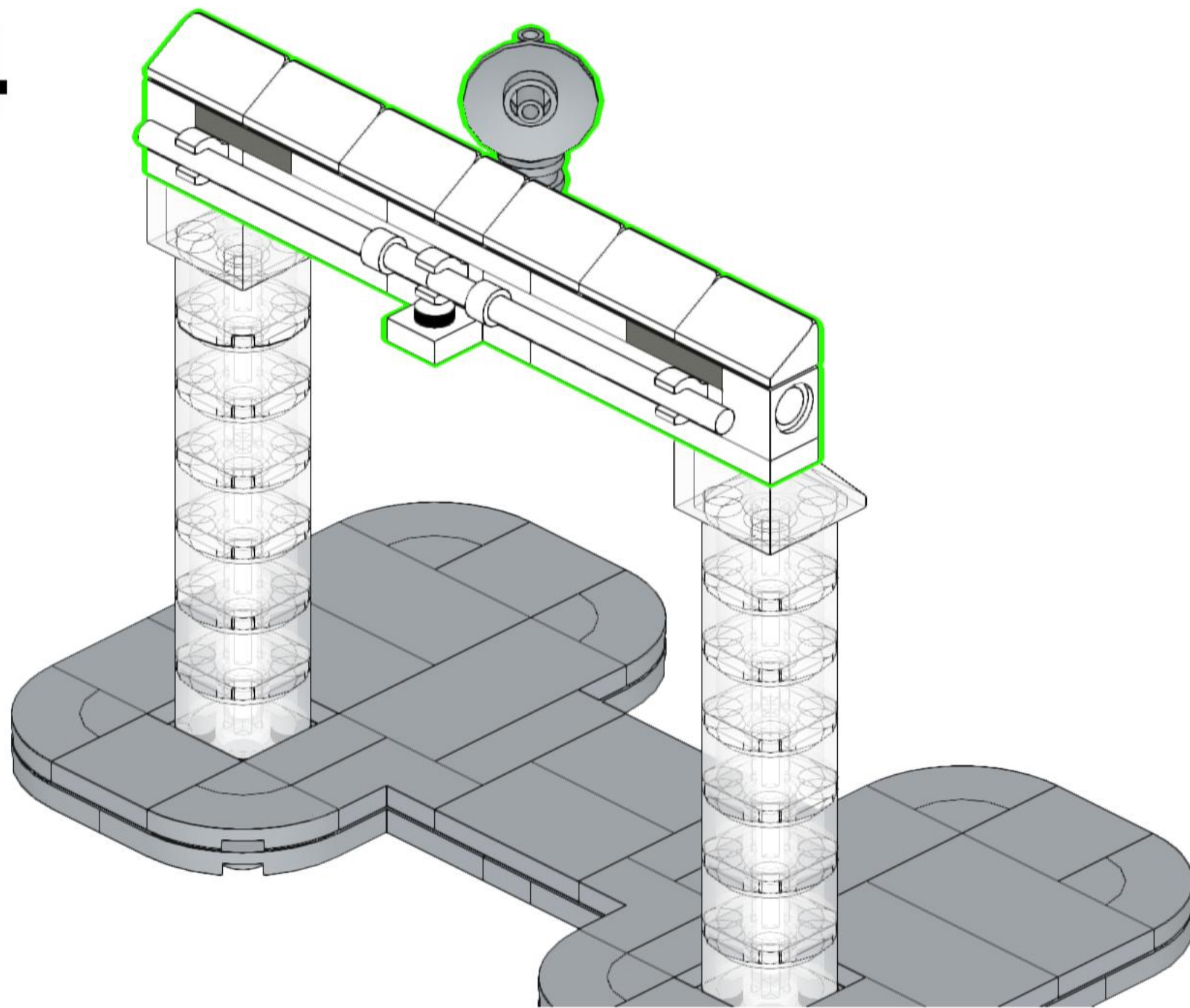
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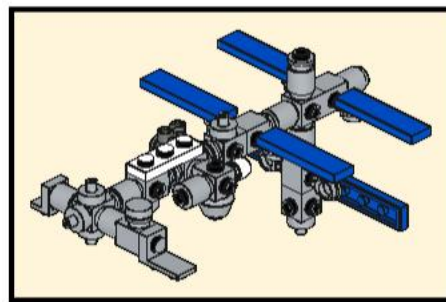
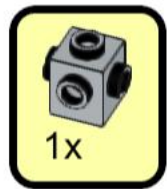
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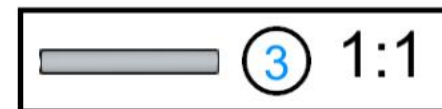
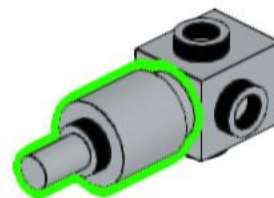
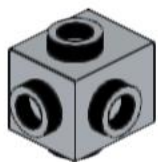
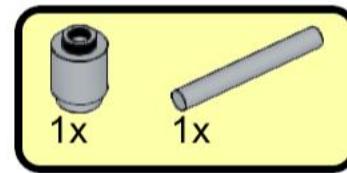
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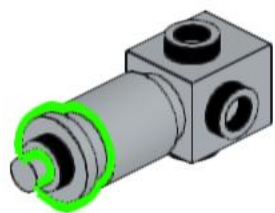
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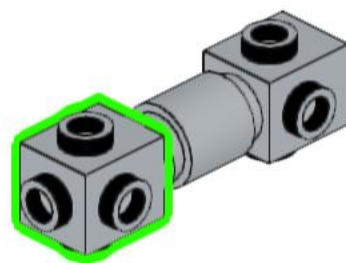
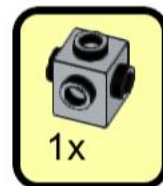
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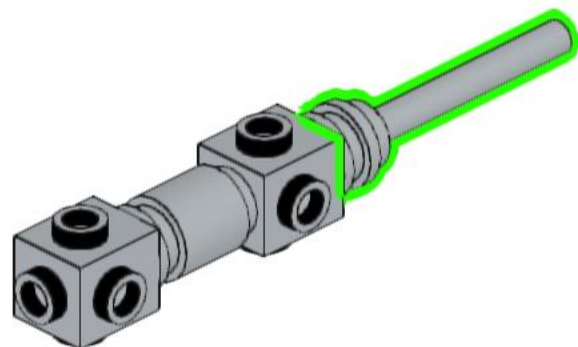
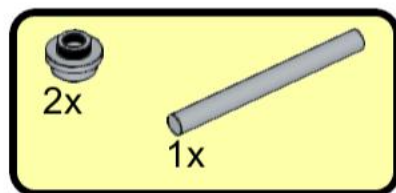
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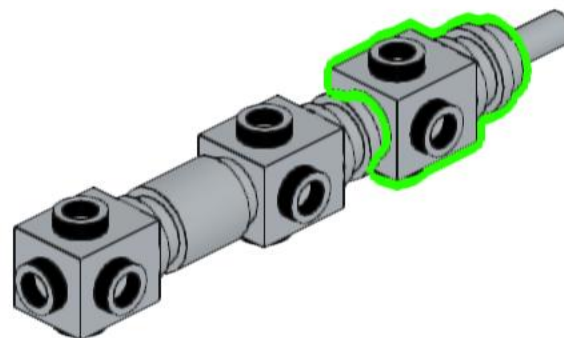
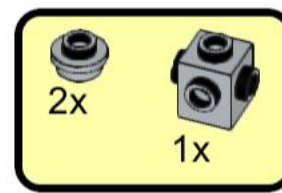
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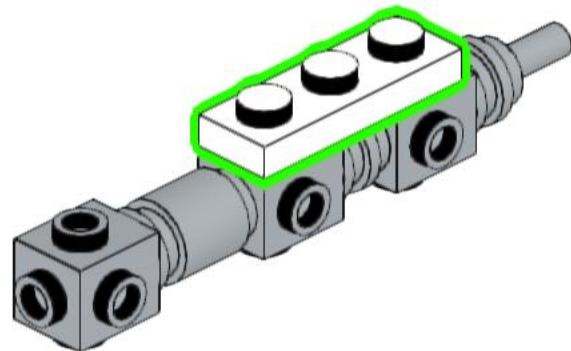
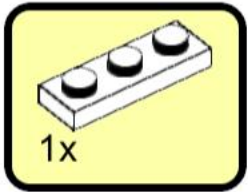
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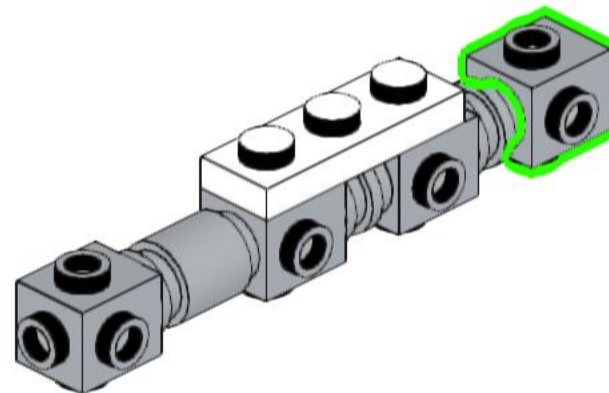
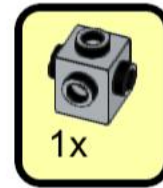
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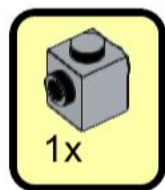
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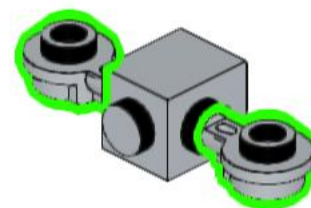
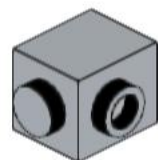
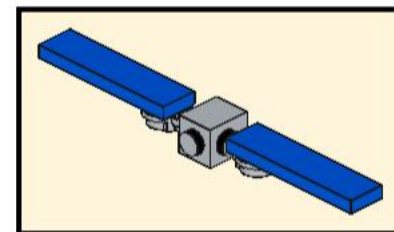
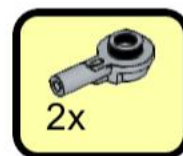
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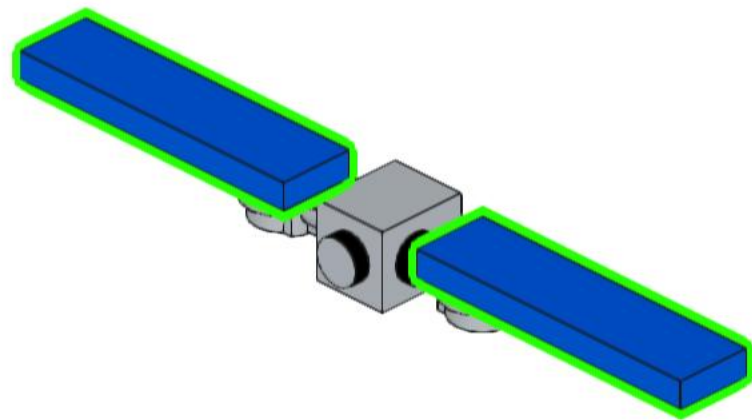
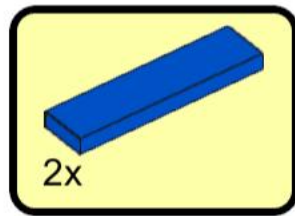
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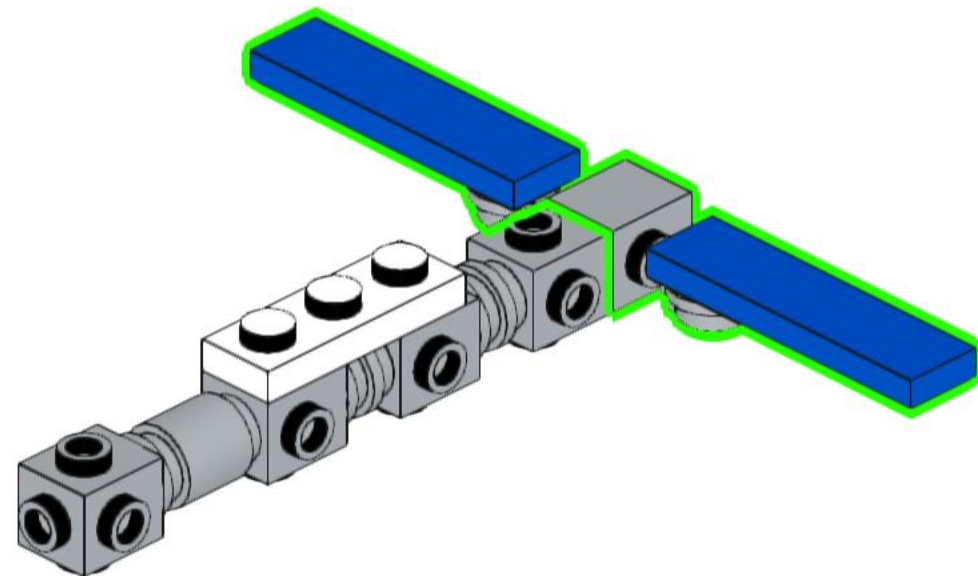
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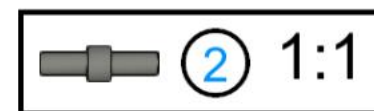
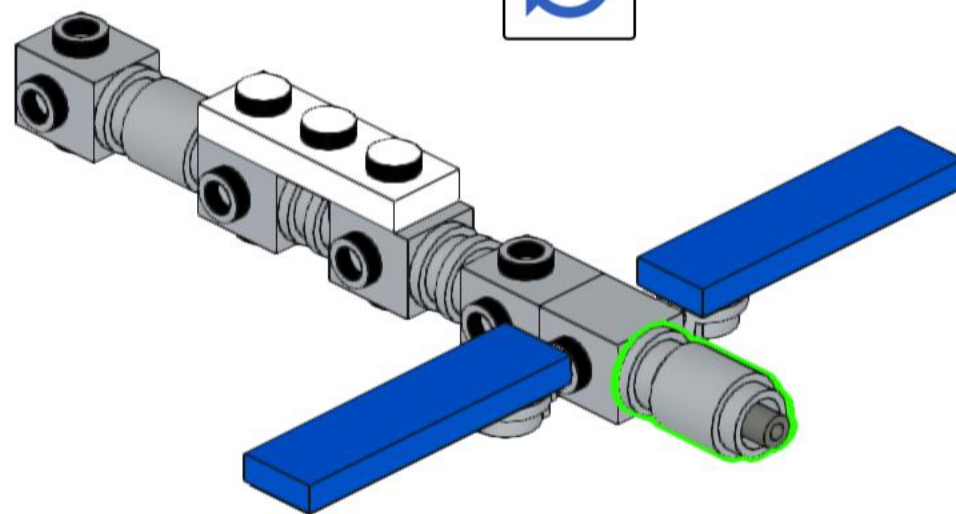
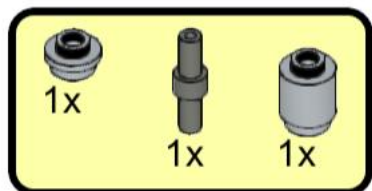
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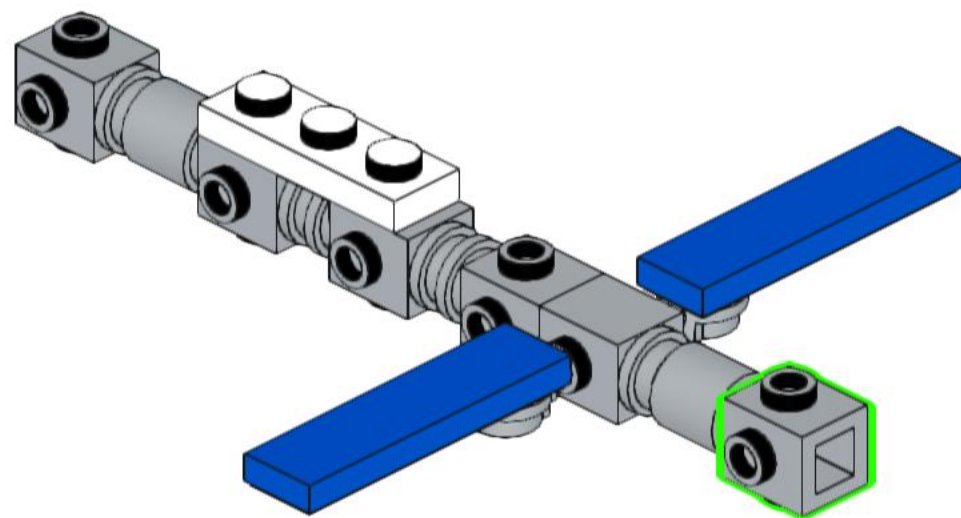
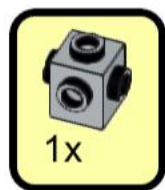
