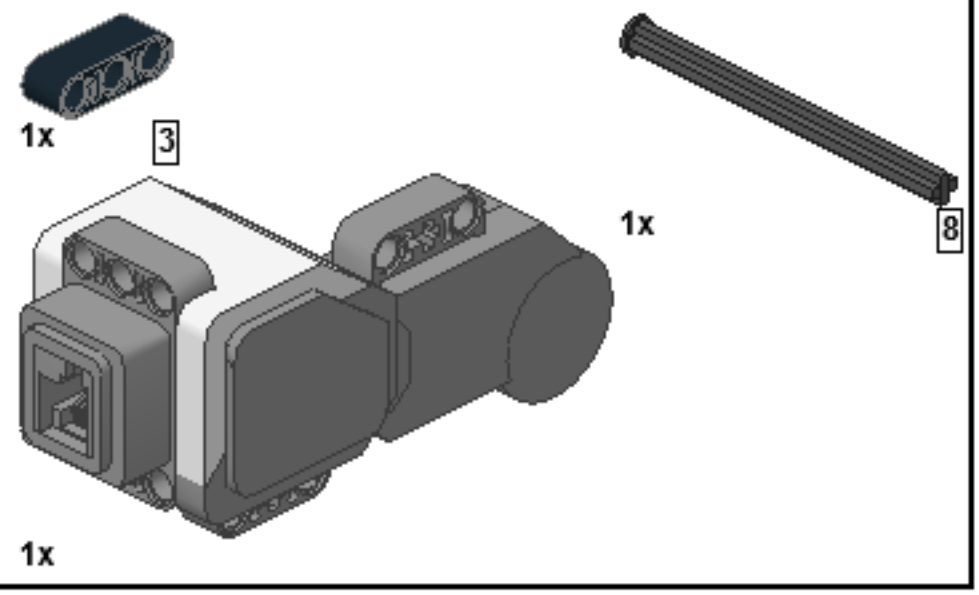
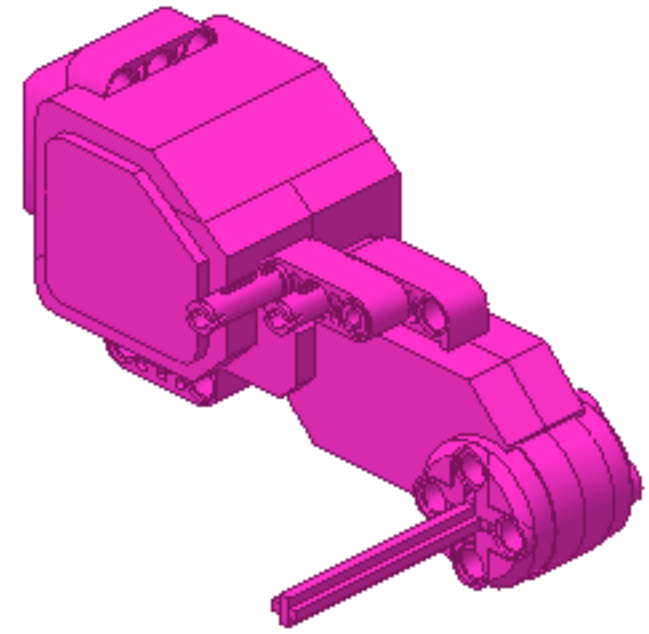
# 1



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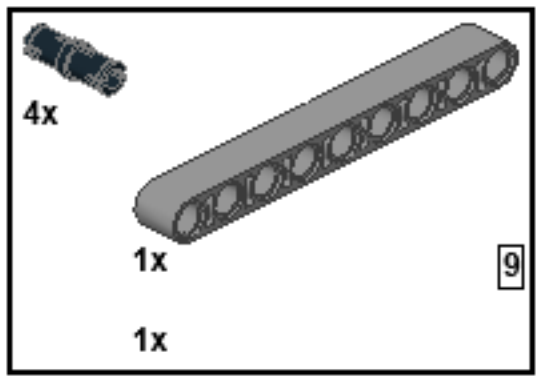
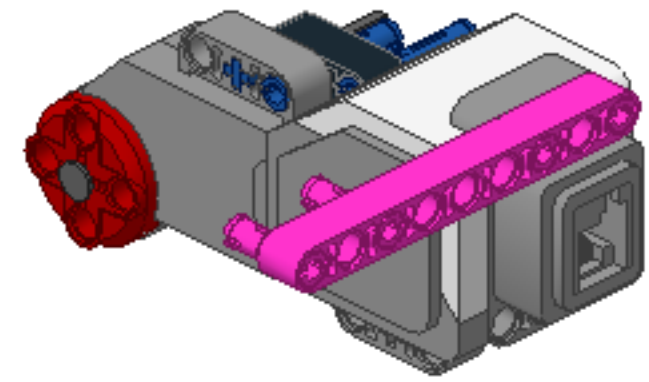
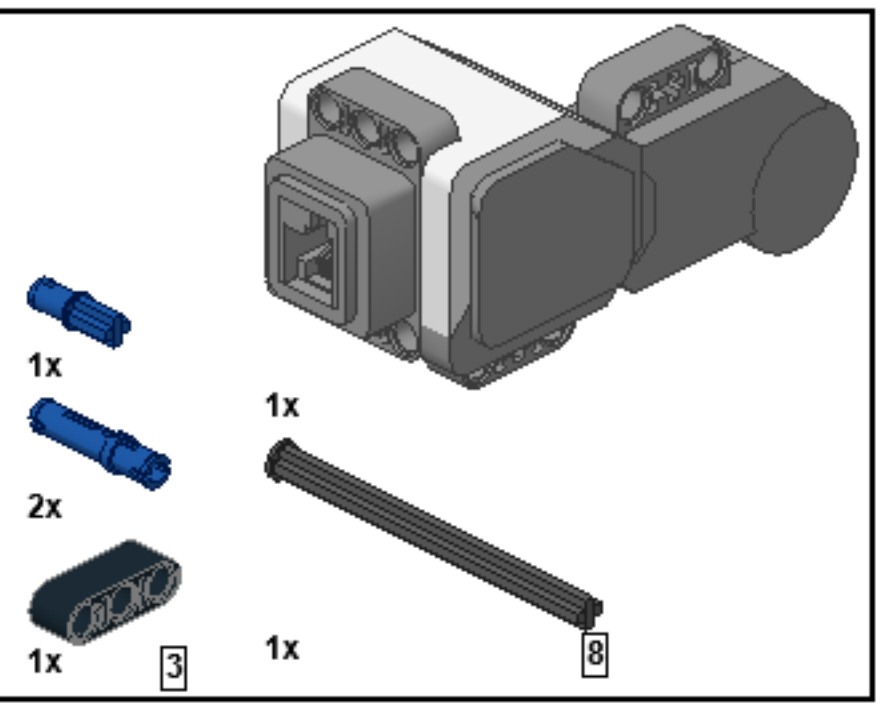
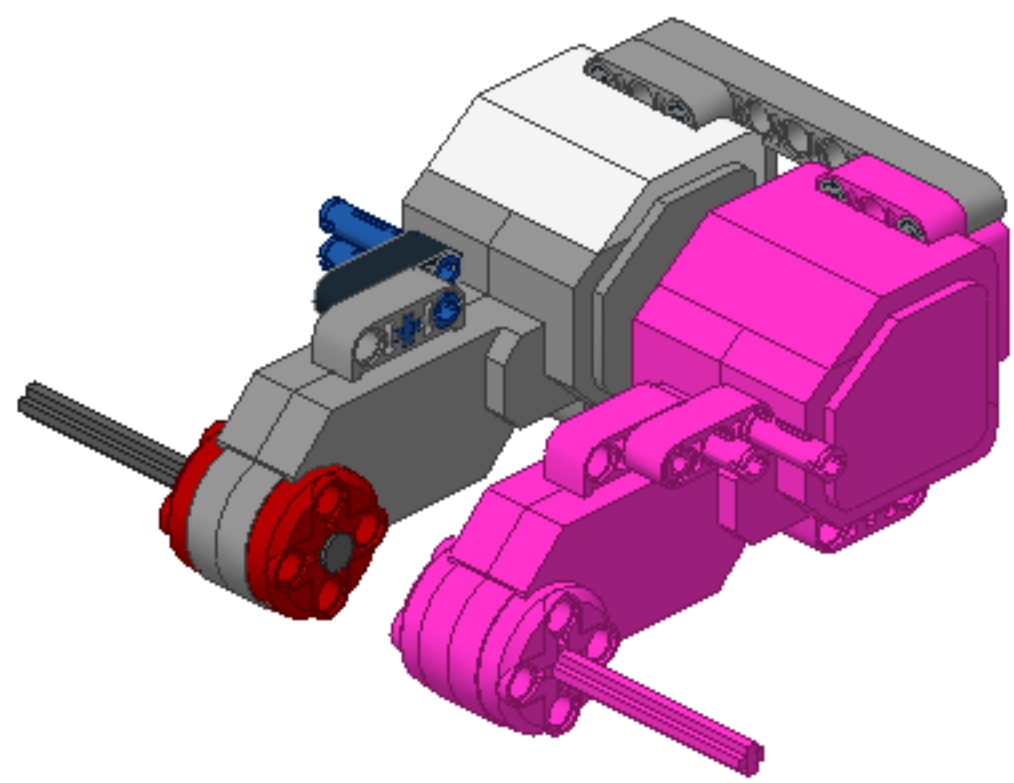


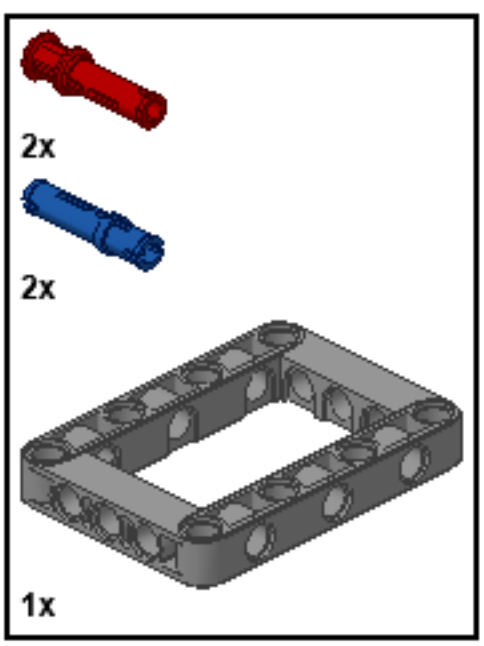



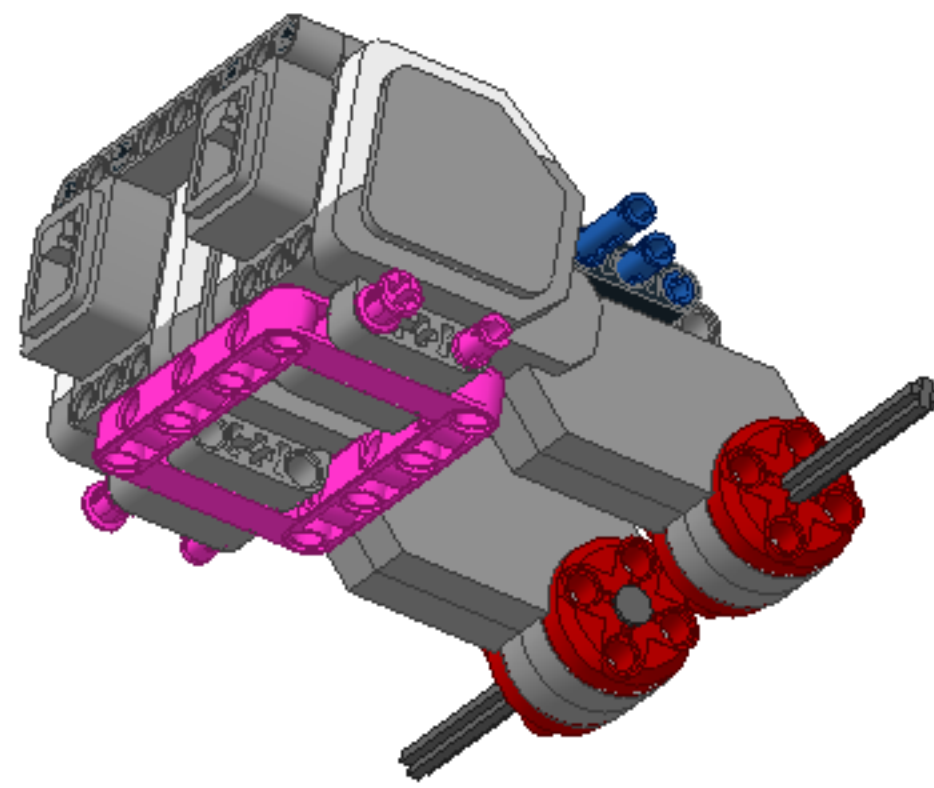
# 3



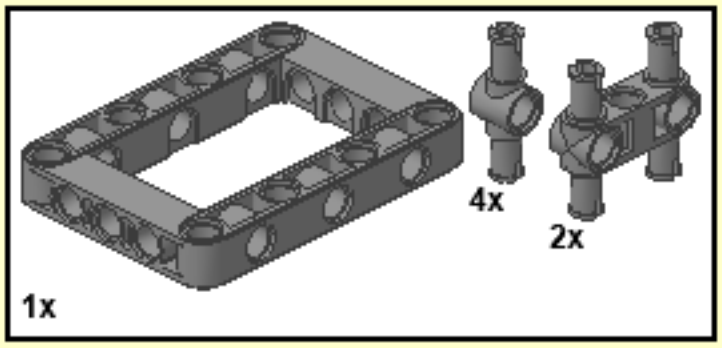



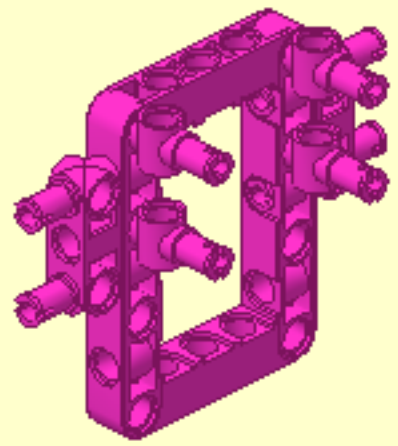
# 4



**1**



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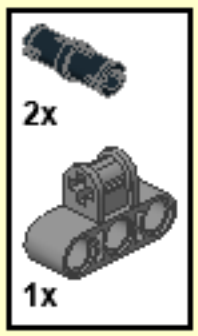


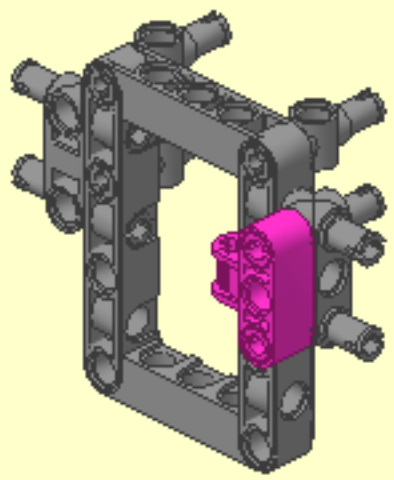

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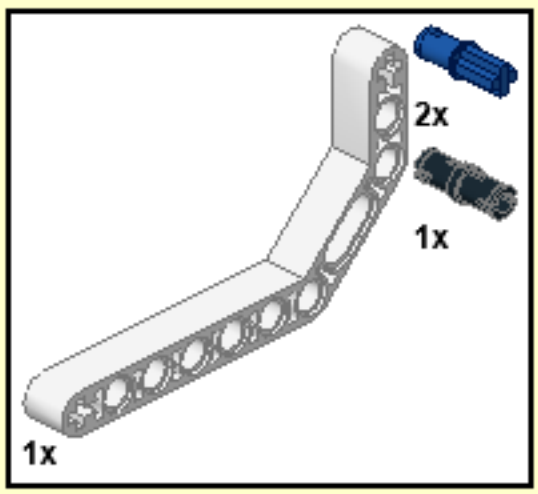


