

**LEGO** mindstorms<sup>™</sup>  
EV3

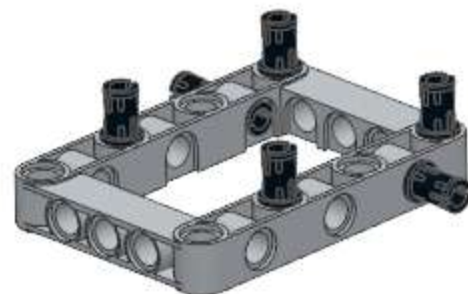
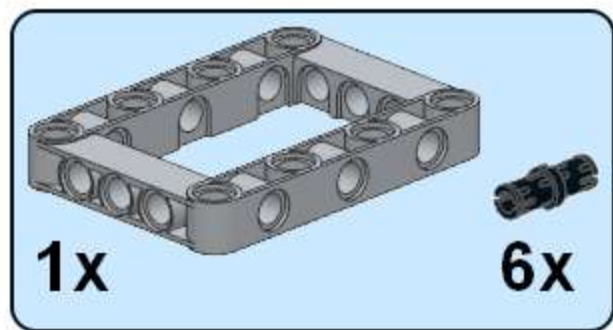


# EV3D4

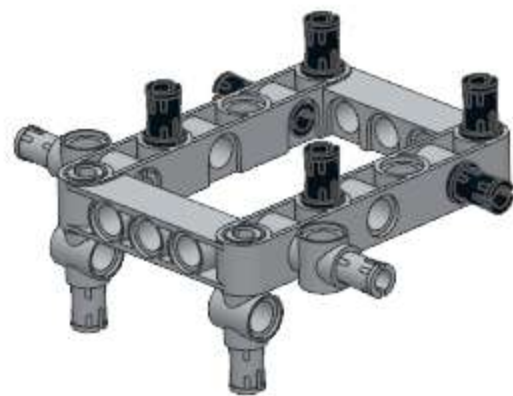
Model Design  
and Programming Instructions  
by: **Vassilis Chryssanthakopoulos**

Building Instructions  
by: **Philippe "Philo" Hurbain**

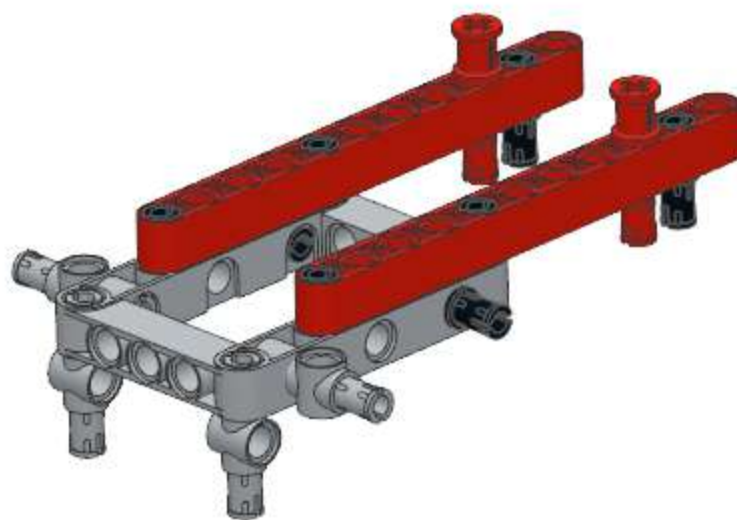
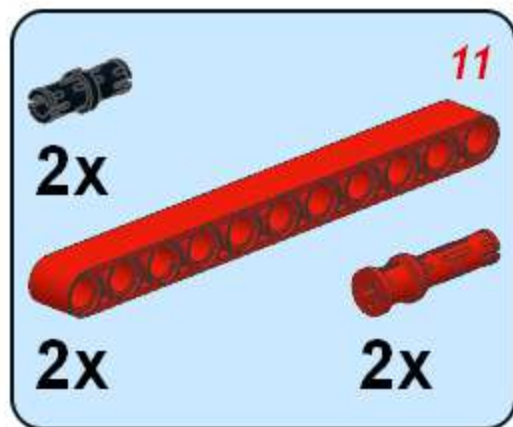
1



2



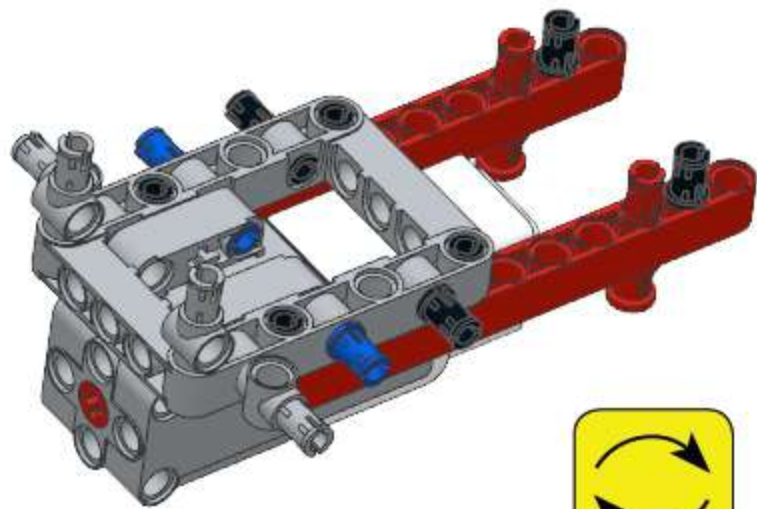
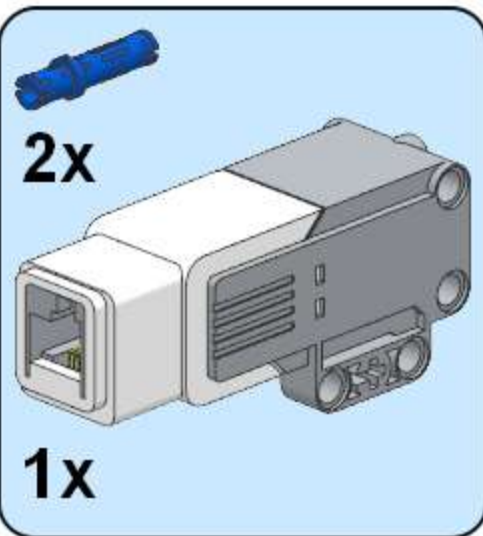
3



4

2x

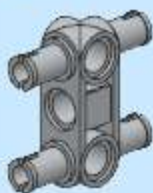
1x



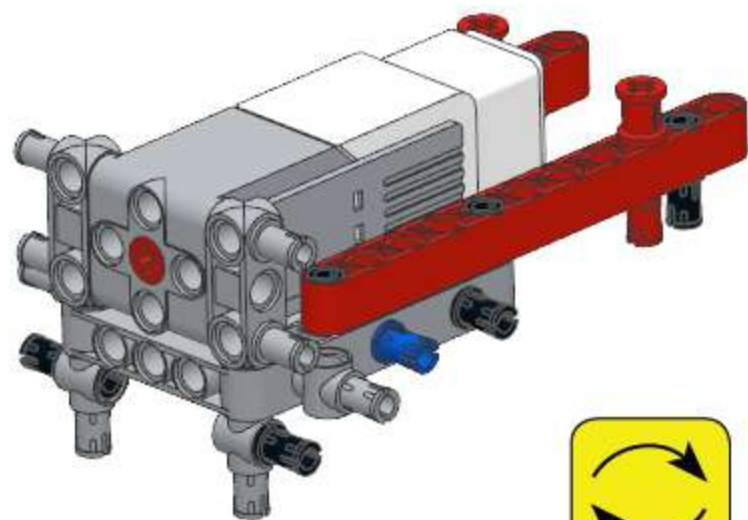
5



2x



2x



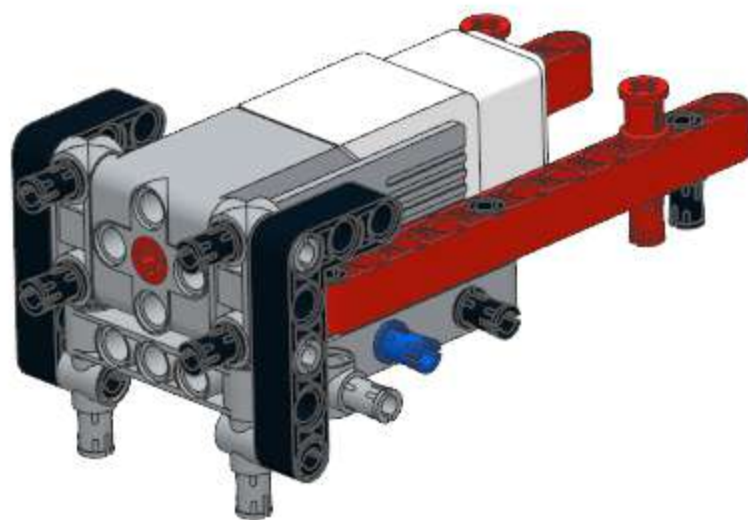
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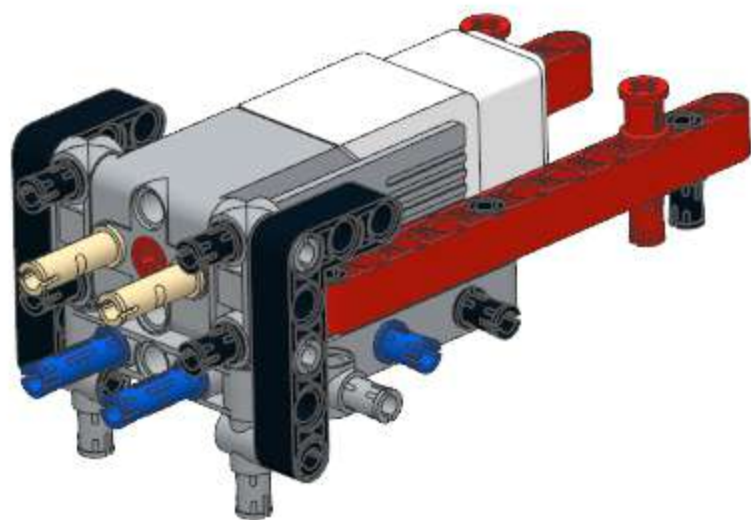
4x



2x

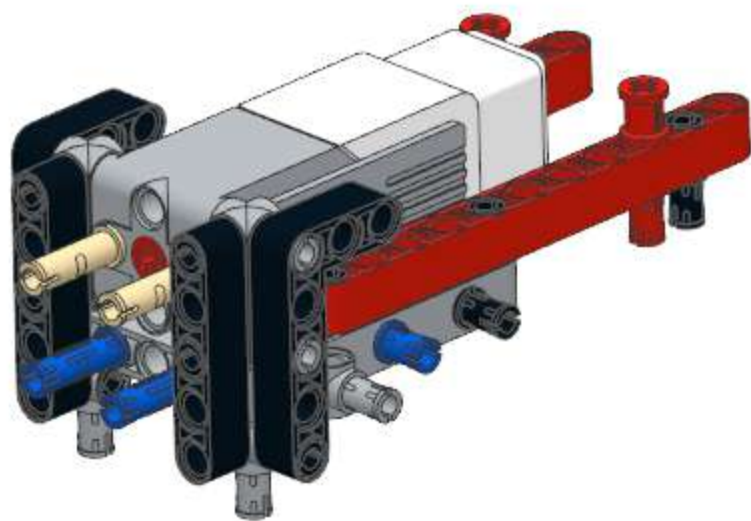


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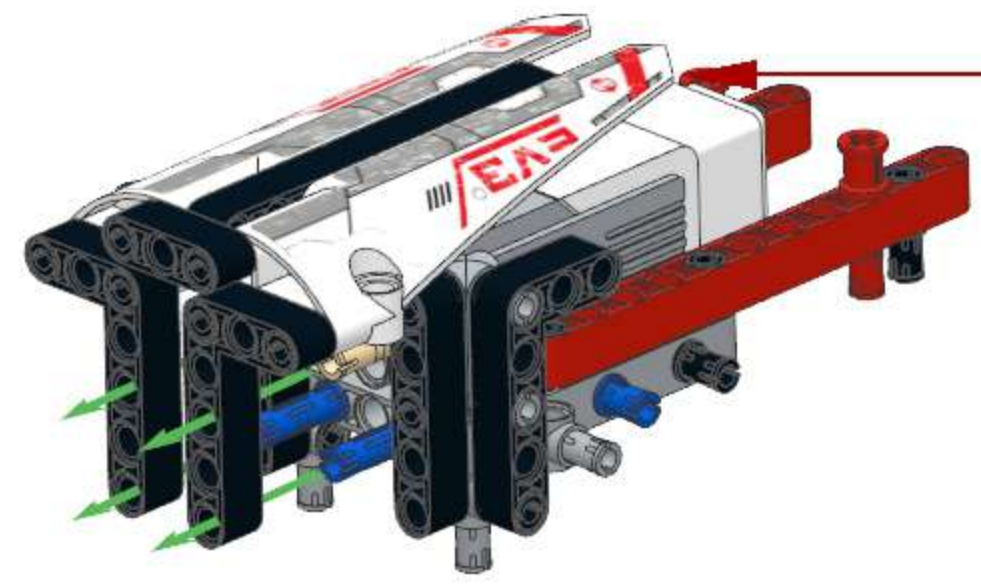


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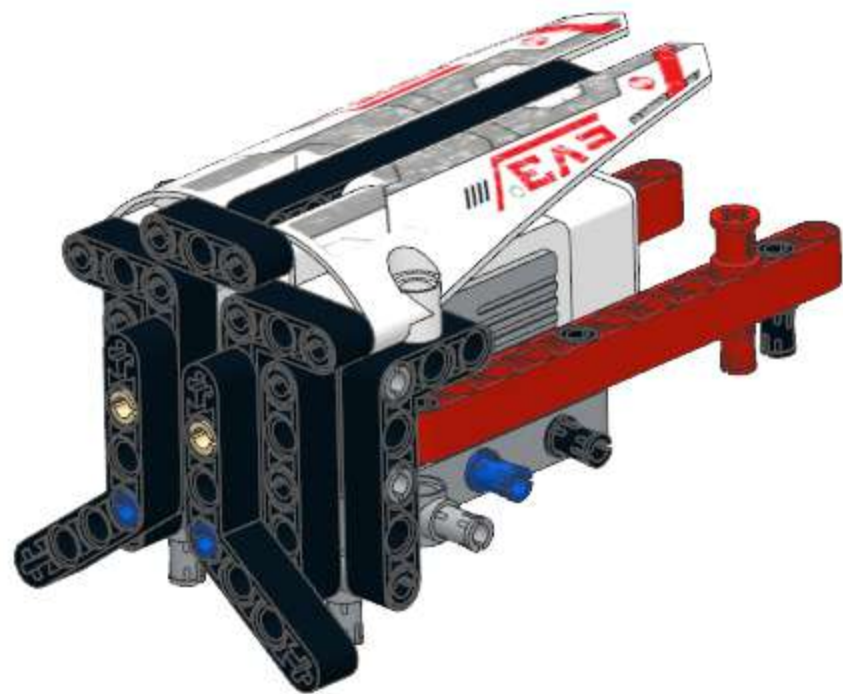
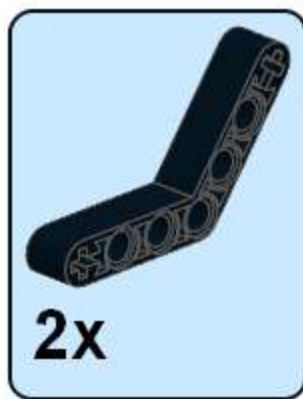
# 9

- 2x
- 2x
- 2x
- 1x
- 1x
- 1x
- 1x
- 6x

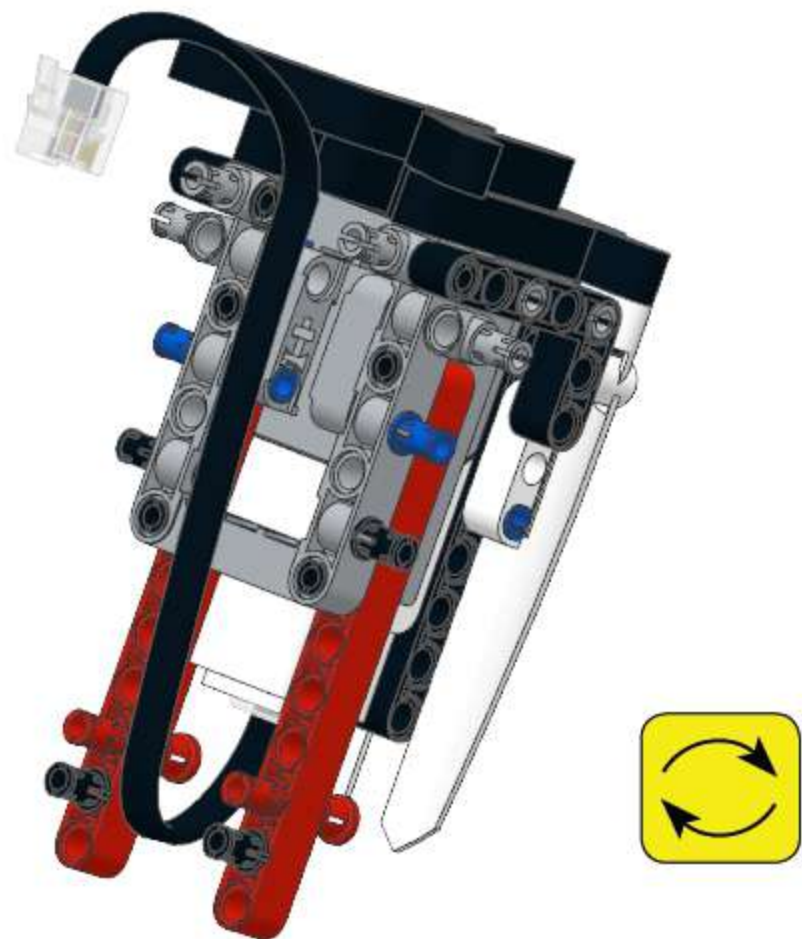
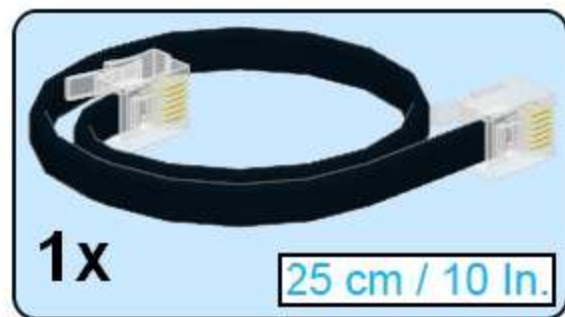


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- 
- 
-

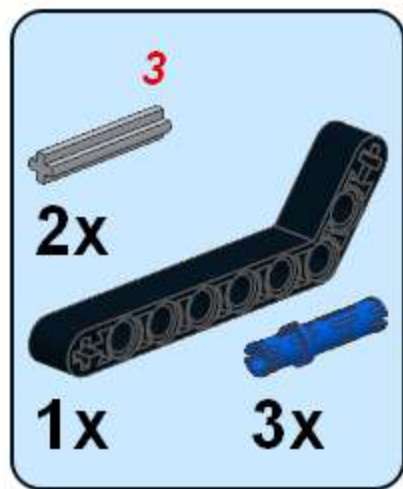
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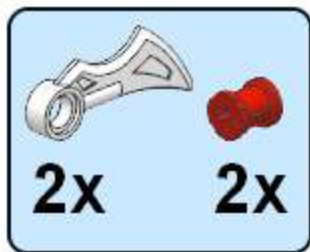
11



1



2



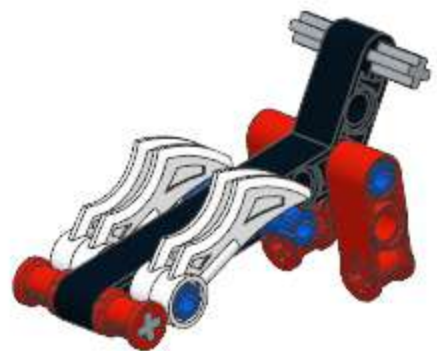
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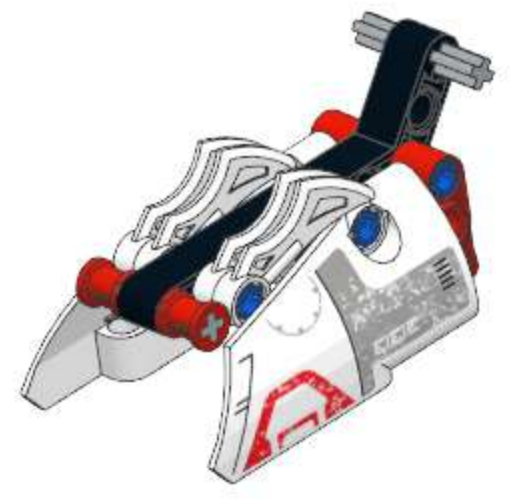
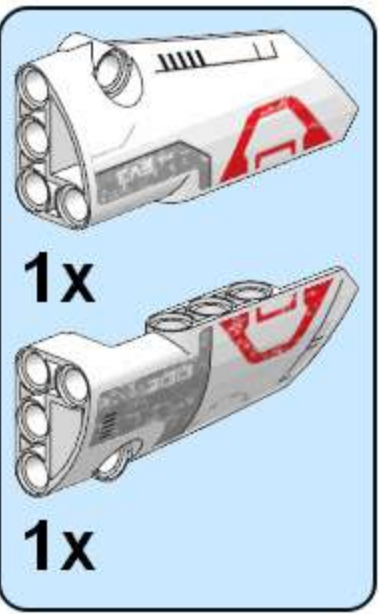
2x



2x

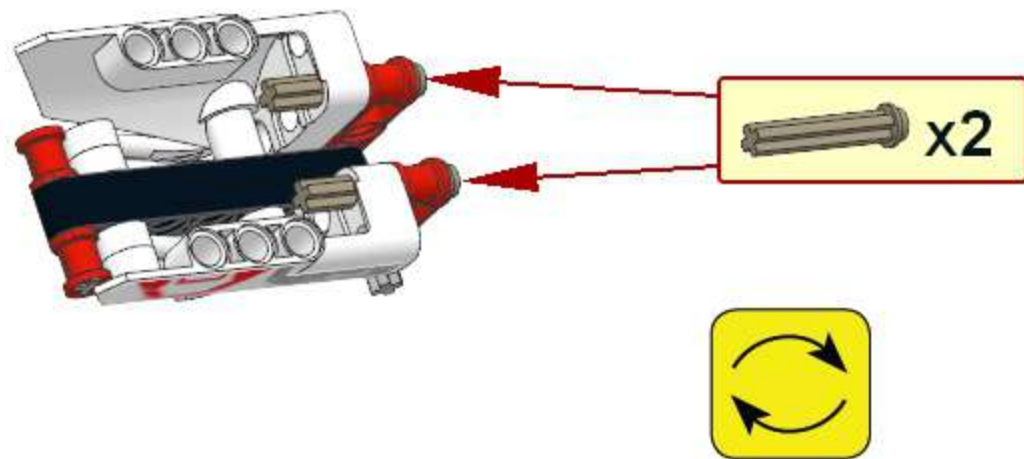


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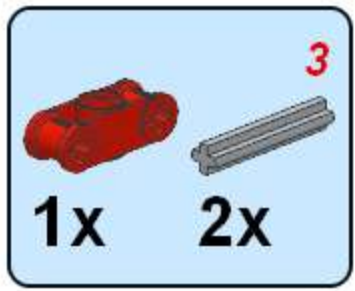




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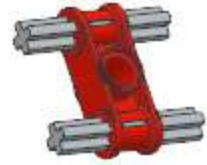


1



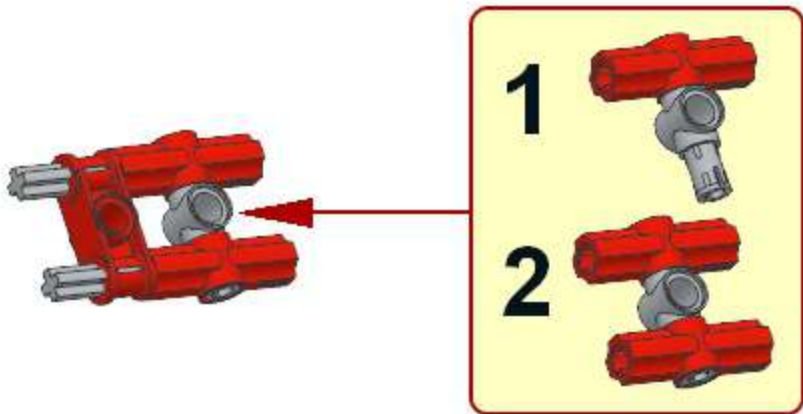
1x 2x 3

This block contains a parts list for step 1. It features a red Technic connector (1x) and two grey Technic axles (2x). A red number '3' is positioned in the top right corner of the list area.

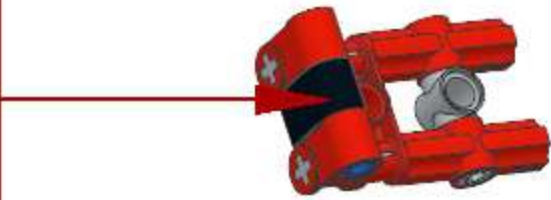
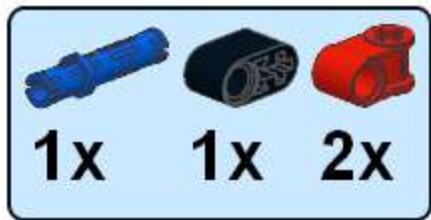


2

1x  
2x



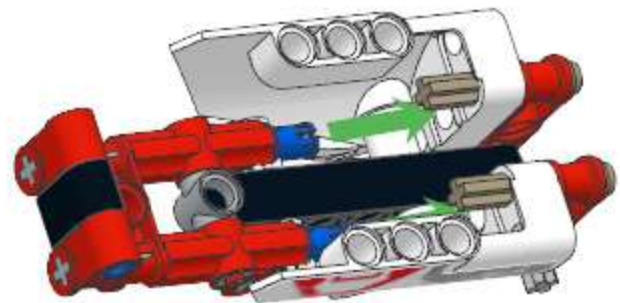
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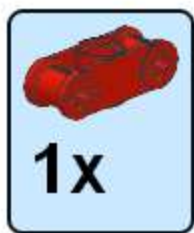
4  2x



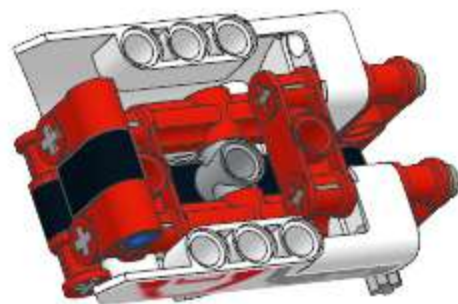
6



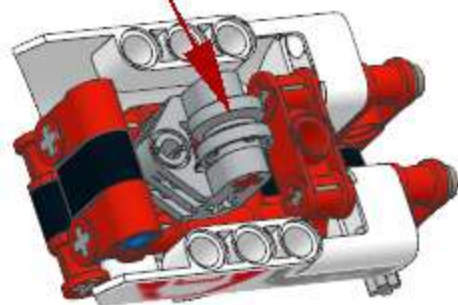
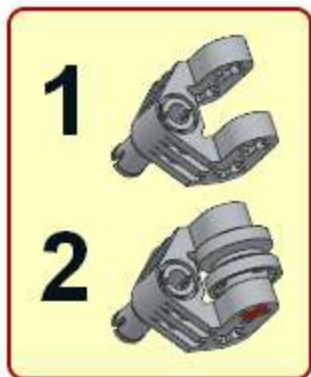
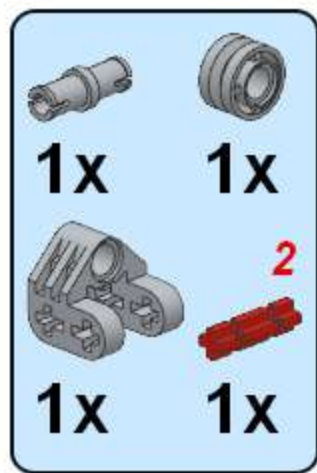
7



1x





8





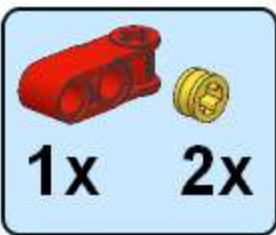
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1x  6

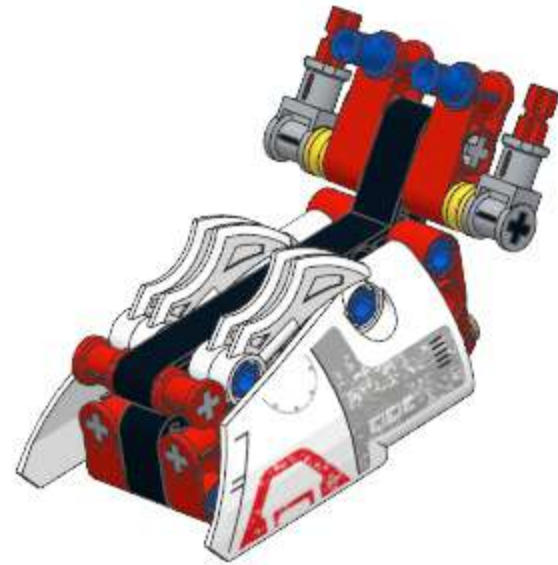
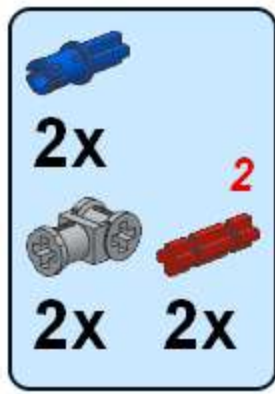
1x 