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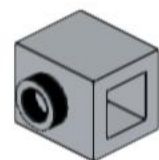
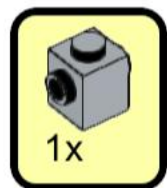
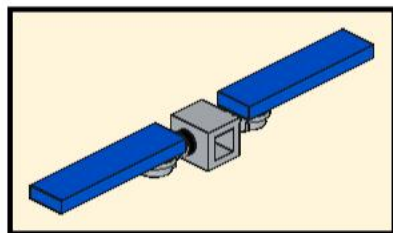
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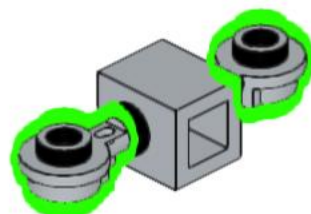
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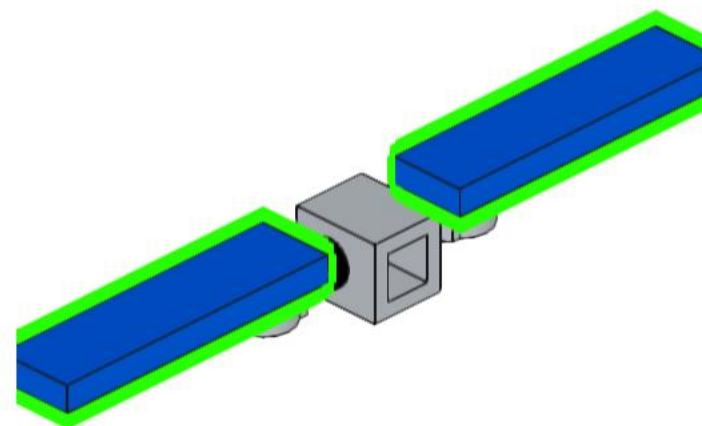
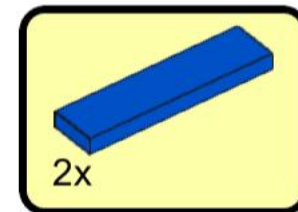
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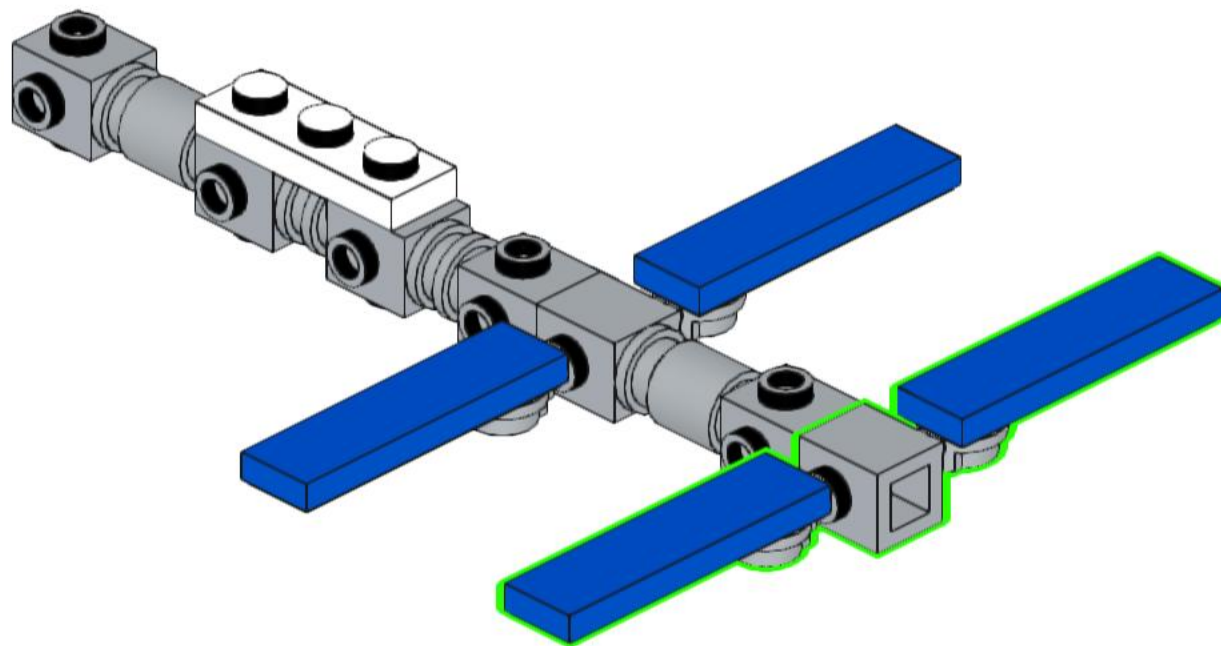
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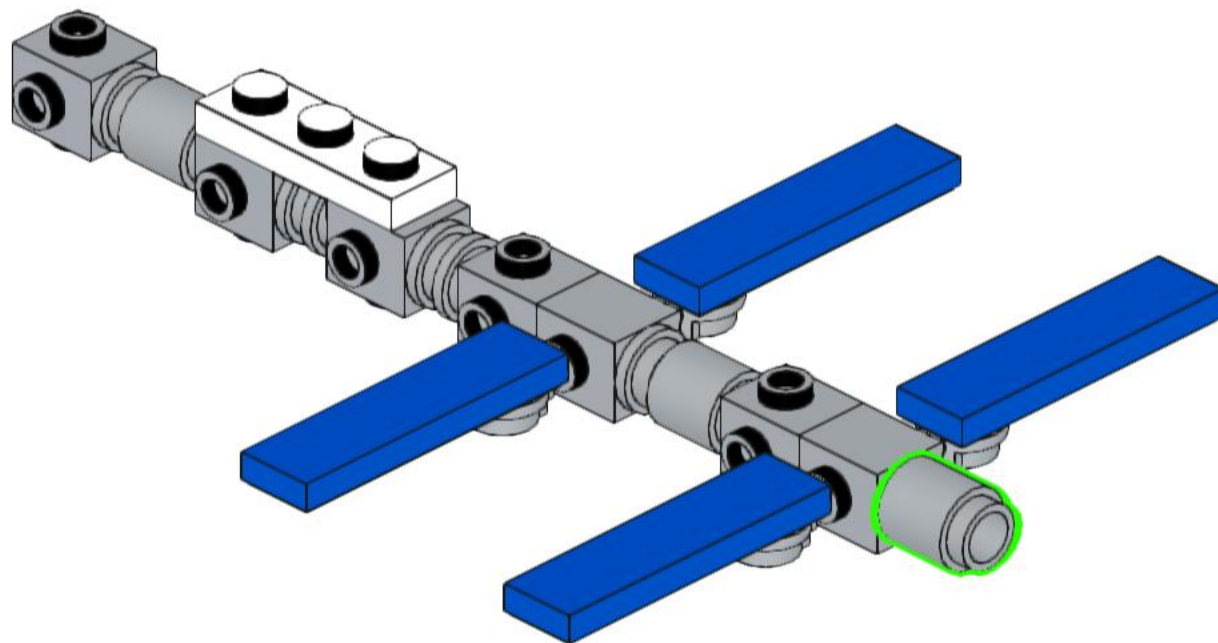
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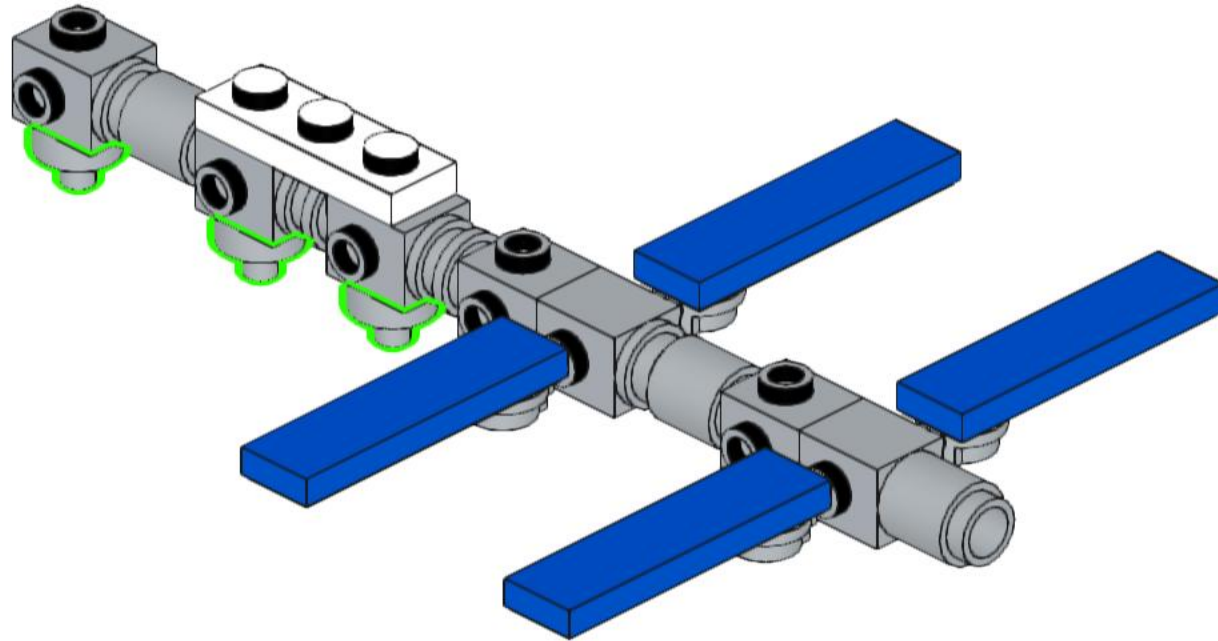
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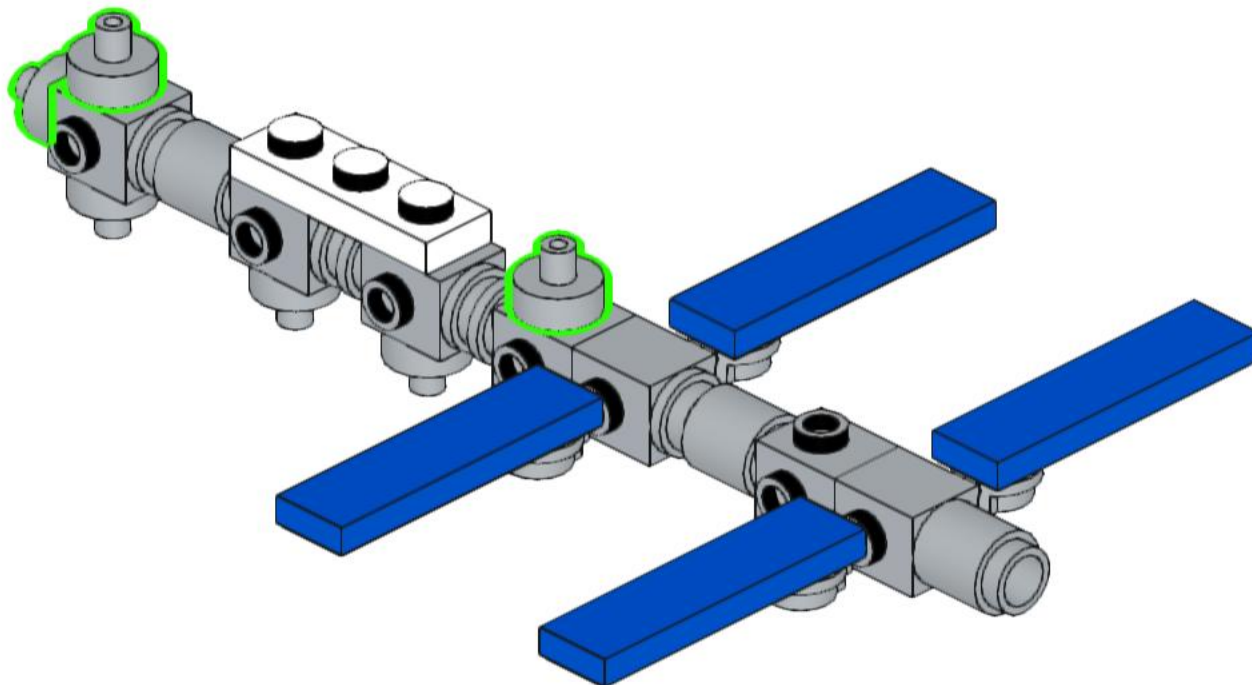
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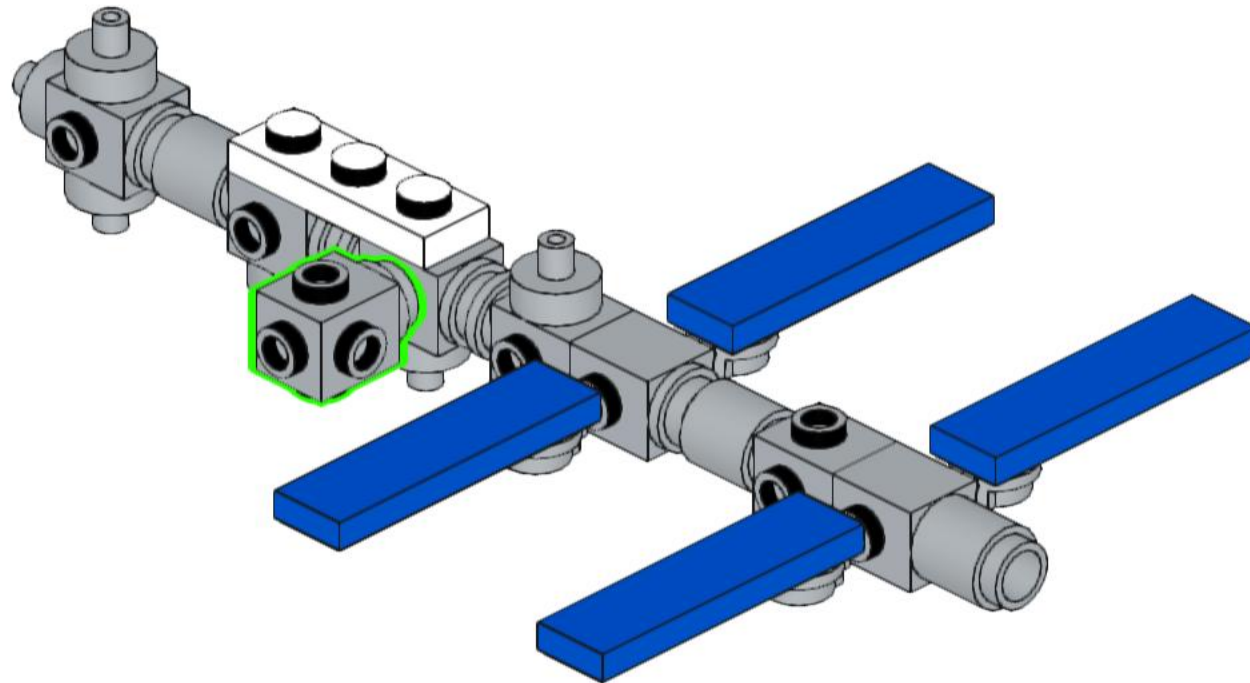
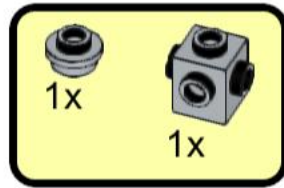
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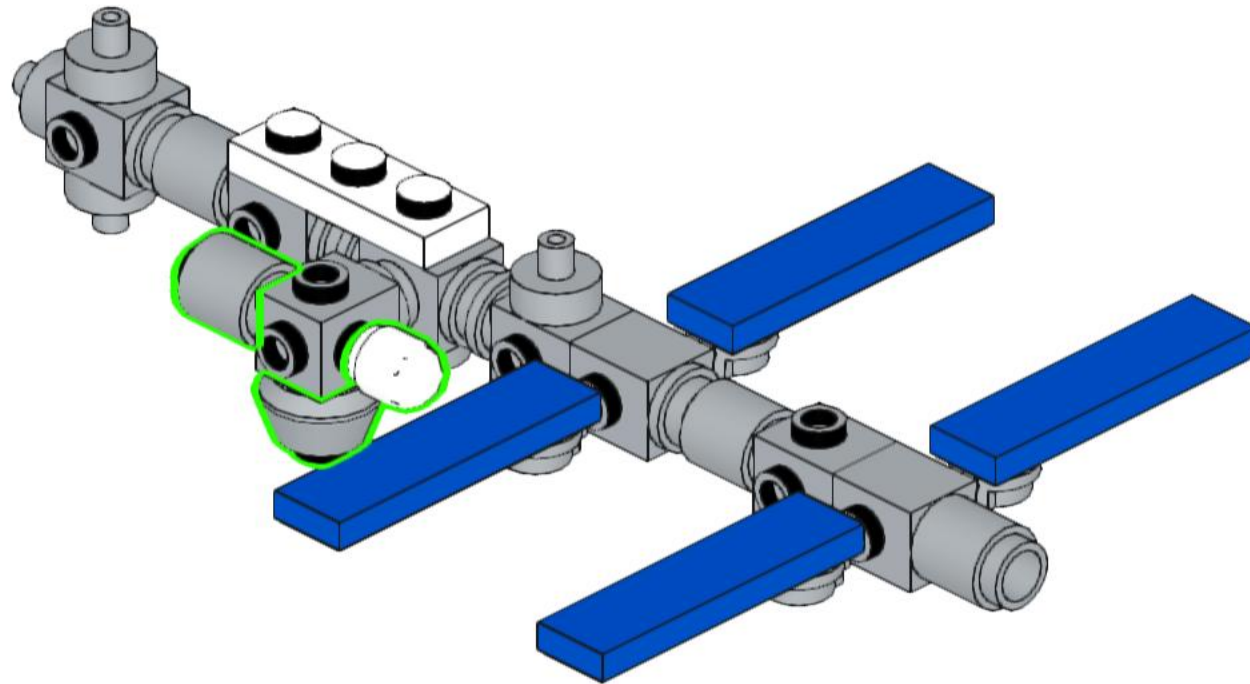
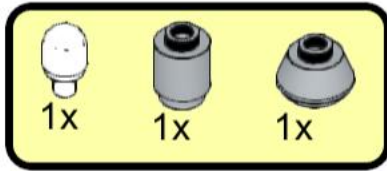
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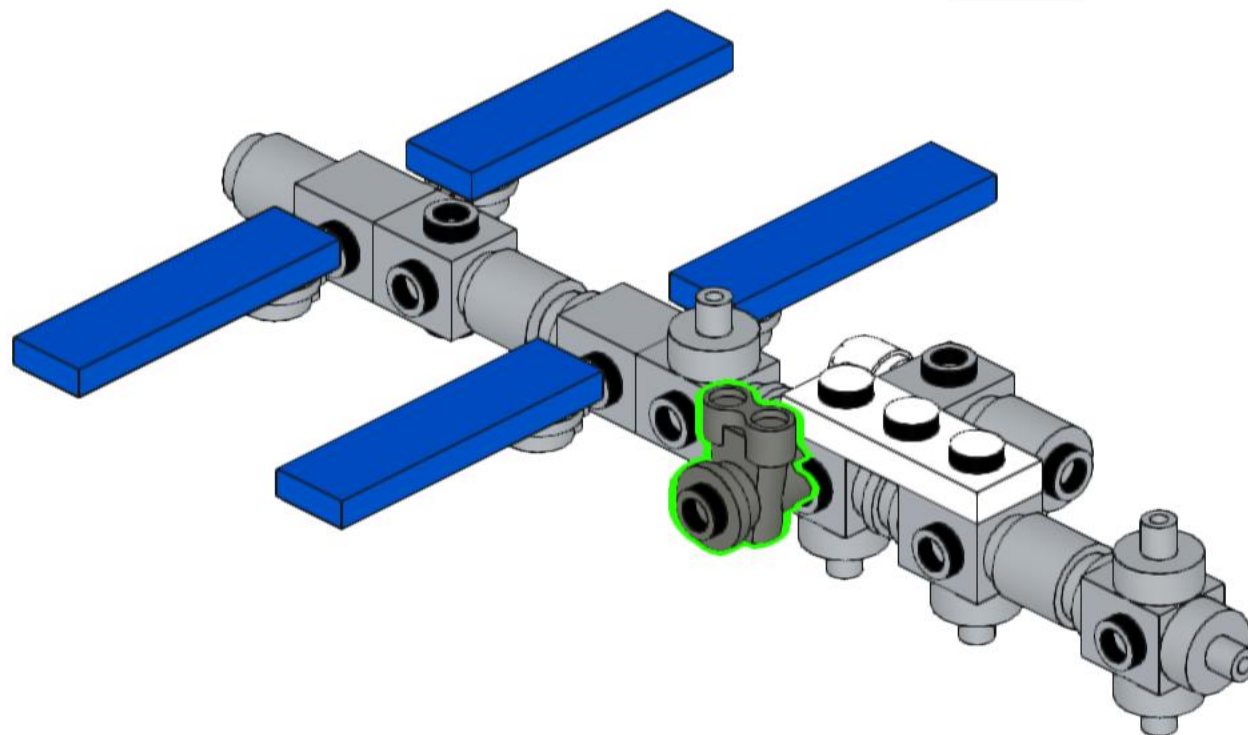
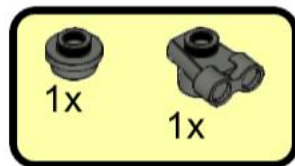
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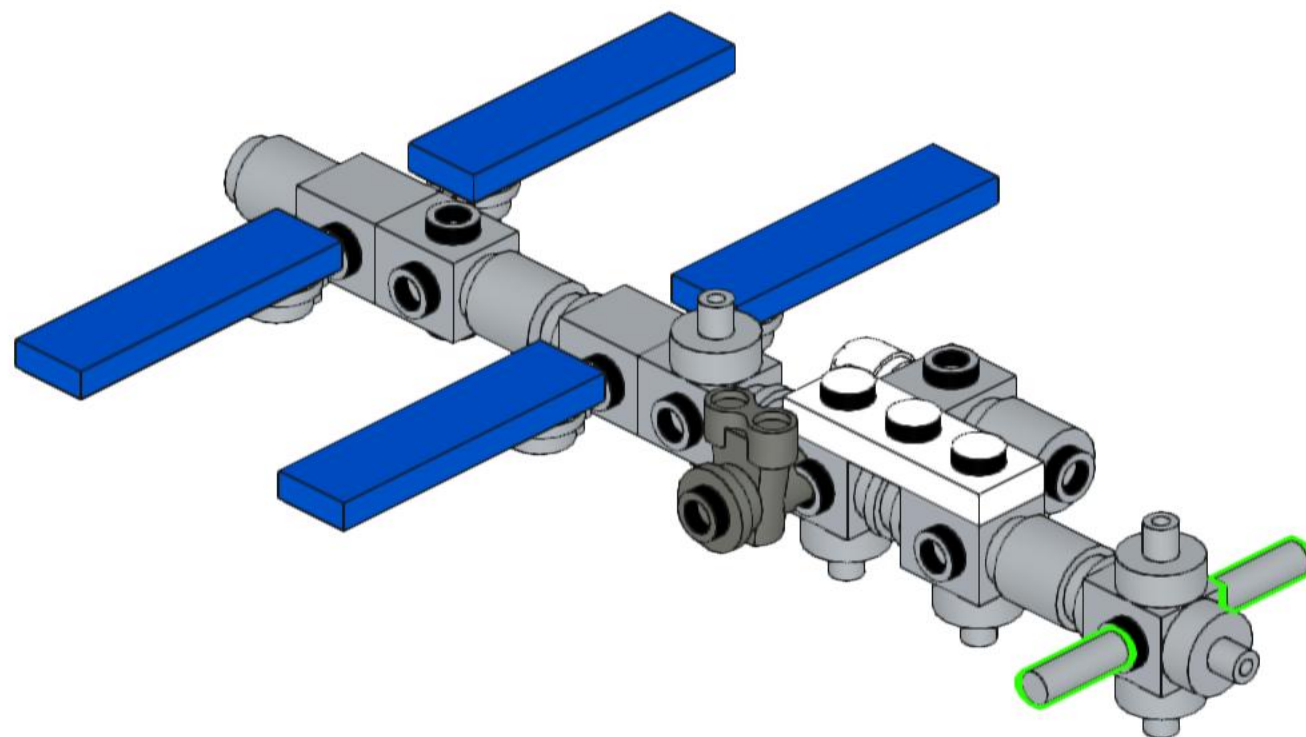
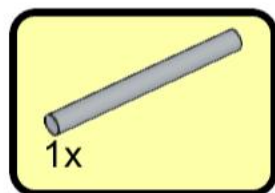
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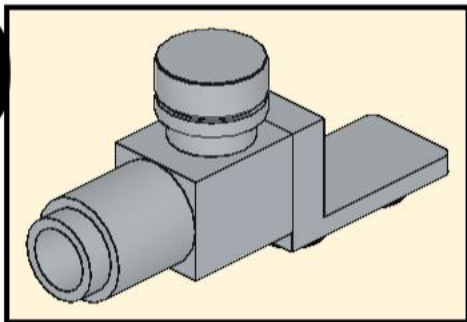
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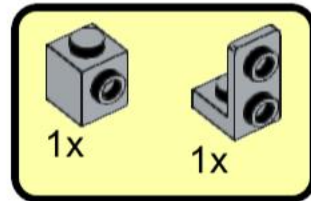
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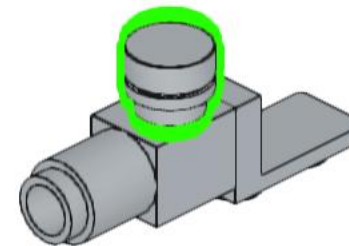
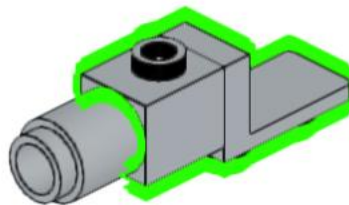
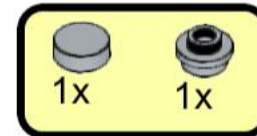
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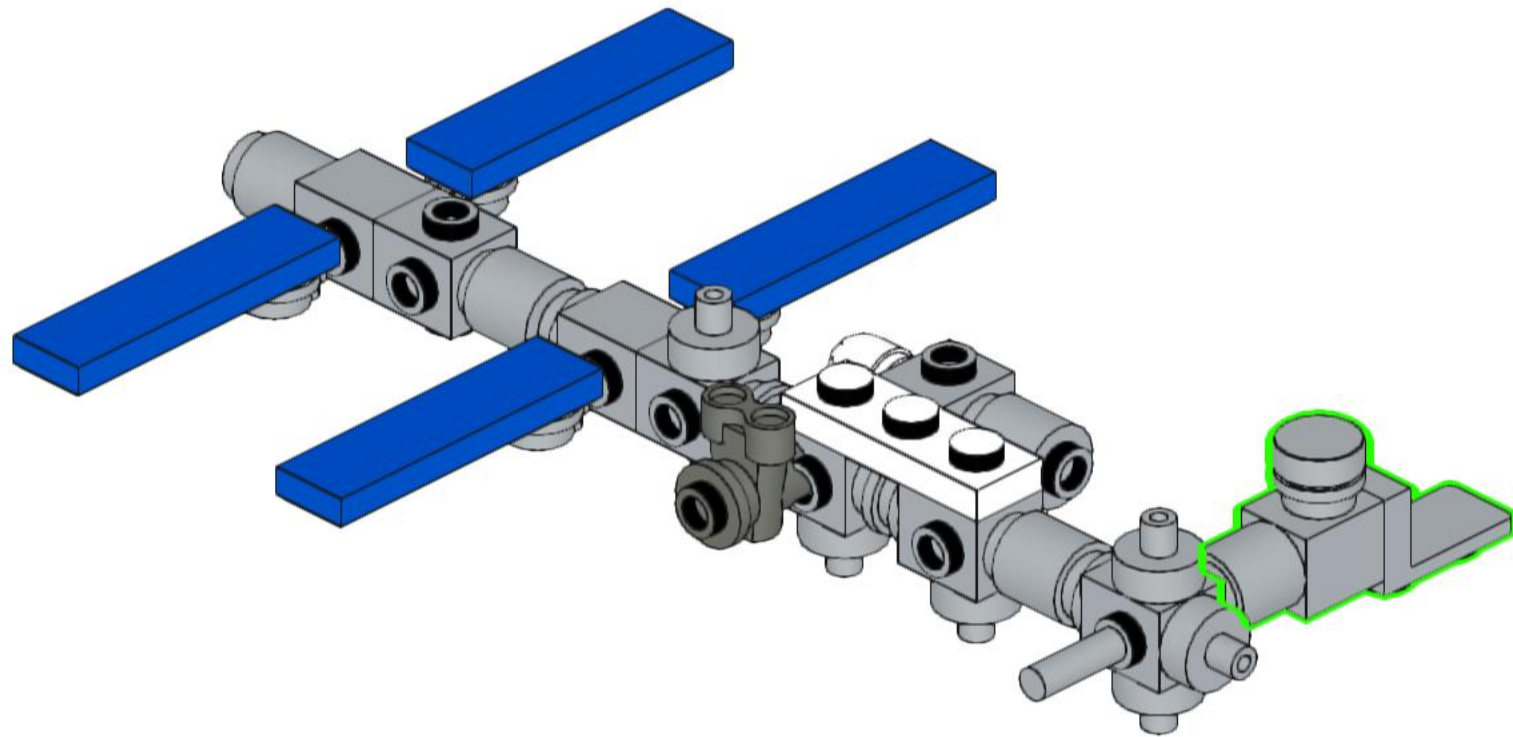
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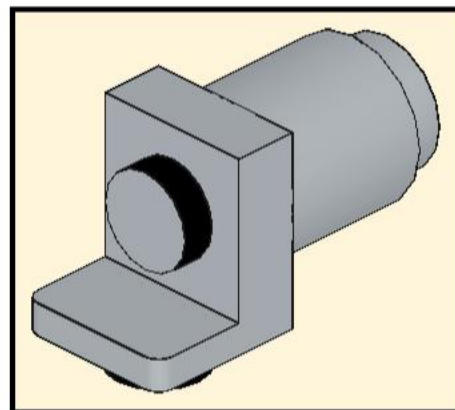
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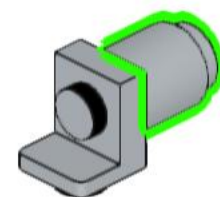
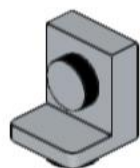
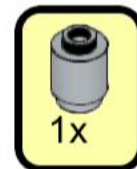
