

avishkar

MEX

Tusker

User Manual





**"I don't dream
of success, I work
towards it!"**

Sneak peak

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Make the Most Out of Your Kit

Innovate - - - - -



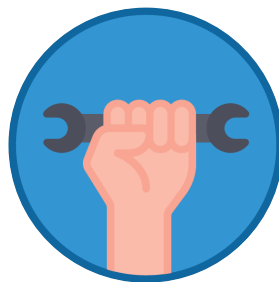
Take the Innovator's Oath

Take the innovator's oath mentioned on page 6 and understand what it means to be an innovator.



Learn using Manual/Videos

Follow detailed instructions in the manual and learn how to build exciting robots with your kit.



Build, Code & Control

Build innovative projects using your kit, and control the Robots using Avishkaar Remote and Code using Avishkaar Maker Studio.



Join Let's Avishkaar

Join our FB community - connect with innovators and get latest updates on webinars.



Upload Projects

Upload projects on www.avishkaar.cc and share them with innovators globally.



International Competitions

Participate in weekly, monthly and annual competitions and win glory globally.



Innovator's Oath

Take the Innovator's Oath below to pledge yourself to lifelong commitment towards Innovation and Problem Solving. Share a photo on the Let's Avishkaar FB Community.

I (write your name) _____

*solemnly swear that, since I am
now on the path of innovation,*

*I will not give up until my
innovation, my project is ready.*

*I will hone my skills and tools
and use them well. Innovation
and I will be inseparable.*

*I will always share my
innovations with other
innovators and learn with them.*

Your Signature



**Explore
your Kit**

Welcome to Avishkaar

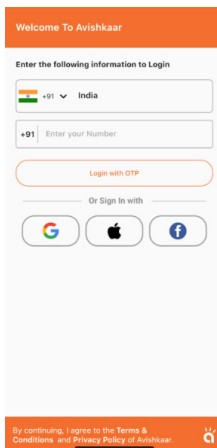
Download the Avishkaar App

Download the Avishkaar App by scanning the QR codes below:



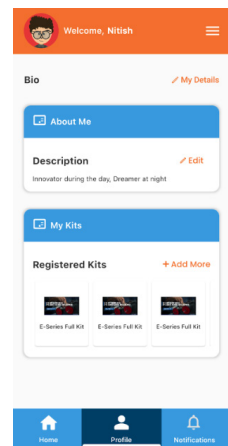
① Create an Account

Open the app and follow the on-screen steps to make an account.



② Register your Kit

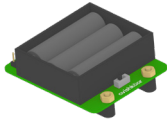
Go to the 'Profile' section in the app and click on '+ Add More' in the 'My Kits' section to register your kit. This step is important to control your robot later.



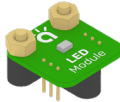
Product Registration
Sticker

Armour Check

Box 1 (Electronics)



Avishkaar
MEXCore
x 1



MEX LED
Module
x 2



MEX Motor
x 1



Pin Wire
x 2

Box 2 (Construction parts)

BEAM



15H Beam
x 4



13H Beam
x 1



11H Beam
x 6



9H Beam
x 1



7H Beam
x 12



5H Beam
x 4



3H Beam
x 10



7H L-Beam
x 6

Note: 'H' stands for holes. Eg. 15H beam means beam with 15 holes.



1Cx4H L-Beam
x 12



5H T-Beam
x 3



2Cx10H Double
Bend Beam
x 4



2Cx7H Single
Bend Beam
x 1



2Cx1H
Thin-Beam
x 8



1Cx1H Beam
x 6



3Cx4H Thin-D
x 4

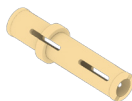


3Cx2H Thin-D
x 8

PINS



Long Pin-Blue
x 20



Long Pin-Yellow
x 10



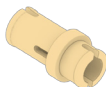
Medium Pin-Black
x 45



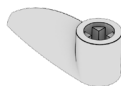
Medium Pin-Grey
x 5



Medium Axle
Pin-Blue x 10



Short Pin-Yellow
x 5



Spike-O
x 2

Note: 'H' stands for holes. Eg. 15H beam means beam with 15 holes.

GEAR



Spur Gear-40T
x 1



Spur Gear-16T
x 1



Spur Gear-8T
x 2



Worm Gear-Big
x 2

CONNECTORS



Axle Angle
connector-135
x 2



1Cx1H
Perpendicular
Connector x 2



3Hx4
Pin Connector
x 3

FILLERS



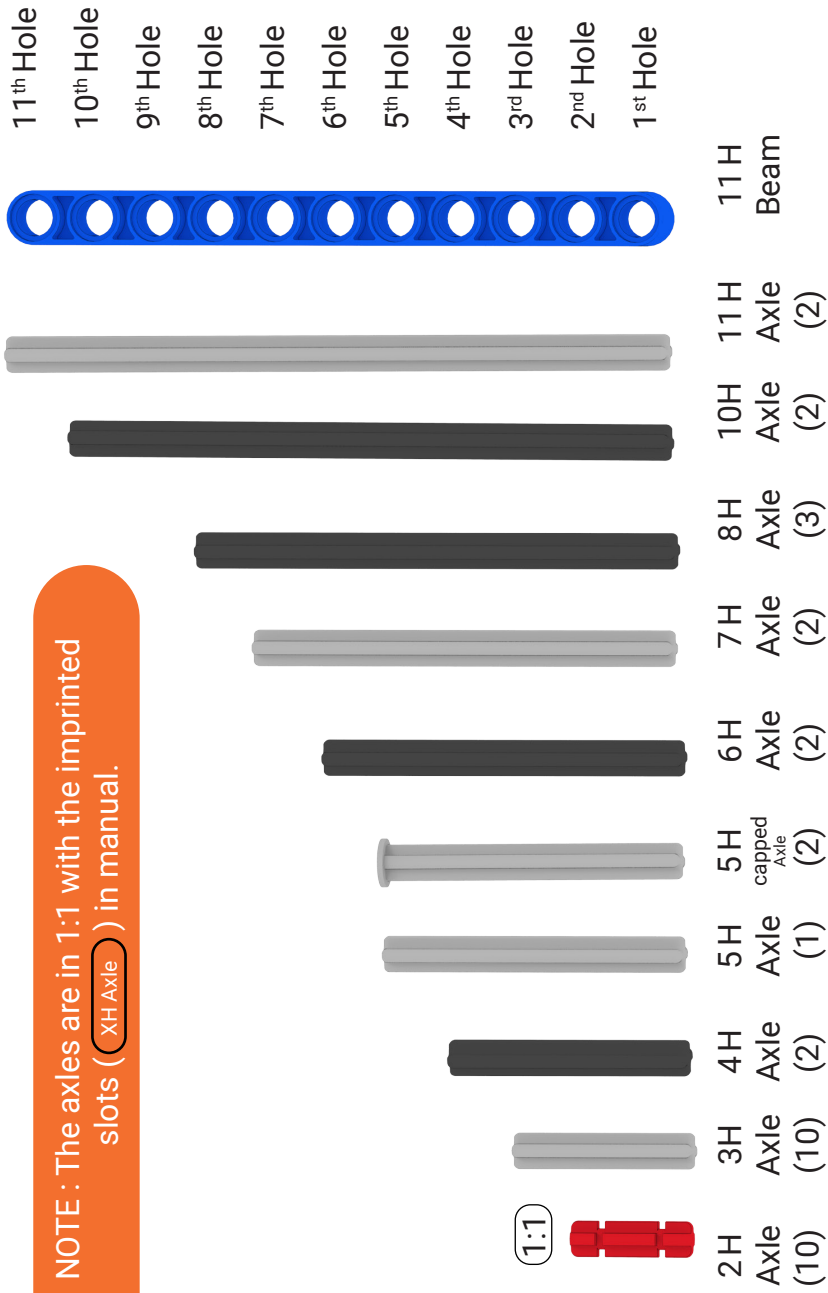
Axle Filler- Big
x 15



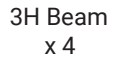
Axle Filler- Small
x 55

All About Axles

NOTE: The axles are in 1:1 with the imprinted slots (**XH Axle**) in manual.

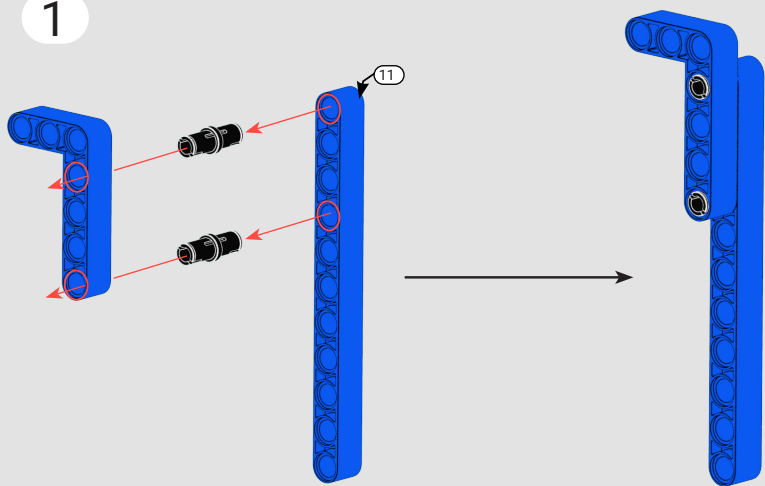


Let's Build!

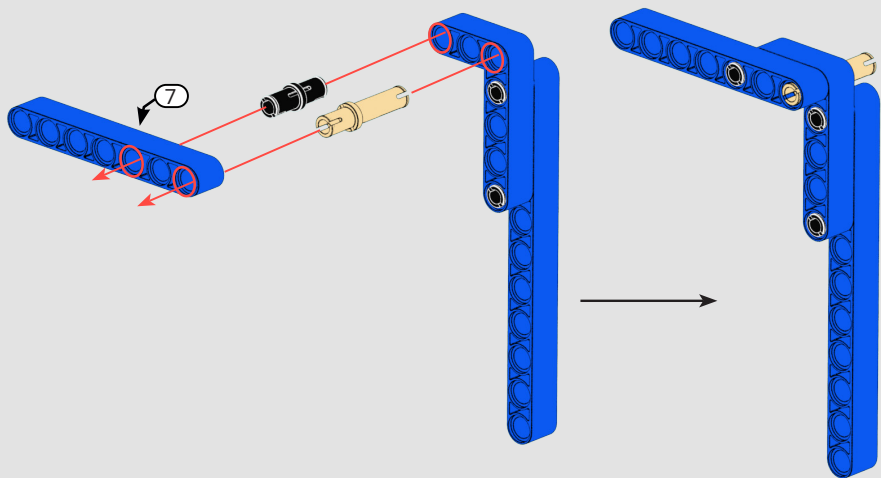


Steps

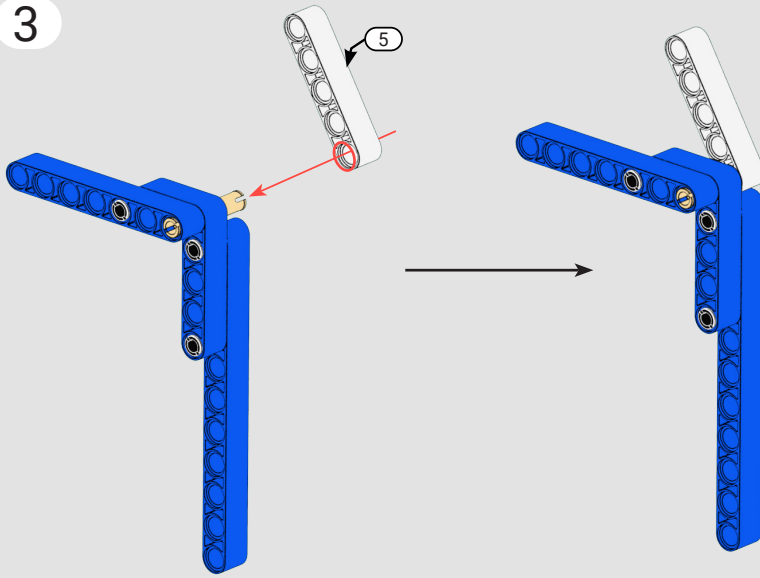
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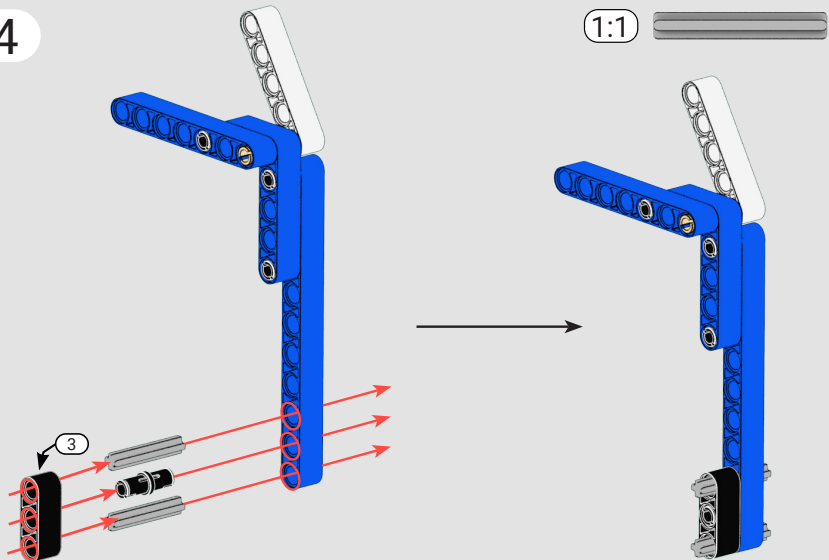
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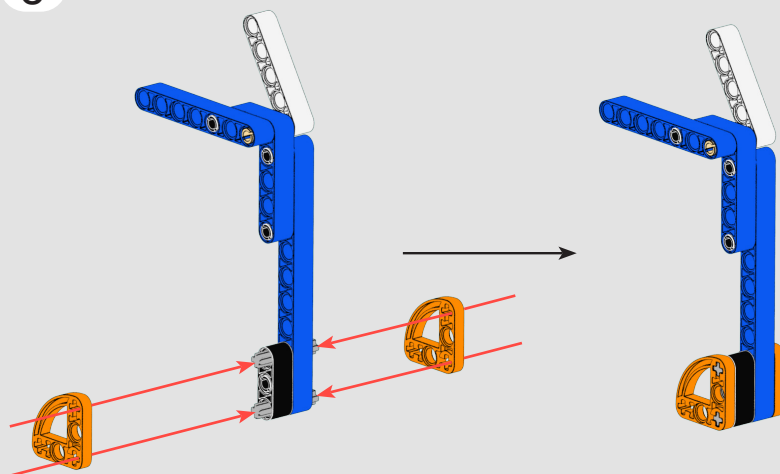
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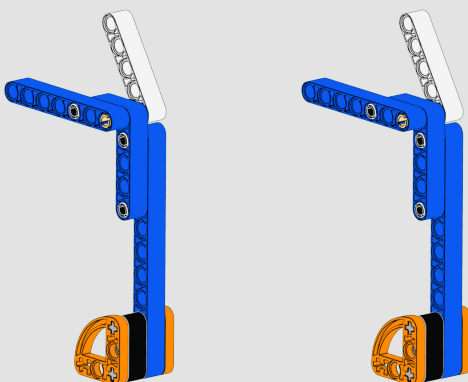
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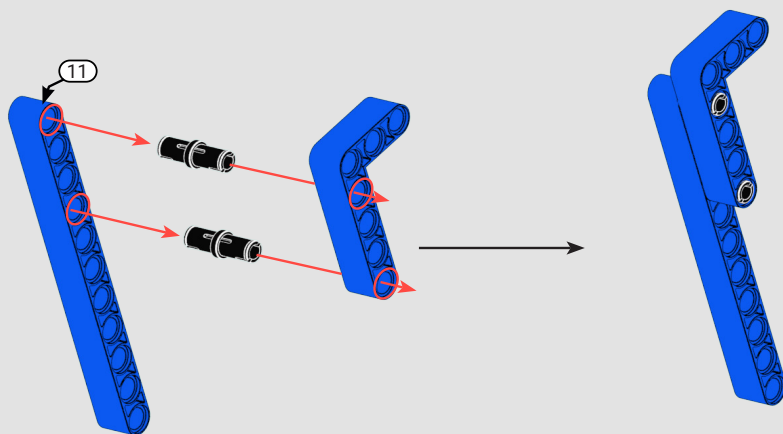
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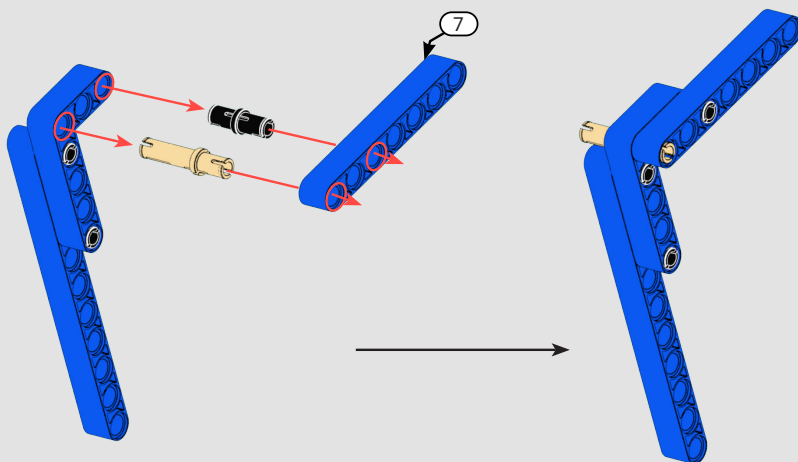
Make another one like this as shown below:



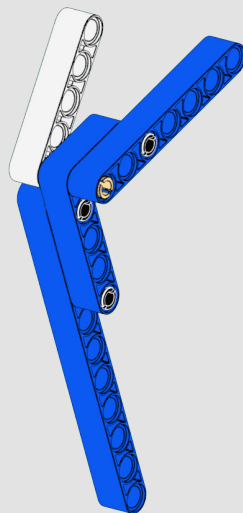
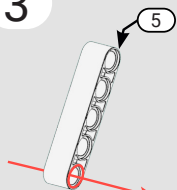
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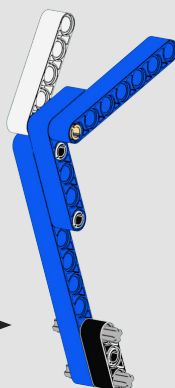
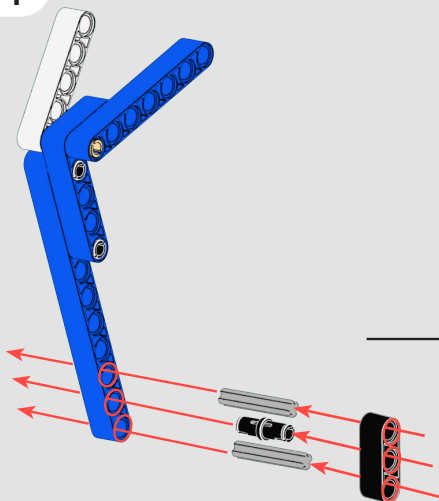
2



3



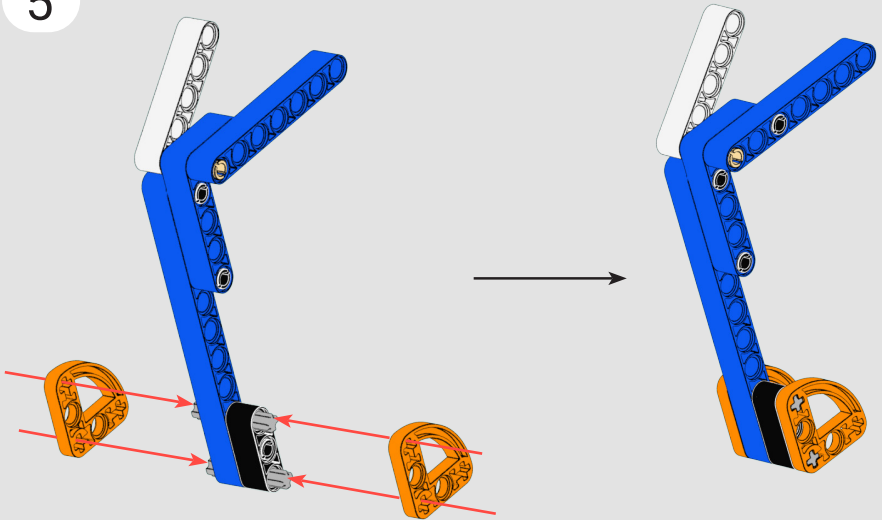
4



1:1



5



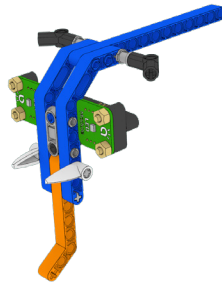
Make another one like this as shown below:



Four legs are ready!

Part 2: Head

Let's Build!



Things we need



13H Beam
x 1



9H Beam
x 1



2Cx7H Single
Bend Beam
x 1



2Cx10H
Double Bend
Beam
x 2



5H T-Beam
x 1



Spike-0
x 2



3H Axle
x 1



5H Axle
x 1



7H Axle
x 1



Long Pin-Blue
x 3



Medium
Pin-Black
x 7



Axle Angle
connector-135
x 2



Axle Filler-Big
x 2



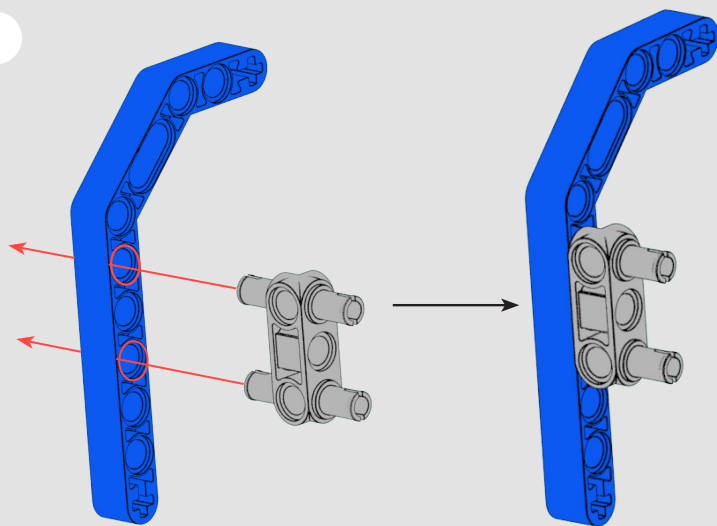
MEX LED
module
x 2



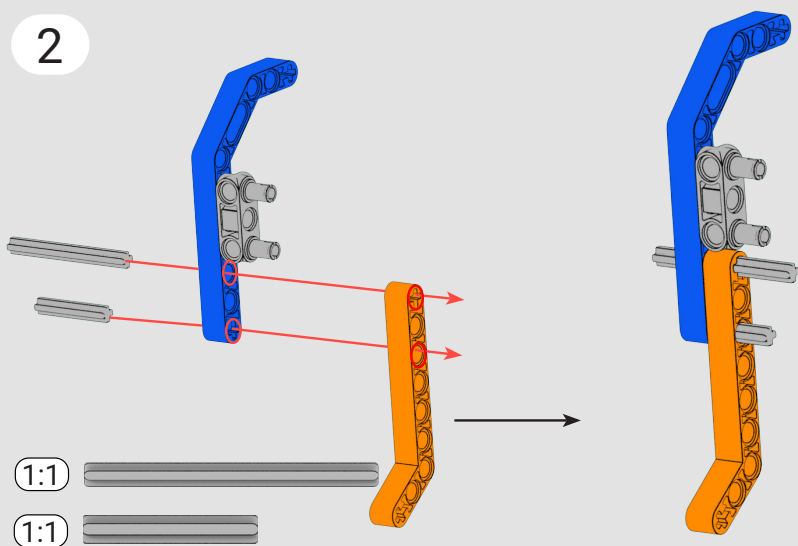
3Hx4Pin
Connector
x 1

Steps

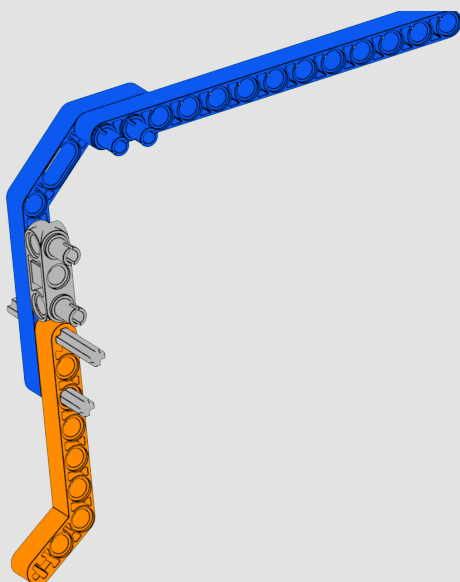
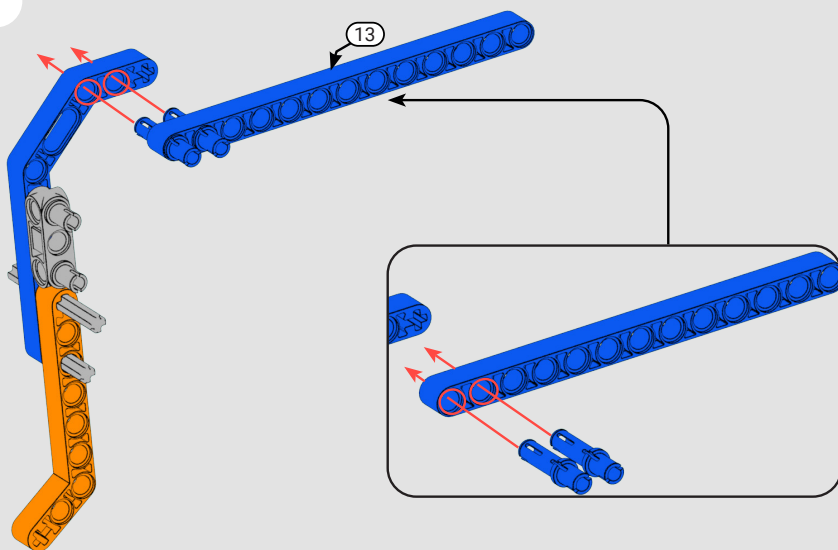
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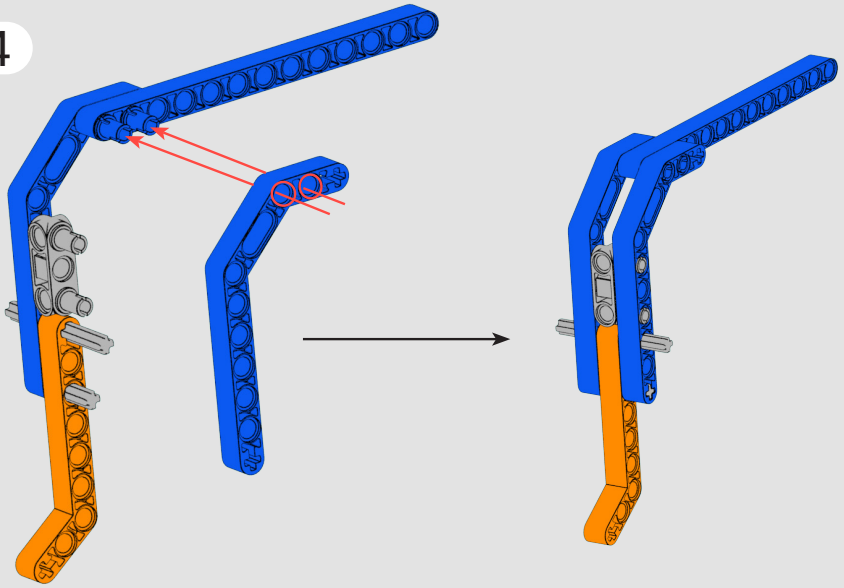
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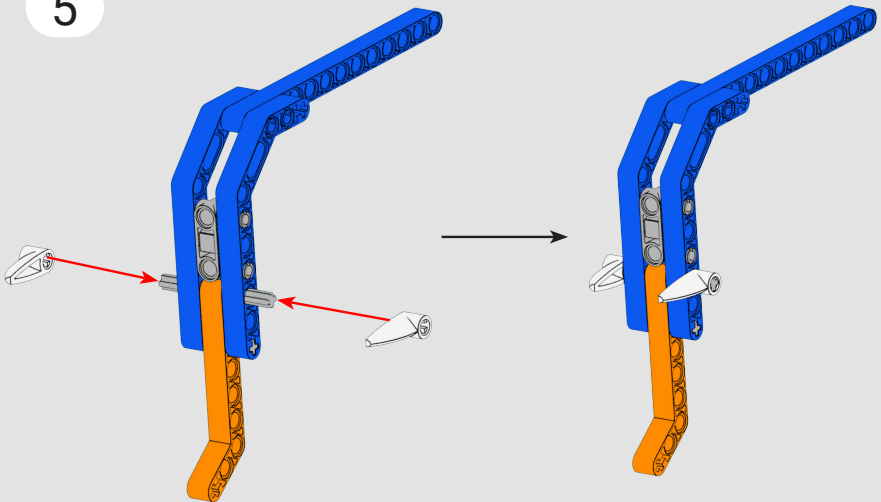
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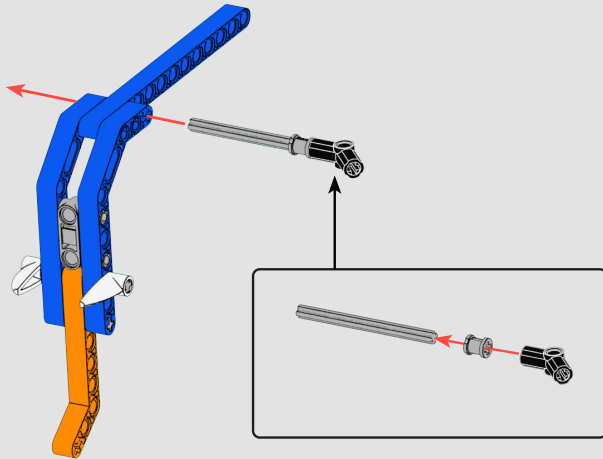
4