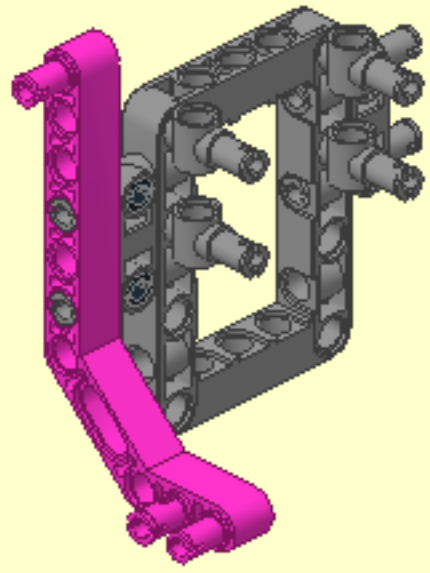

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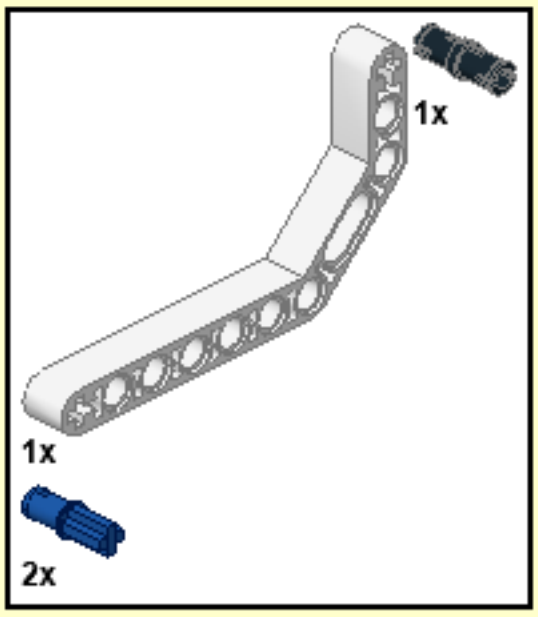


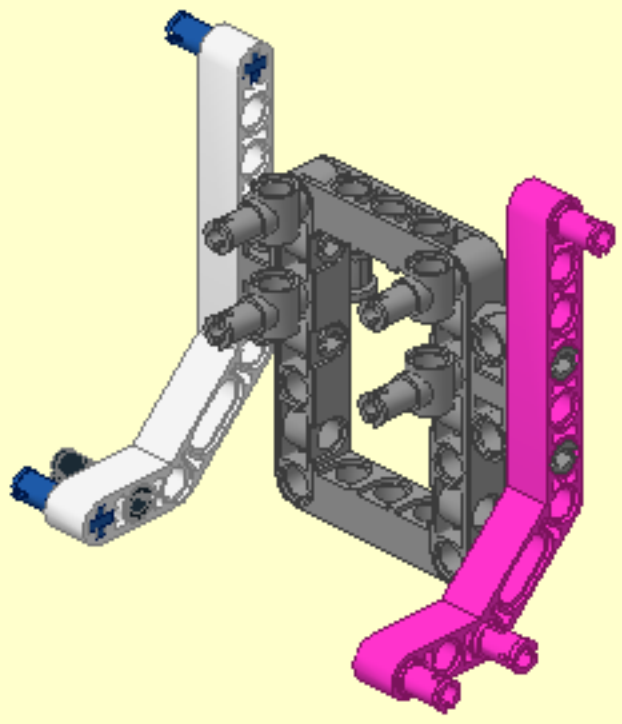

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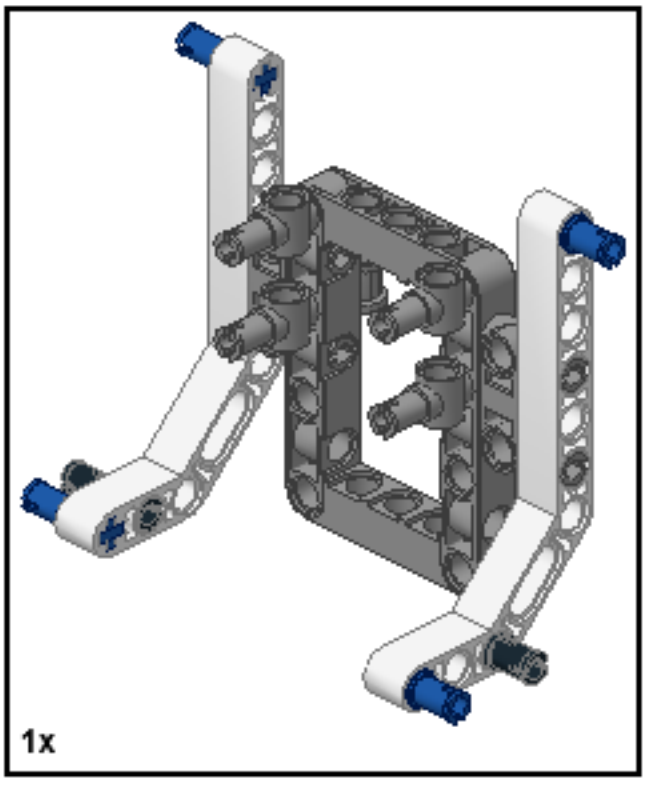


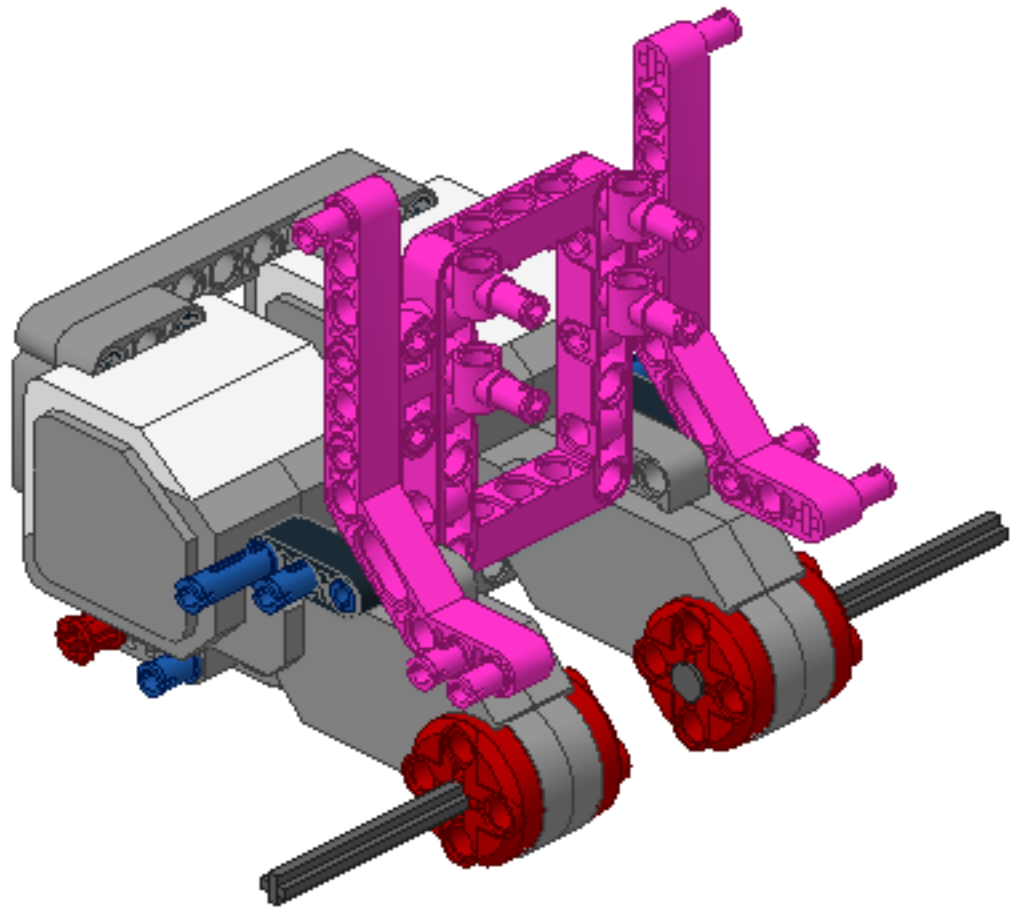

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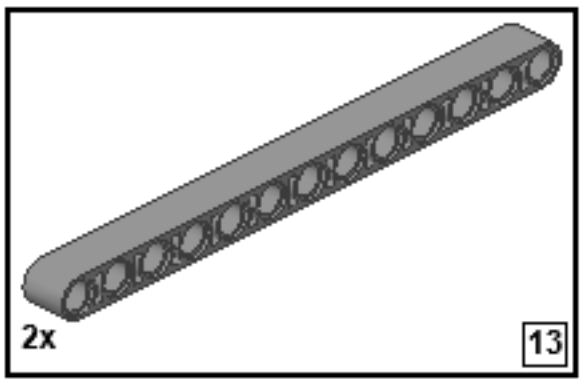
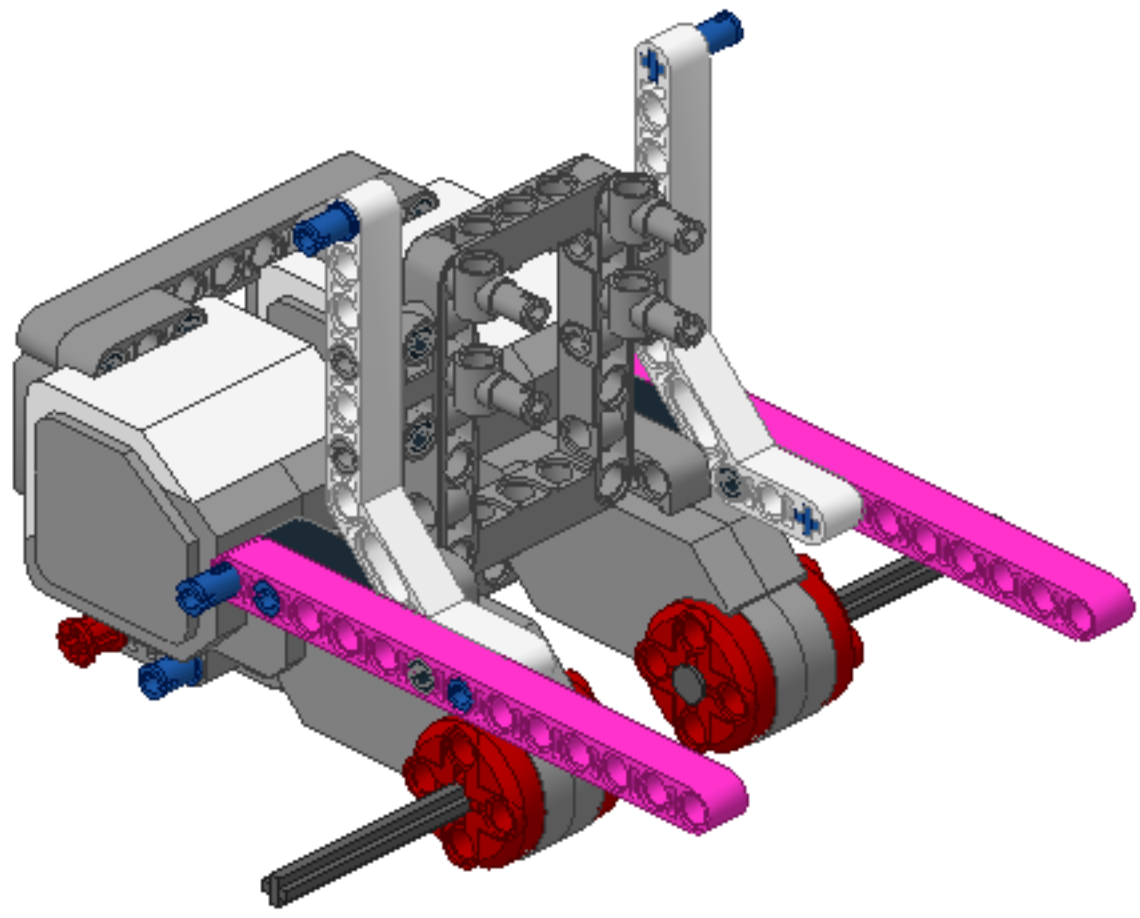
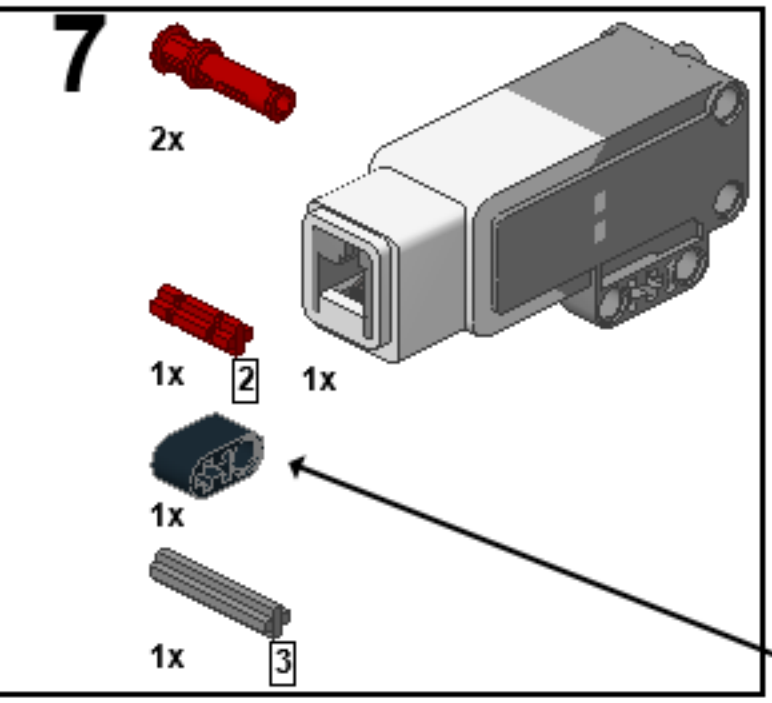
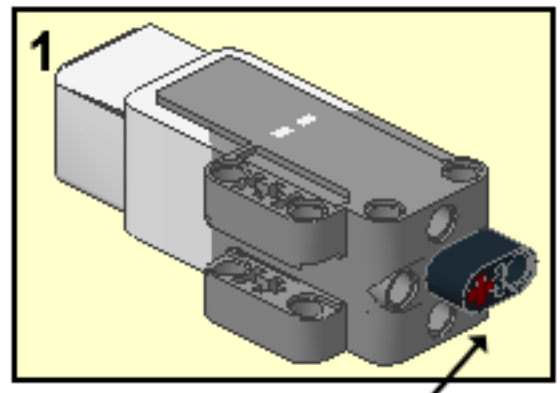
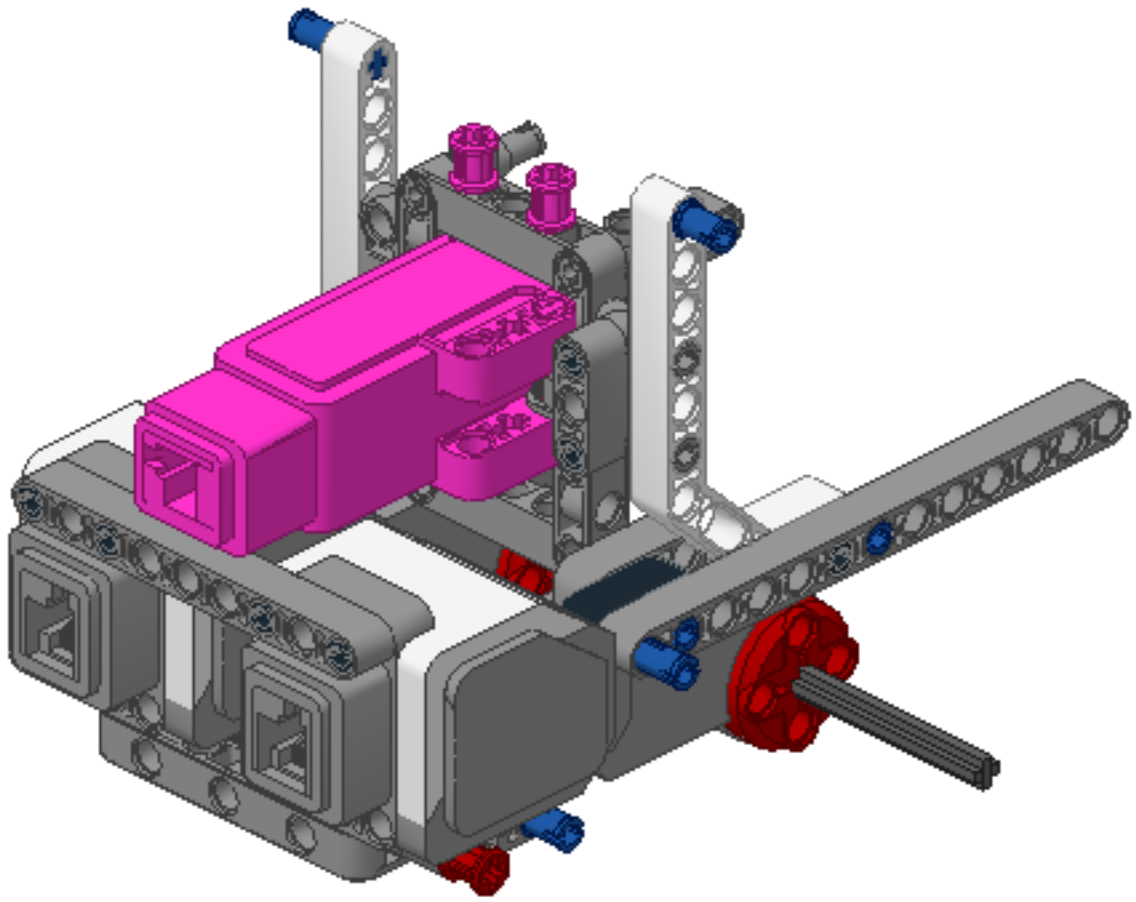