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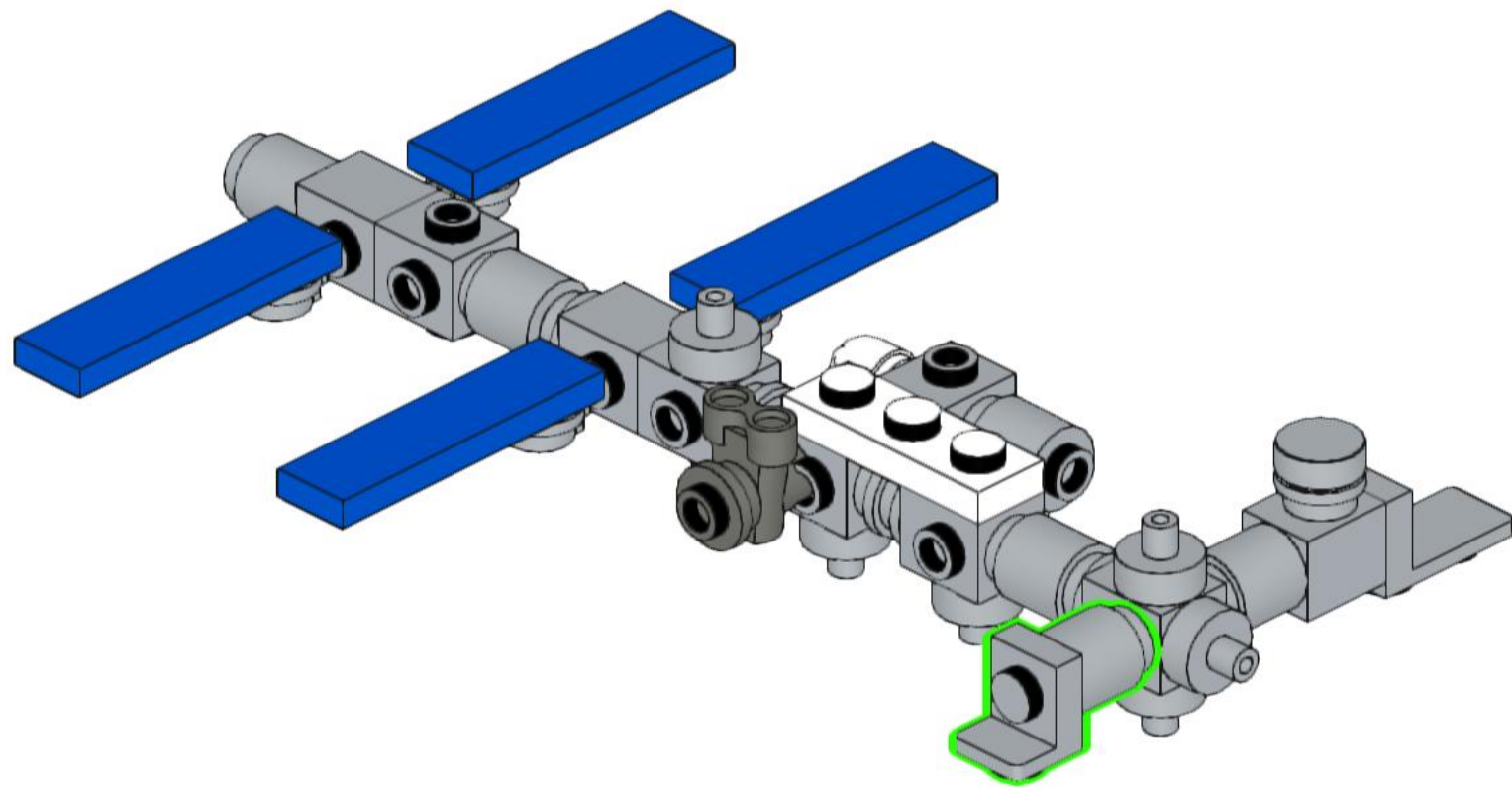
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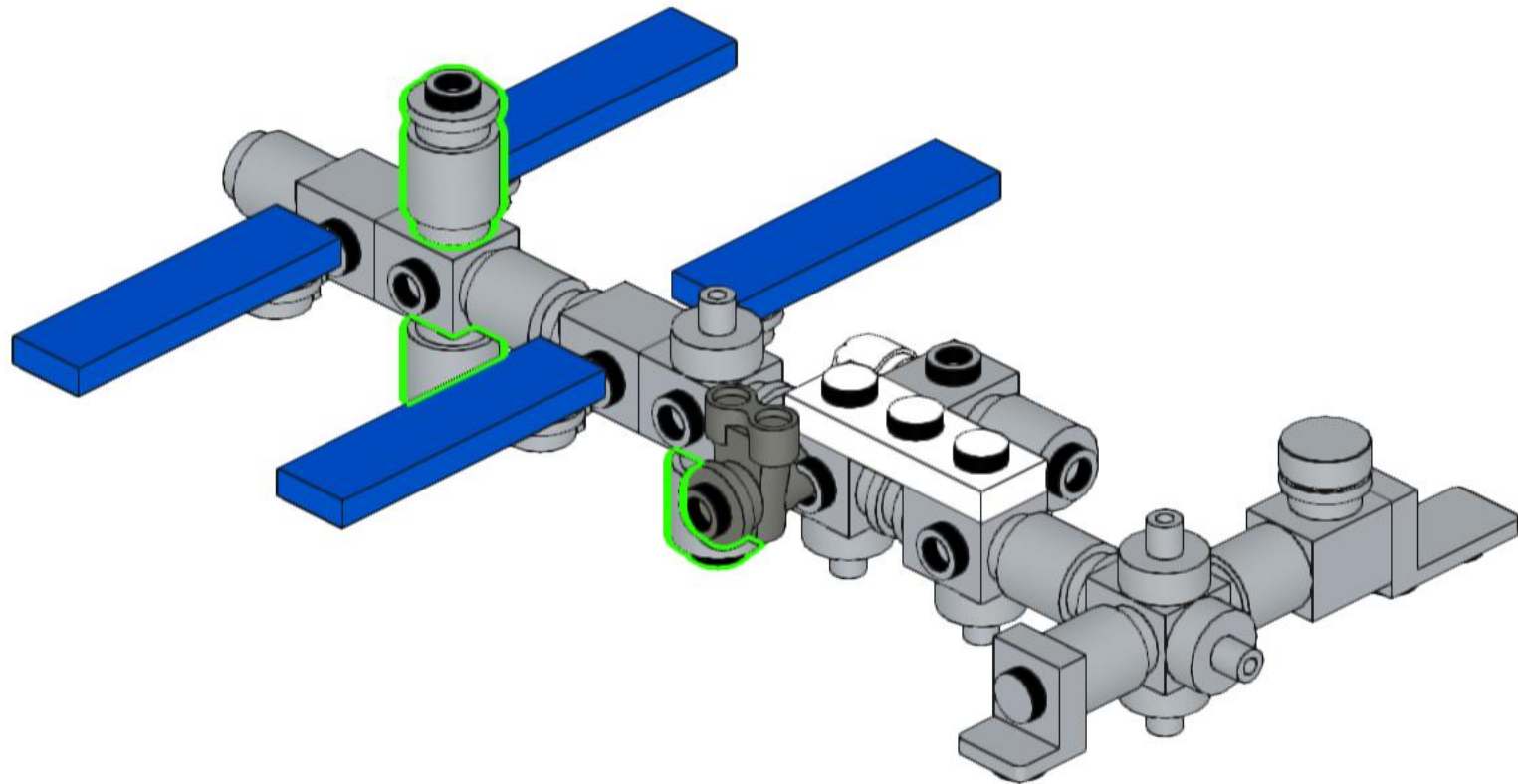
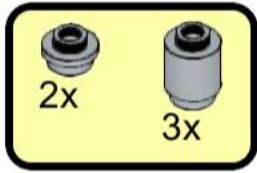
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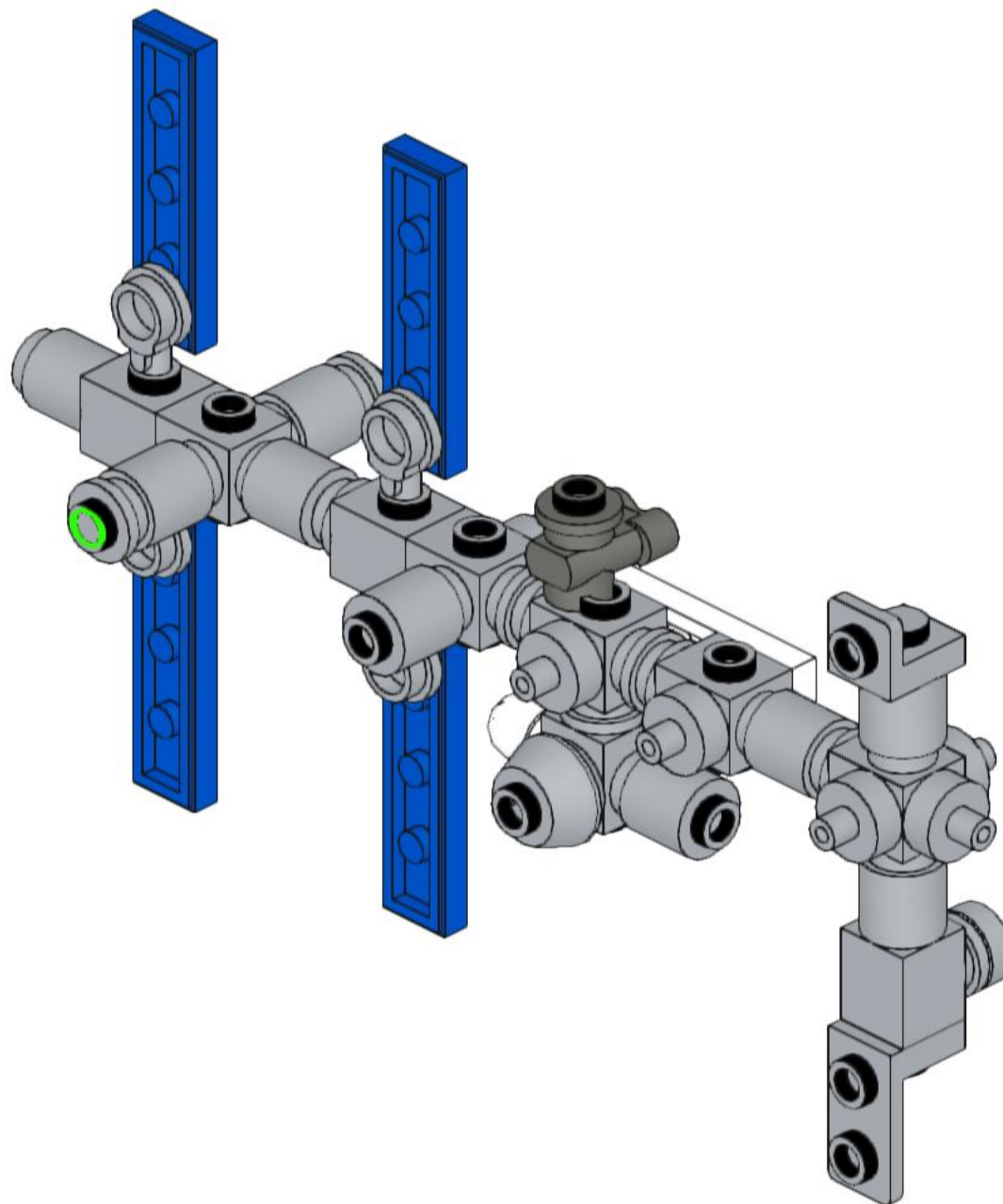
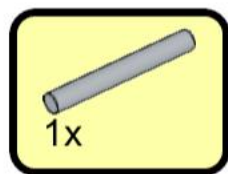
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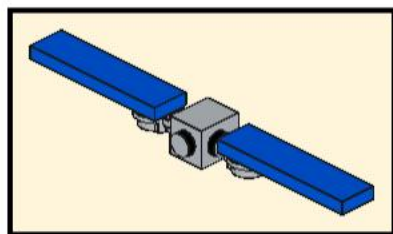
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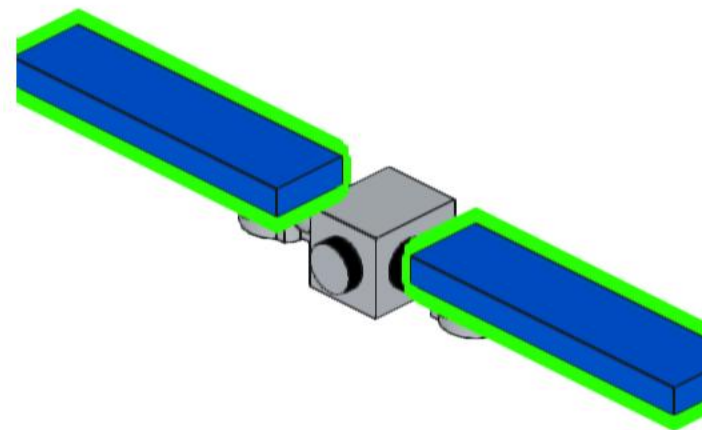
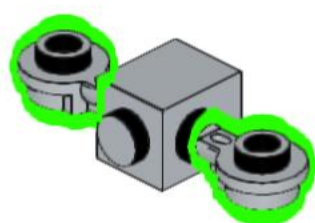
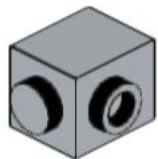
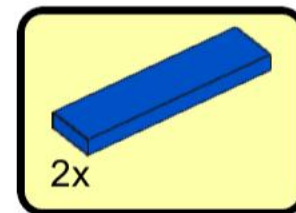
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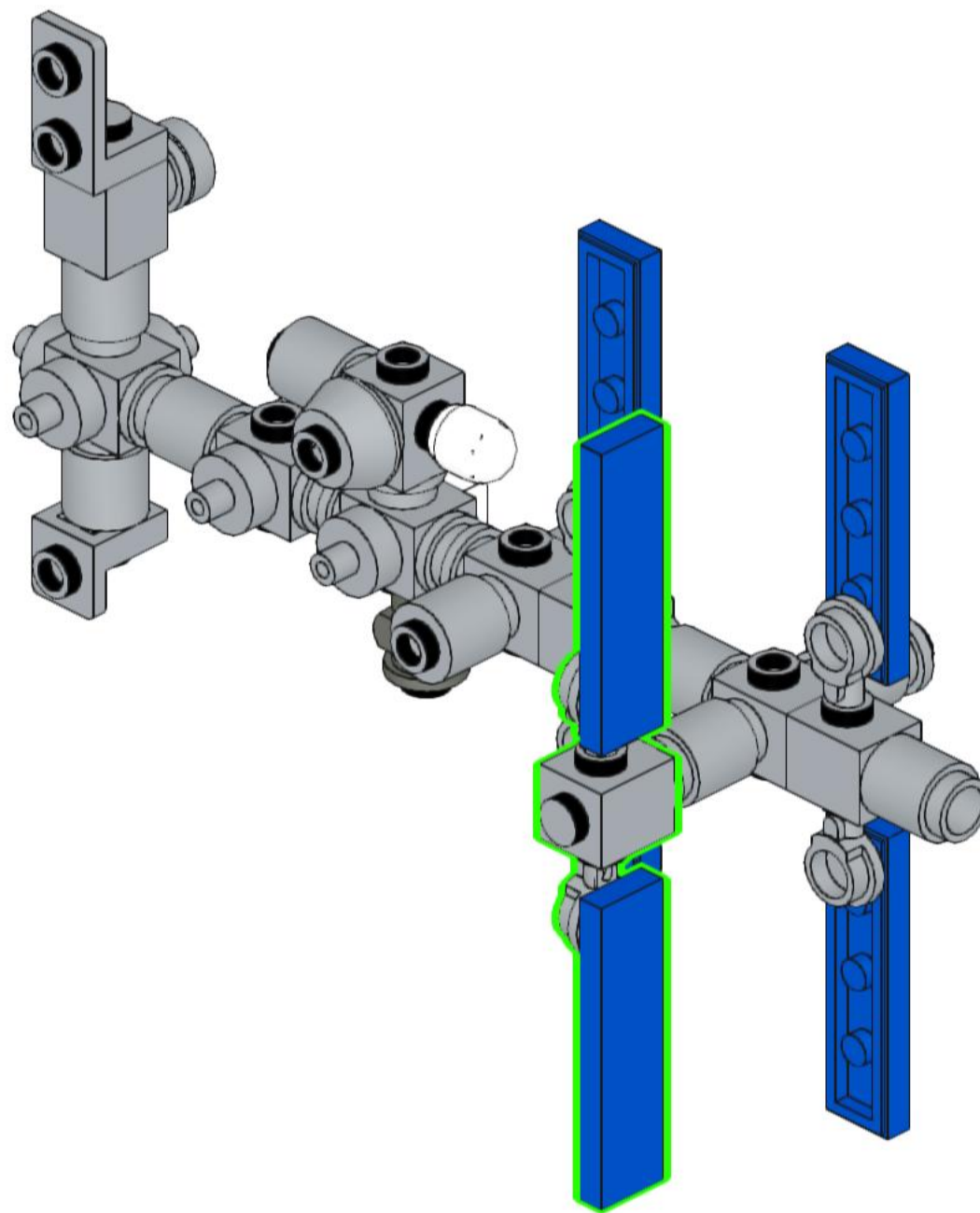
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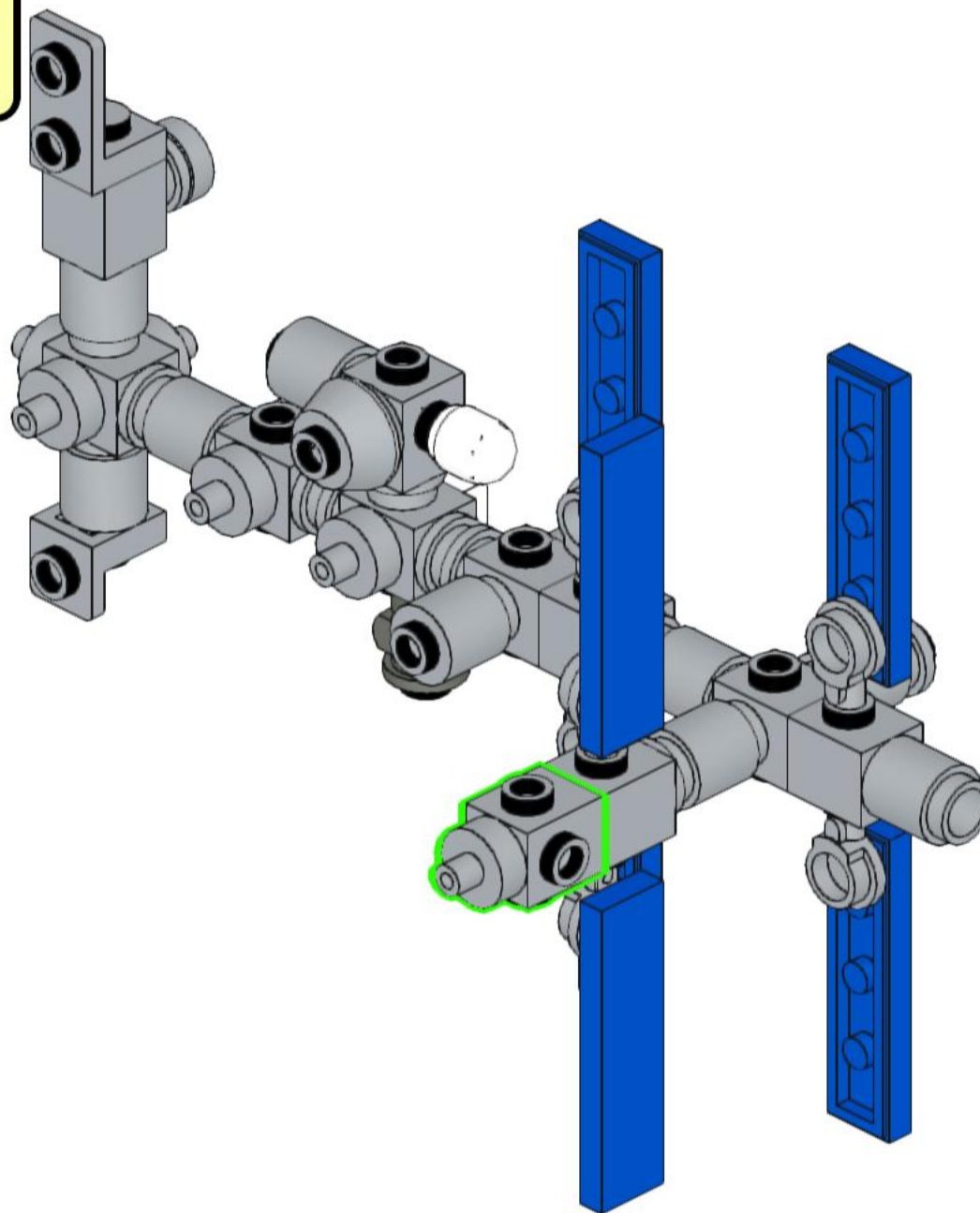
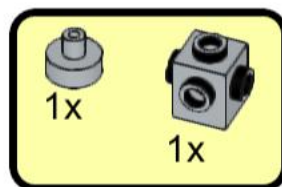
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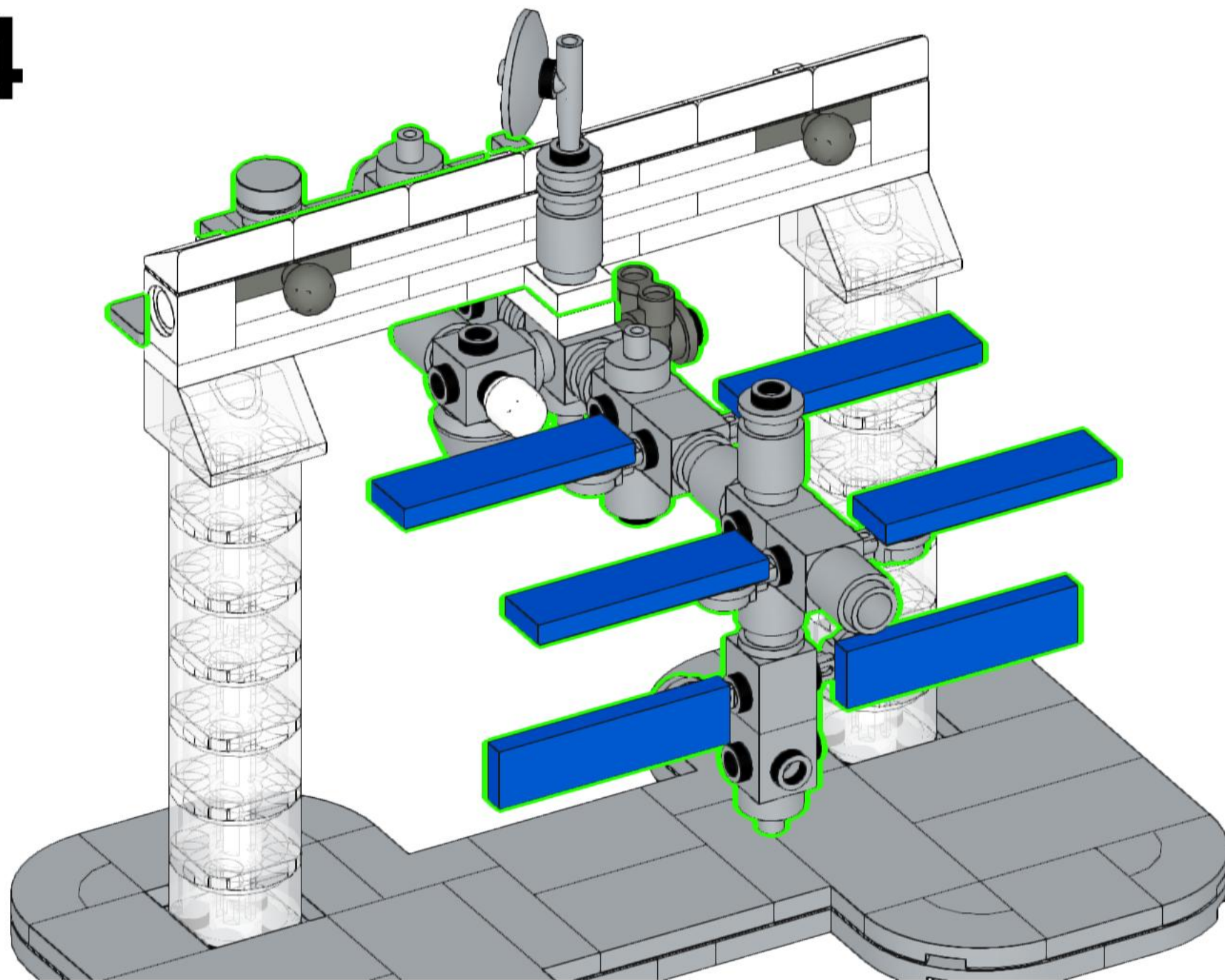
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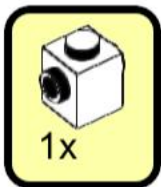
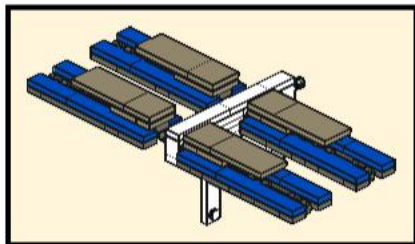
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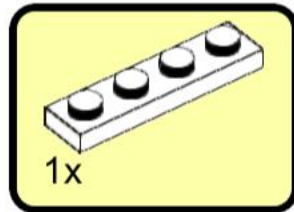
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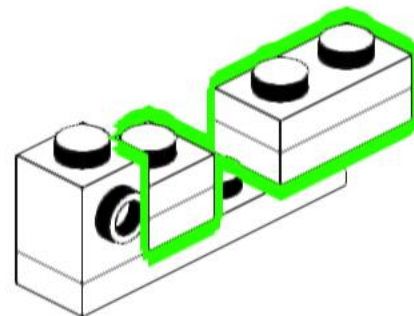
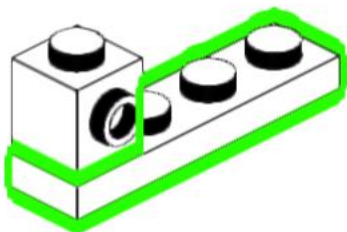
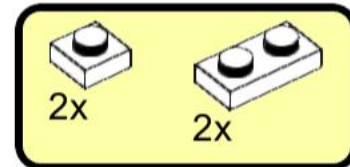
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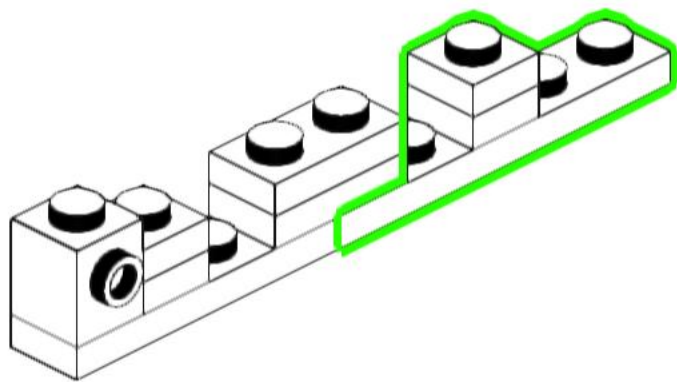
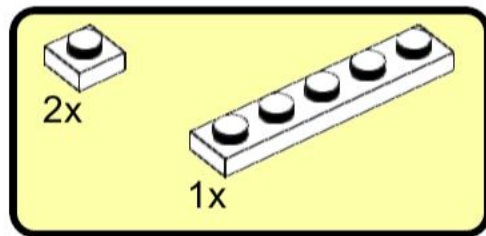
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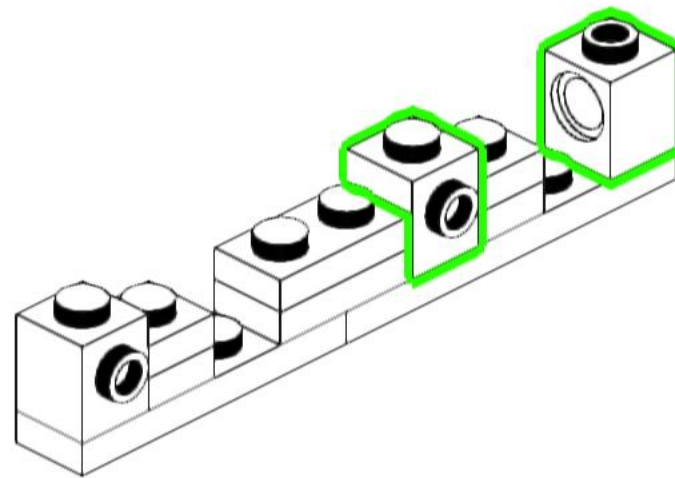
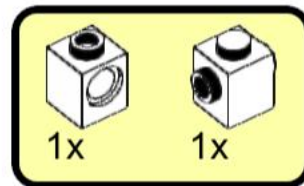
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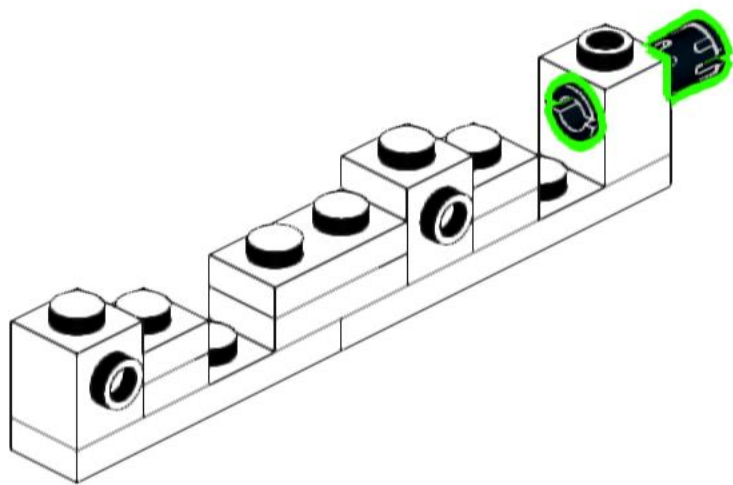
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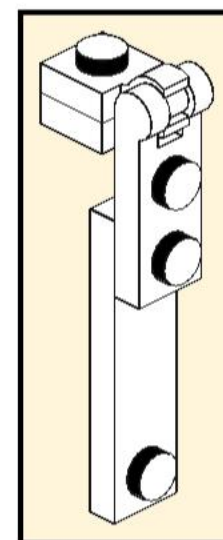
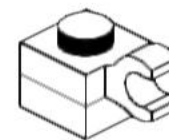
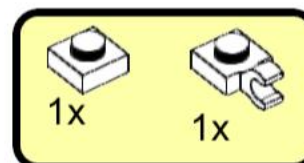
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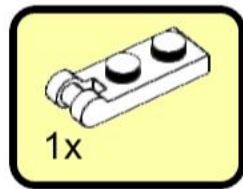