5



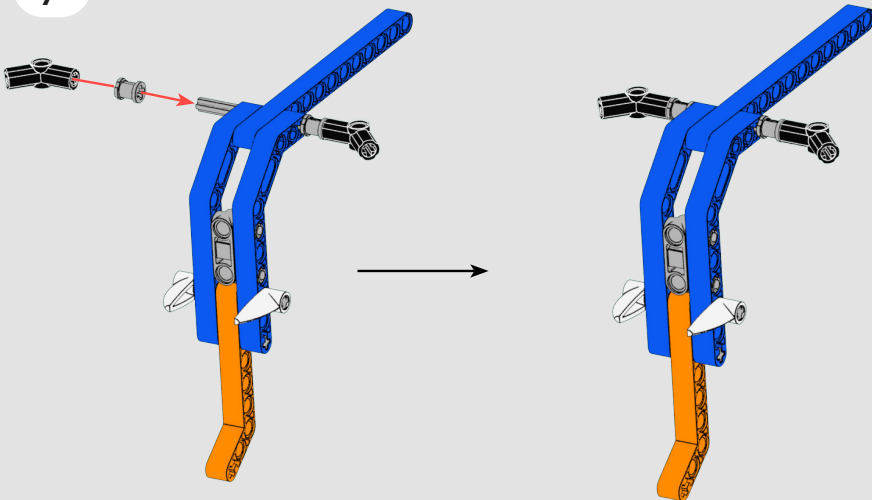
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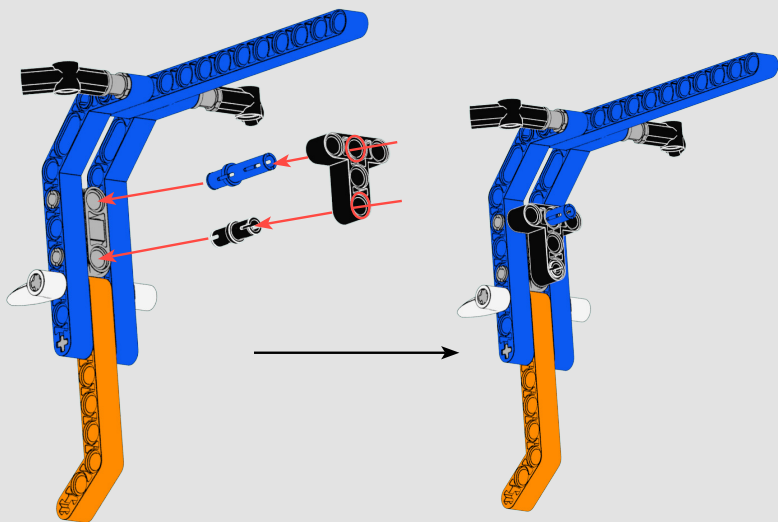
1:1



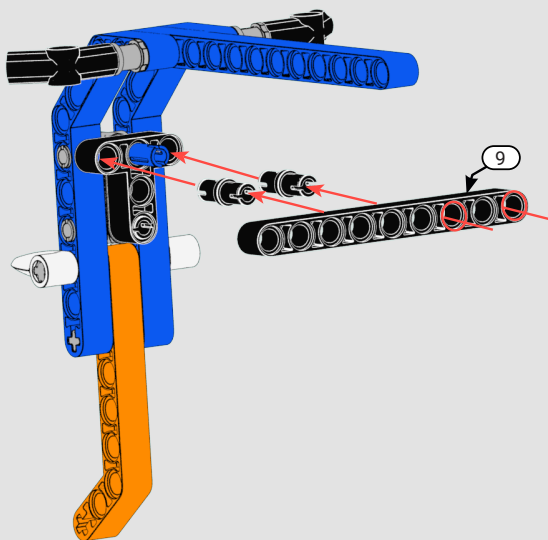
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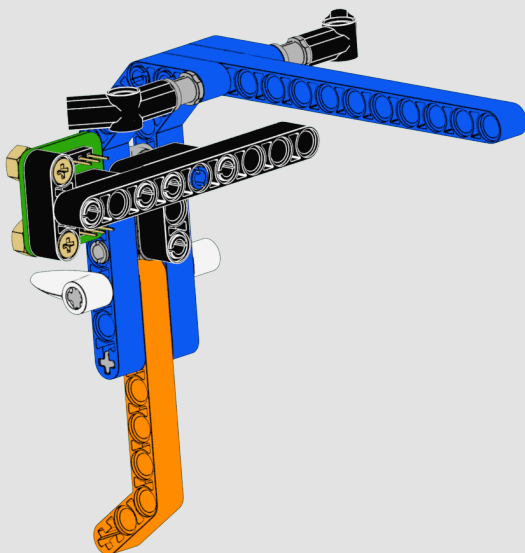
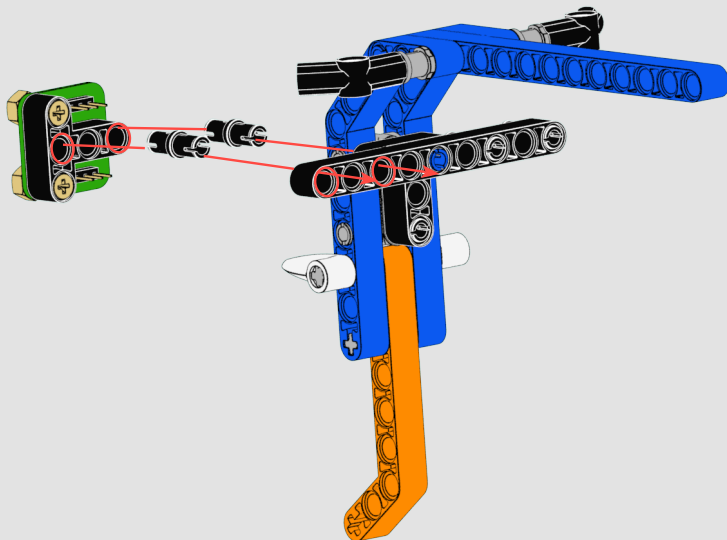
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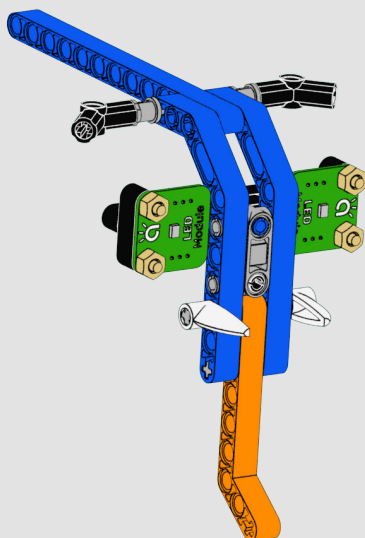
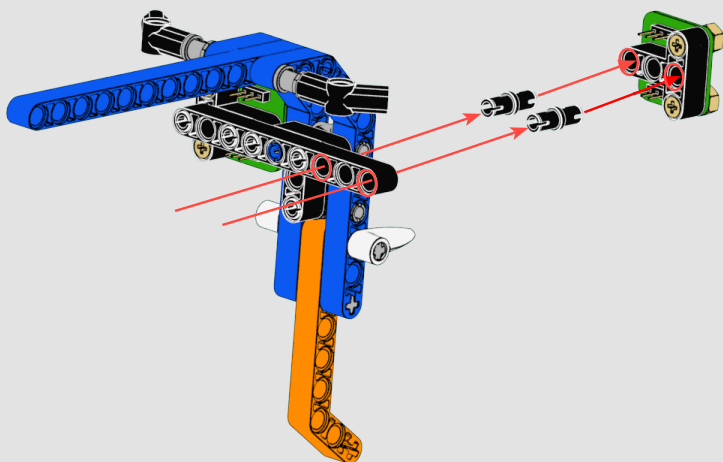
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10

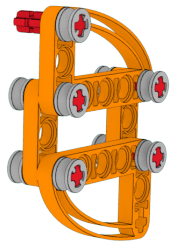
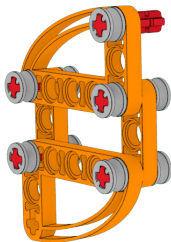


11



Part 3: Ears

Let's Build!



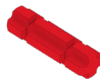
Things we need



3Cx4H Thin-D
x 4



2Cx1H
Thin-Beam
x 4



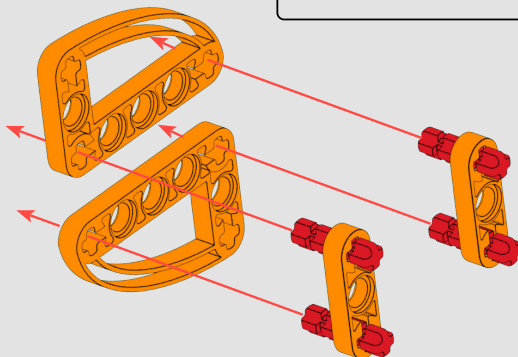
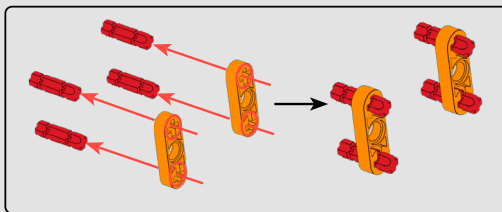
2H Axle
x 10



Axle
Filler-Small
x 18

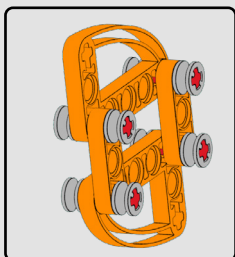
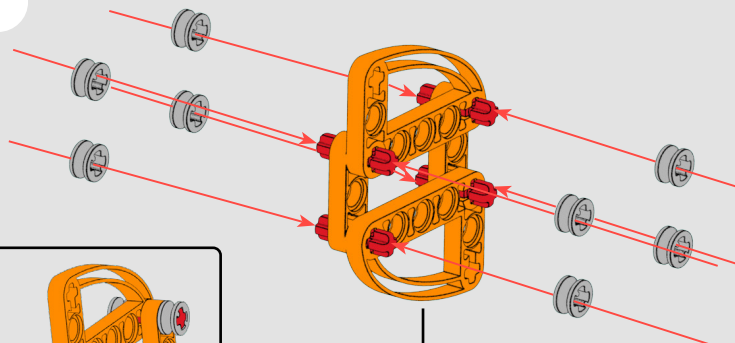
Steps

1

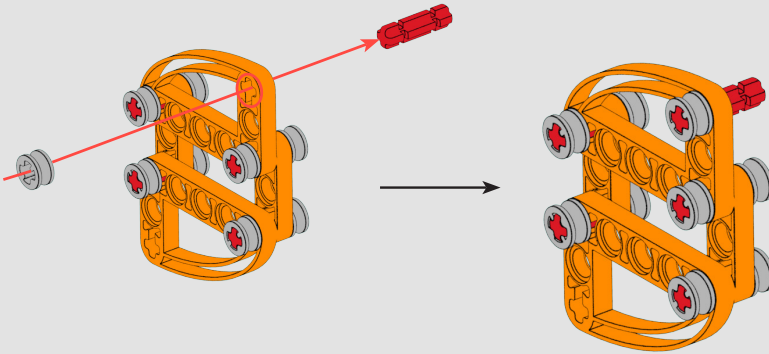


1:1 

2

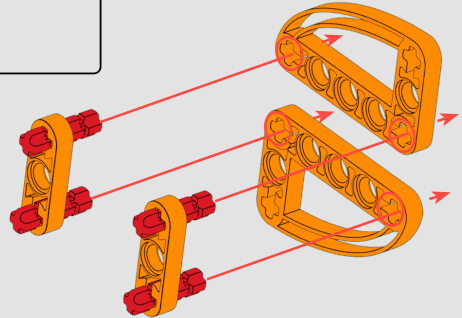
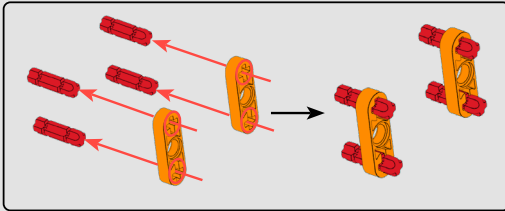


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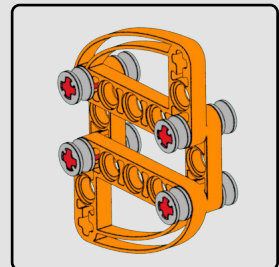
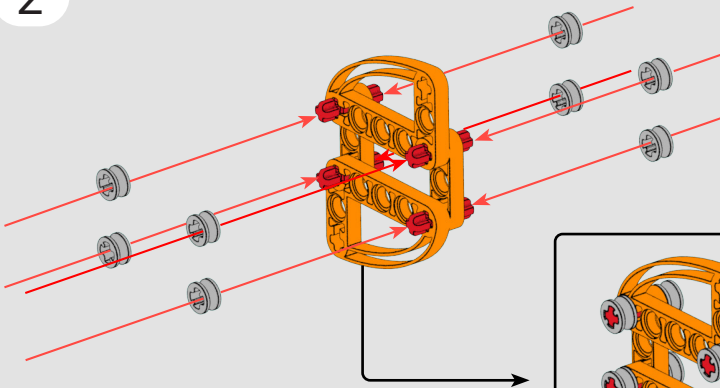


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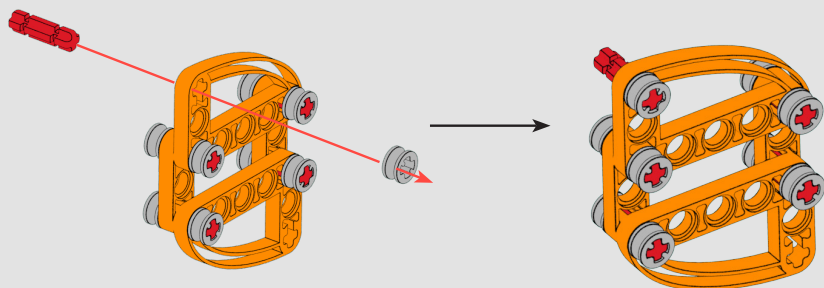
Let's make another ear like this.



2

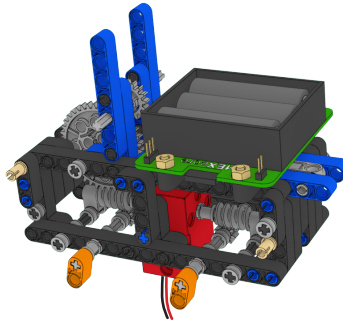


3



Part 4: Stomach

Let's Build!



