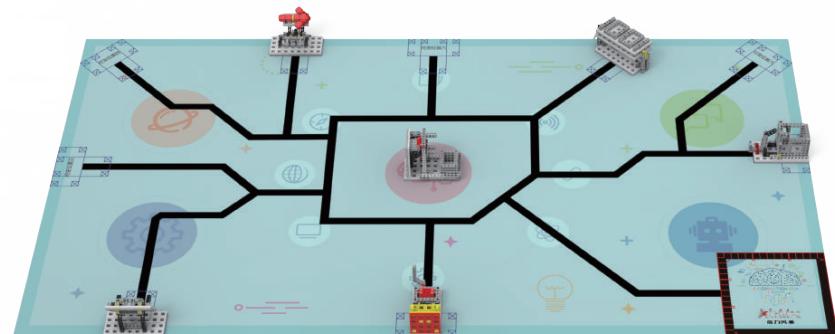


Abilix Creative Bricks

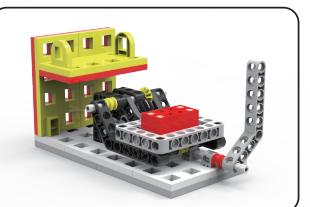
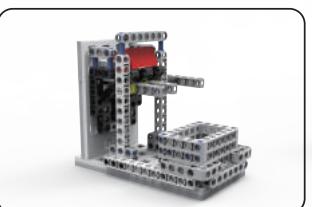
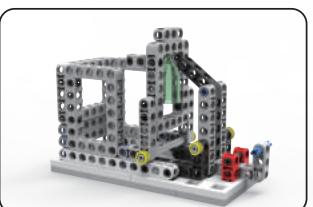
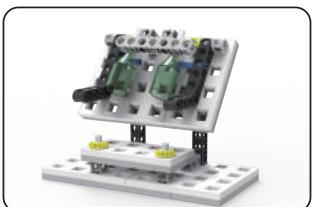
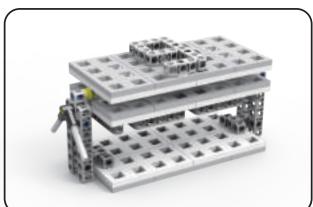
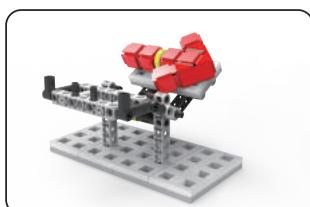
C203T-18

2018 Brick Robot Competition Arena kit v 1.0

WER
World Educational Robot Contest



Arena frame not included in this kit



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I . Map Layout

The map is laid out as the figure 1. Here are the setting steps.

1. Take out the arena map from the WER Brick Robot Arena Kit (C203T-18) and unfold it for a little while. Generally, the map is suggested to be placed for 30-60 minutes to unwrinkle the map.

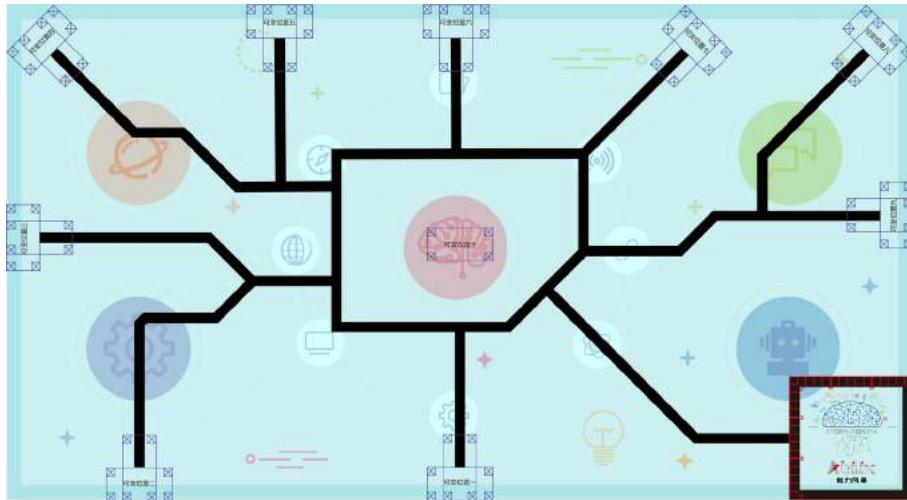


Figure 1 Arena Map

2. Unfold the arena map on the site, which is better to be placed on the wood floor, cement floor or tile floor (the floor with large gaps is not suggested). If there are wrinkles on the map, transparent tape can be pasted on the four angles of the map to strain it. There should be 0.5-1m space for contestants to move on, as shown in figure.2.

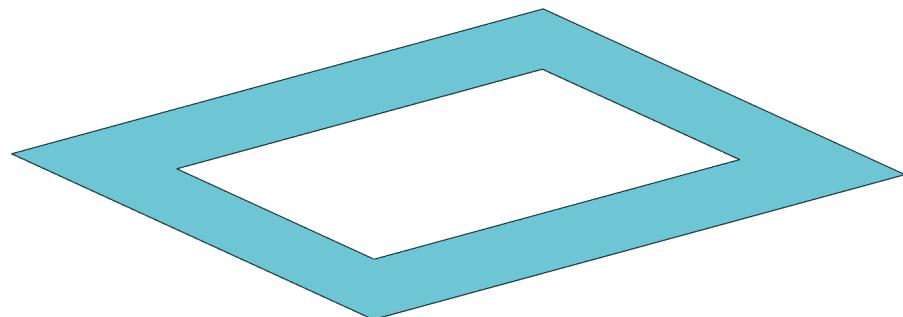
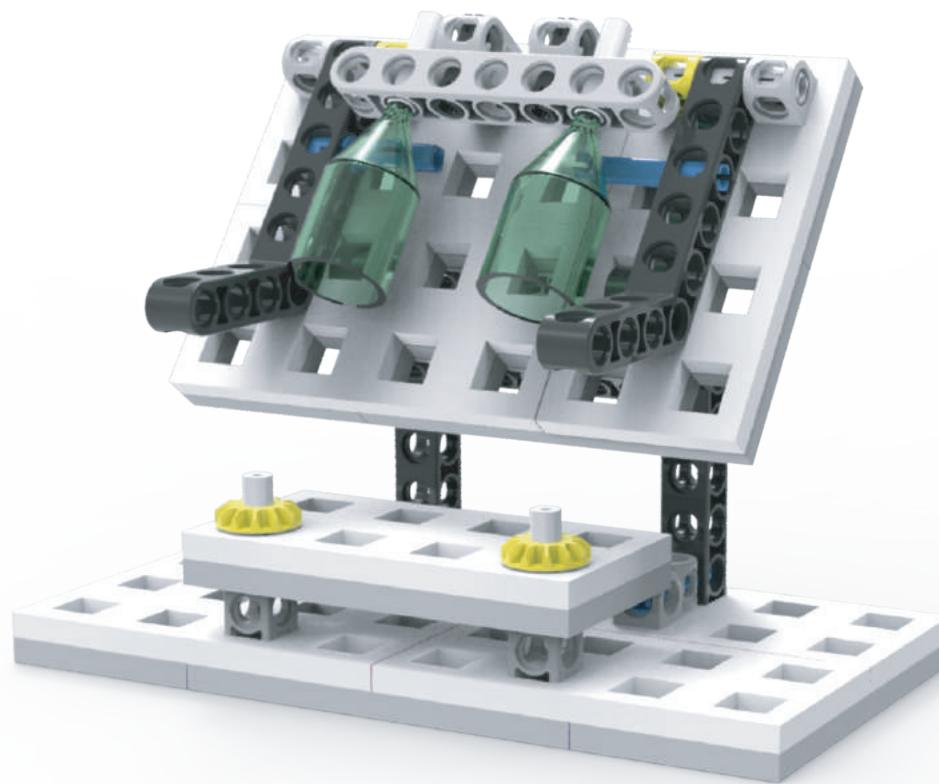
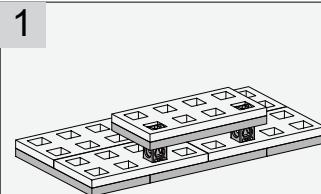


Figure 2 Reserving Space

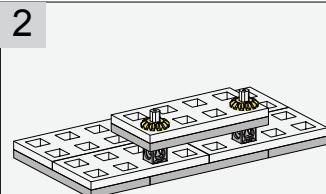
Shopping



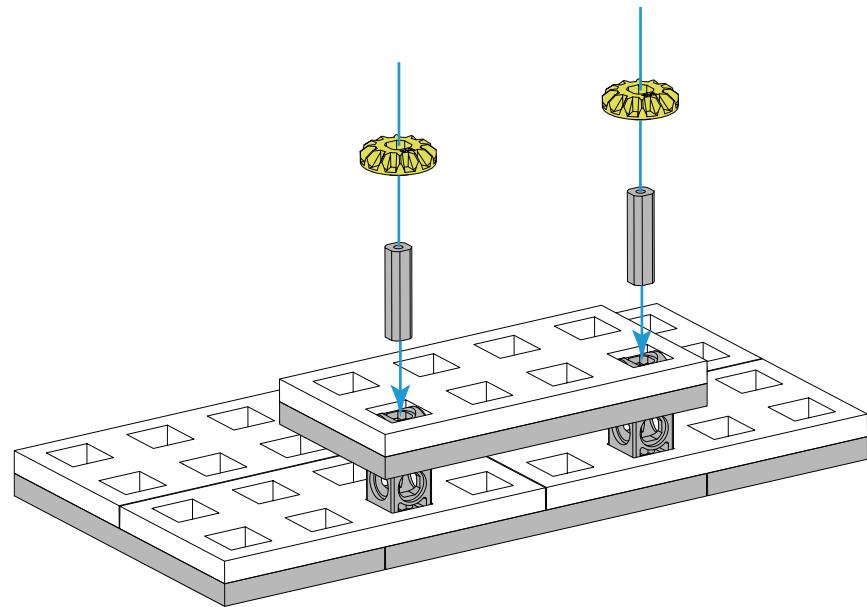
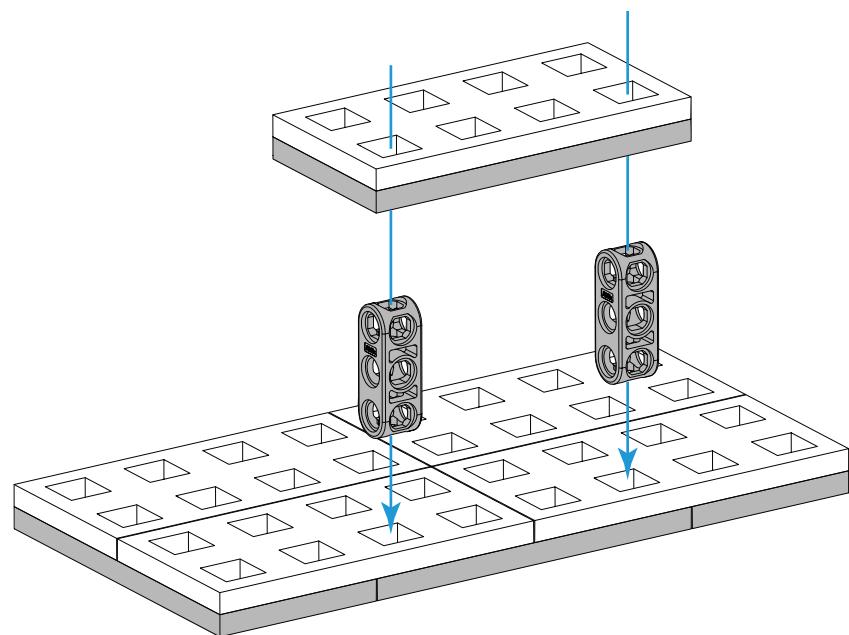
Pin15 x2	Tight Bolt 2 x2	Pin30 x2	Tight Bolt 3 x4
TubeSR20 x2	TubeSR60 x2	Magnet x2	12-tooth Bevel Gear x2
Beam 20 x4	Beam 30 x4	Beam 70 x4	Beam 30 x2
Beam(C)4X6_126.87 x4	Green bottle x2	1# Slab x1	3# Slab x1
4# Slab x1			

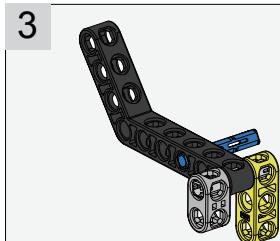


1# Slab	x1
4# Slab	x1
Beam 30	x2

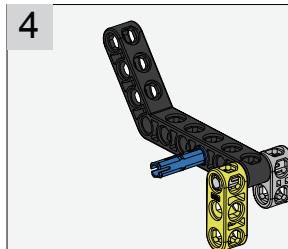


TubeSR20	x2
12-tooth Bevel Gear	x2

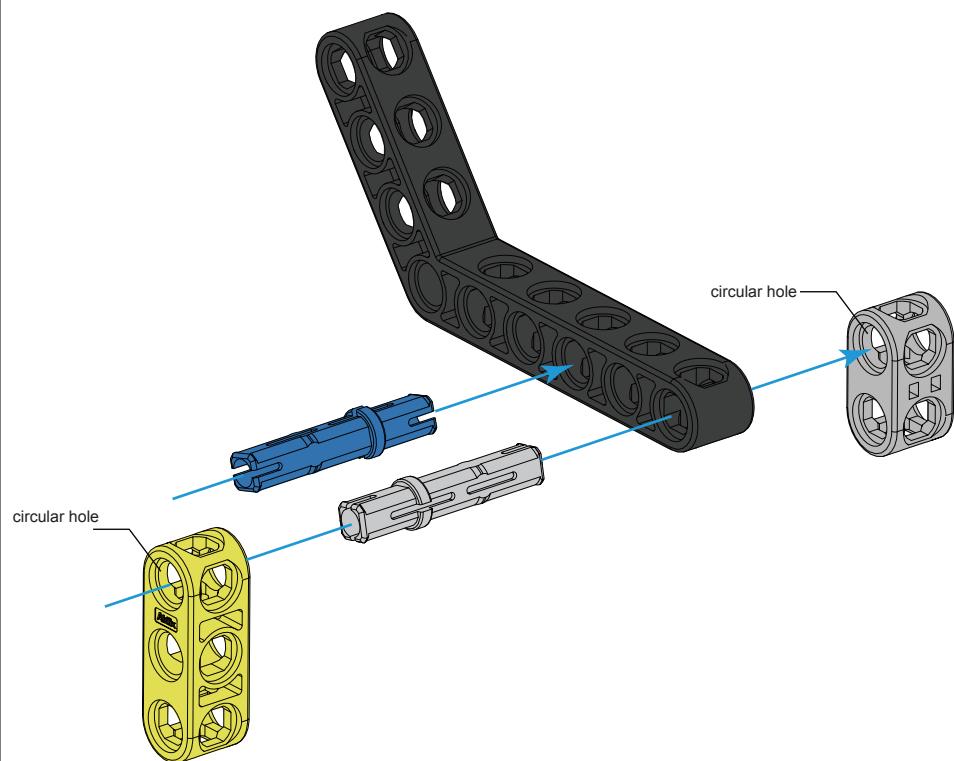
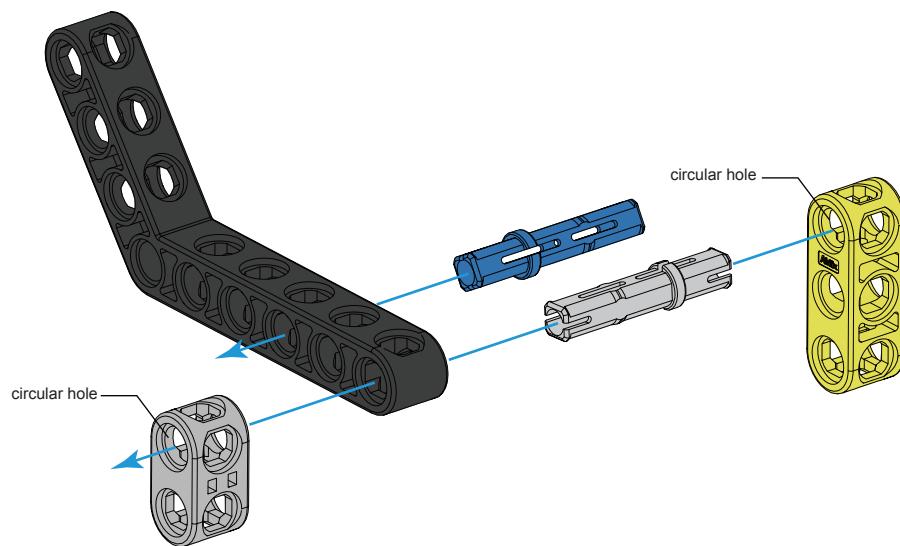


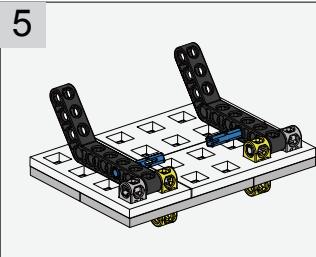


Beam 30	x1	Beam 30	x1	Beam(C)4X6_126.87	x1
Pin30	x1	Tight Bolt 3	x1		



Beam 20	x1	Beam 30	x1	Beam(C)4X6_126.87	x1
Pin30	x1	Tight Bolt 3	x1		



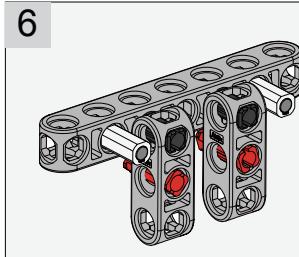
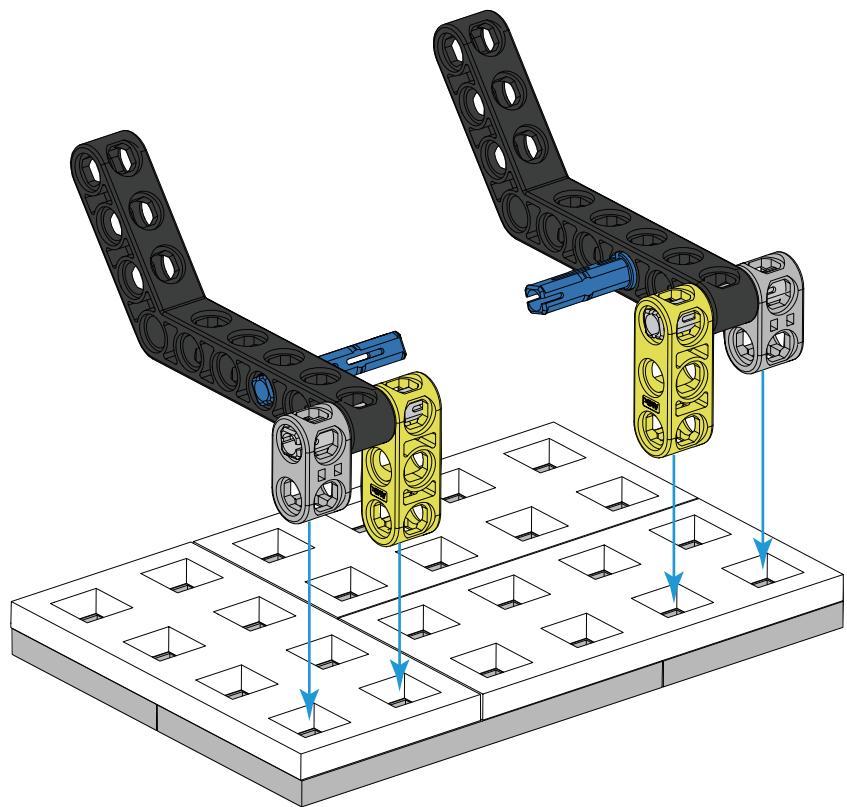
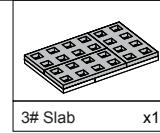


3#

x1

4#

x1



Pin15

x2

Tight Bolt 2

x2

Magnet

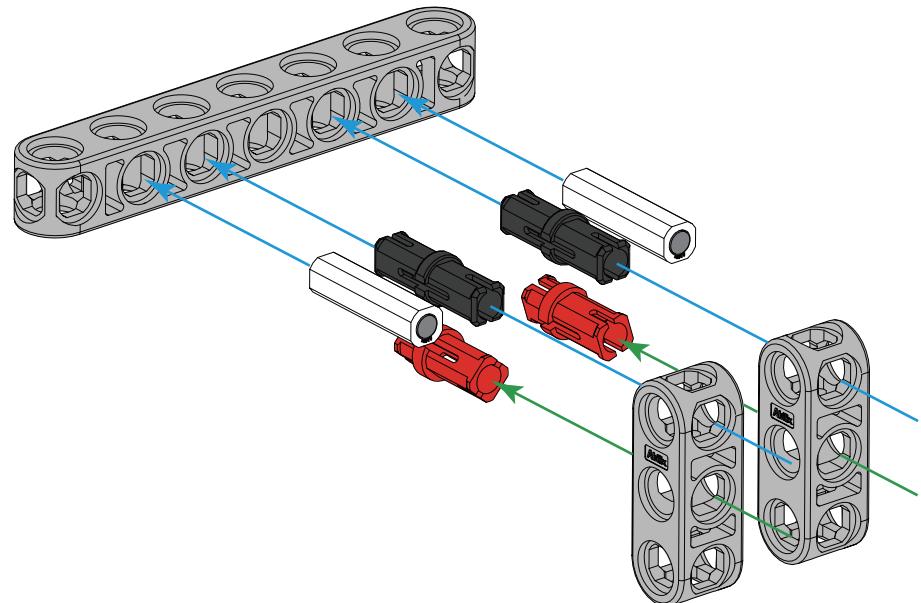
x2

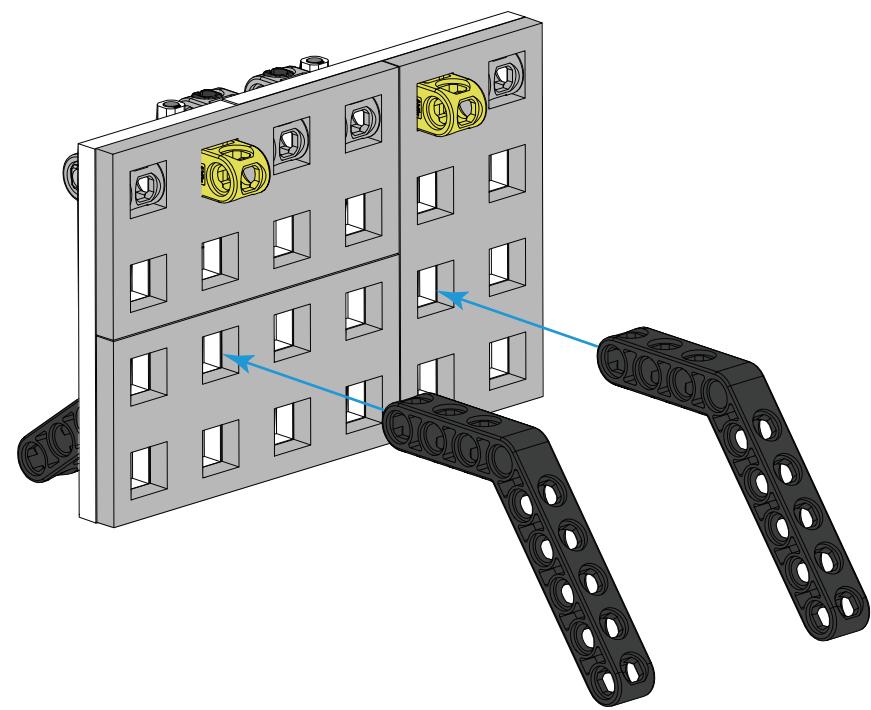
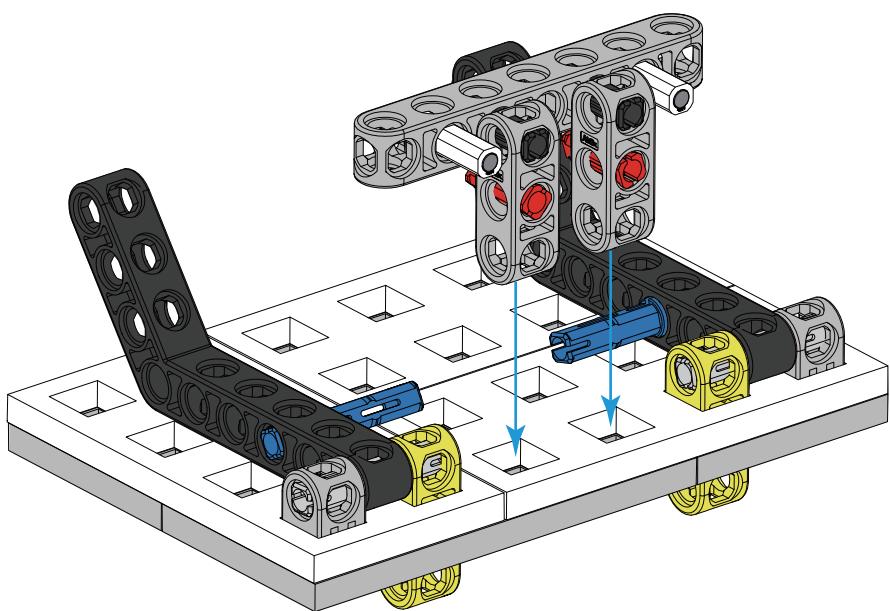
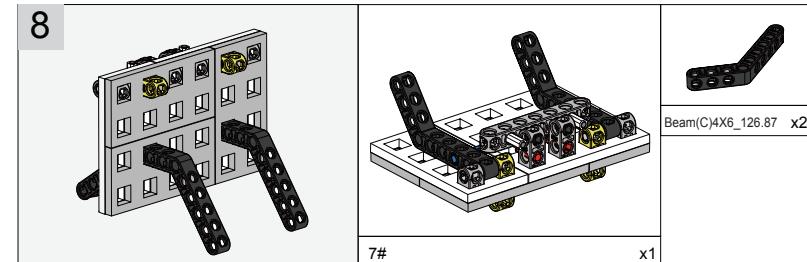
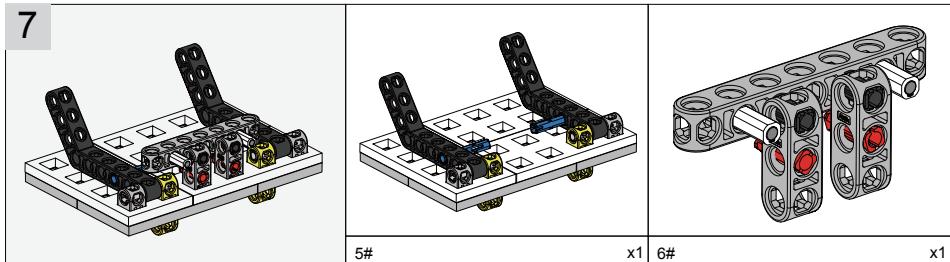
Beam 30

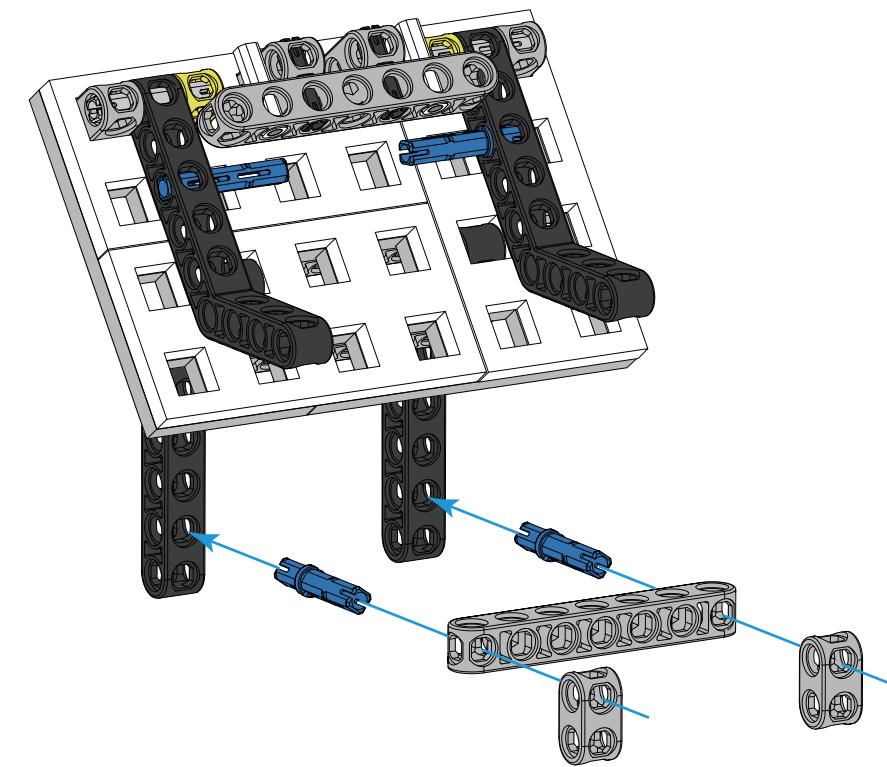
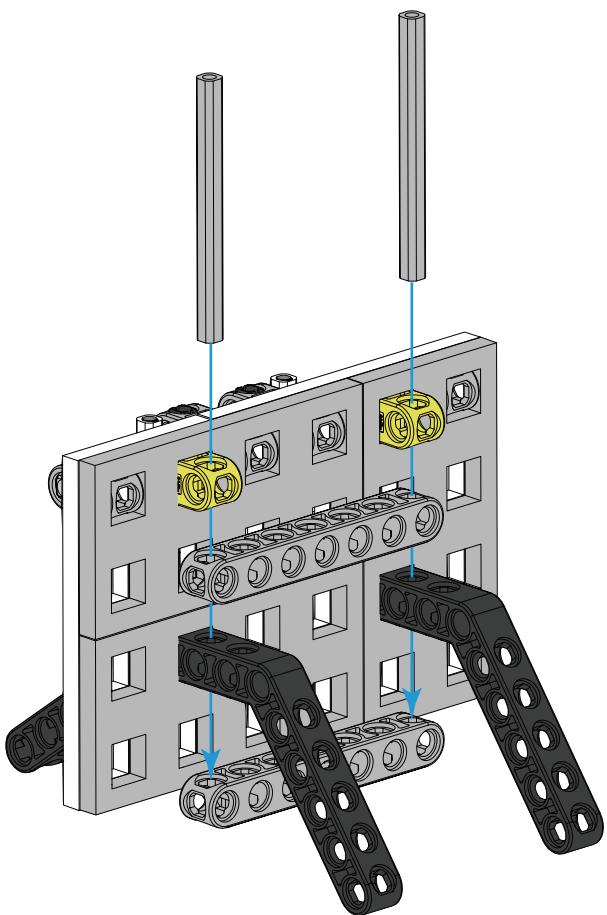
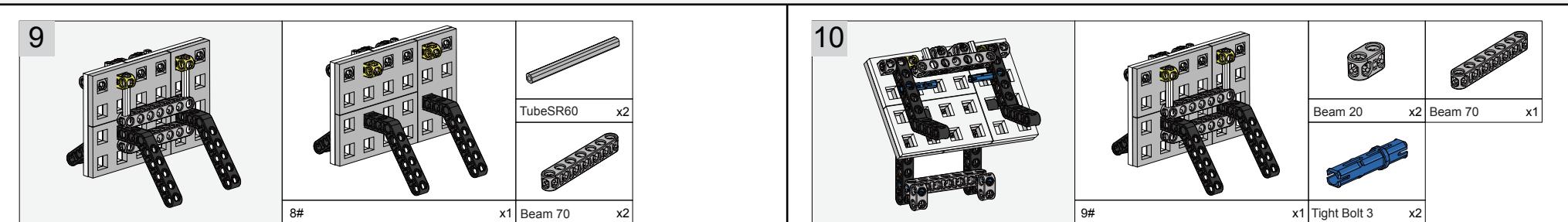
x2