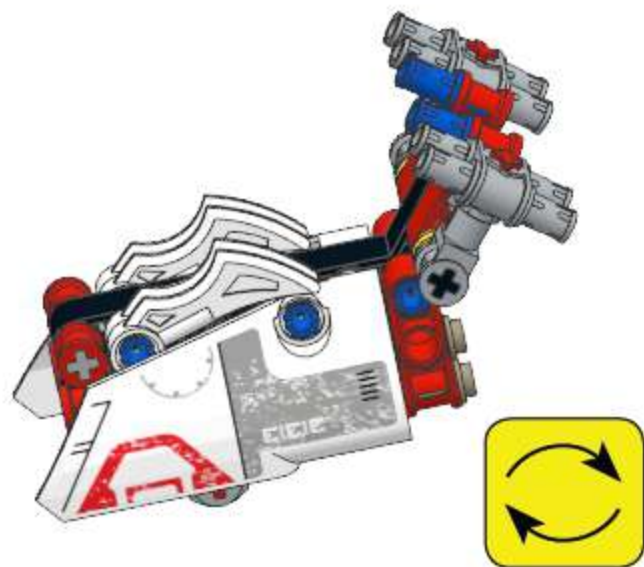
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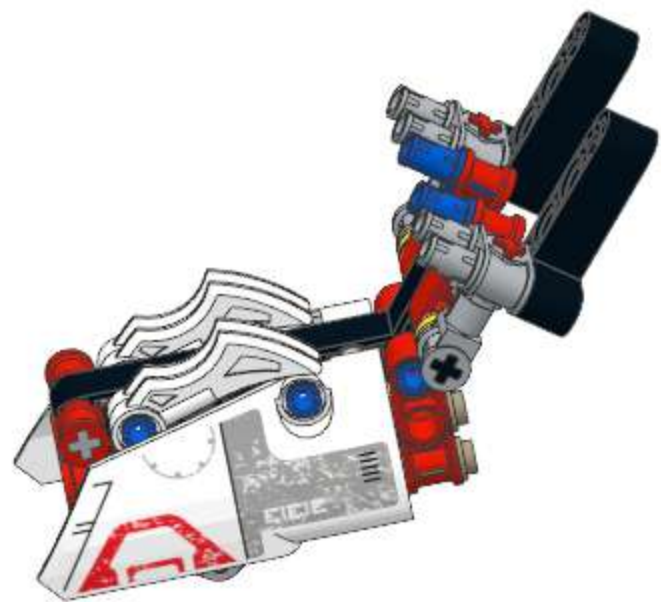
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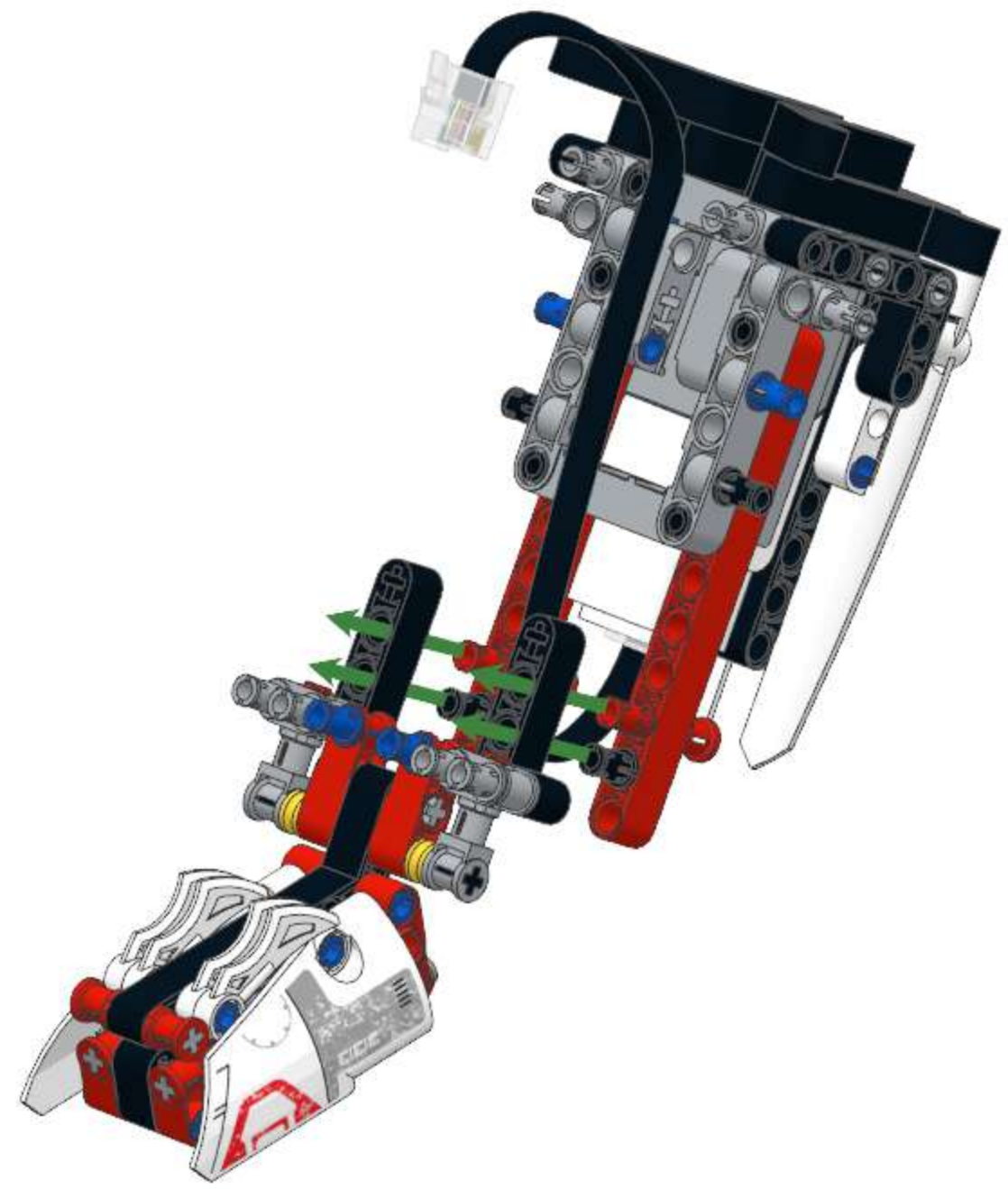
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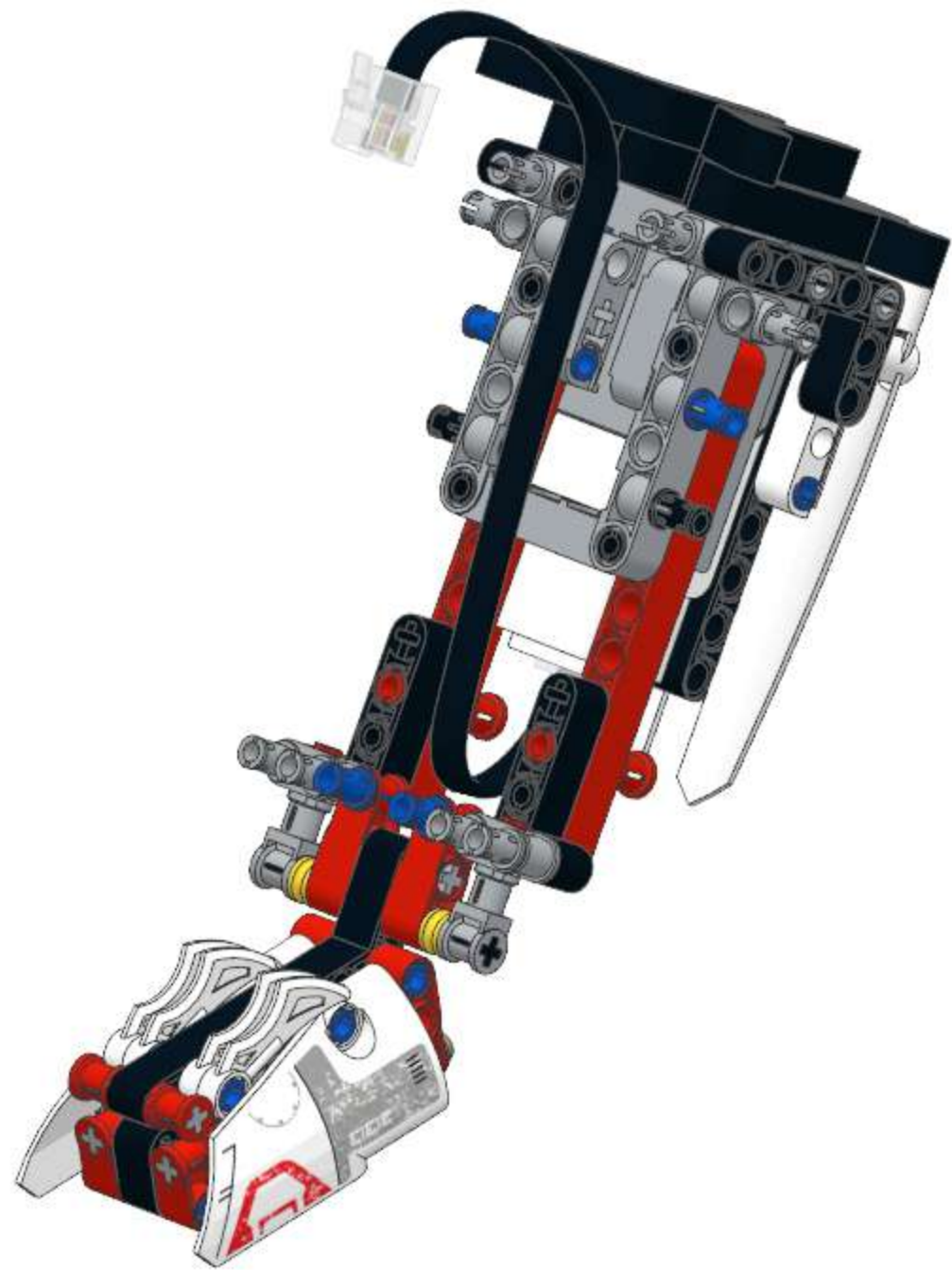
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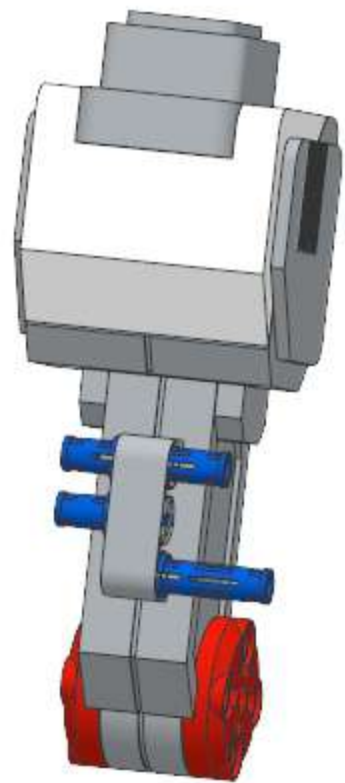
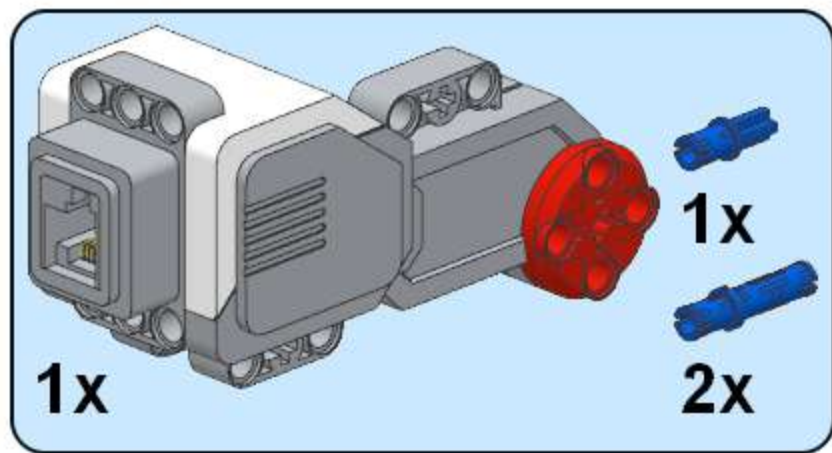
1



2



1





2

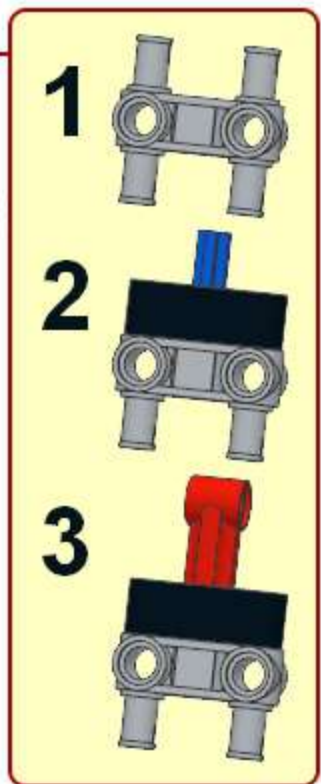
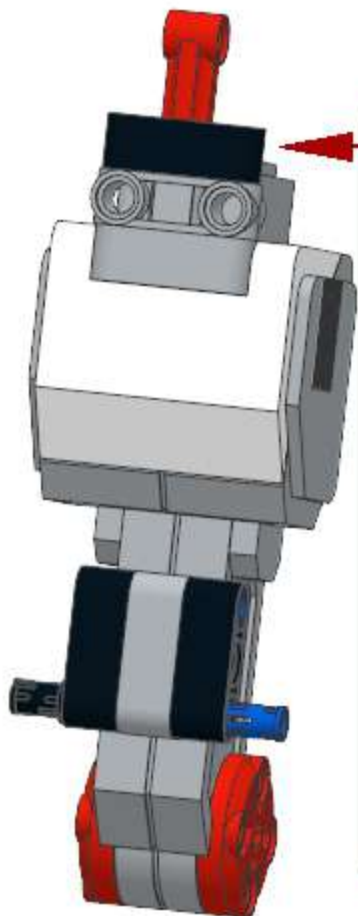
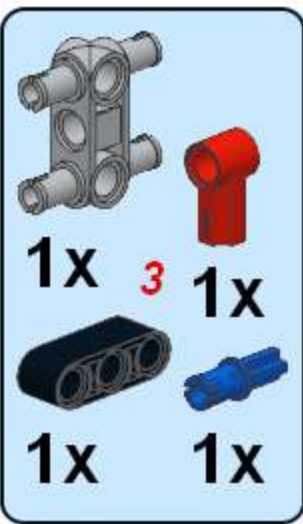
1x <sup>3</sup>



2x



# 3



1



1x



1x

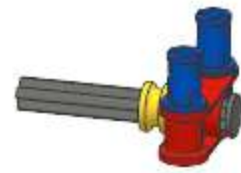
4



1x



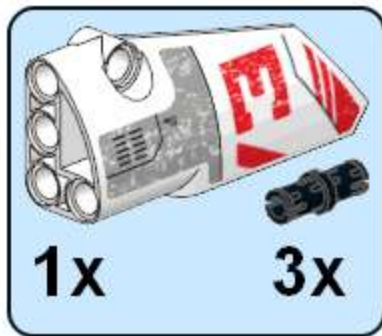
2  2x



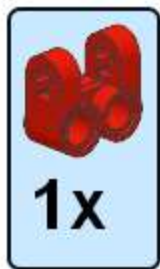
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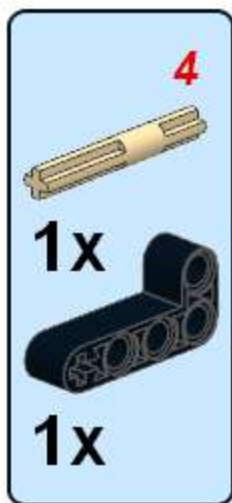
4



5





6

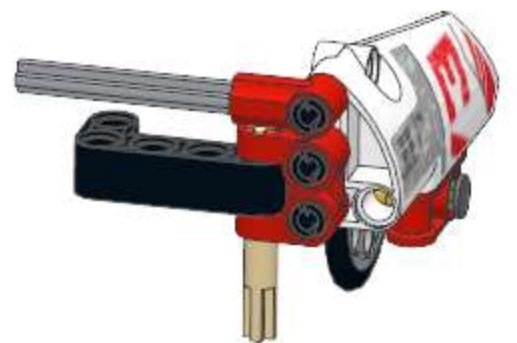




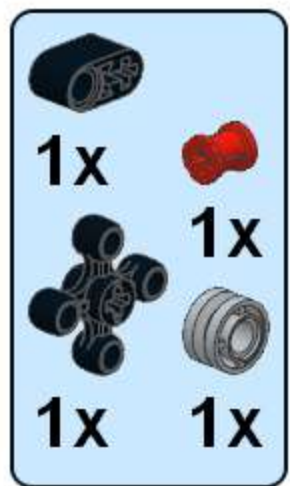
7

1x  5

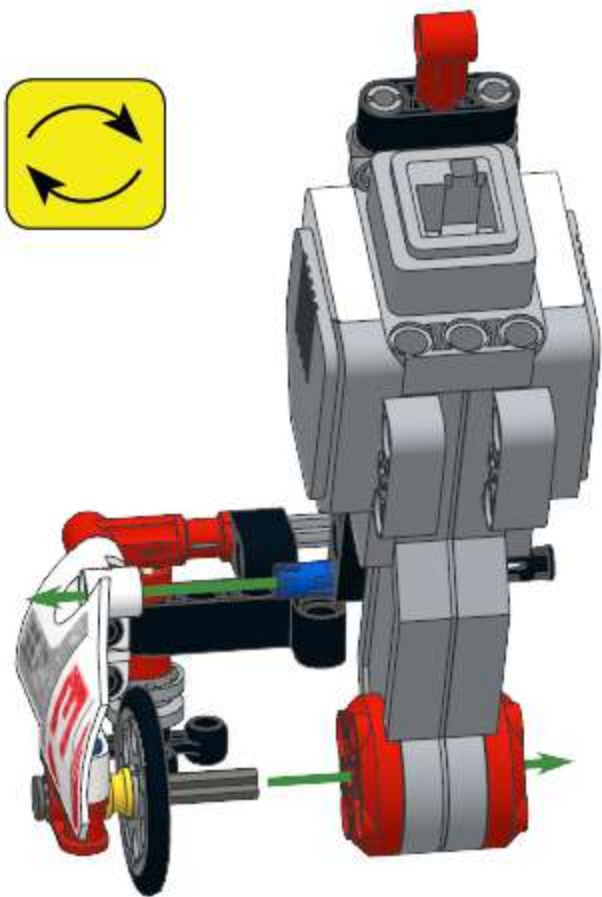
1x 




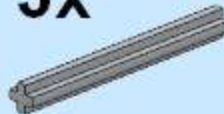
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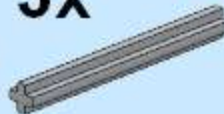


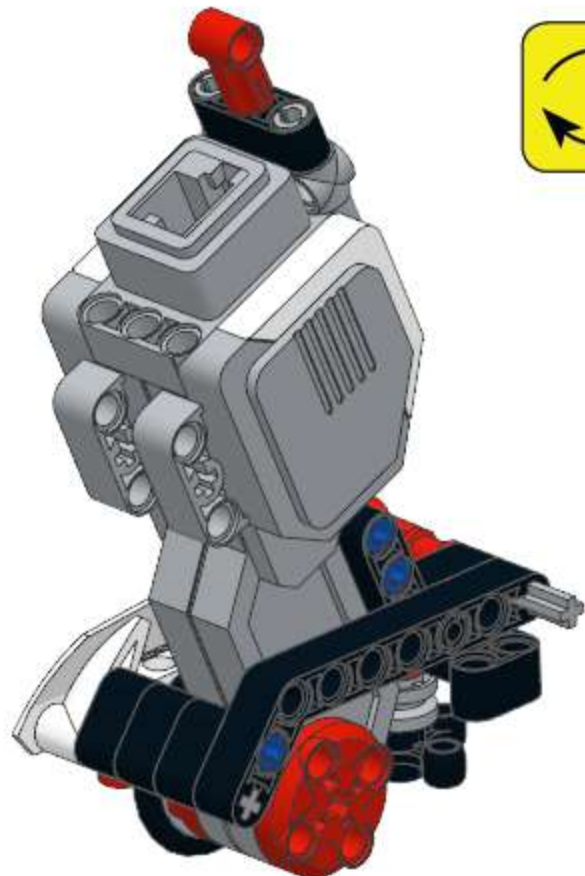
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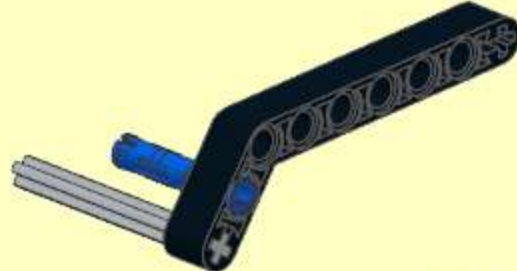



5

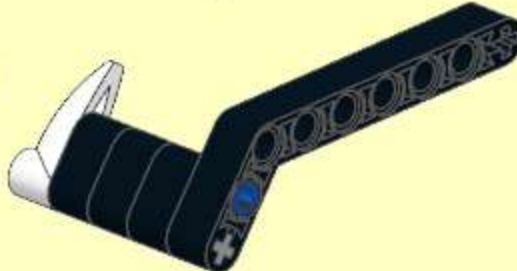
1x  3x  5

1x  1x  1x 

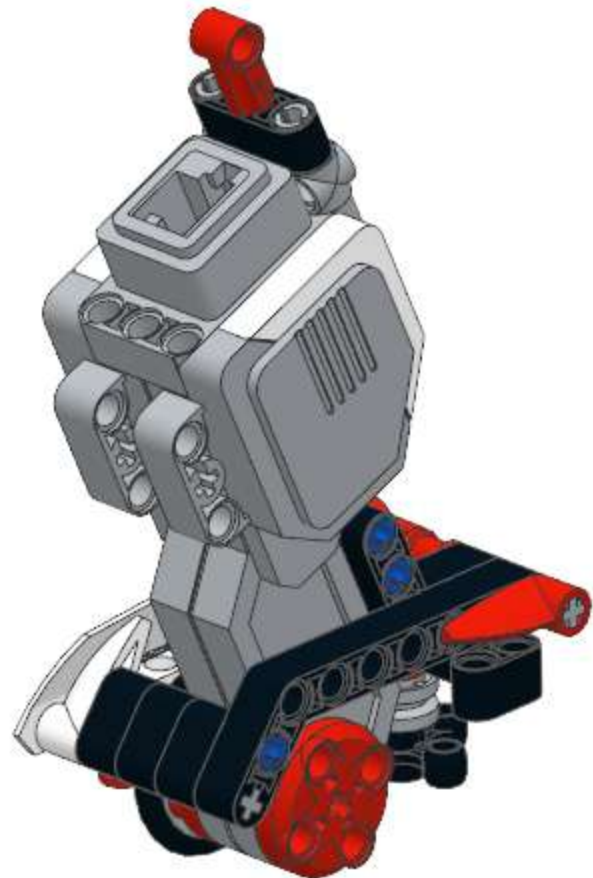
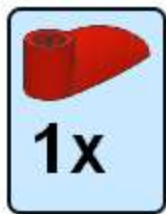


1 

2 

3 

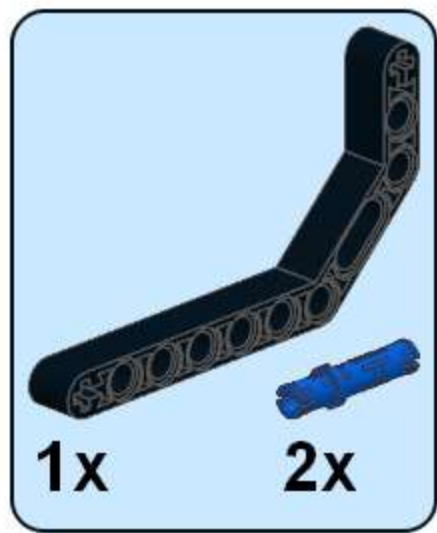
6



7

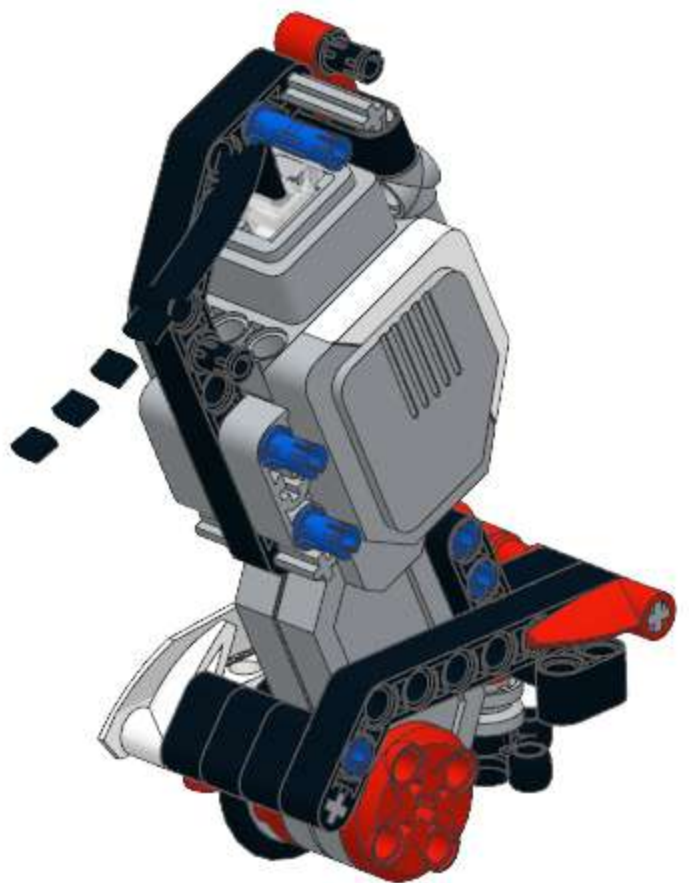


8



9

-  2x
-  1x <sup>3</sup>
-  2x

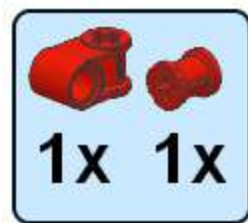




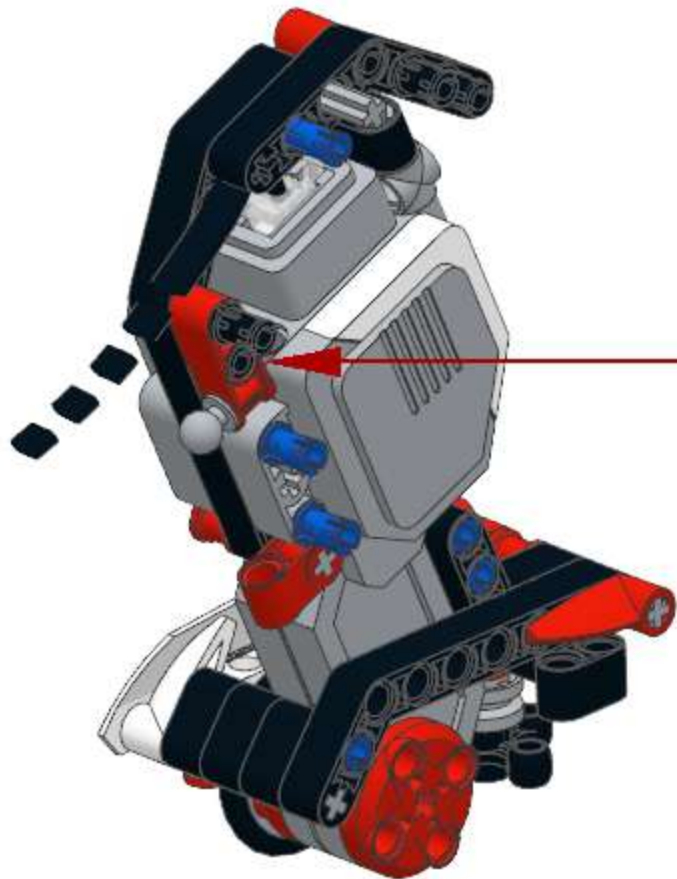
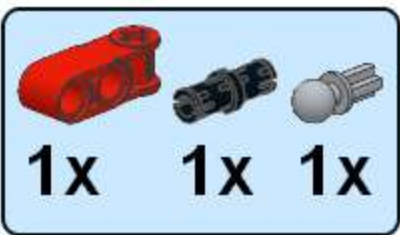
10