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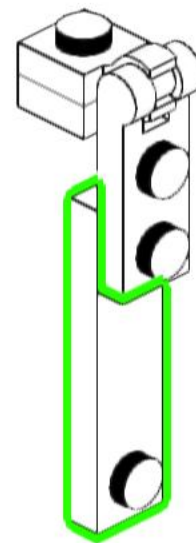
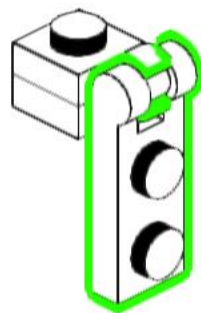
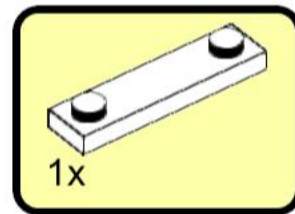


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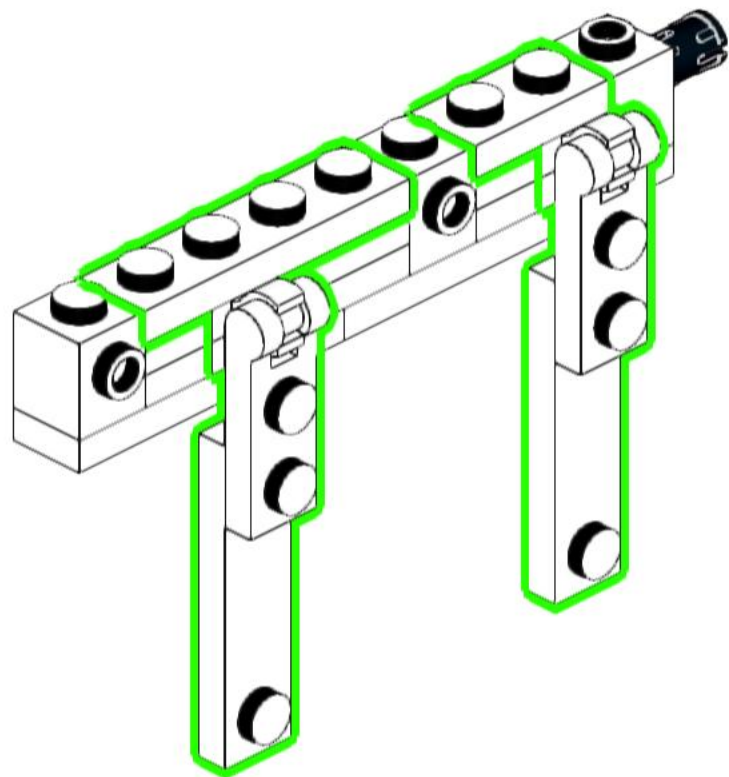
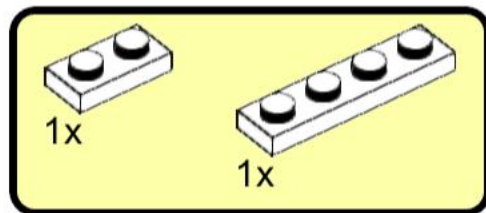
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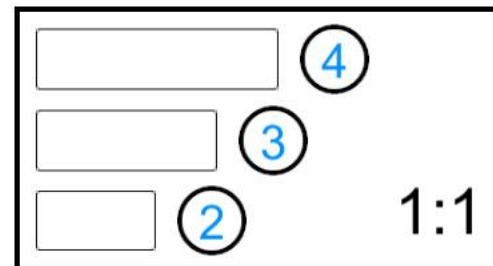
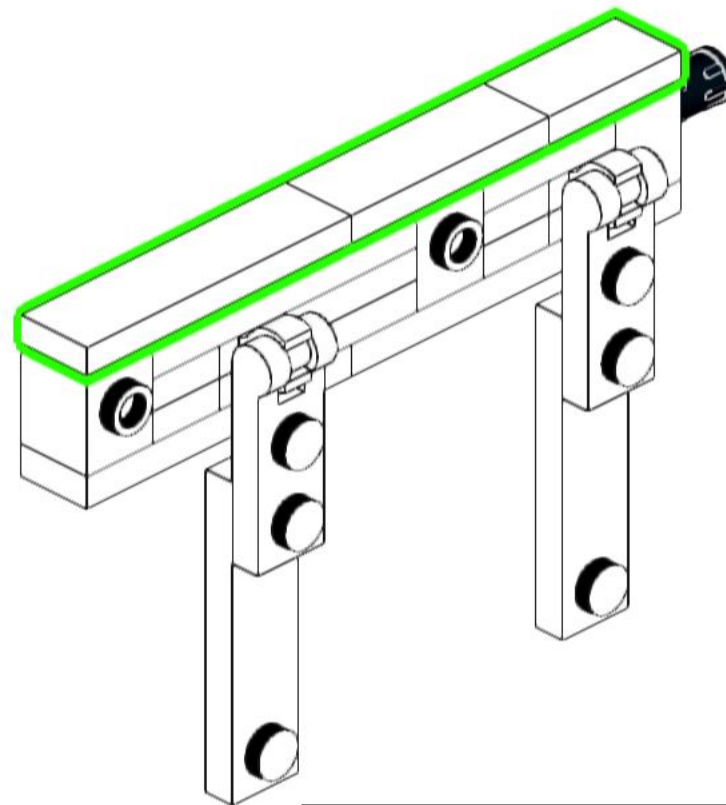
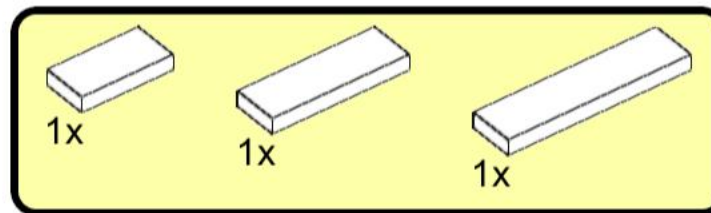
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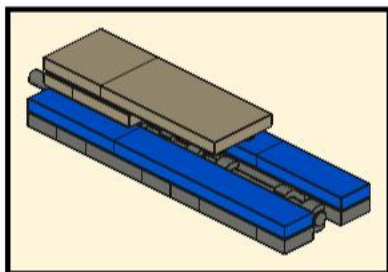