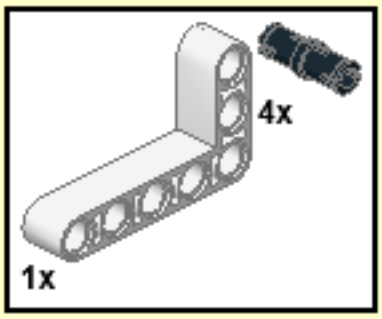


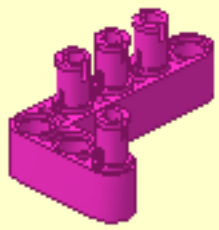




This 'cam' will raise and lower the pen



**1**



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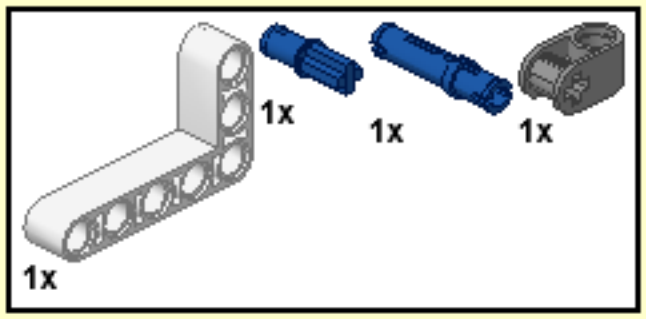
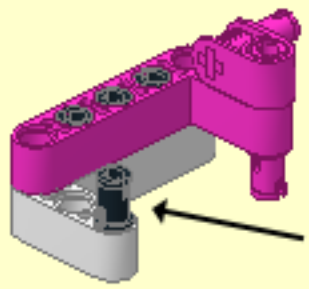
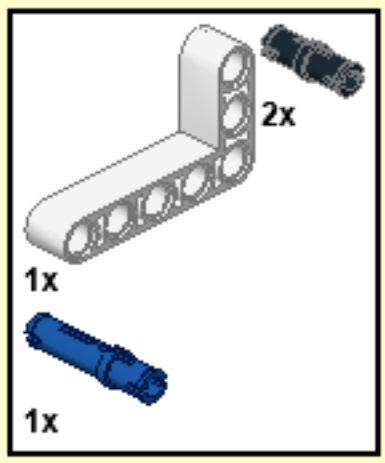
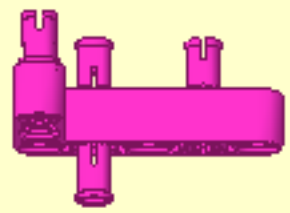


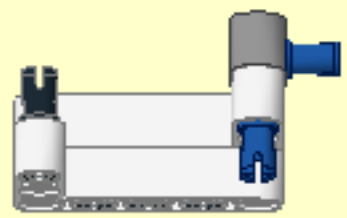



Stretch an elastic band between these points

**3**





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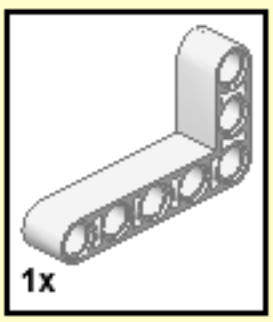


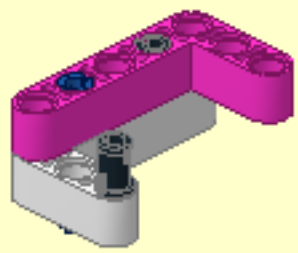

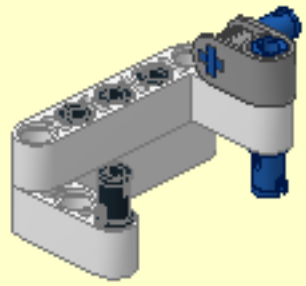

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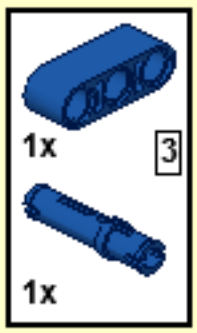
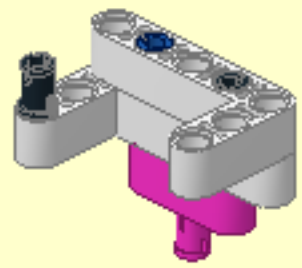
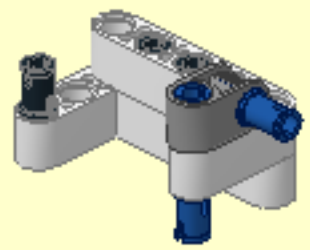
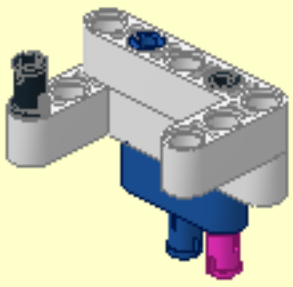
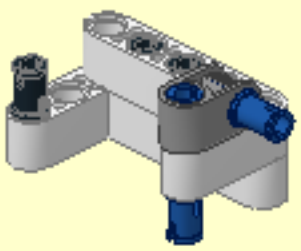


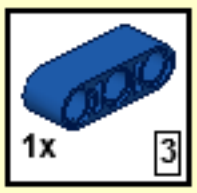


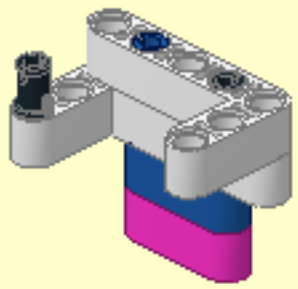
## 6

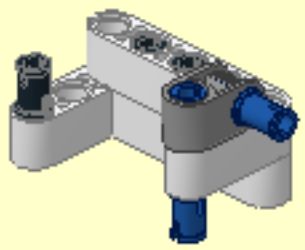




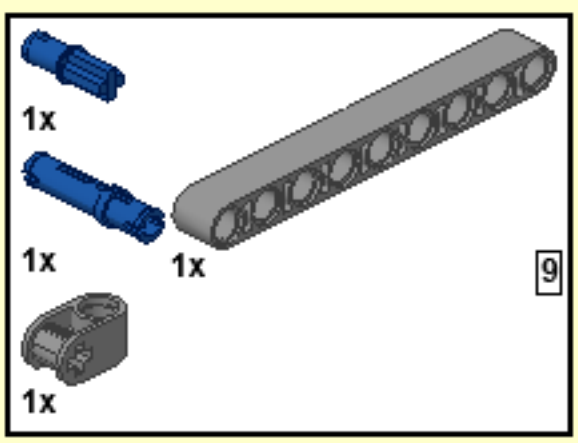
## 7



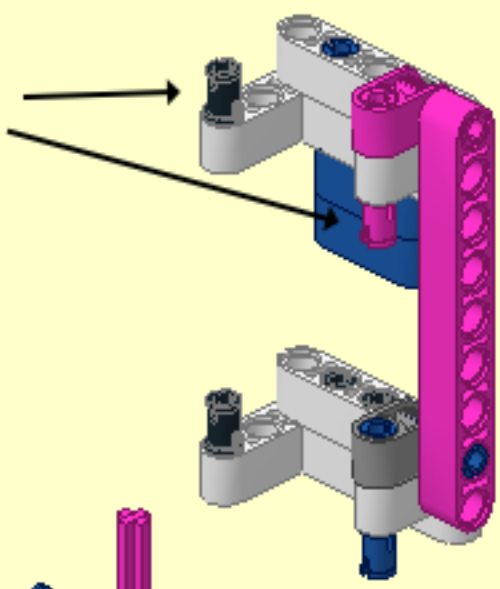





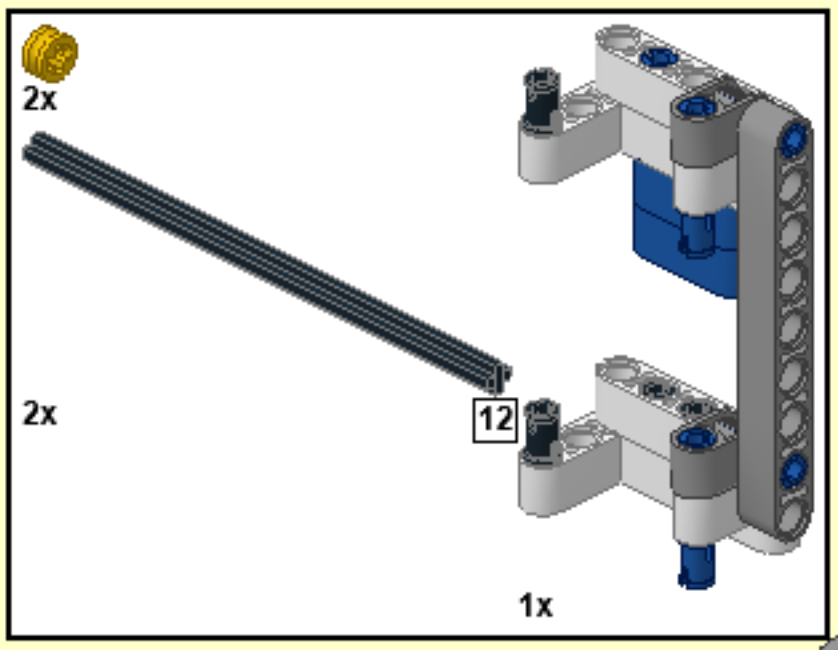
## 8

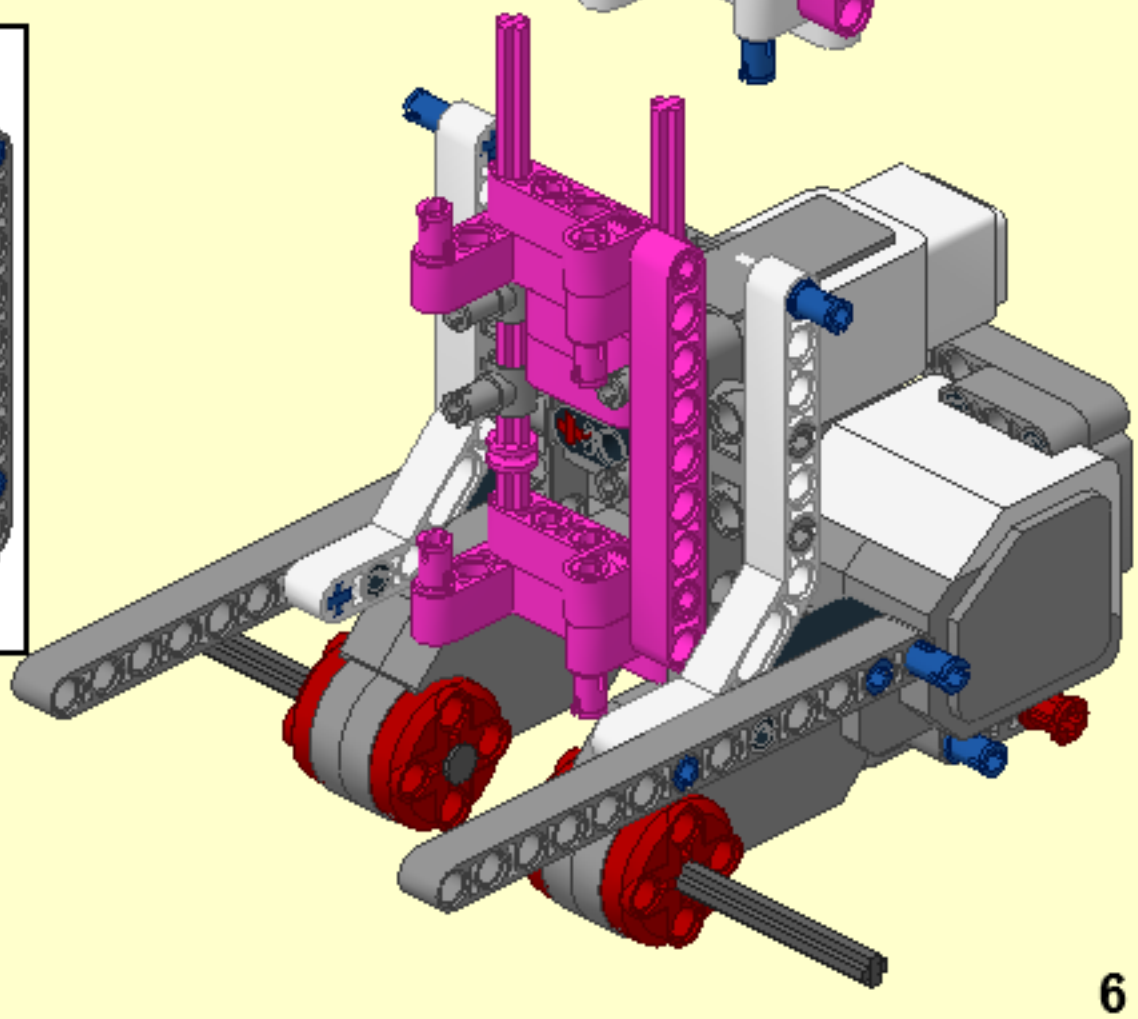



Also stretch an elastic band between these two points

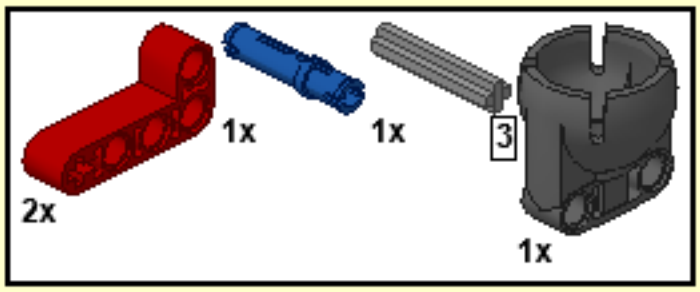


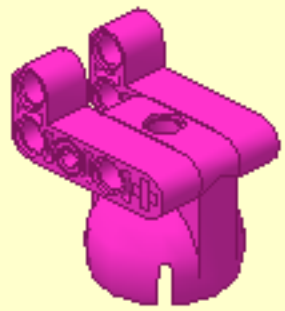
## 8



**1**



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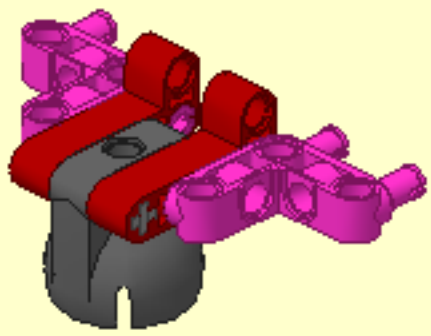