11

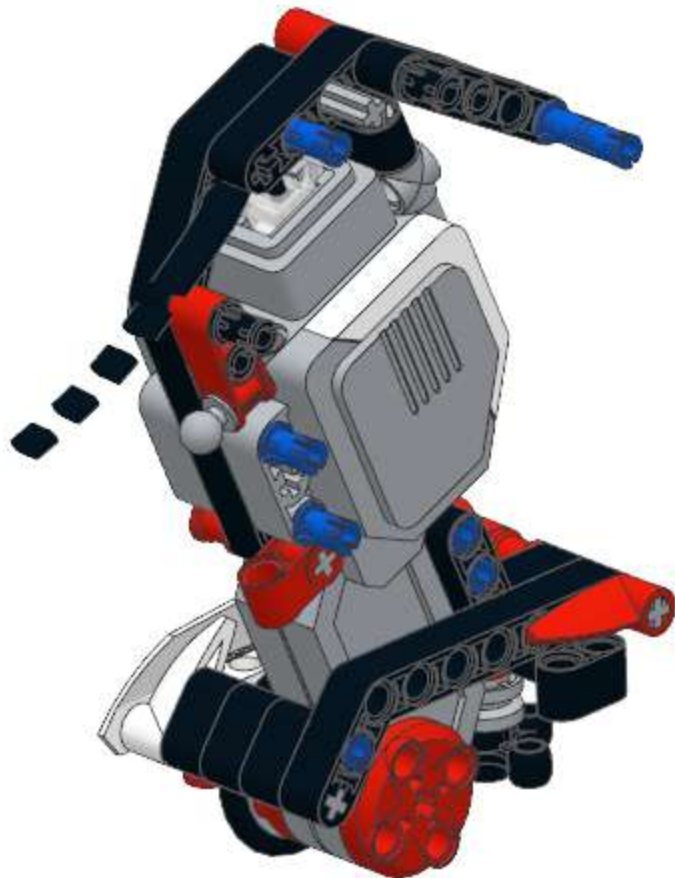


# 12

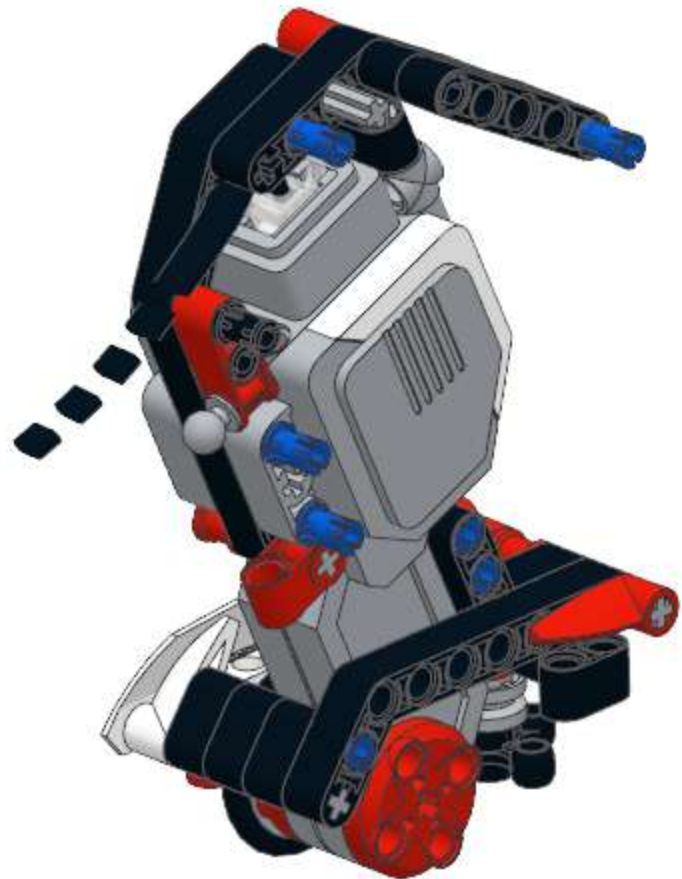
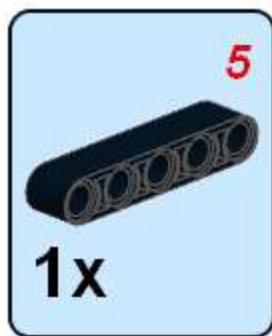


# 13







-  1x
-  1x
-  1x <sup>5</sup>
-  1x

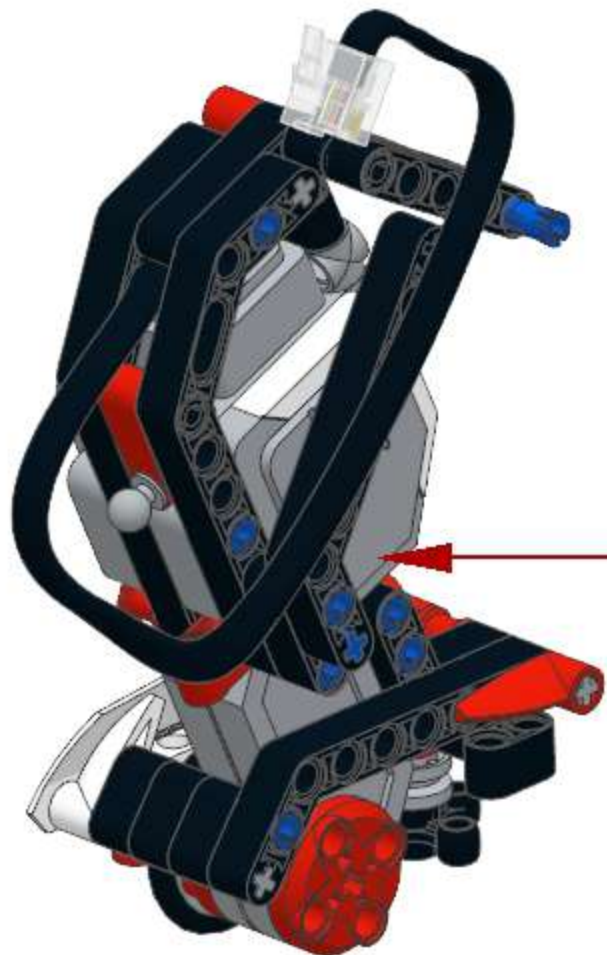


14



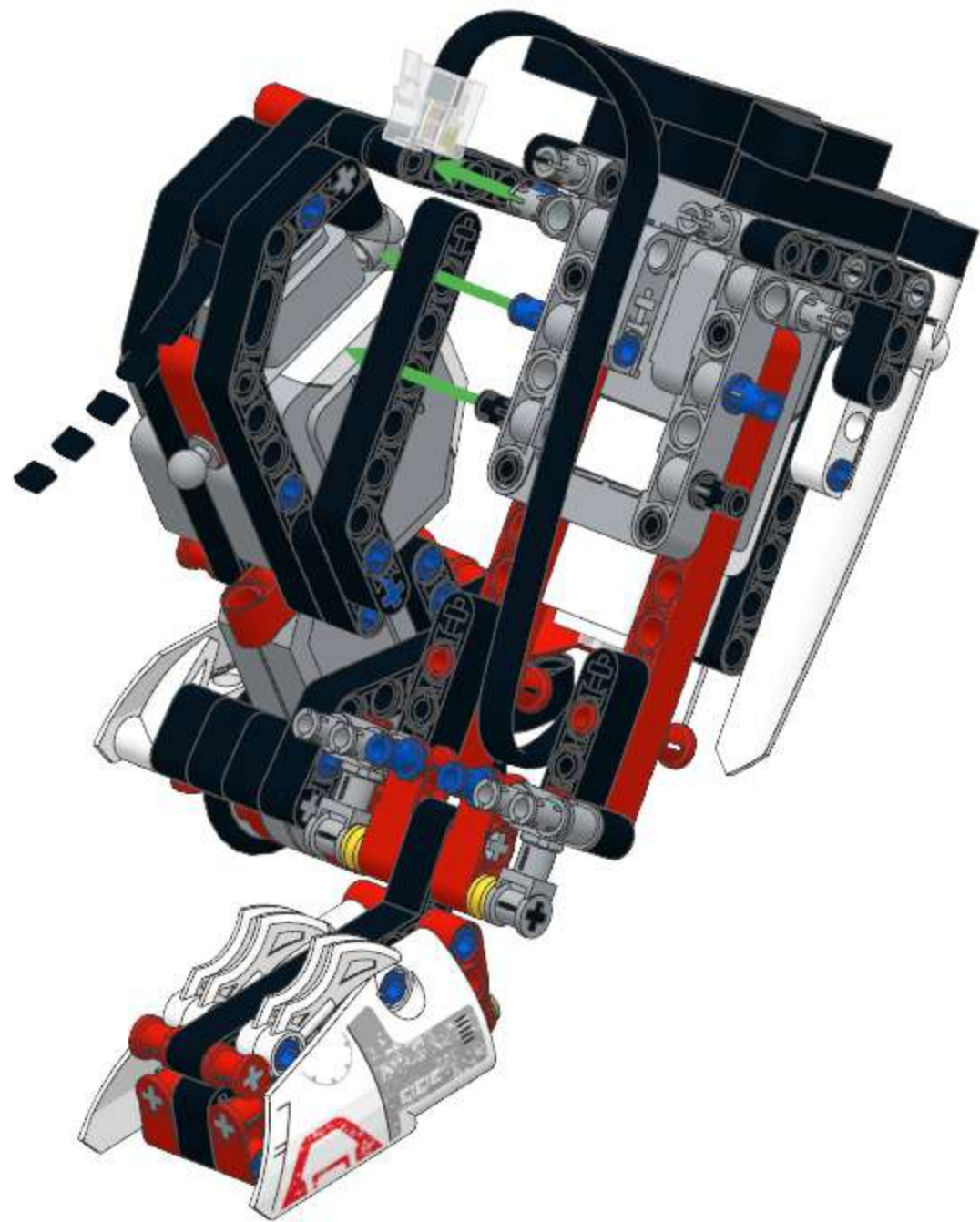
# 15

-  2x <sup>3</sup>
-  1x
-  1x
-  1x
-  1x
-  1x

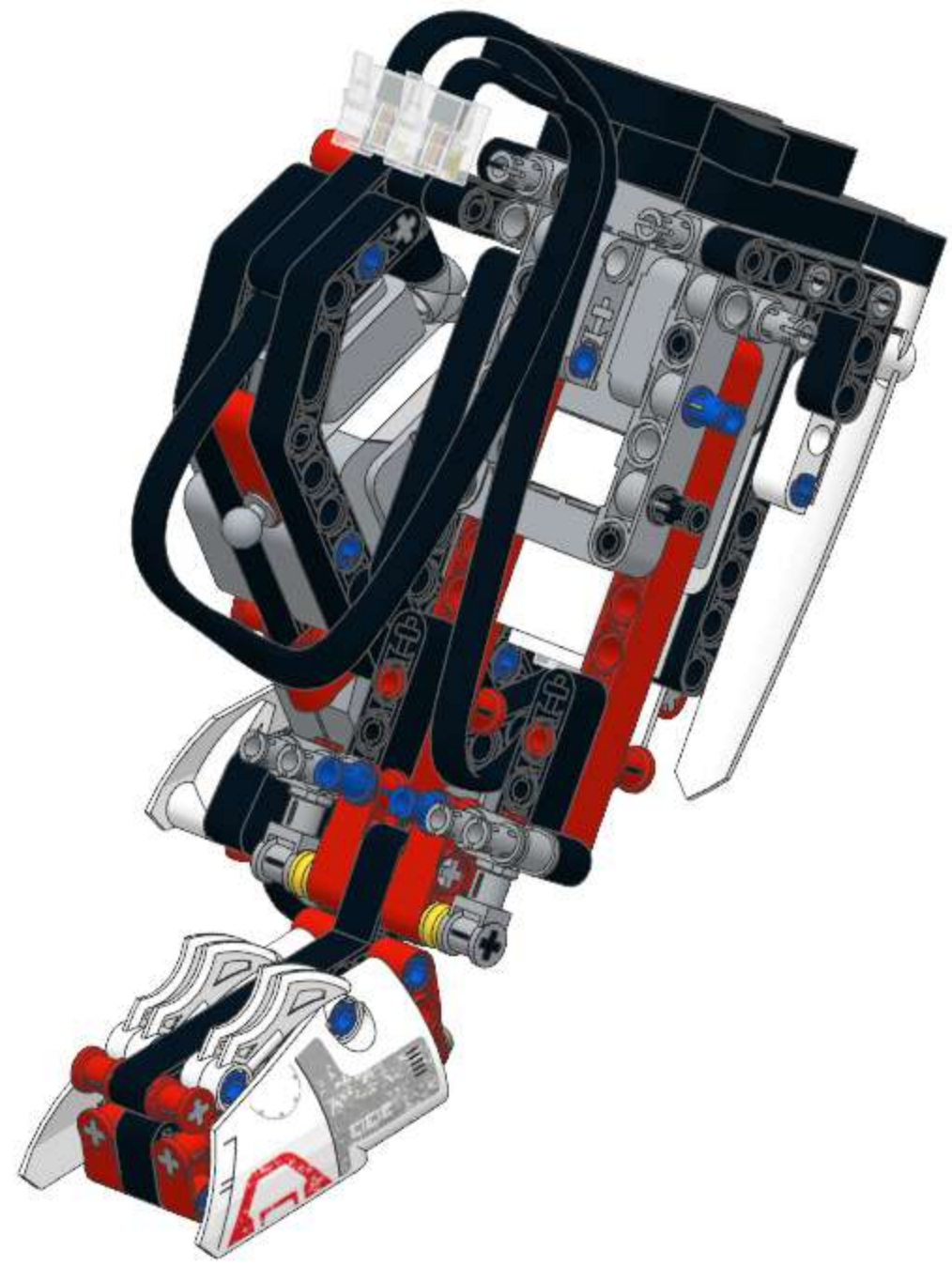


- 1
- 2
- 3
- 4

3

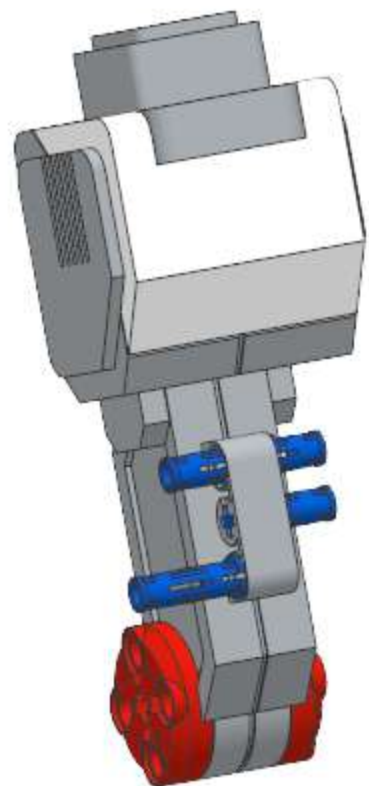
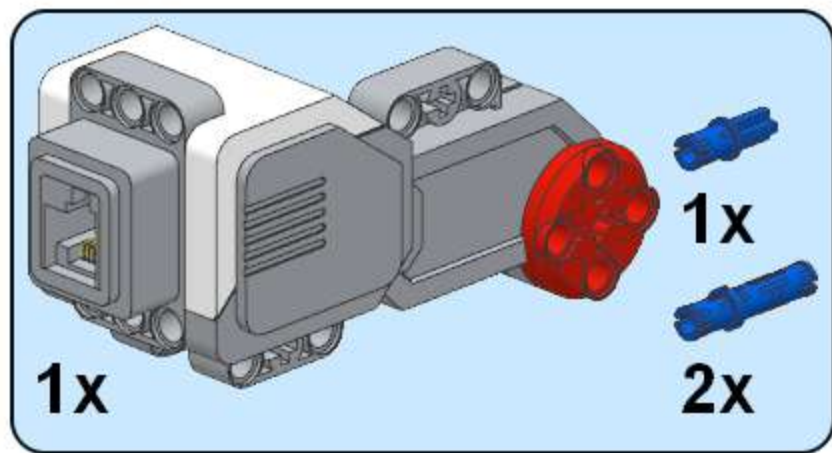


4





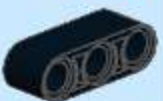
1



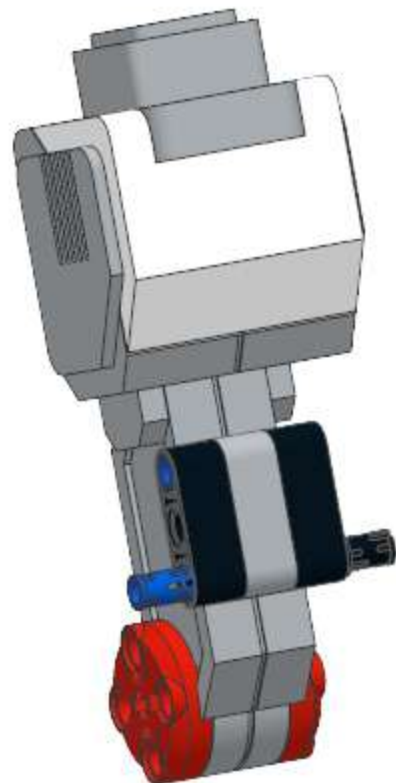
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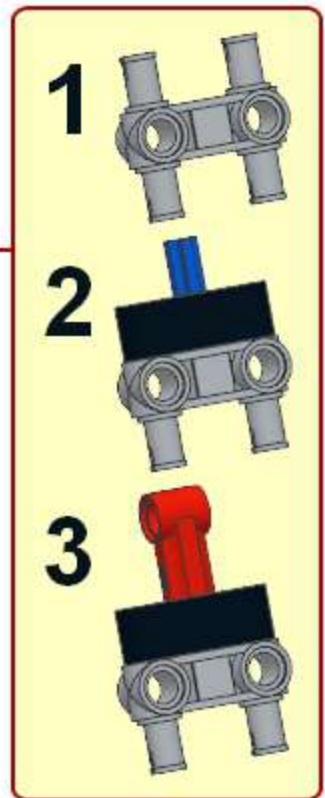
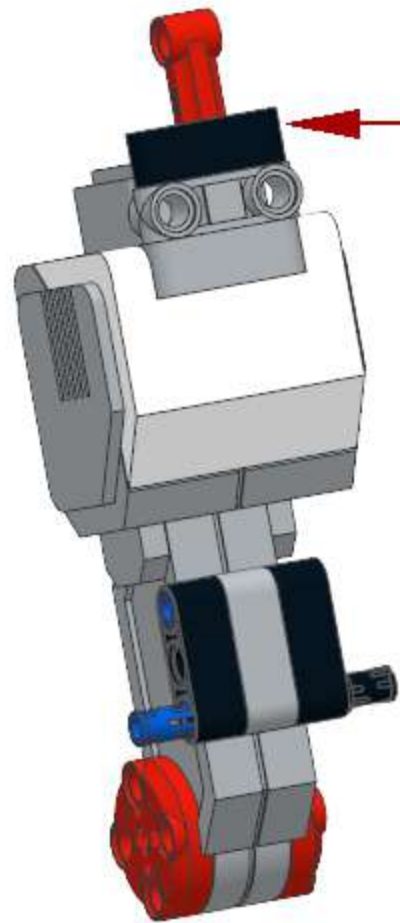
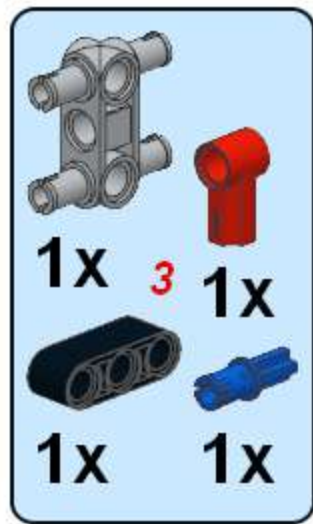
1x <sup>3</sup>



2x



# 3



1

1x 

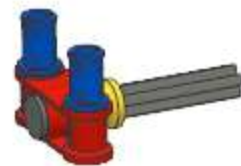
1x 

1x <sup>4</sup> 

1x



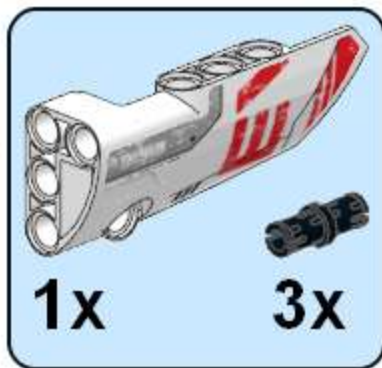
2  2x



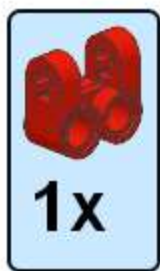
3



4

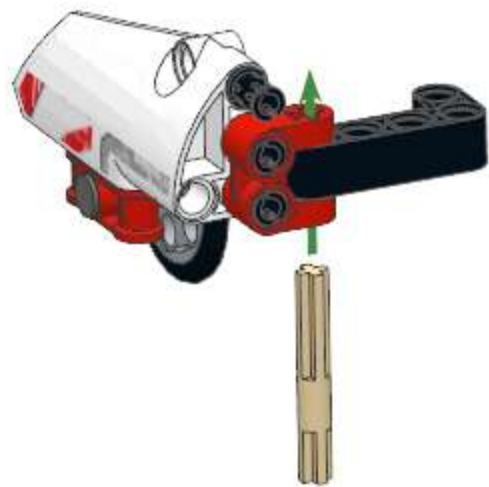
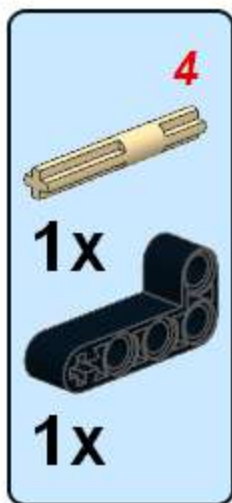


5







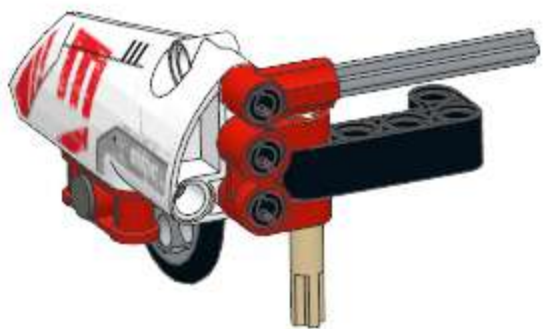
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7

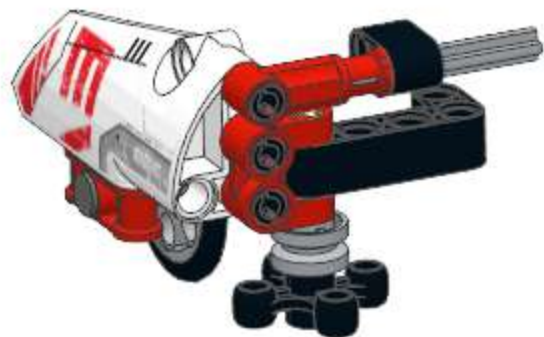
1x  5

1x 



8

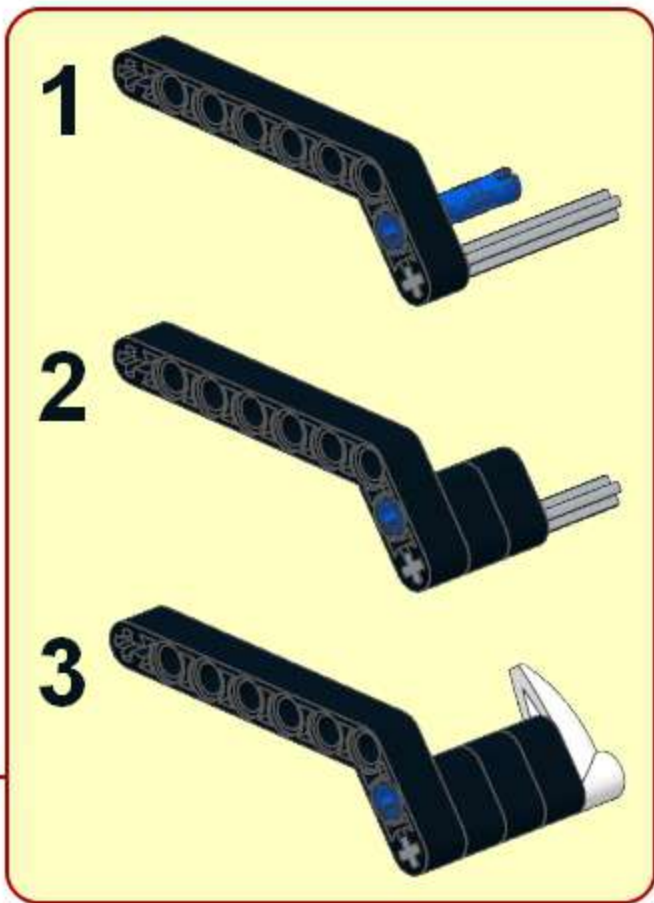
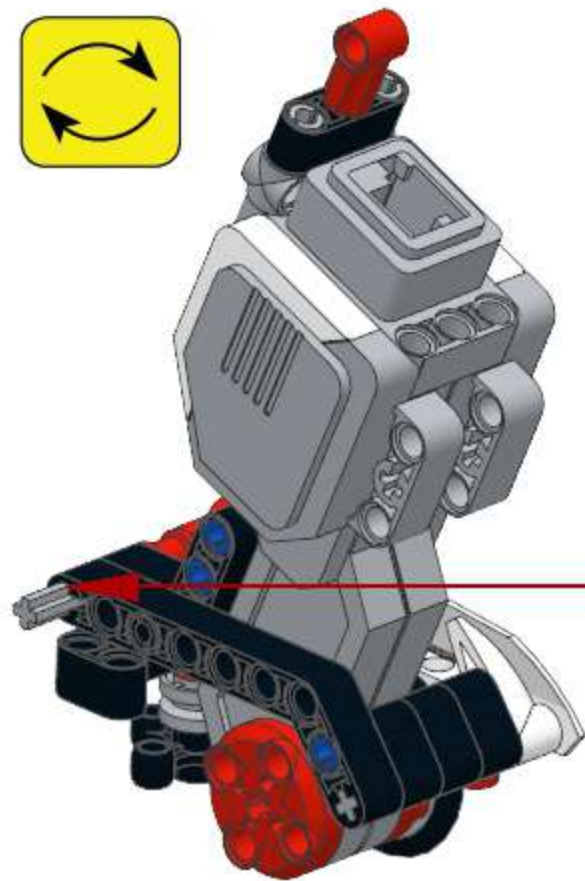
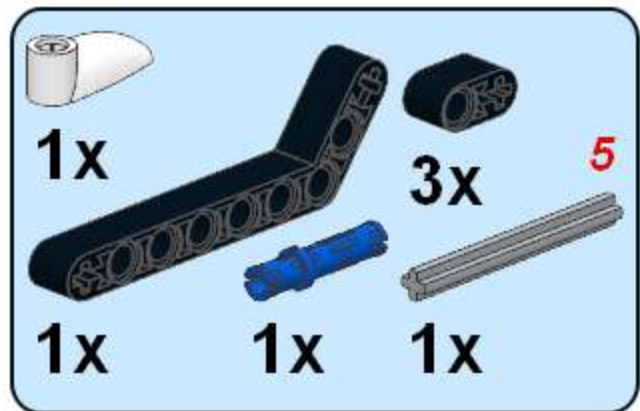
	
1x	1x
	
1x	1x



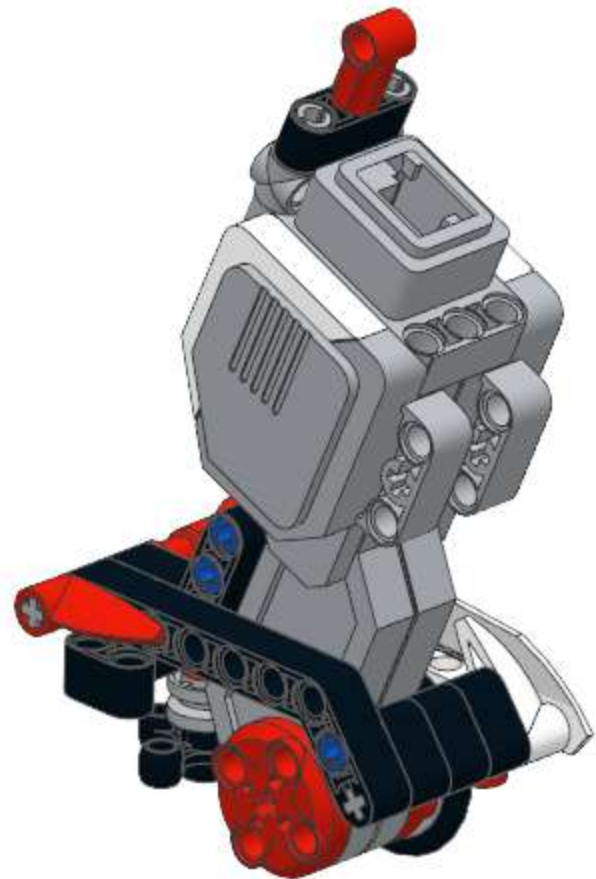
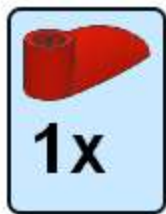
4