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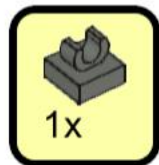
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4x



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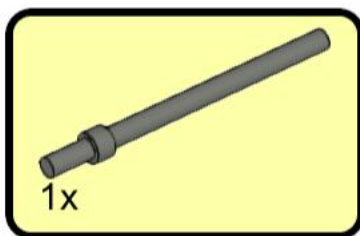
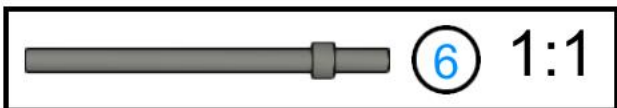
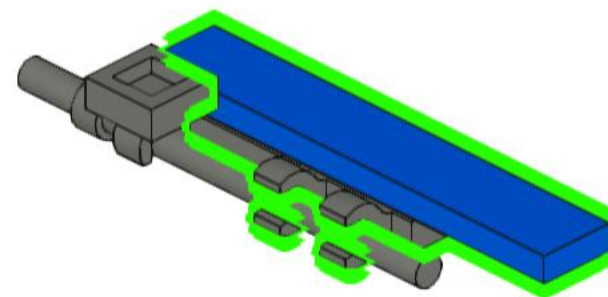
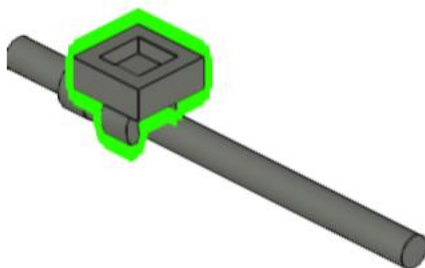
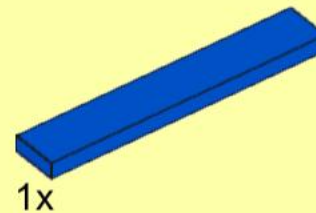
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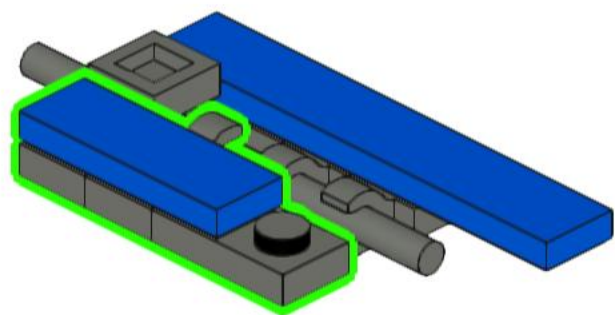
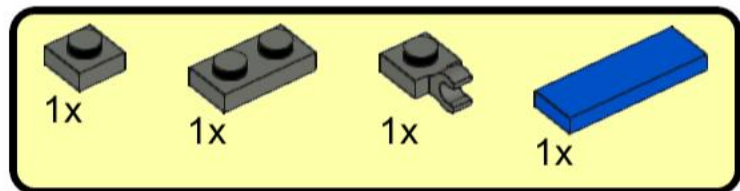
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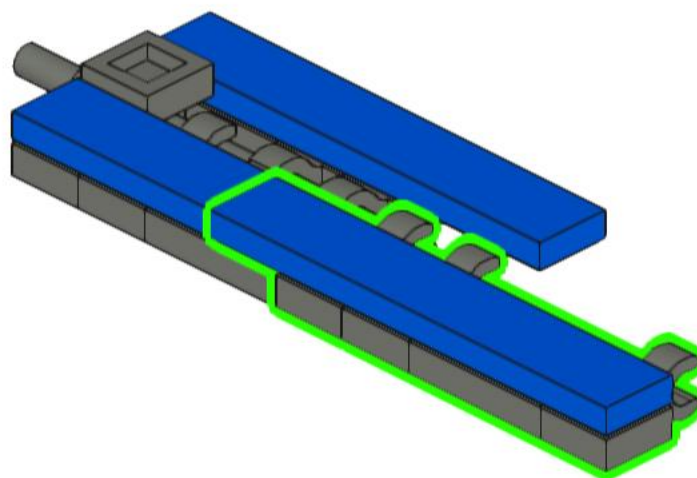
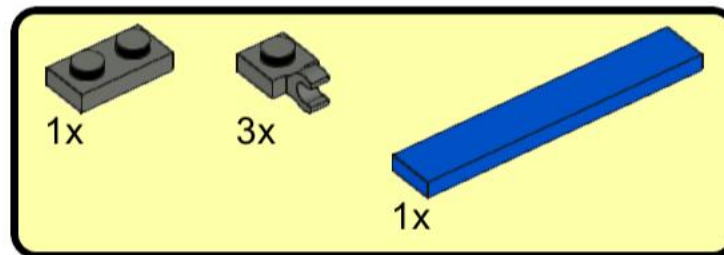
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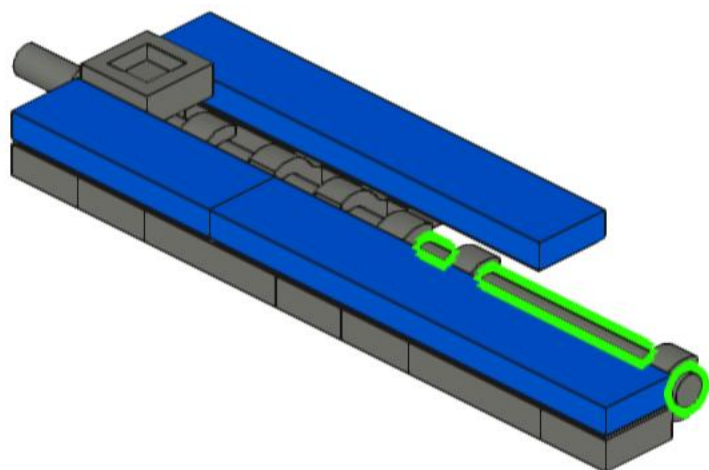
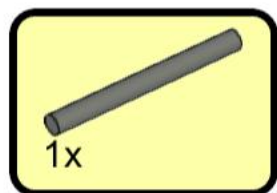
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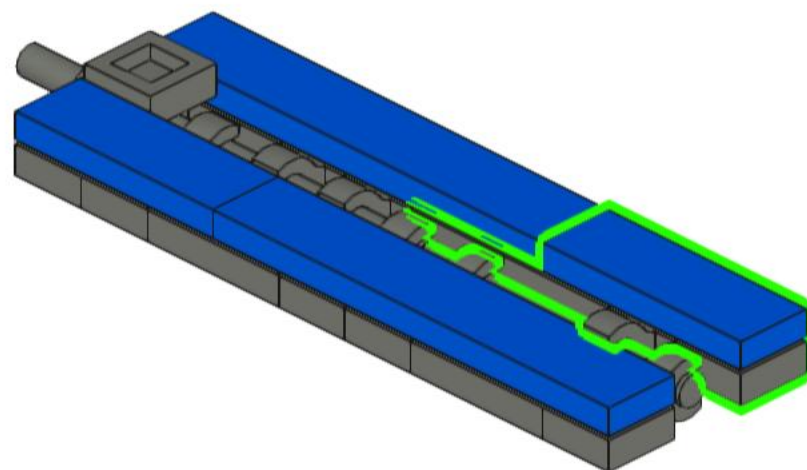
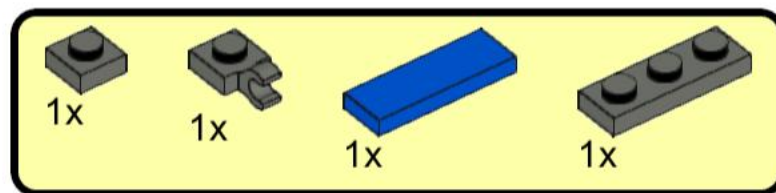
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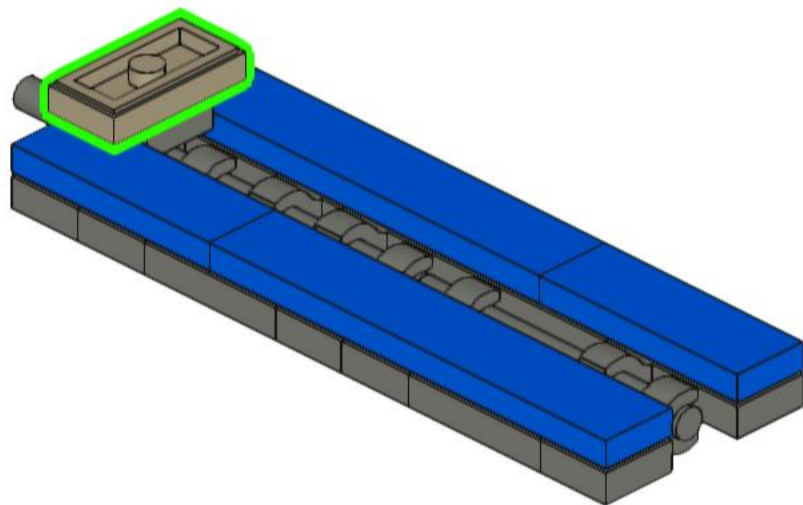
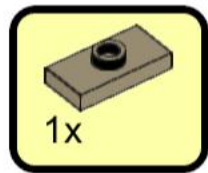
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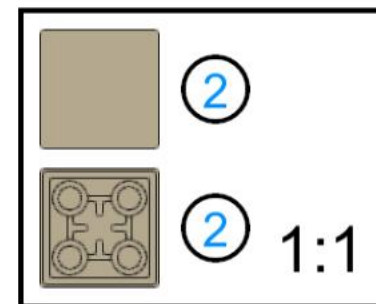
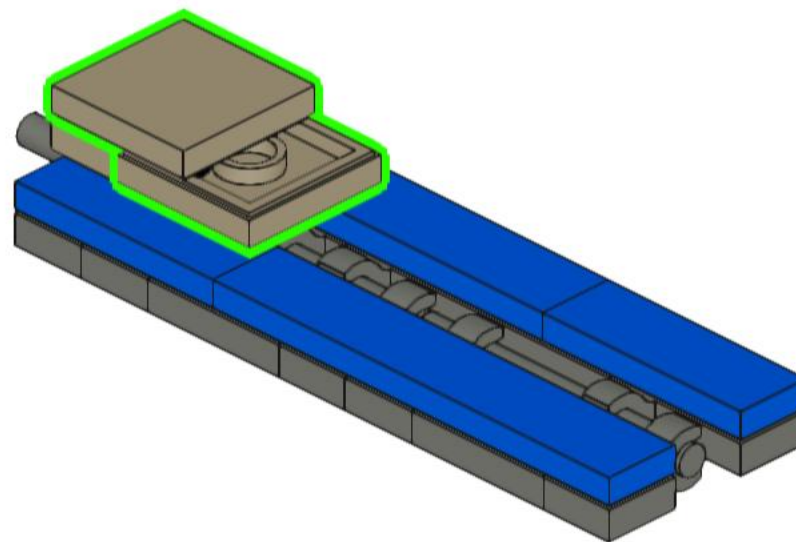
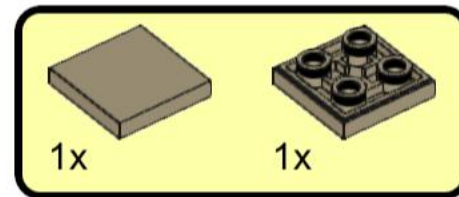
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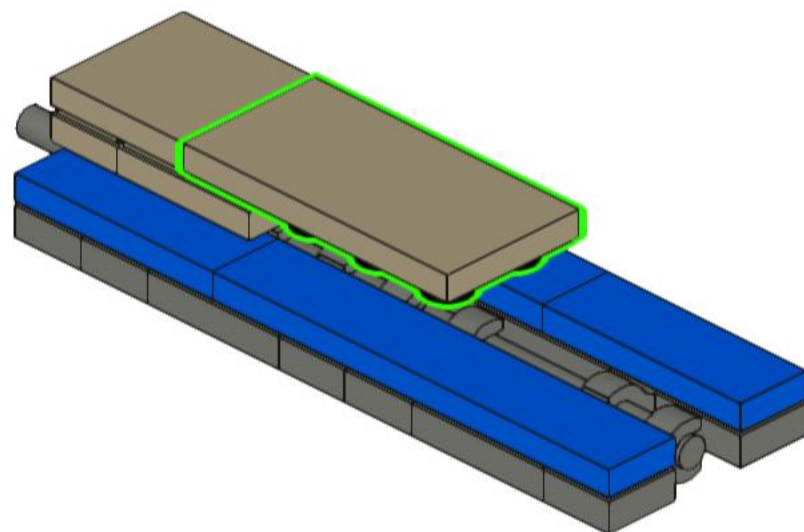
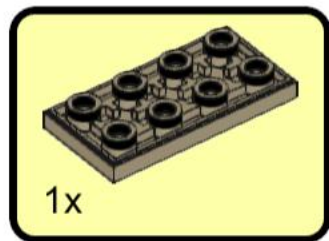
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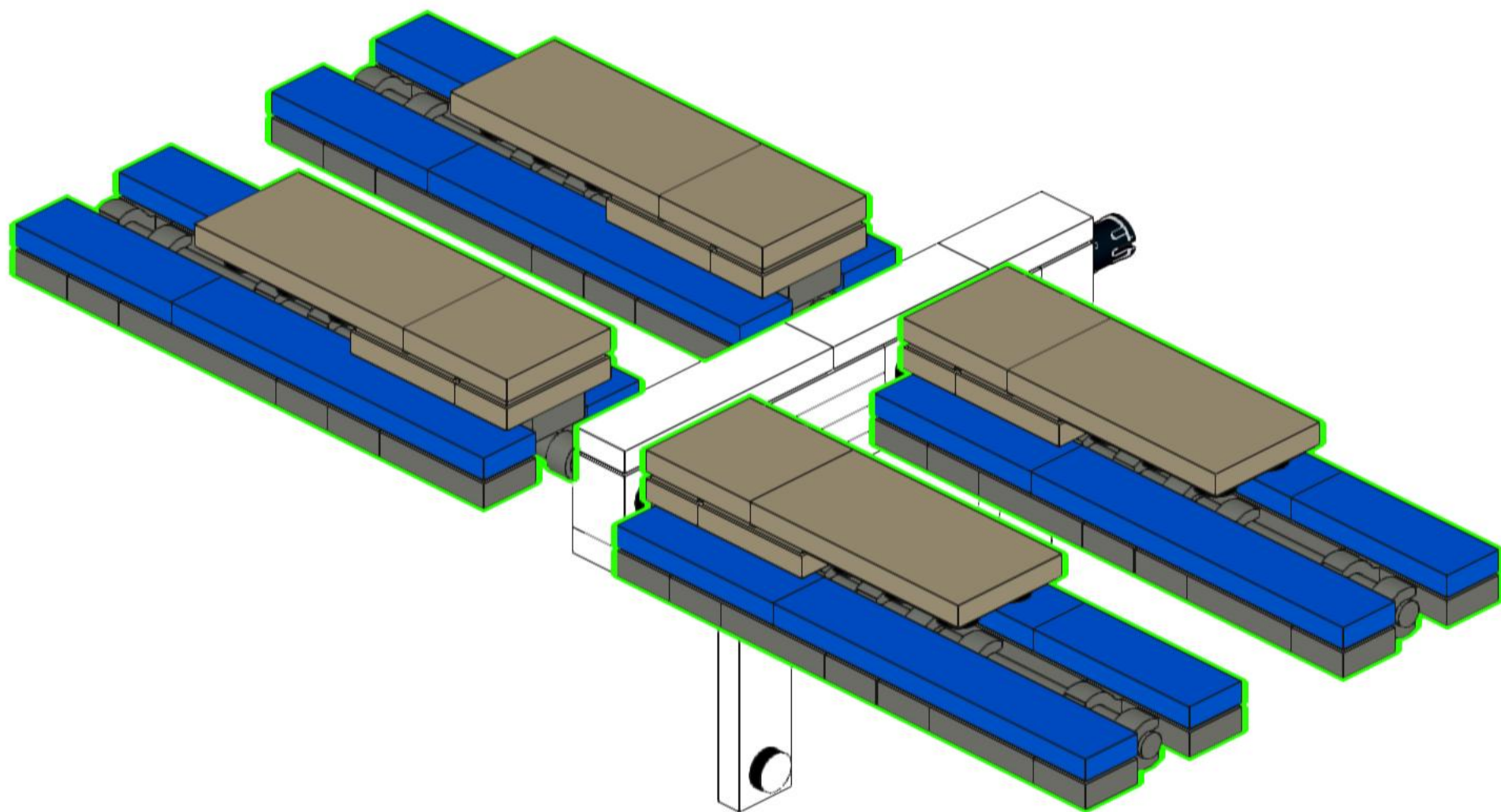
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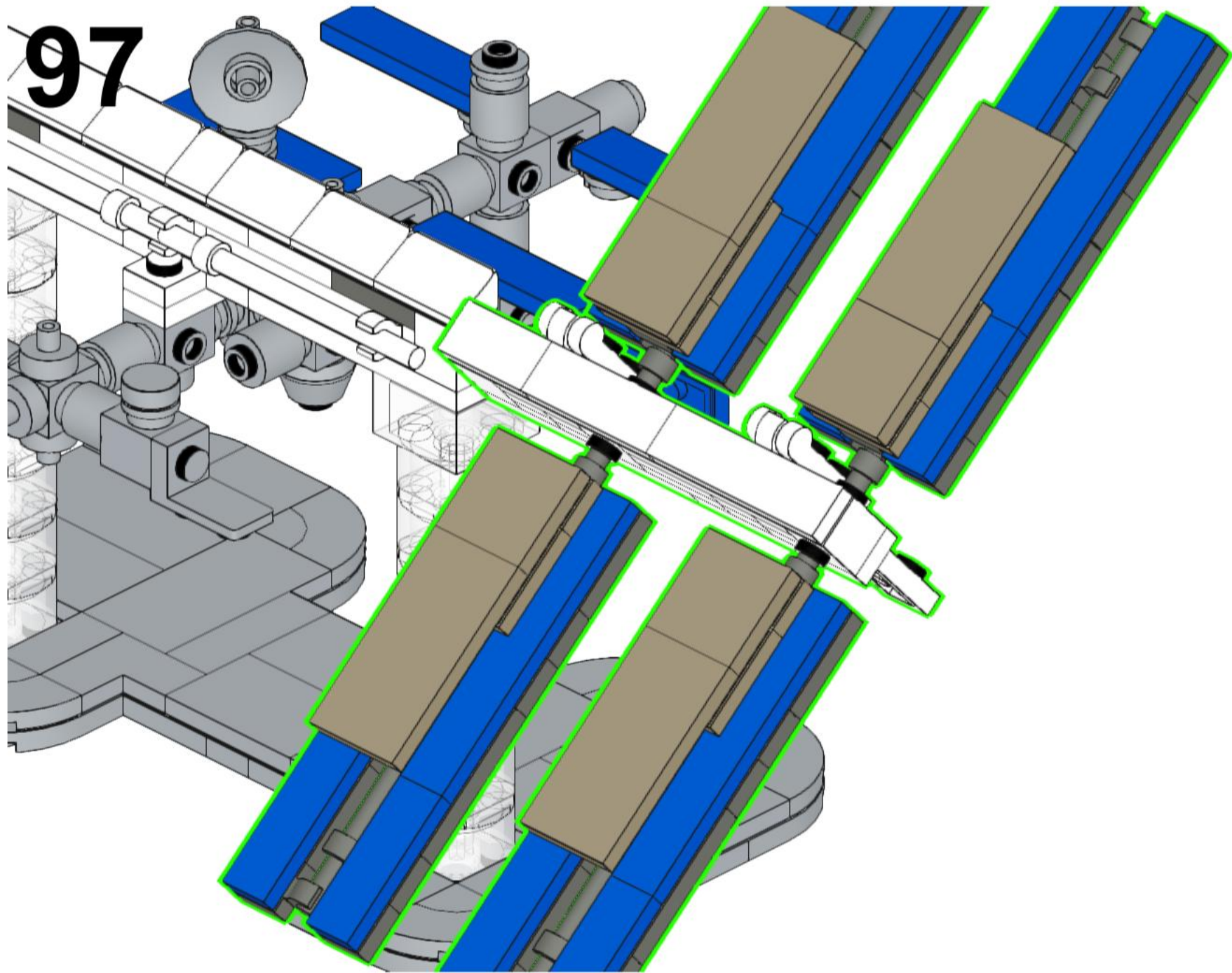
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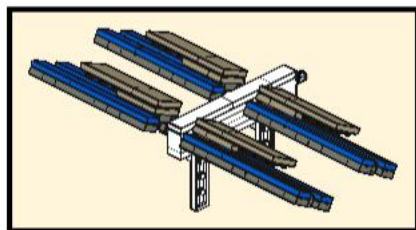
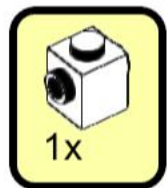
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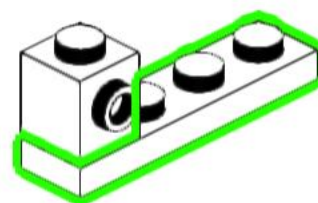
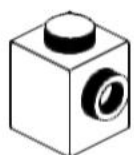
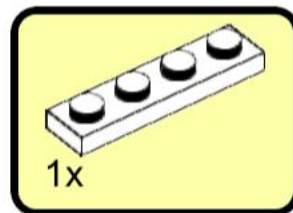
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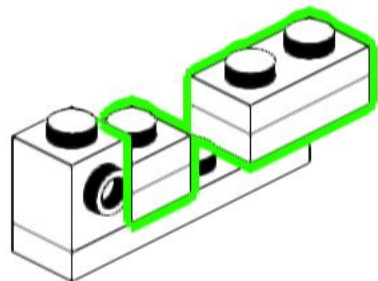
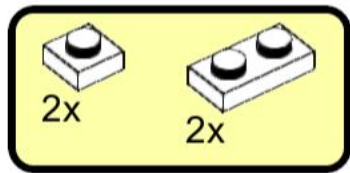
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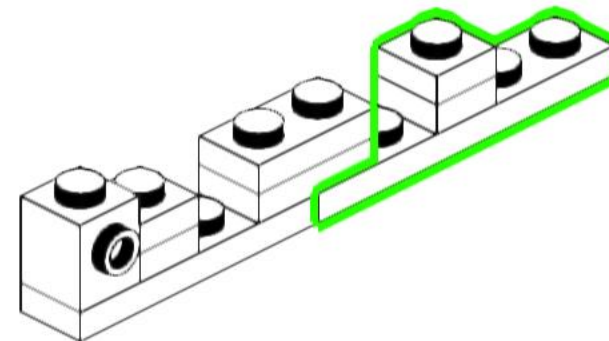
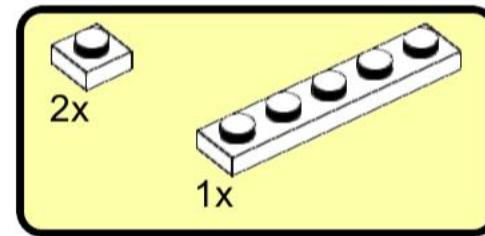
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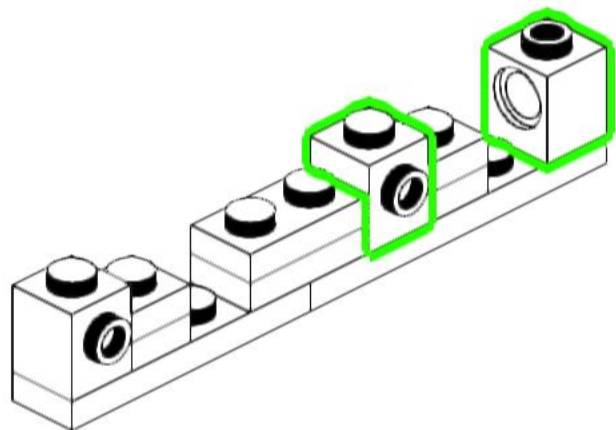
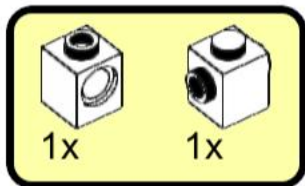
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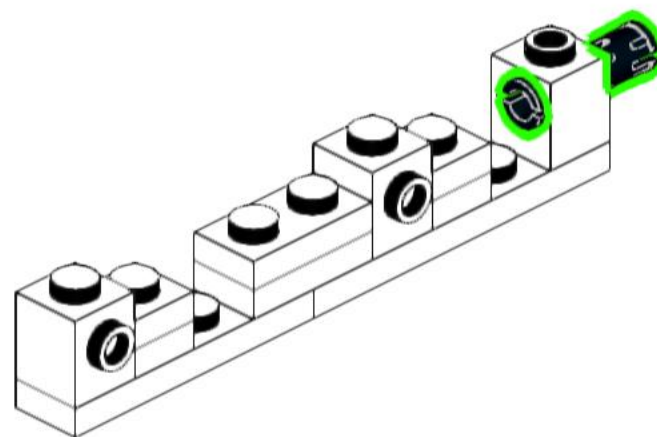
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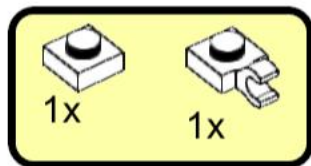
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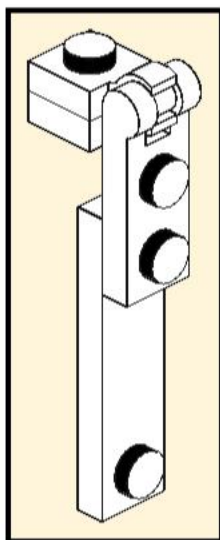