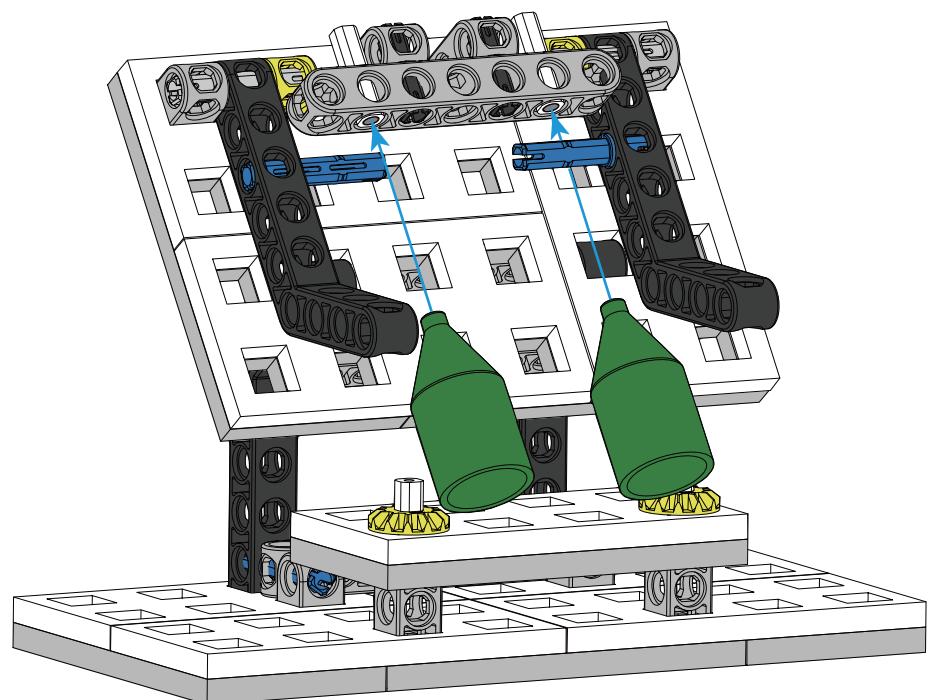
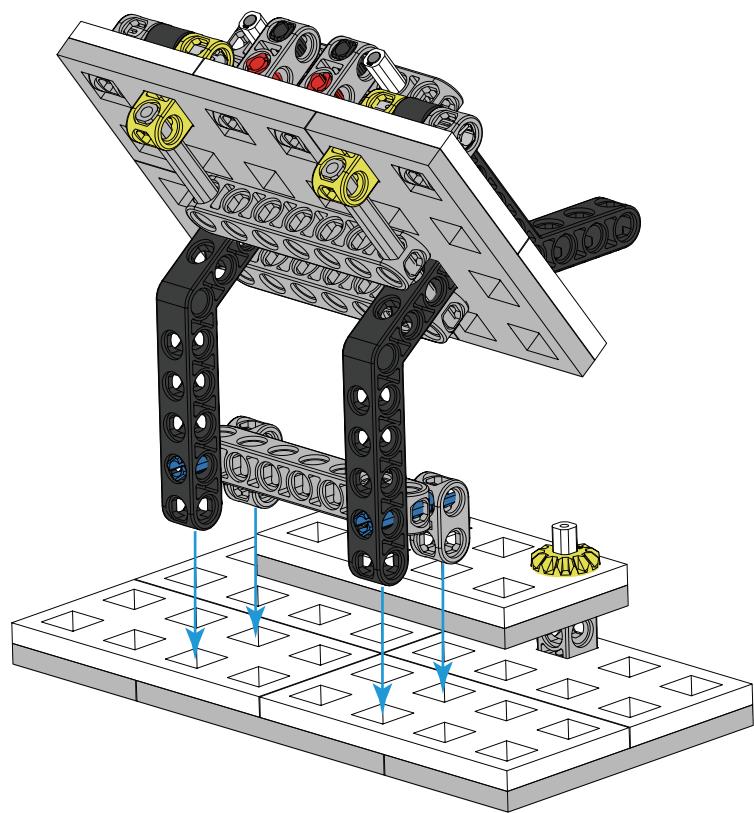
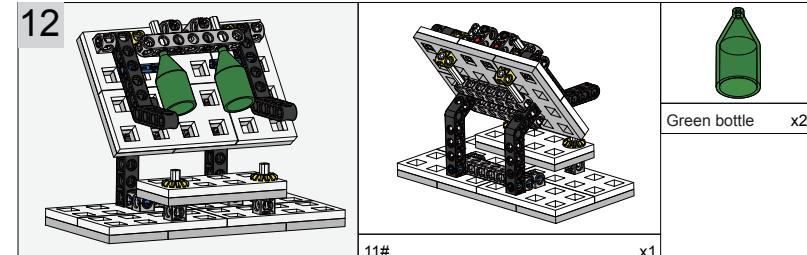
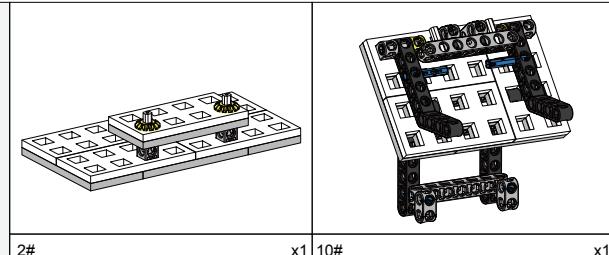
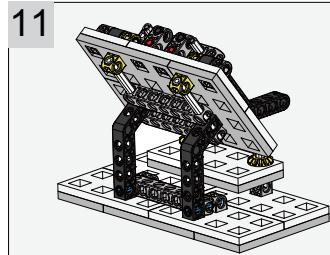
Beam 70

x1

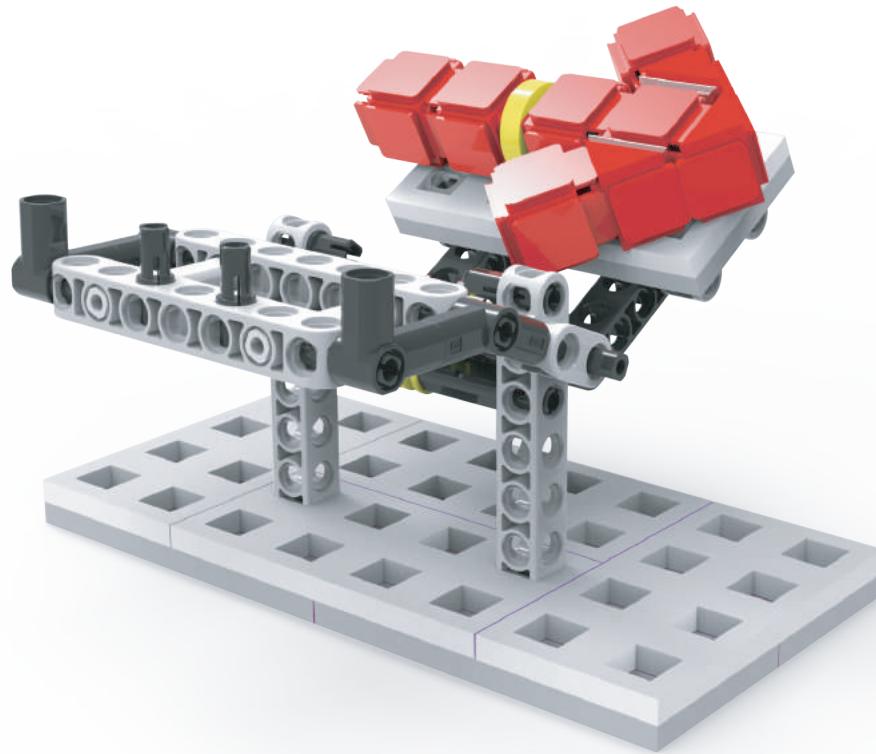




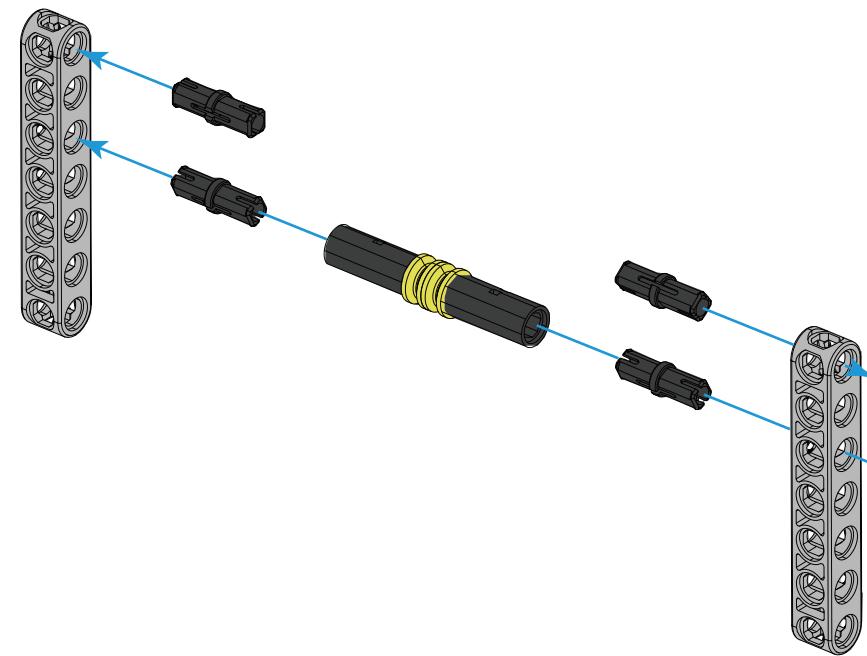
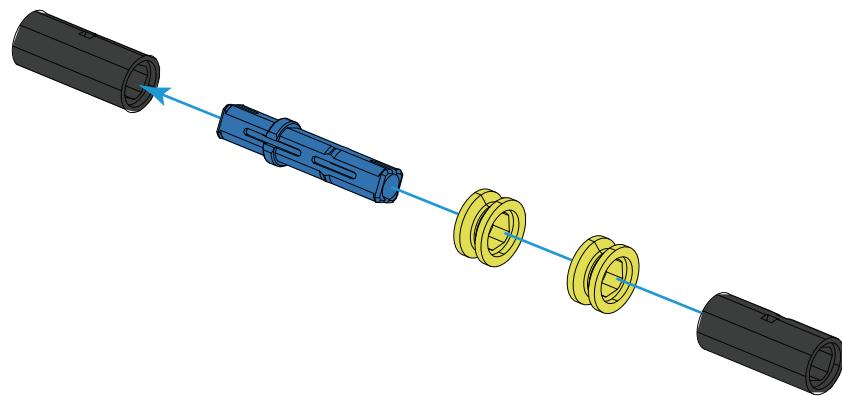
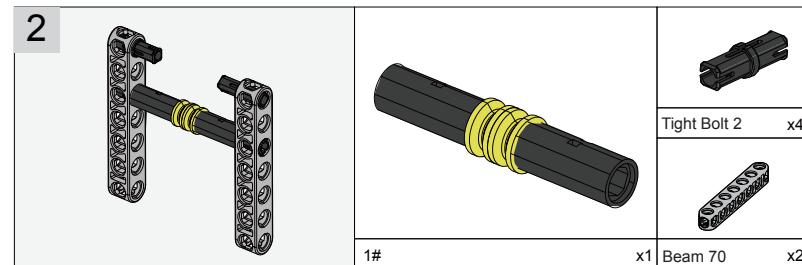
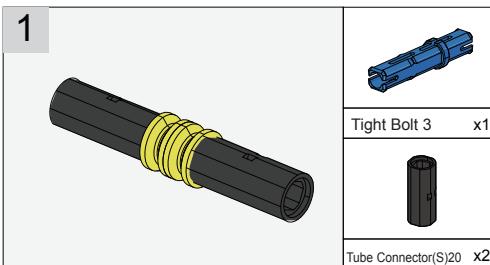


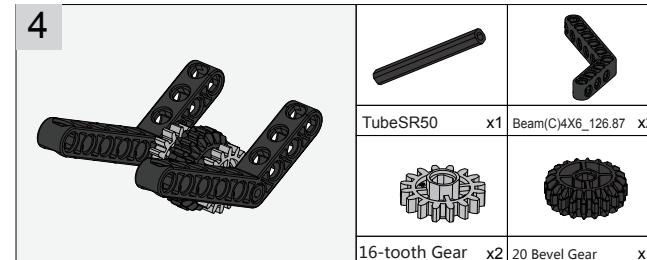
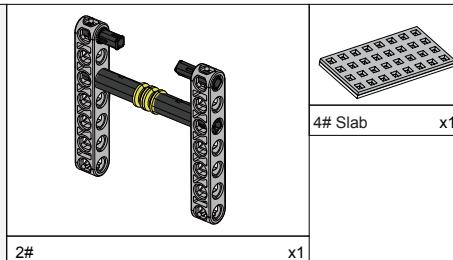
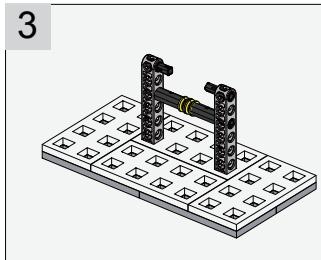


GPS



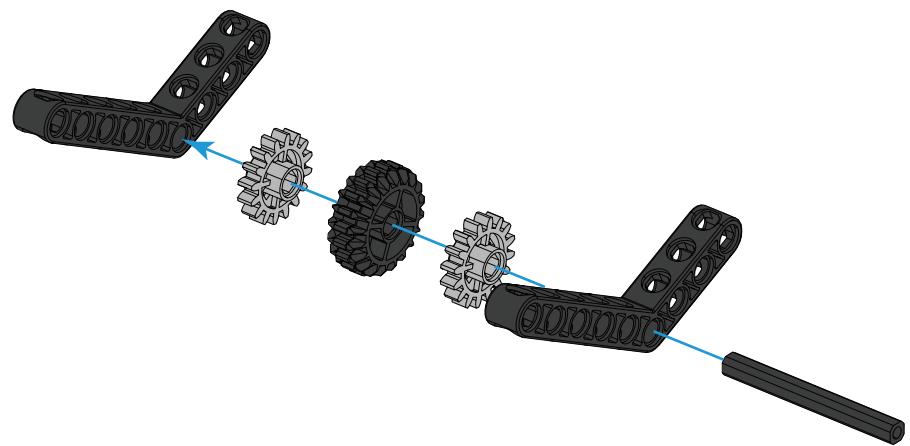
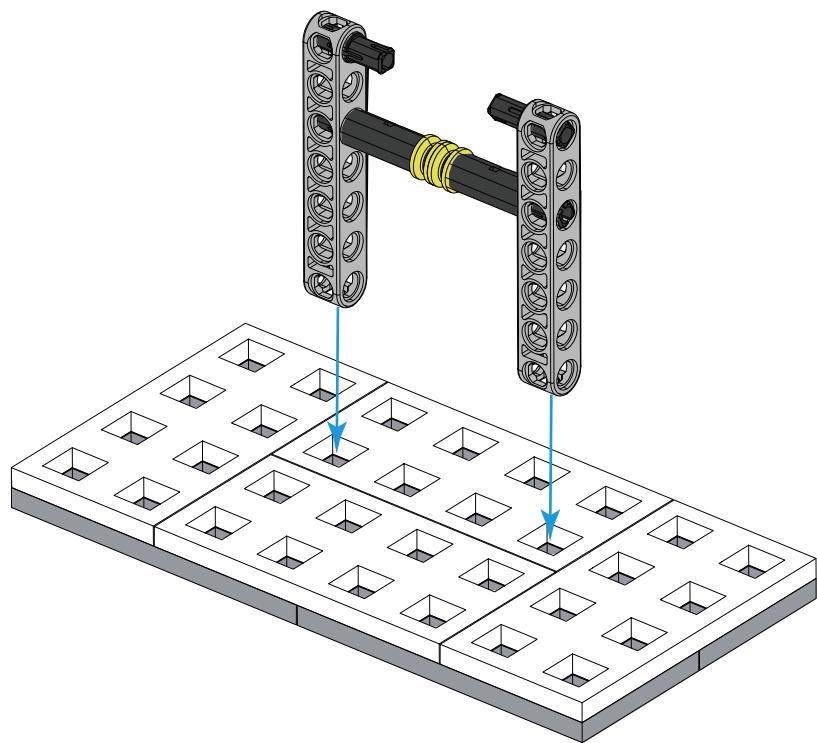
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TubeSR40 x2	TubeSR50 x3	Tube conector(C) 10x10_90 x2	Tube conector(C) 10x10_157.5 x2
Beam 20 x6	Beam 70 x4	Beam(C)4X6_126.87 x2	16-tooth Gear x2
20 Bevel Gear x1	Short bolt x1	Middle A connector x1	Slope cube x3
Cube x6	Cube connector x2	1# Slab x1	4# Slab x1

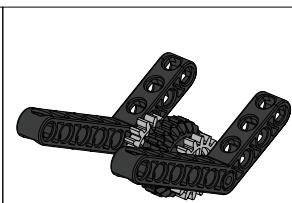
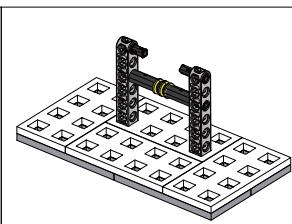
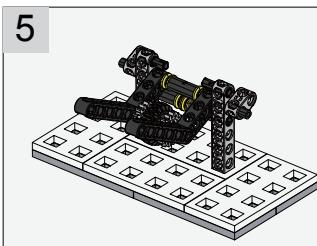




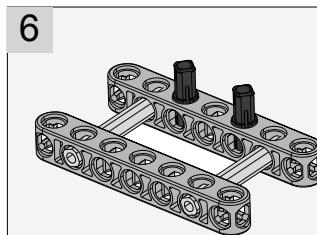
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16-tooth Gear x2 20 Bevel Gear x1

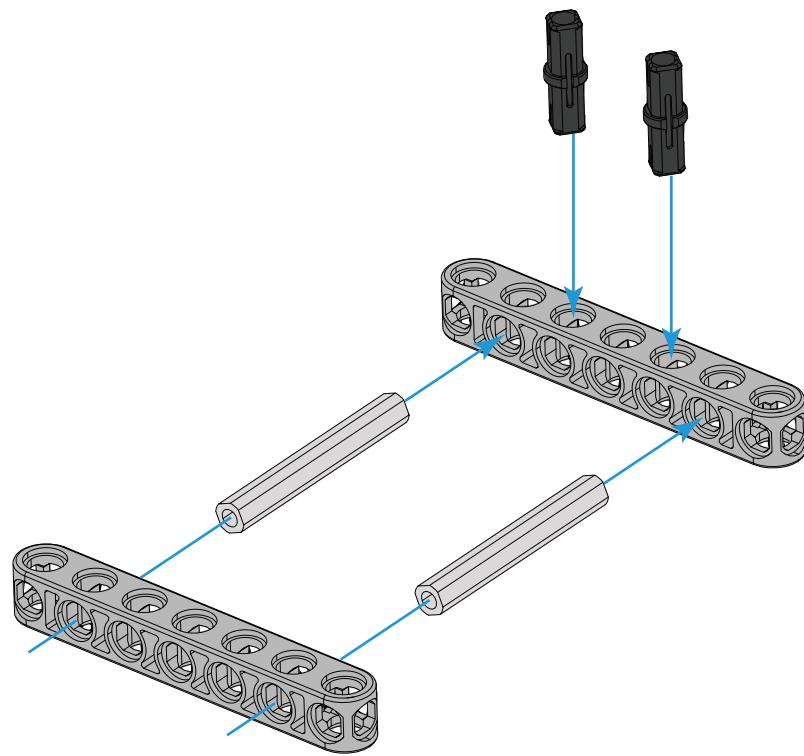
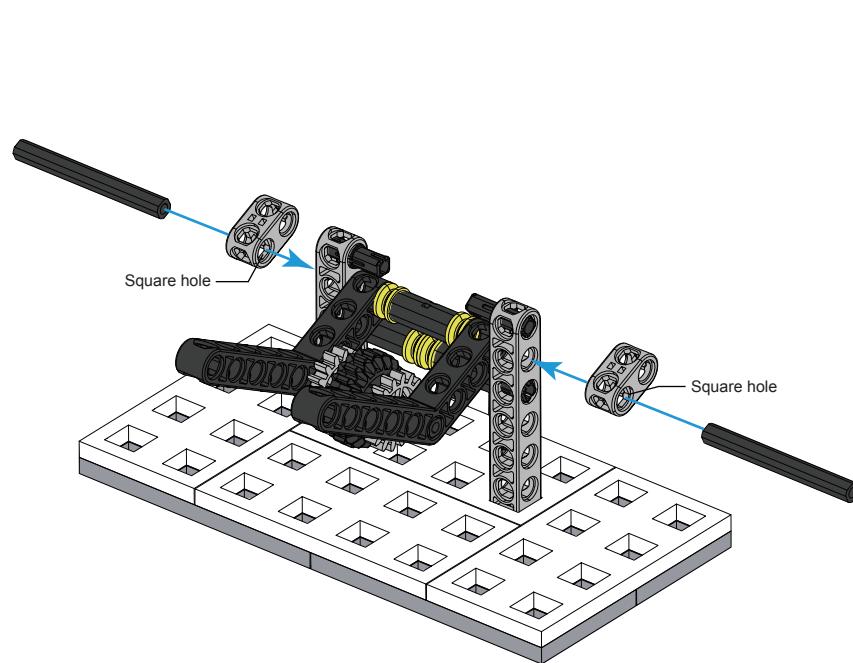


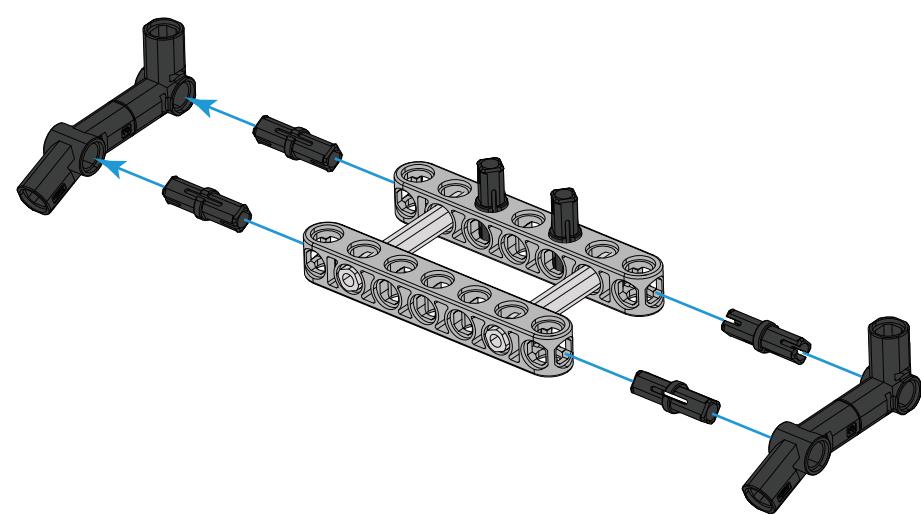
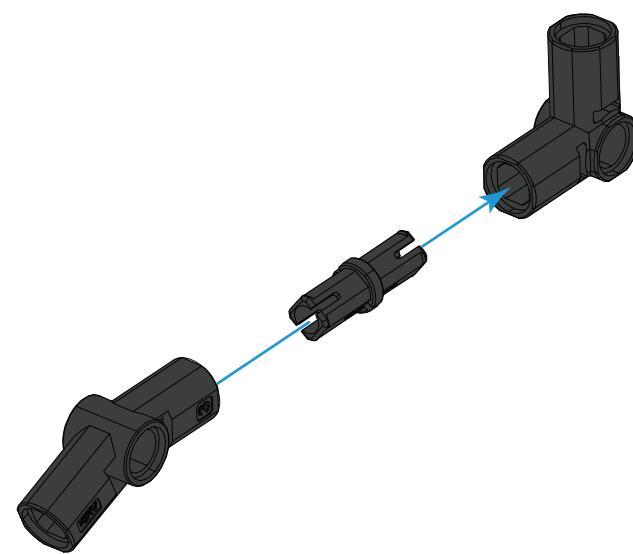
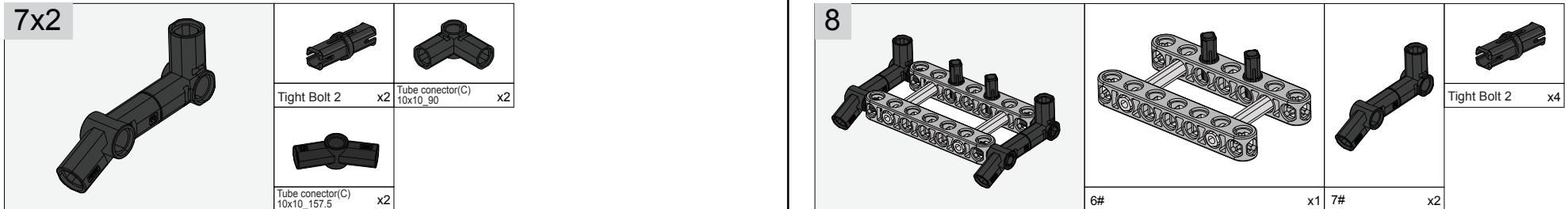


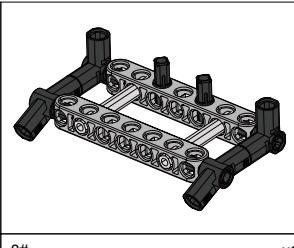
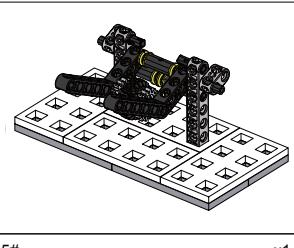
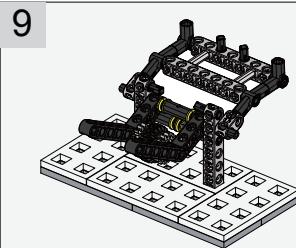
3#	x1	4#	x1
x2	x1	x2	x2



x2	x2
x2	





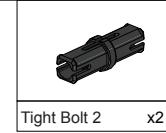


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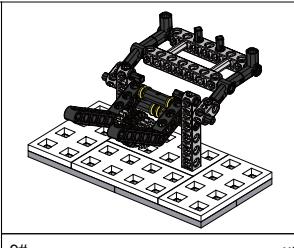
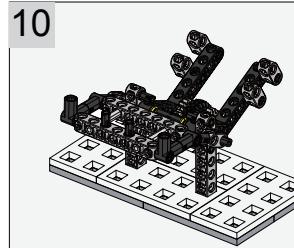
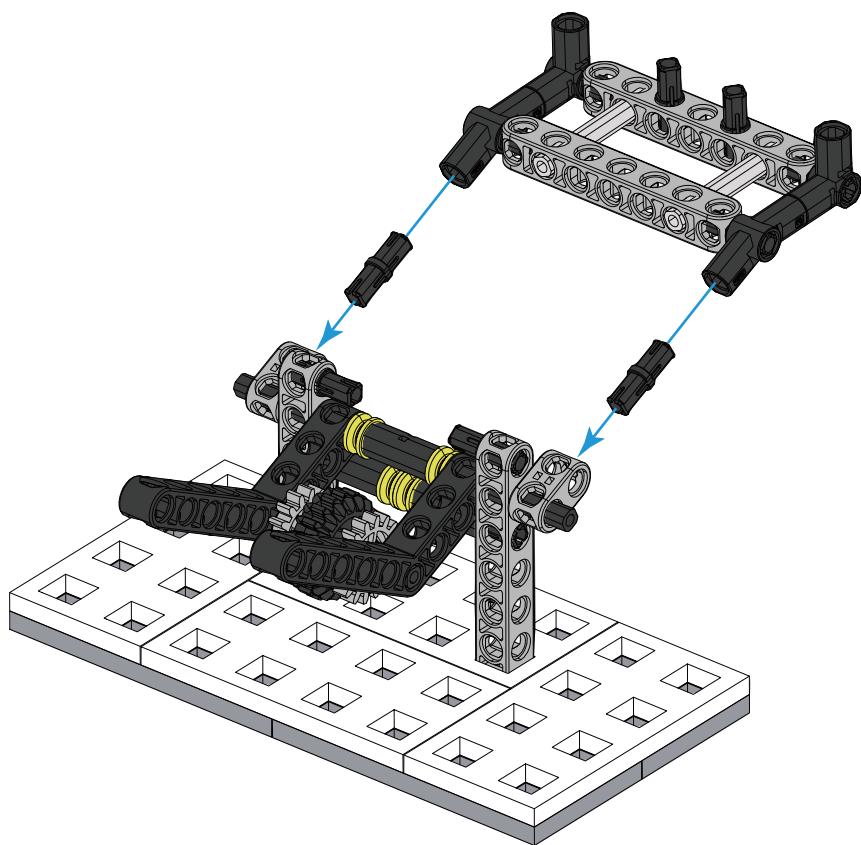
x1