Things we need



15H Beam
x 4



11H Beam
x 2



7H Beam
x 1



3H Beam
x 6



7H L-Beam
x 2



1Cx4H L-Beam
x 10



1Cx1H Beam
x 4



5HT Beam
x 2



11H Axle
x 2



8H Axle
x 3



7H Axle
x 1



6H Axle
x 2



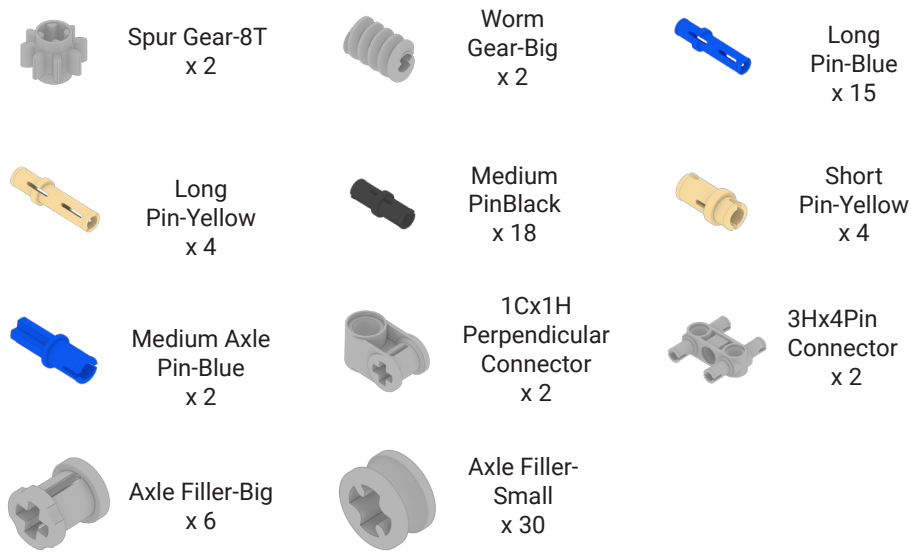
5H Capped
Axle x 2



Spur Gear 40T
x 1

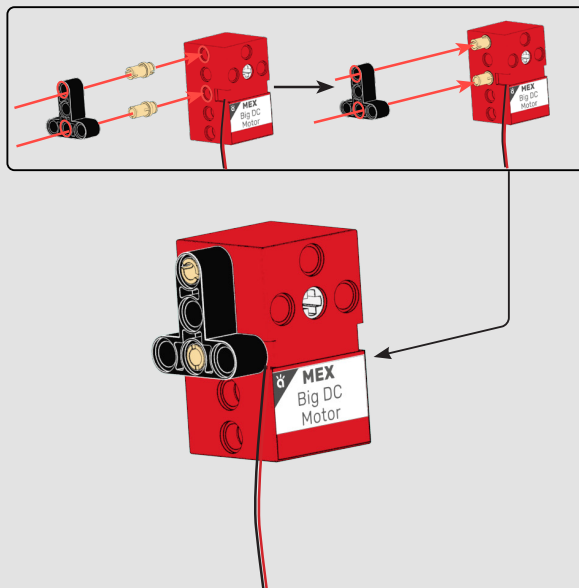


Spur Gear 16T
x 1

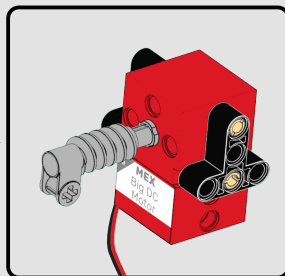
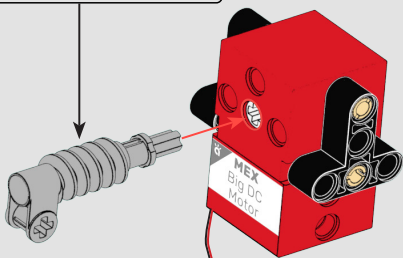
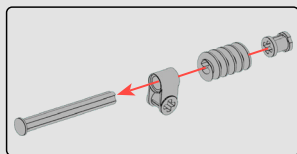


Steps

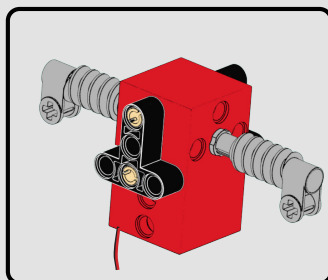
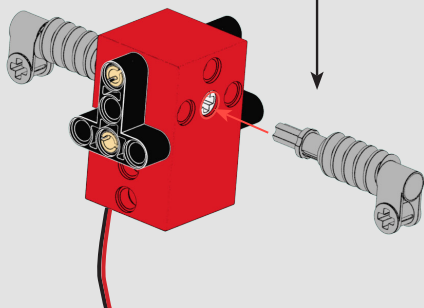
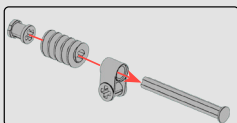
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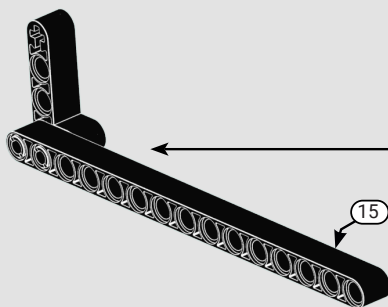
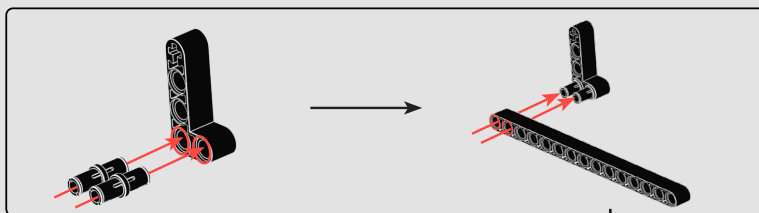
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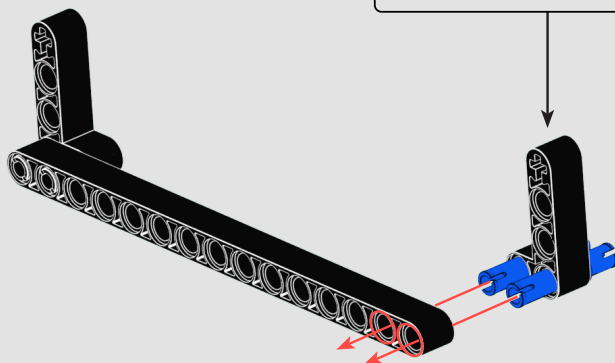
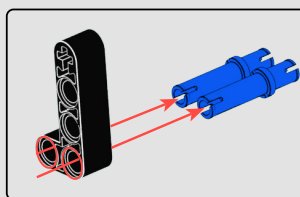
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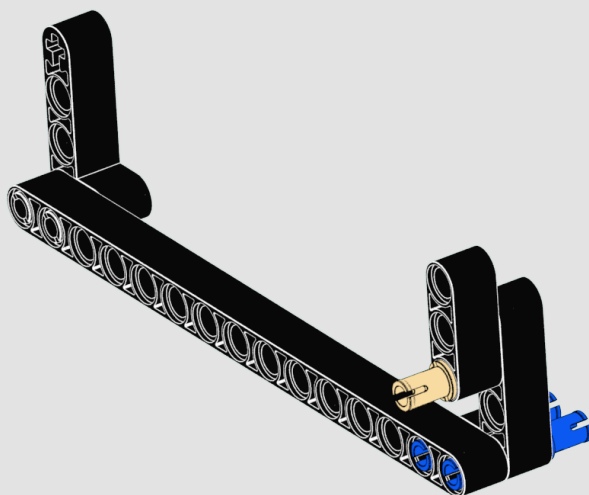
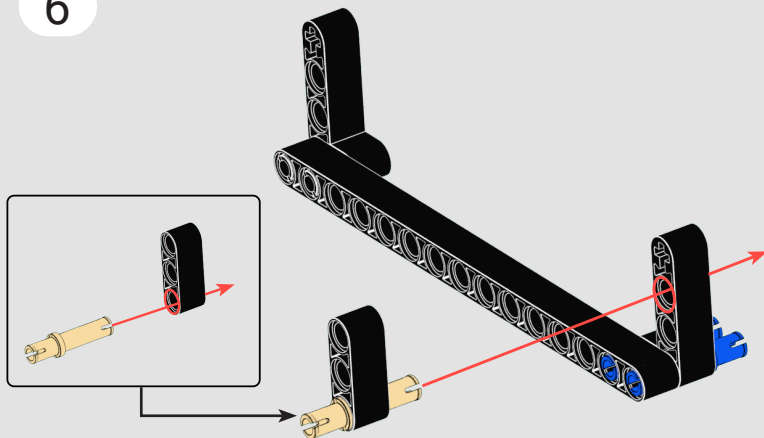
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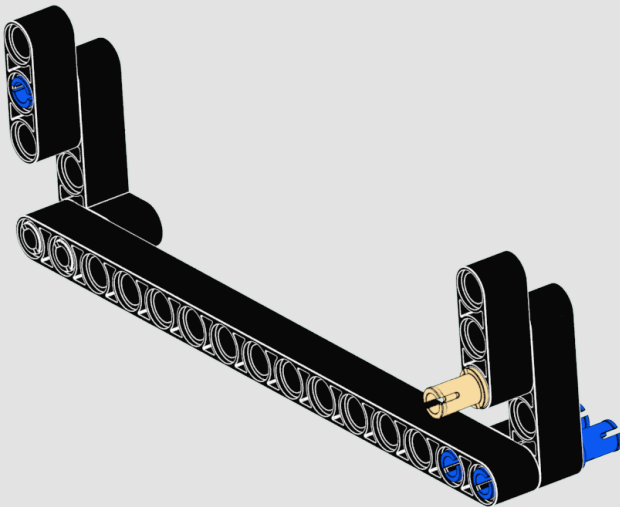
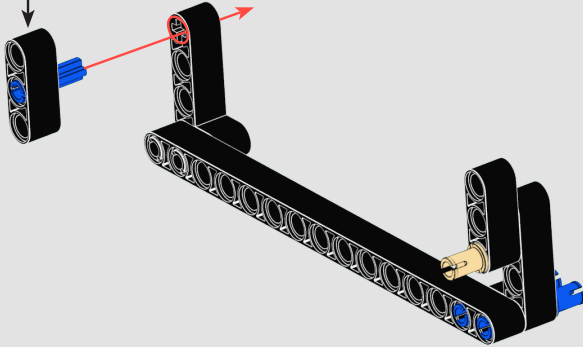
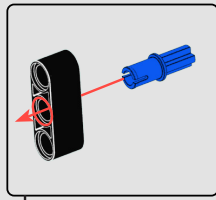
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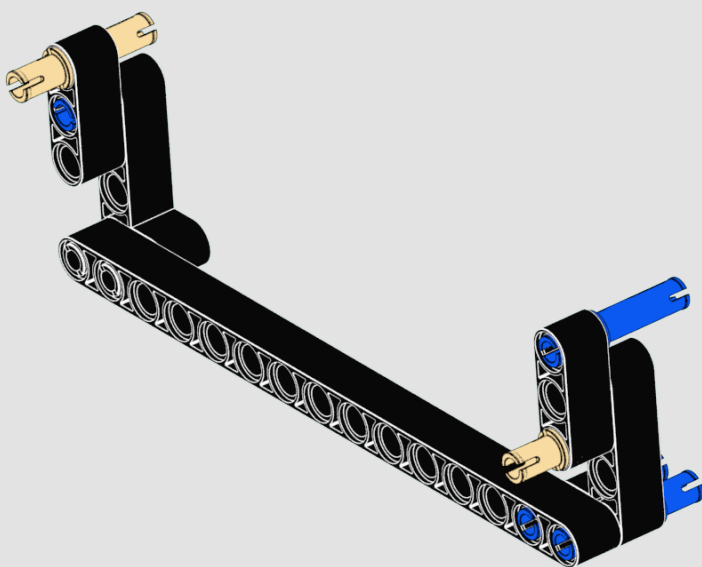
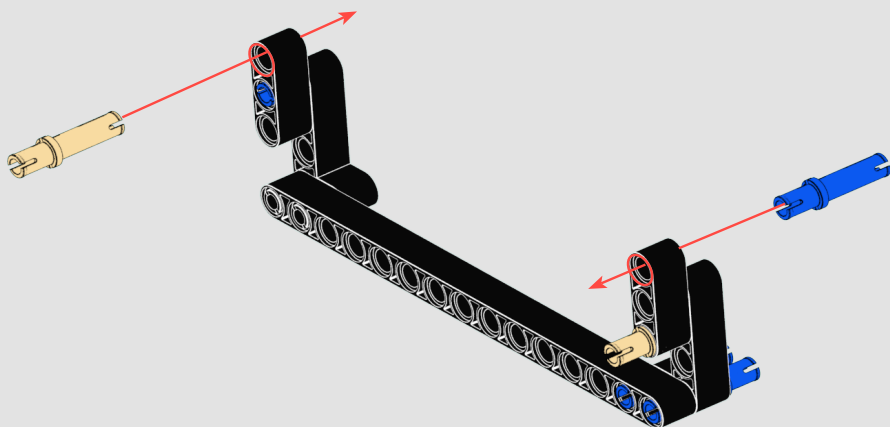
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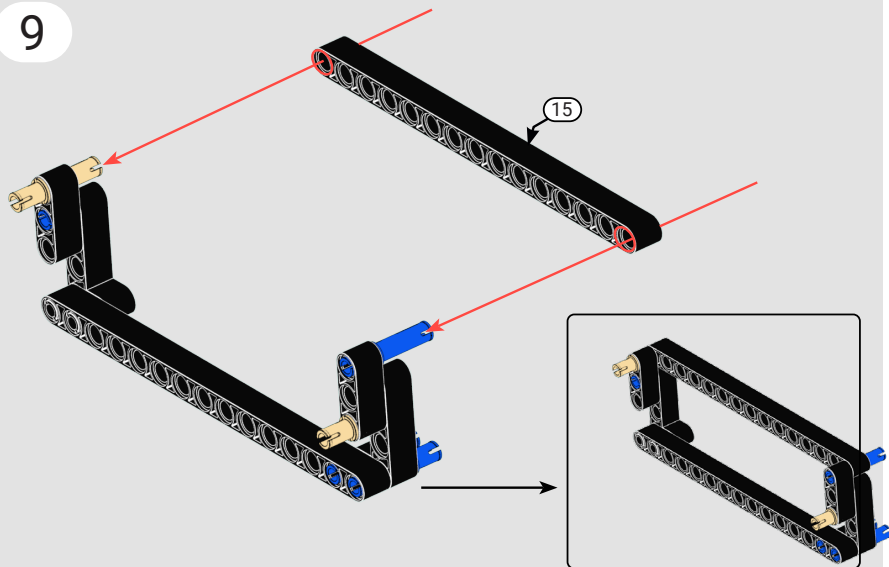
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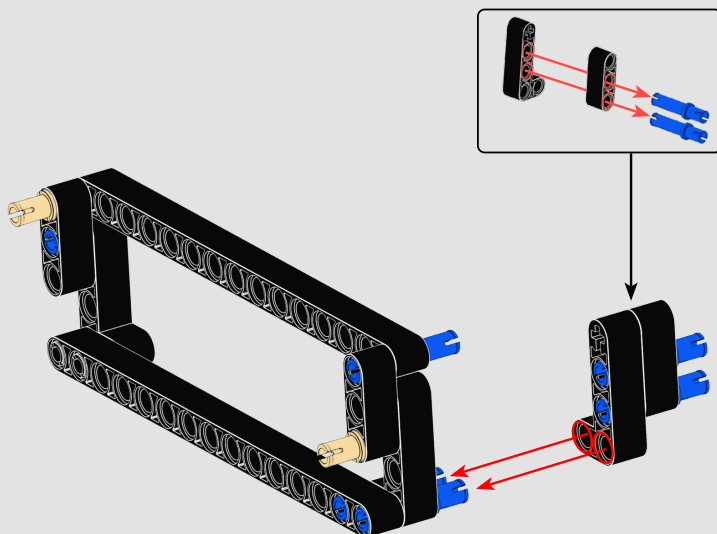
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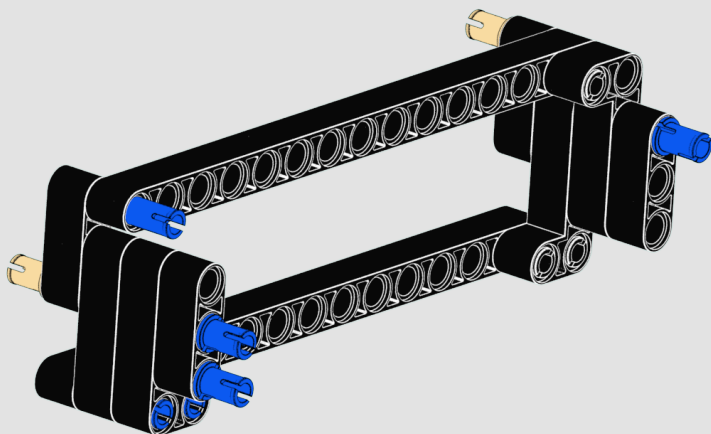
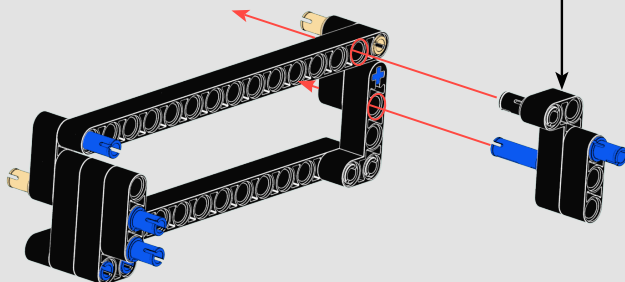
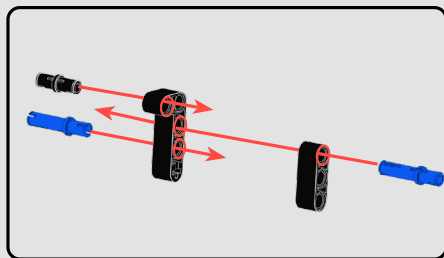
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10