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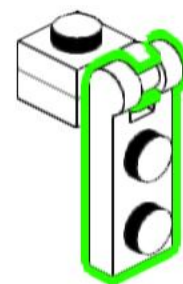
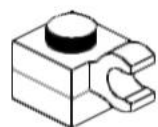
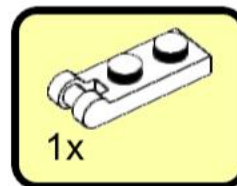
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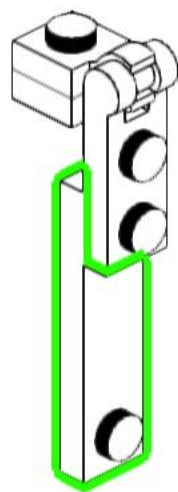
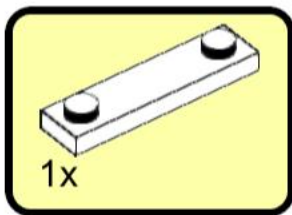
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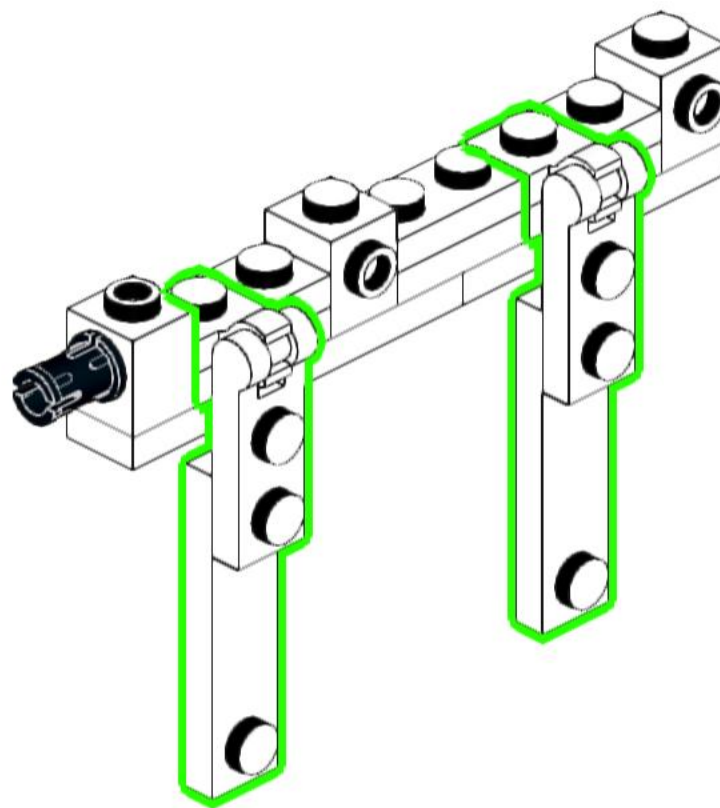
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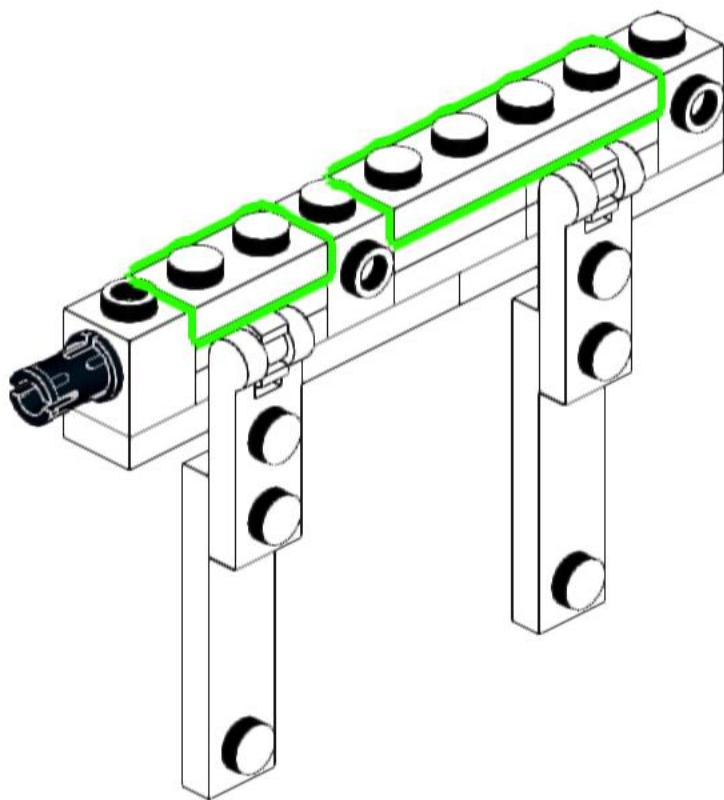
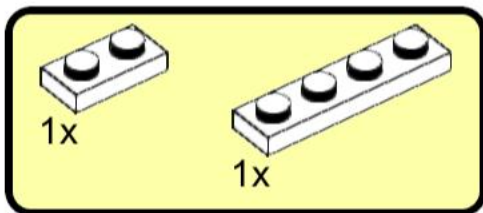
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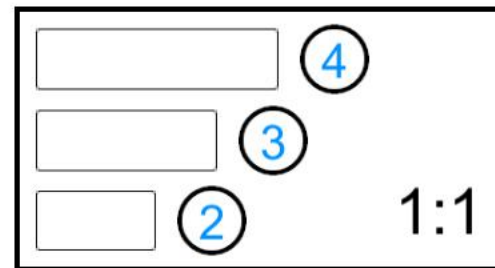
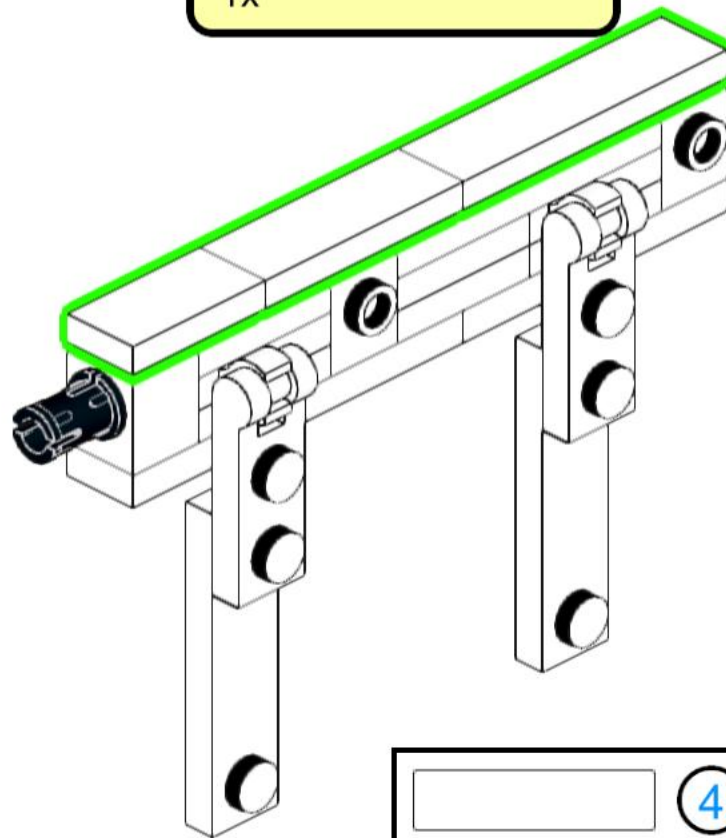
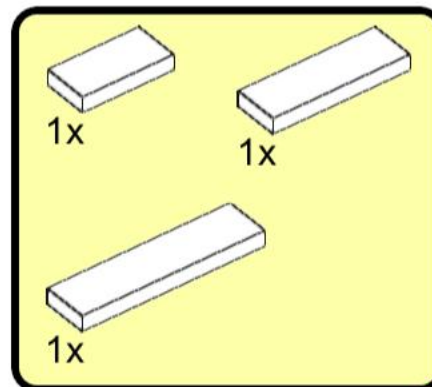
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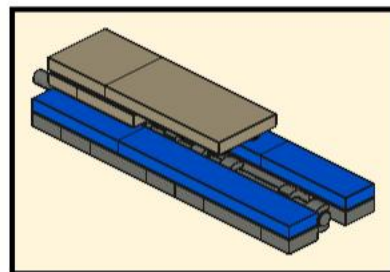
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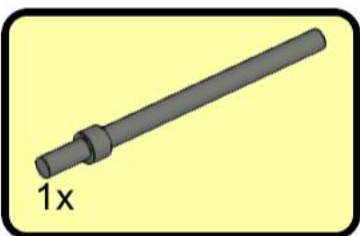
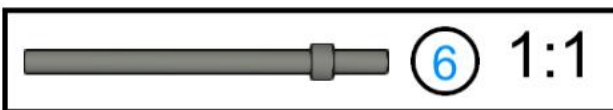
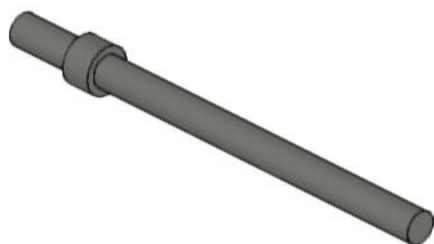
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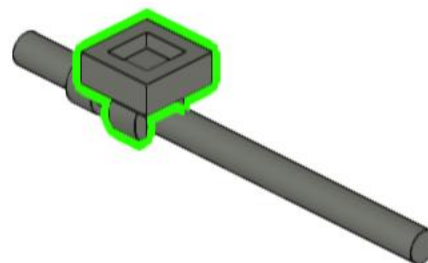
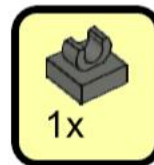
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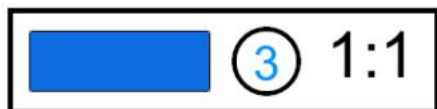
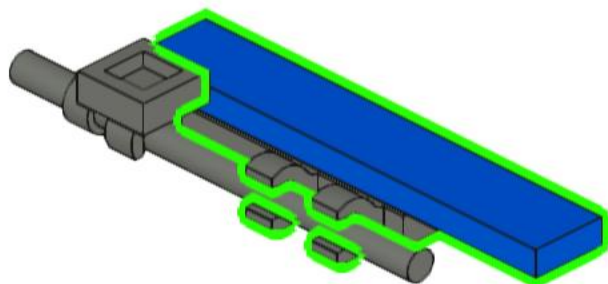
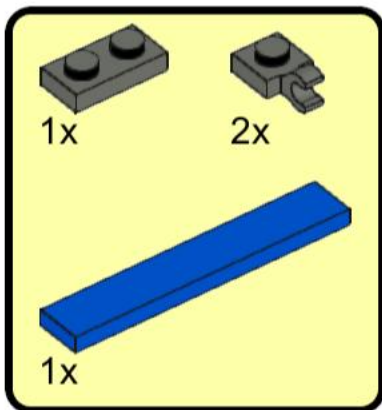
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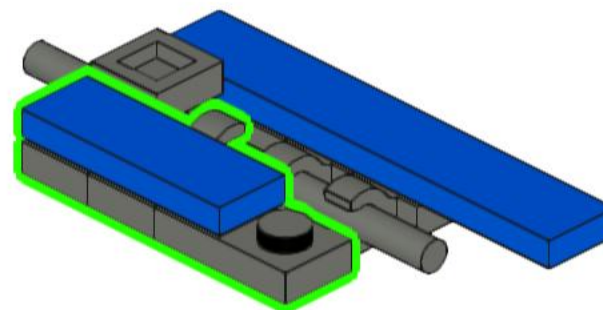
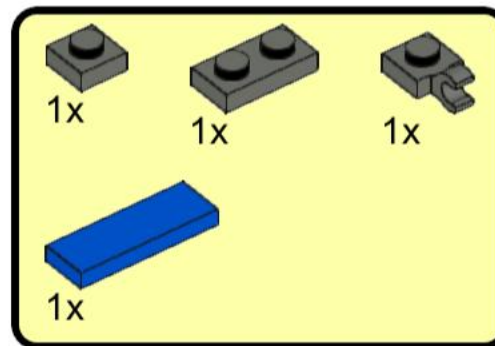
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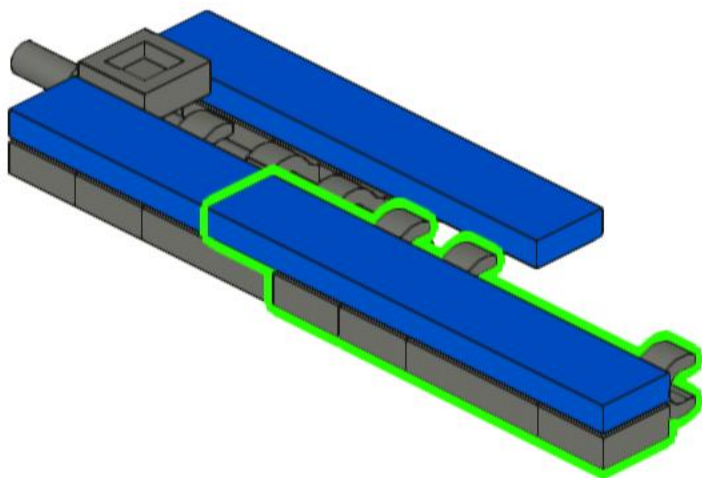
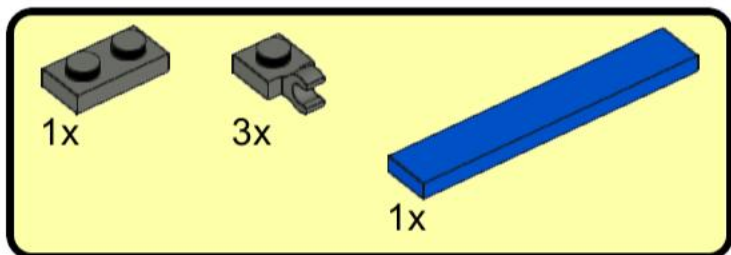
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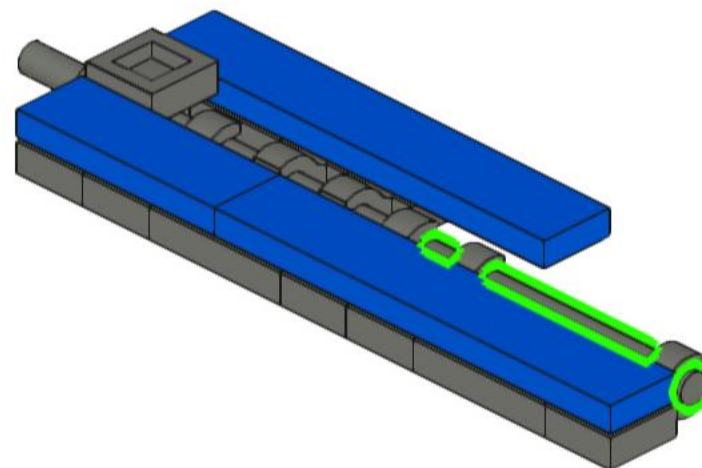
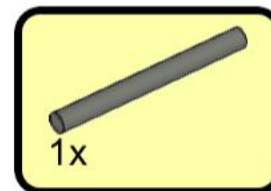
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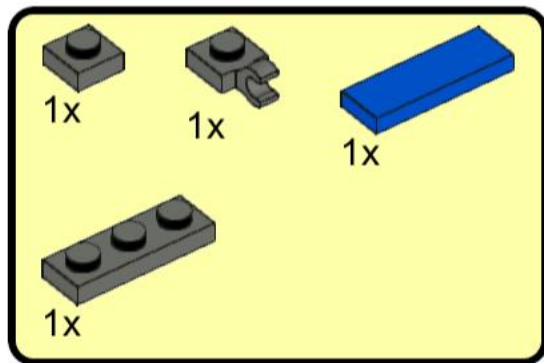
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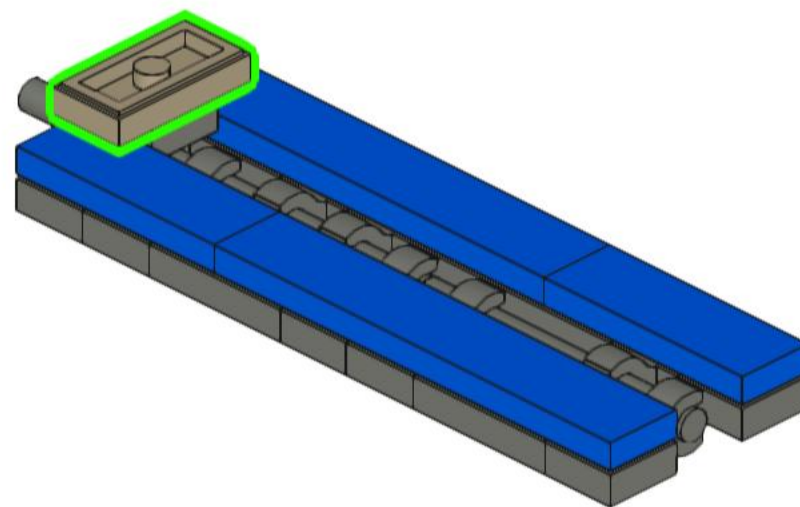
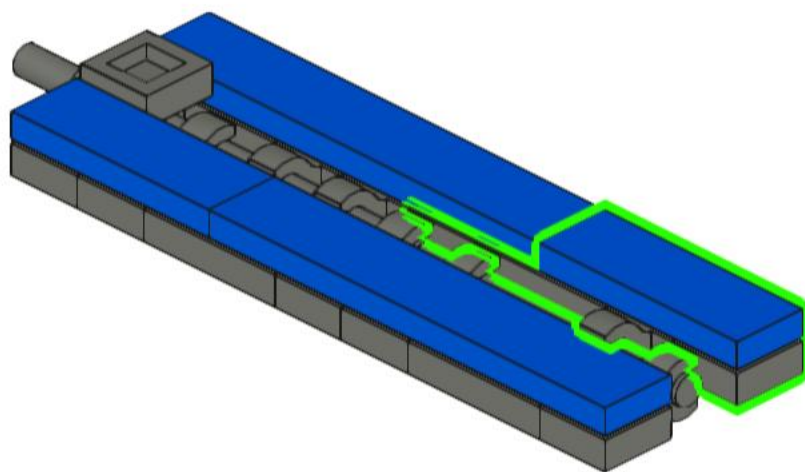
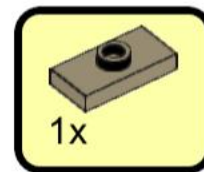
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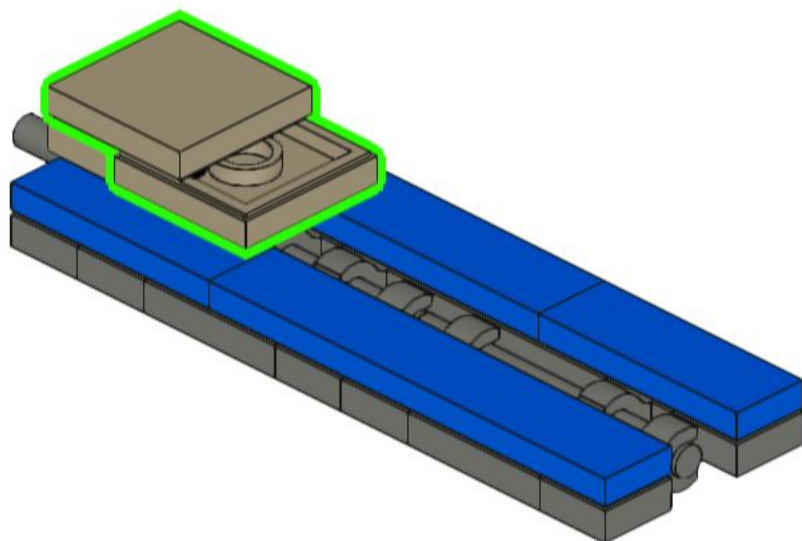
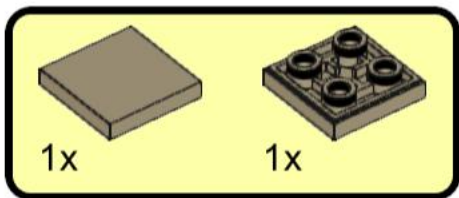
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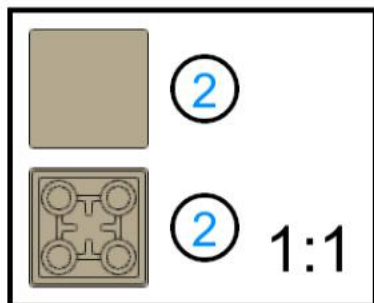
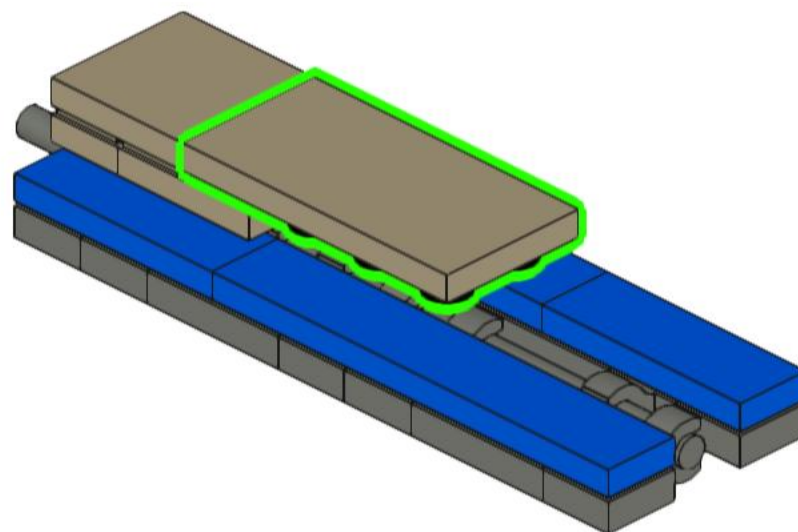
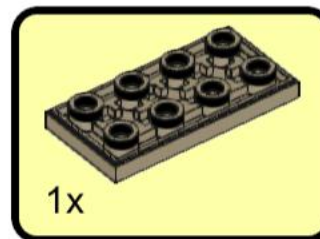
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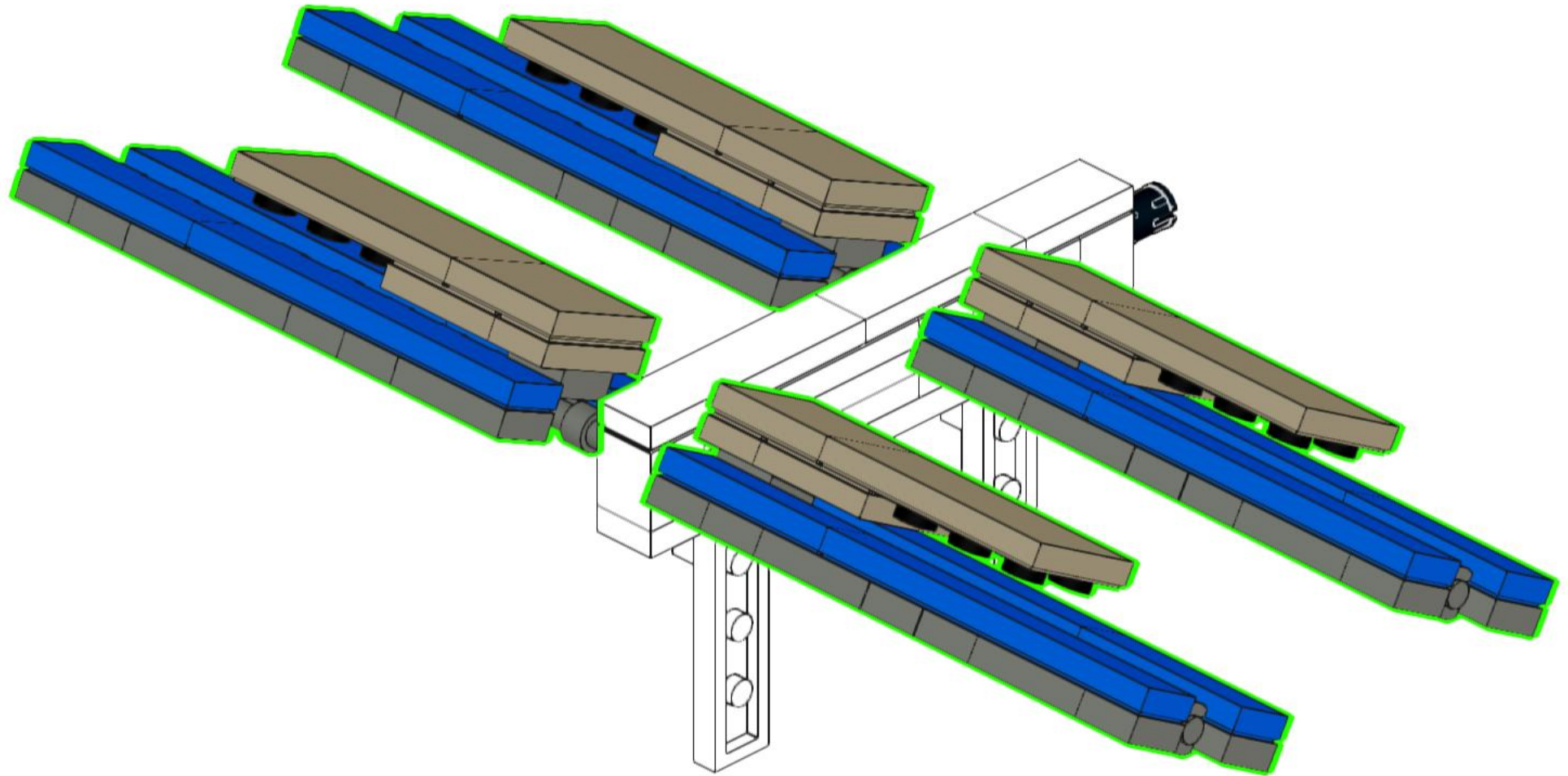
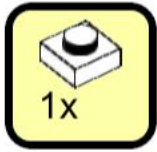
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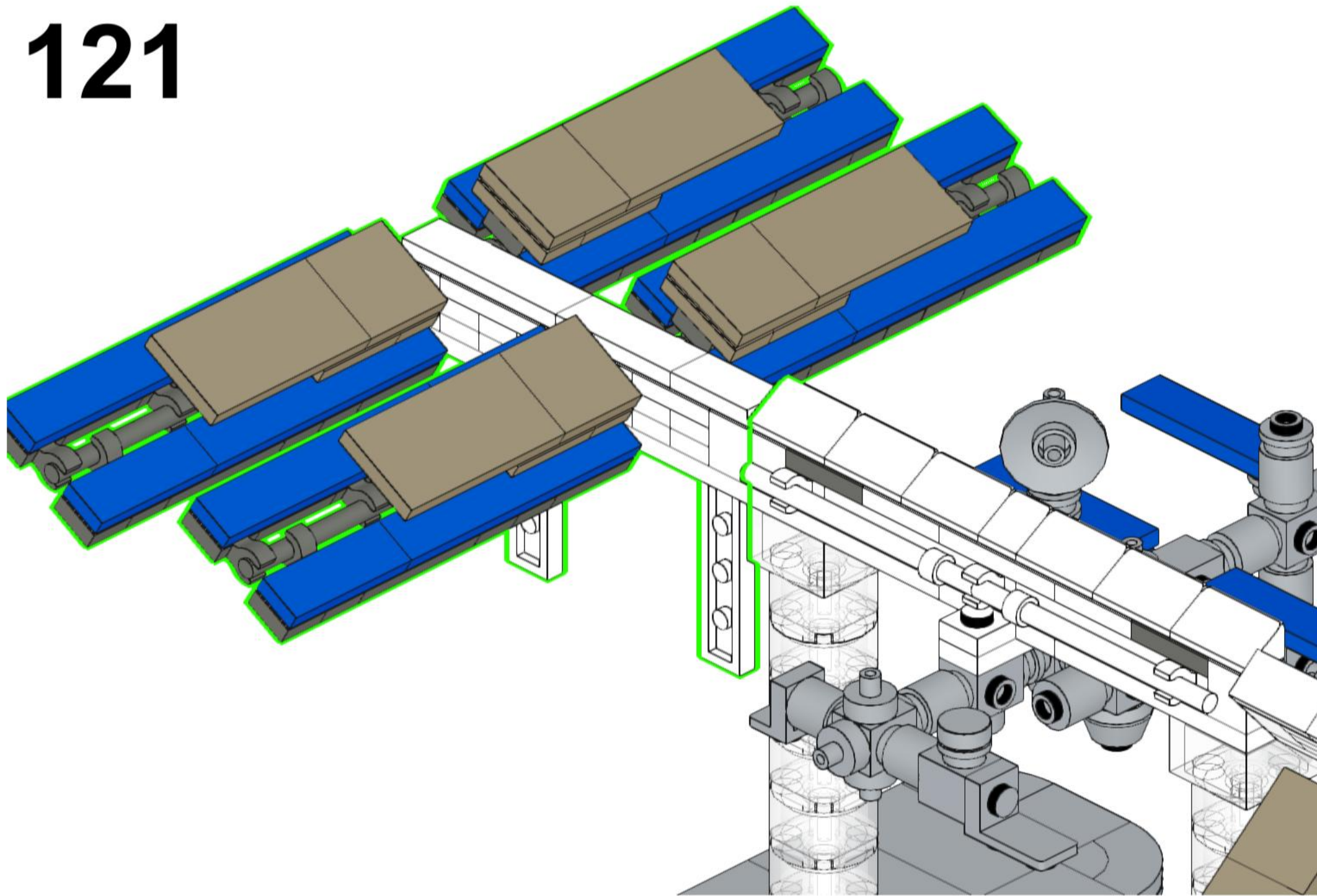
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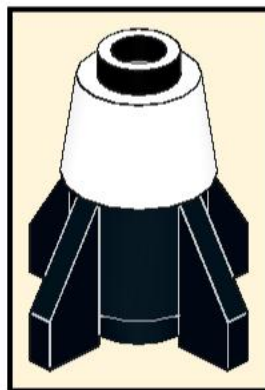
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121