8#

x1



Tight Bolt 2 x2

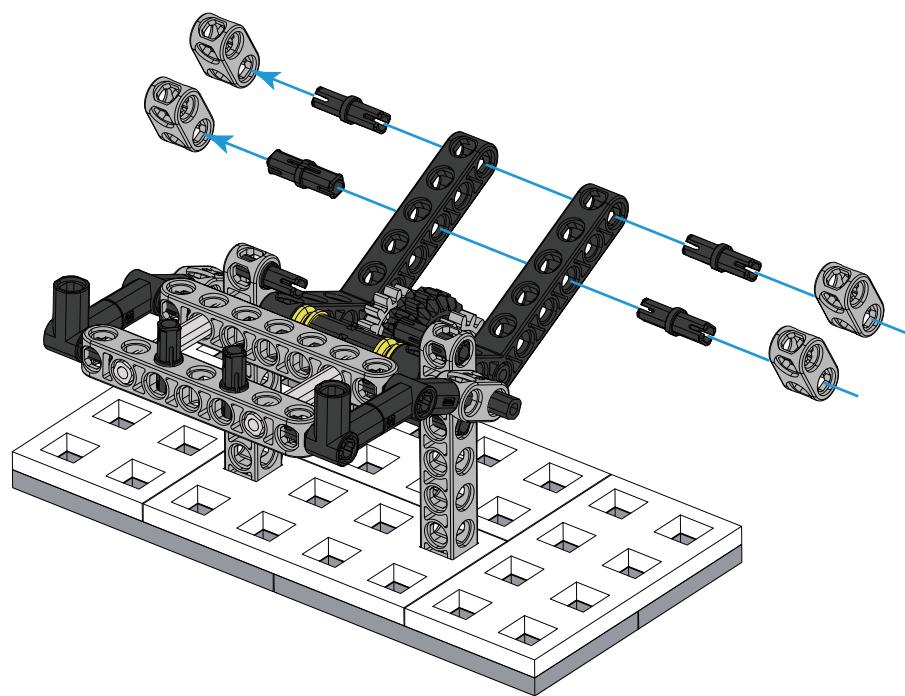


Tight Bolt 2 x4

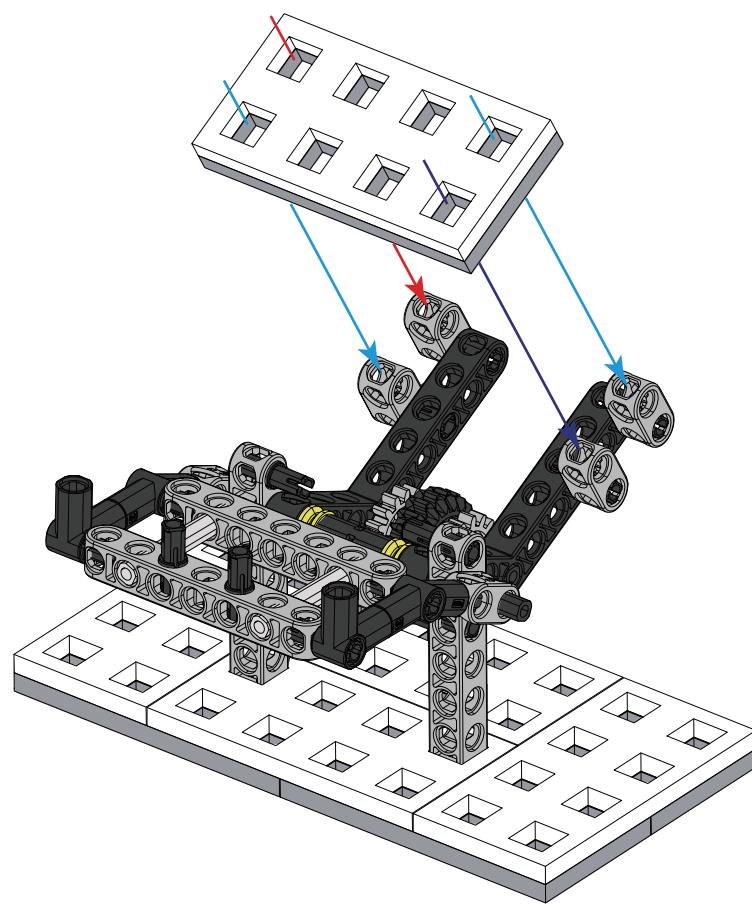
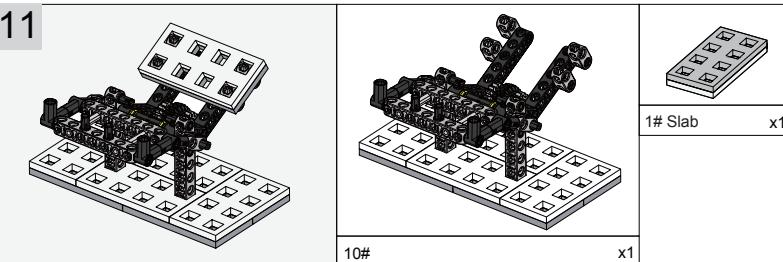


9# x1

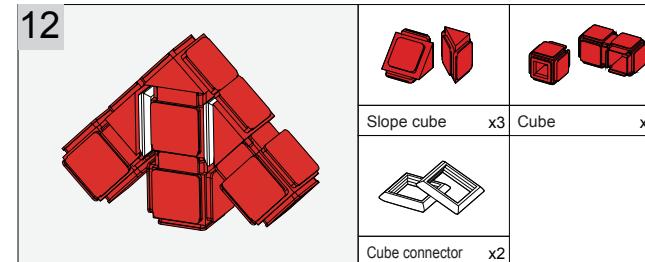
Beam 20 x4



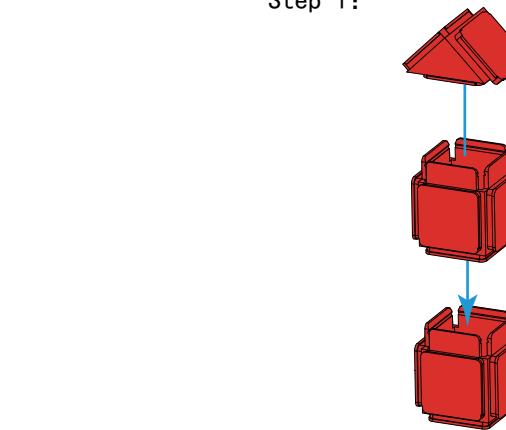
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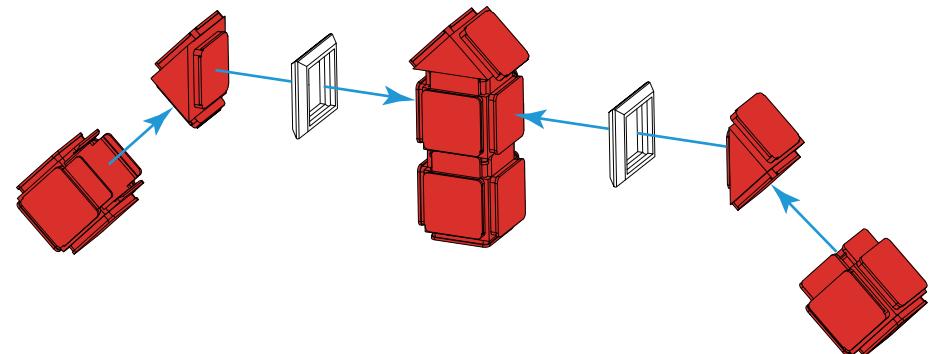
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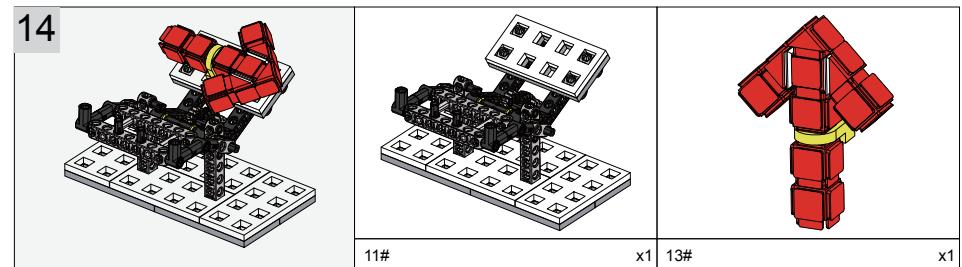
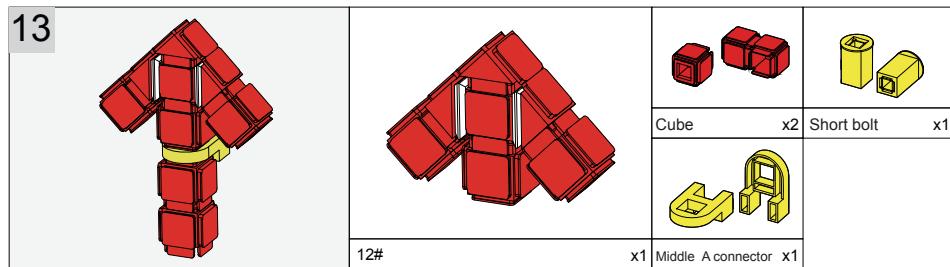


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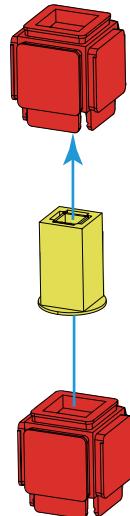


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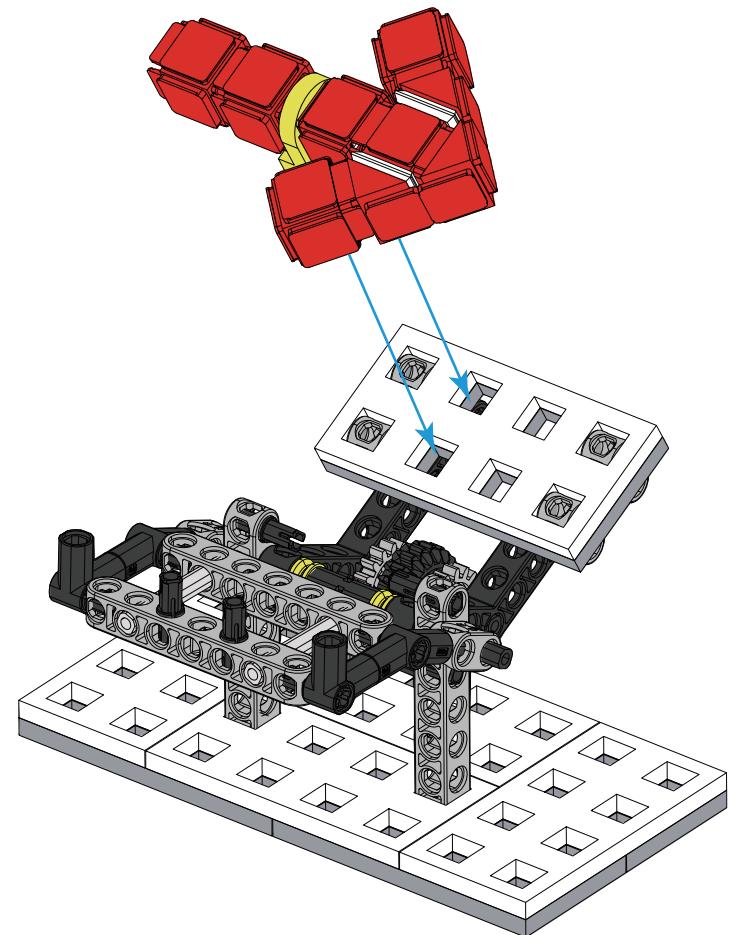
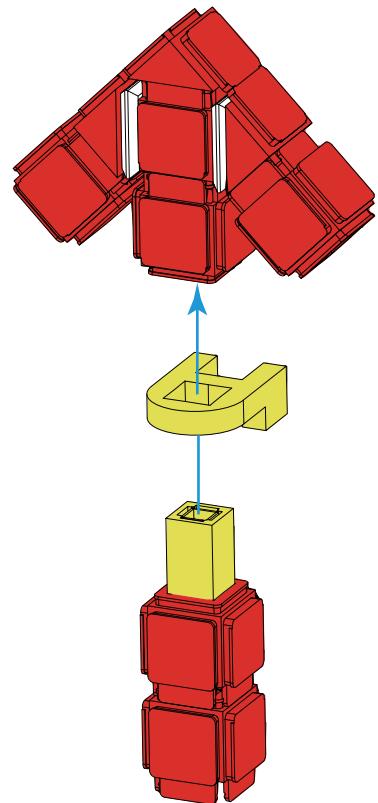




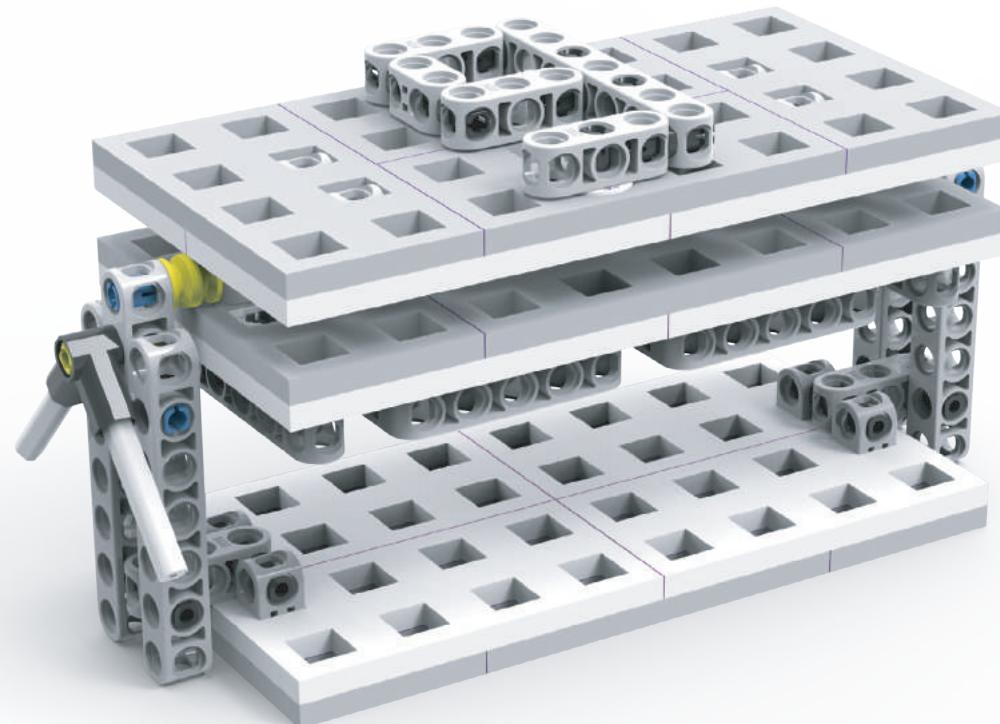
Step 1:



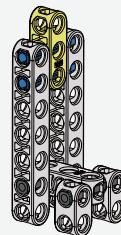
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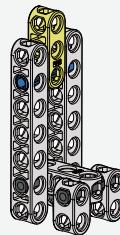
BHD Converter



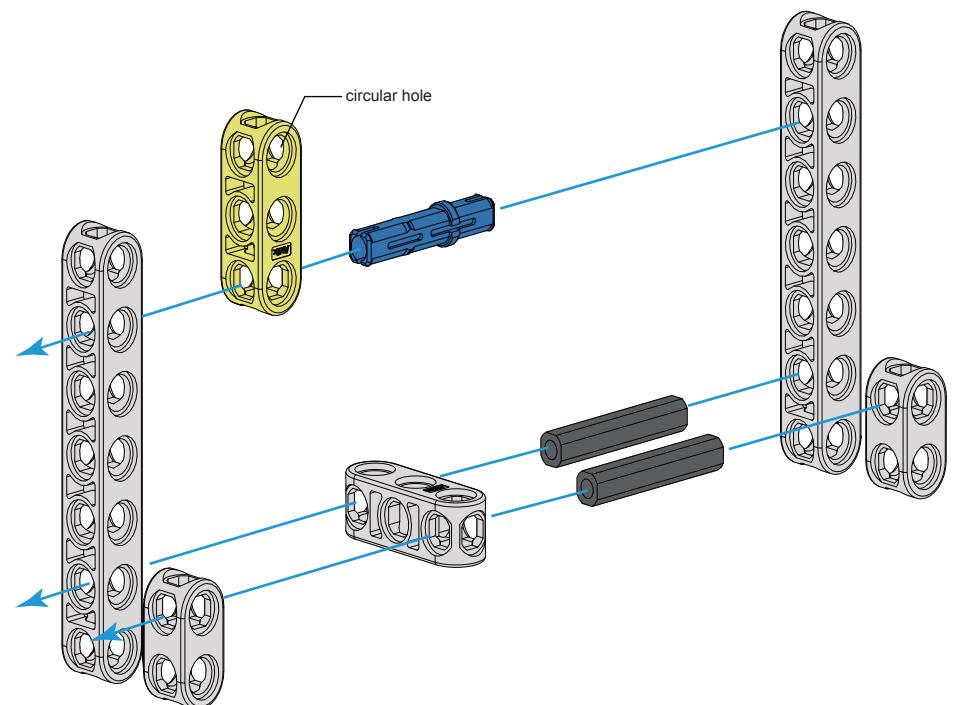
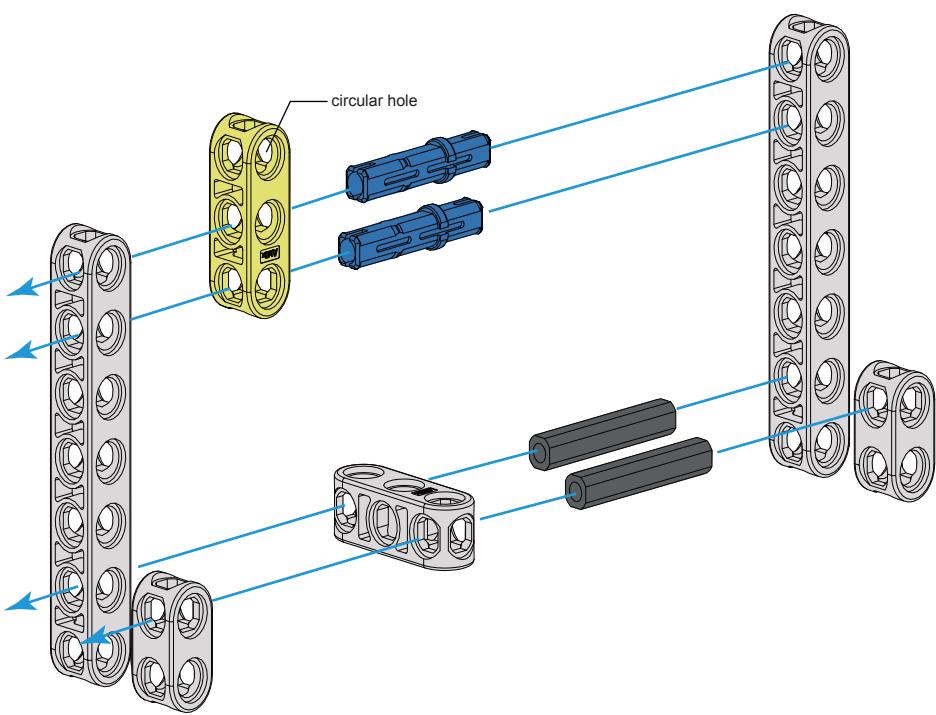
4# Slab	x3	Beam 20	x5	Beam 30	x11	Beam 30	x2
Beam 70	x7	TubeSR30	x4	TubeSR40	x2	Shaft Sleeve0.5	x4
Bearing	x11	Tube connector(C) 10x10_90	x1	Tight Bolt 2	x20	Pin20	x1
Tight Bolt 3	x7	5*7 Beam	x2				

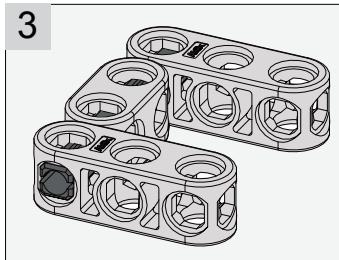
1

Beam 70	x2	Beam 20	x2	Beam 30	x1
Beam 30	x1	Tight Bolt 3	x2	TubeSR30	x2

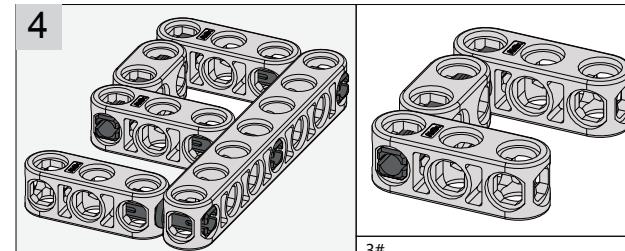
2

Beam 70	x2	Beam 20	x2	Beam 30	x1
Beam 30	x1	Tight Bolt 3	x1	TubeSR30	x2

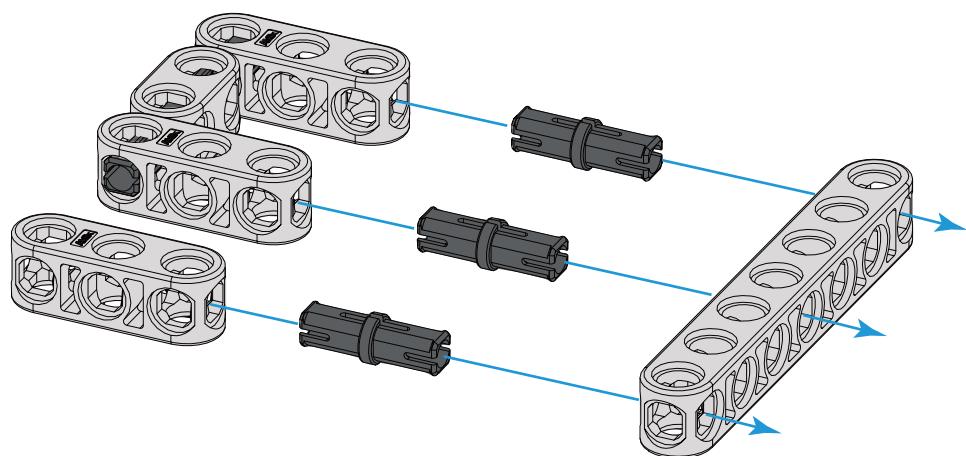
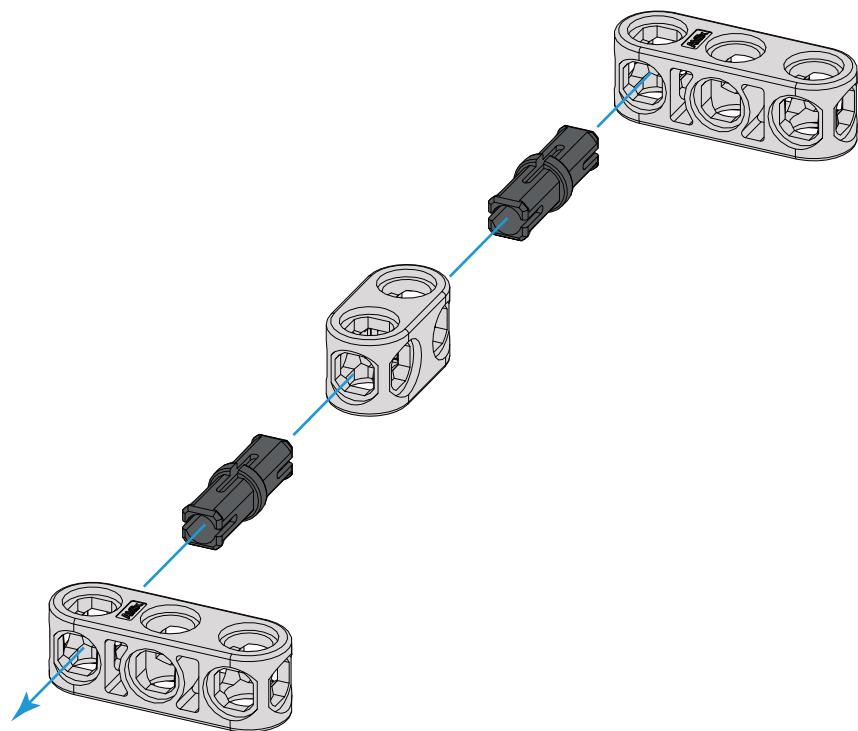




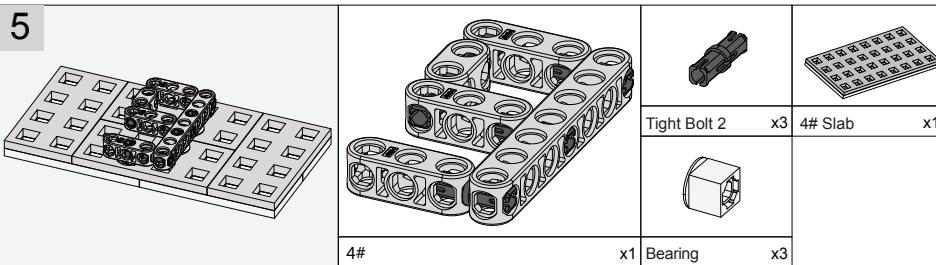
Beam 30	x2	Beam 20	x1
Tight Bolt 2	x2		



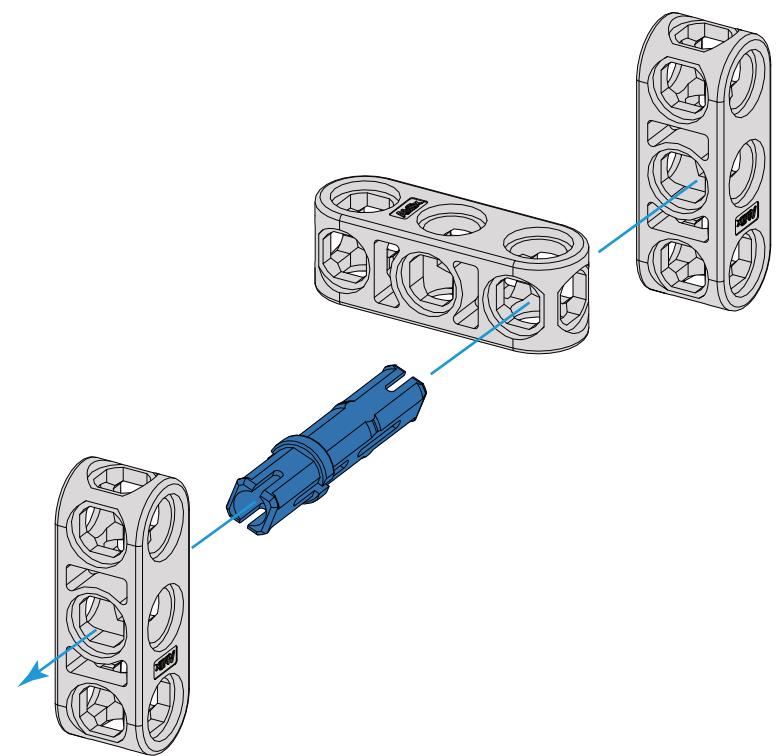
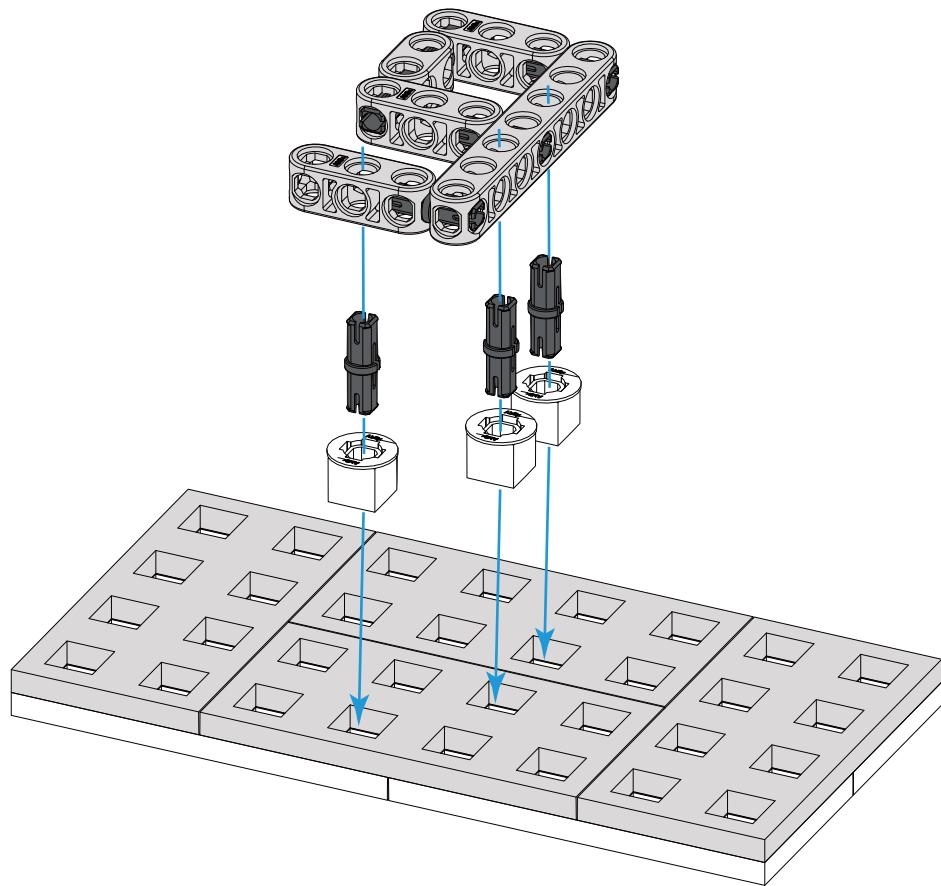
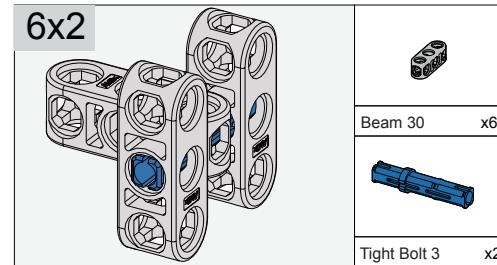
Beam 30	x1	Beam 70	x1
Tight Bolt 2	x3		