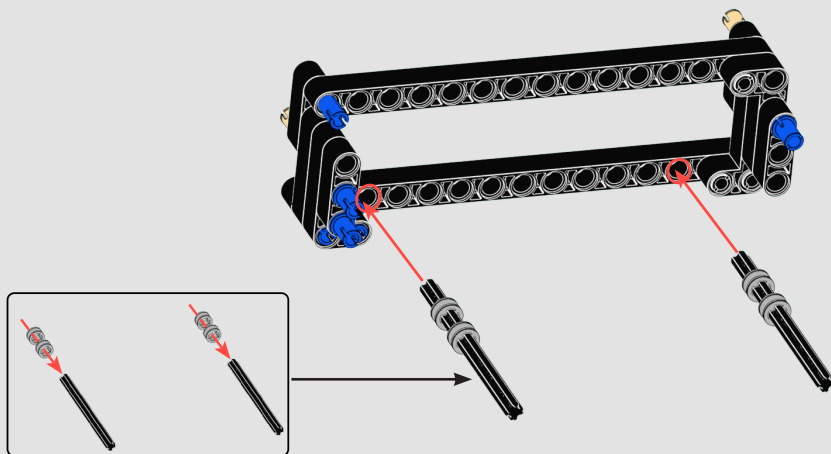


11

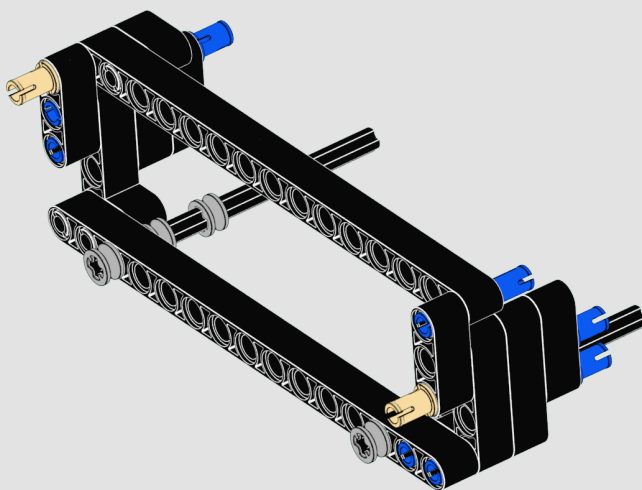
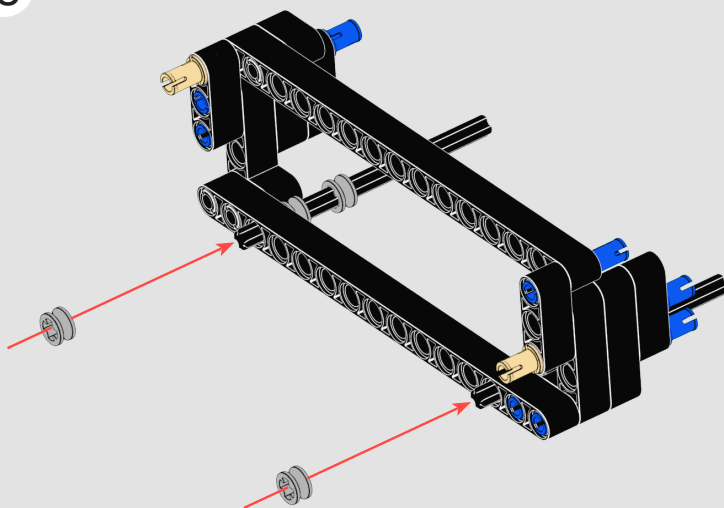


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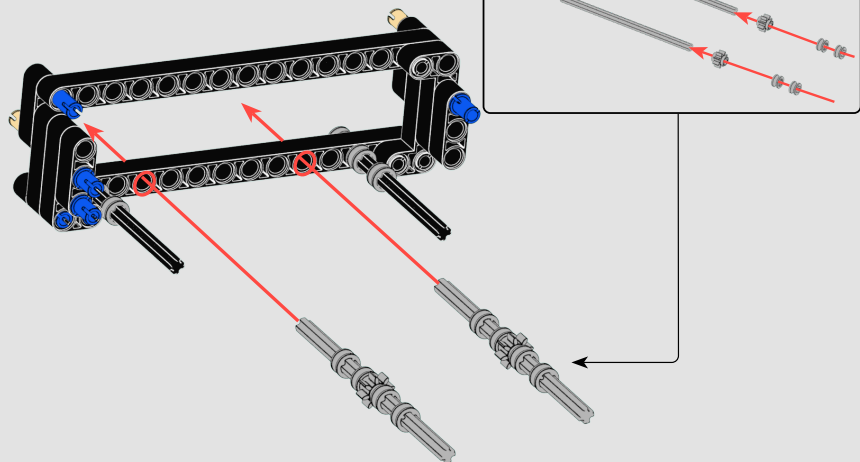
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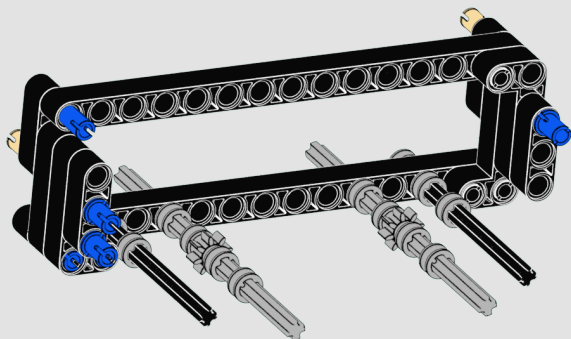
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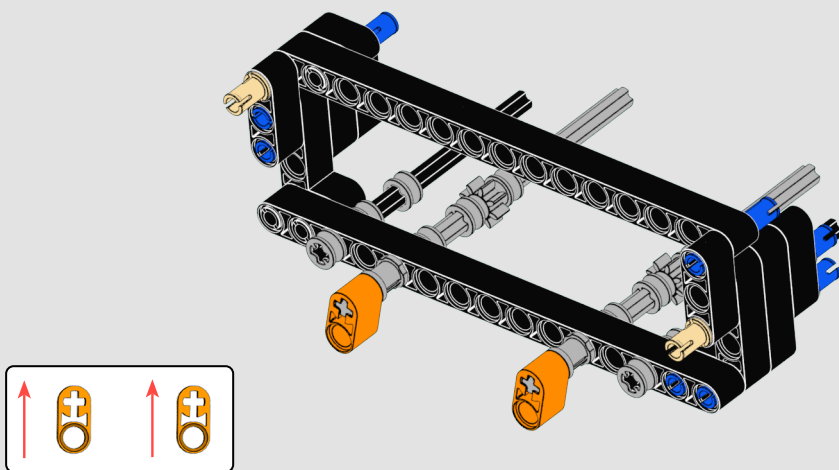
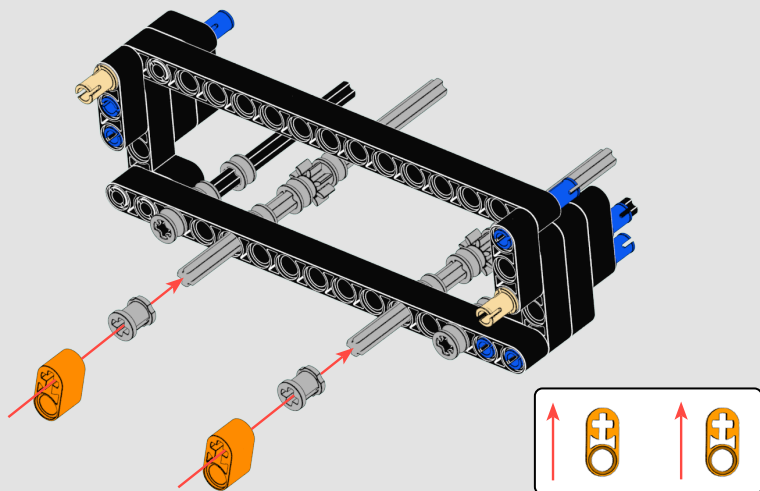
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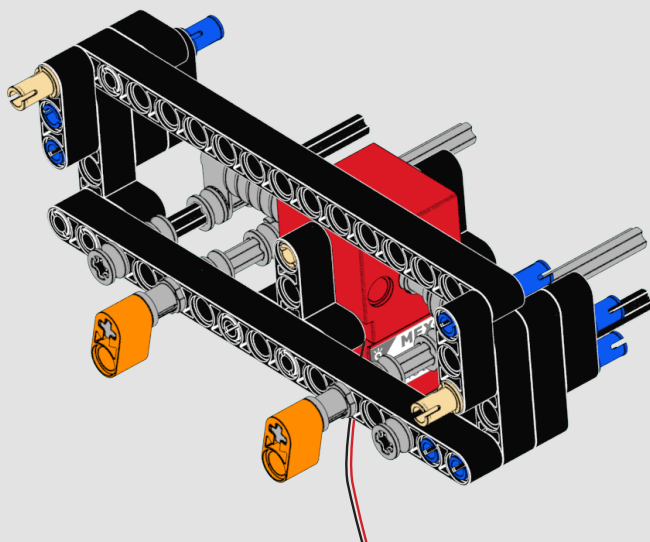
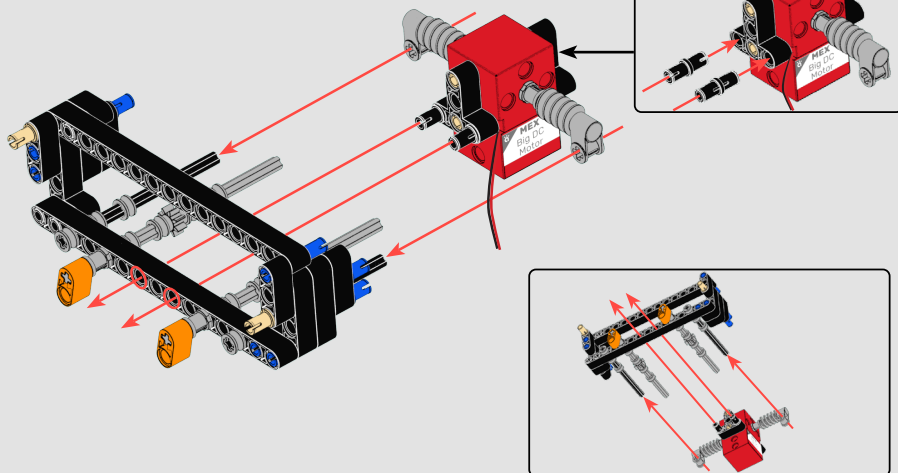


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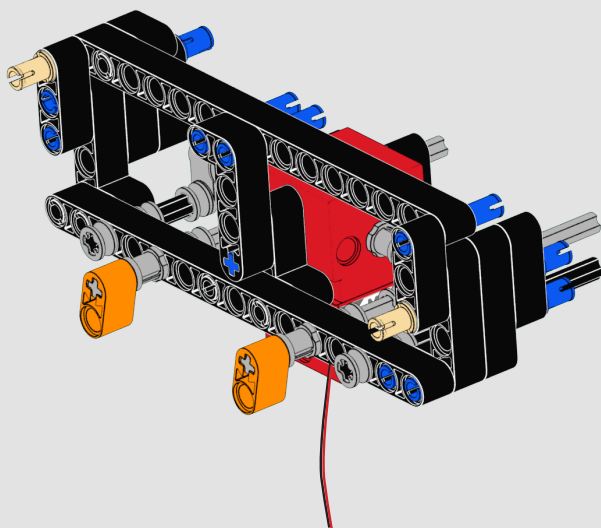
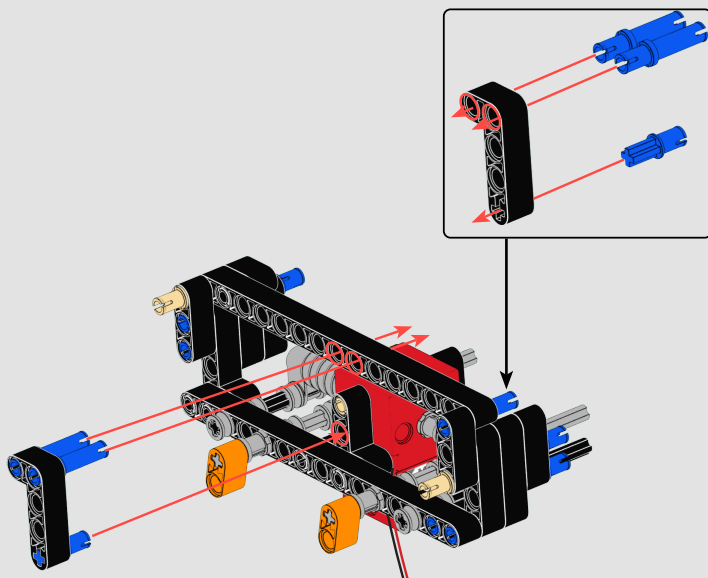


Note: Make sure the 1Cx1H beams are always aligned in the same direction.