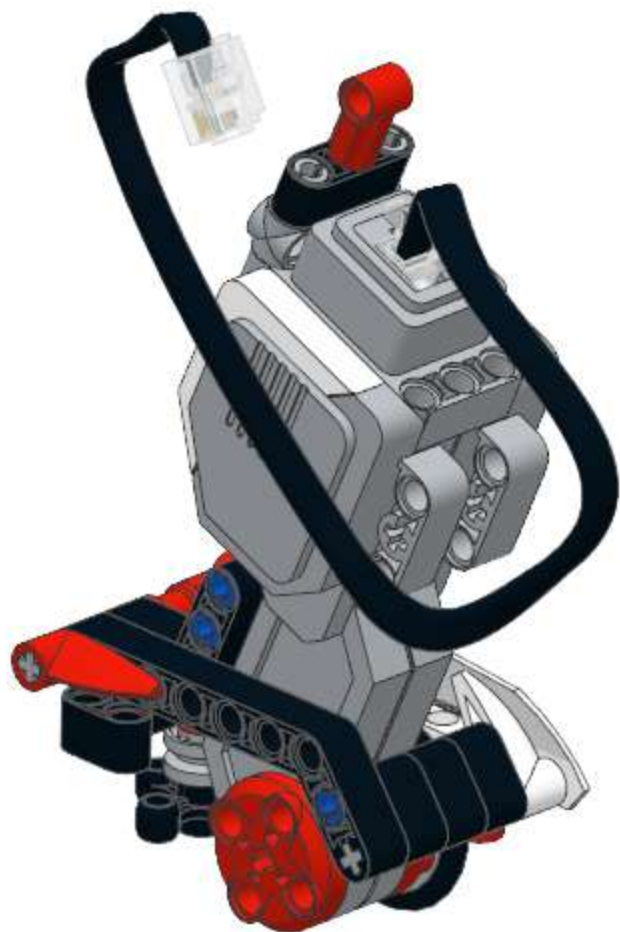
# 5



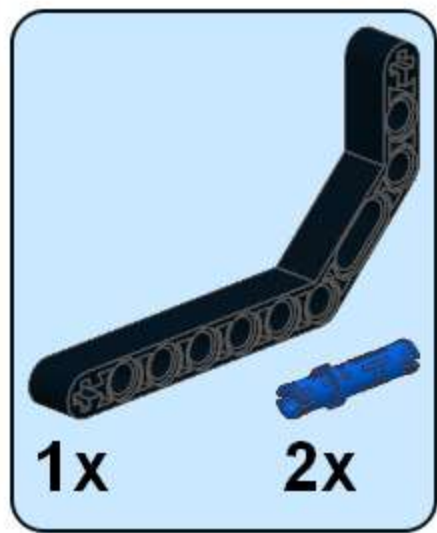
6



7



8





9

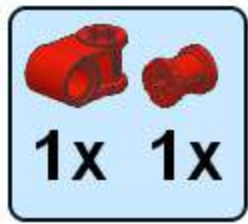
-  2x
-  1x <sup>3</sup>
-  2x



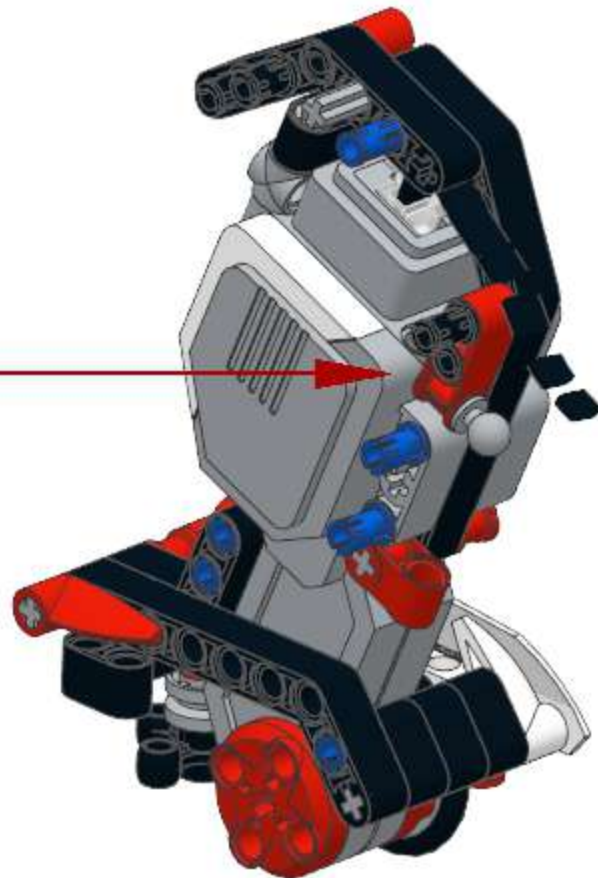
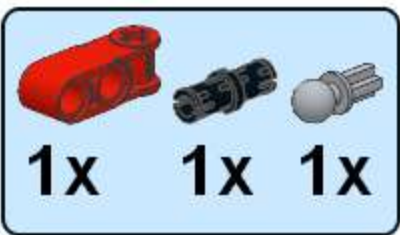
10



11



# 12



# 13



1x



1x

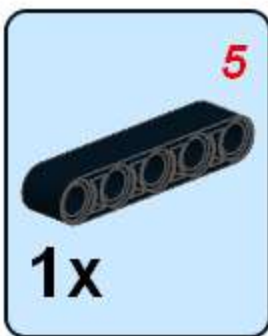
5



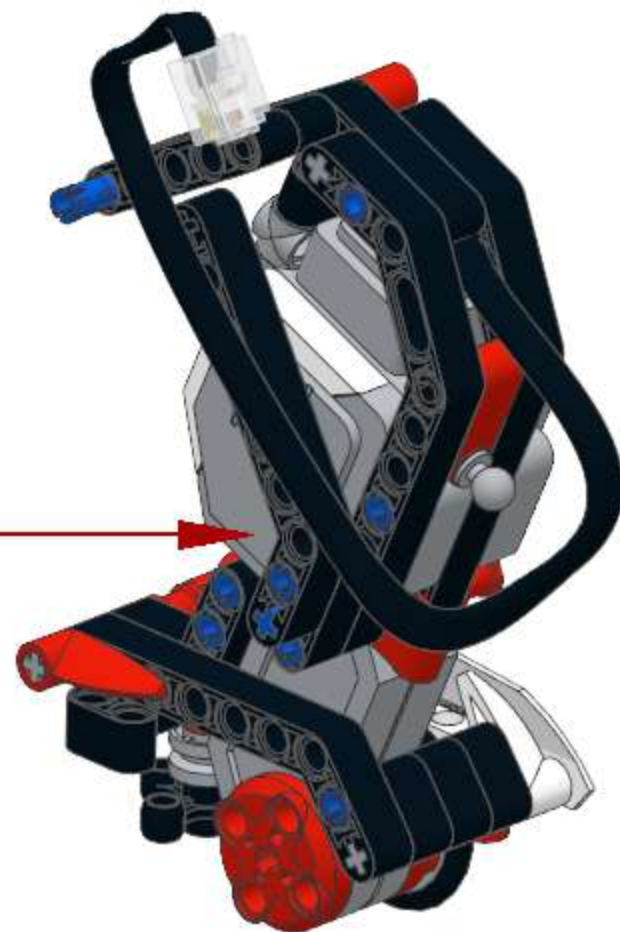
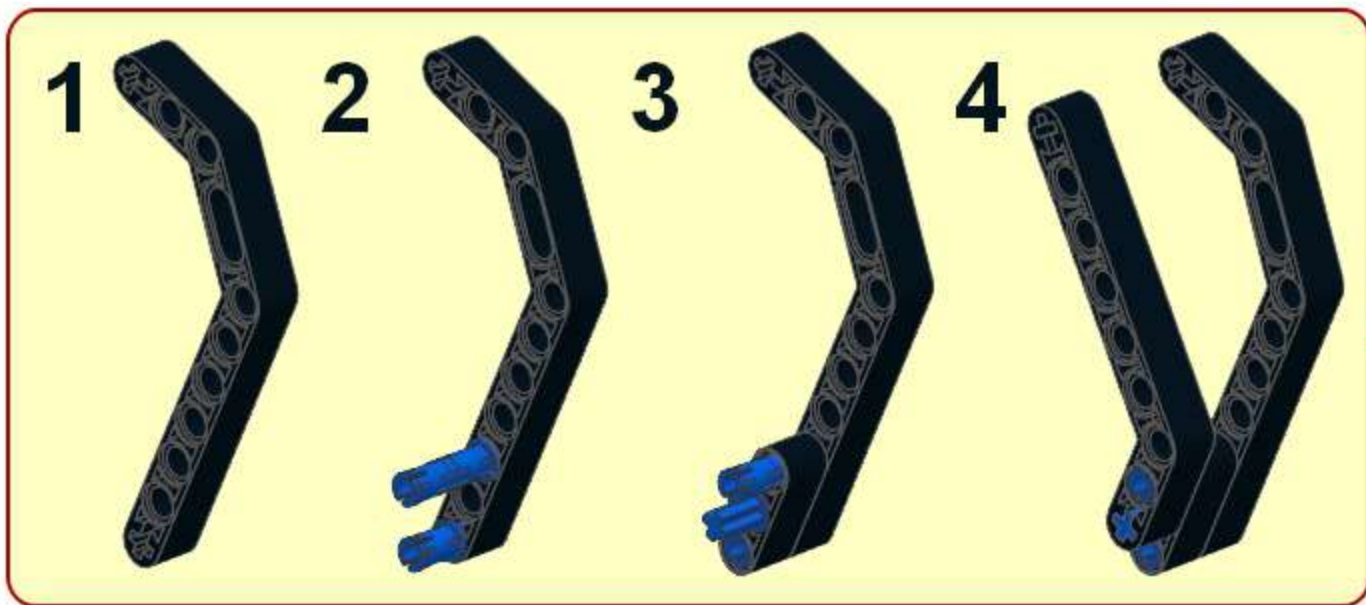
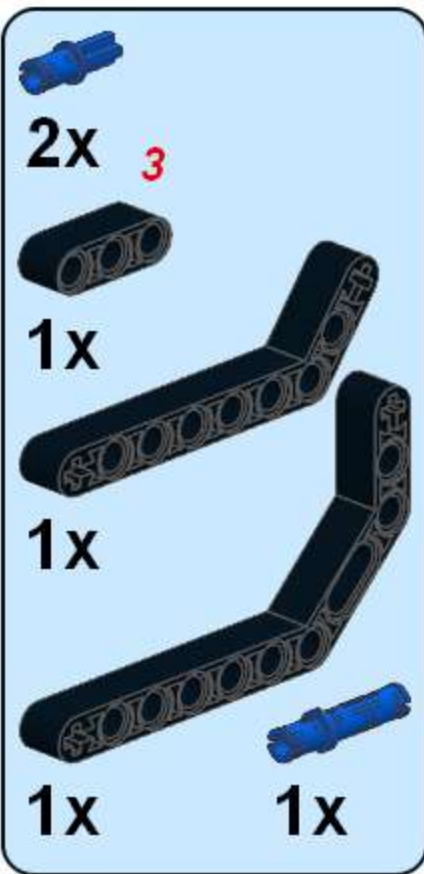
1x



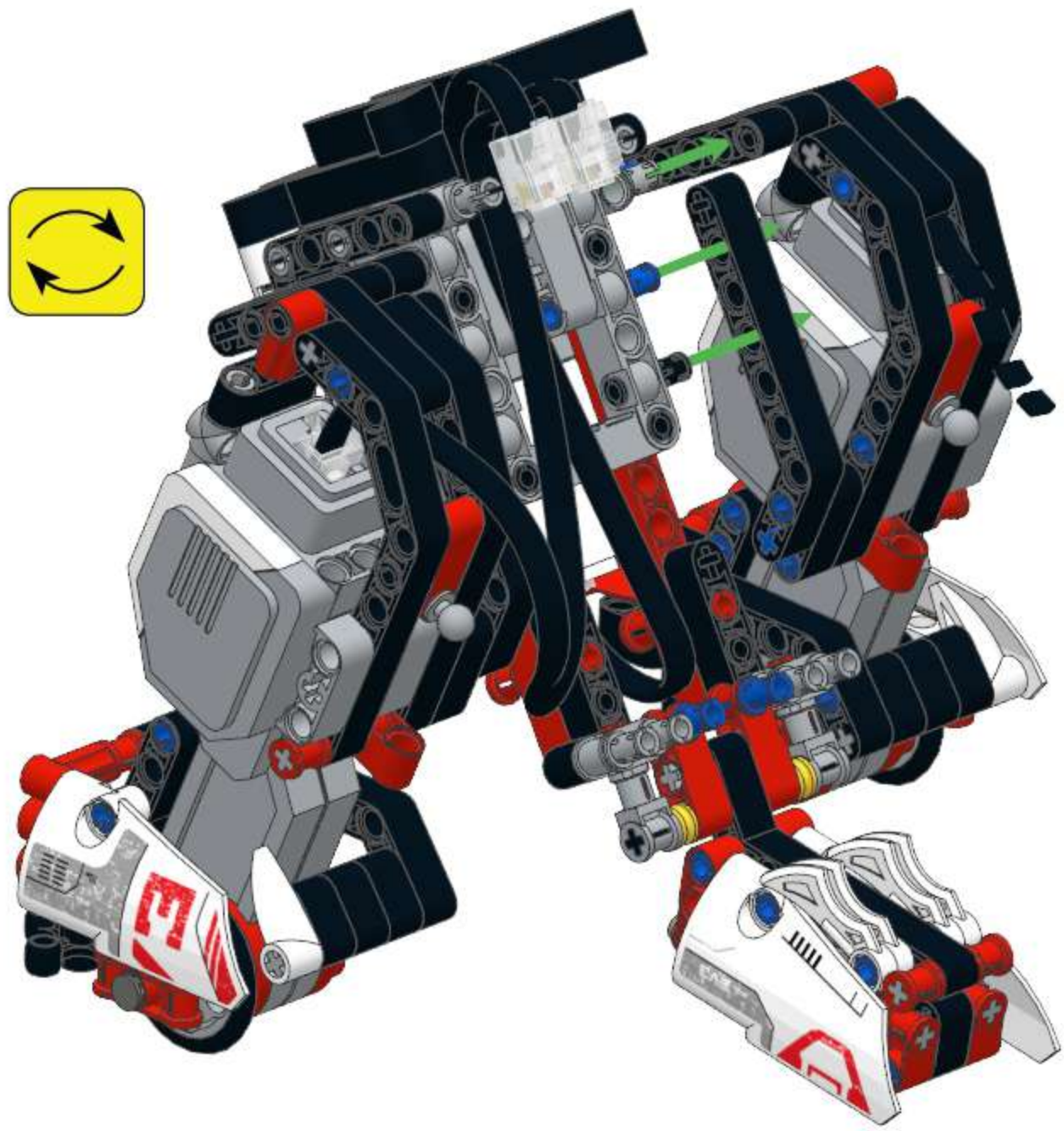
14



# 15

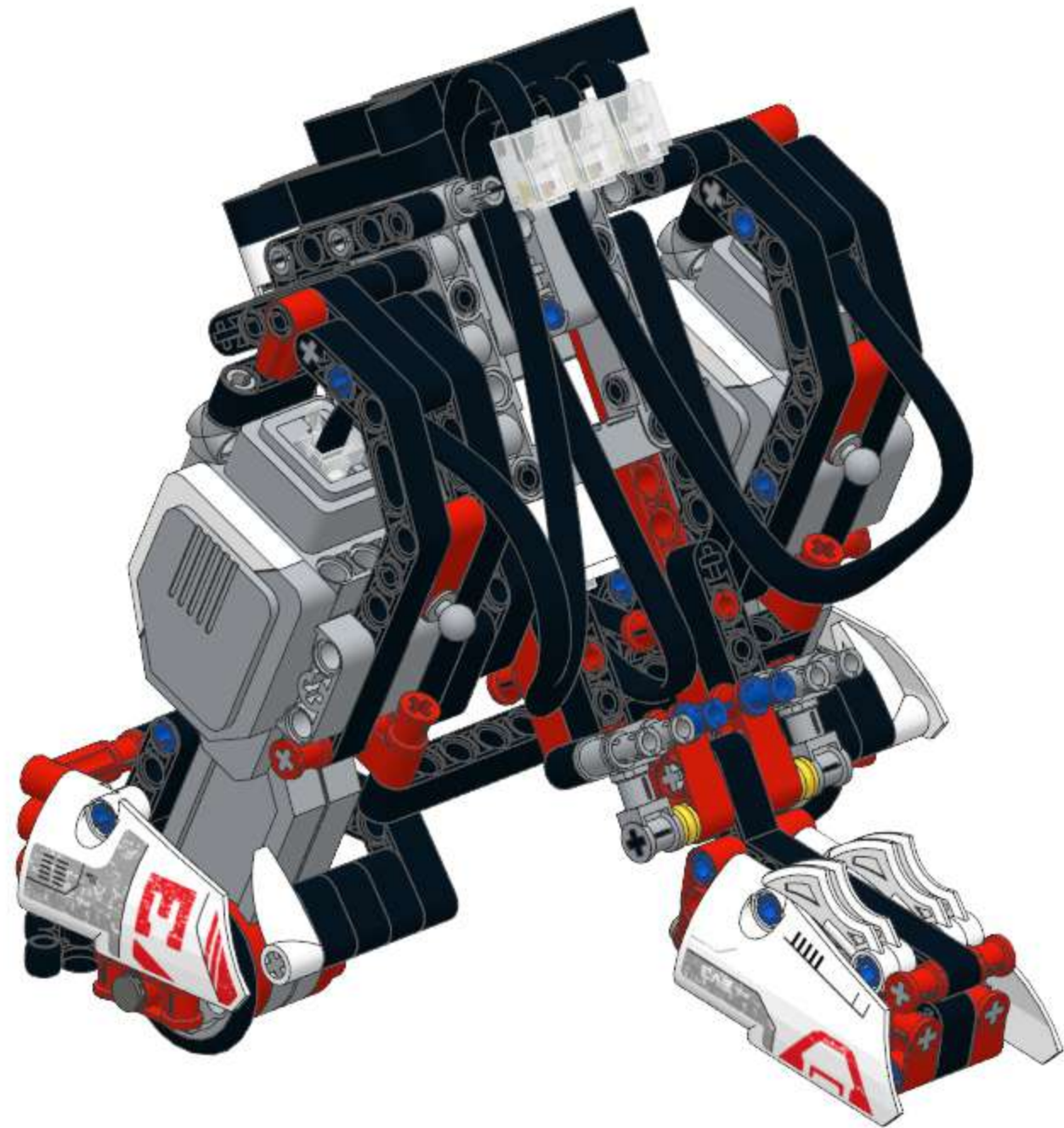
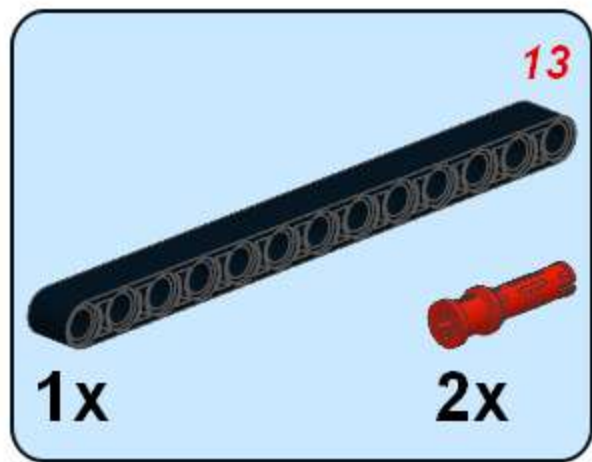


5

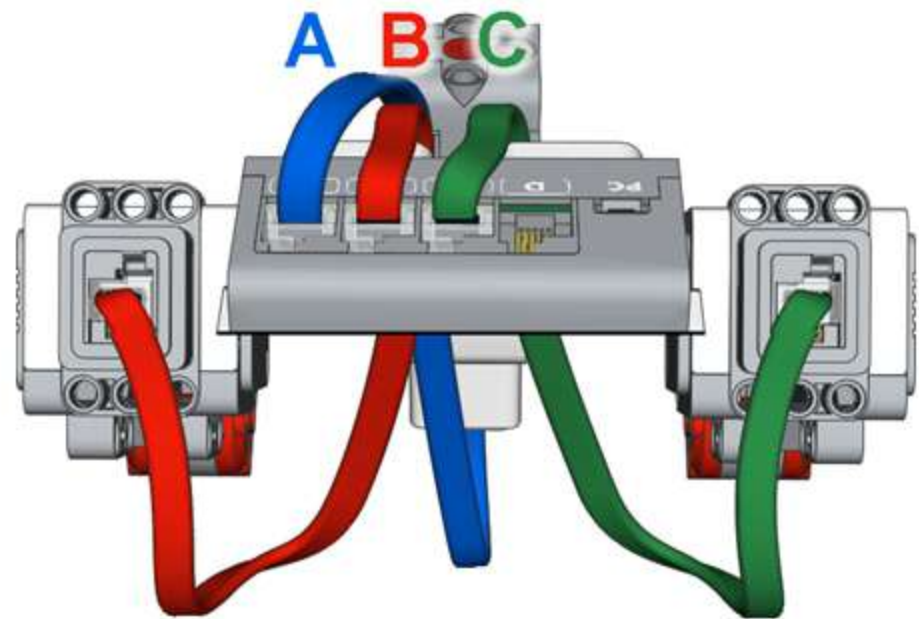
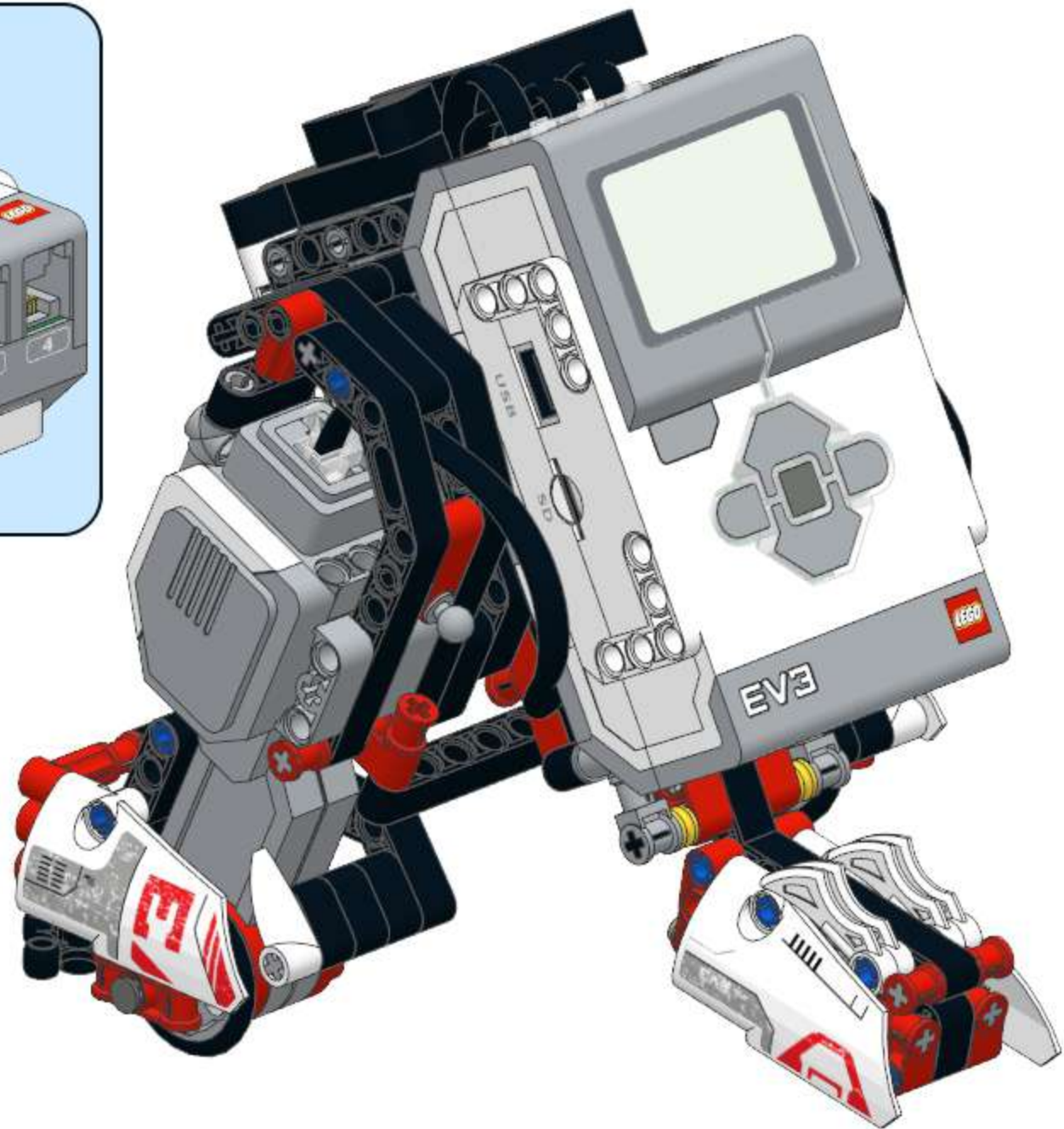
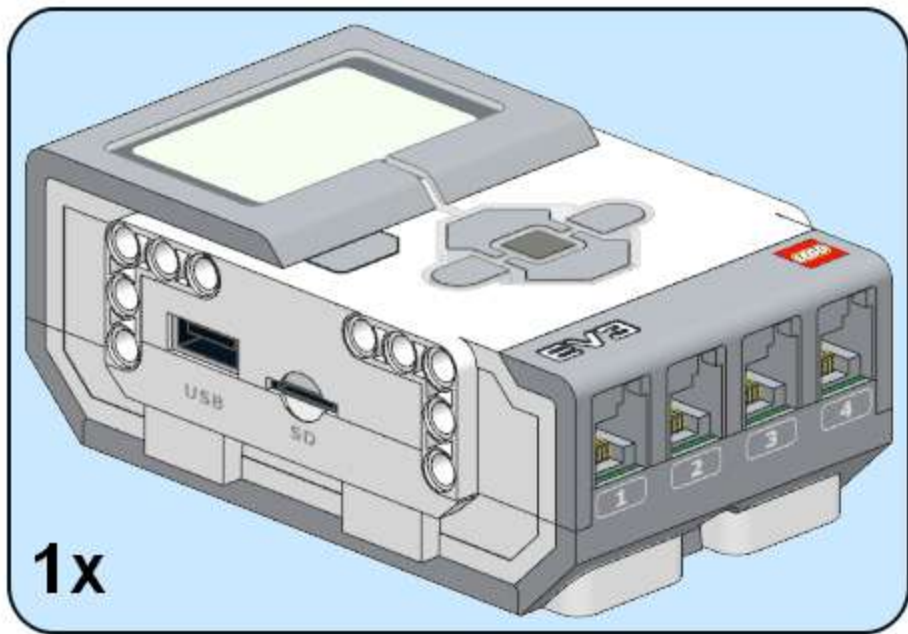




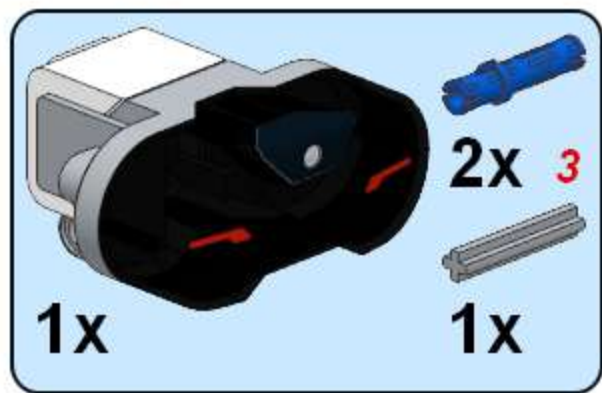
6



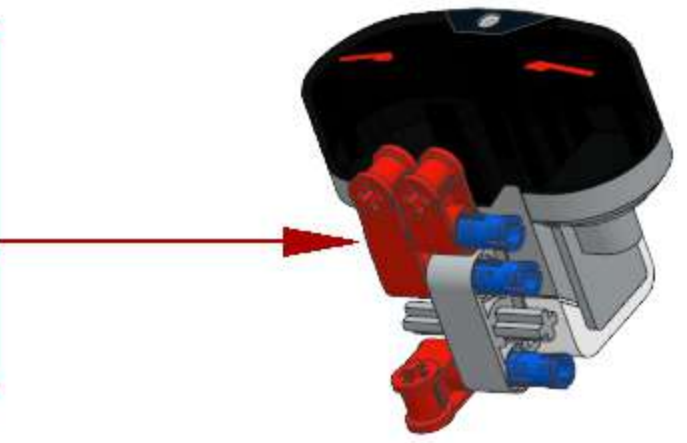
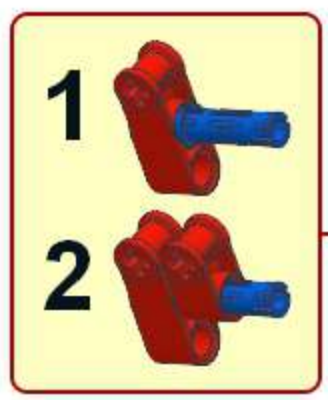
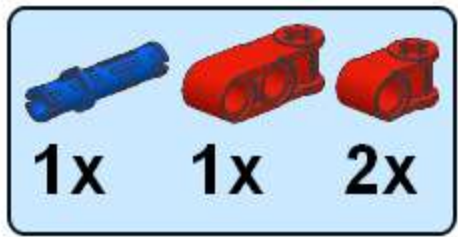
7