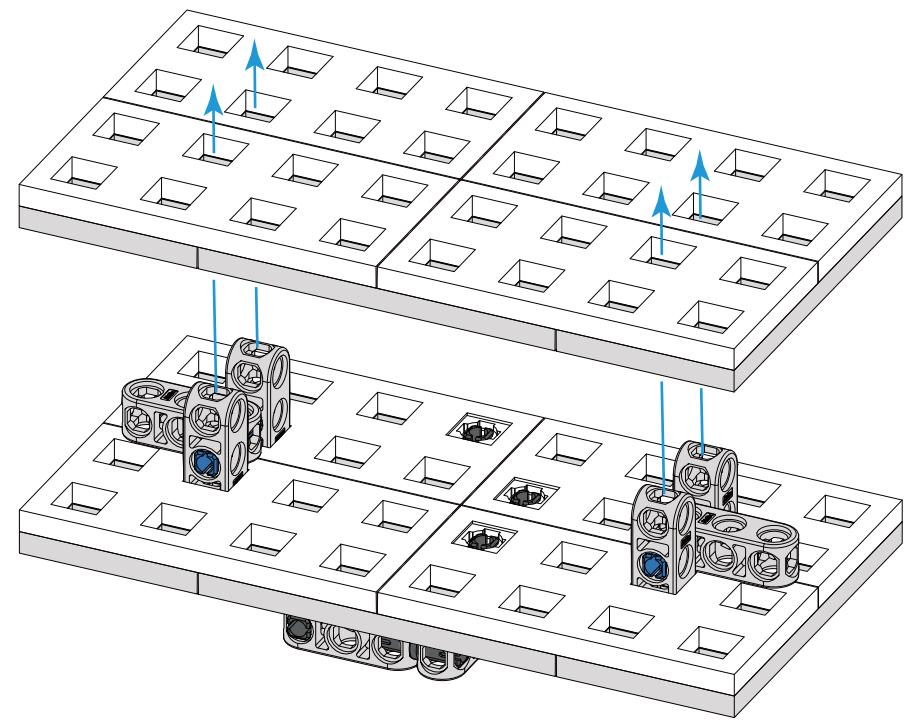
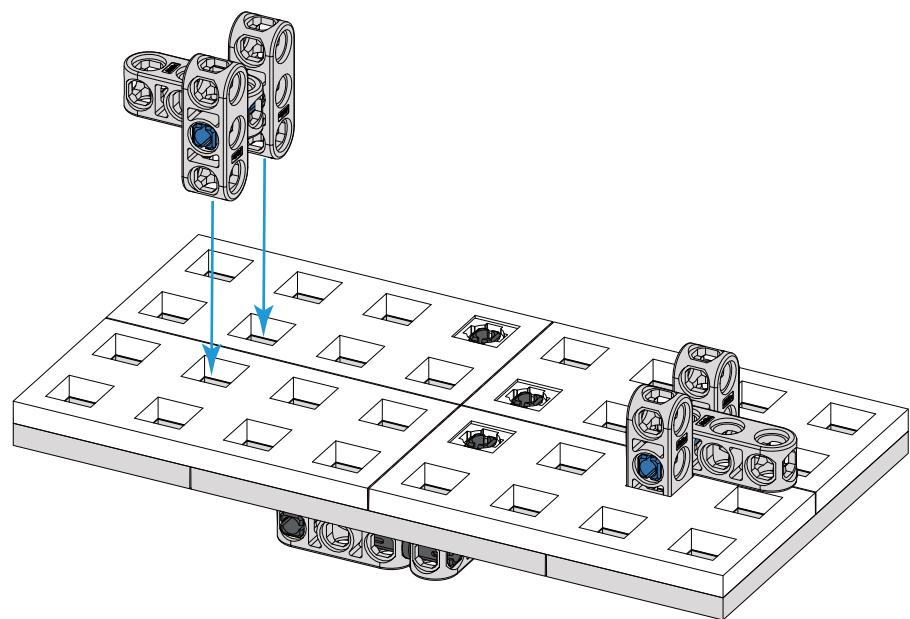
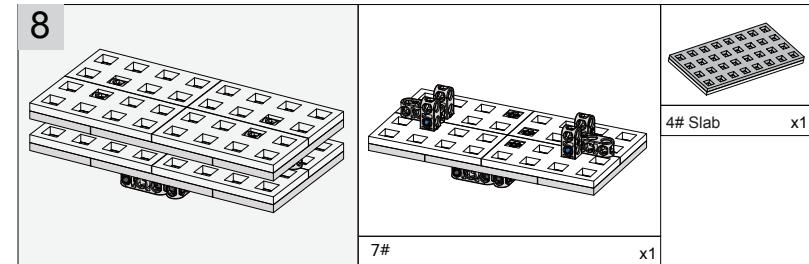
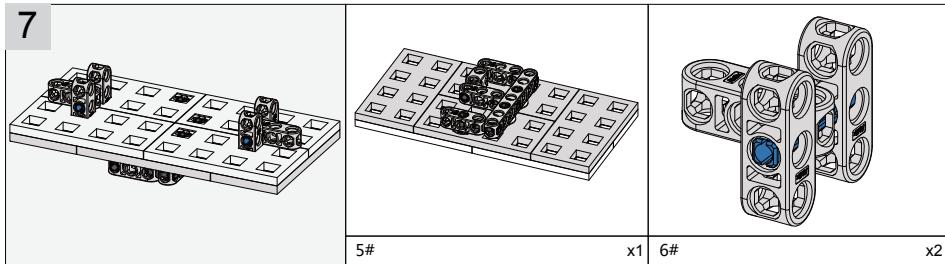


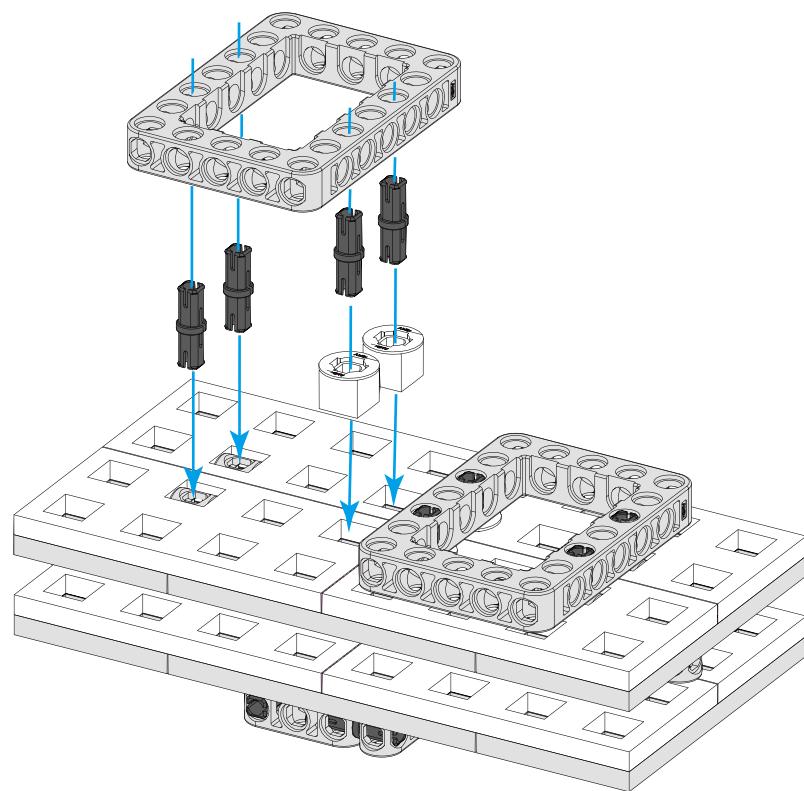
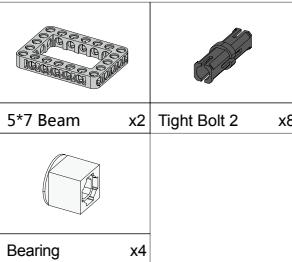
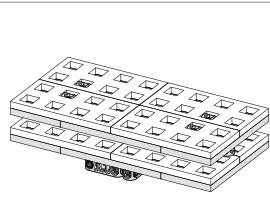
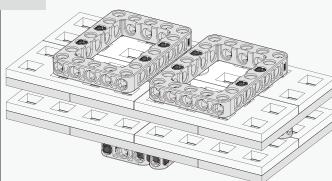
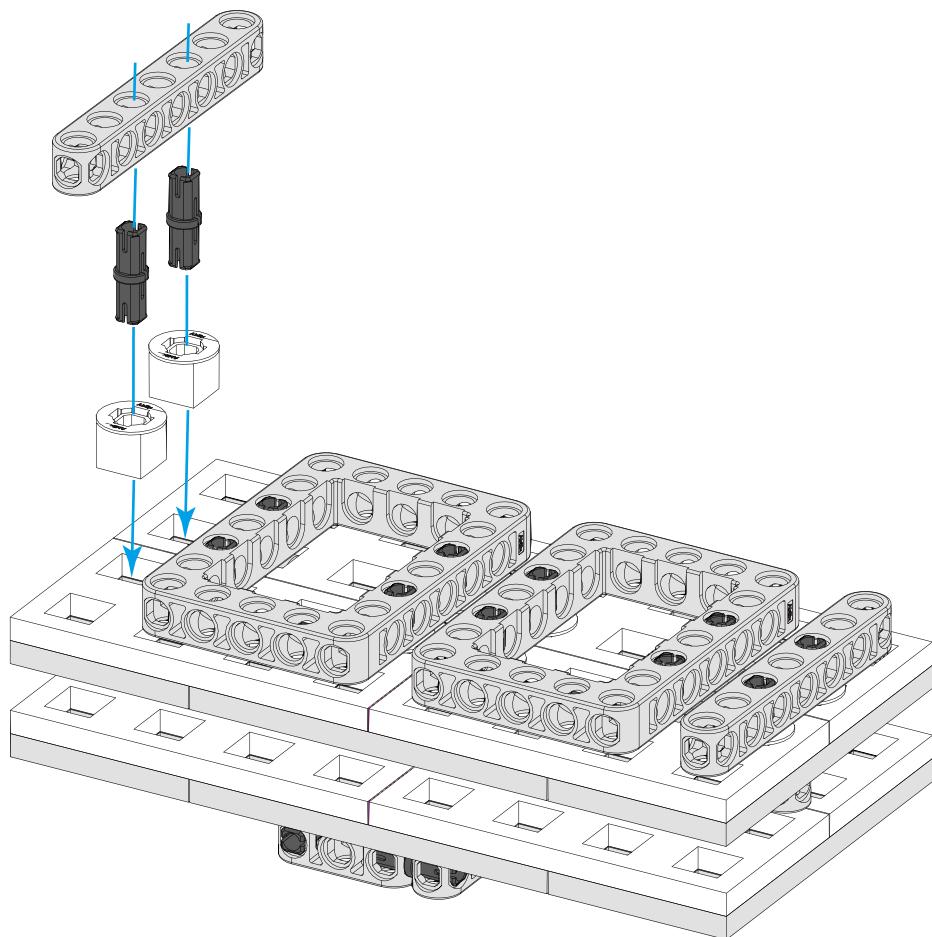
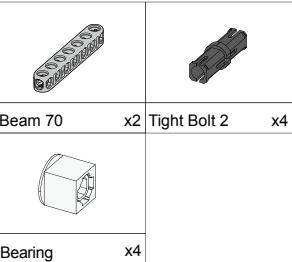
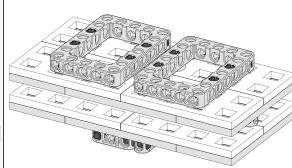
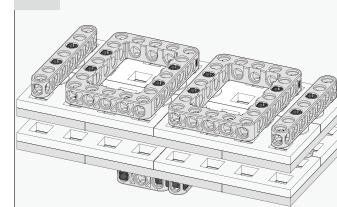
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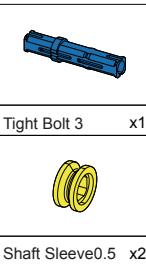
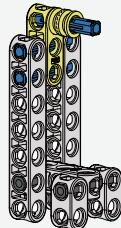
6x2





9**10**

11

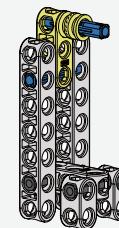


1#

x1

Shaft Sleeve0.5 x2

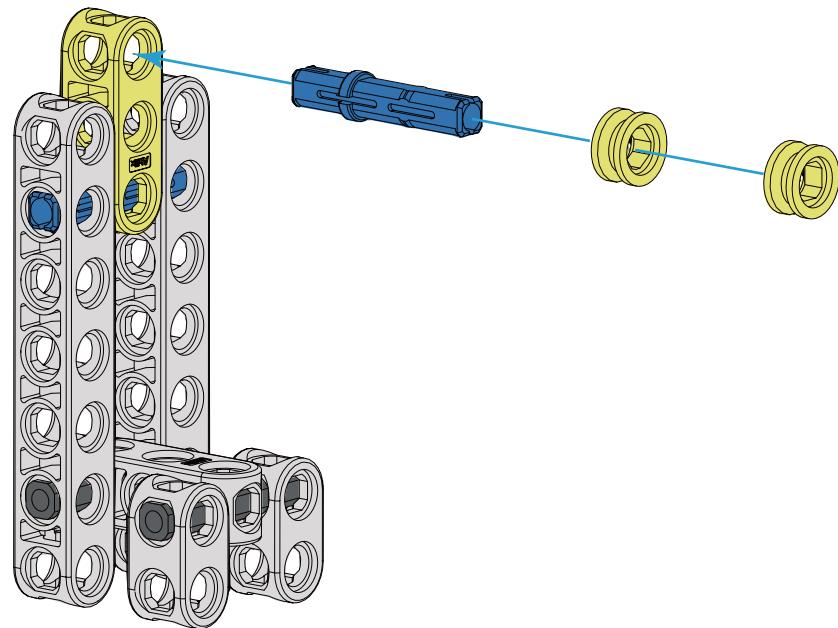
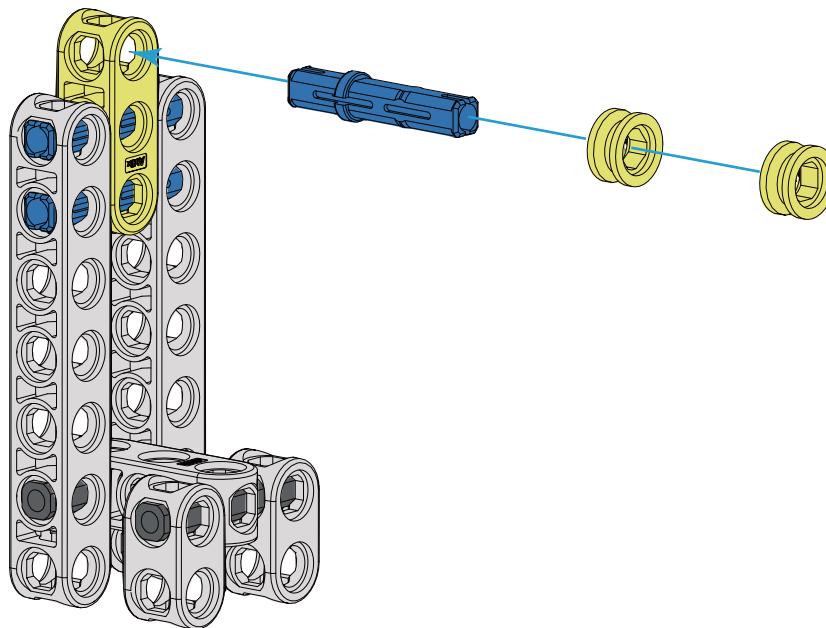
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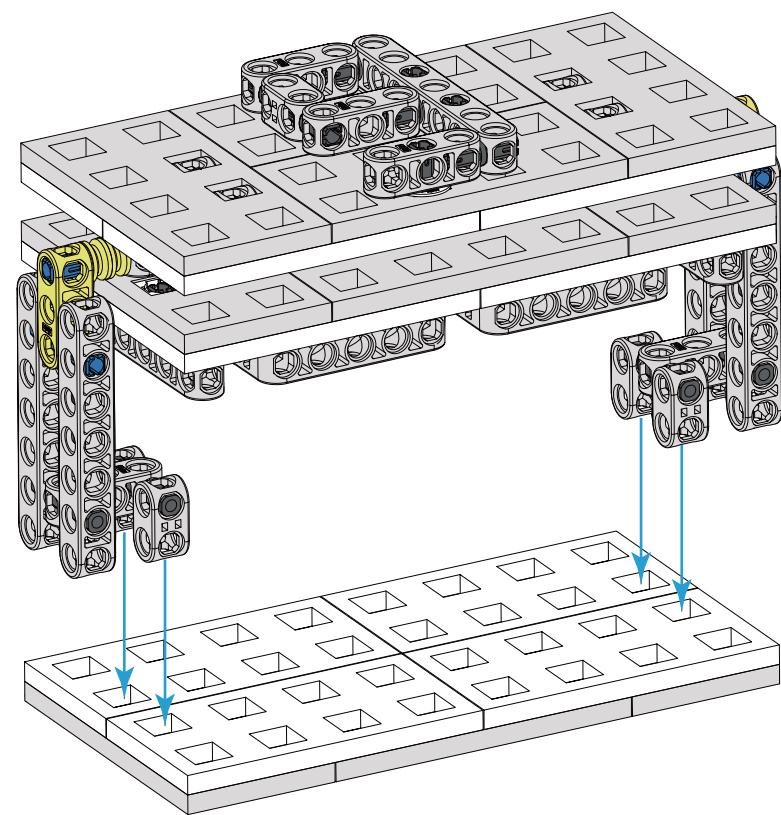
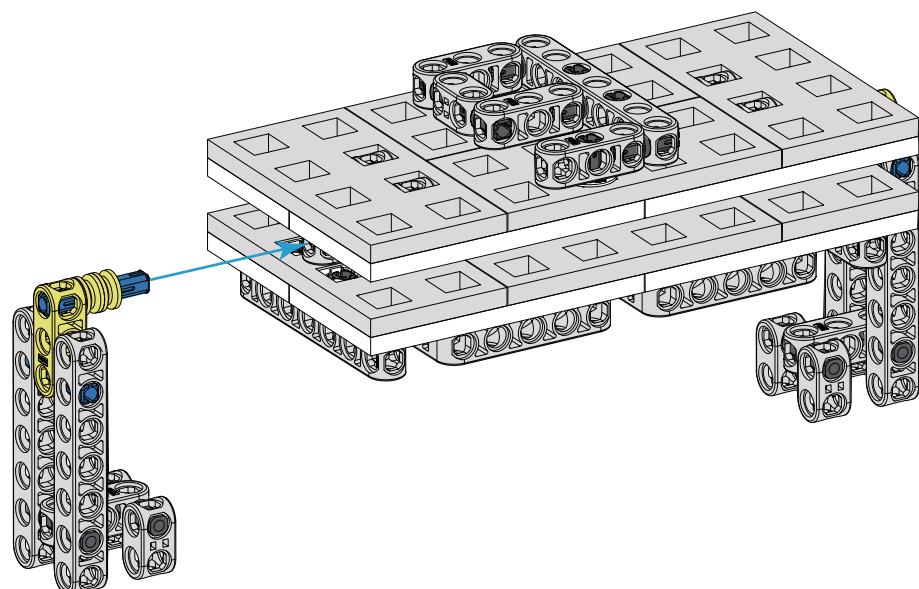
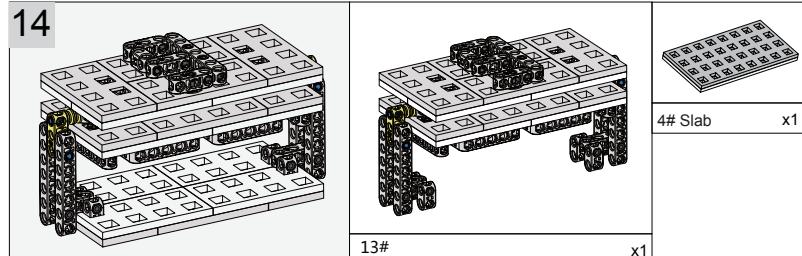
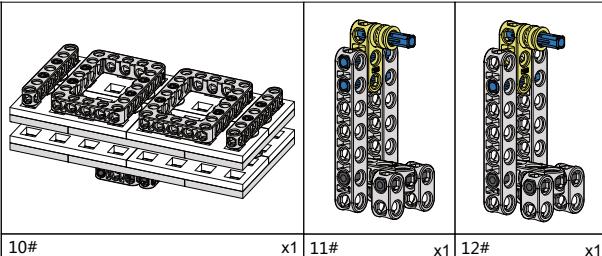
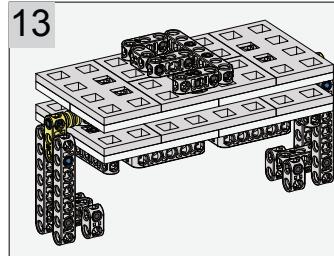


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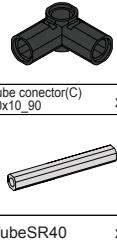
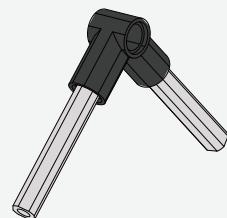
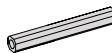
x1

Shaft Sleeve0.5 x2

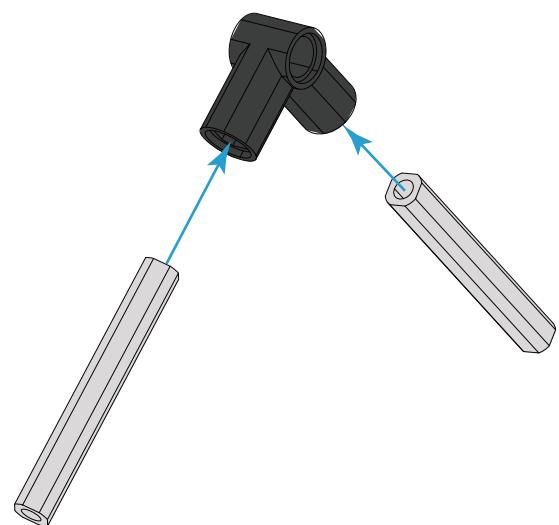




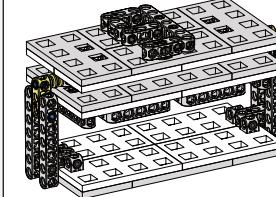
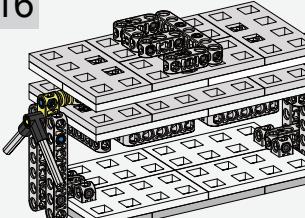
15

Tube conector(C)
10x10_90 x1

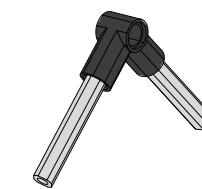
TubeSR40 x2



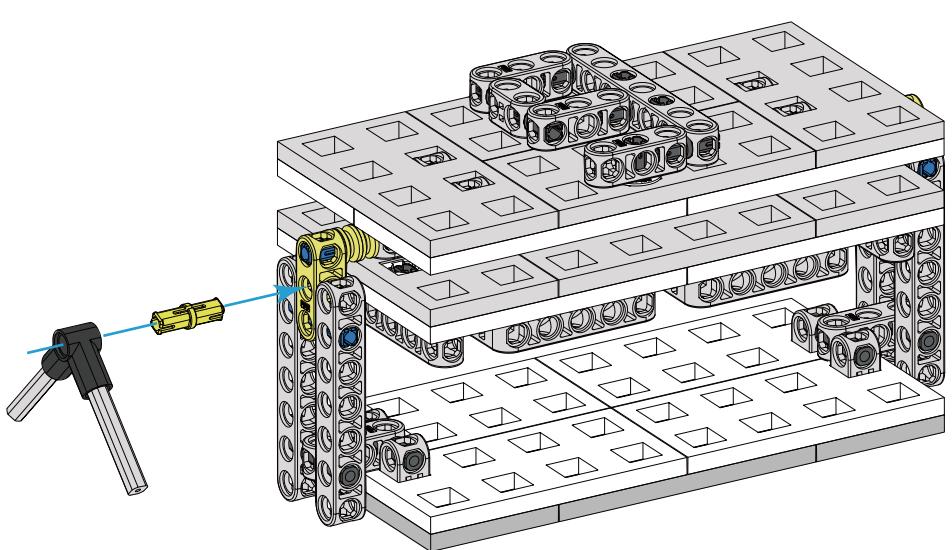
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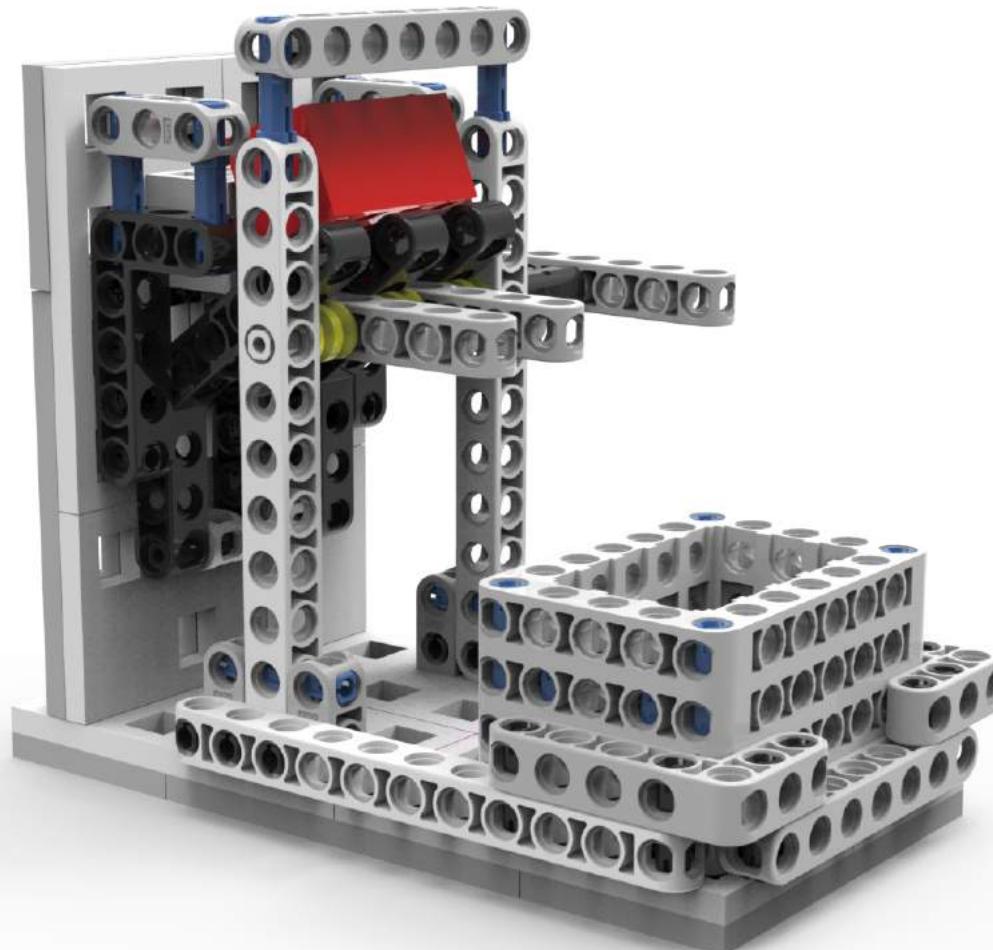
14# x1 15# x1



Pin20 x1

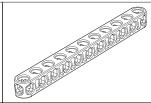


Data Center



Shaft Sleeve0.5 x6	TubeSR20 x8	TubeSR50 x1	TubeSR80 x1
Tight Bolt 2 x19	Tight Bolt 3 x18	Tube Connector(S)20 x1	Bearing x4
Beam 20 x2	Beam 30 x6	Beam 70 x5	Beam 110 x4
Beam(C)4X6_126.87 x3	Beam(C)3X5_90 x2	Beam(C)3X5_90 x2	5*7 Beam x4
Small slab x4	Small slab x4	Middle L connector x2	4# Slab x1
3# Slab x1			