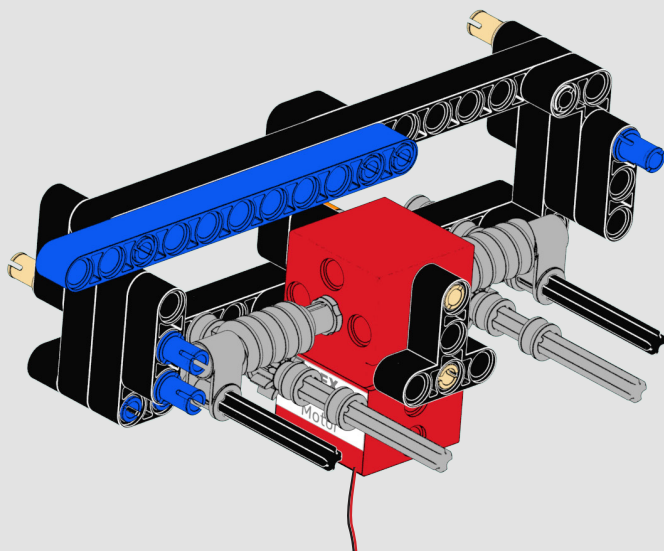
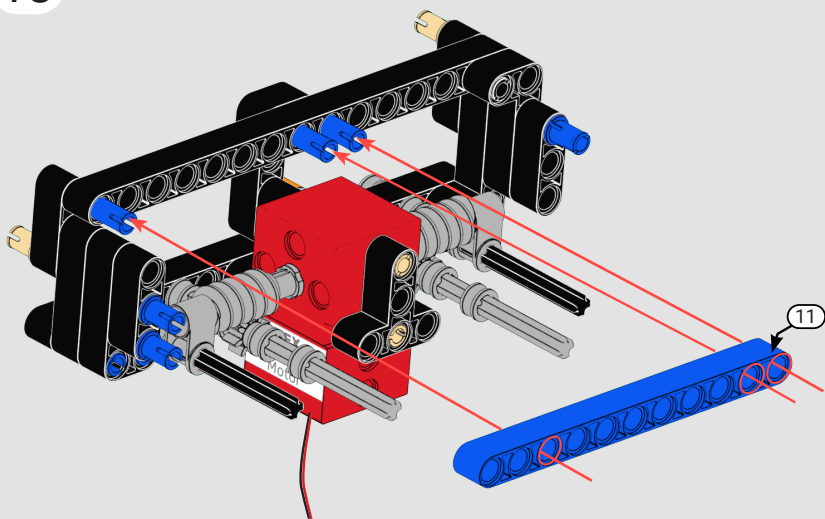
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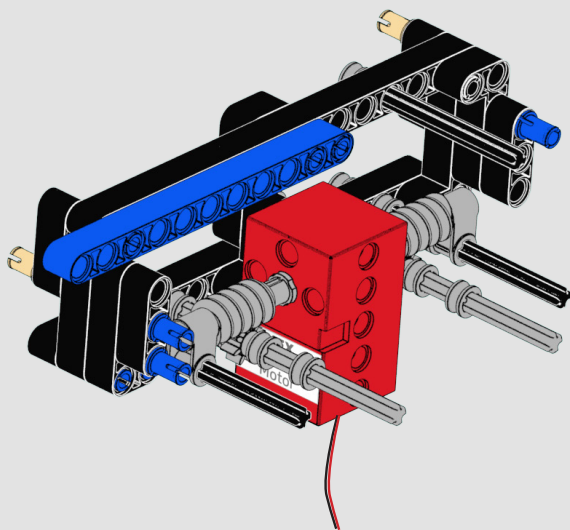
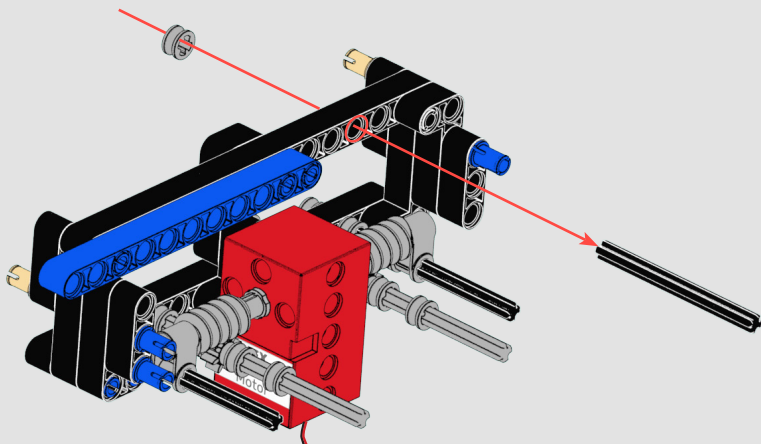


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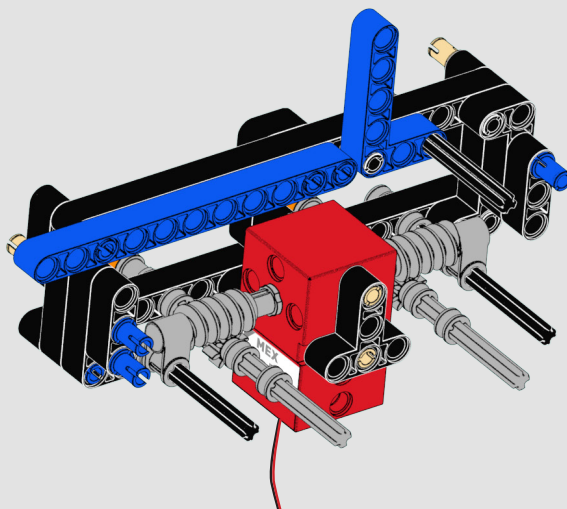
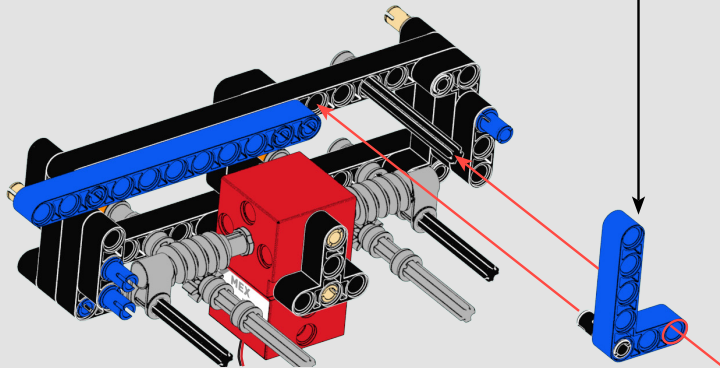
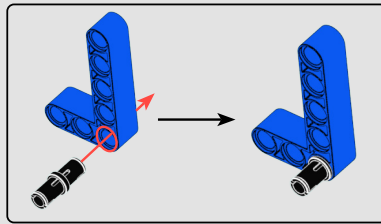