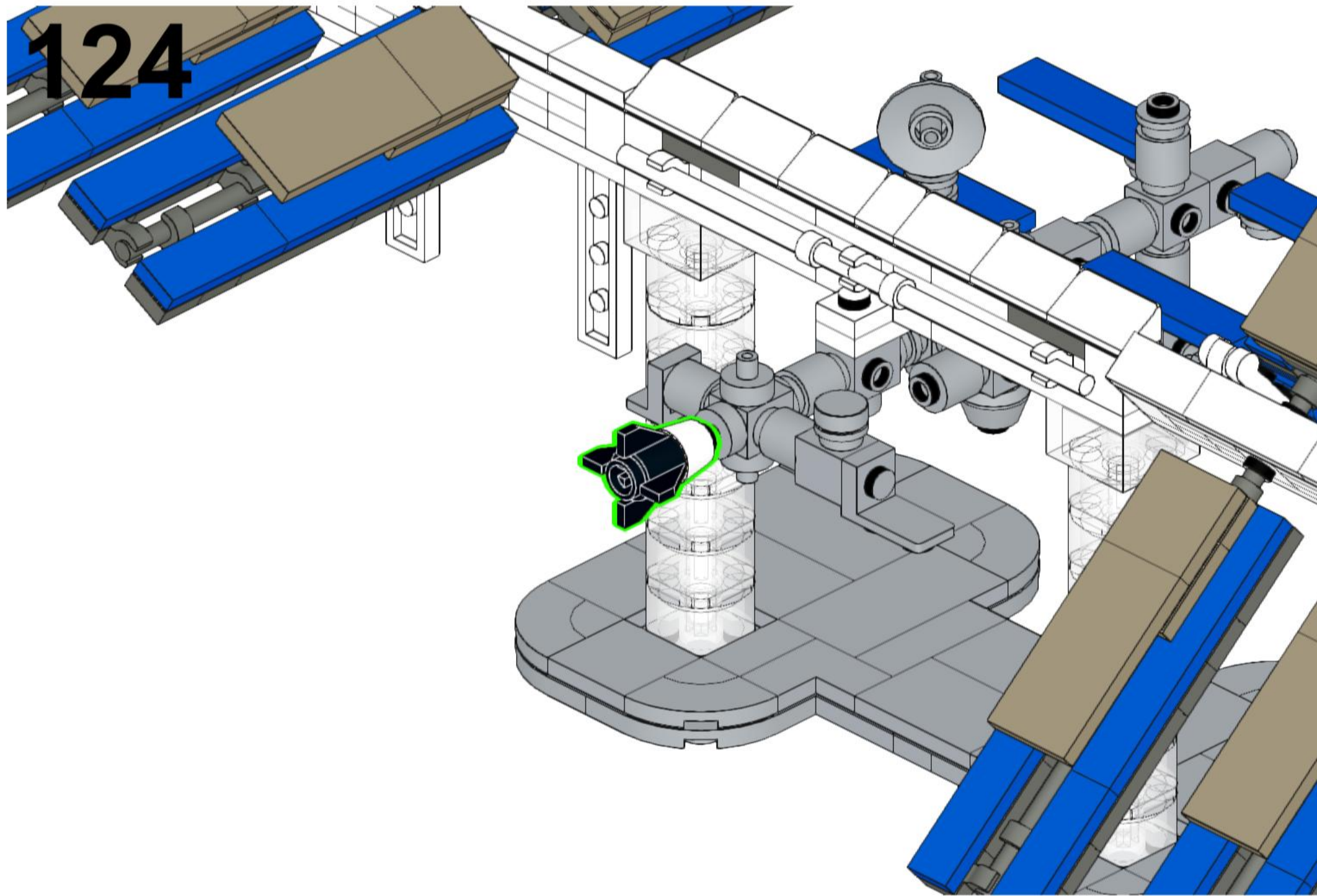
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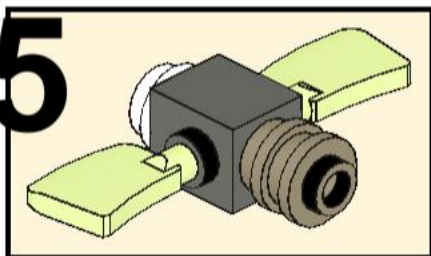
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124