1x2

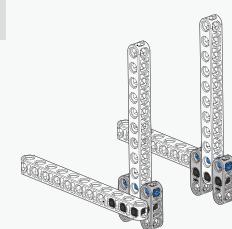


Beam 30 x4 Beam 110 x2

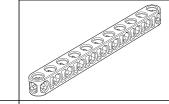


Tight Bolt 3 x2

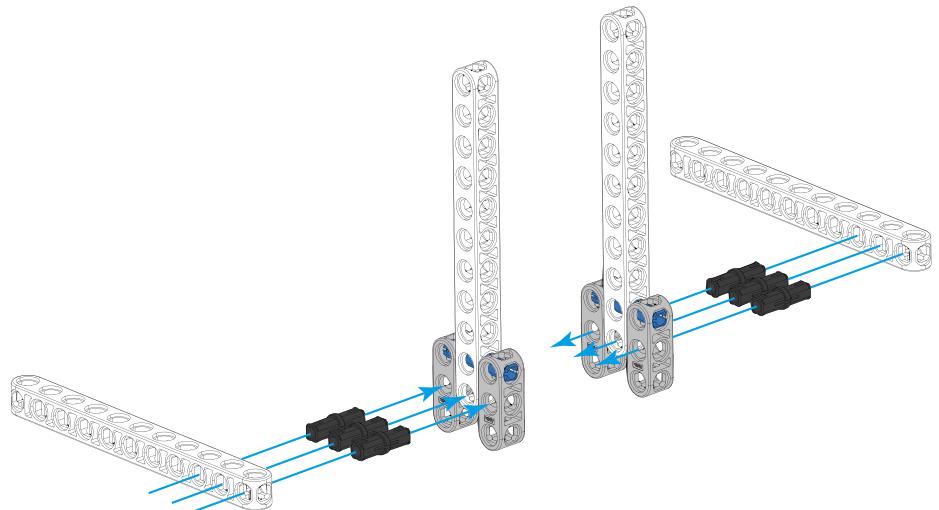
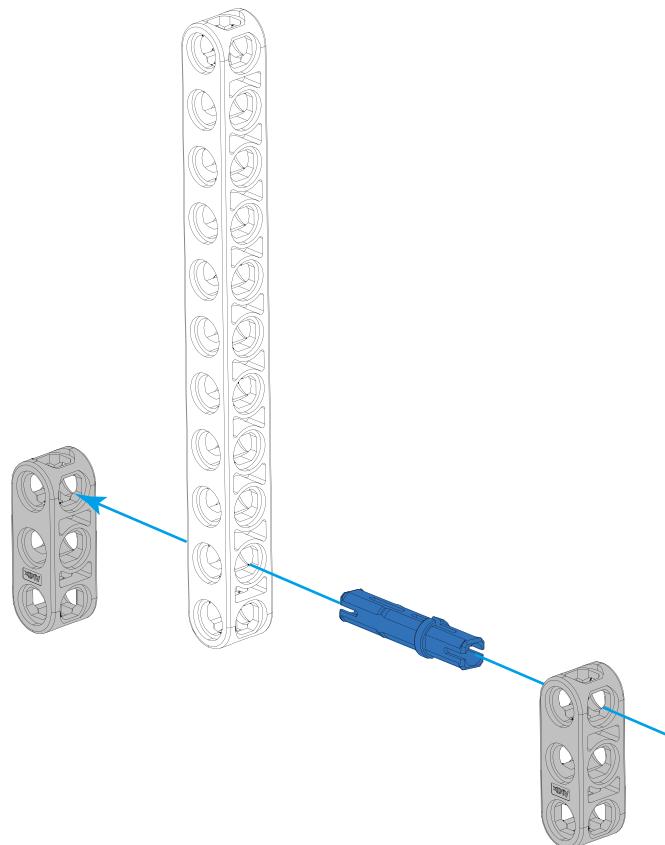
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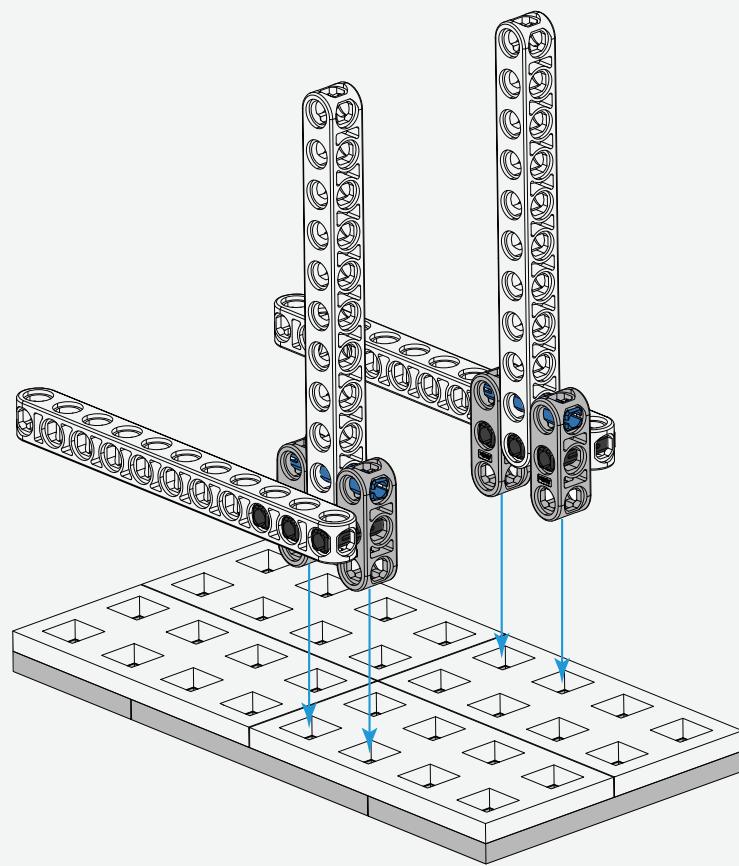
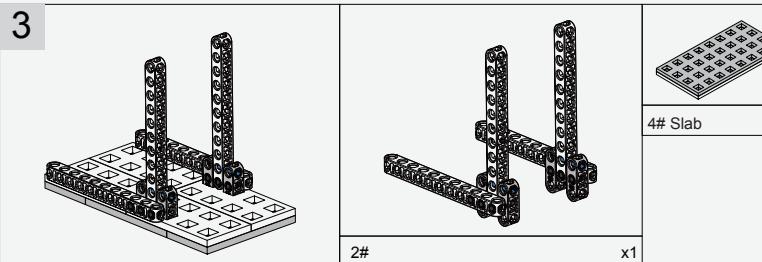
Tight Bolt 2 x6



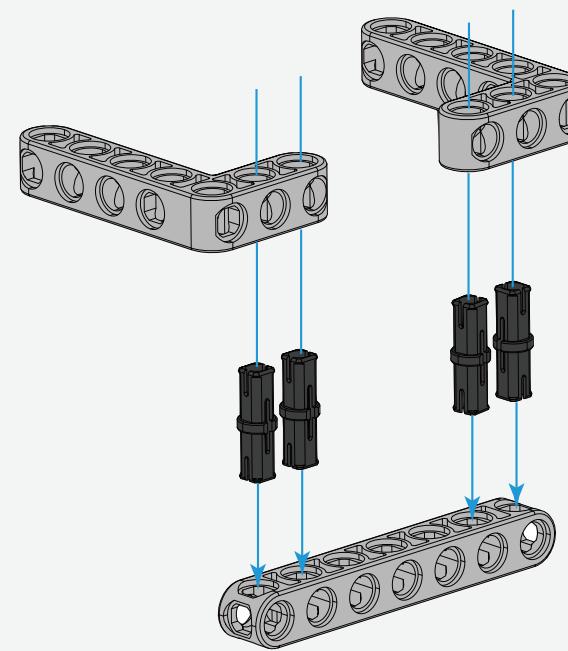
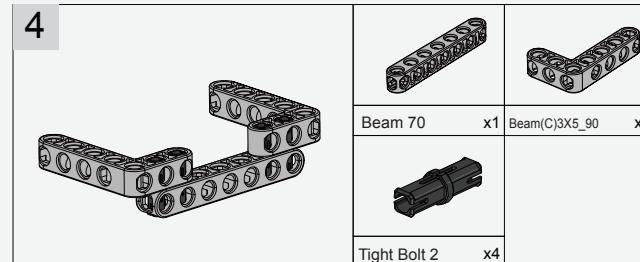
1# x2 Beam 110 x2

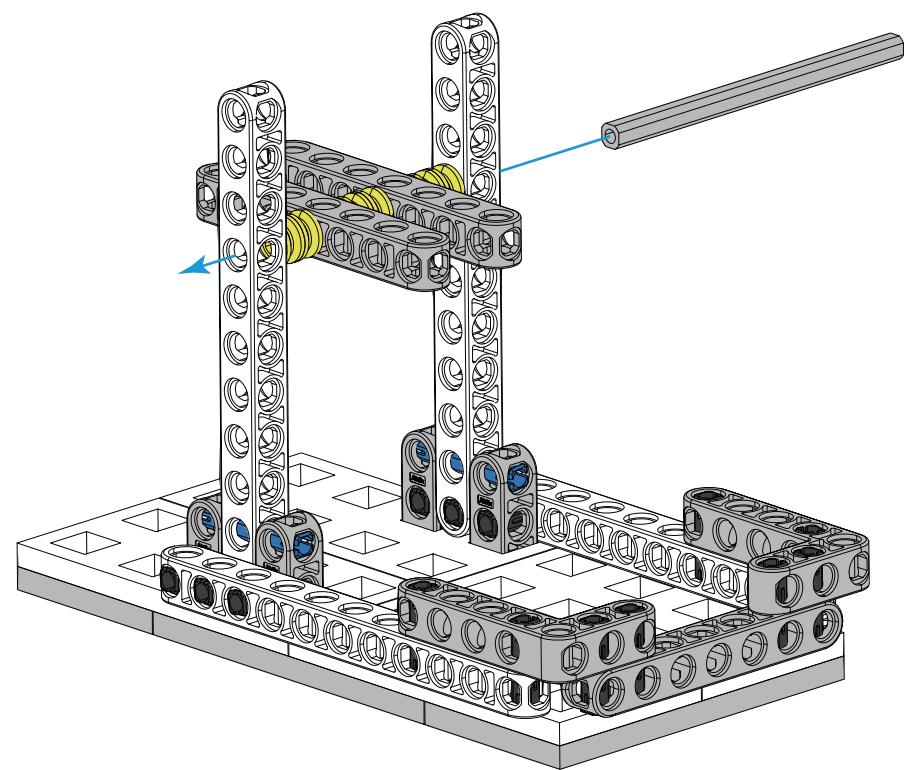
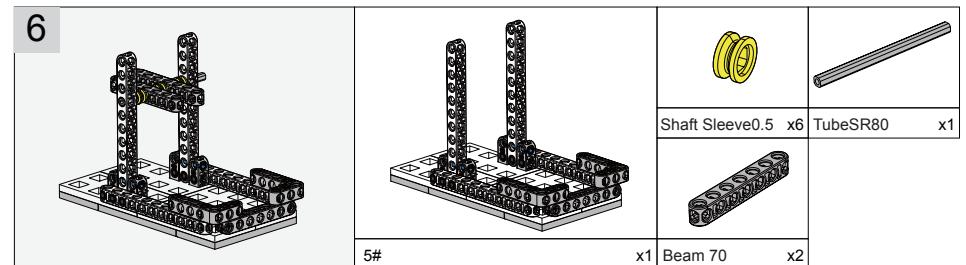
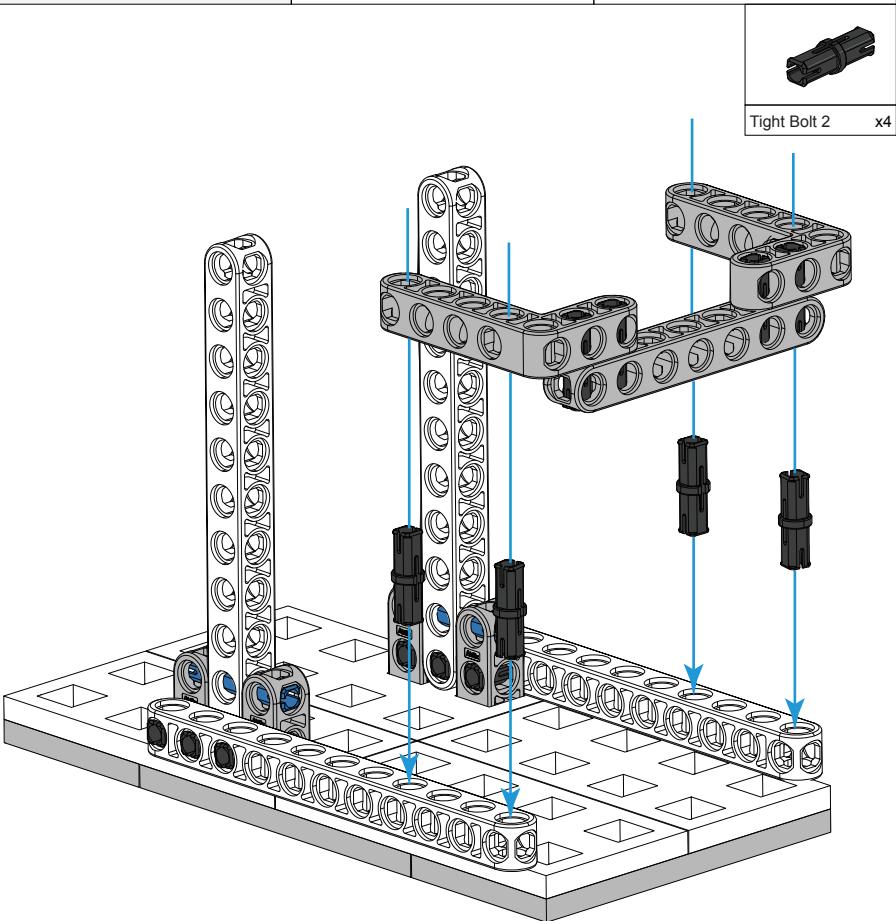
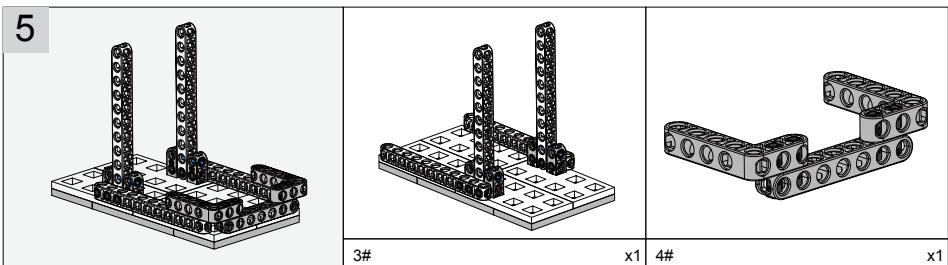


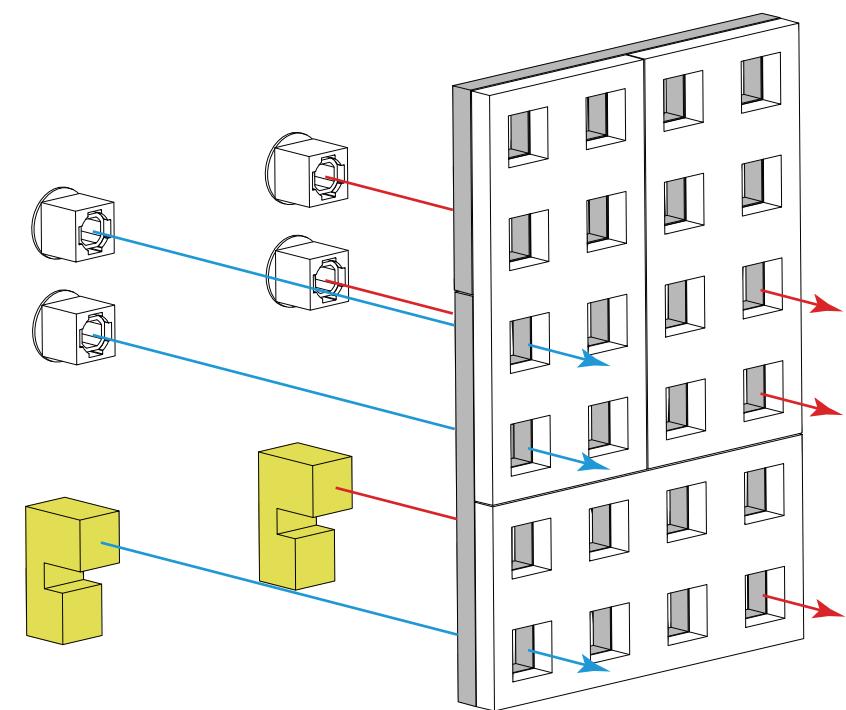
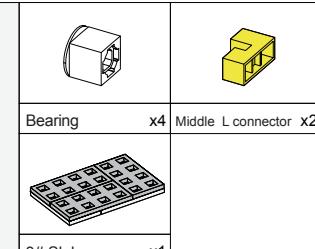
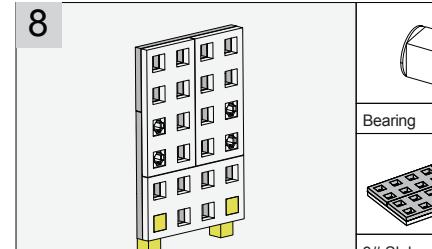
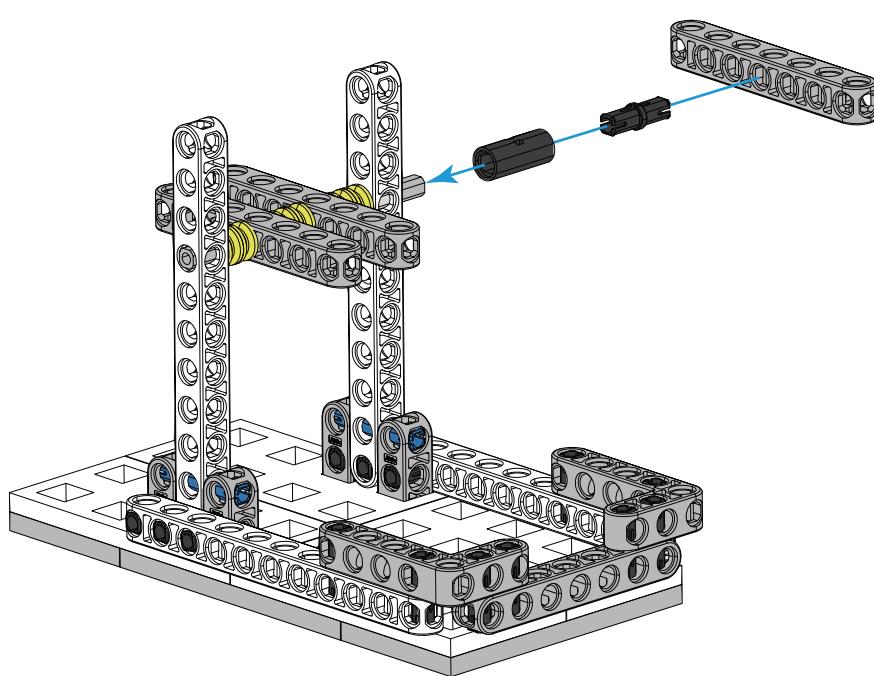
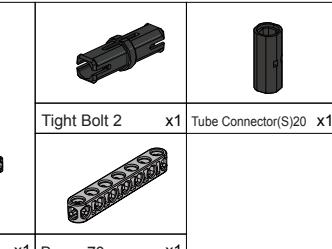
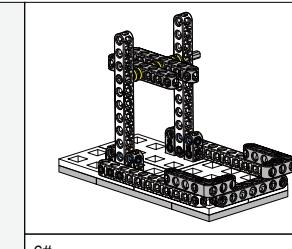
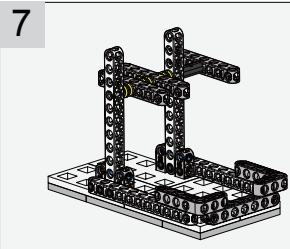
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4



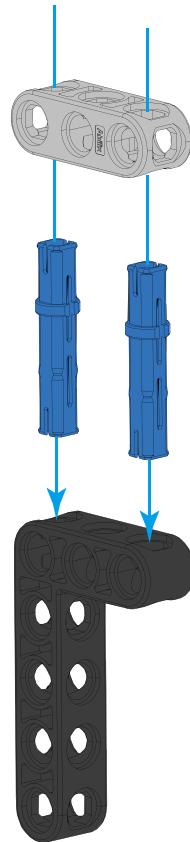




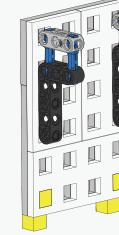
9x2



Beam 30	x2	Tight Bolt 3	x4
Beam(C)3X5_90	x2		

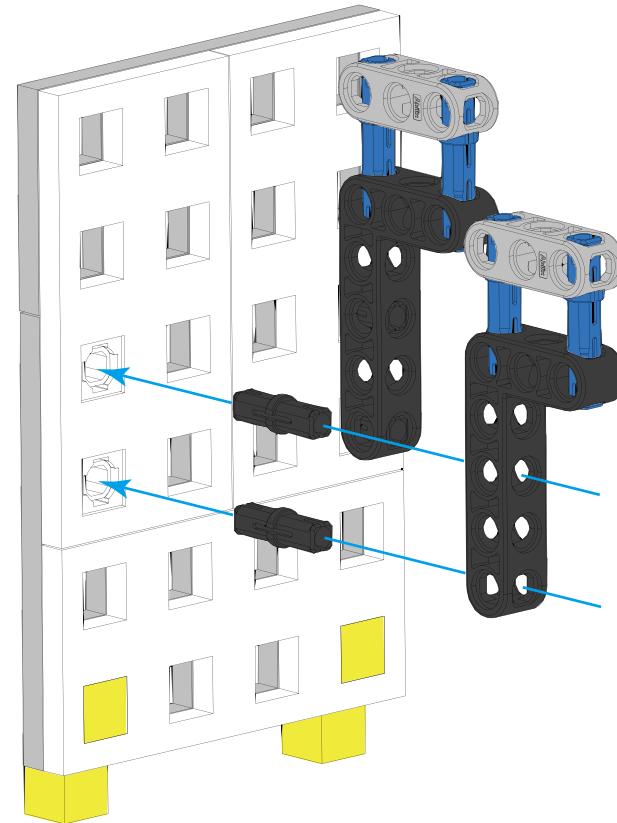


10



9# x2 8# x1

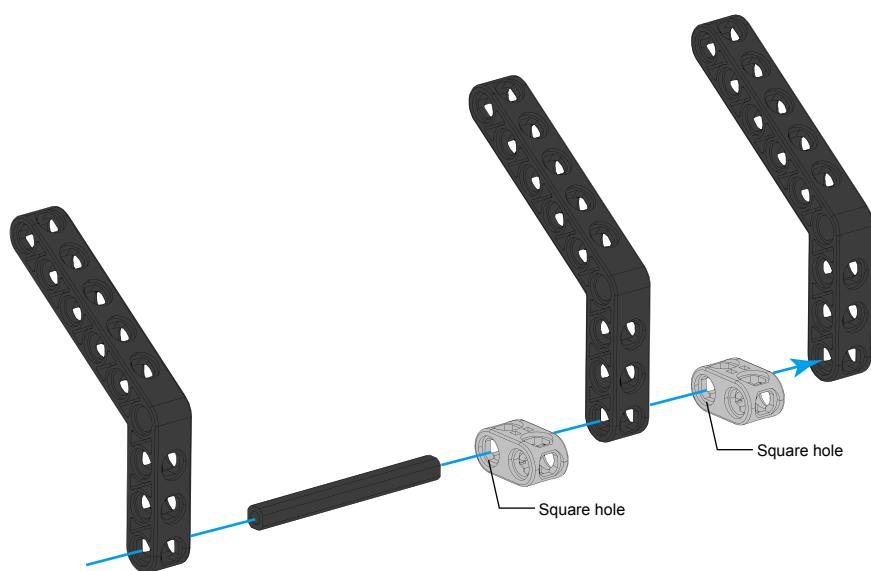
Tight Bolt 2	x4
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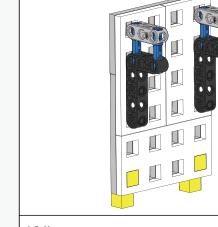
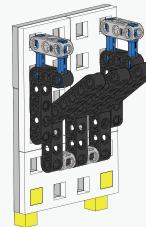
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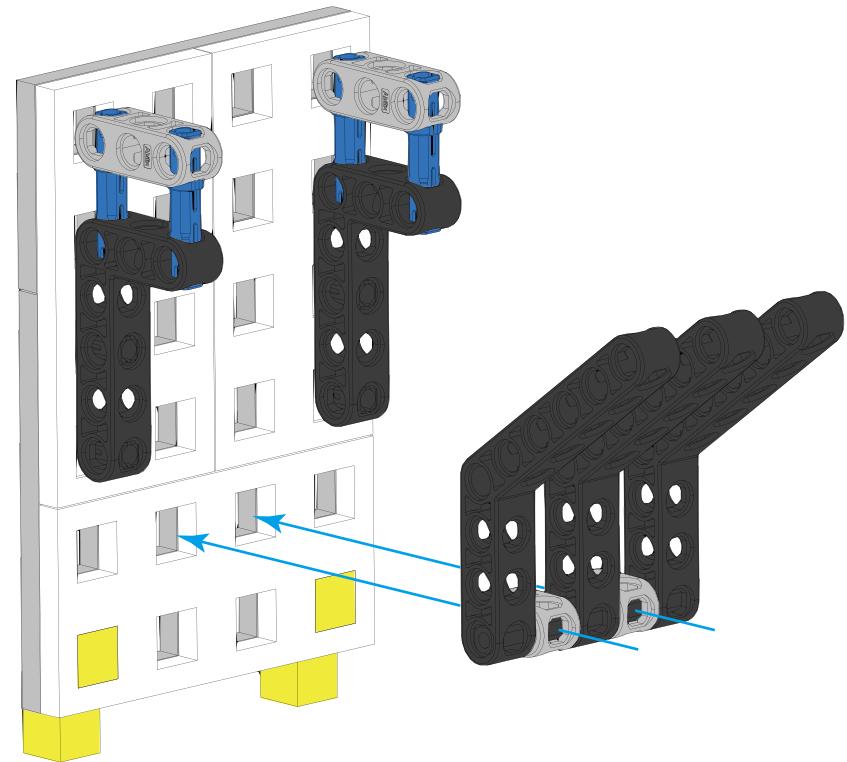
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	TubeSR50	x1			

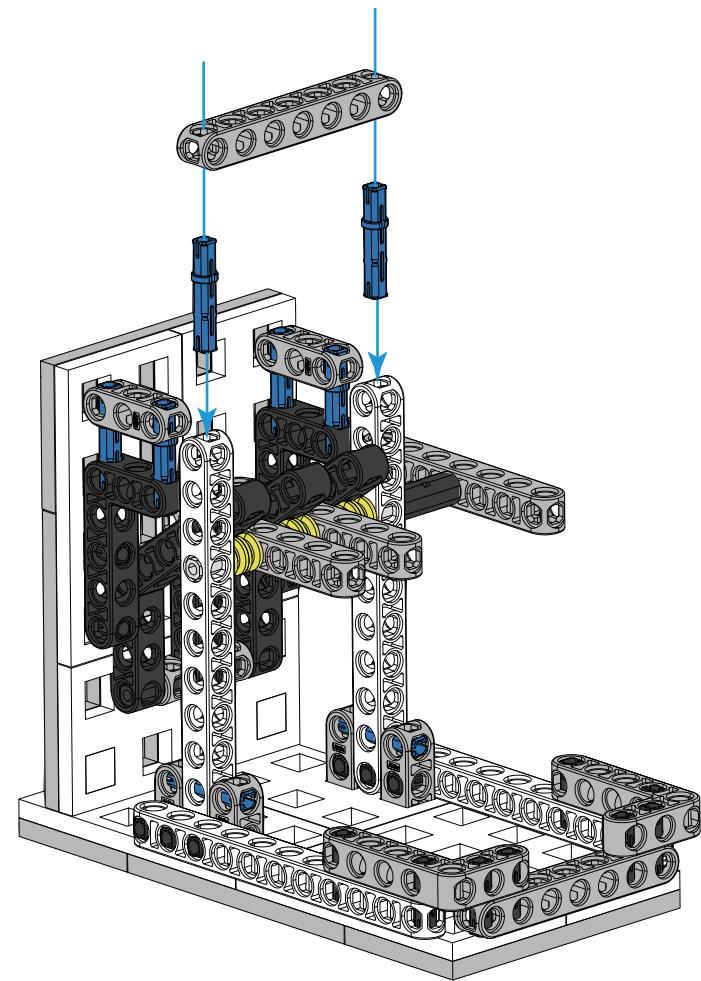
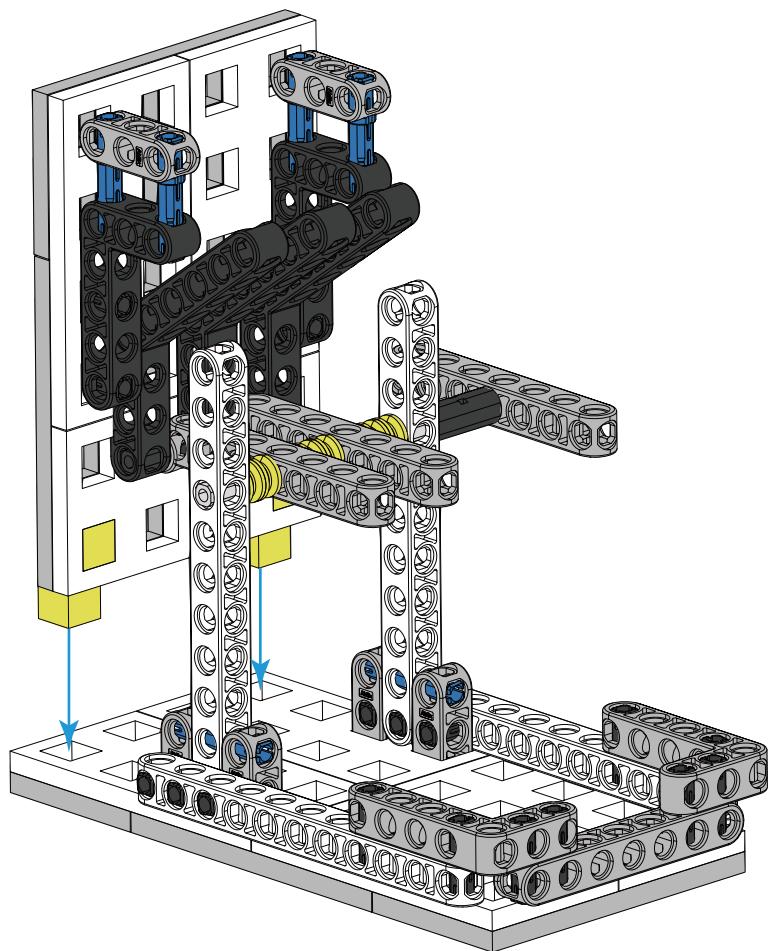
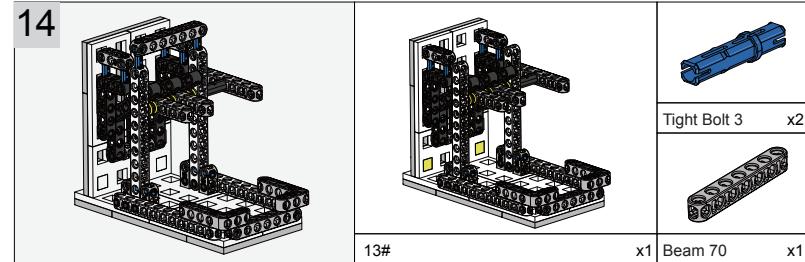
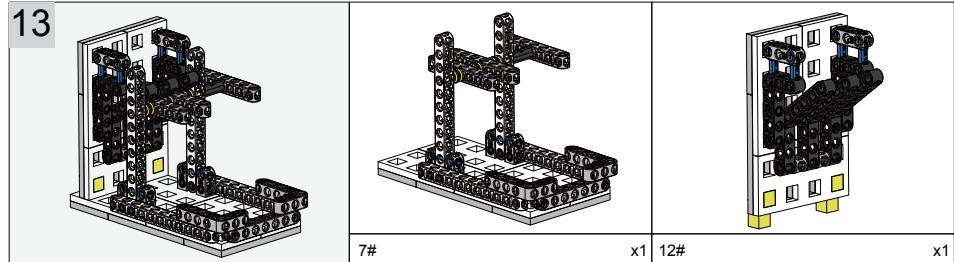