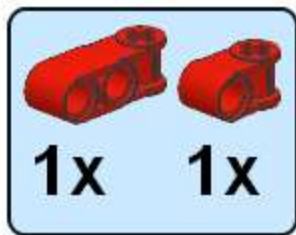
1



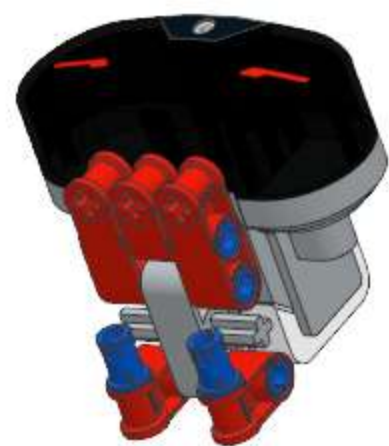
2



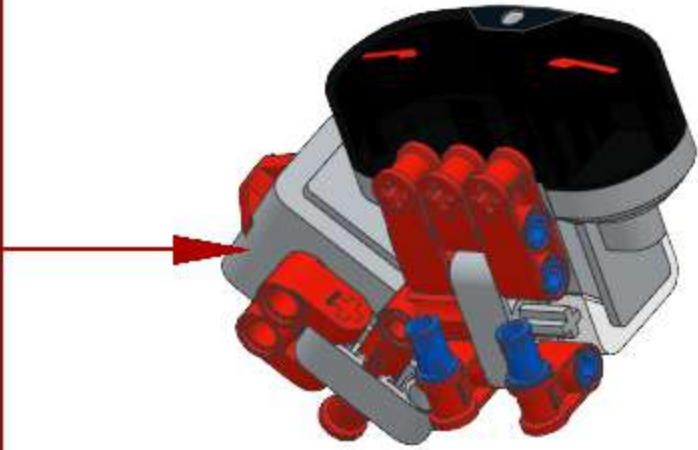
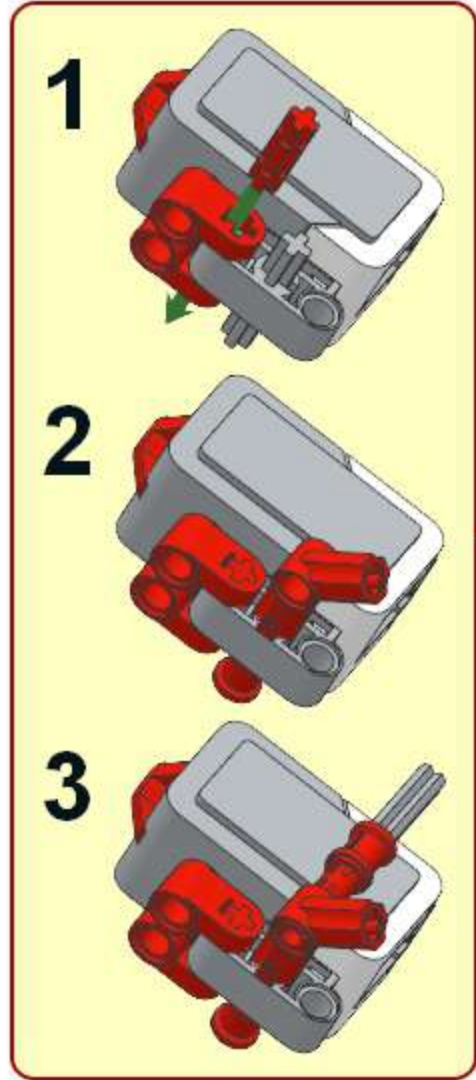
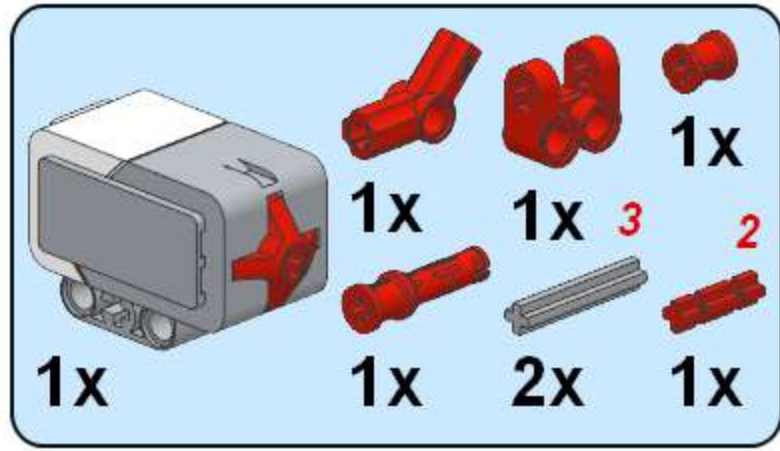
3



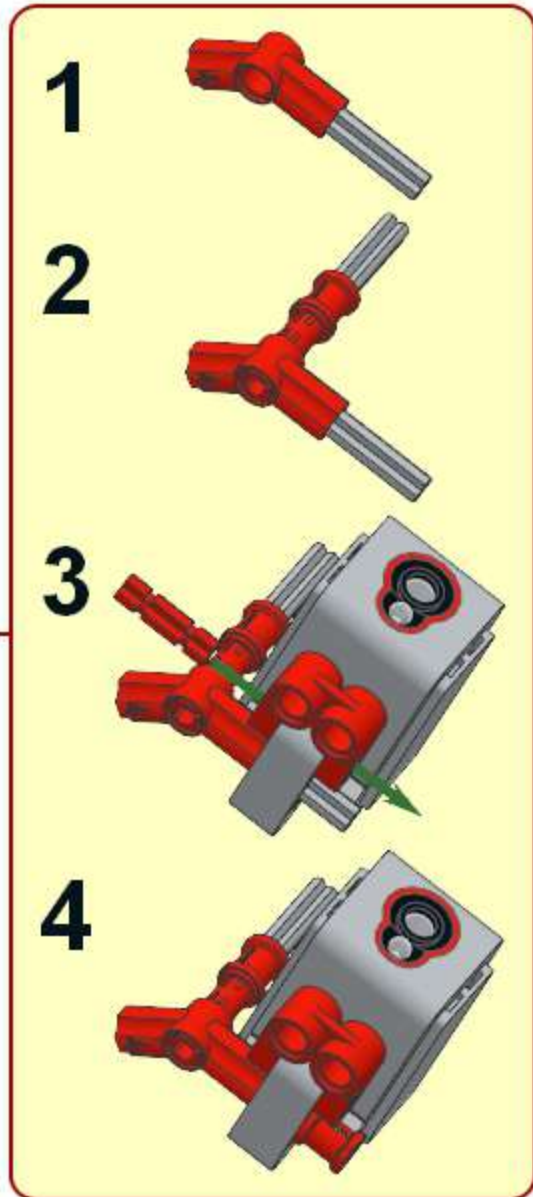
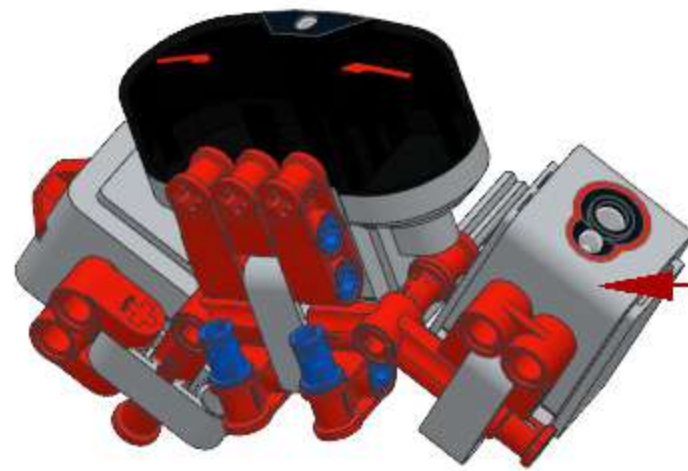
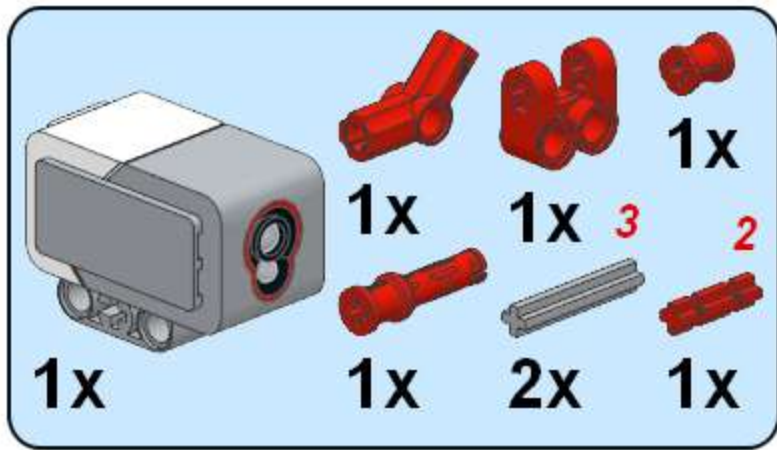
4  2x



# 1





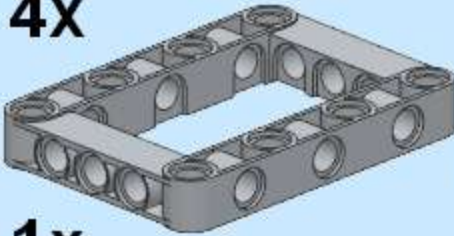
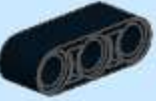



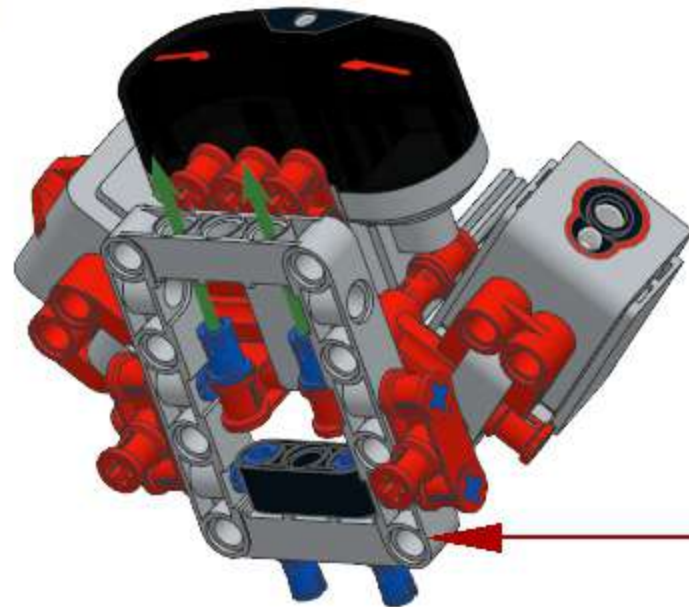
# 2

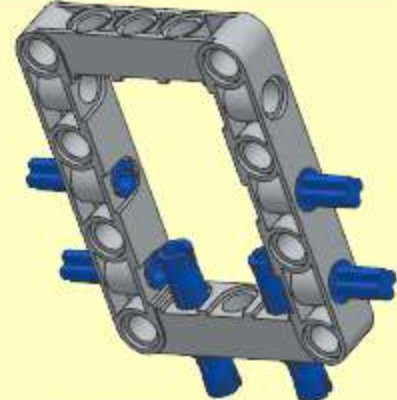


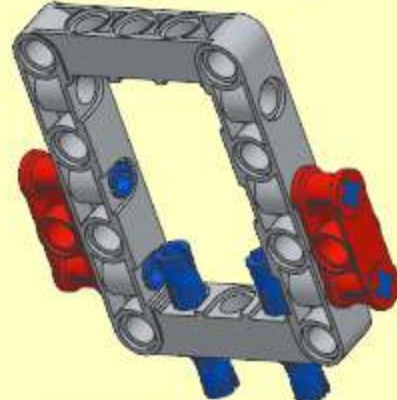


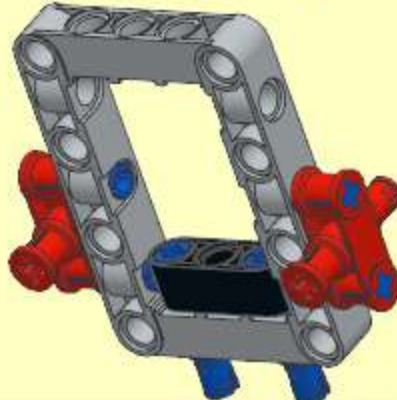
# 3

4x  2x  2x  2x   
1x  1x  2x 



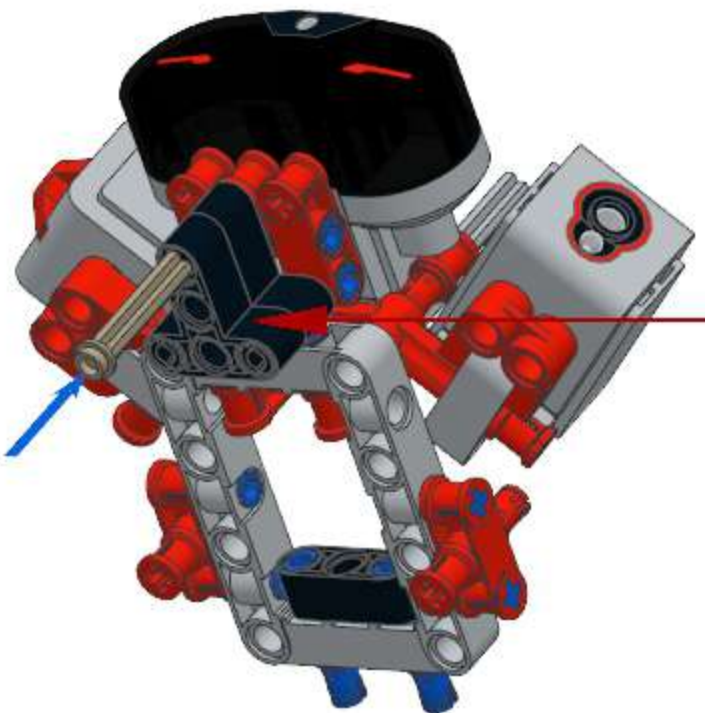
1 

2 

3 

4

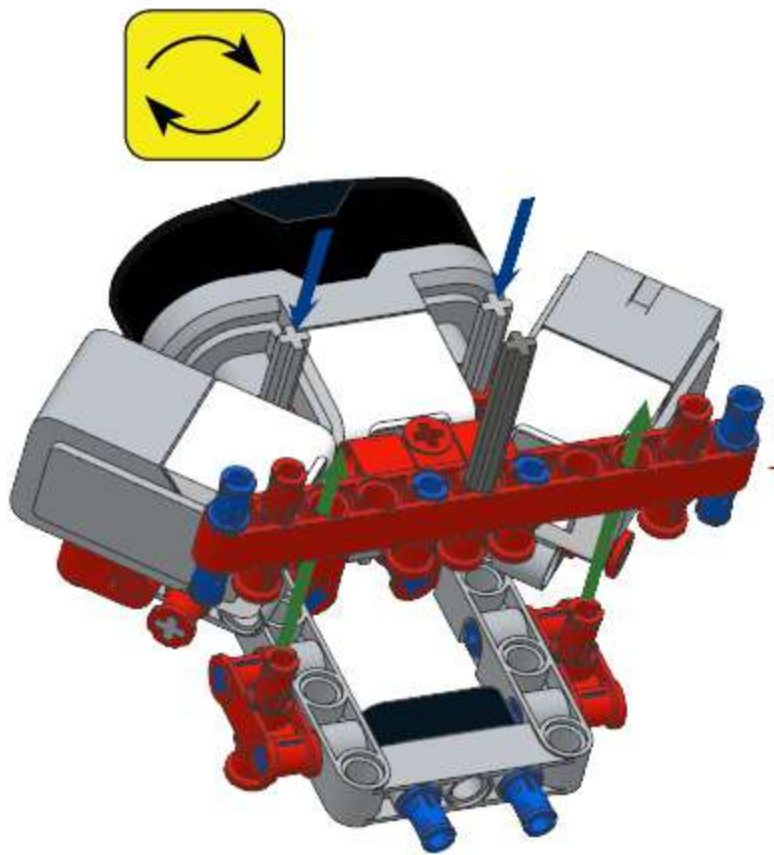
- 2x <sup>3</sup>
- 1x
- 2x



- 1
- 2
- 3

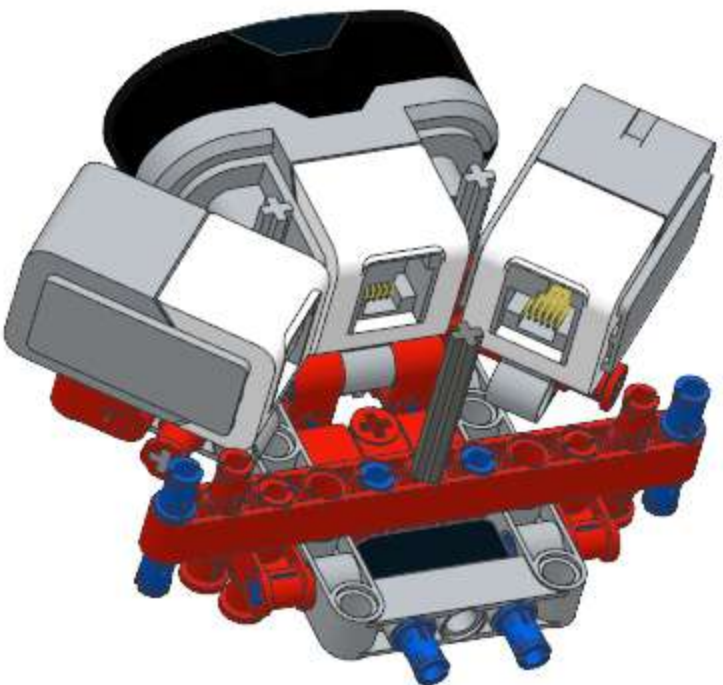
# 5

- 3x
- 2x
- 2x
- 1x
- 2x
- 1x
- 1x
- 2x



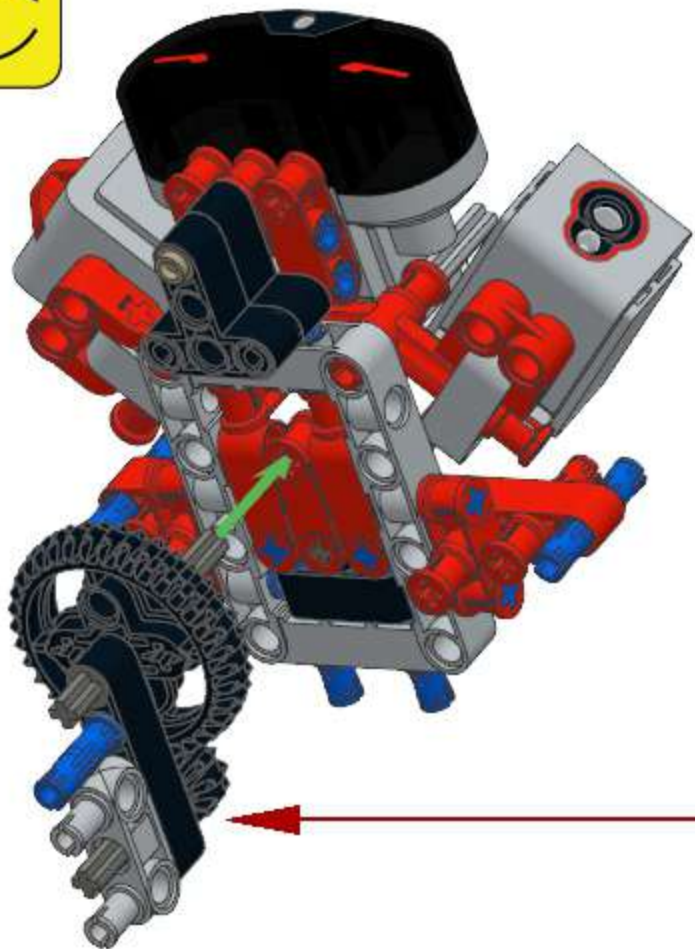
- 
- 
- 
- 
-

6



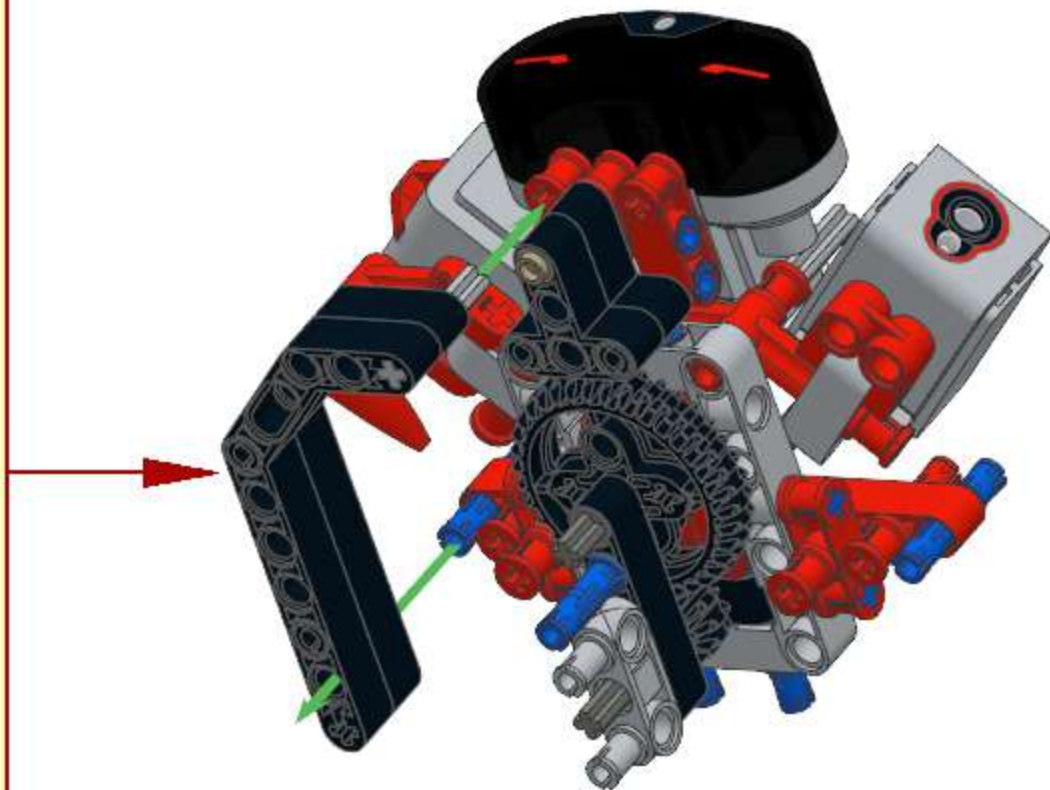
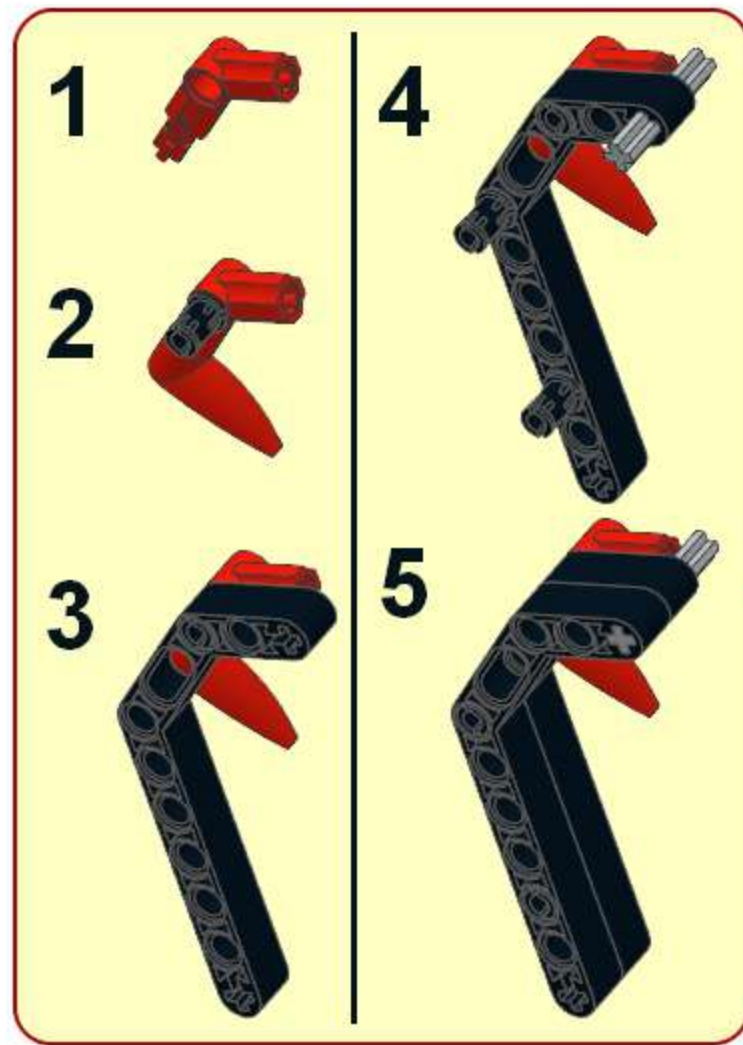
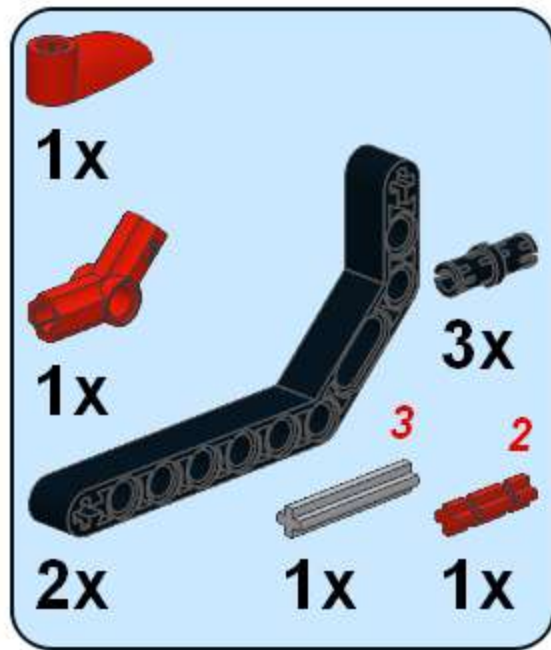
# 7

1x	1x
1x	1x
1x	1x
1x	1x

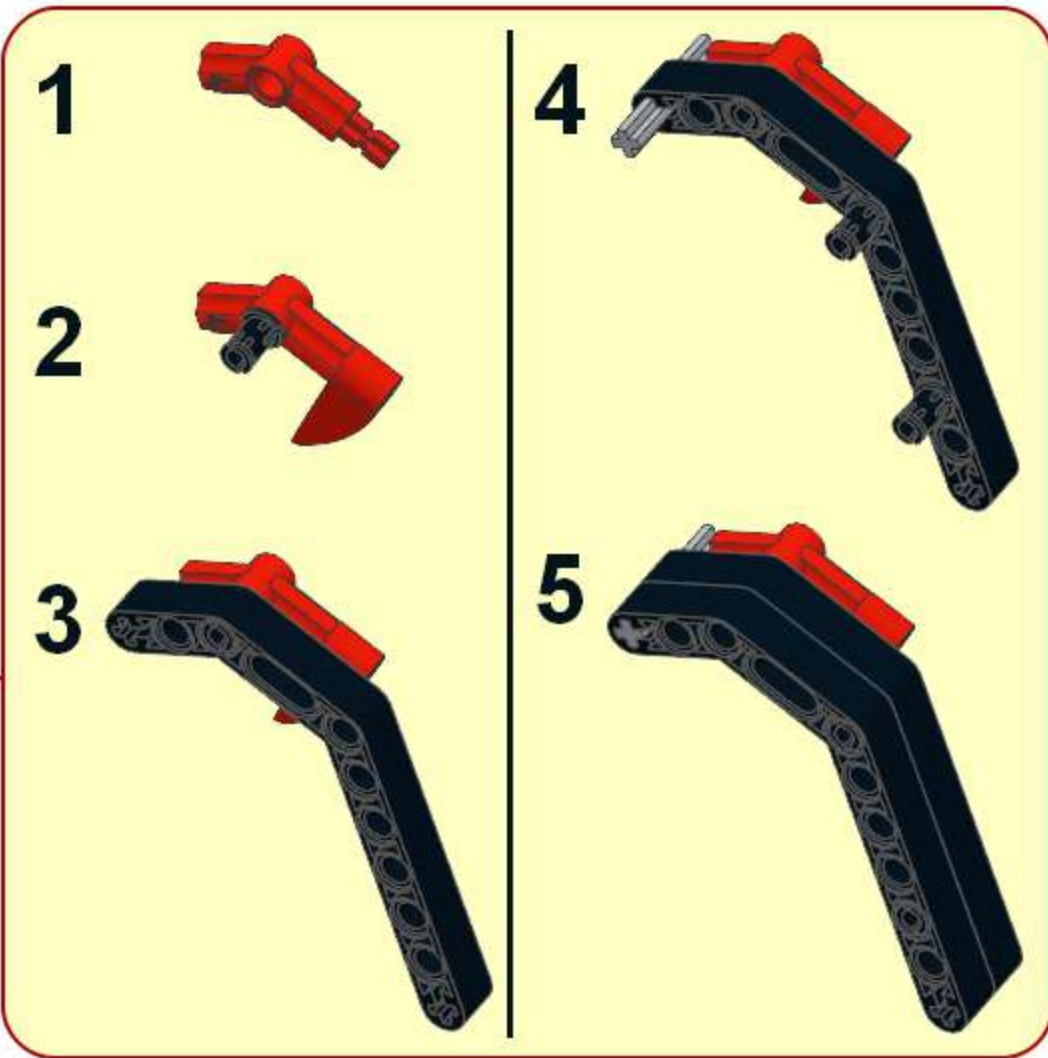
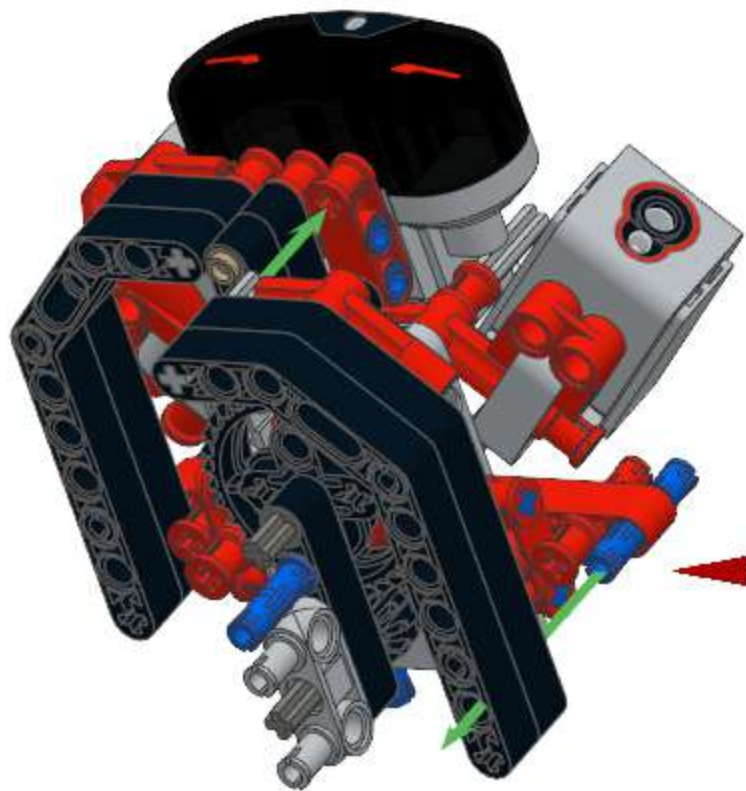
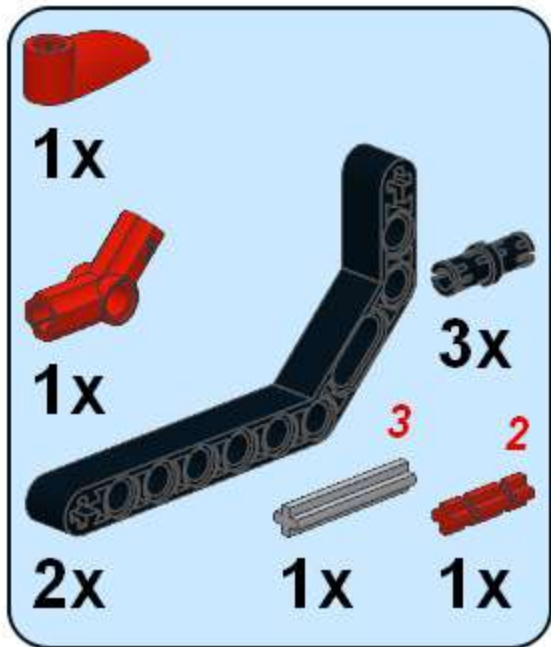