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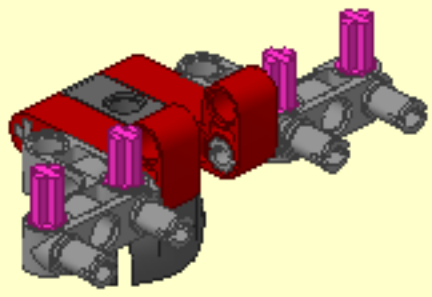

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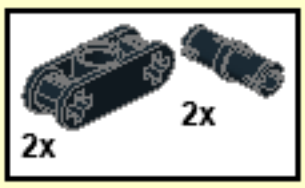
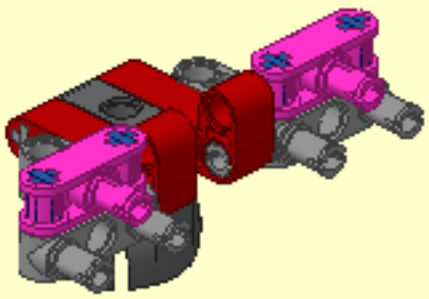
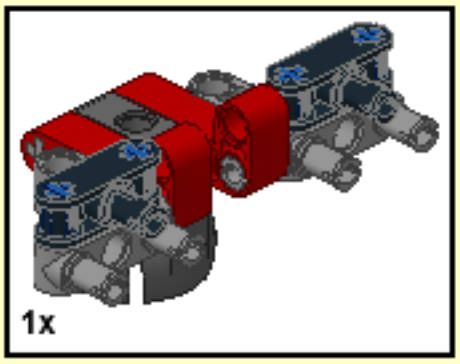
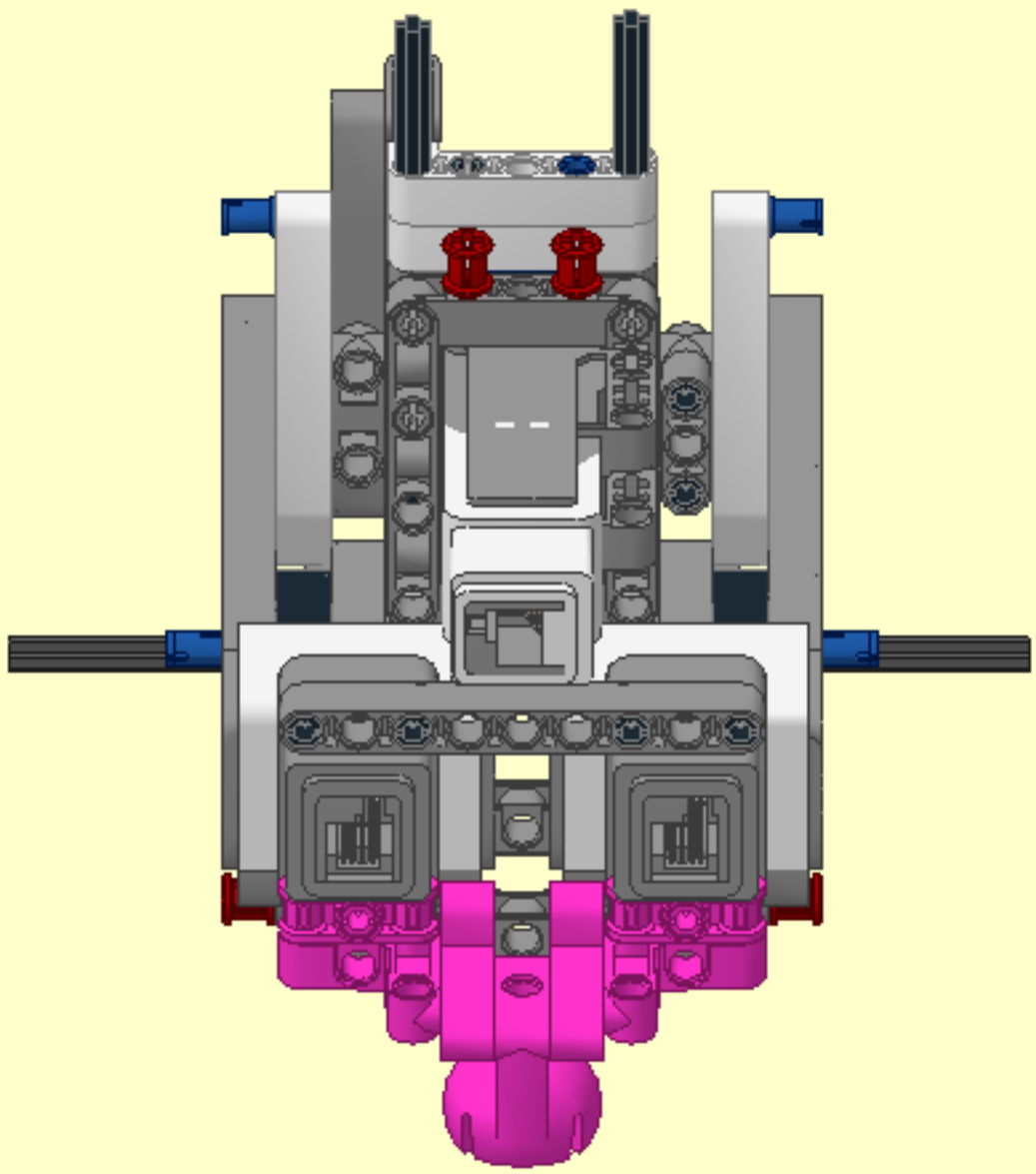


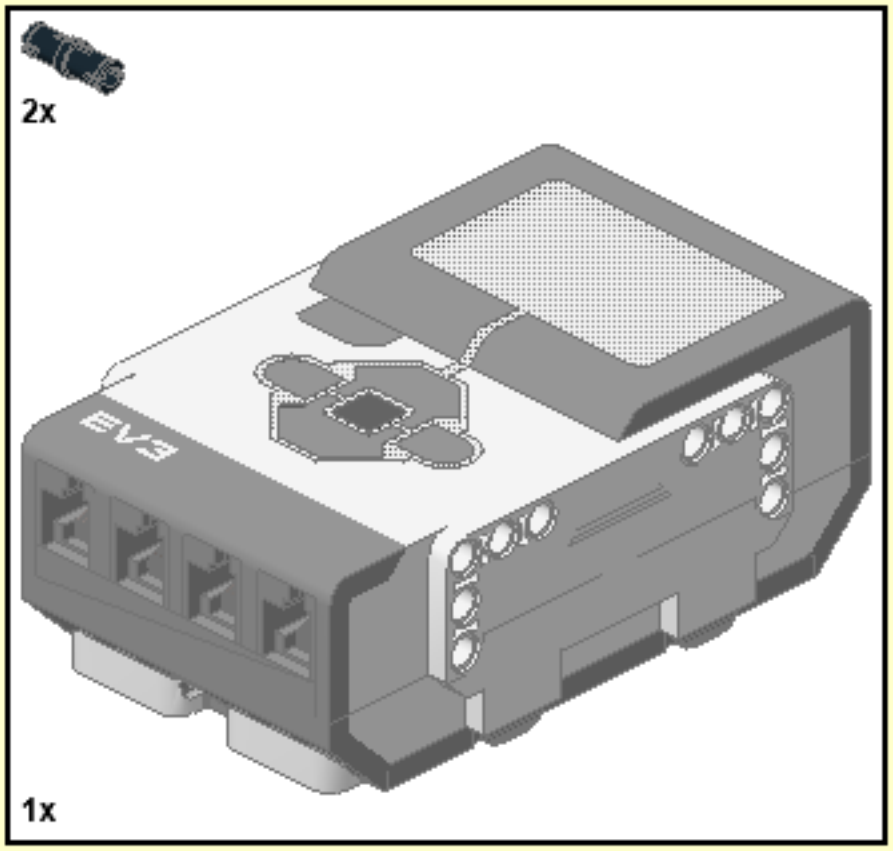



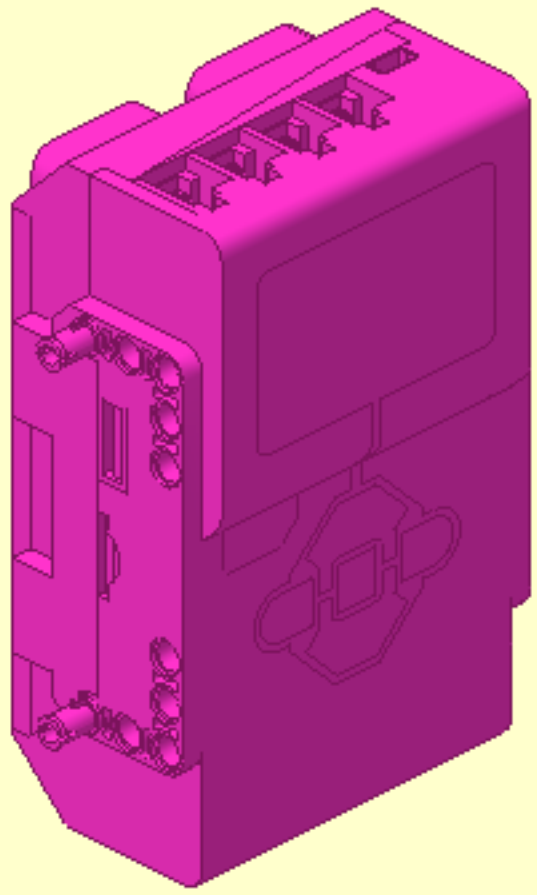
**9**



**1**



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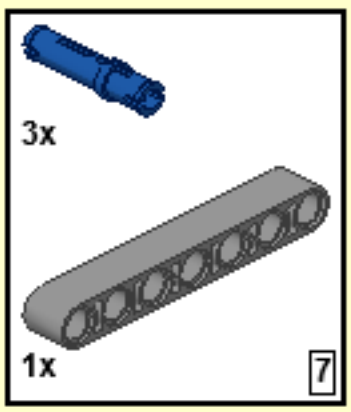
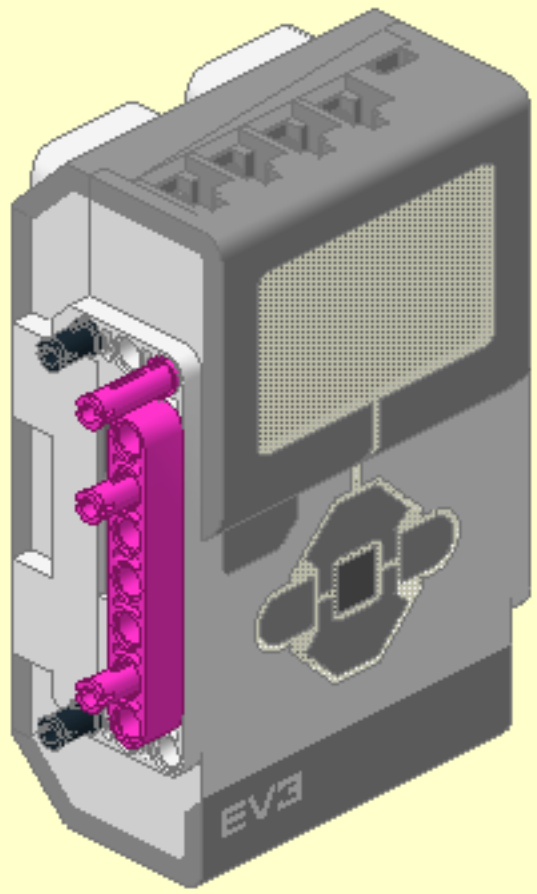
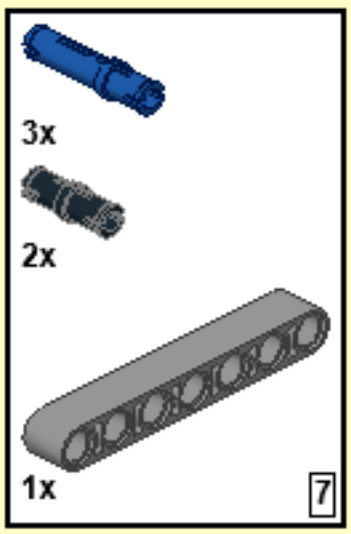
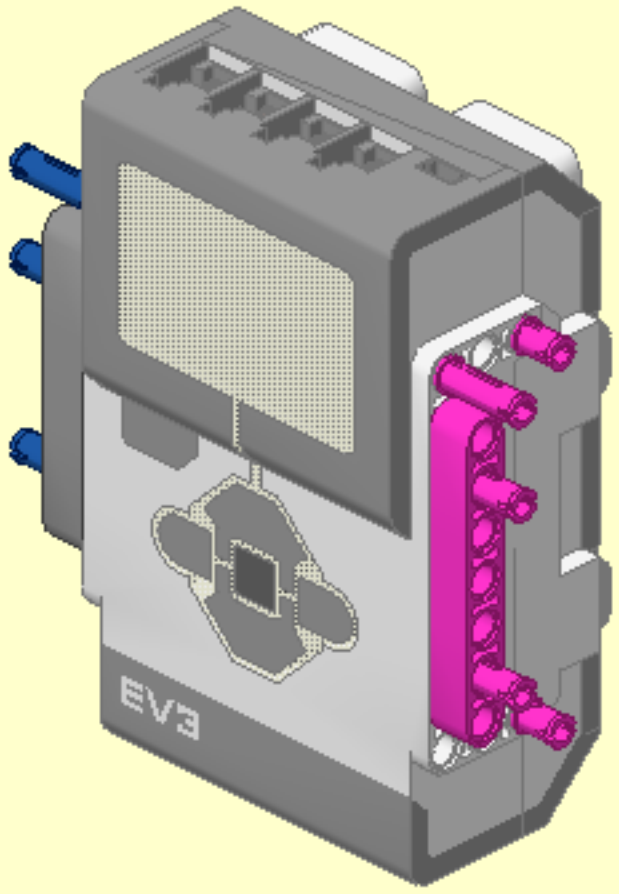



**3**



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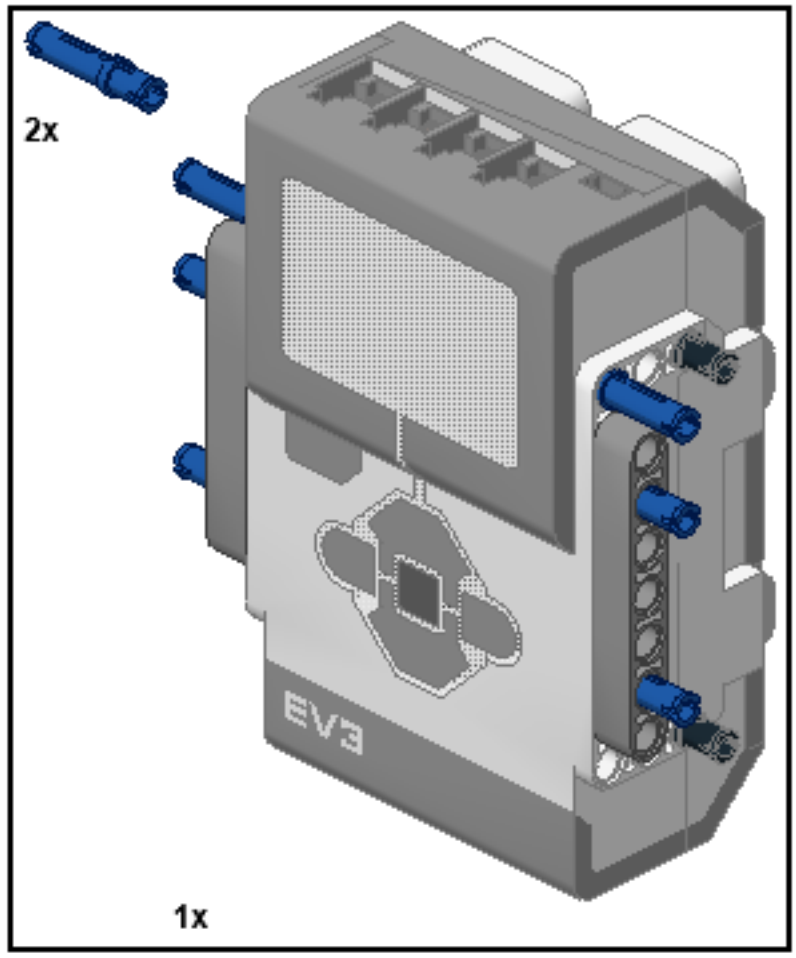