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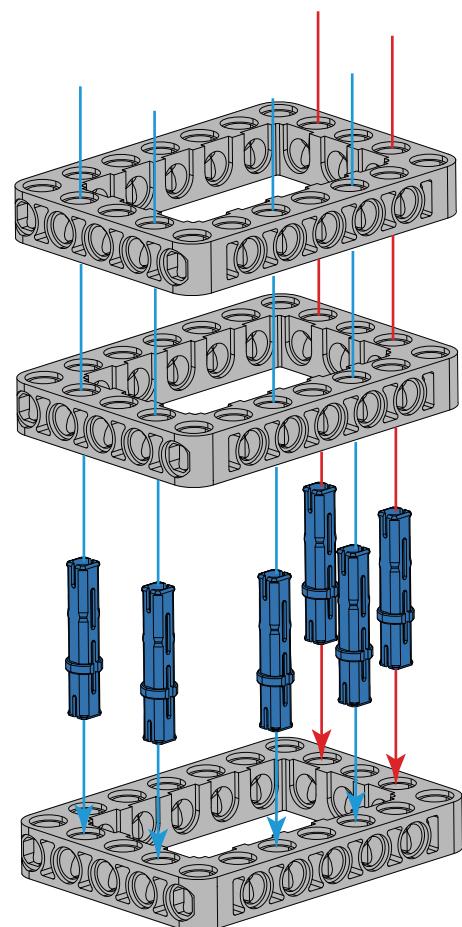
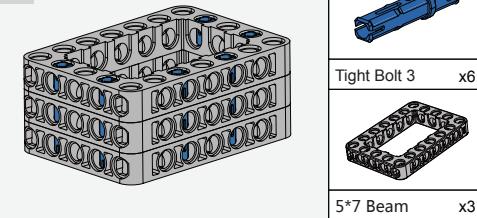


10# x1 11# x1

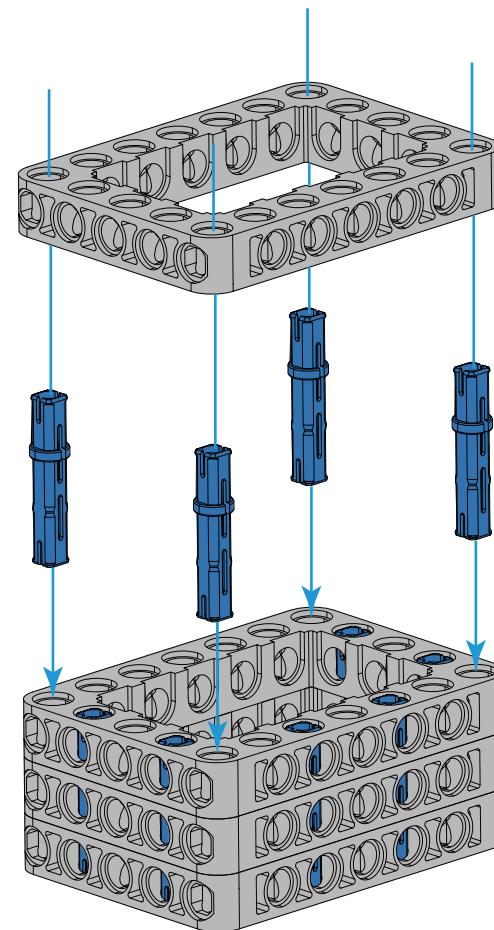
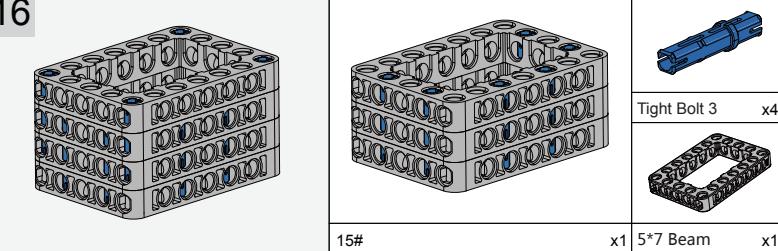


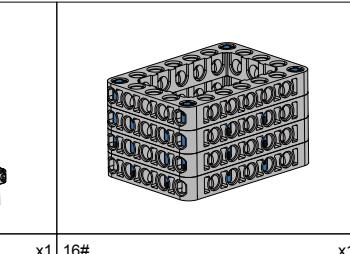
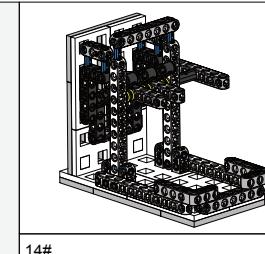
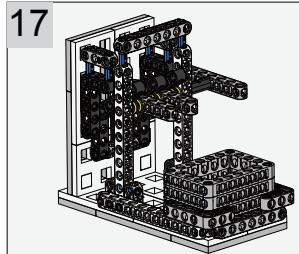


15



16



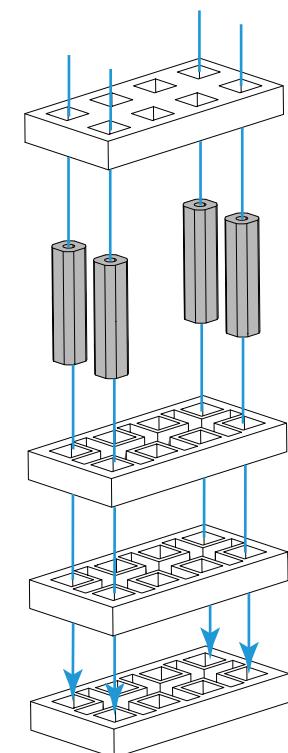
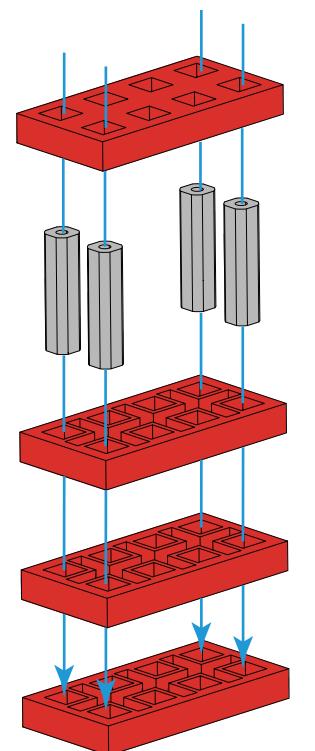
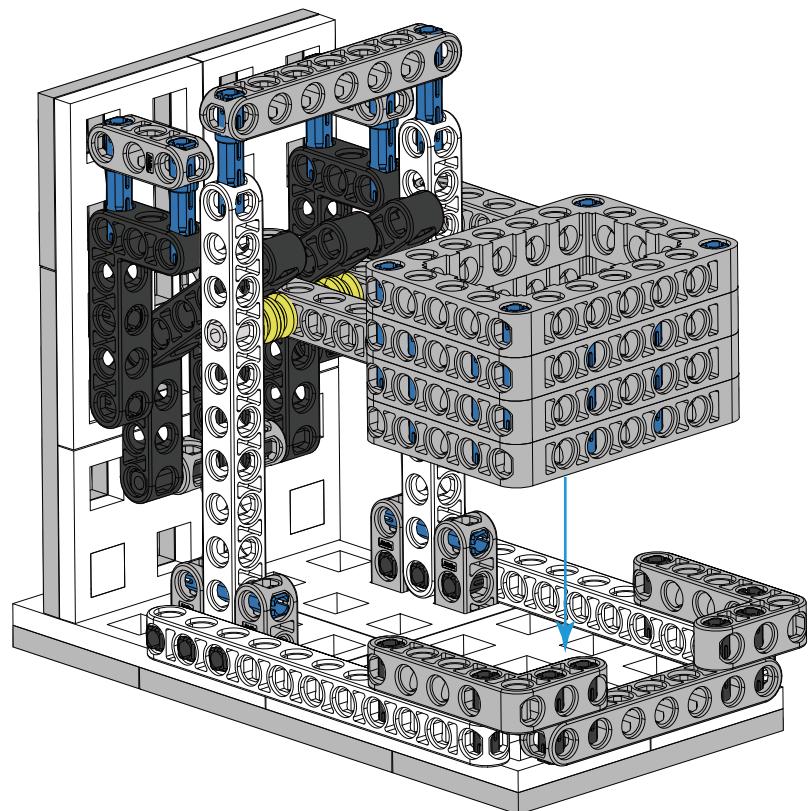
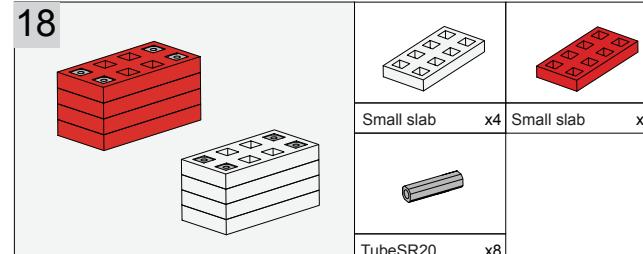


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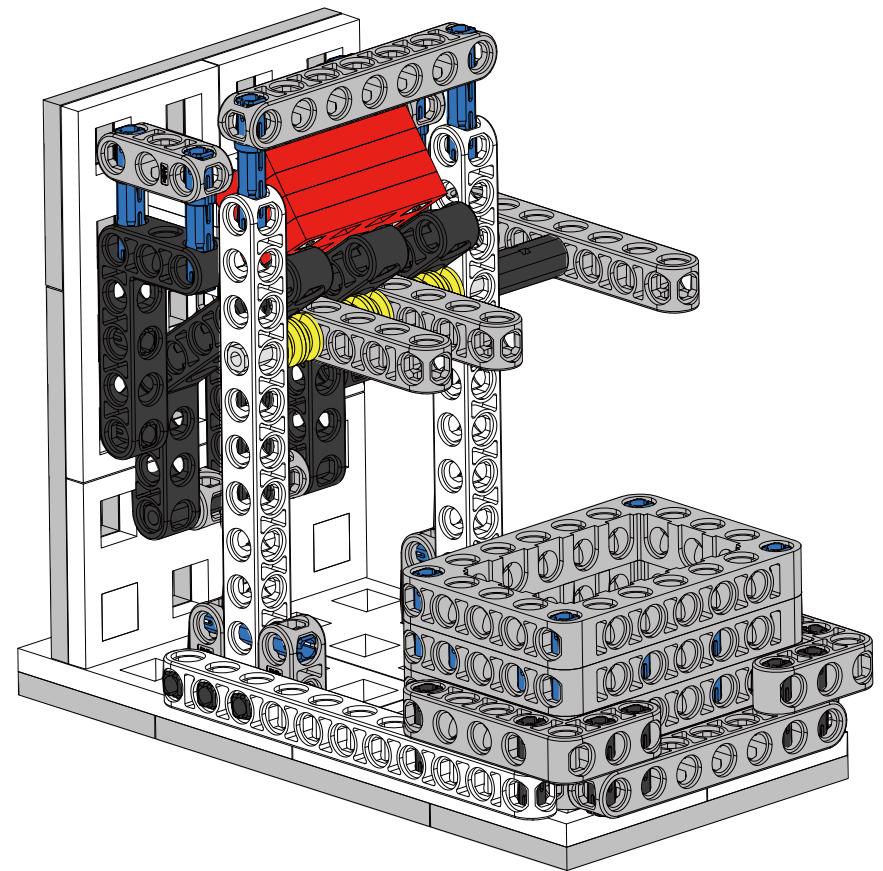
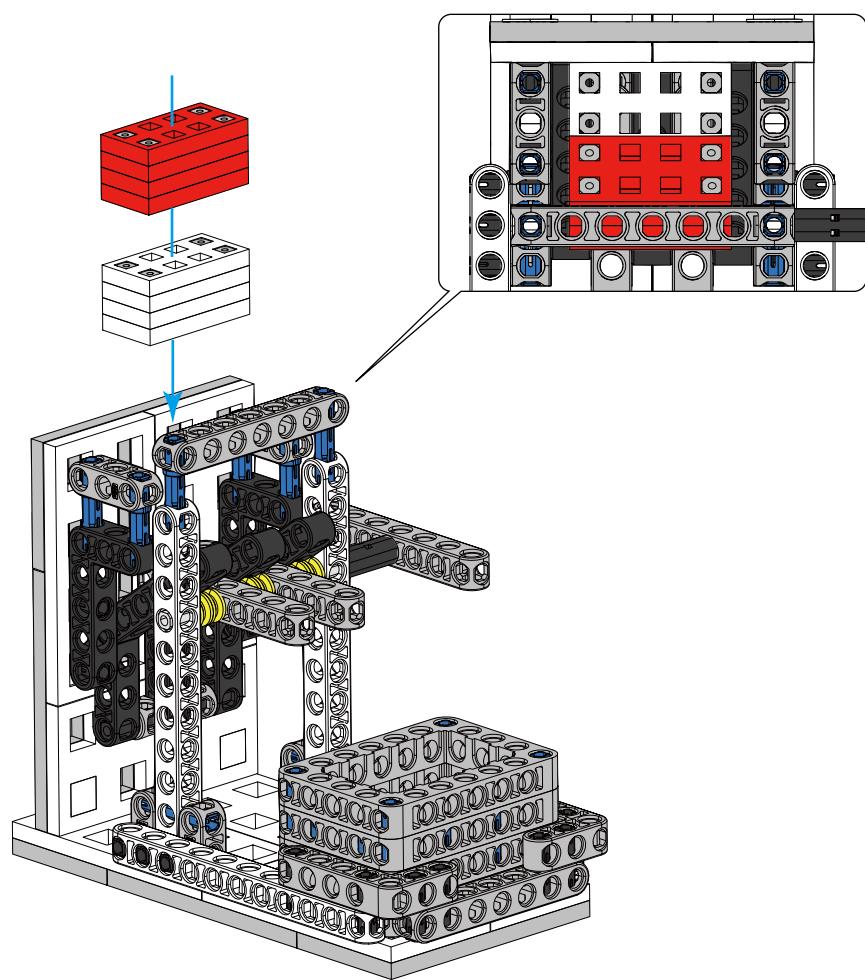
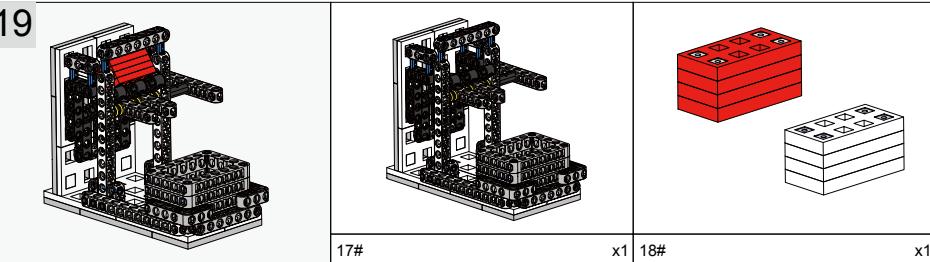
x1

16#

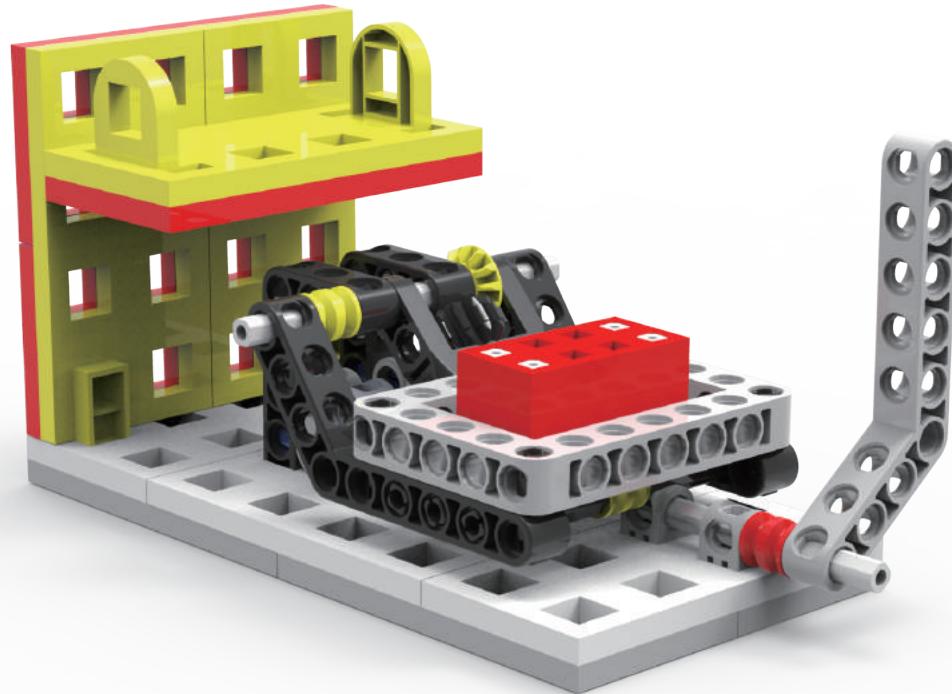
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19

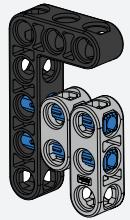


Cloud Server



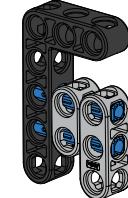
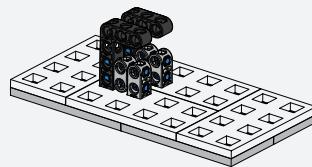
Shaft Sleeve0.5 x2	Shaft Sleeve0.5 x8	Tight Bolt 2 x10	Tight Bolt 3 x7
TubeSR20 x4	TubeSR30 x1	TubeSR80 x2	Tube Connector(S)20 x6
12-tooth Bevel Gear x1	12 Bevel Gear x1	Small slab x4	Universal Joint x1
Beam 20 x4	Beam 30 x2	Beam(C)4X6_126.87 x1	Beam(C)4X6_126.87 x2
Beam(C)3X5_90 x2	5*7 Beam x1	U Beam x1	Middle L connector x4
Middle A connector x2	1# Slab x1	2# Slab x1	4# Slab x1

1x2

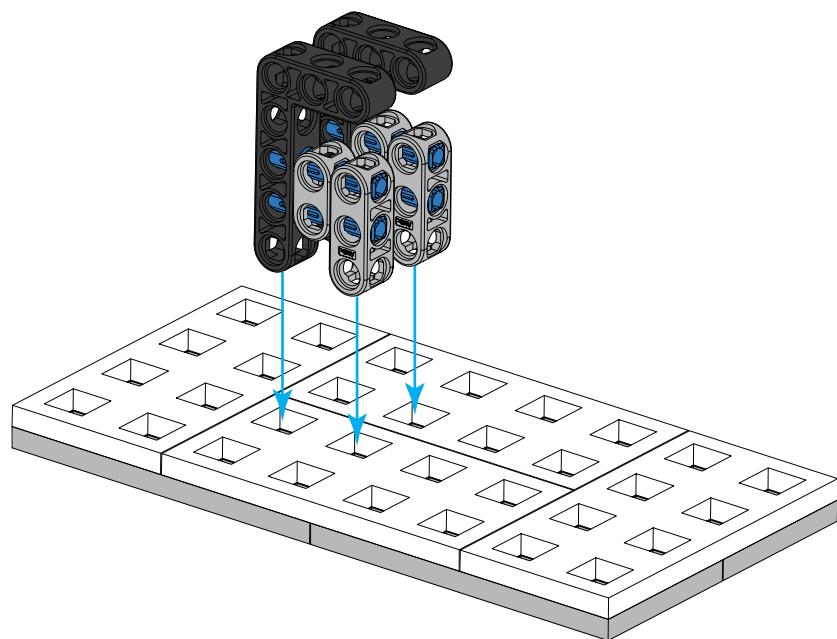
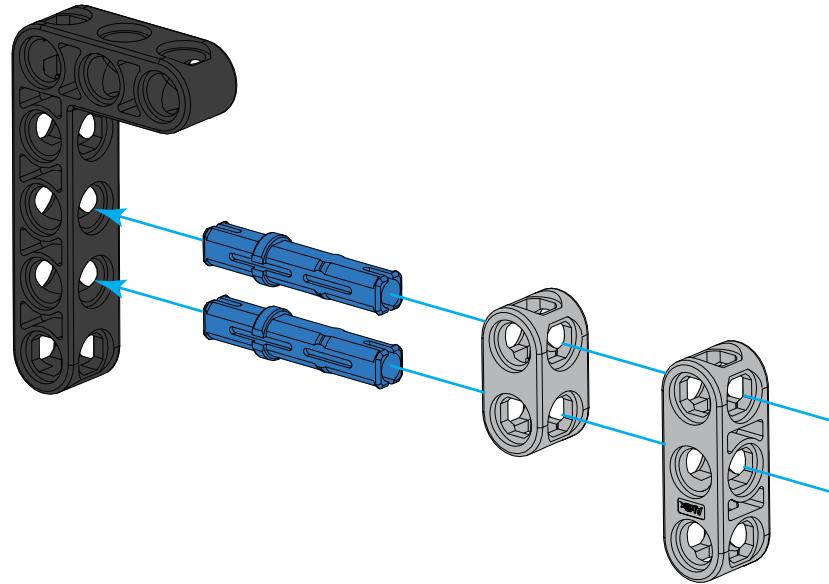


	x2		x2
	x2		x4

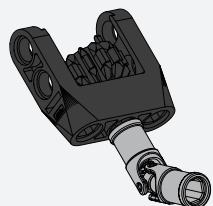
2



	x1
1#	x2

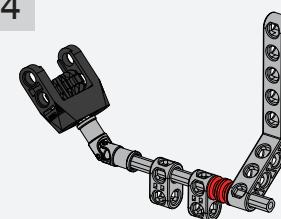


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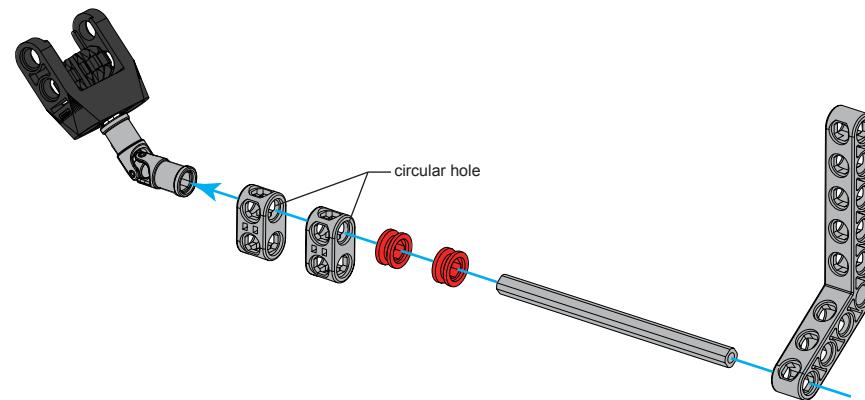
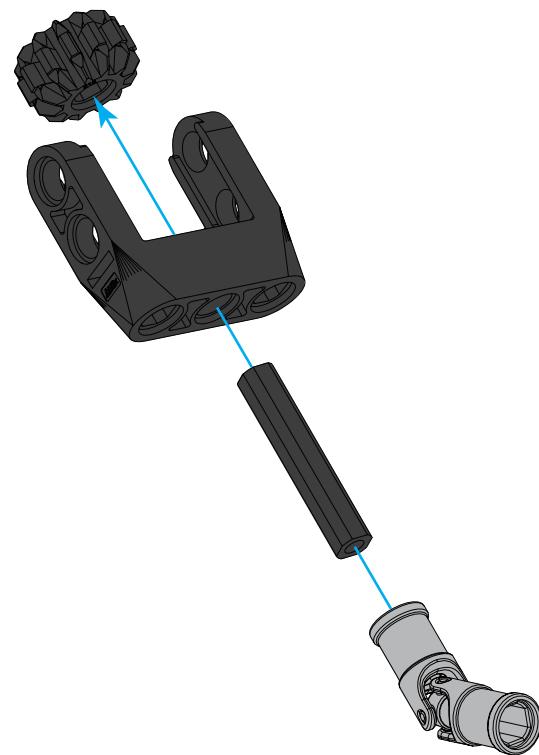


	x1		x1
	x1		x1

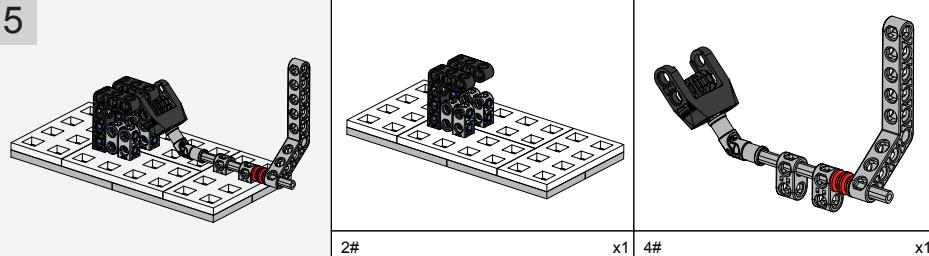
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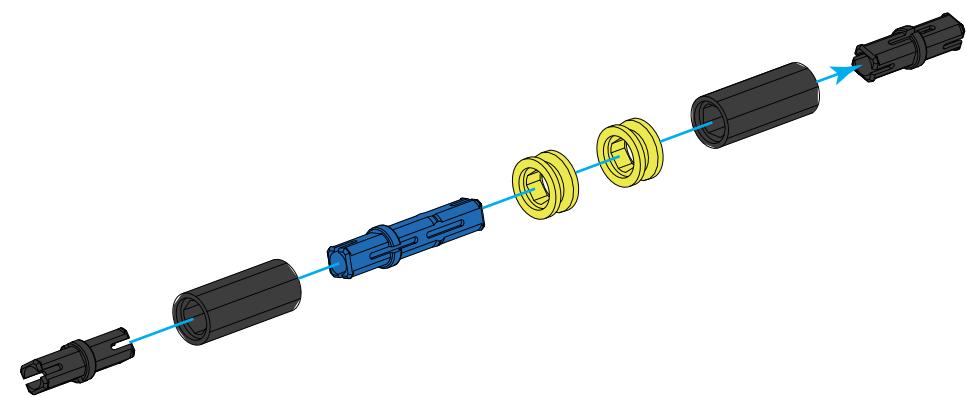
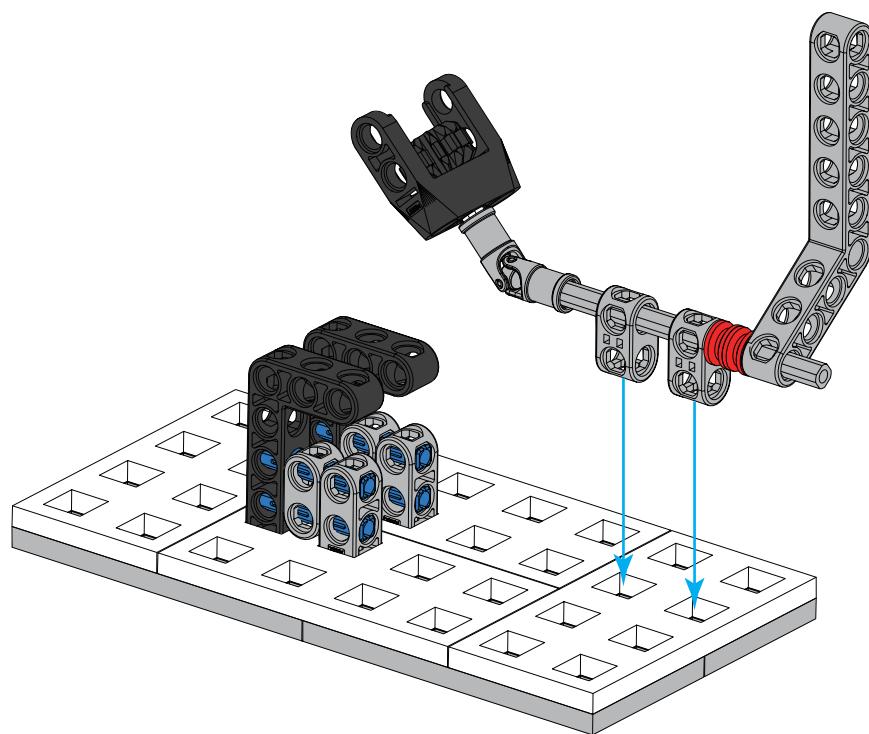
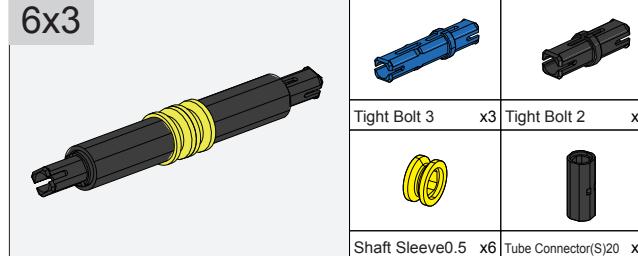
	x2		x2
	x1		x1