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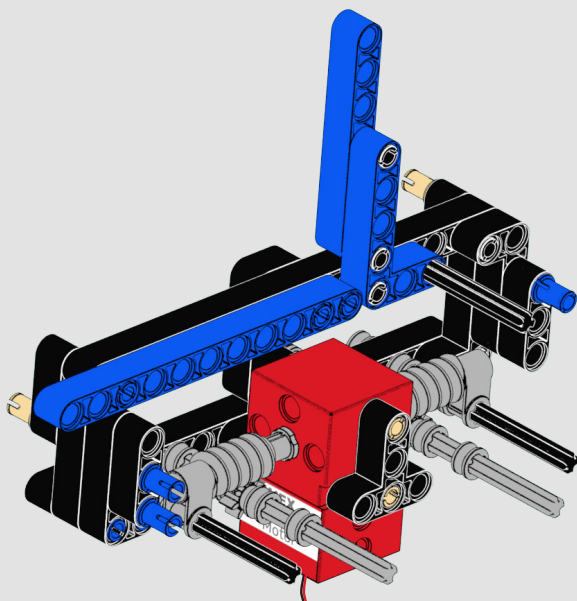
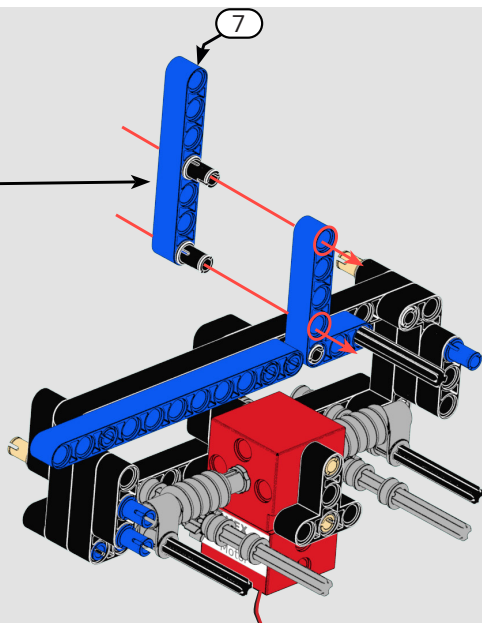
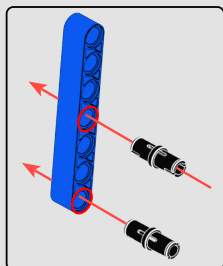
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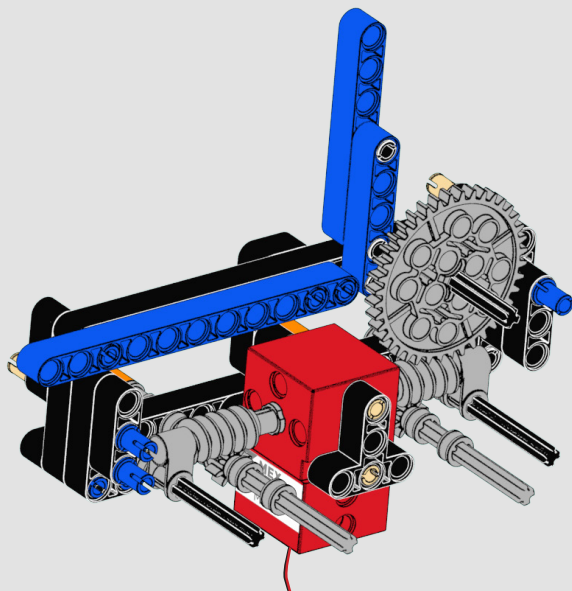
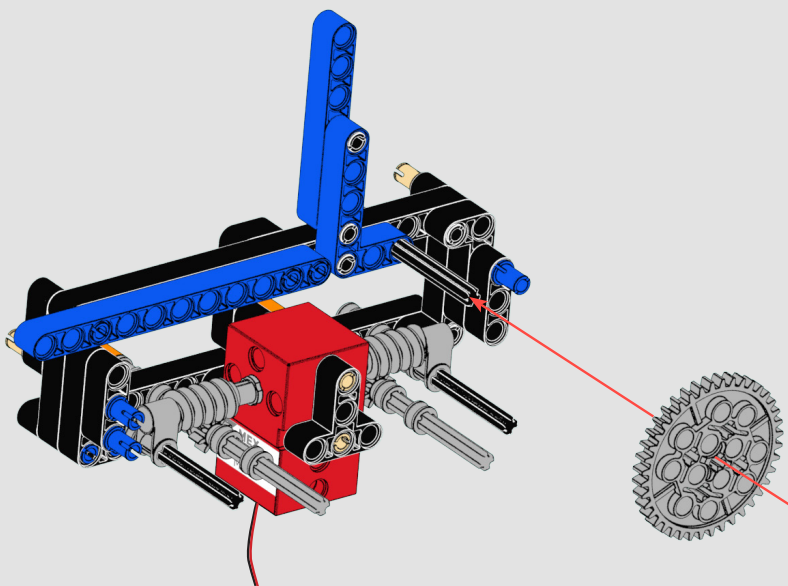
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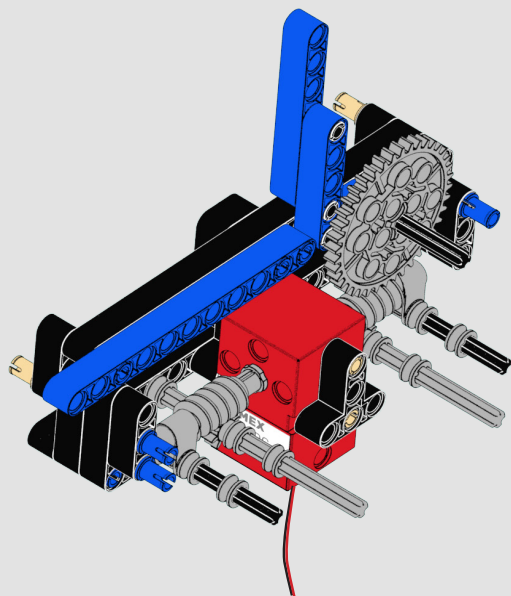
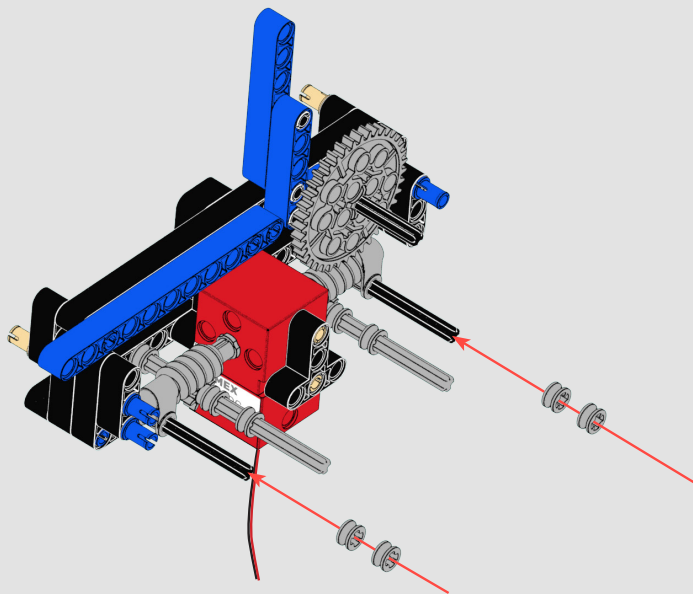
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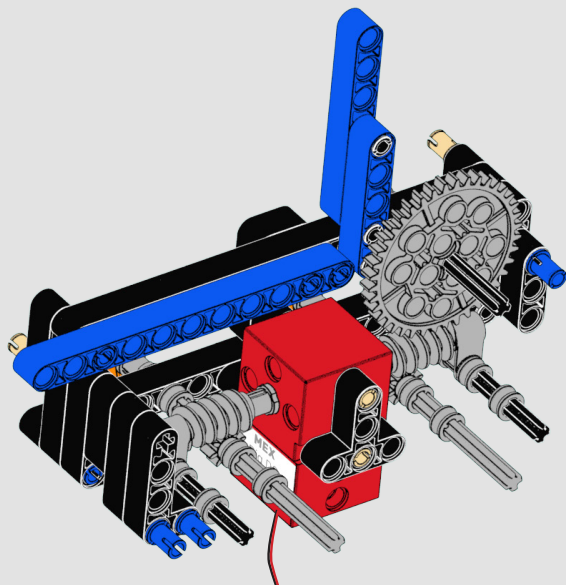
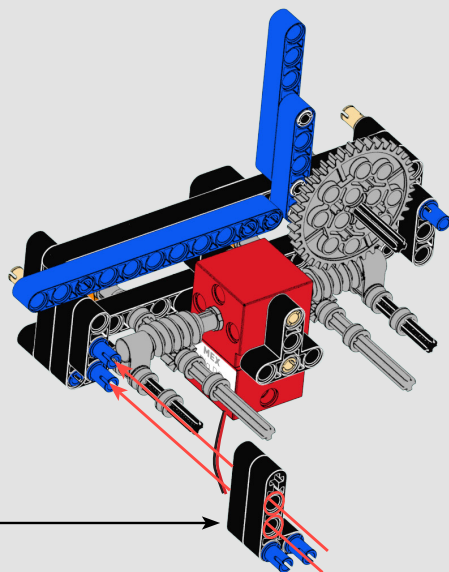
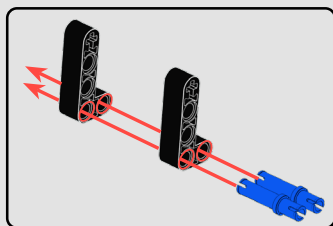
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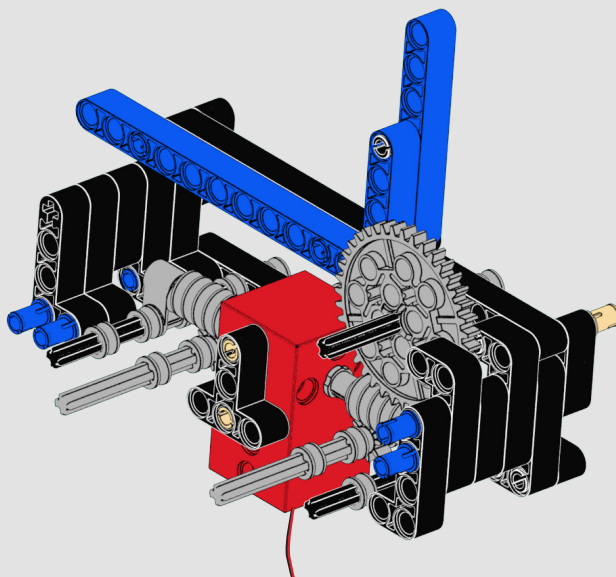
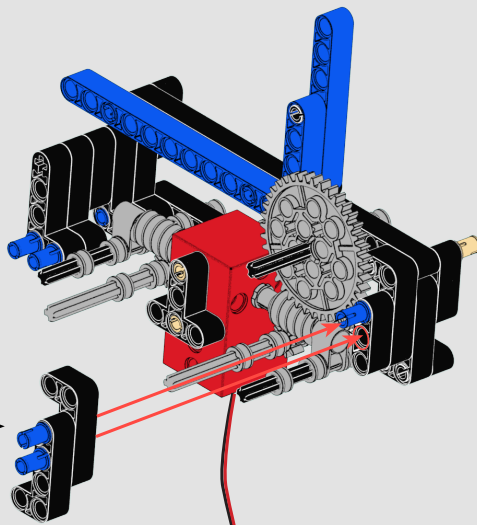
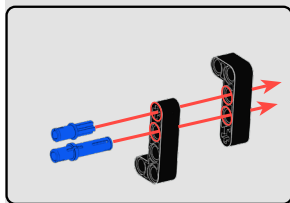
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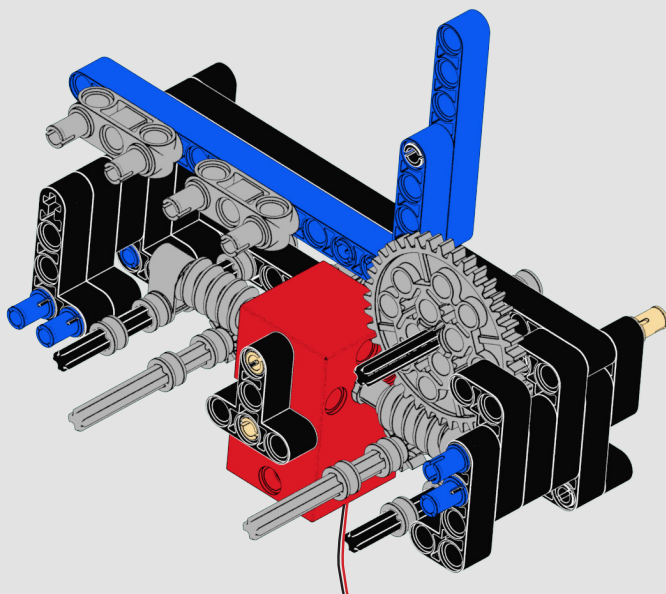
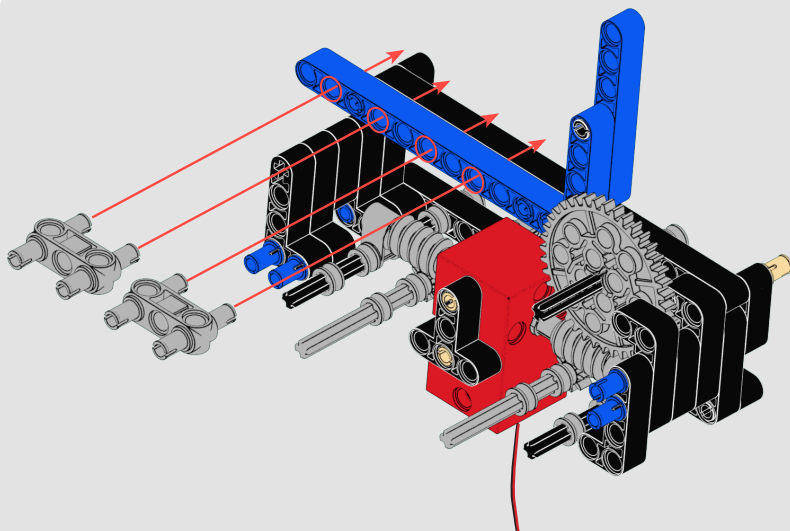
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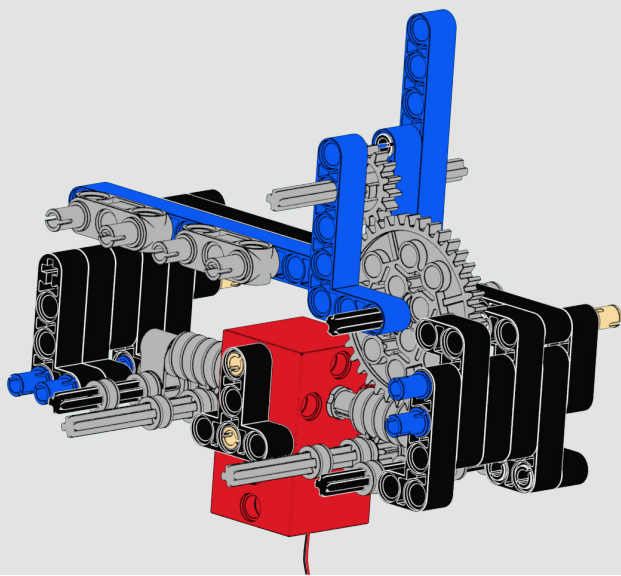
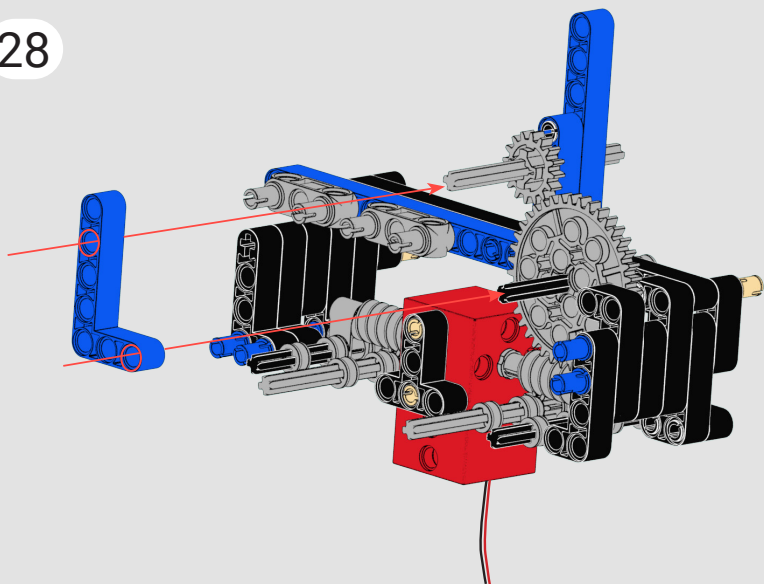
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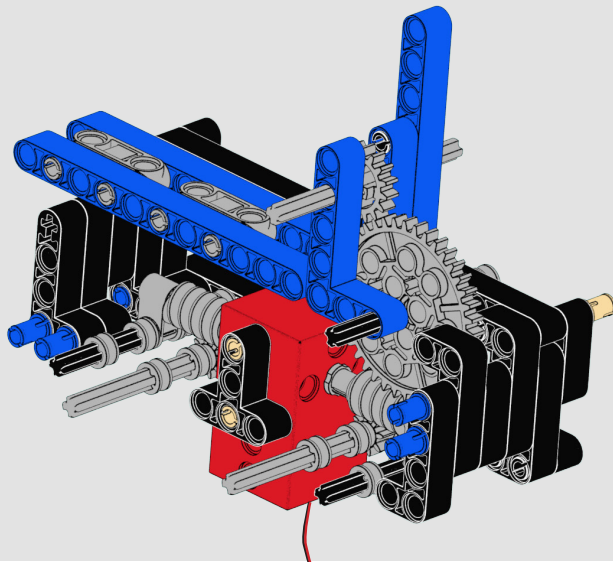