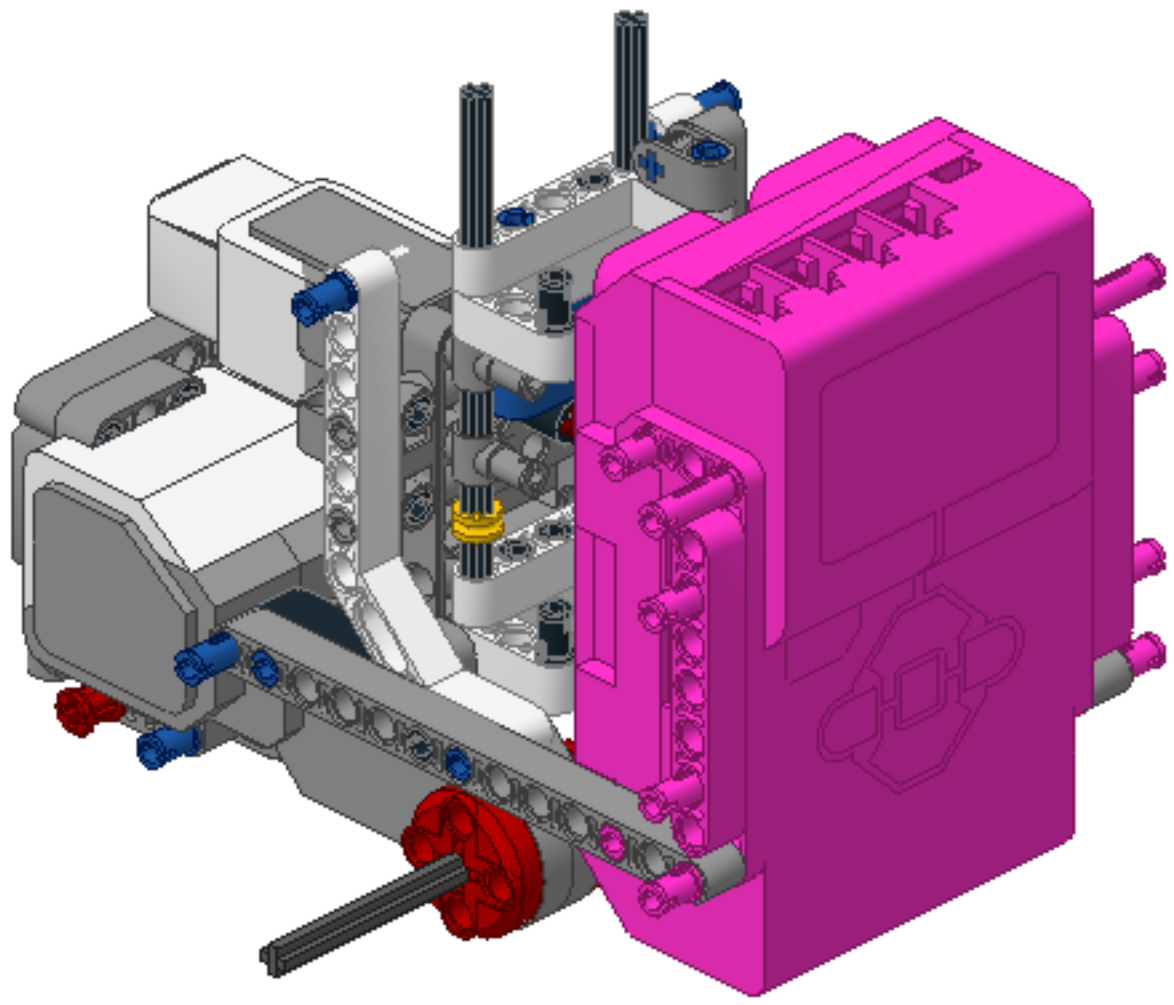

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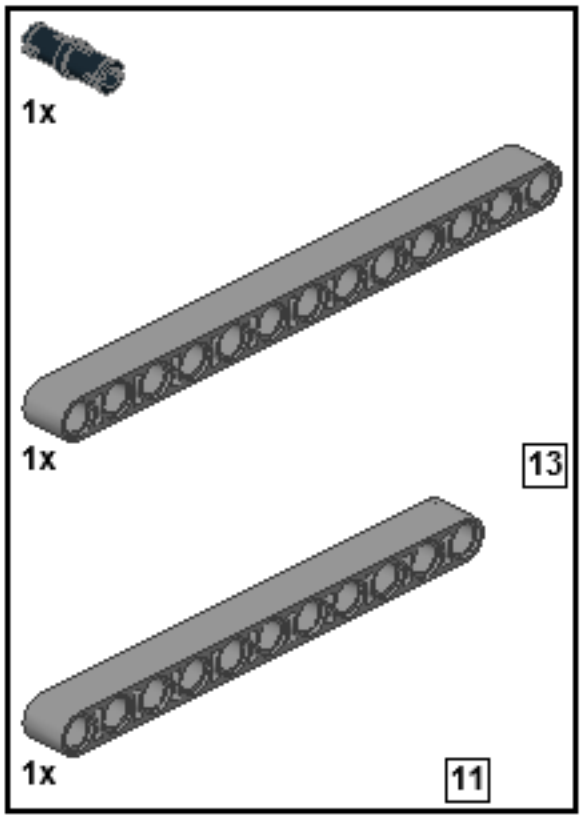


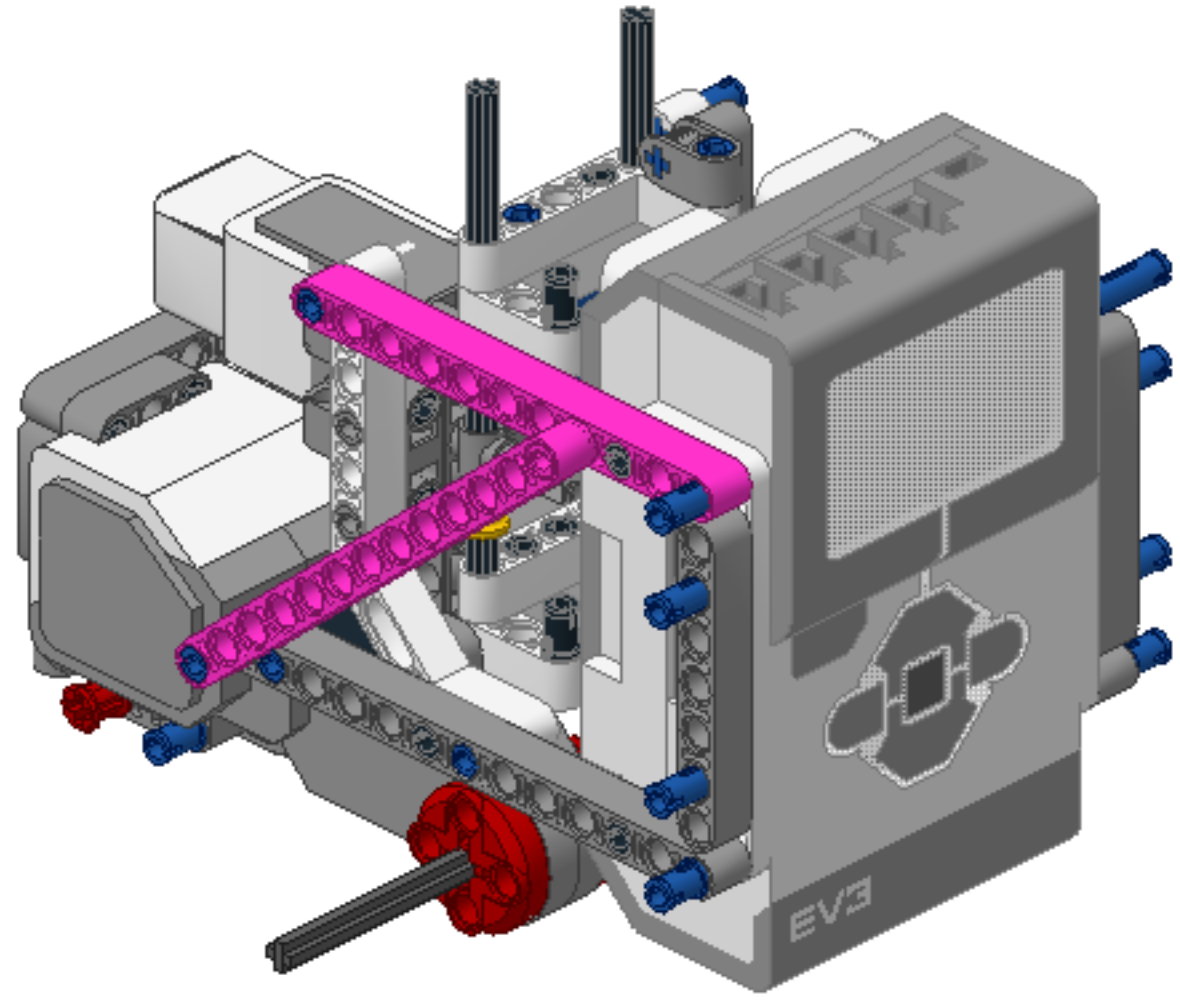


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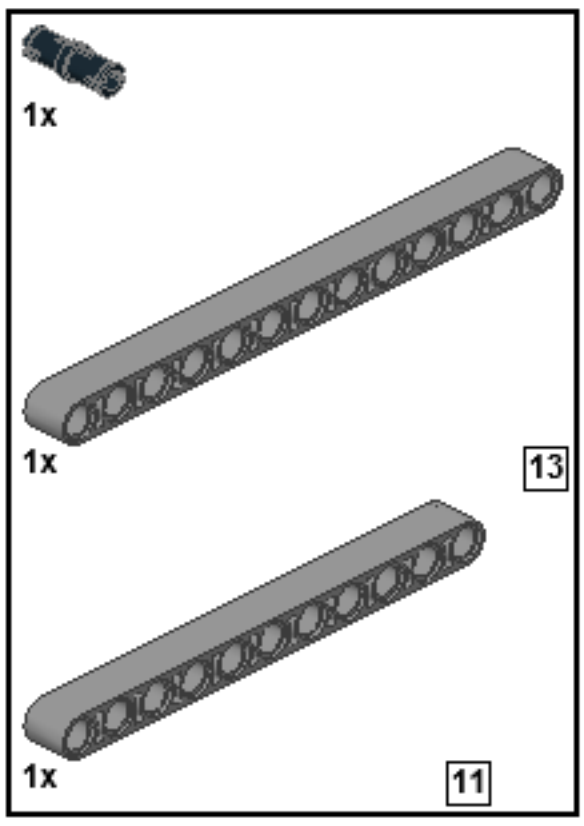


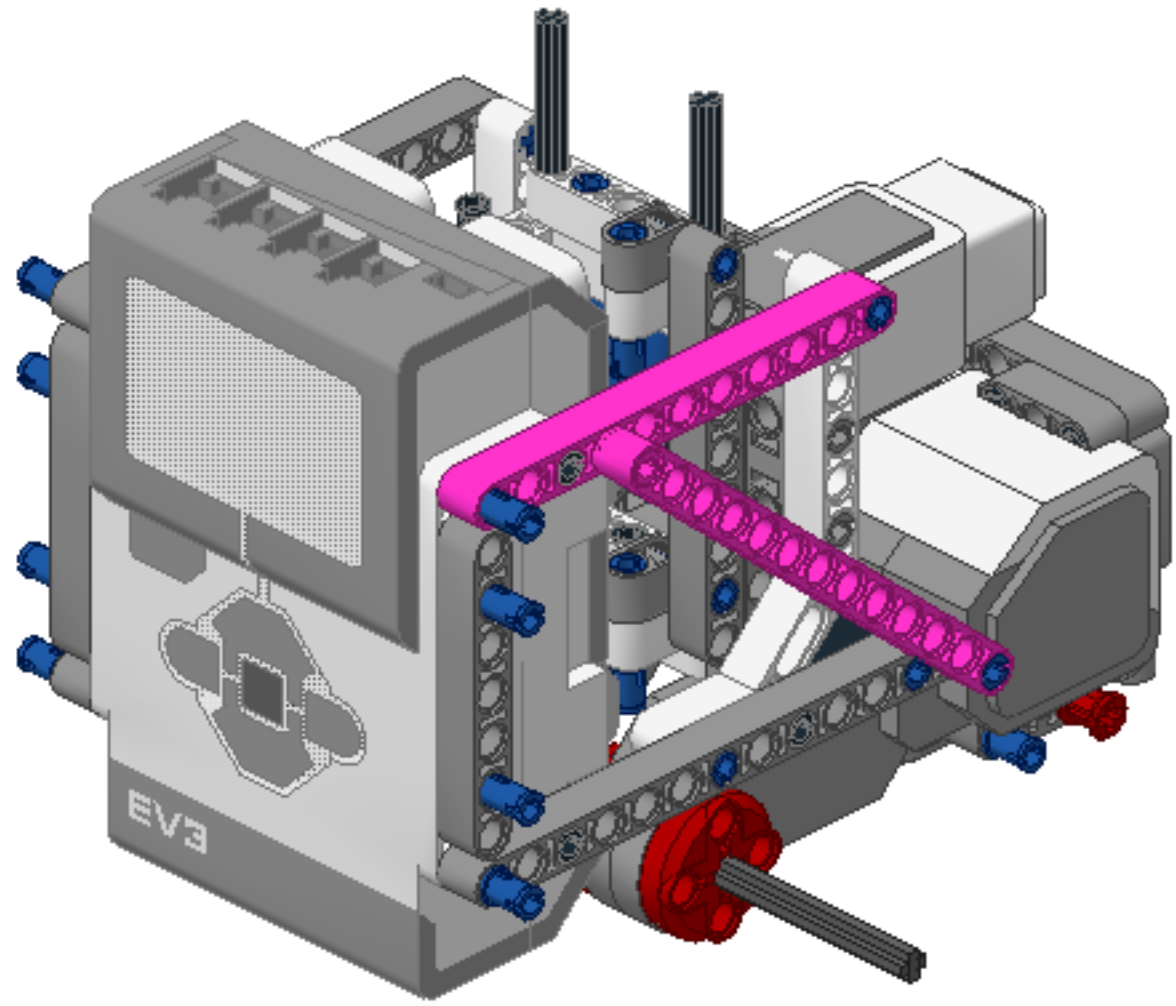

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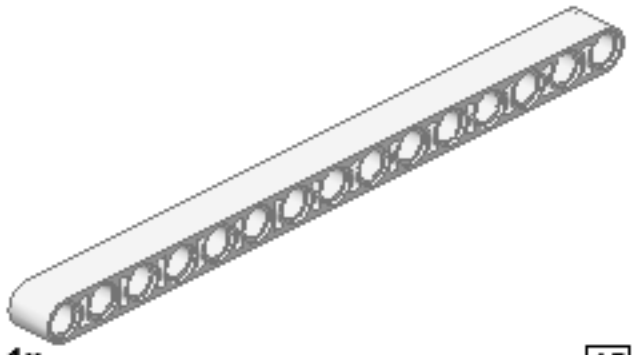