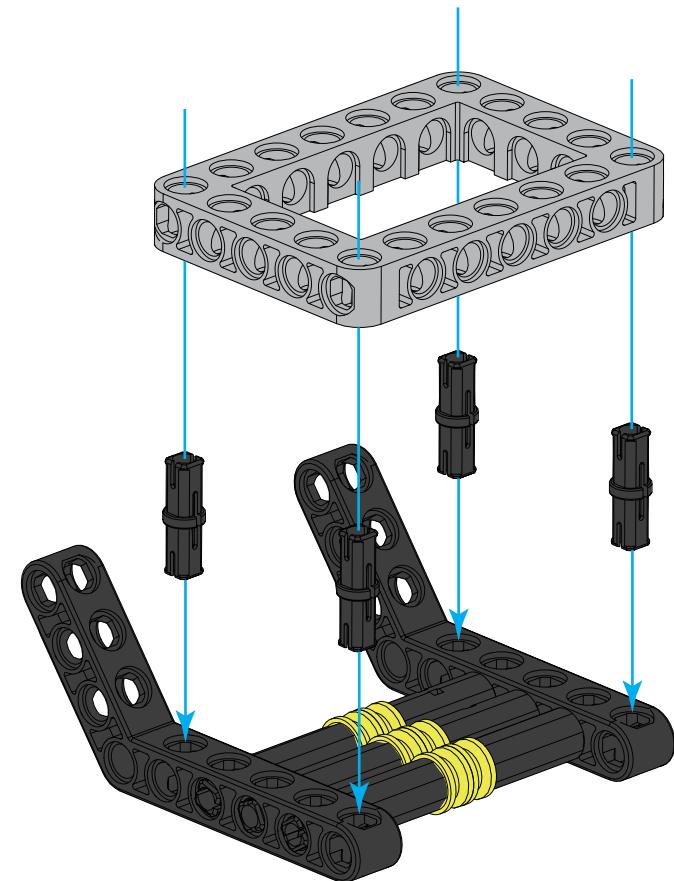
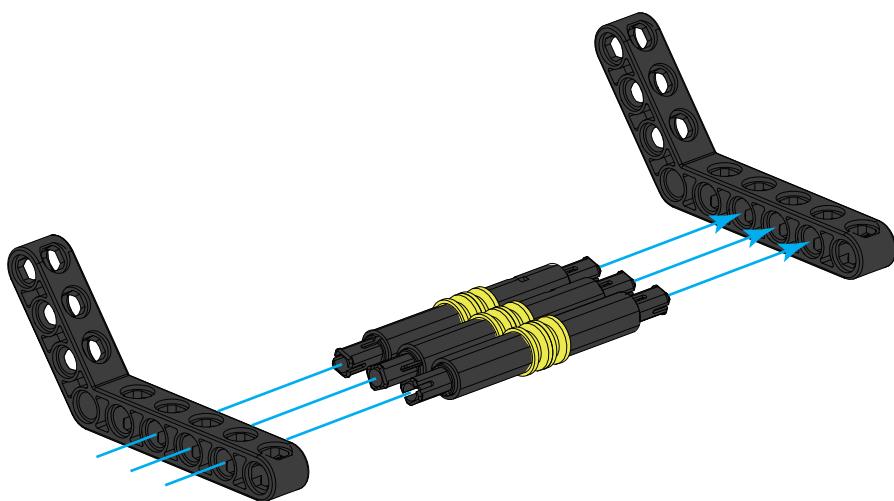
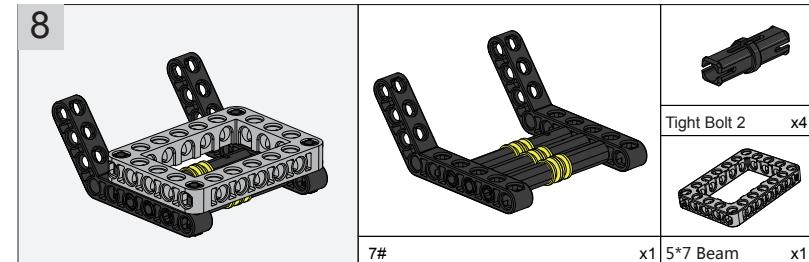
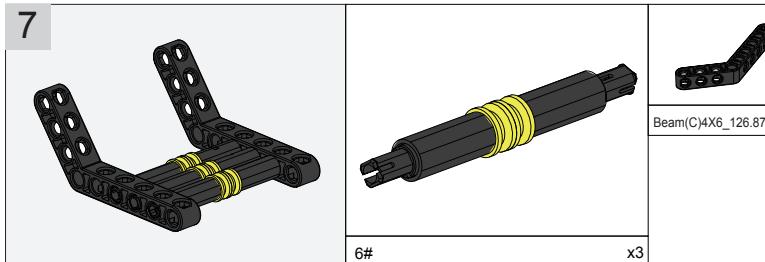


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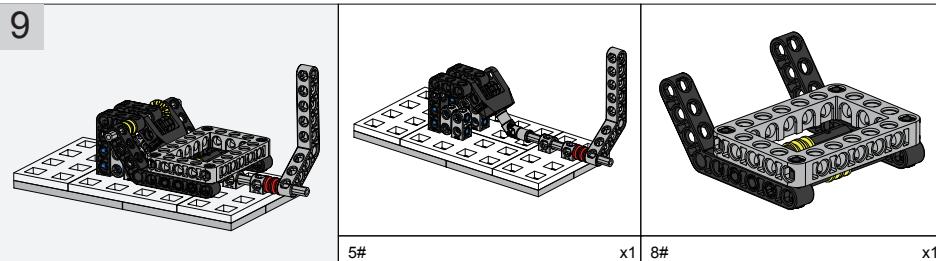


6x3

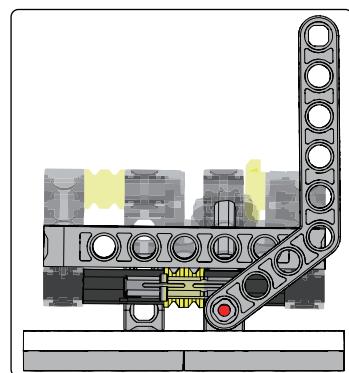




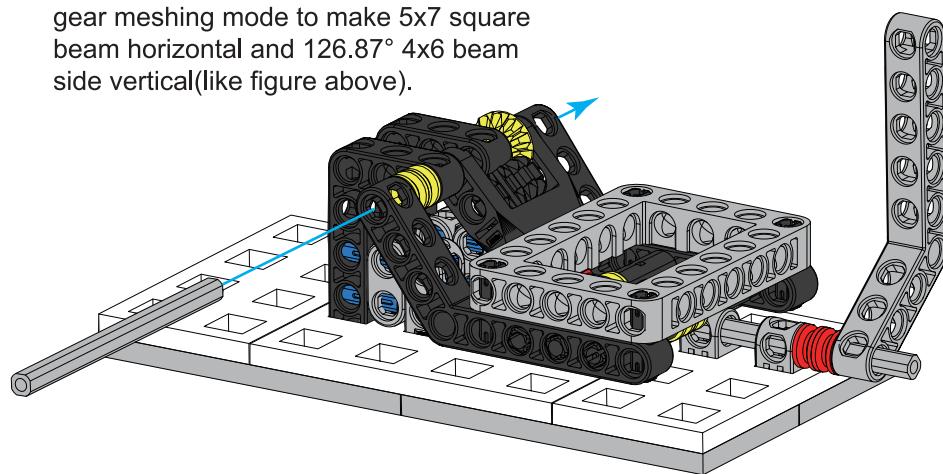
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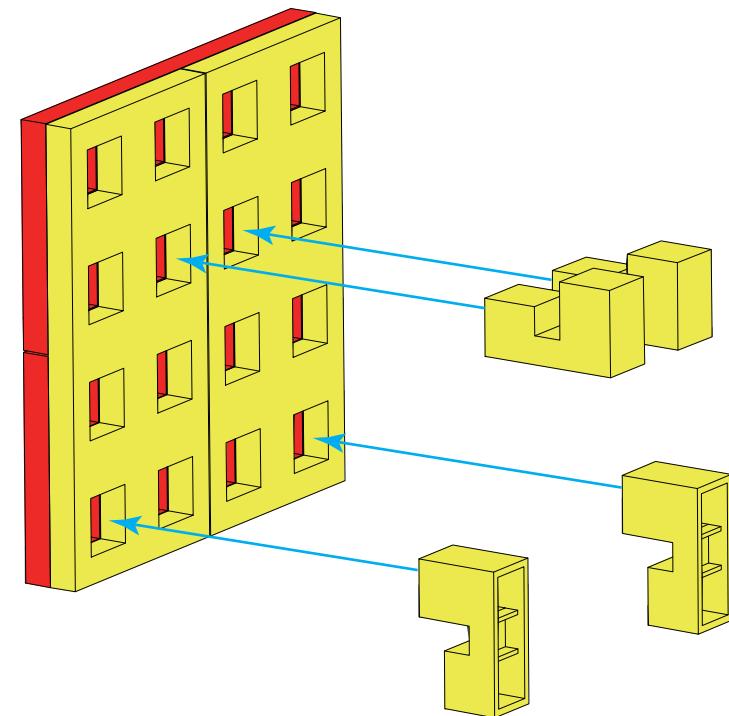
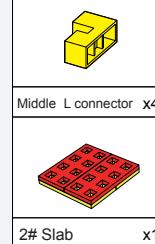
5# x1 8# x1



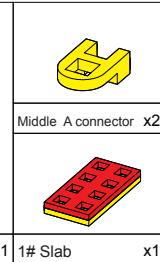
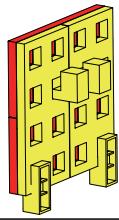
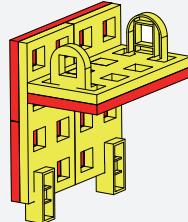
Users should pay attention to adjust gear meshing mode to make 5x7 square beam horizontal and 126.87° 4x6 beam side vertical (like figure above).



10



11



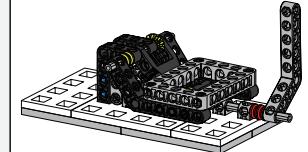
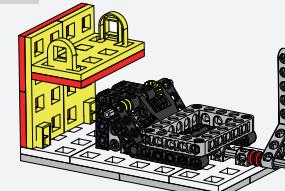
10#

x1

1# Slab

x1

12

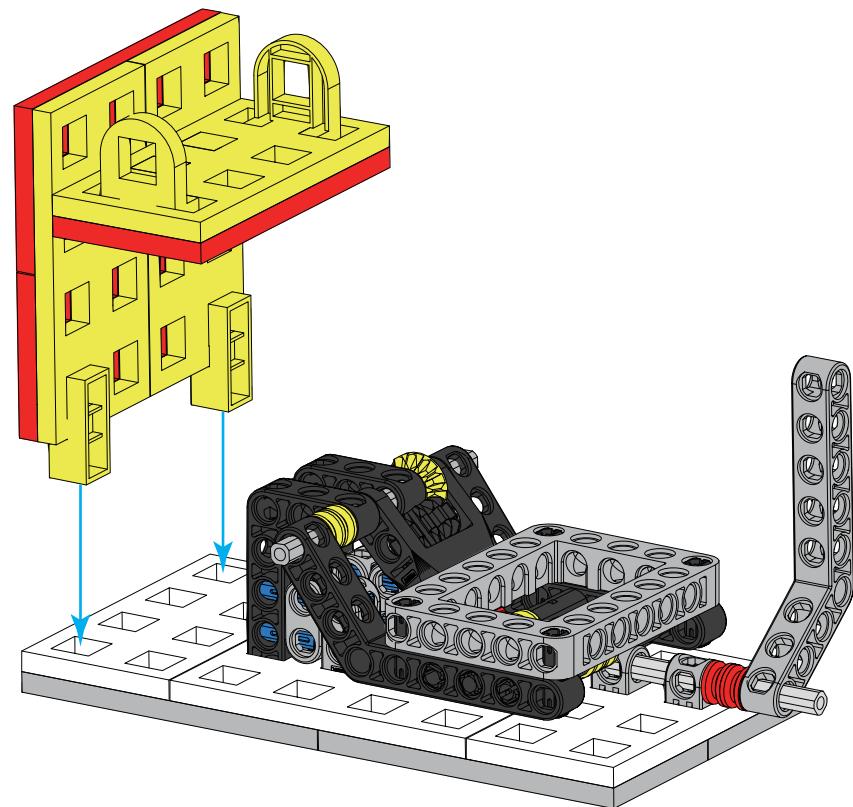
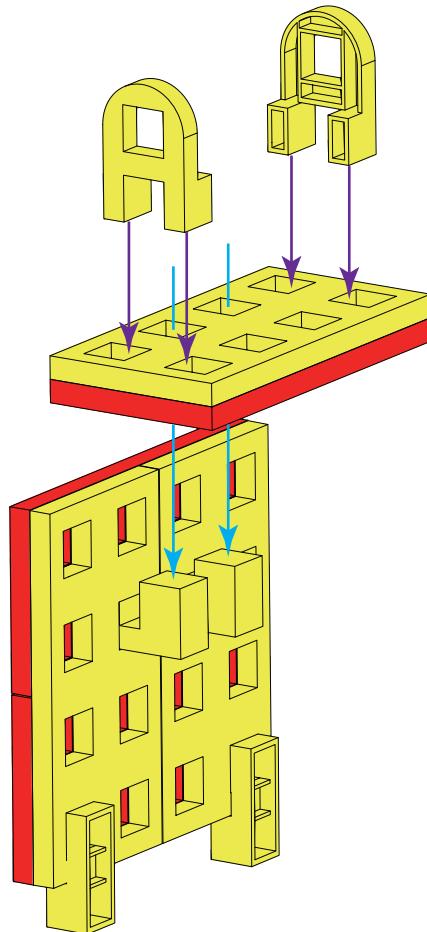


9#

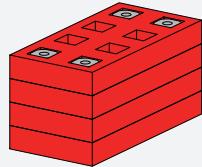
x1

11#

x1

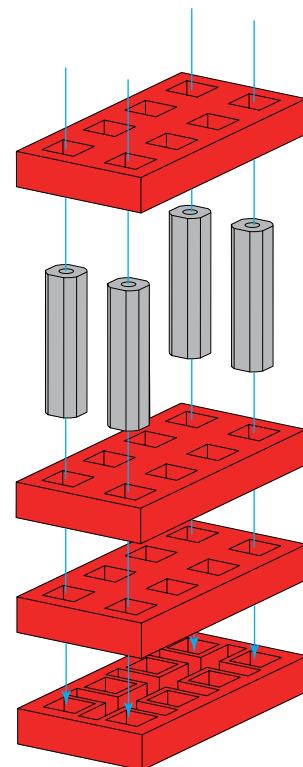


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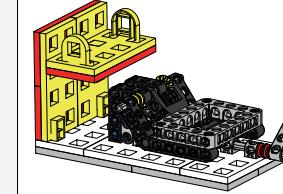
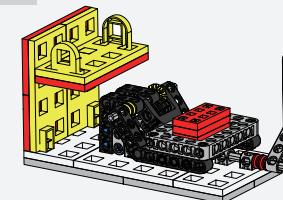


Small slab x4

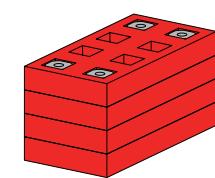
TubeSR20 x4



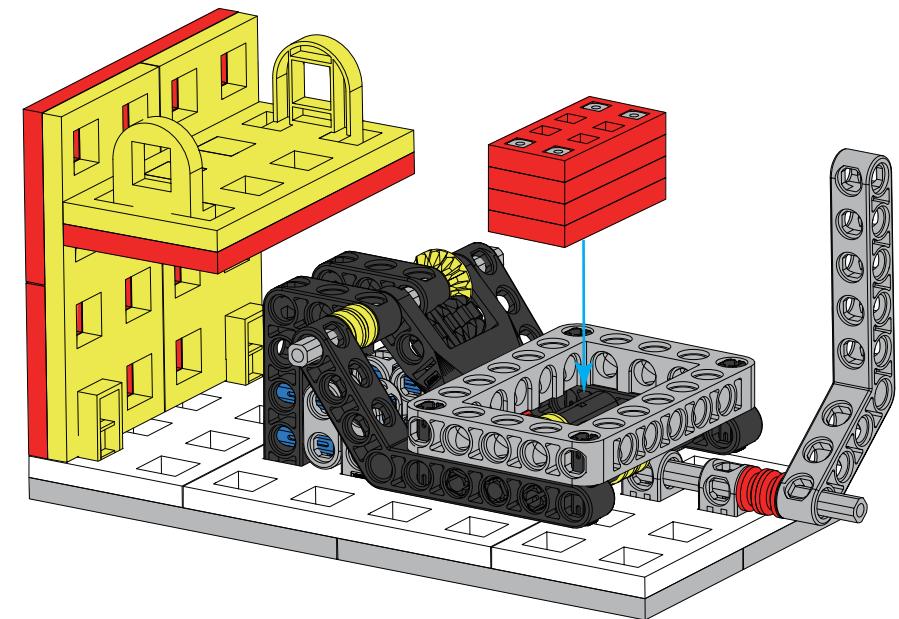
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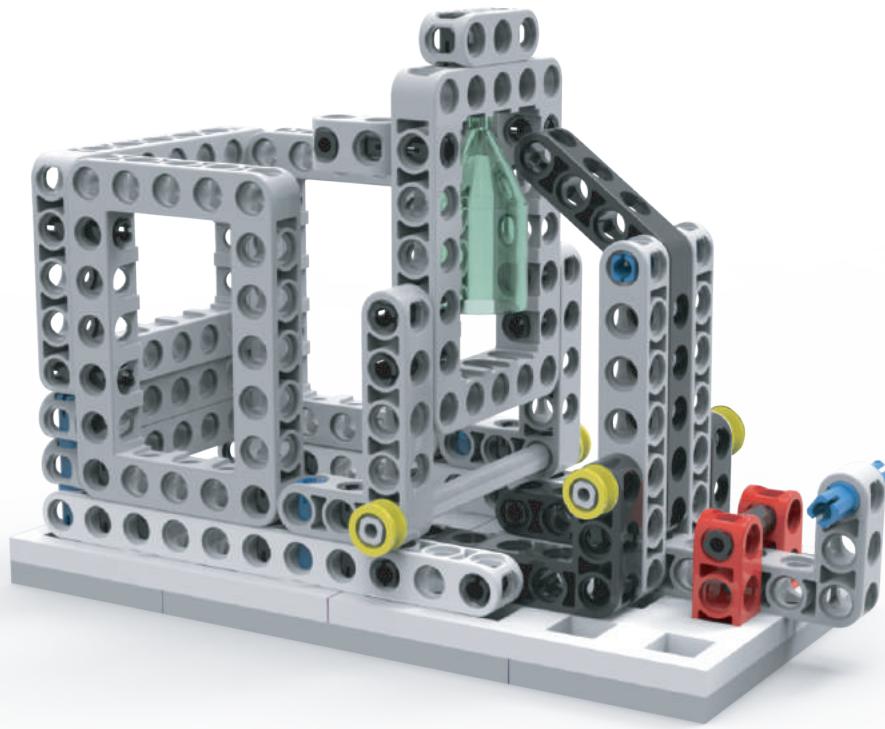
12# x1



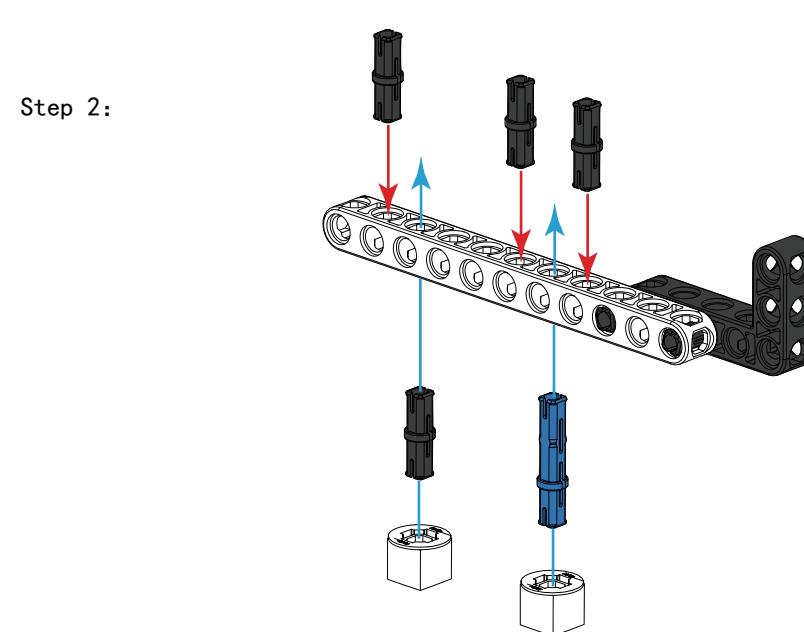
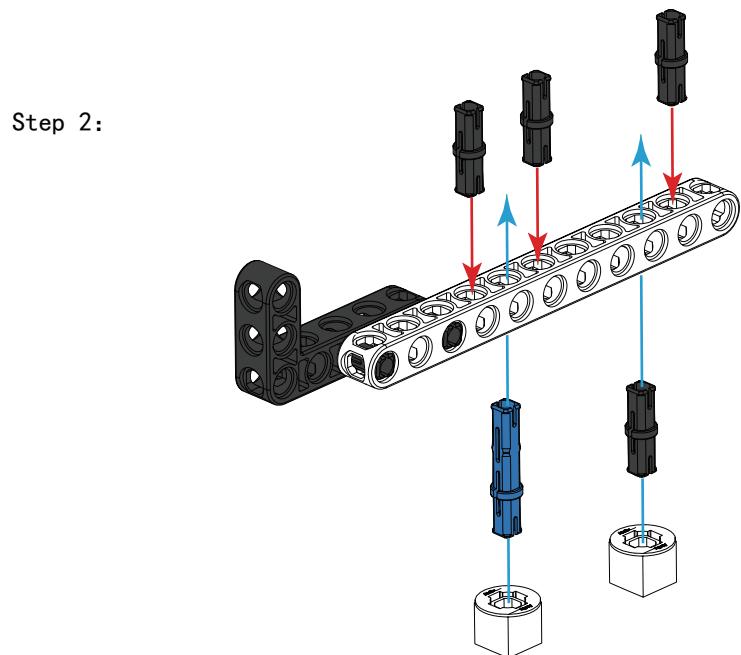
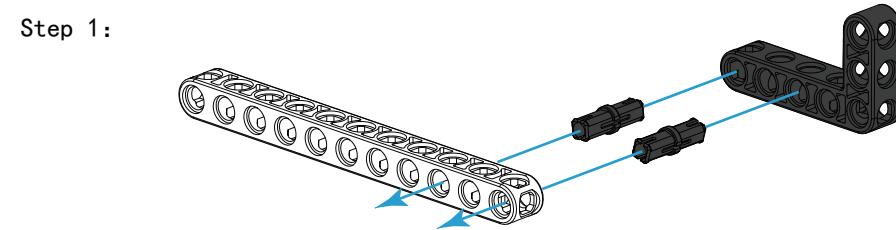
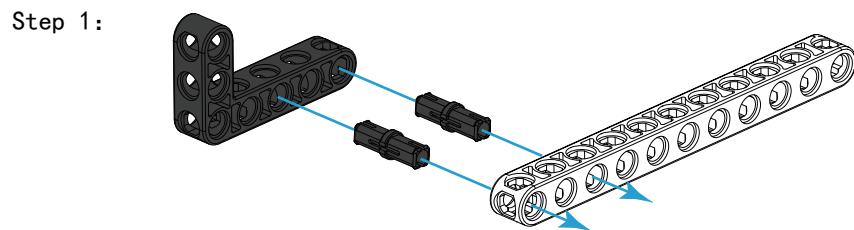
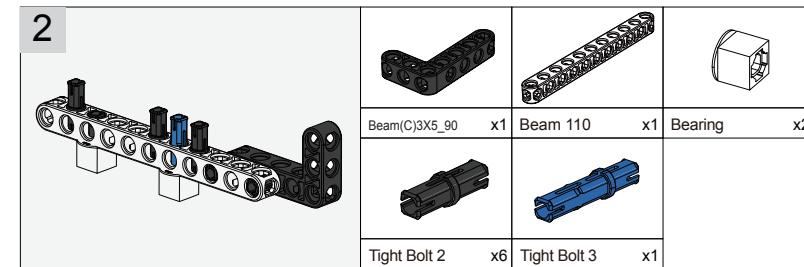
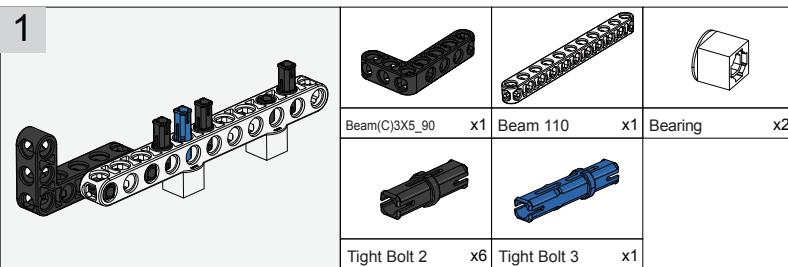
x1

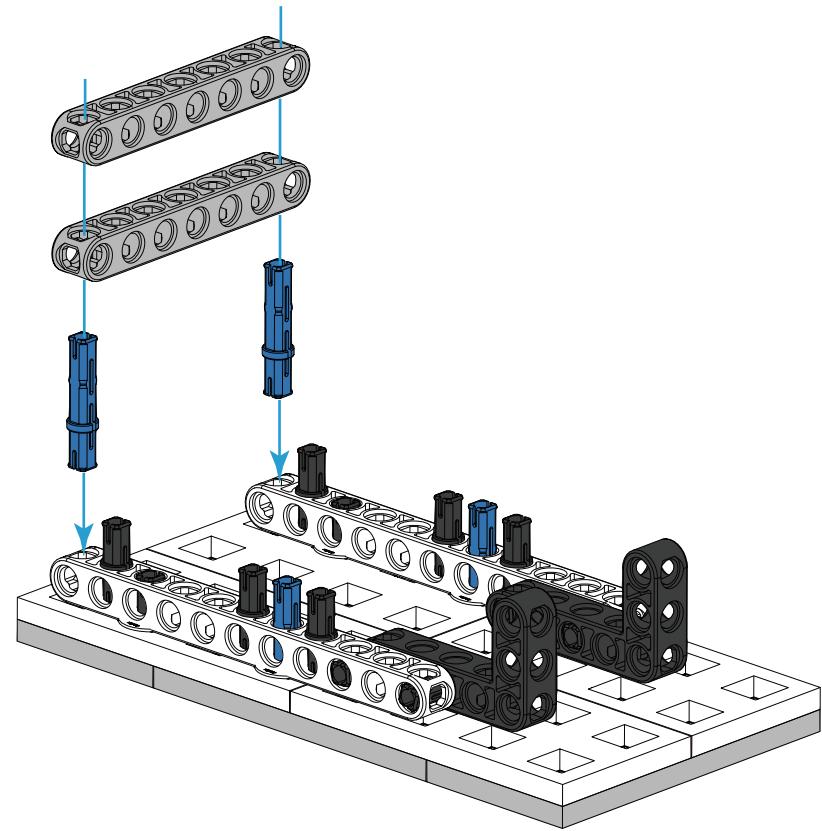
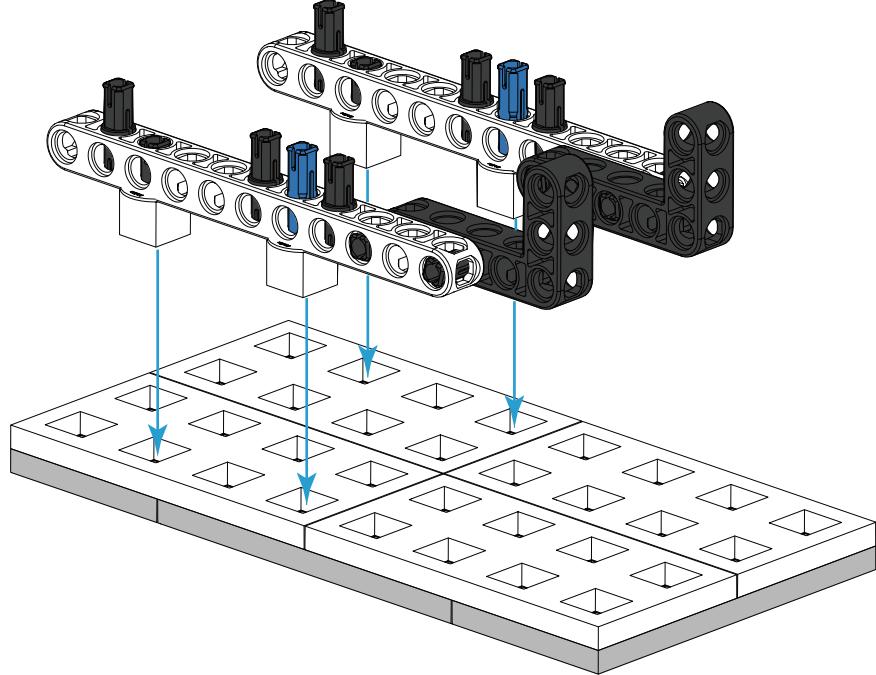
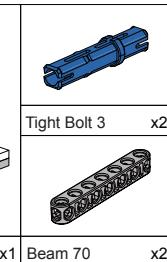
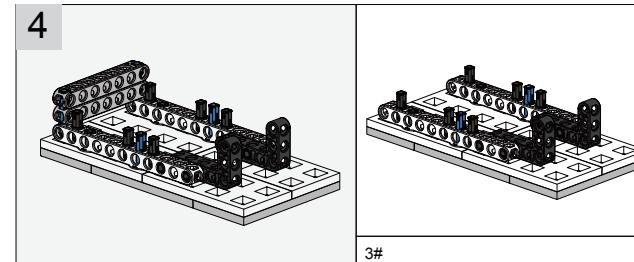
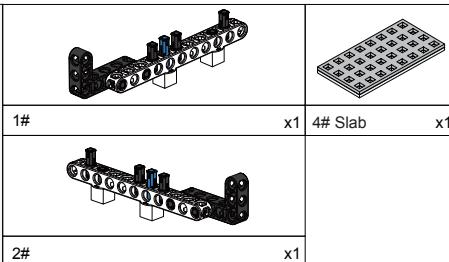
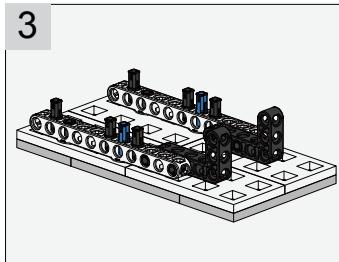