<b>1</b>		<b>4</b>	
<b>2</b>			
<b>3</b>		<b>5</b>	

# 8

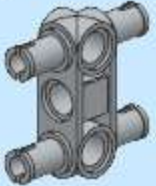


9




# 10

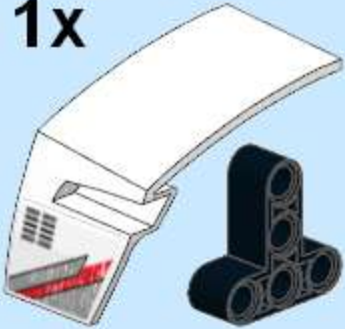
2x




1x




1x




2x



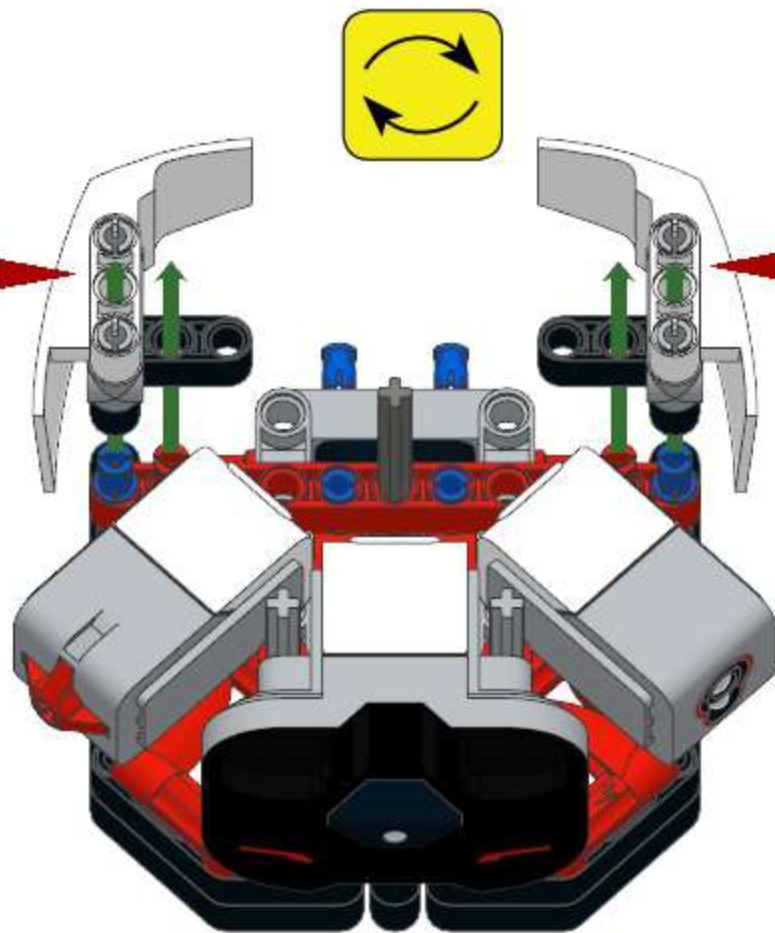

1




2




3




1



2



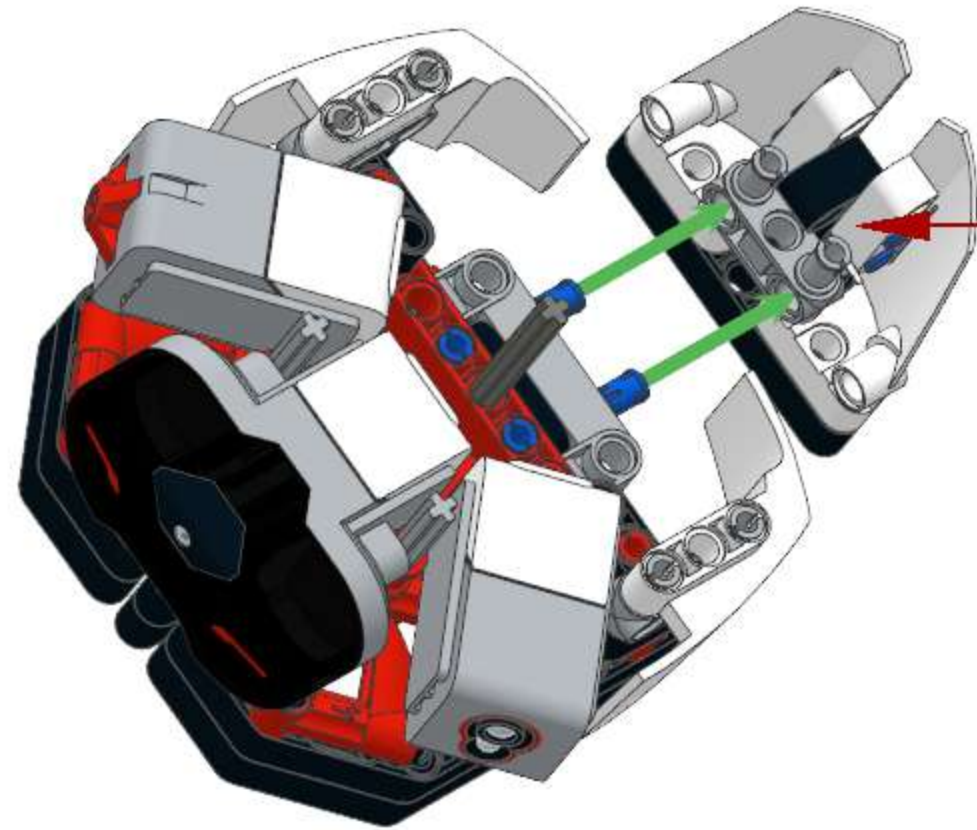
3





# 11

- 4x
- 1x
- 1x
- 1x
- 1x
- 1x
- 2x
- 1x
- 1x
- 1x



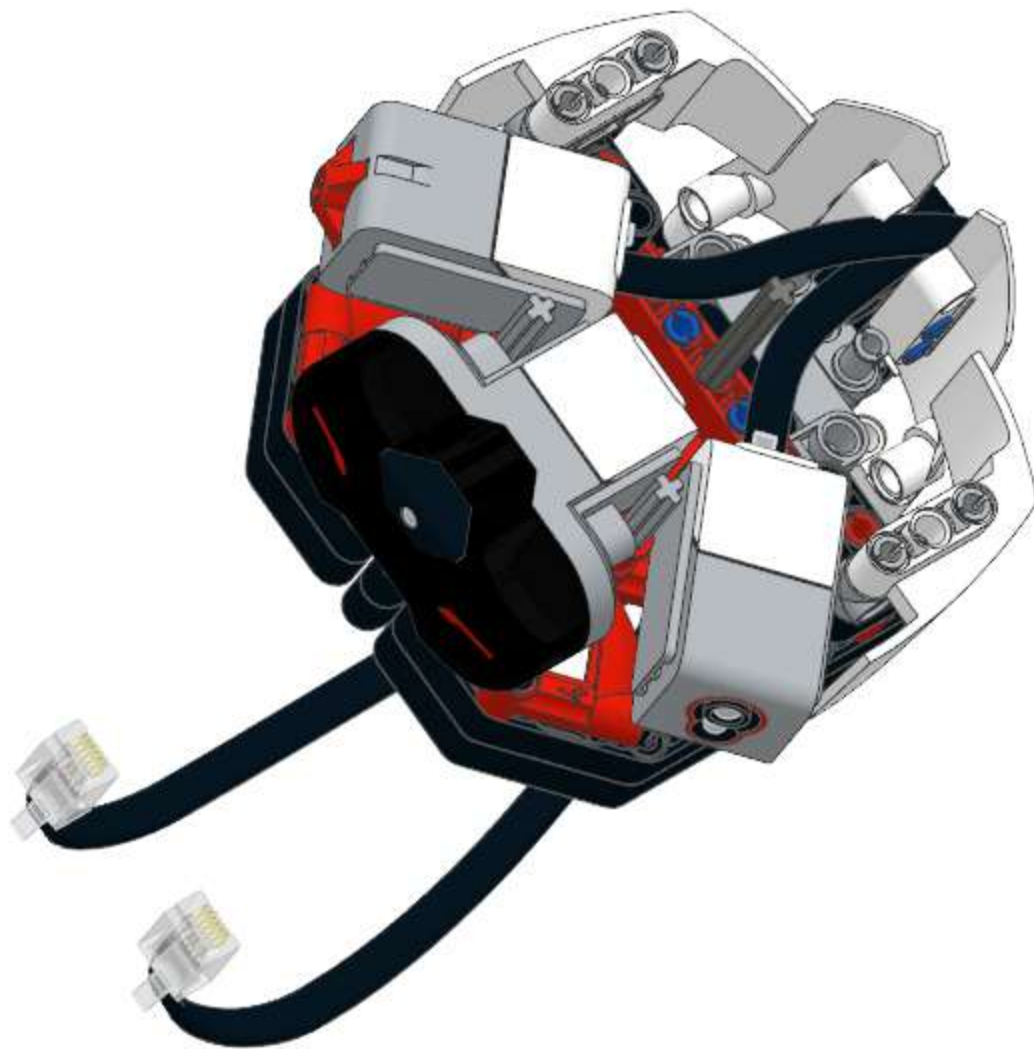
- 
- 
- 
- 
-

12

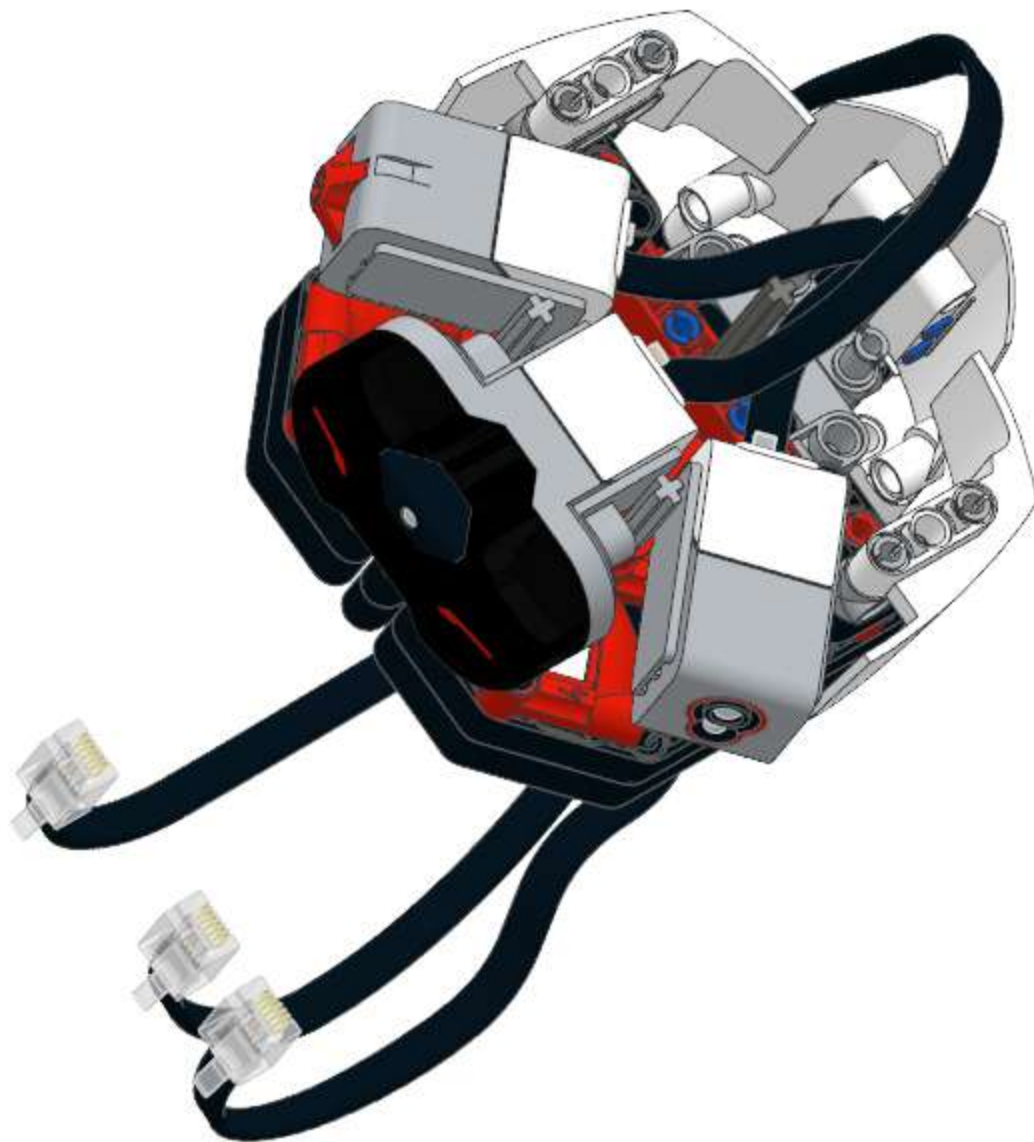
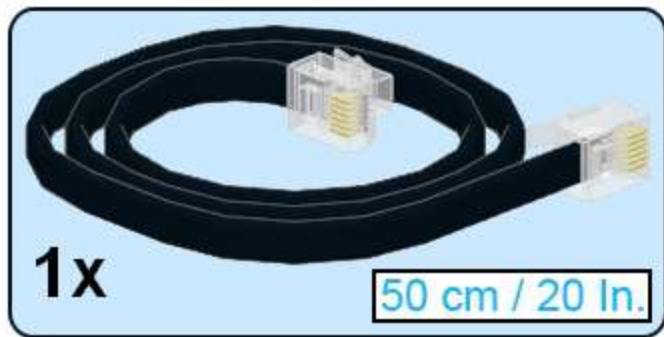


2x

35 cm / 14 in.



13



# 14



2x



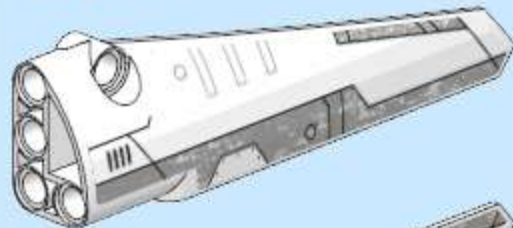
2x



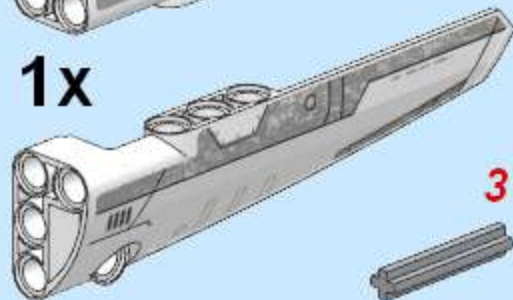
2x



1x



1x



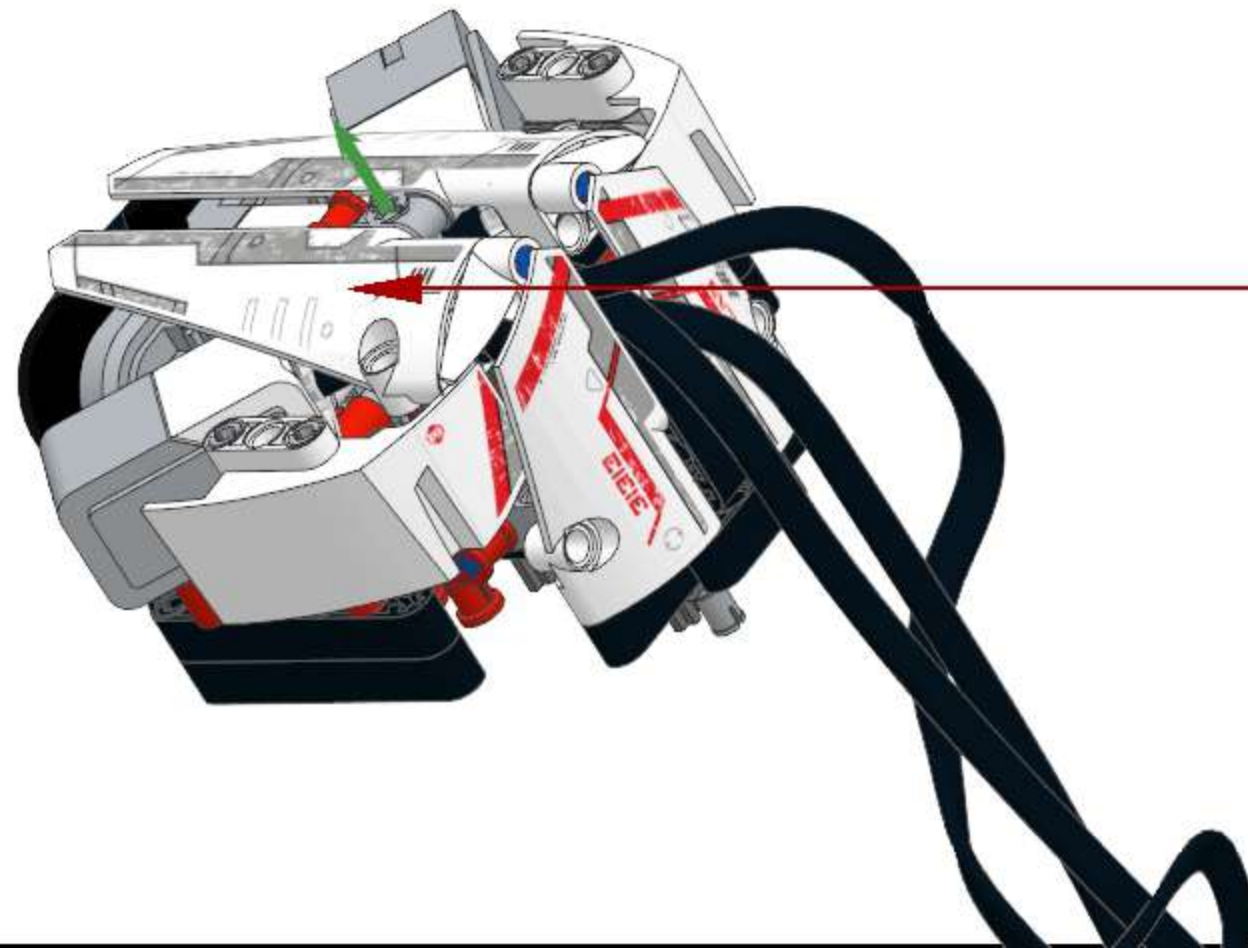
1x



1x



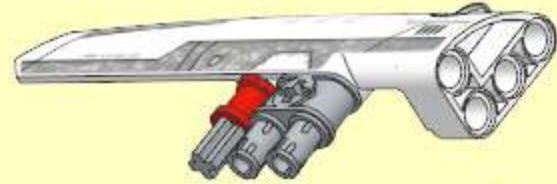
1x



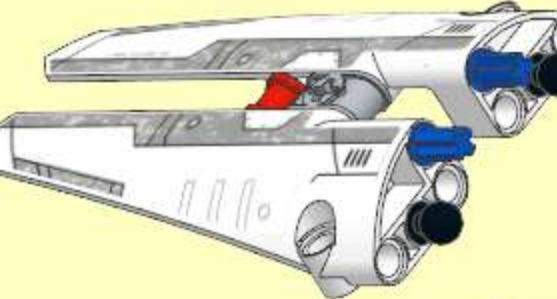
1



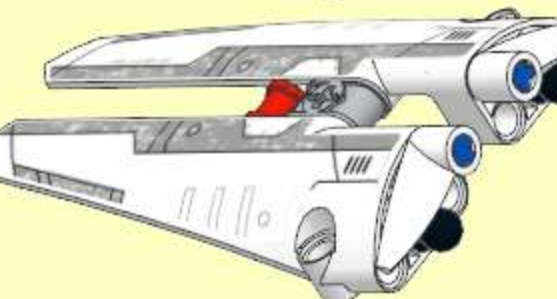
2



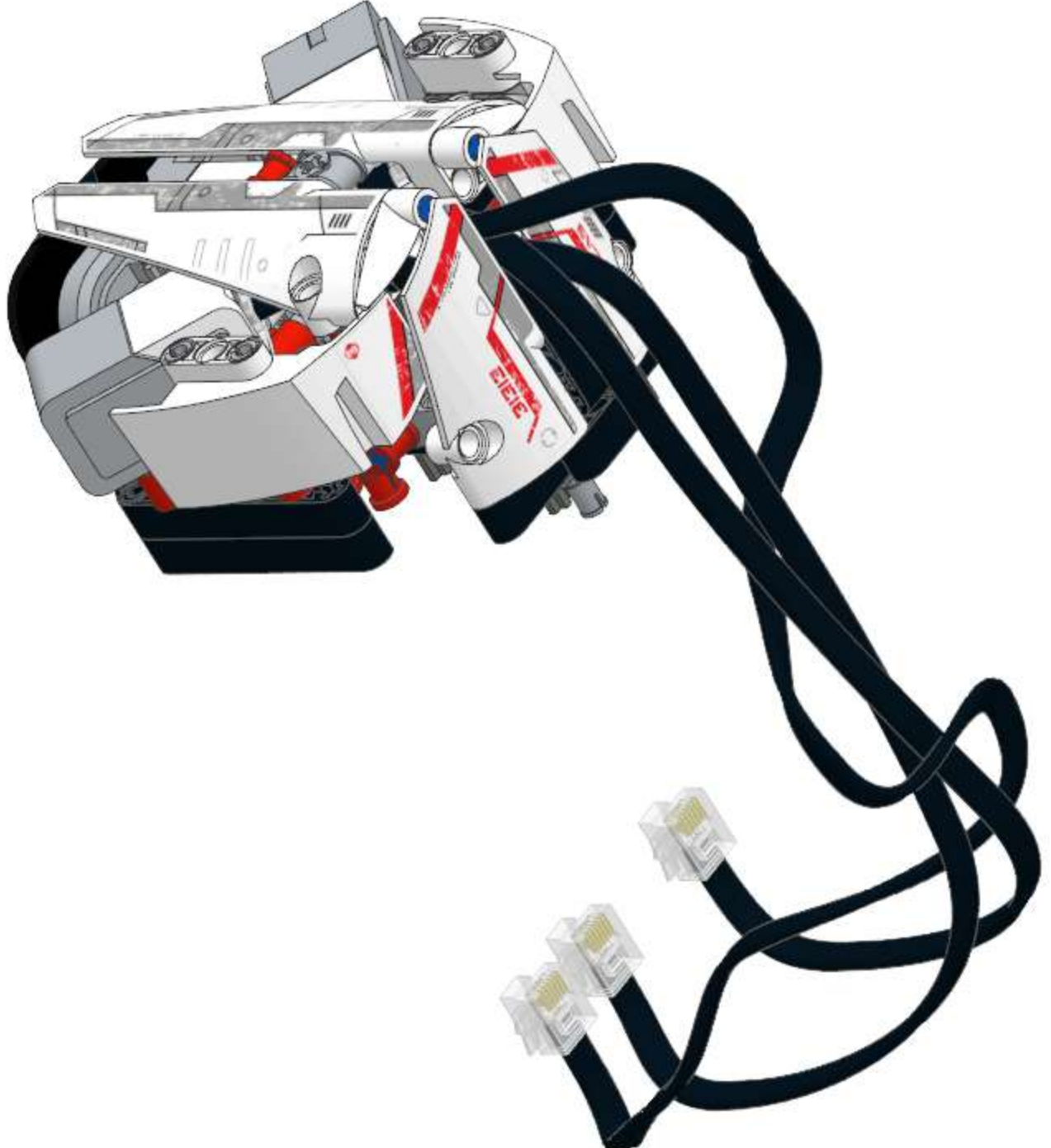
3



4



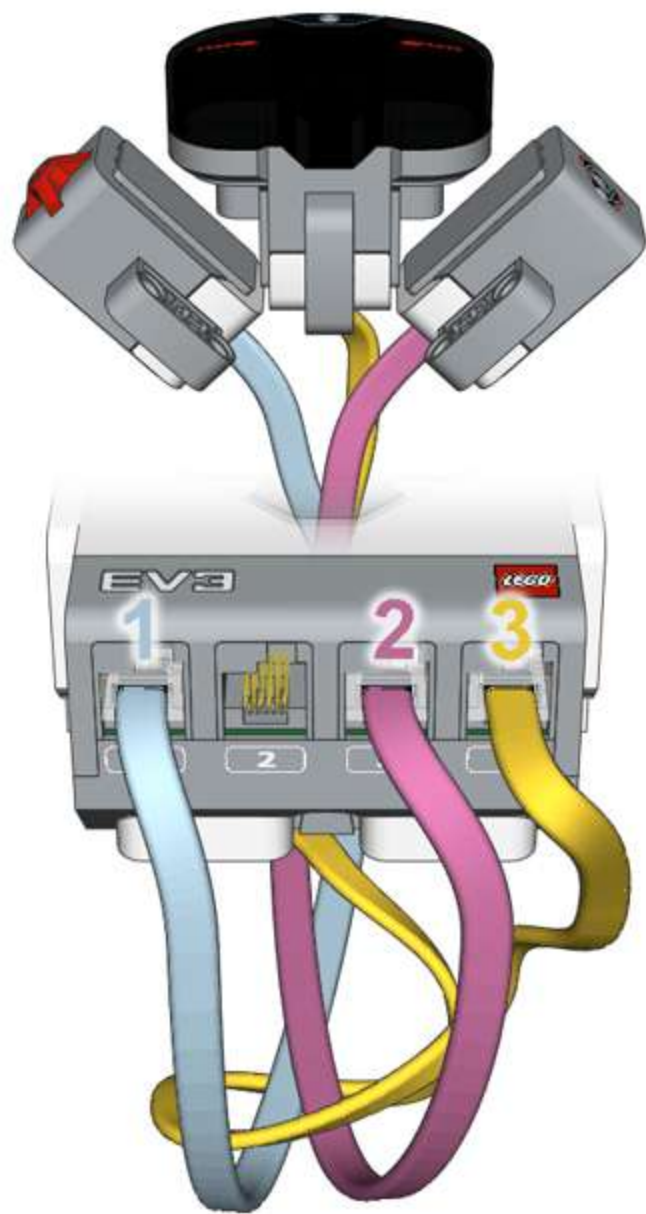
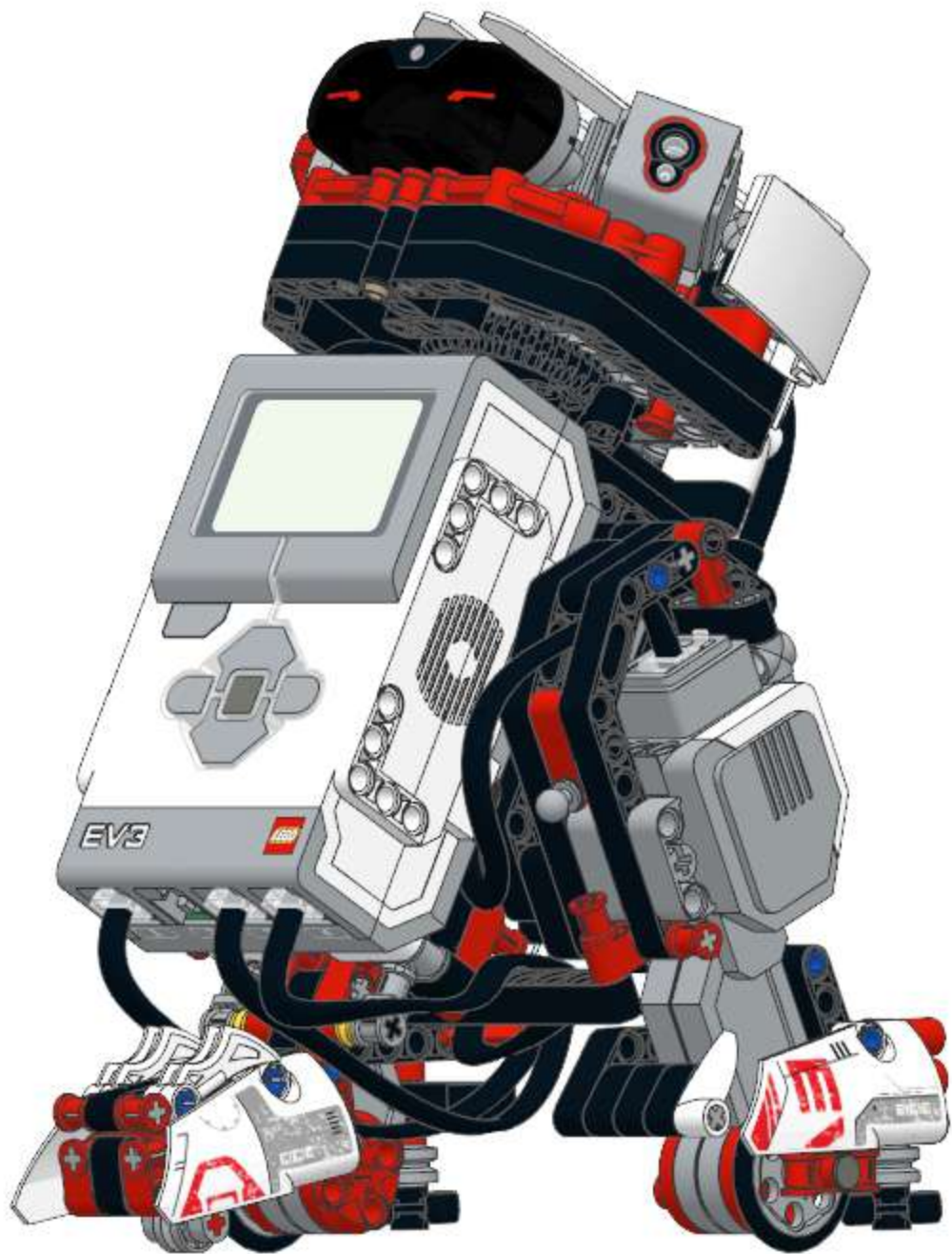
15