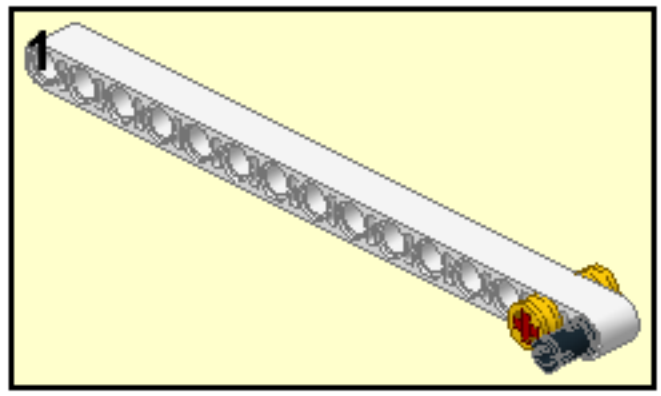
1x

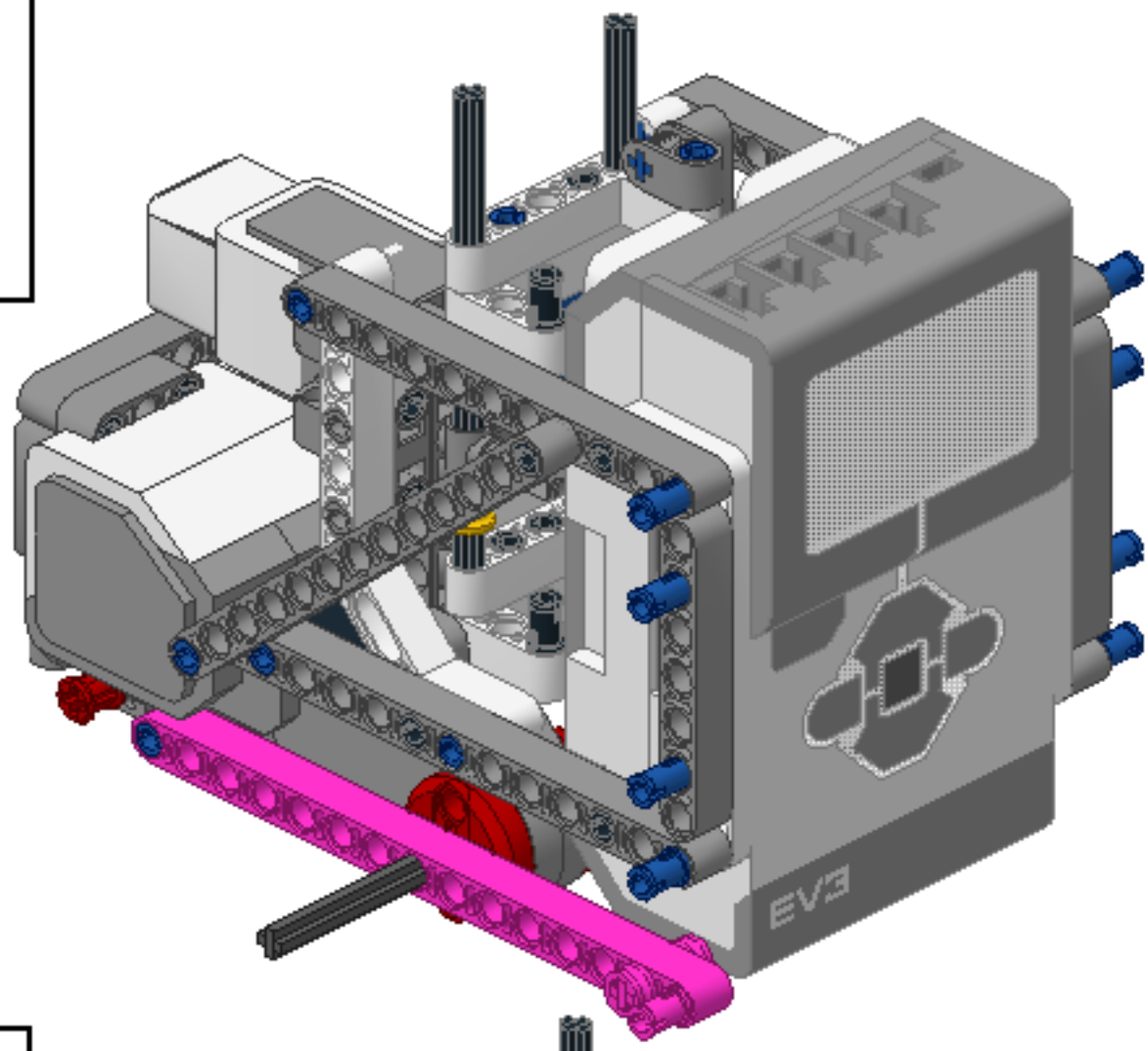
15

1x 2

2x

1x

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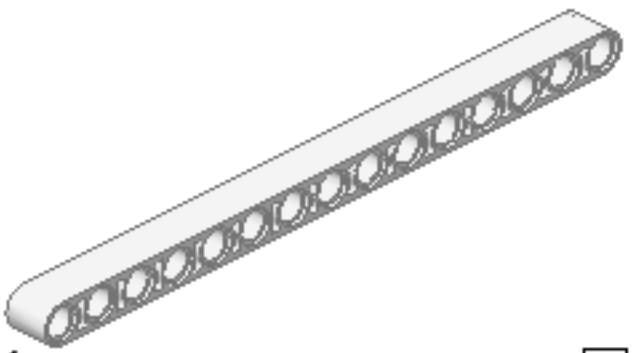


1x

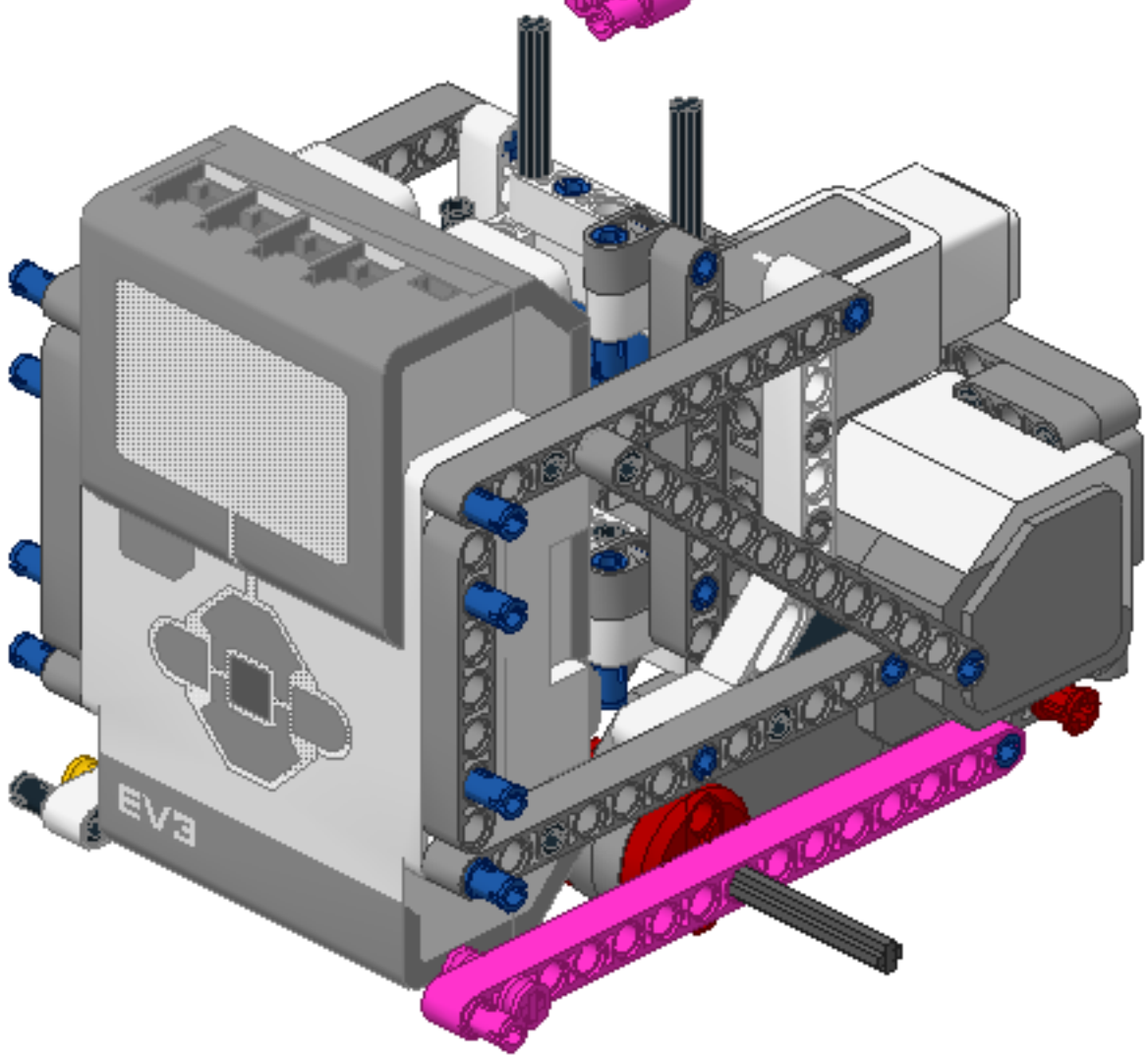
15

1x 2

2x

1x

1x



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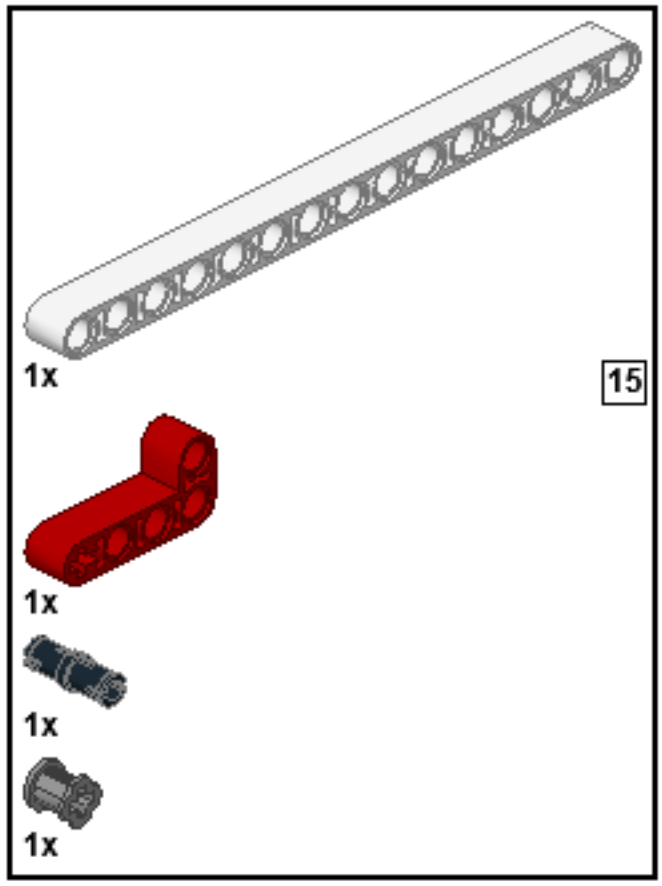