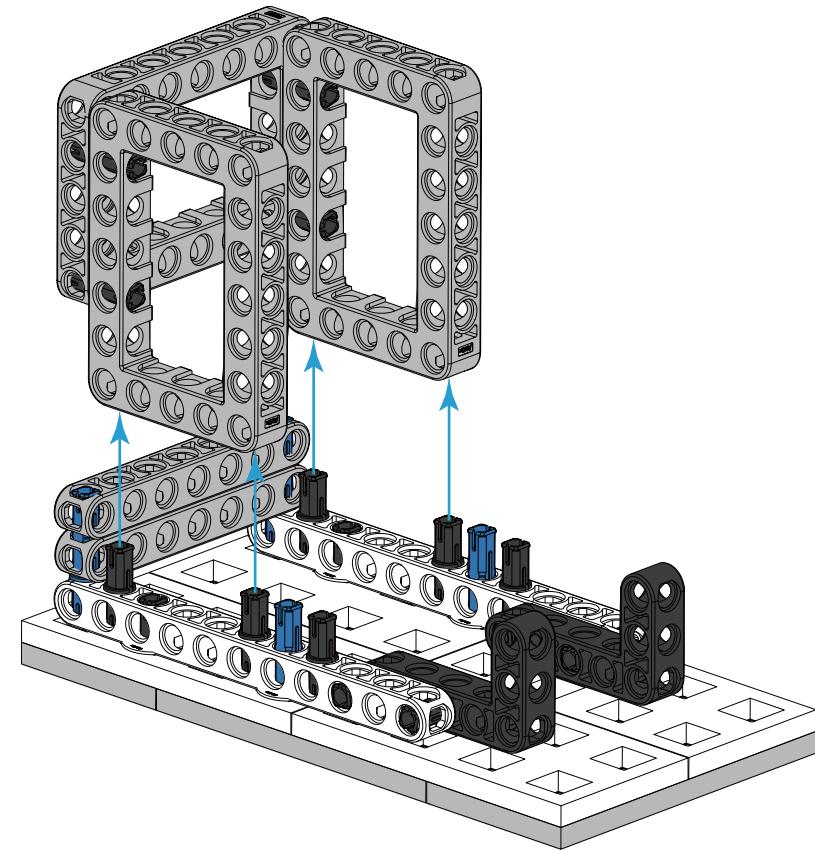
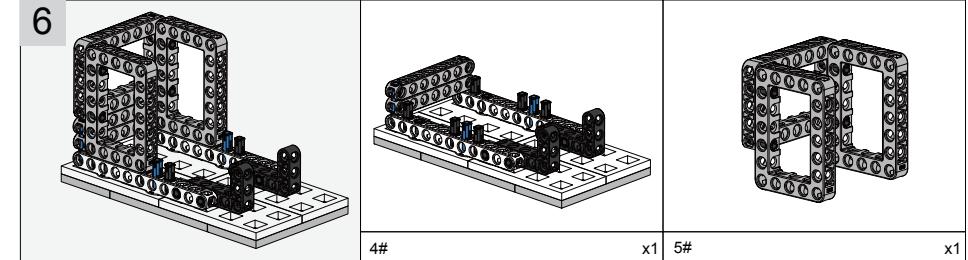
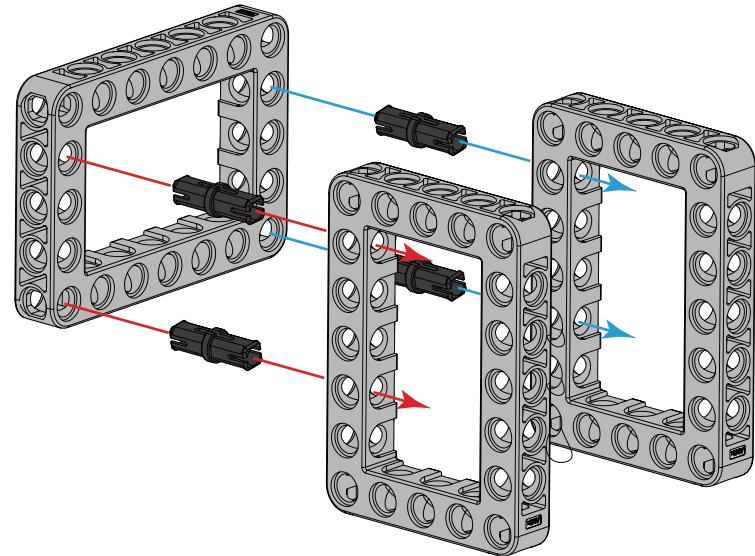
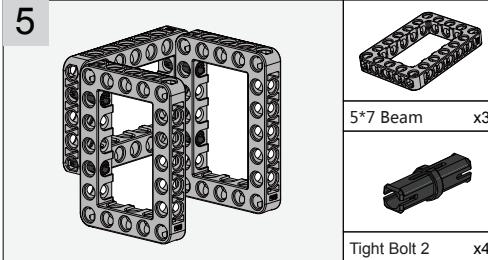
Recycling of E-waste

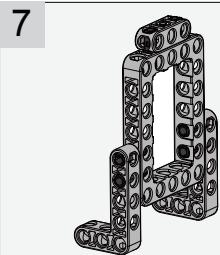


4# Slab x1	TubeSR30 x1	TubeSR50 x1	TubeSR80 x1
Beam 20 x2	Beam 30 x1	Beam 30 x2	Beam 70 x4
Beam(C)4X6_126.87 x1	Beam 110 x2	Green bottle x1	Magnet x1
Tight Bolt 2 x24	Tight Bolt 3 x6	Pin30 x1	Bearing x4
Beam(C)3X5_90 x3	Beam(C)3X5_90 x2	Shaft Sleeve0.5 x4	5*7 Beam x4
TubeSR60 x1			

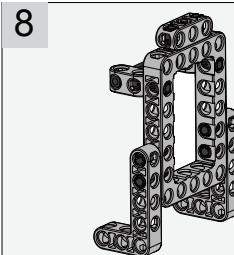






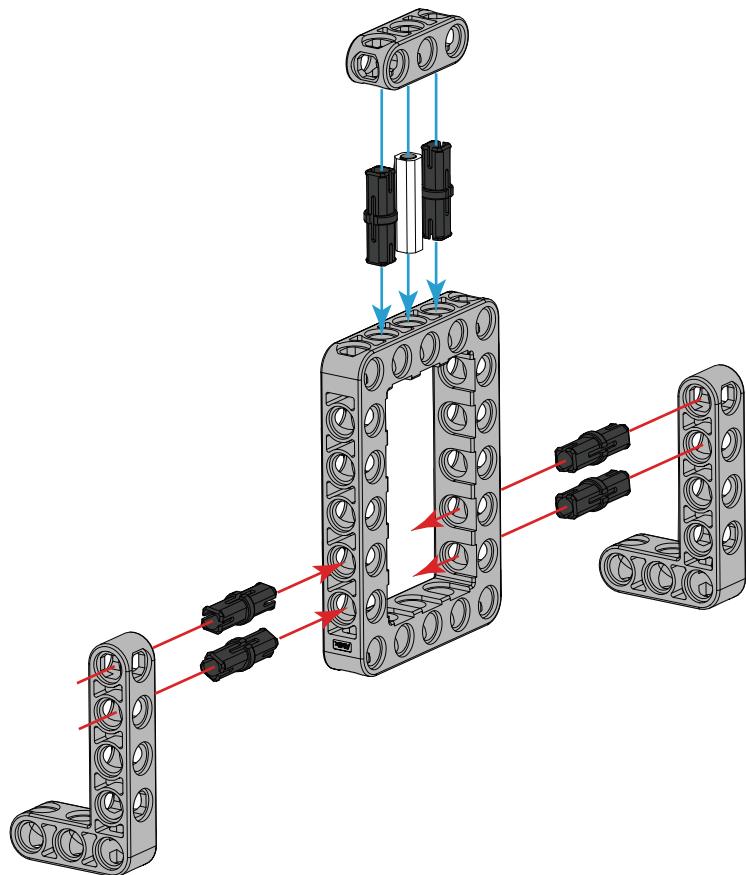


5*7 Beam	x1	Beam(C)3X5_90	x2	Magnet	x1
Beam 30	x1	Tight Bolt 2	x6		

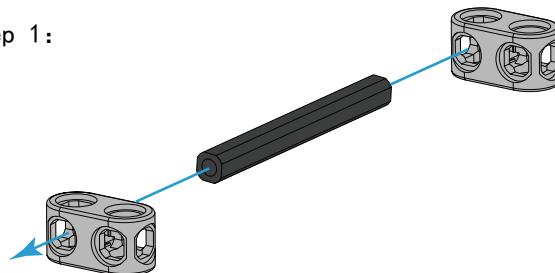


Beam 20	x2	Tight Bolt 2	x2

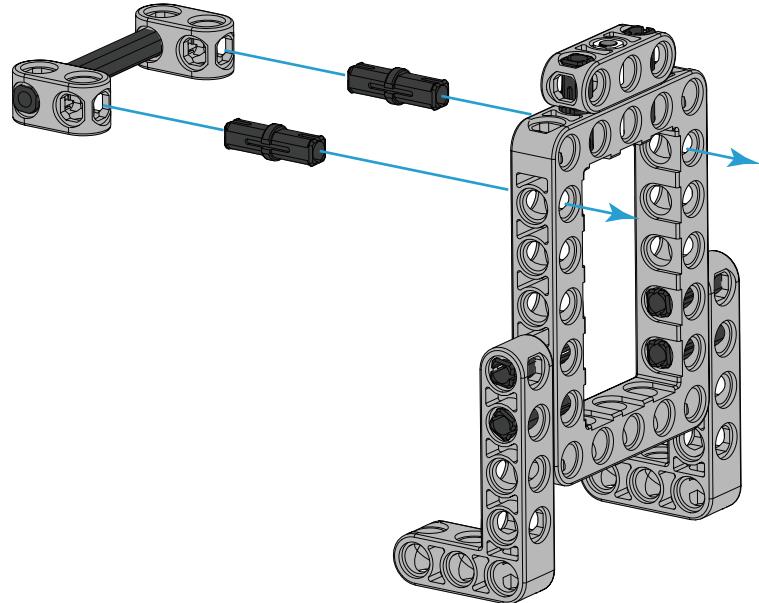
7# x1 TubeSR50 x1

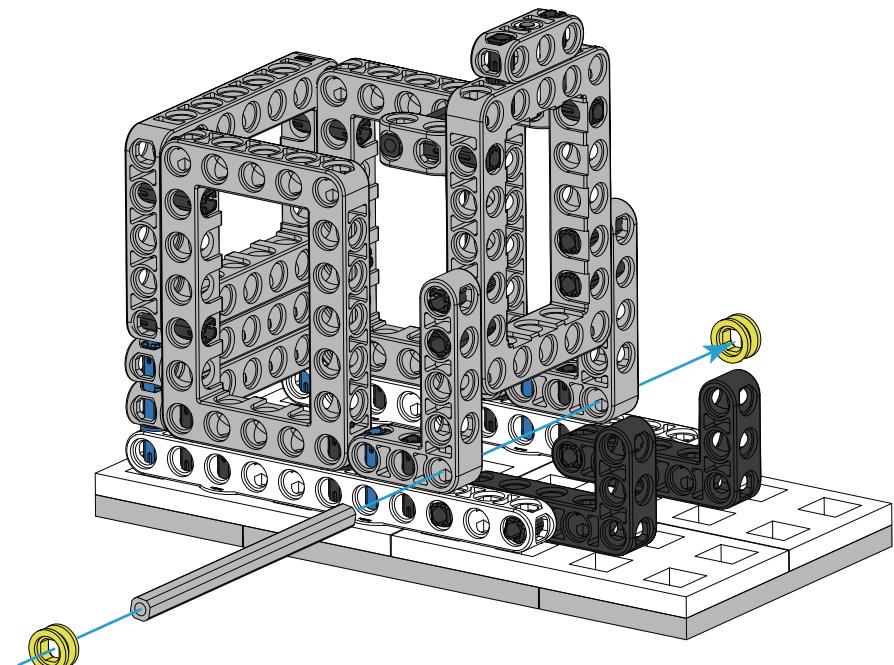
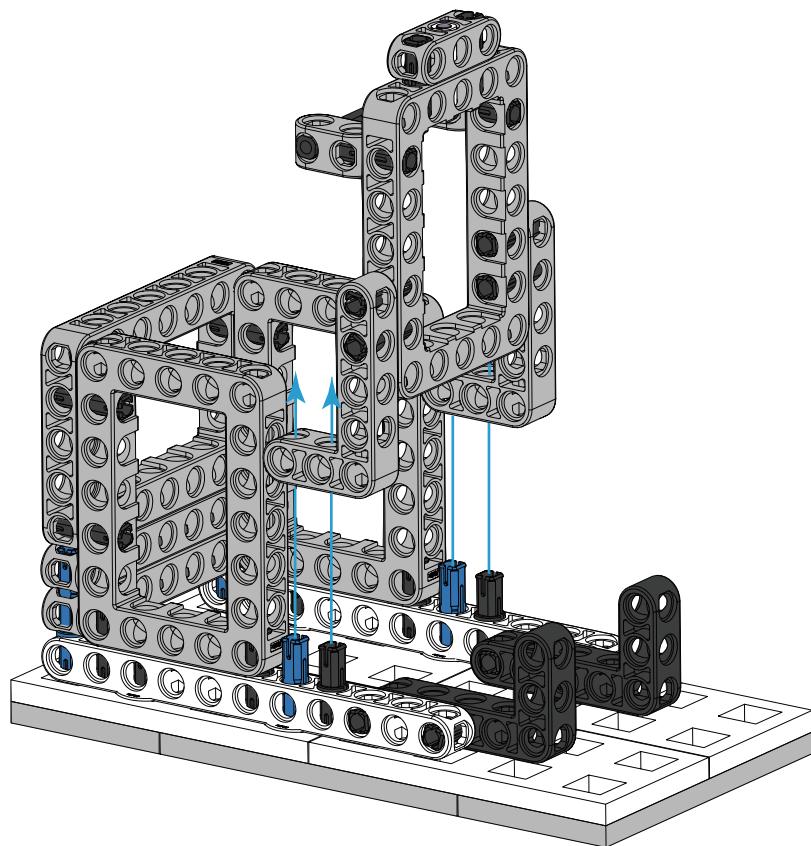
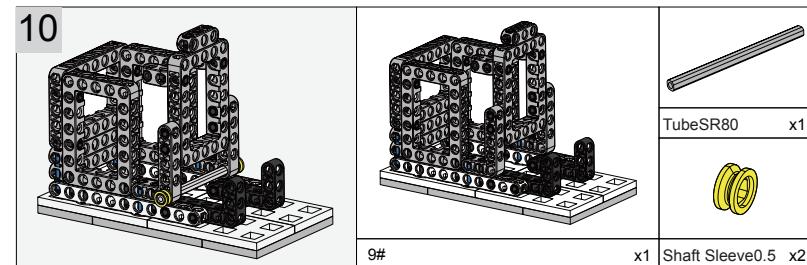
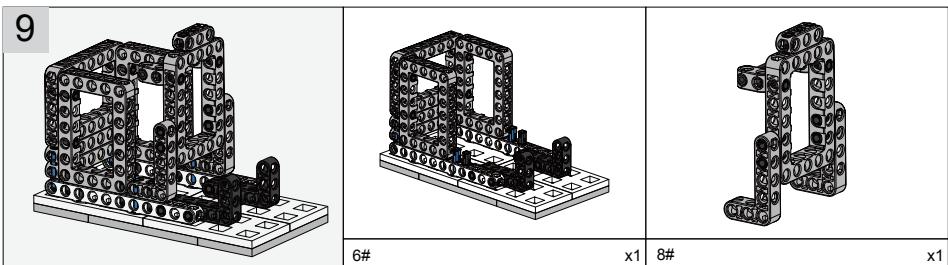


Step 1:



Step 2:



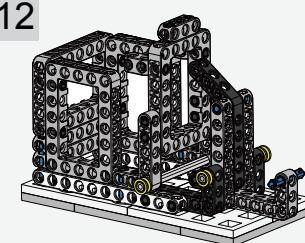


11

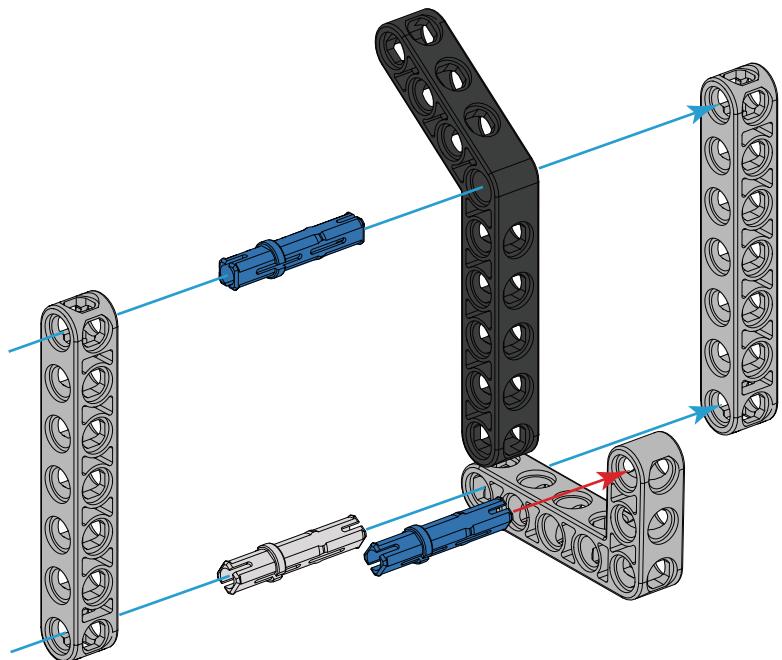


Beam 70	x2	Tight Bolt 3	x2	Pin30	x1
Beam(C)4X6_126.87	x1	Beam(C)3X5_90	x1		

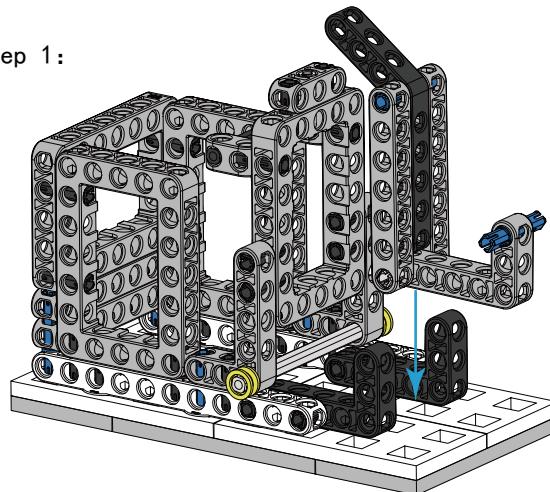
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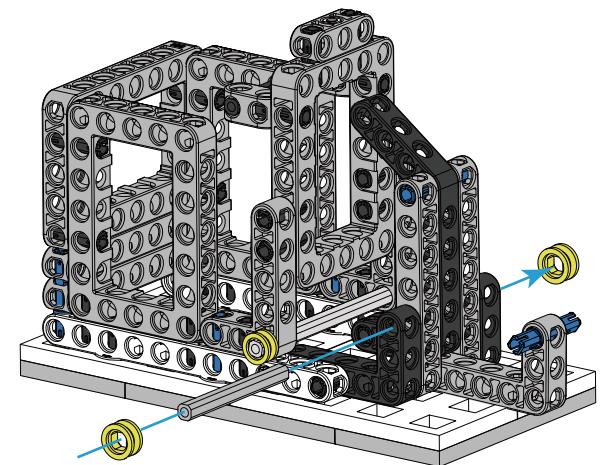
TubeSR60	x1
Shaft Sleeve0.5	x2

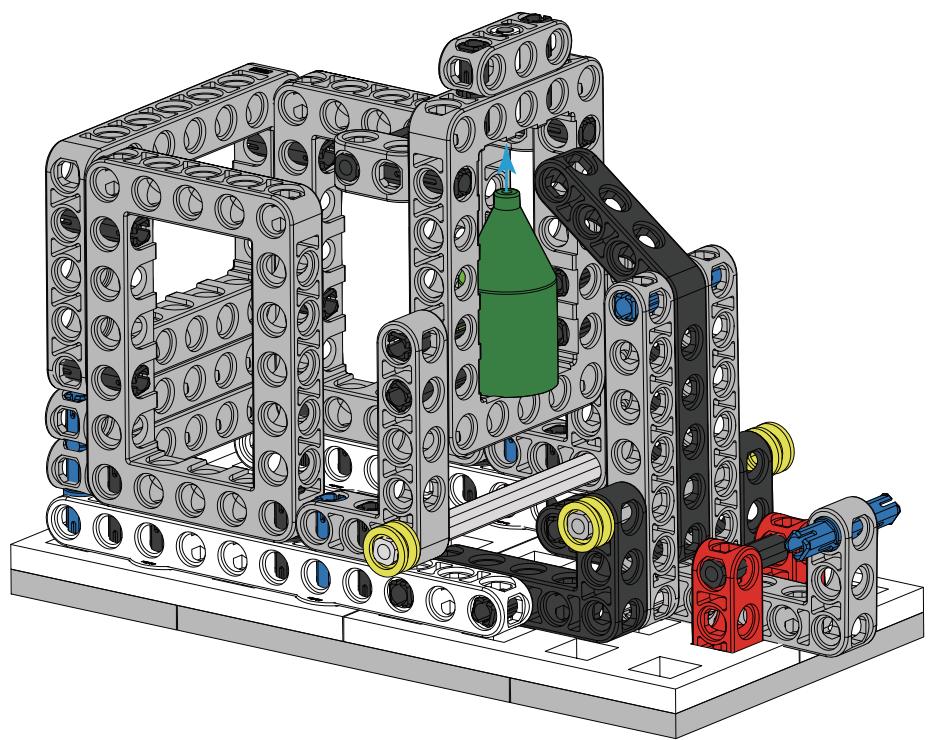
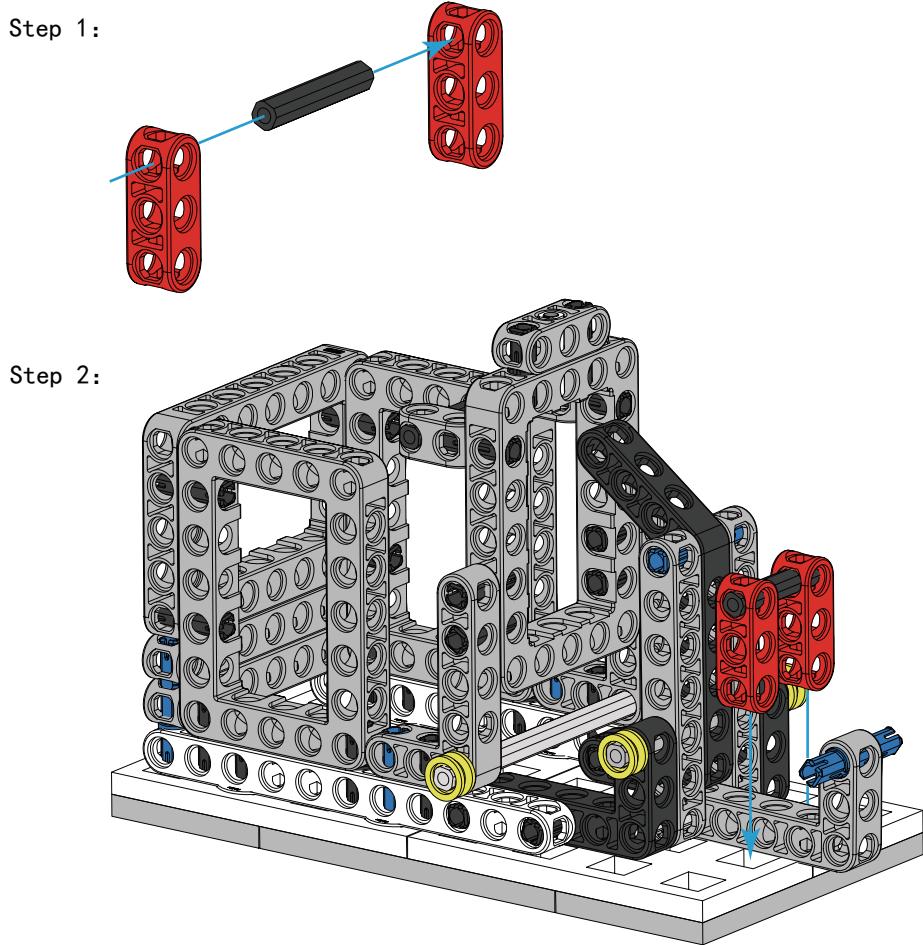
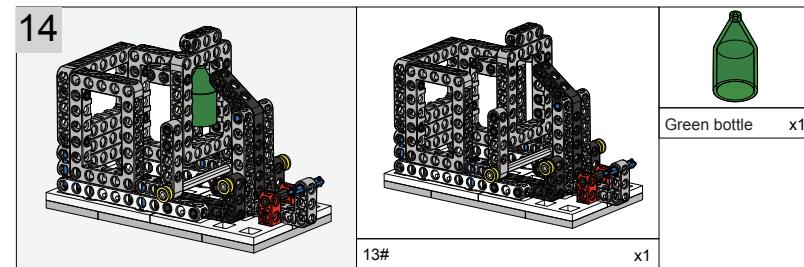
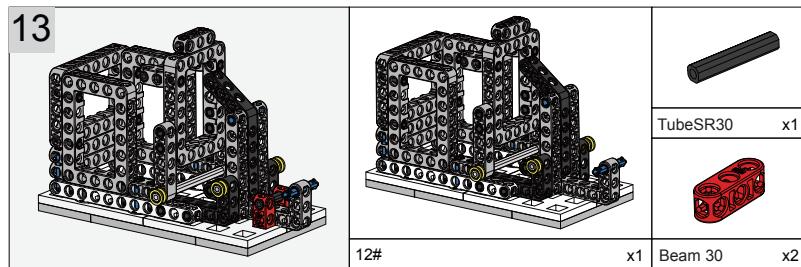


Step 1:



Step 2:

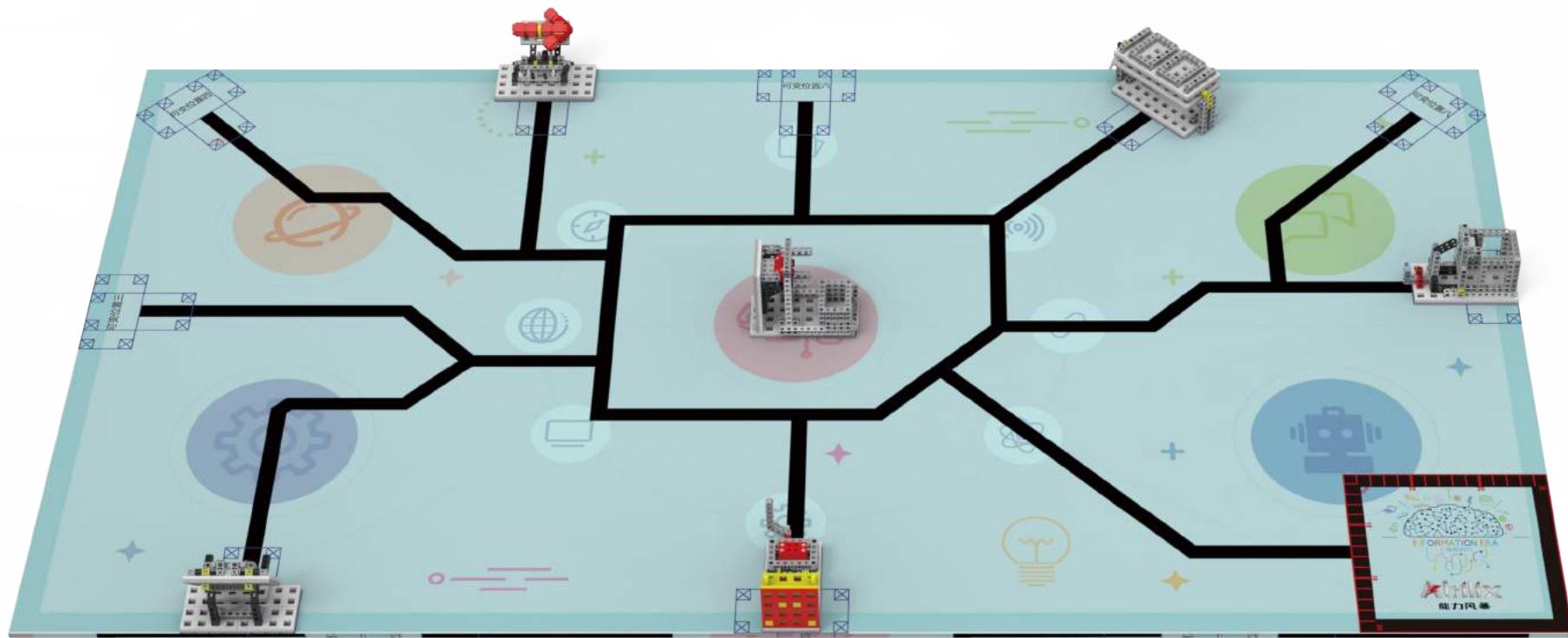




III .Task Models Placing

1.The magic tapes are sticked at the four angles of the model base (20*20mm).

2.The task models are fixed on the sites as the following figure.





Abilix Creative Bricks

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