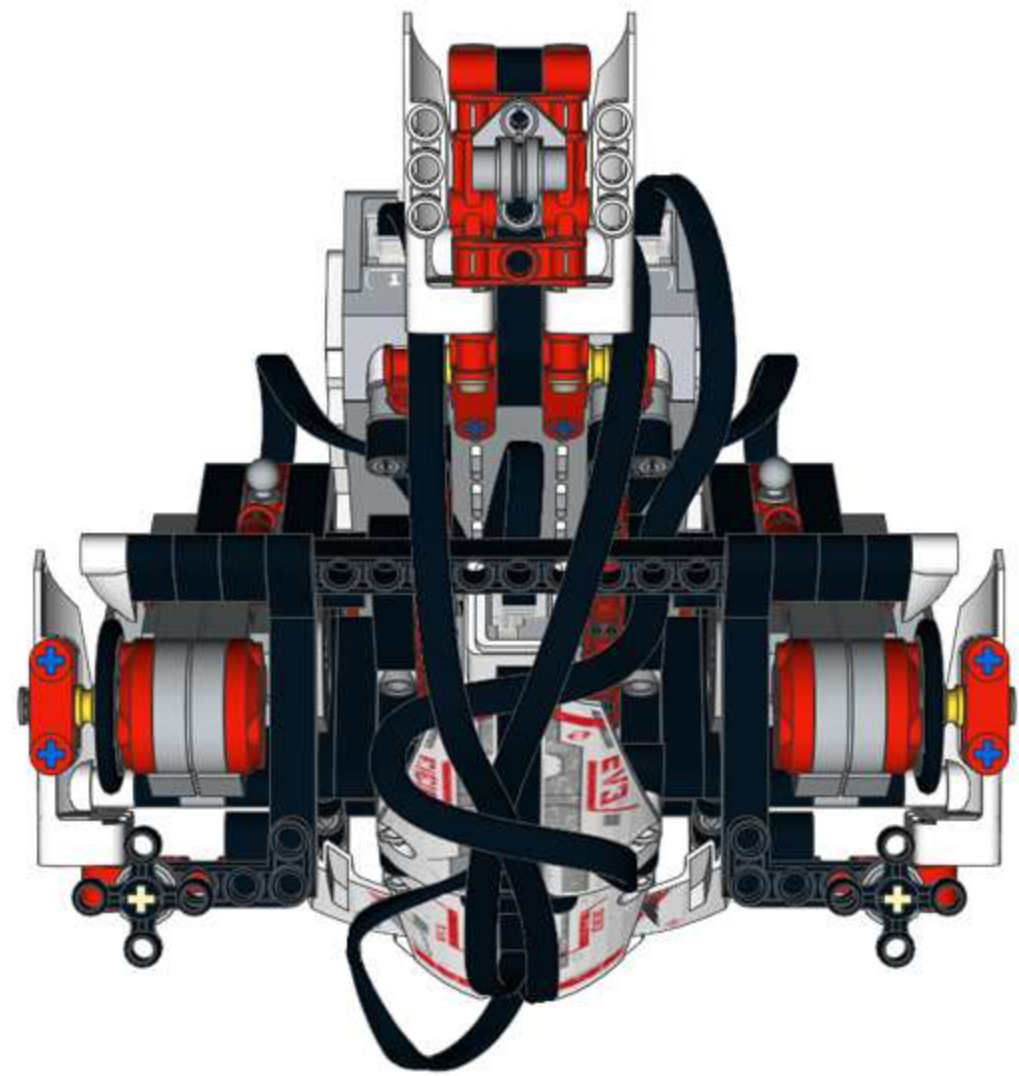
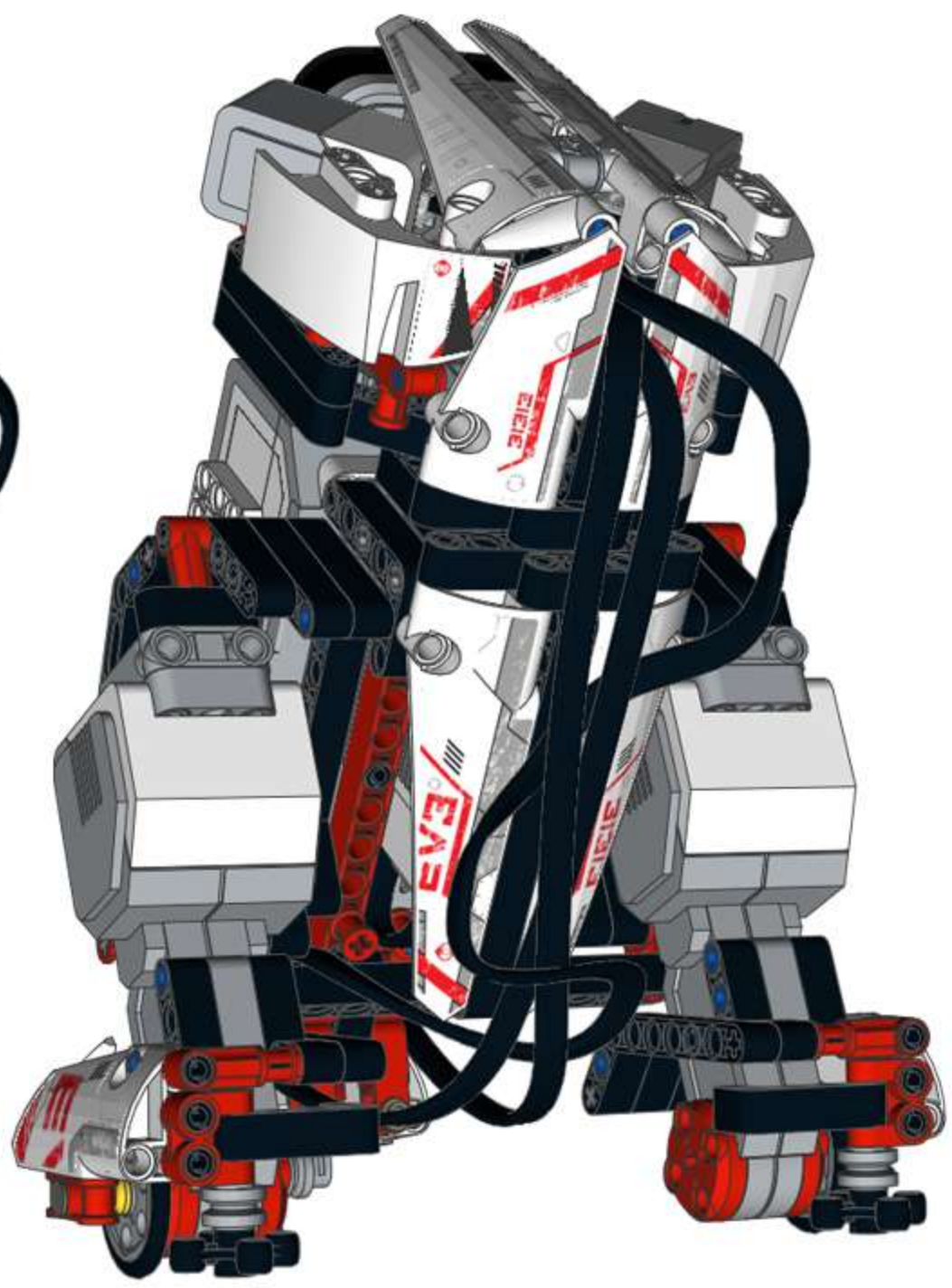
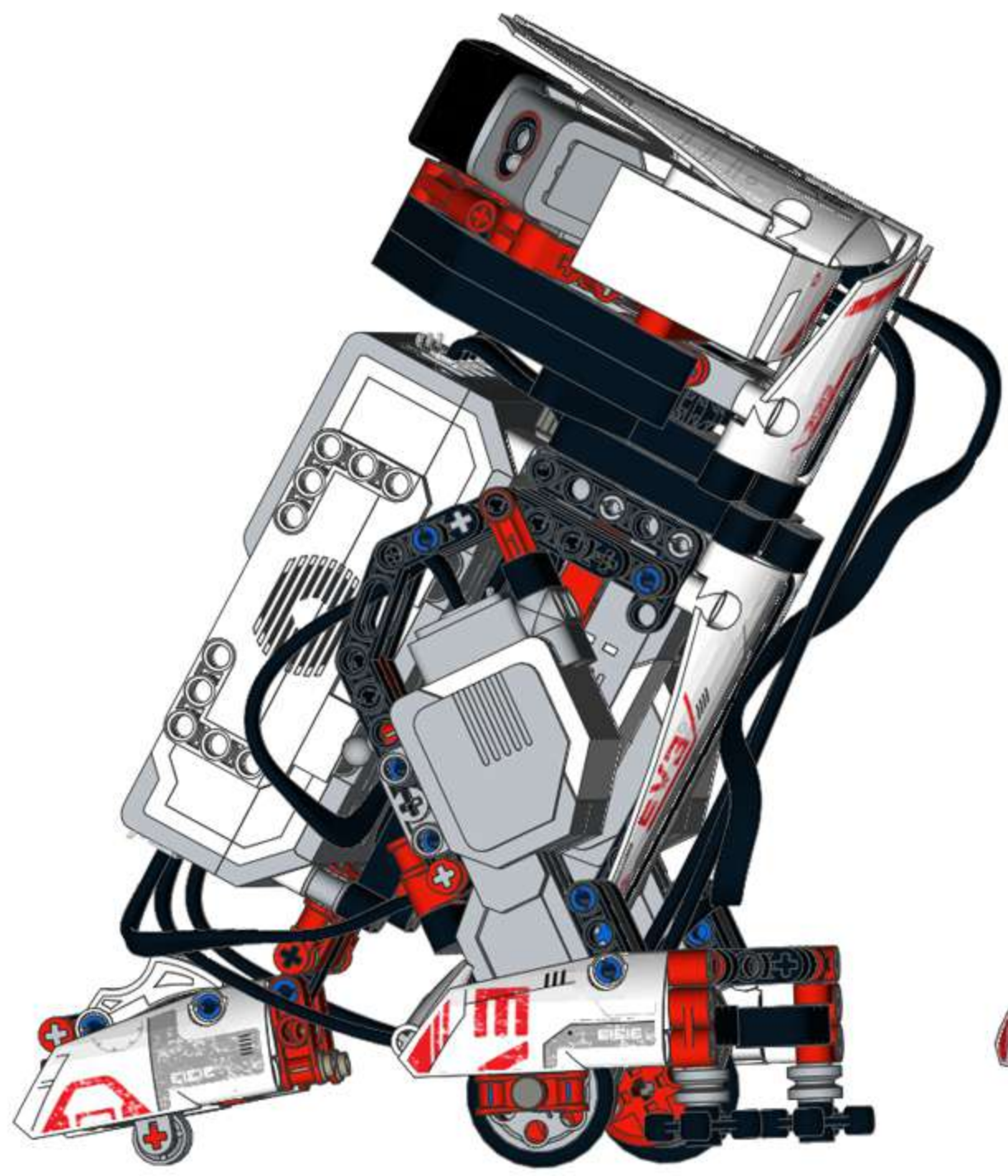


8



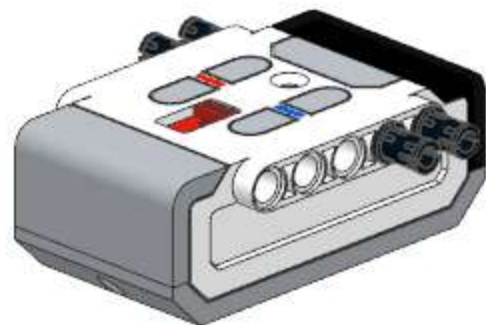
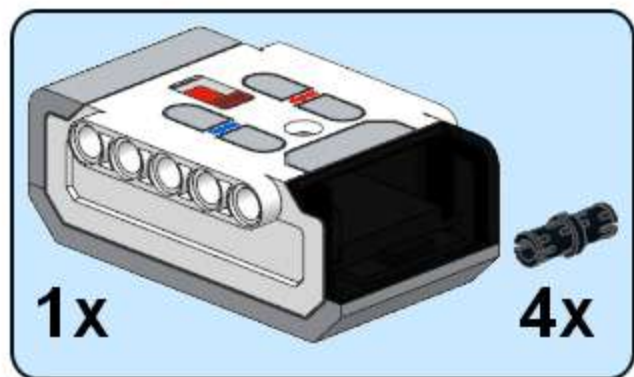
9



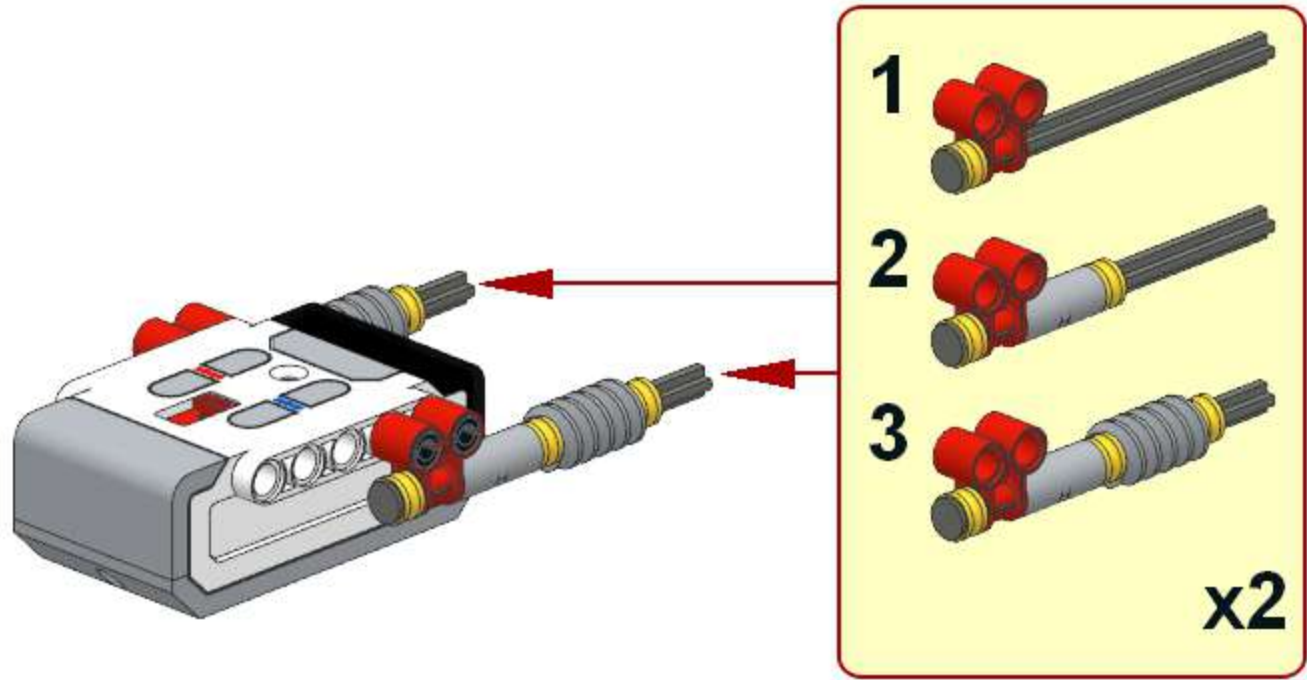
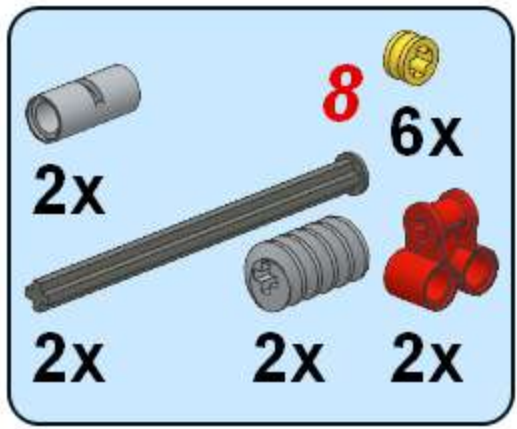




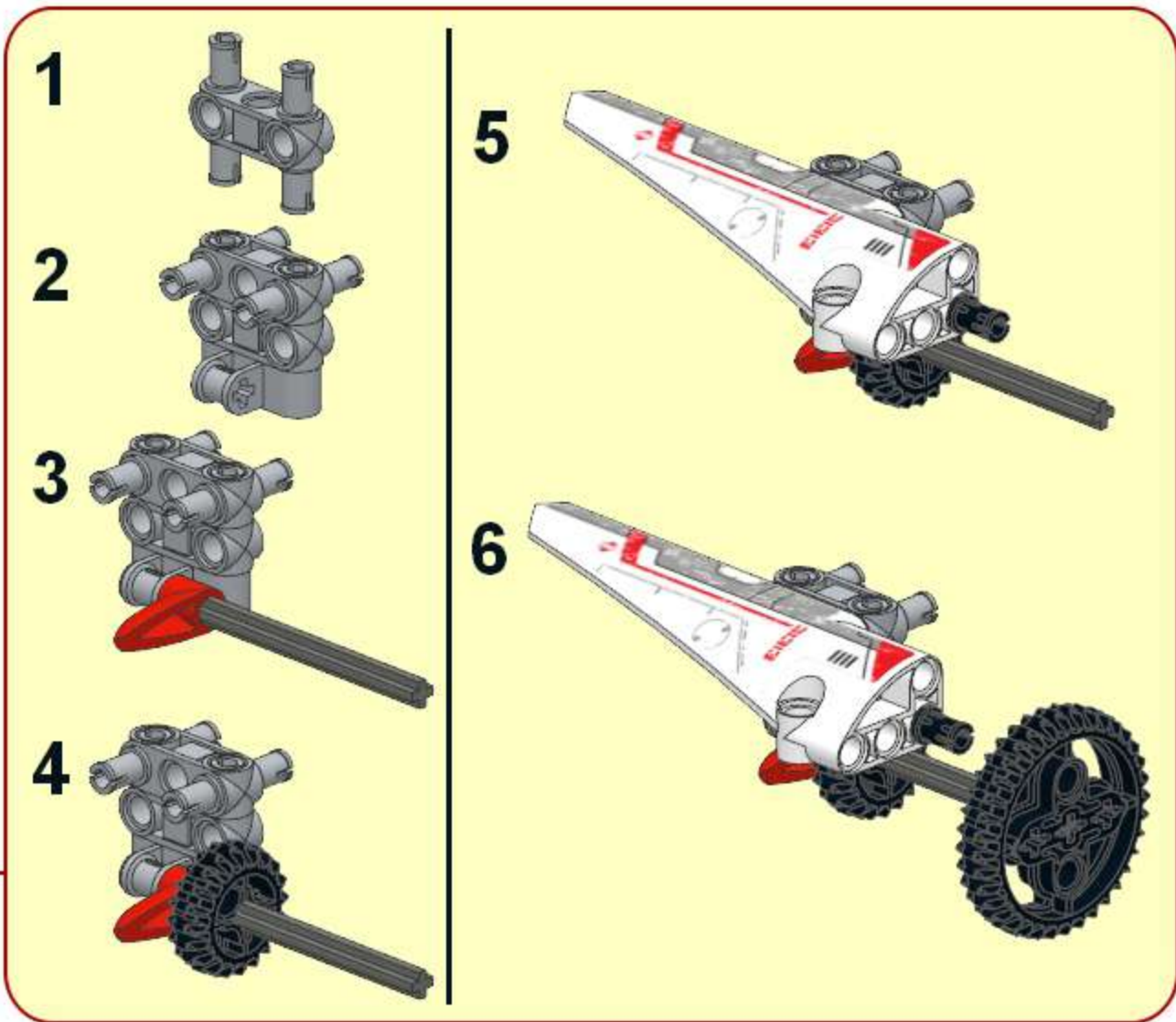
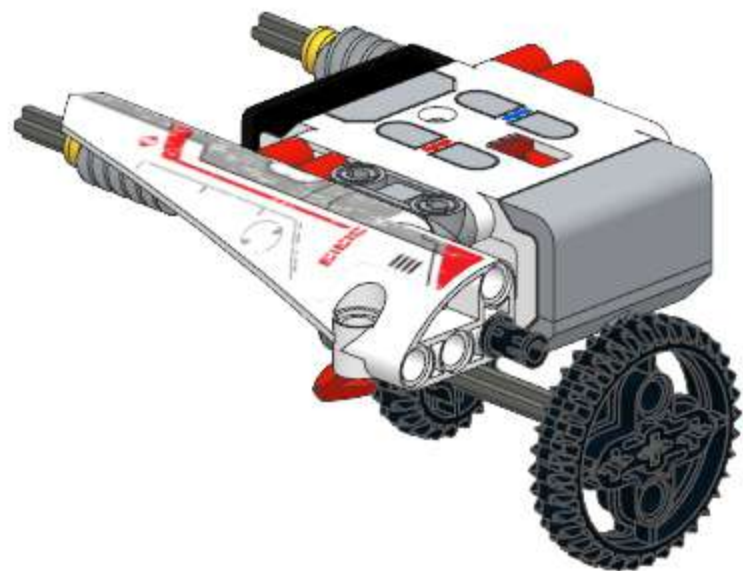
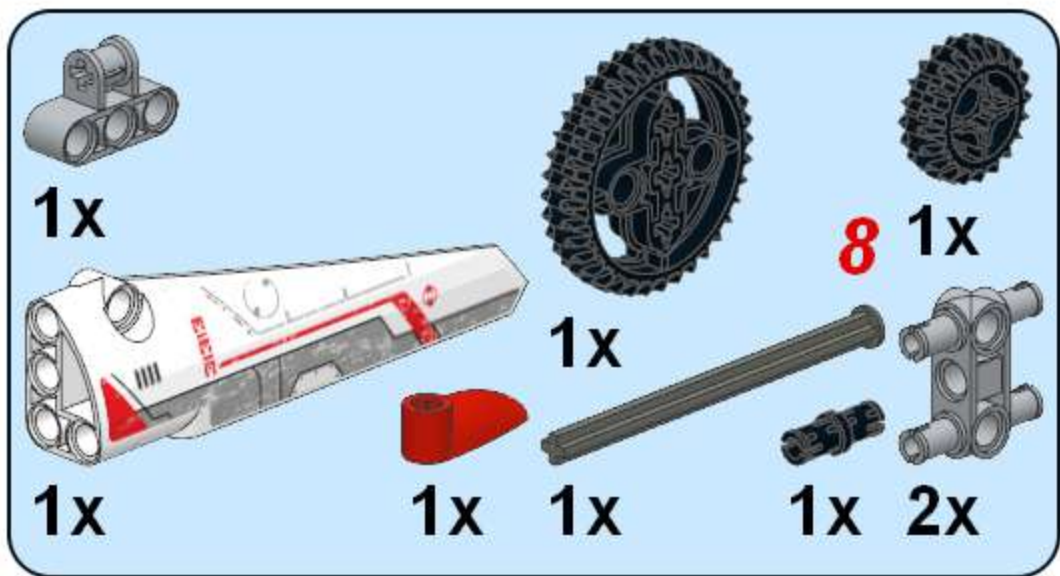
1