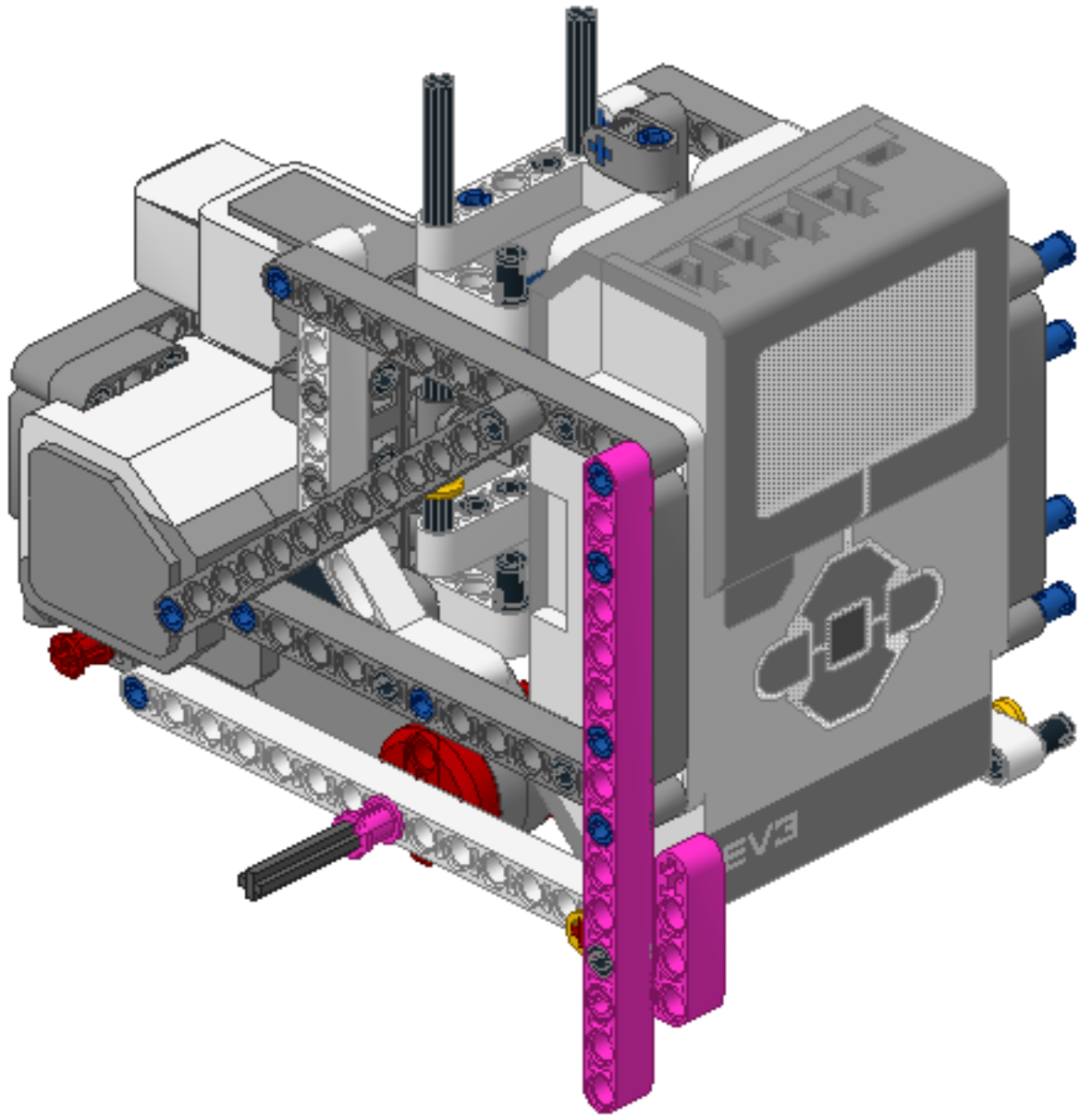

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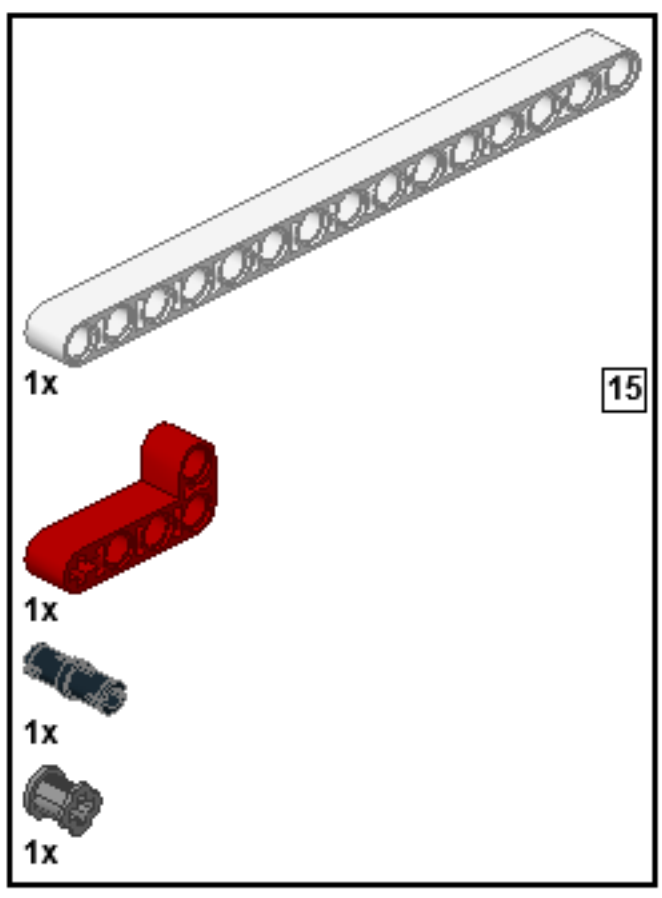
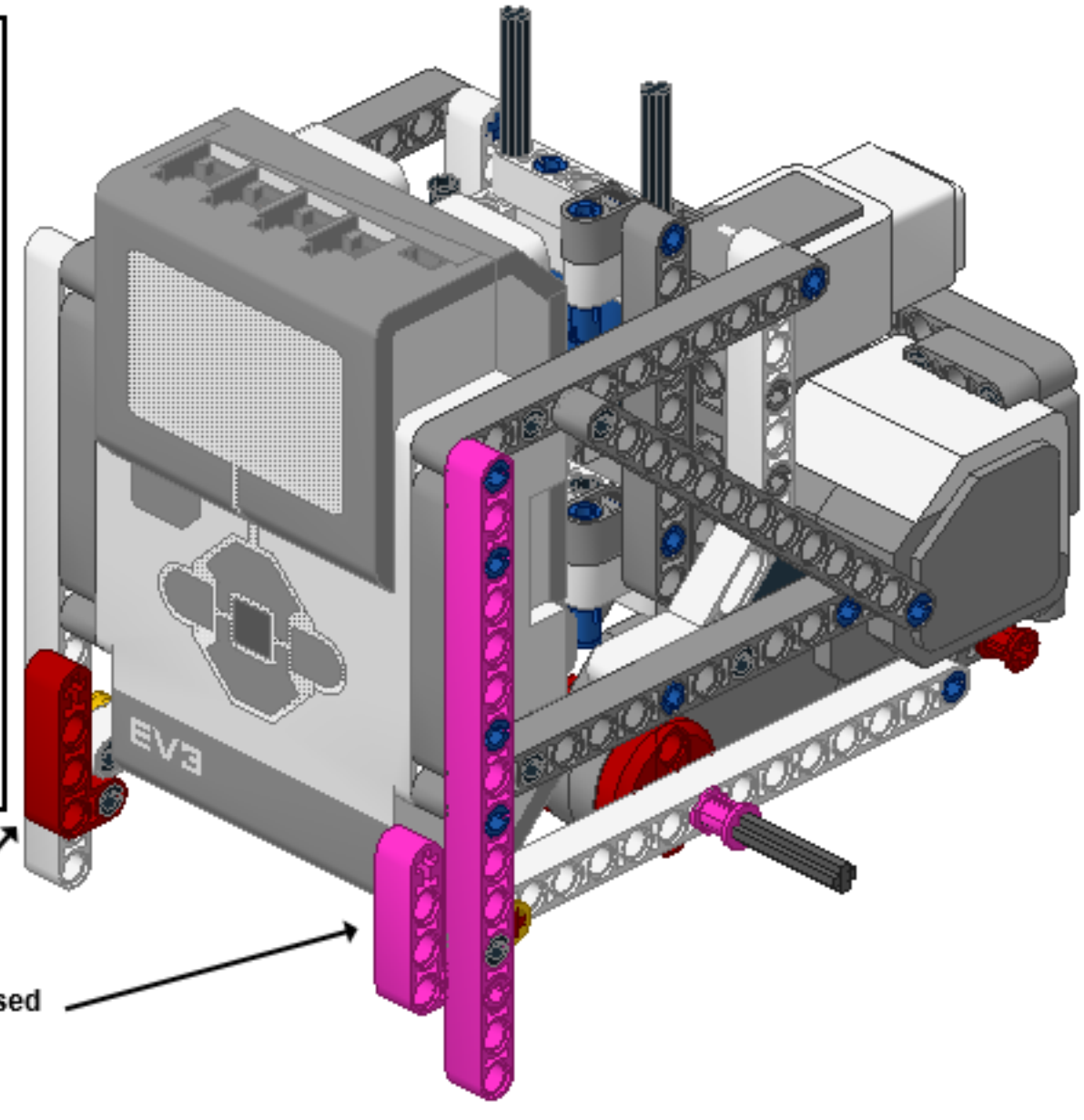
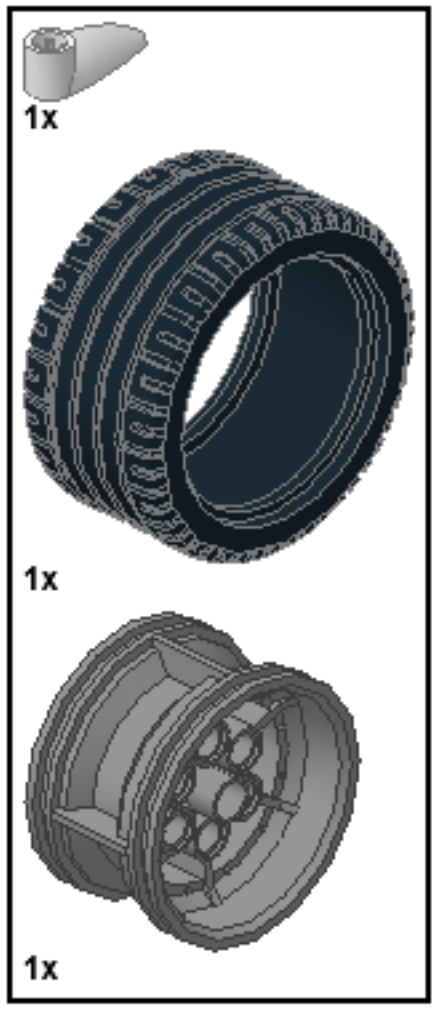
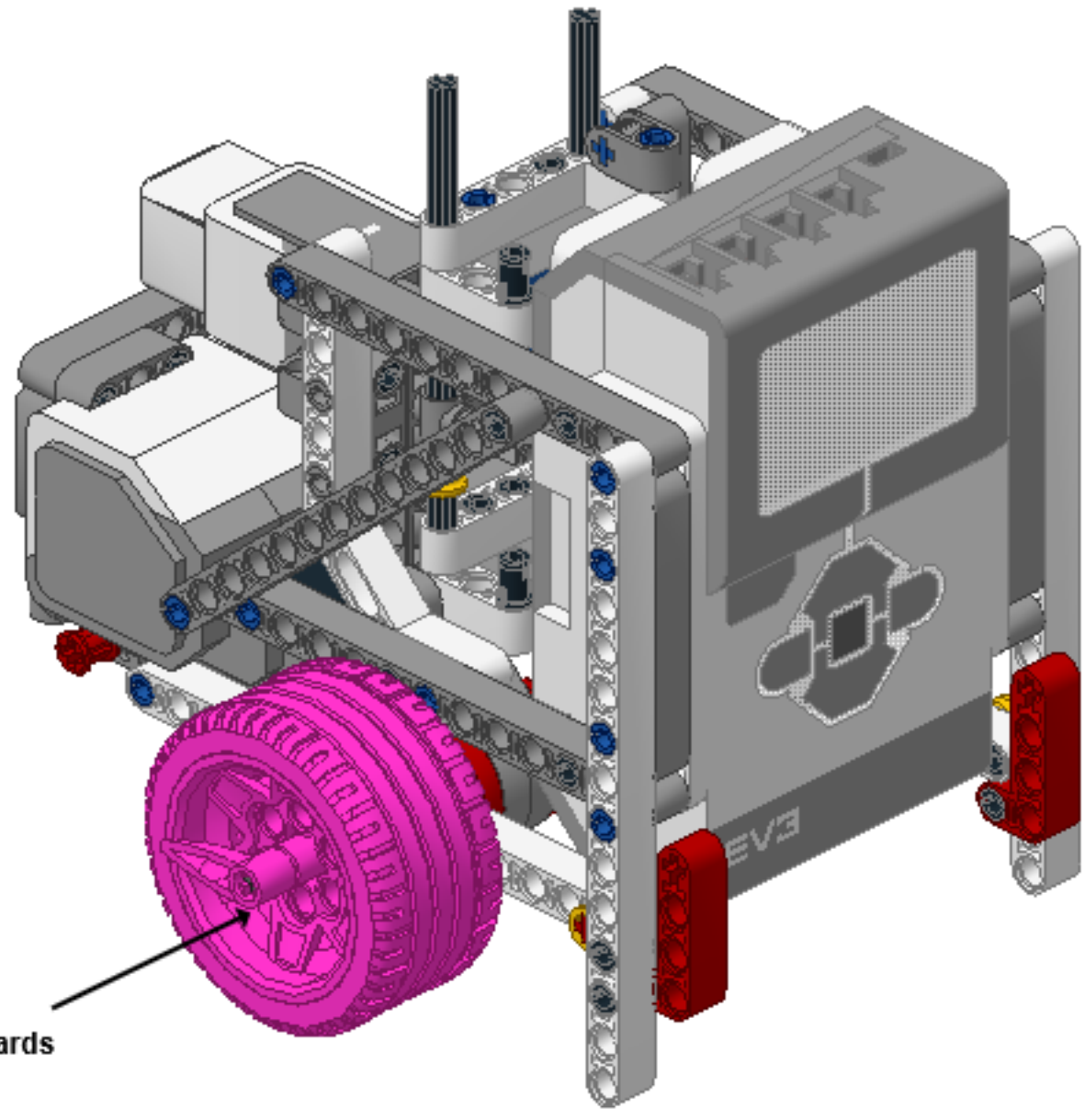


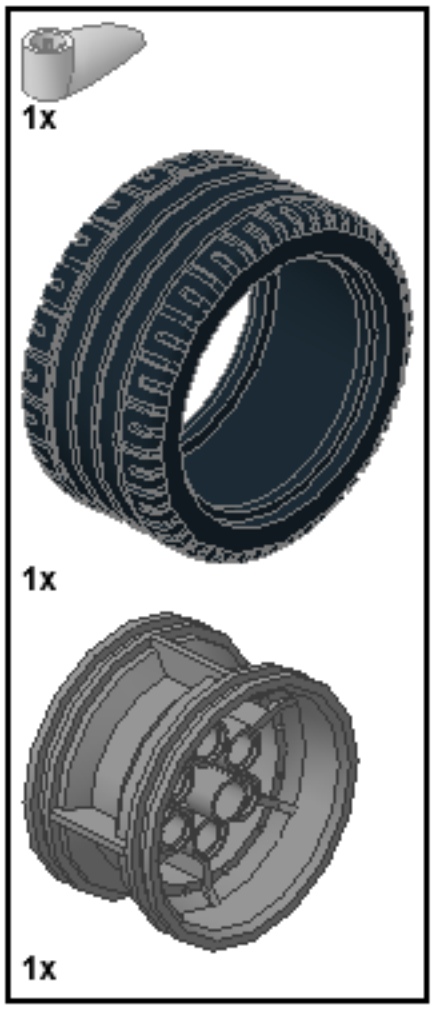

These 'cricks' (small jacks) can be used to lift the tires off the ground which can be helpful for debugging.

# 17


1x
1x
1x


EV3
Star side of wheel facing outwards

# 18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1x
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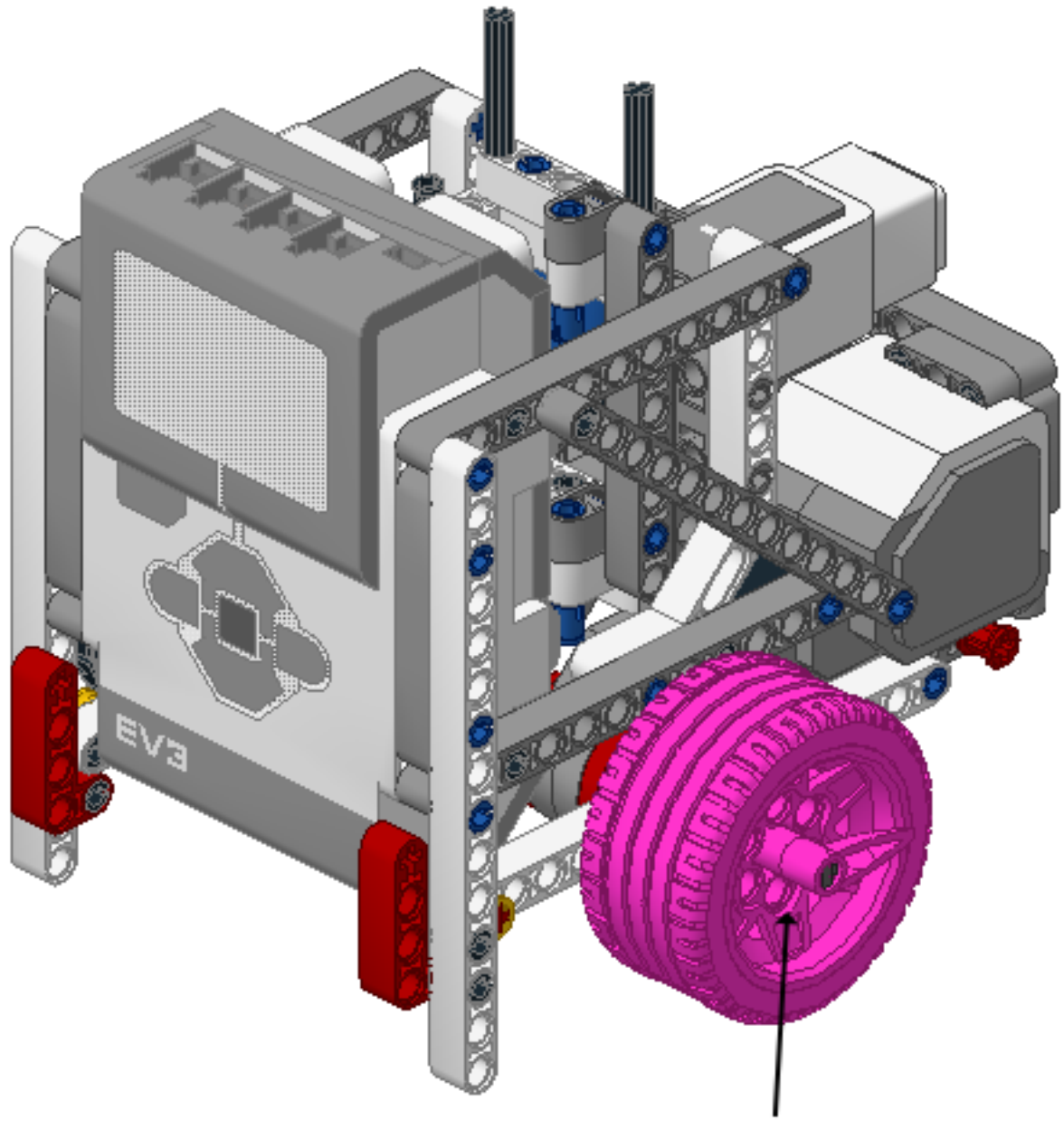
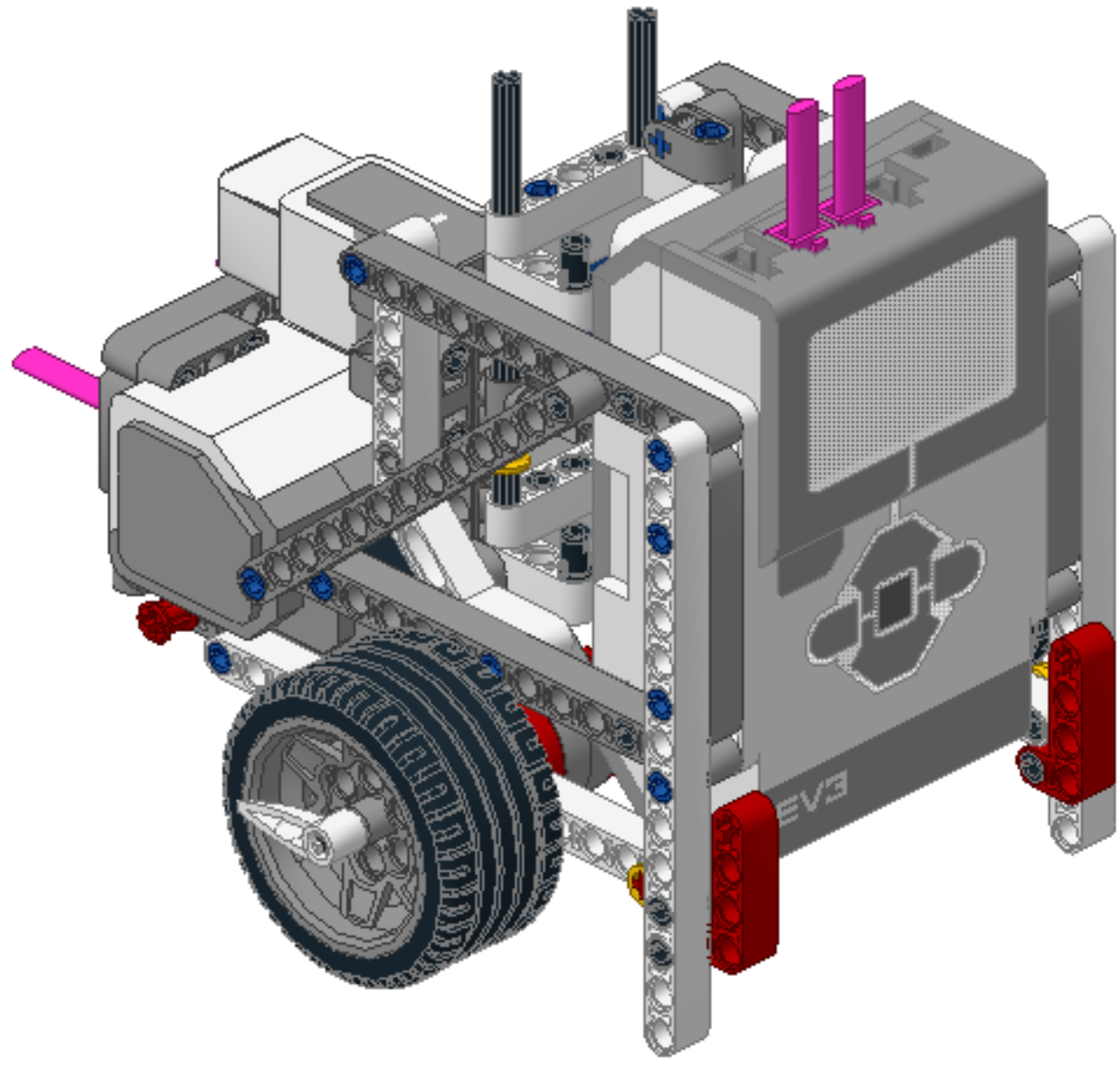