125

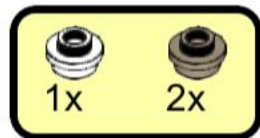


2x



1x

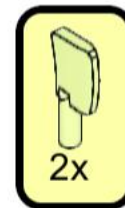
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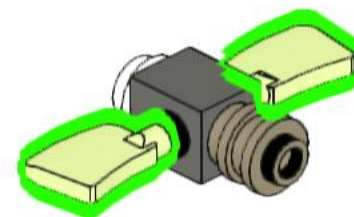
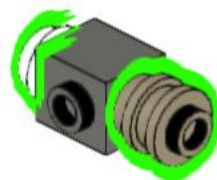
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2x

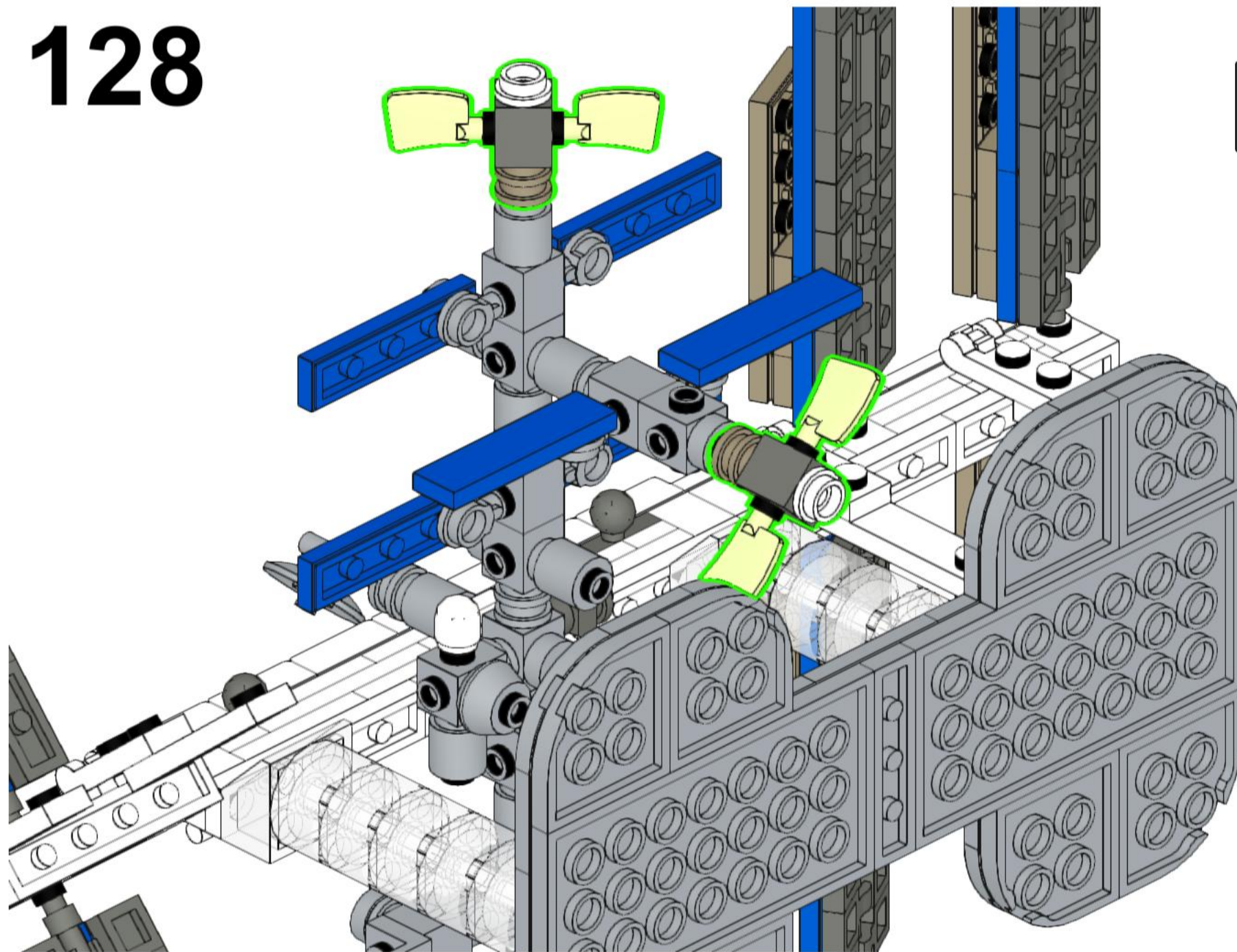
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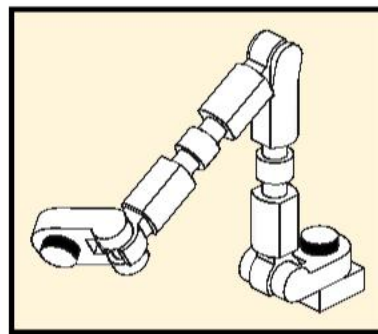
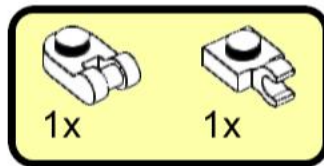
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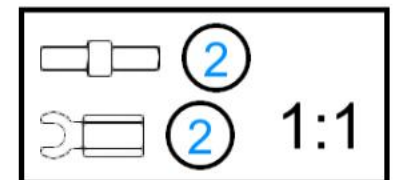
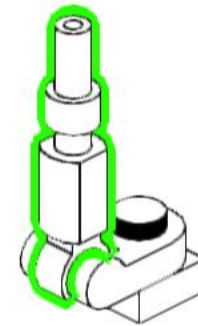
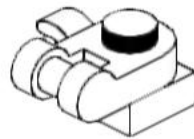
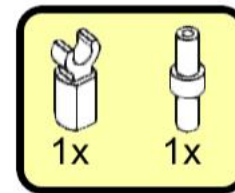
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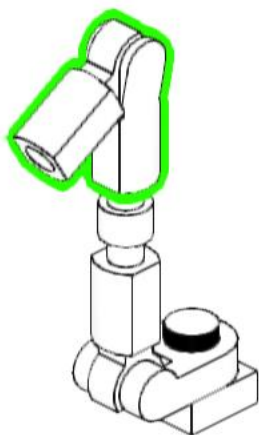
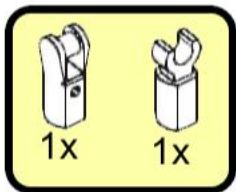
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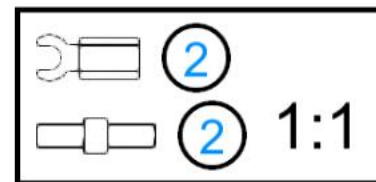
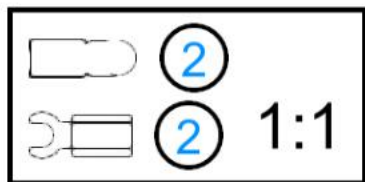
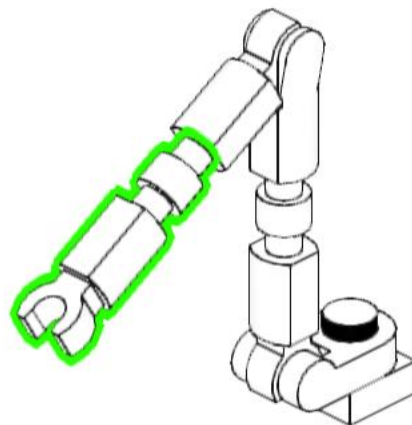
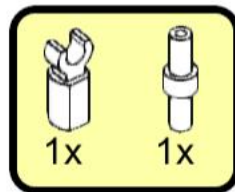
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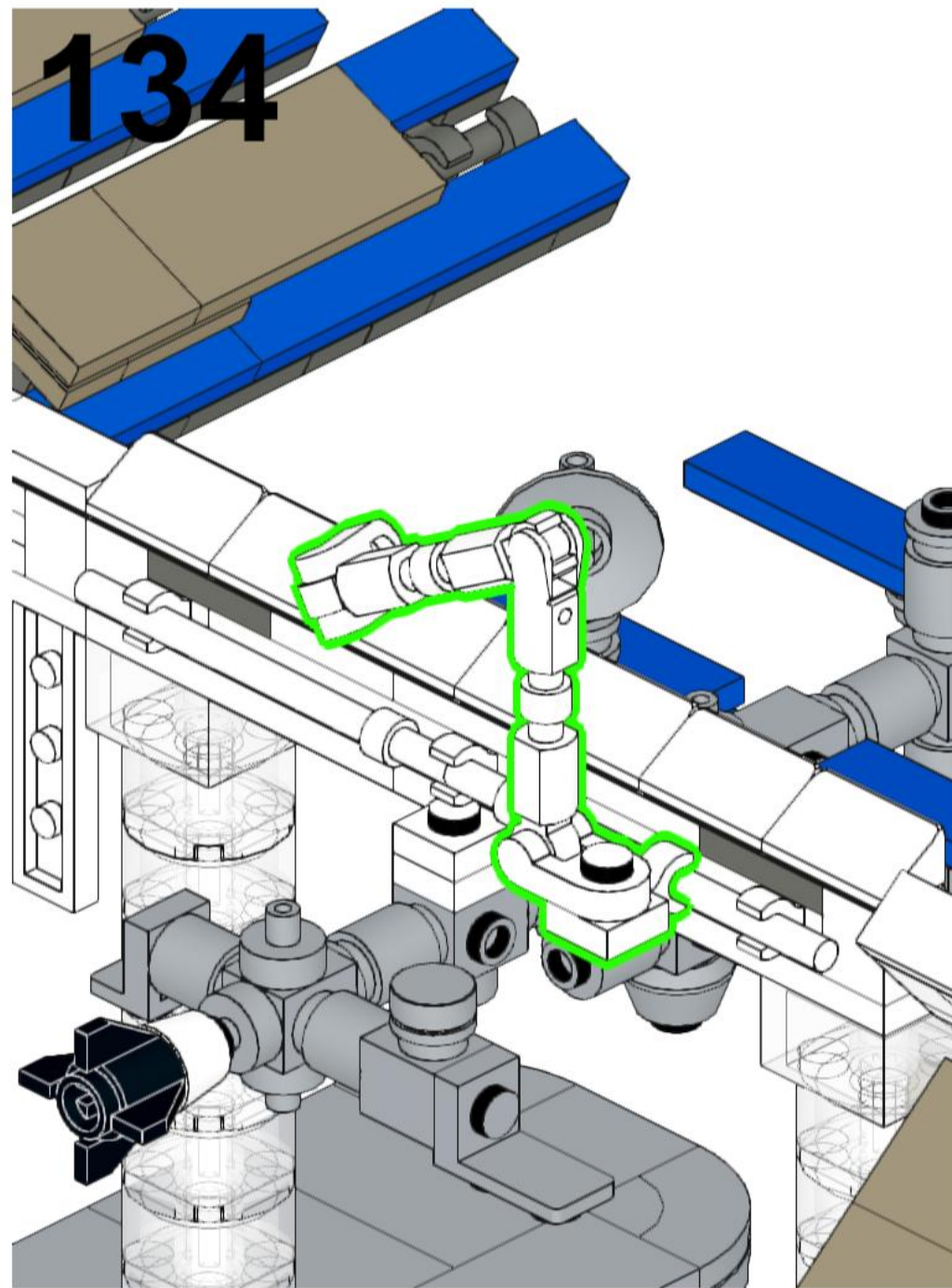
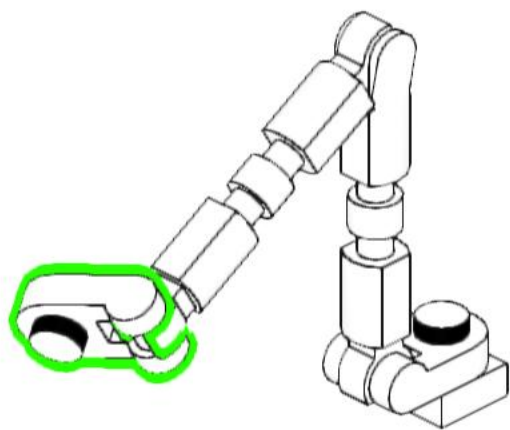
131



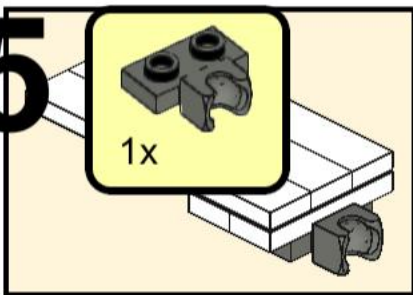
132



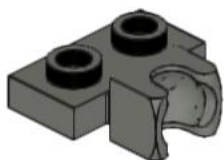
133



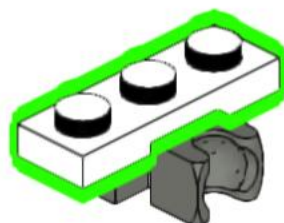
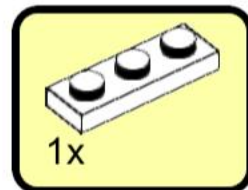
135



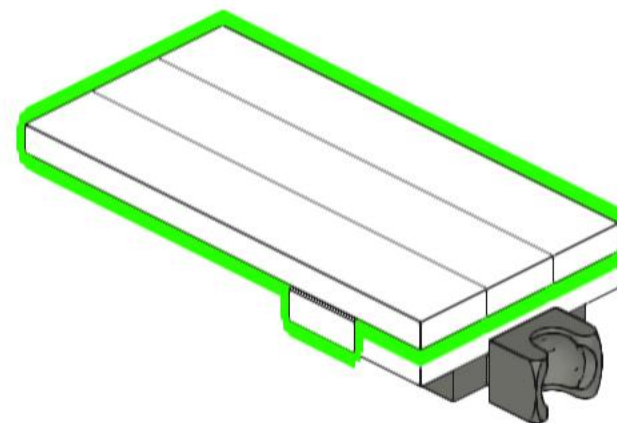
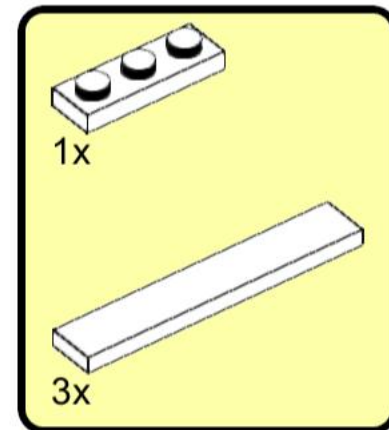
2x



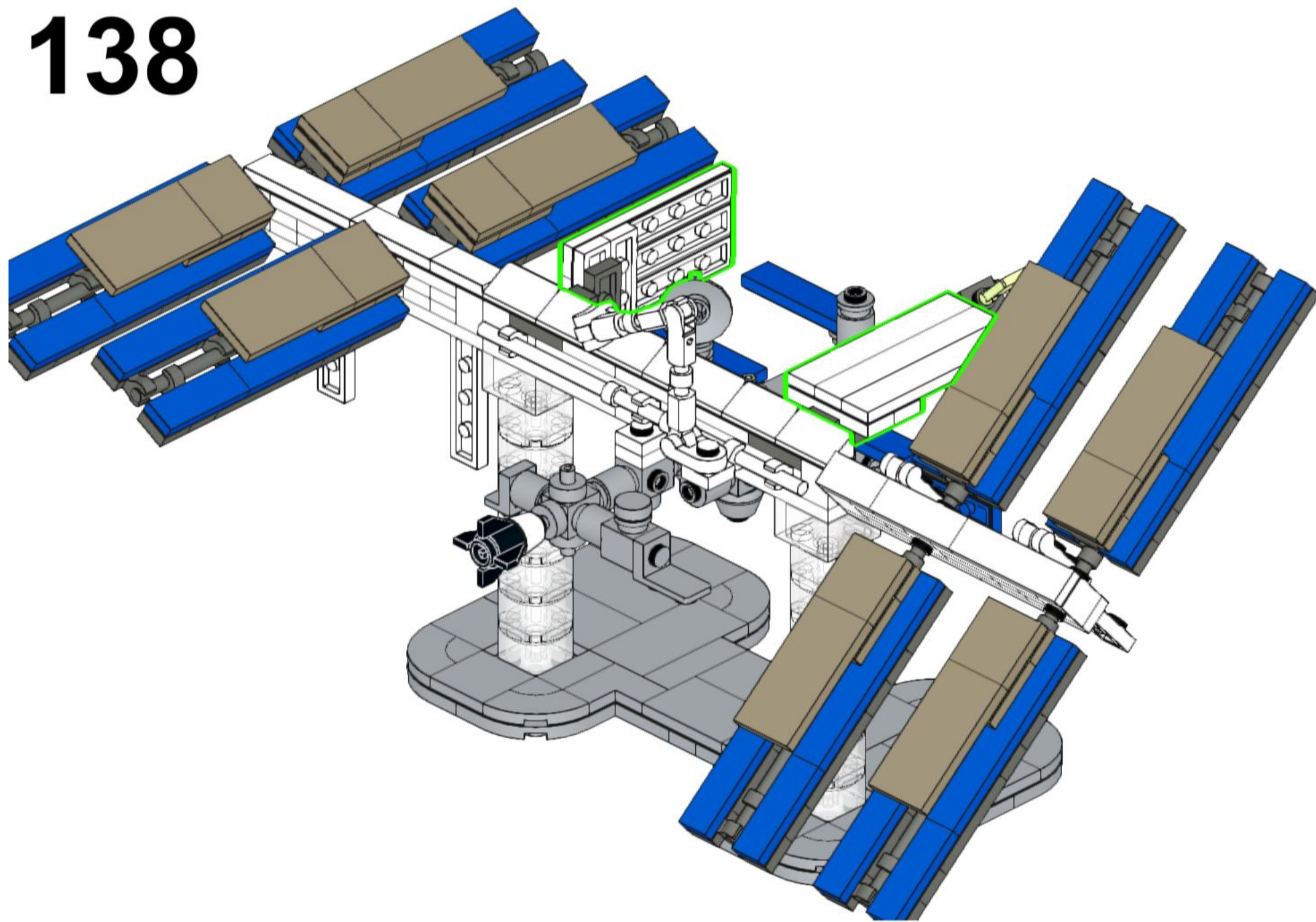
136



137



138

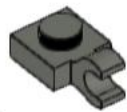


Teileliste

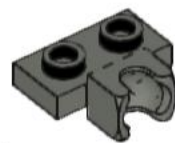
Bill of Materials



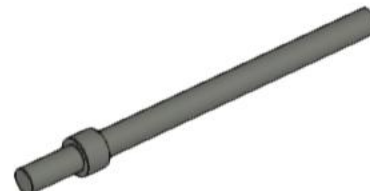
2x
2780
Black



56x
61252
Dark Bluish Gray



2x
14704
Dark Bluish Gray



8x
63965
Dark Bluish Gray



10x
3062
Light Bluish Gray



6x
32828
Light Bluish Gray



1x
4588
Black



1x
52494
Dark Bluish Gray



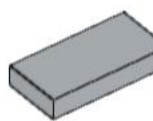
2x
14417
Dark Bluish Gray



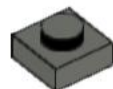
1x
98138
Light Bluish Gray



1x
36840
Light Bluish Gray



2x
3069
Light Bluish Gray



16x
3024
Dark Bluish Gray



2x
47905
Dark Bluish Gray



8x
3623
Dark Bluish Gray



8x
25269
Light Bluish Gray



1x
87087
Light Bluish Gray



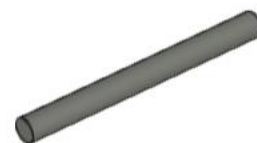
1x
194
Light Bluish Gray



1x
85861
Dark Bluish Gray



1x
78258
Dark Bluish Gray



8x
30374
Dark Bluish Gray



12x
85861
Light Bluish Gray



1x
33492
Light Bluish Gray



7x
4733
Light Bluish Gray



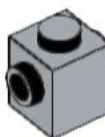
8x
15712
Dark Bluish Gray



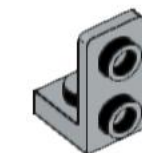
24x
3023
Dark Bluish Gray



7x
20482
Light Bluish Gray



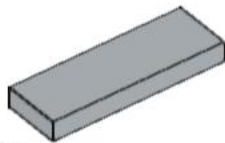
3x
47905
Light Bluish Gray



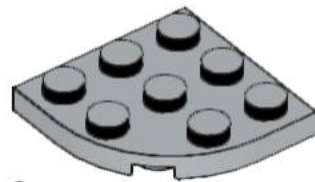
1x
73825
Light Bluish Gray



8x
27925
Light Bluish Gray



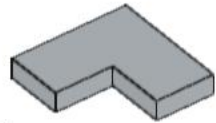
2x
63864
Light Bluish Gray



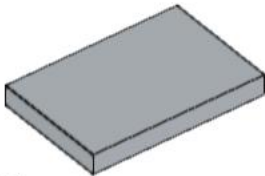
8x
30357
Light Bluish Gray



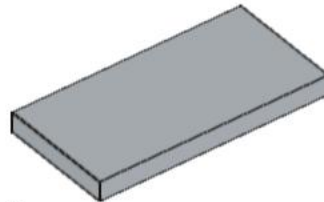
2x
85861
White



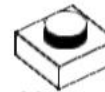
2x
14719
Light Bluish Gray



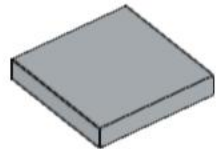
2x
26603
Light Bluish Gray



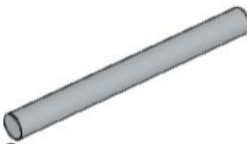
6x
87079
Light Bluish Gray



13x
3024
White



6x
3068
Light Bluish Gray



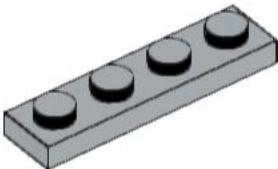
2x
30374
Light Bluish Gray



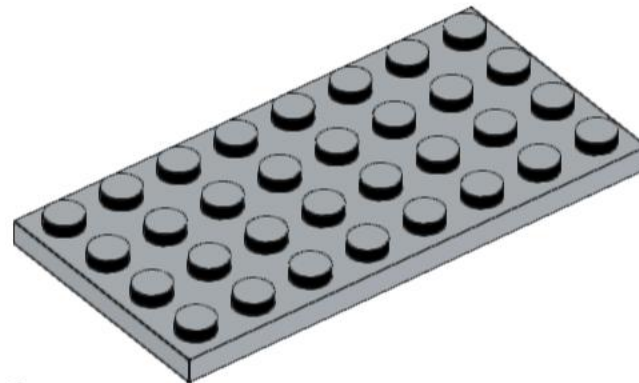
1x
54200
White



1x
4740
Light Bluish Gray



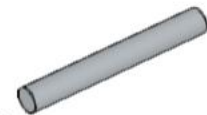
1x
3710
Light Bluish Gray



2x
3035
Light Bluish Gray



1x
58176
White



2x
87994
Light Bluish Gray



1x
85975
White



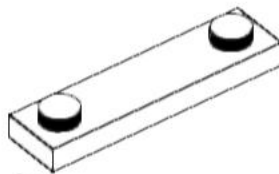
1x
23443
White



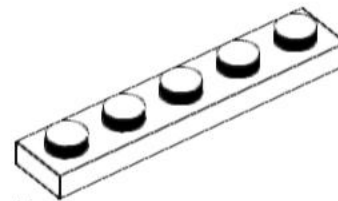
2x
26047
White



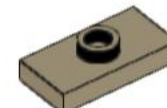
2x
87994
White



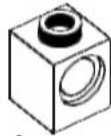
4x
92593
White



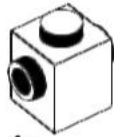
5x
78329
White



8x
3794b
Dark Tan



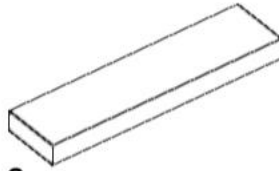
4x
6541
White



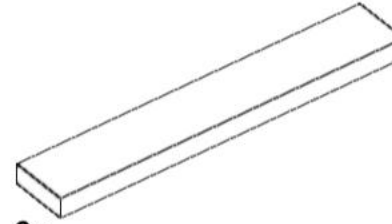
4x
47905
White



4x
60478
White



2x
2431
White



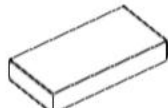
6x
6636
White



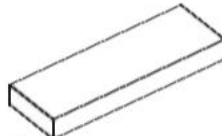
8x
11203
Dark Tan



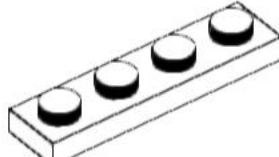
3x
11090
White



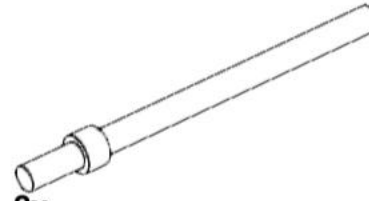
2x
3069
White



2x
63864
White



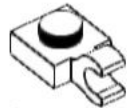
6x
3710
White



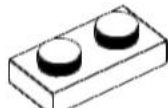
2x
63965
White



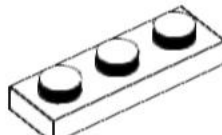
8x
3068
Dark Tan



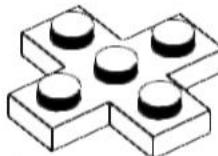
8x
61252
White



8x
3023
White



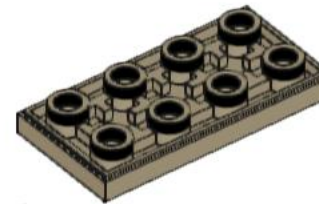
8x
3623
White



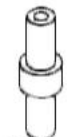
1x
15397
White



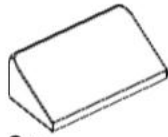
4x
85861
Dark Tan



8x
3395
Dark Tan



2x
78258
White



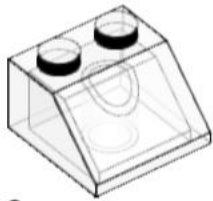
6x
85984
White



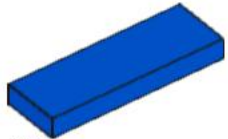
2x
30374
White



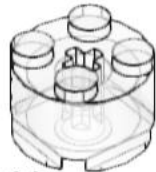
4x
98369
Yellowish Green



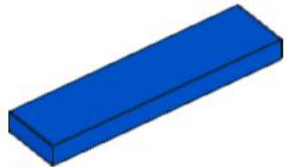
2x
3039
Trans-Clear



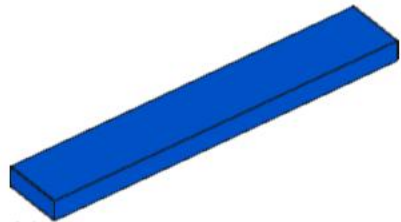
16x
63864
Blue



14x
3941
Trans-Clear



6x
2431
Blue



16x
6636
Blue