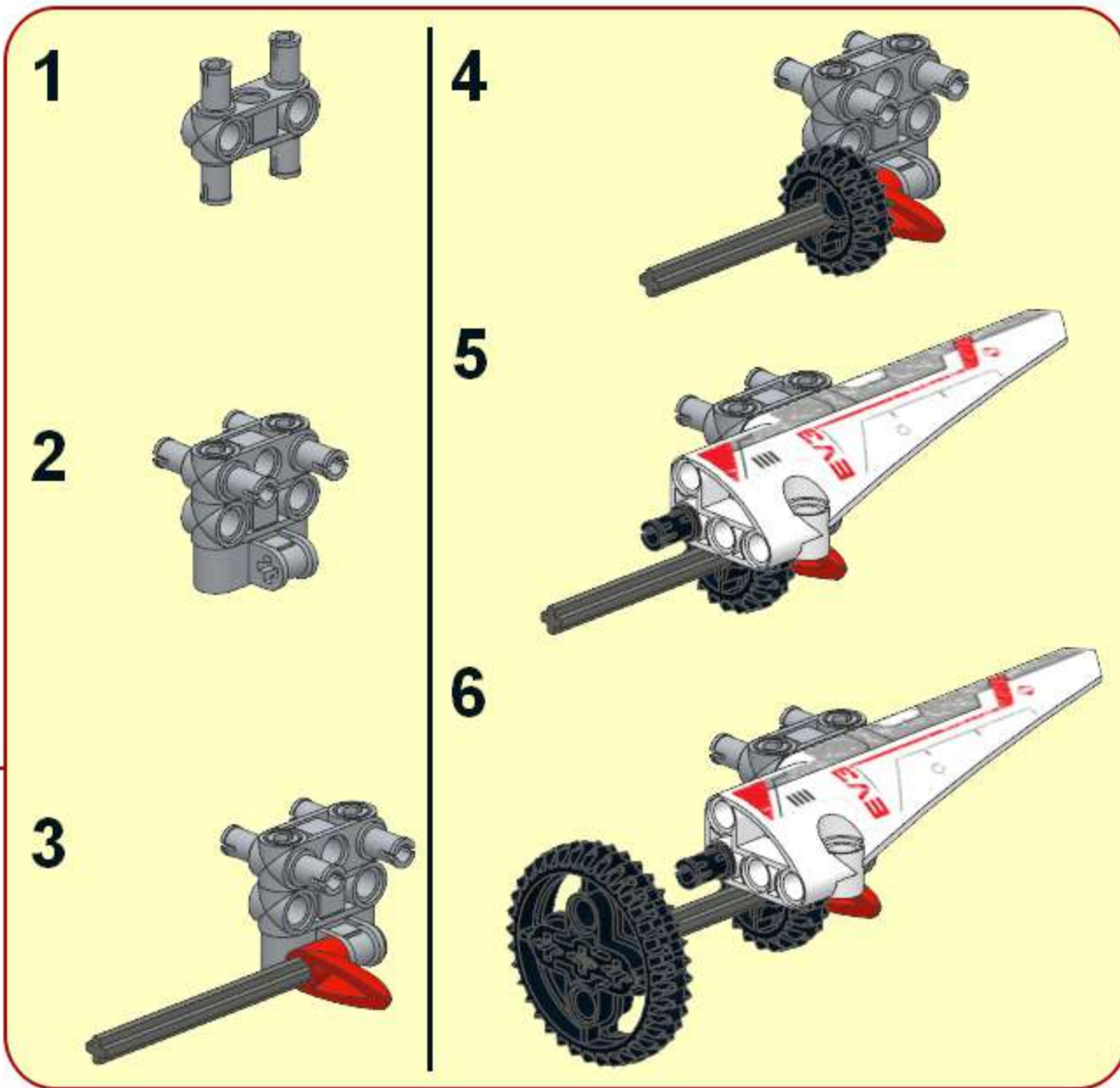
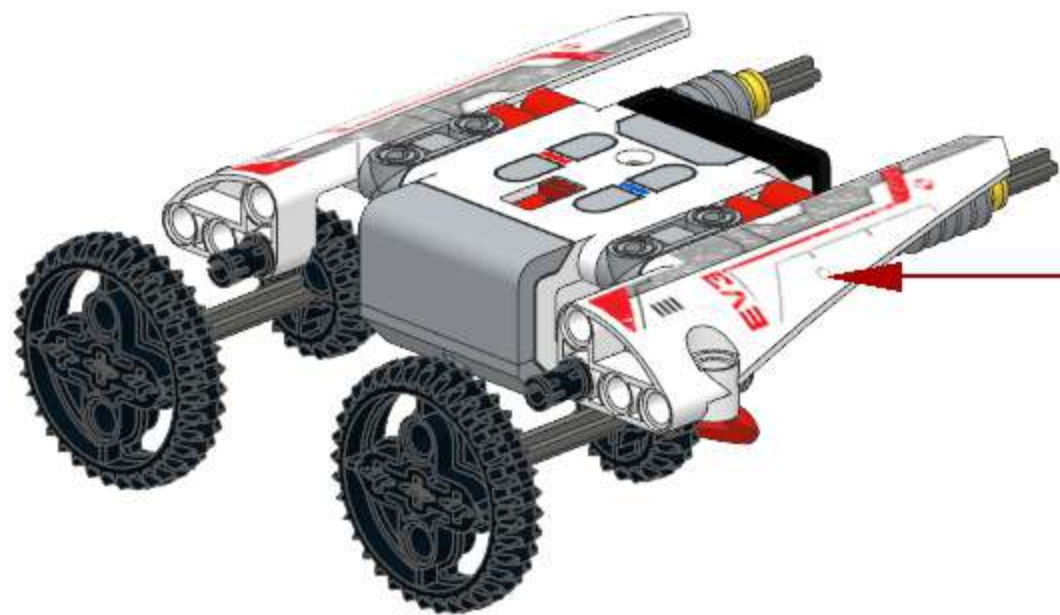
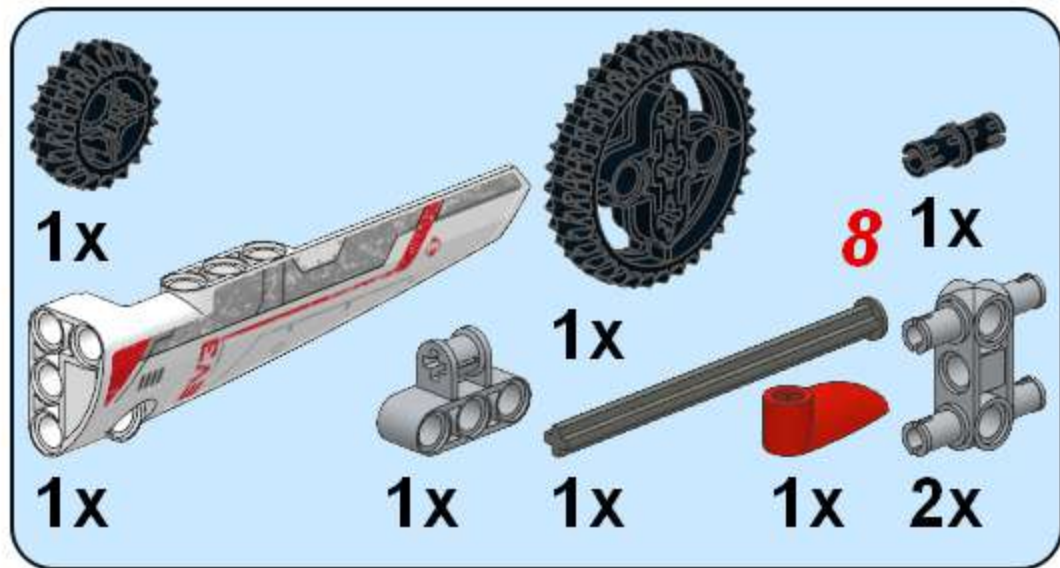
2



# 3



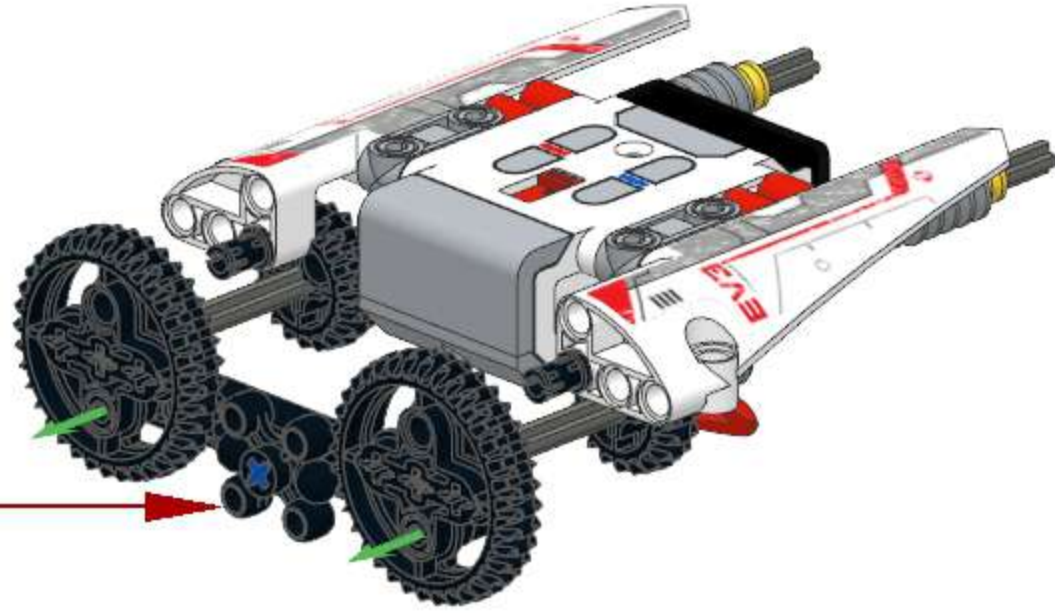
# 4



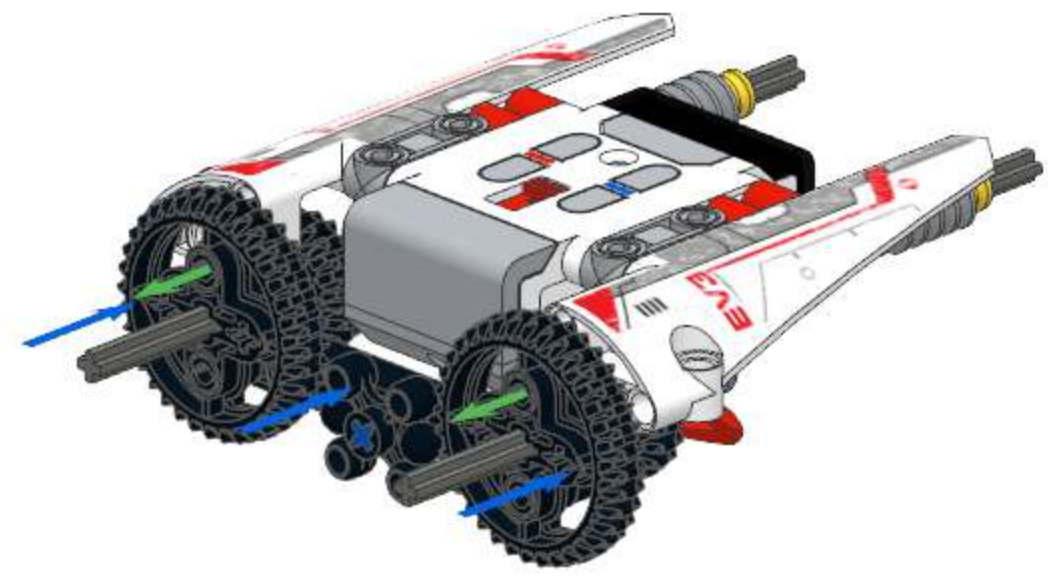
5

2x  
1x  
9  
1x 1x  
2x

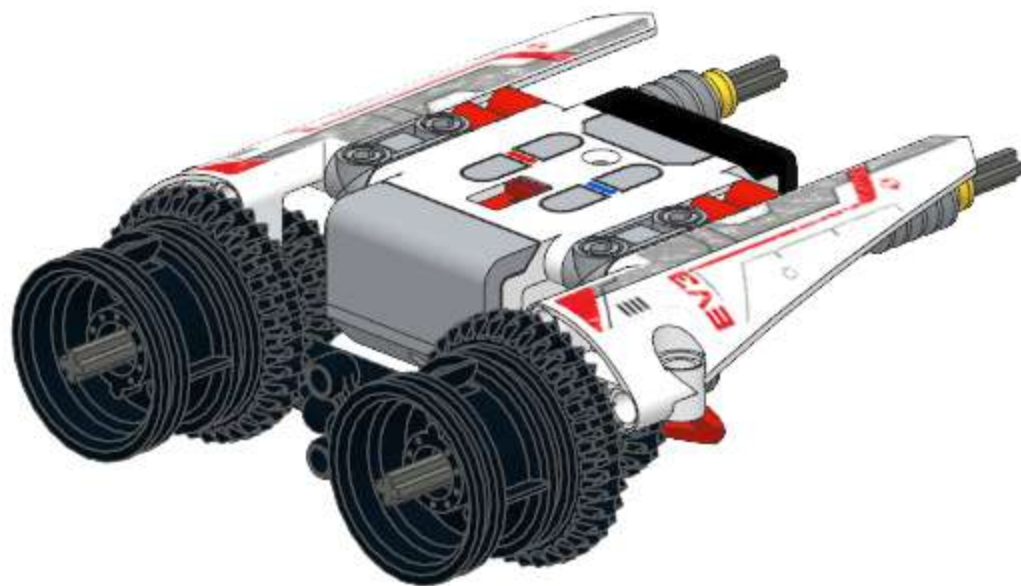
1  
2  
3



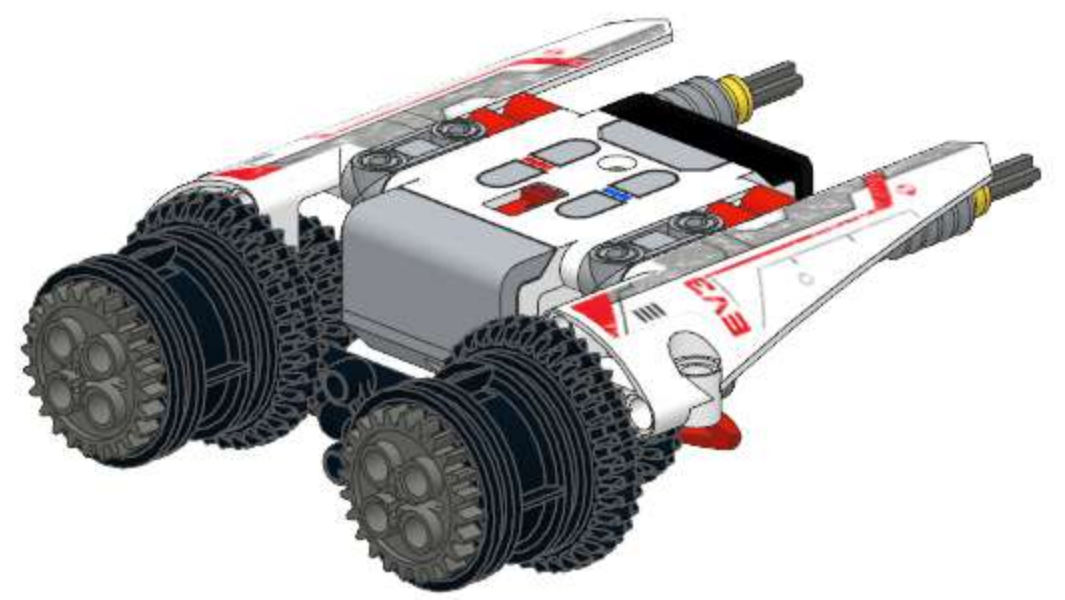
6



7

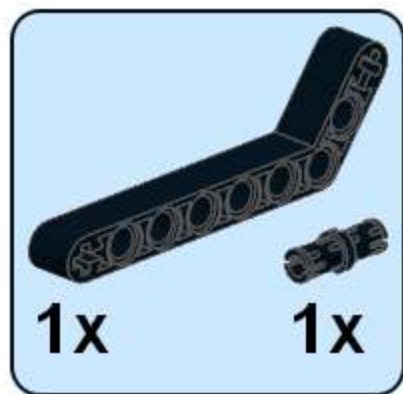


8

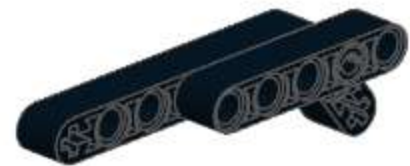




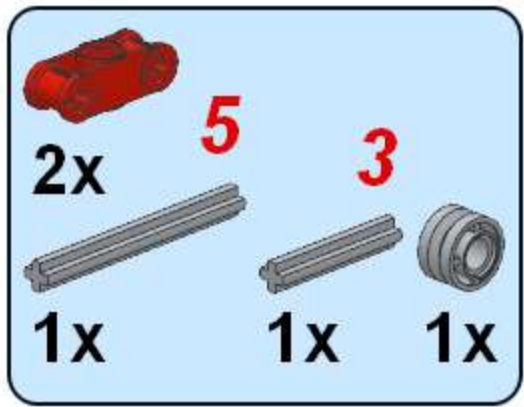
1



2

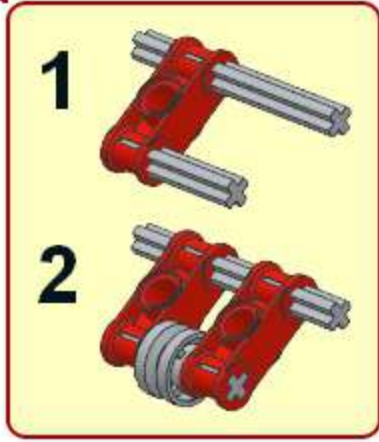


**3**



2x **5**  
1x **3** 1x 1x

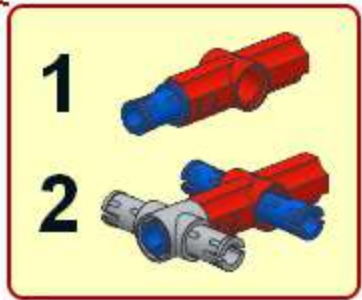
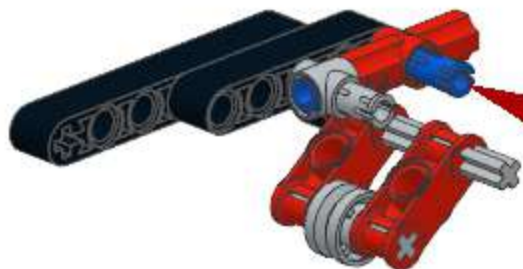
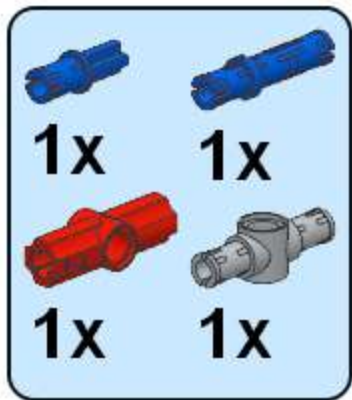
This block lists the parts required for step 3. It includes two red Technic connectors (part 5), one grey Technic axle (part 3), one grey Technic axle (part 1), and one grey Technic bush (part 1).






**1**  
**2**

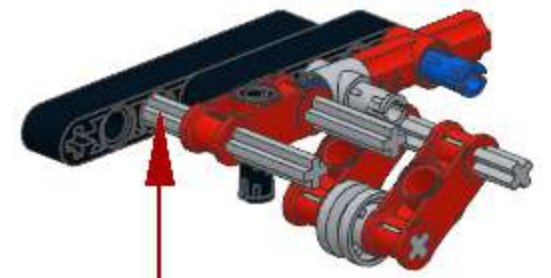
This inset box shows two steps of the assembly process. Step 1 shows a red connector with two axles inserted. Step 2 shows the same assembly with a grey bush added to the end of the axle.



4







5


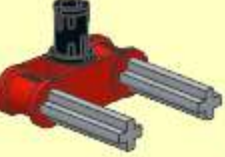
- 1x 
- 1x  5
- 2x 

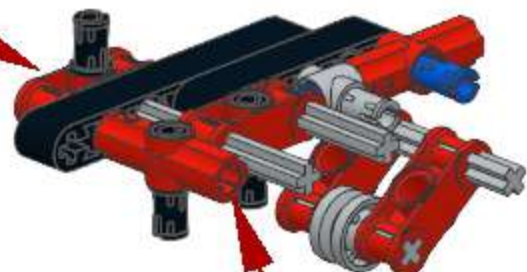


- 1 
- 2 

6

		2x
1x		3
1x		2x

1	
2	




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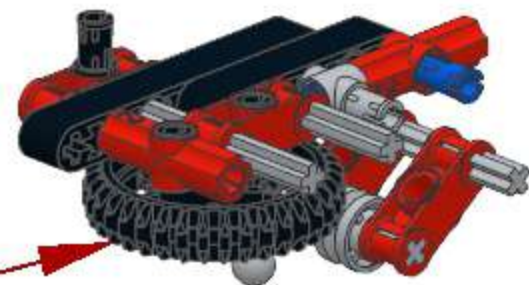
7



2x



1x



1



2



3

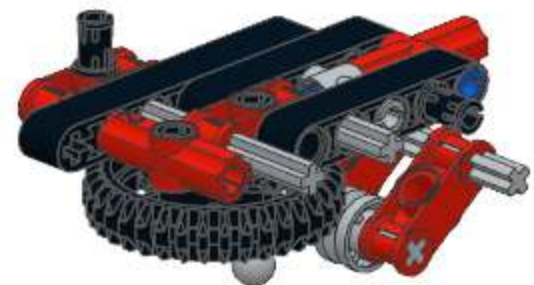


8

1x 5

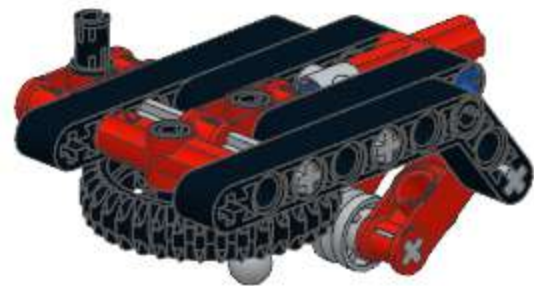


1x





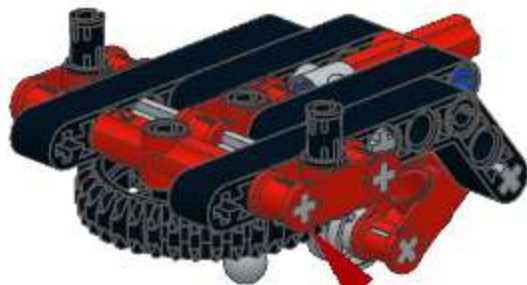




9



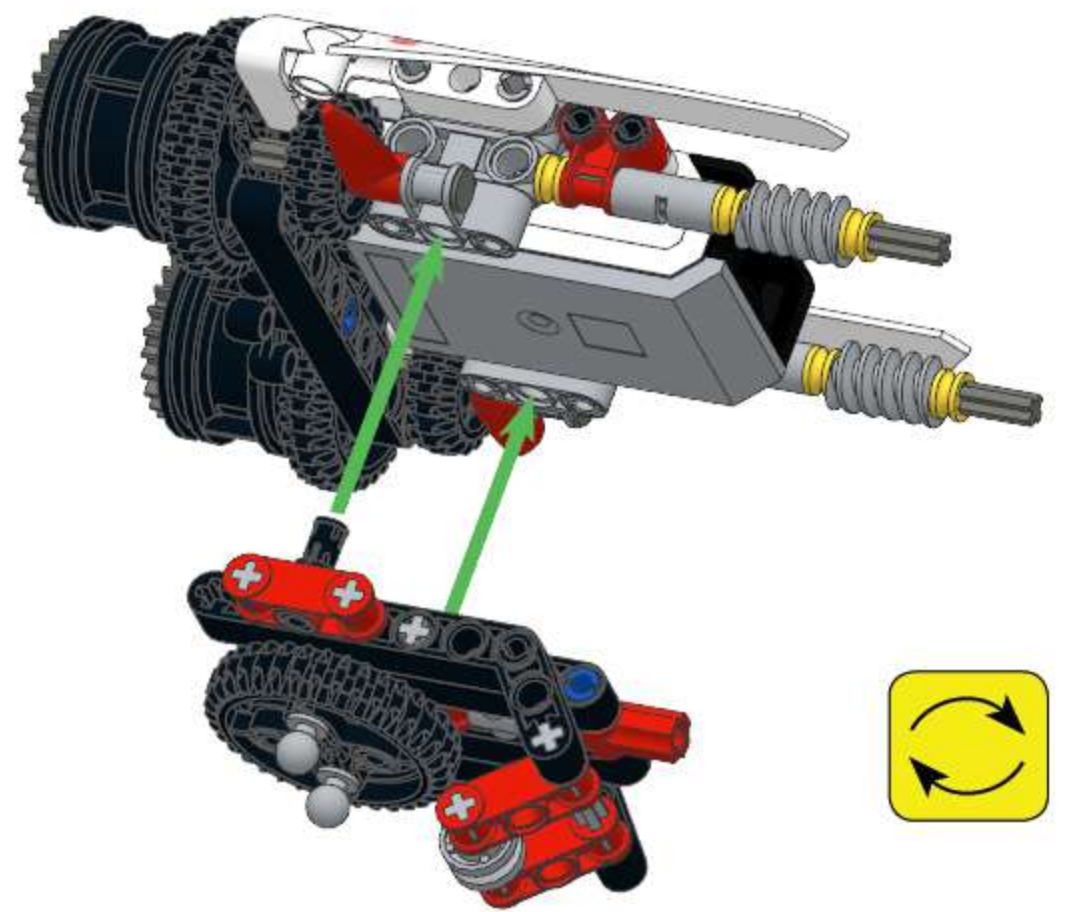
10

1x  3  
1x  2x 

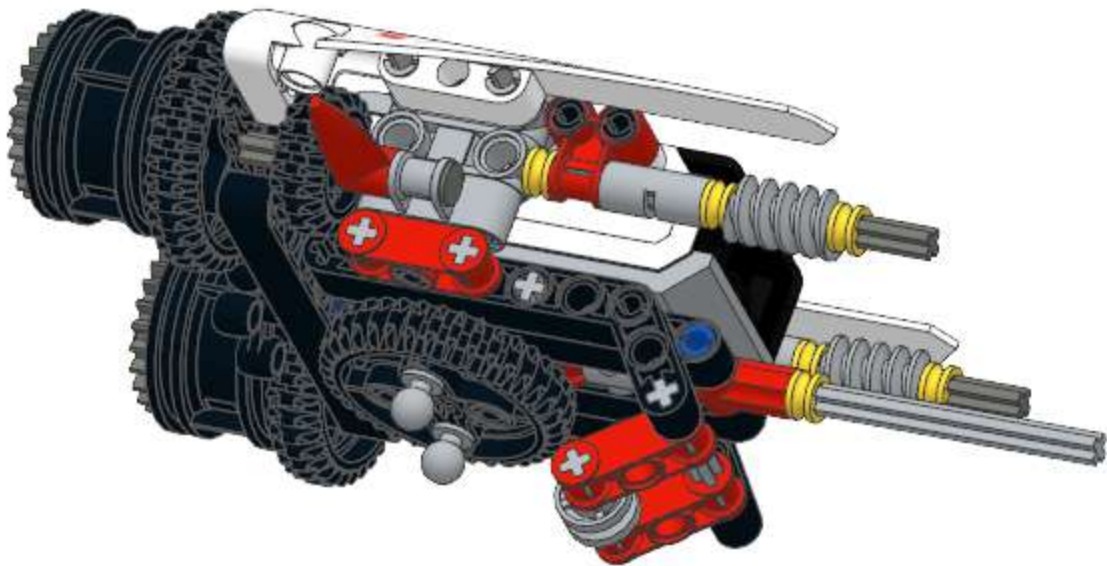
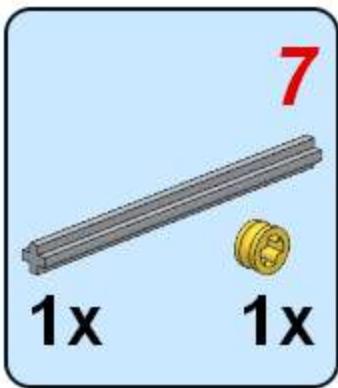


1   
2 

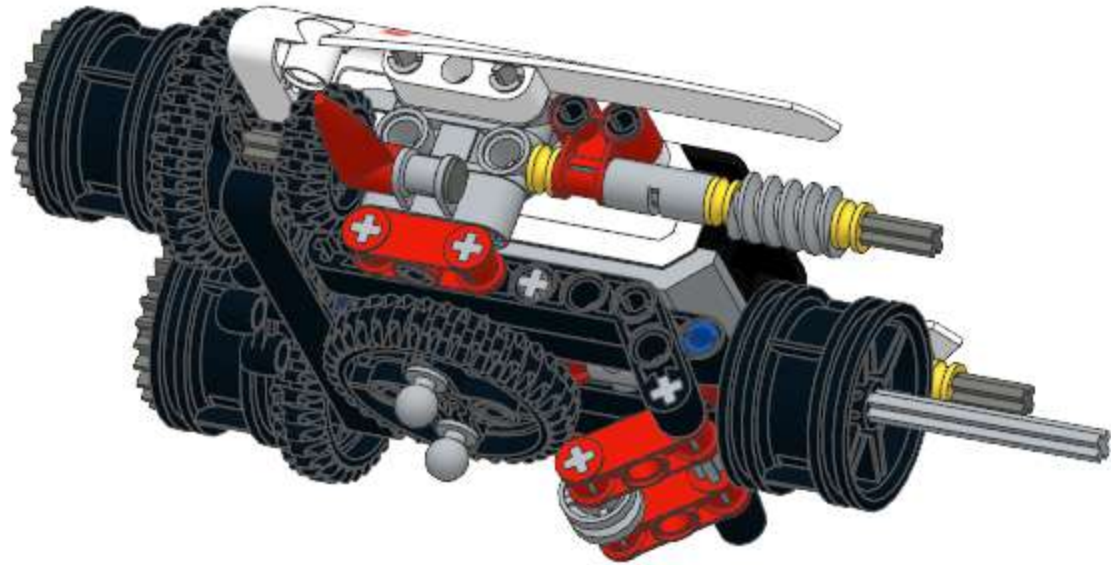
9



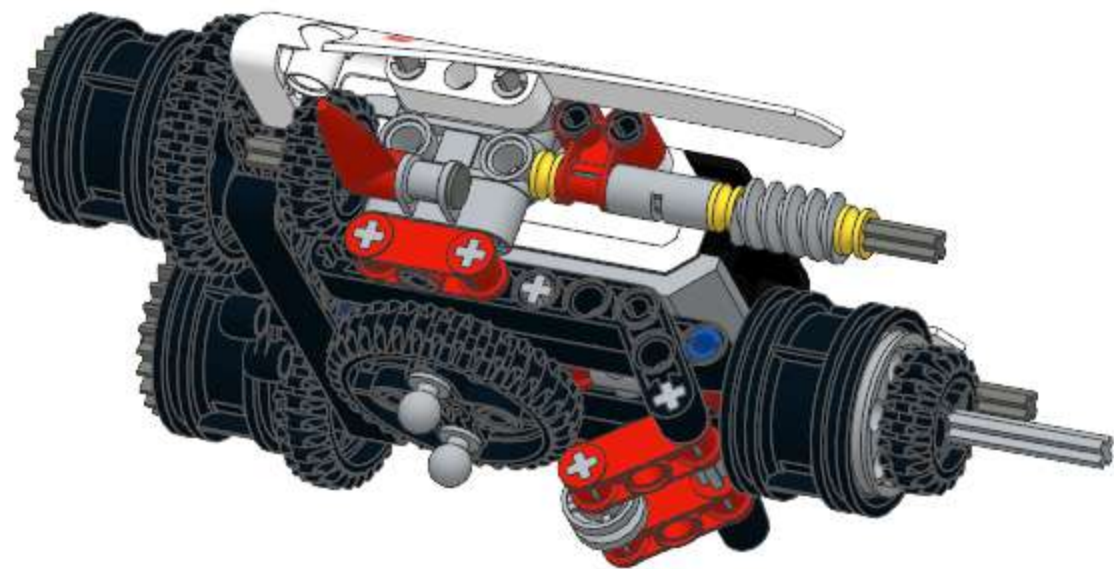
10



11



12



13