EV3
Star side of wheel facing outwards

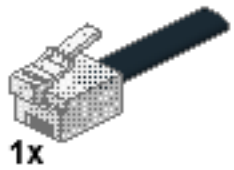
**19**

2x

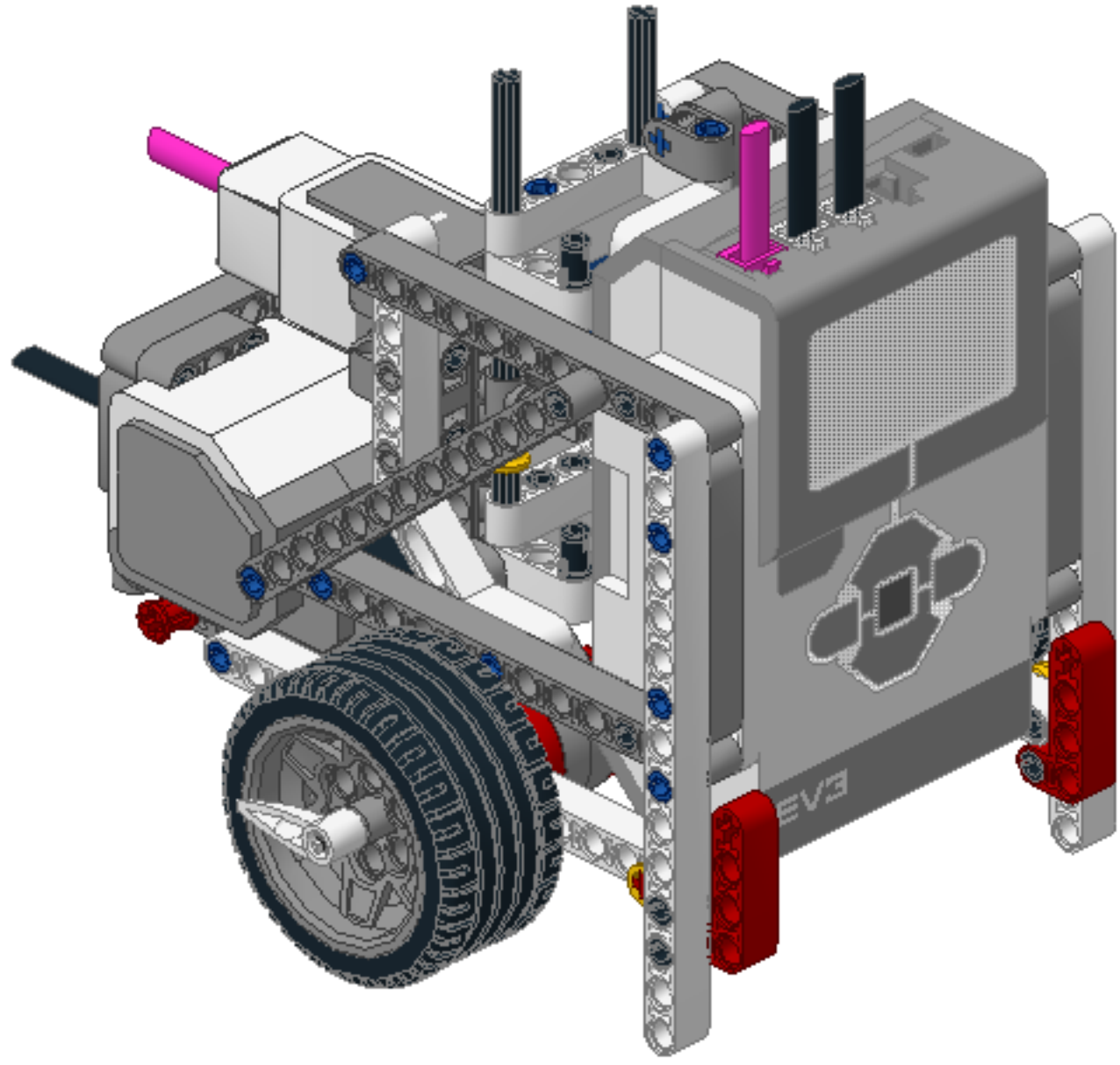
Connect left motor to port B and right motor to port C. This will cause the cables to cross.



**20**

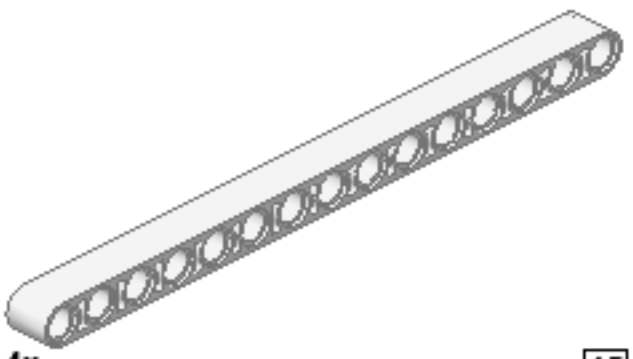


1x

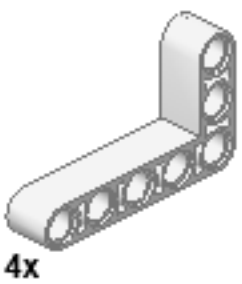


2x

2x


4x

15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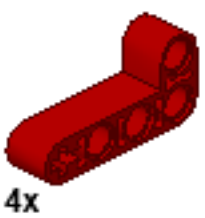
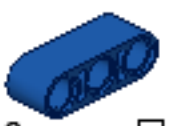

4x

4x

3x

2


2x

3

12x

19x

6x

2x

3x

2x

12

1x

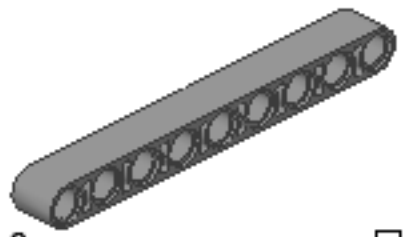
2x

2x

3

27x

2x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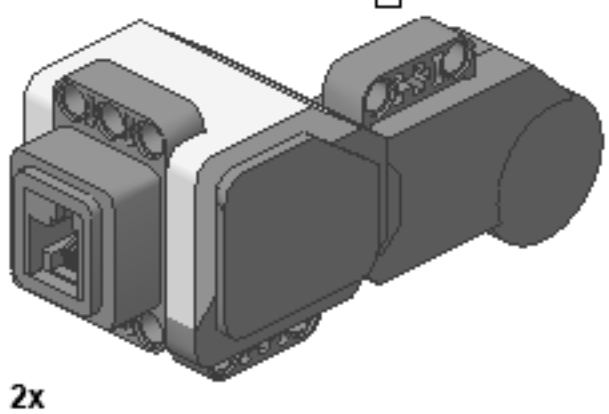
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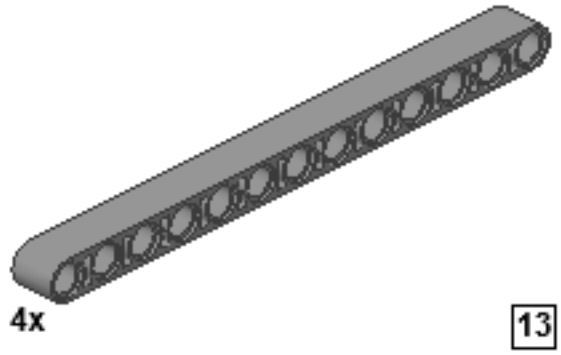
2x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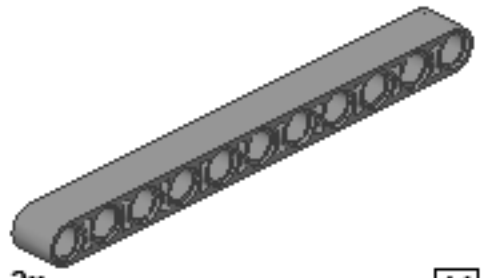
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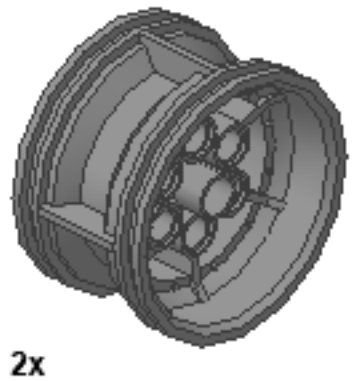
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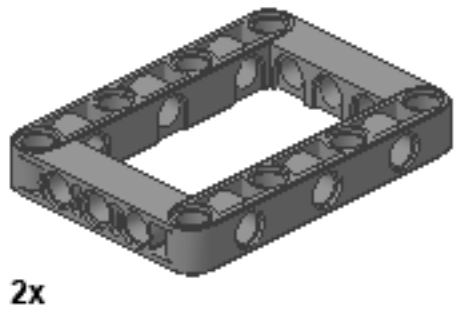
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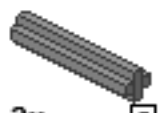
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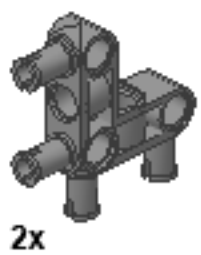
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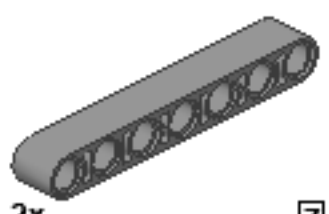
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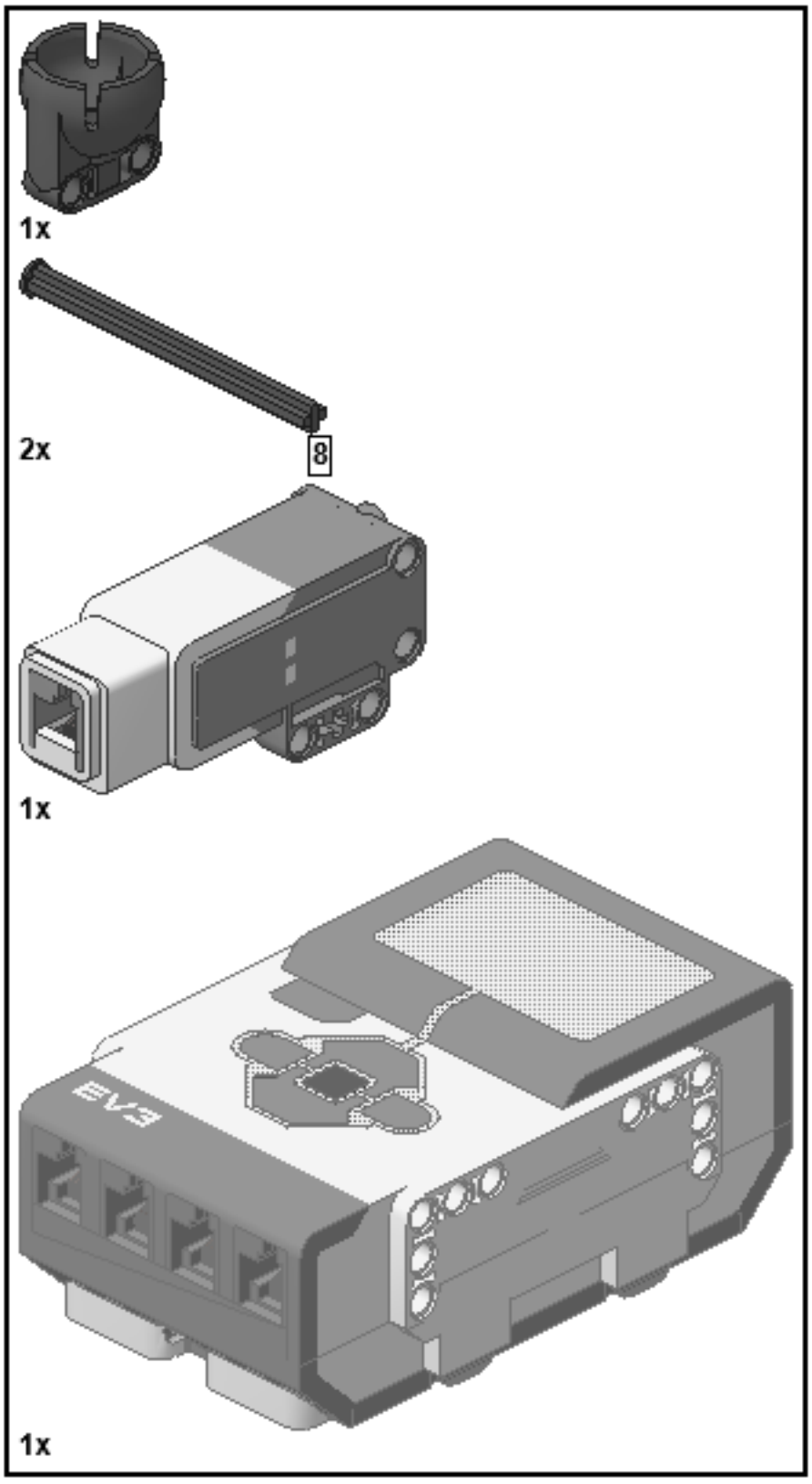
7

1x


1x
2x
8
1x
EV3
1x