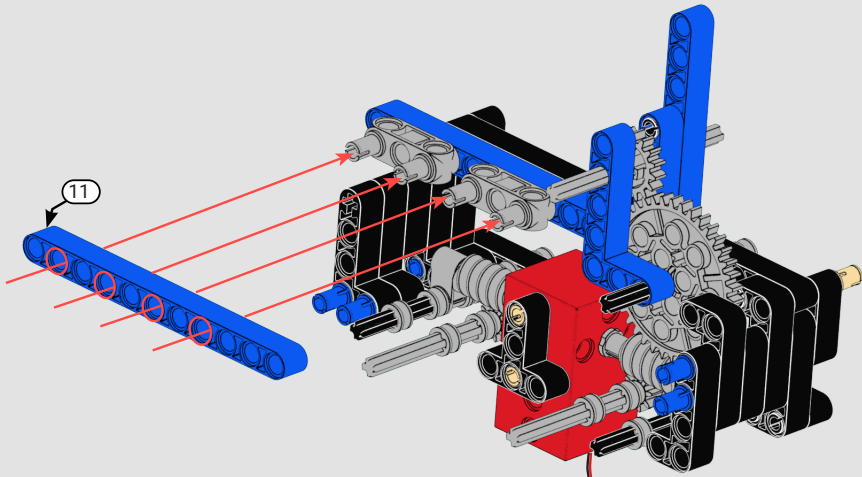
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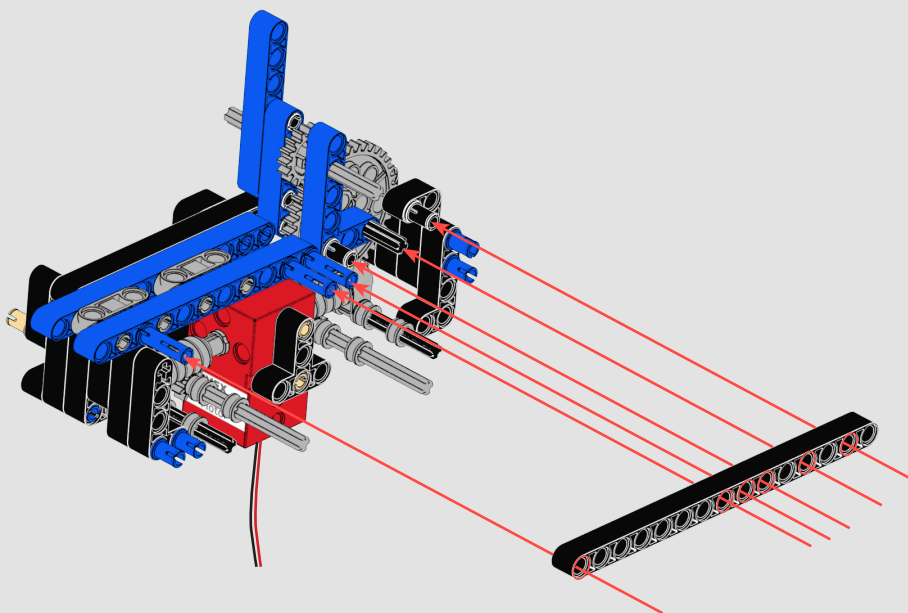
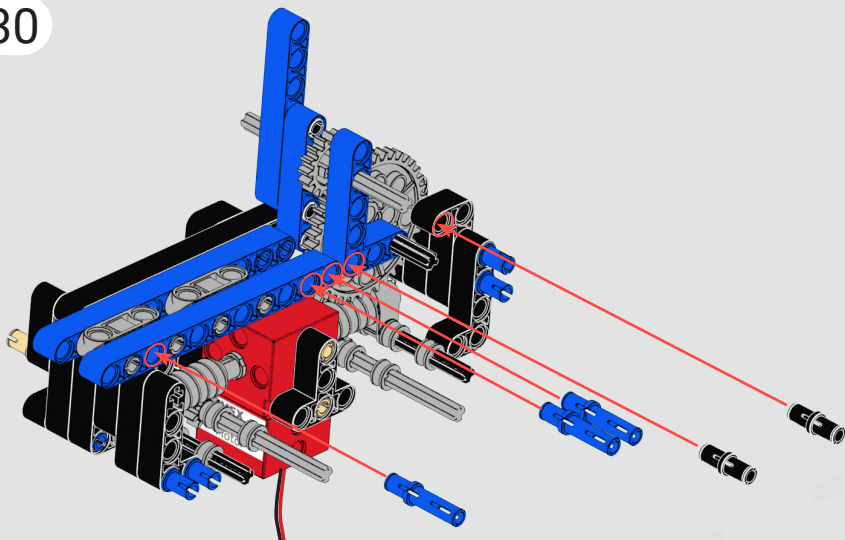
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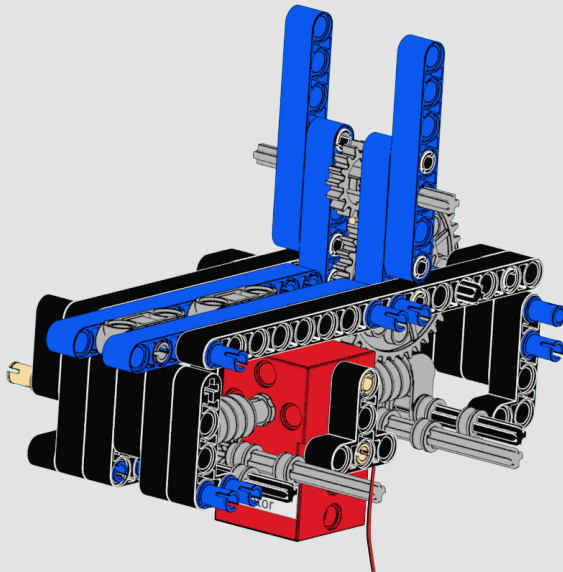
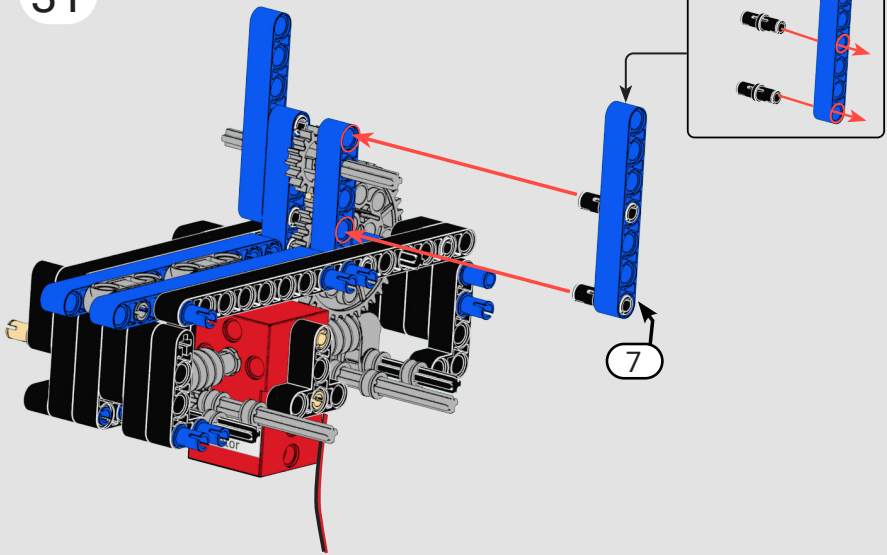
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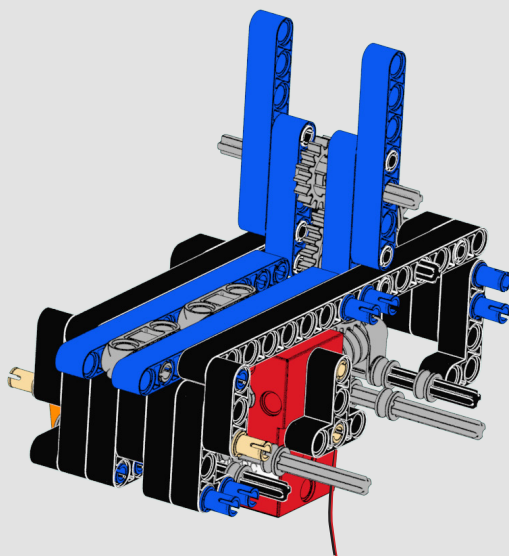
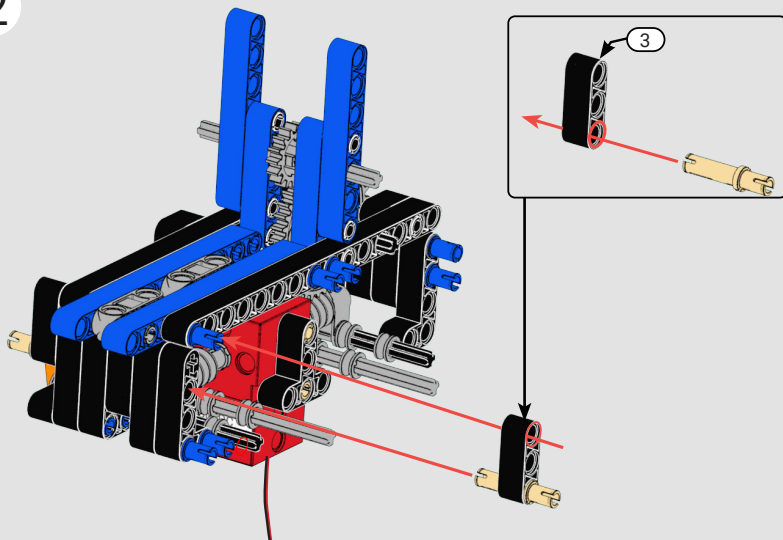
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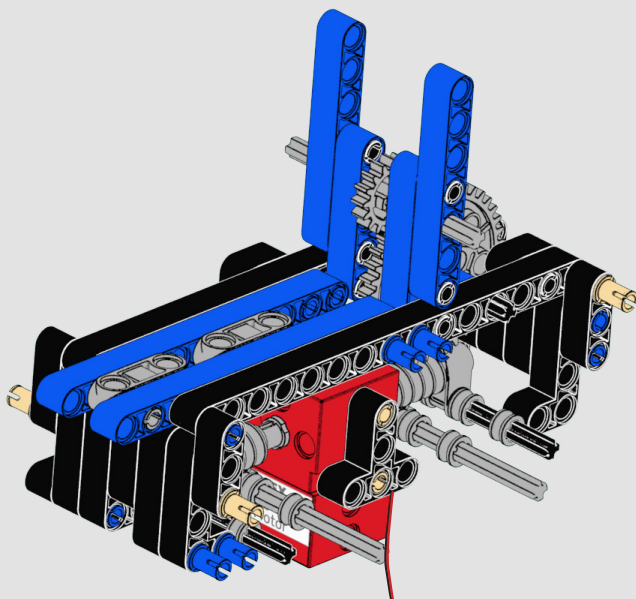
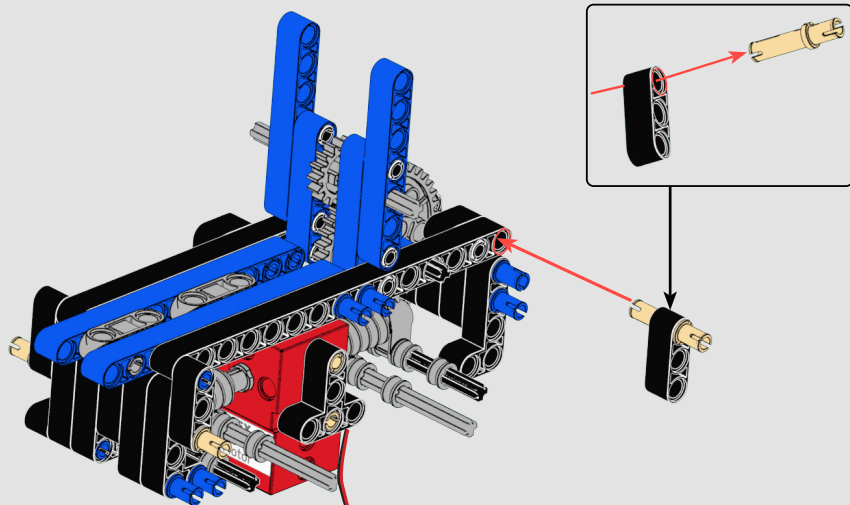
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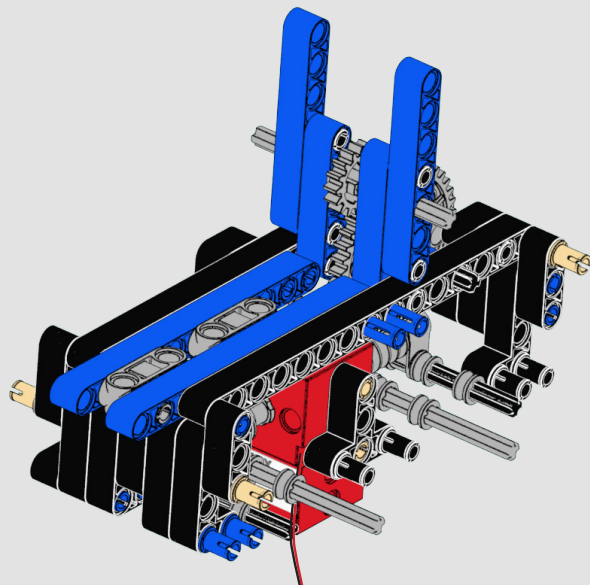
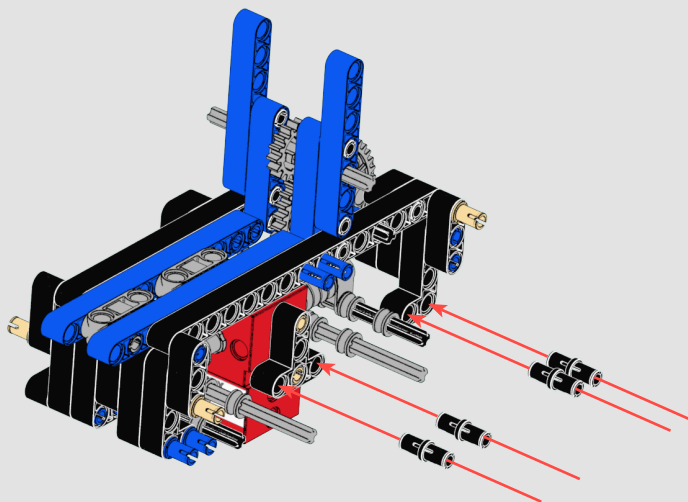
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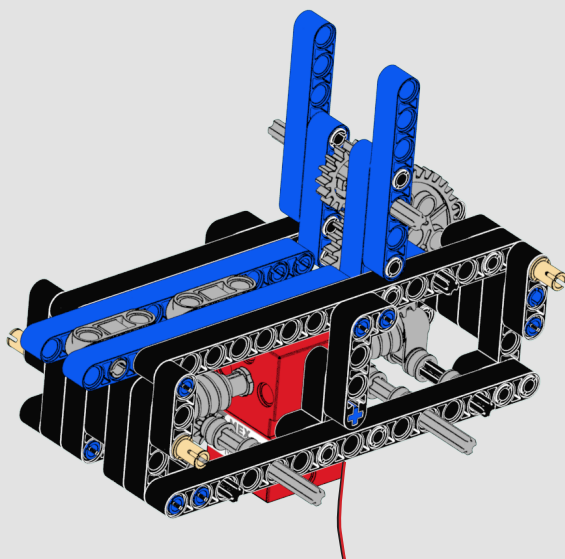
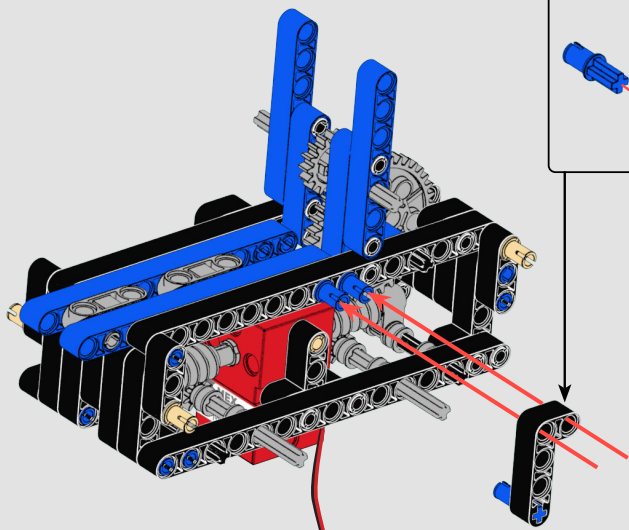
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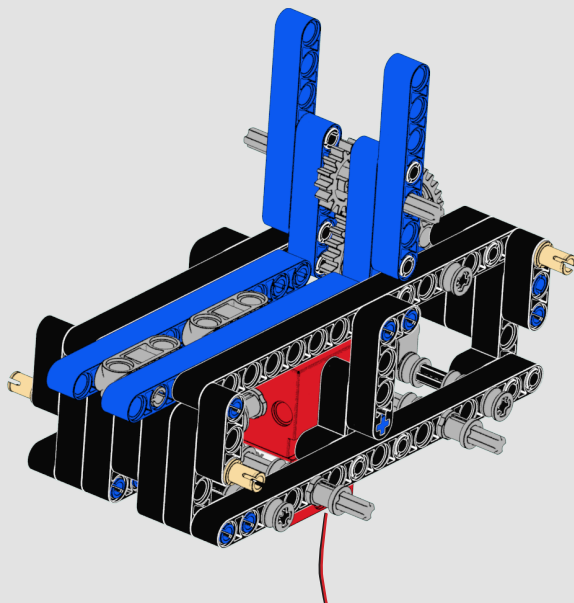
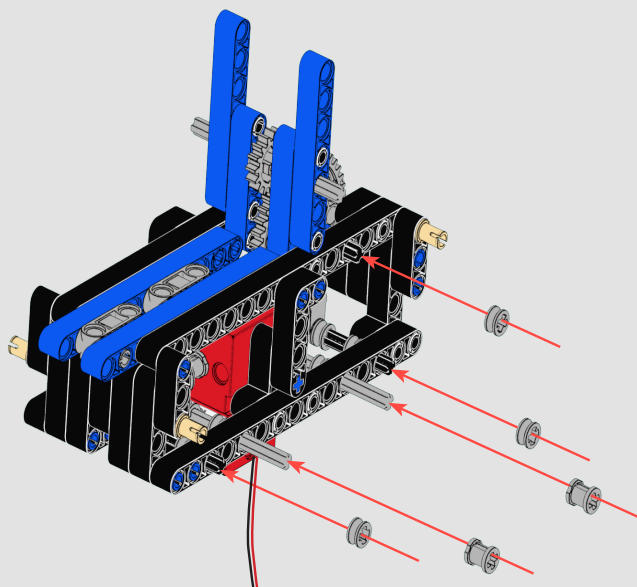
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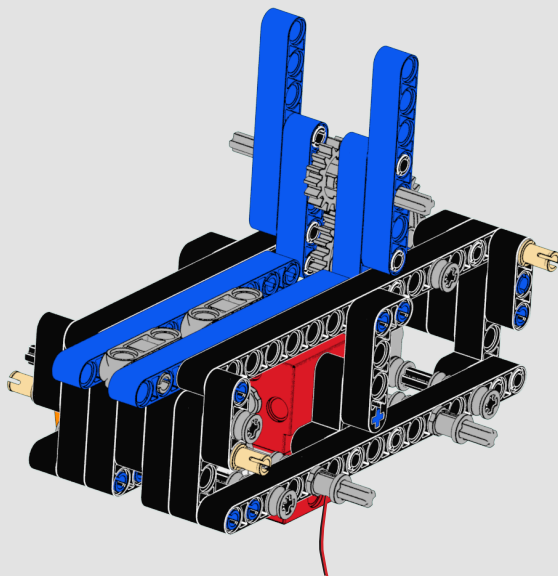
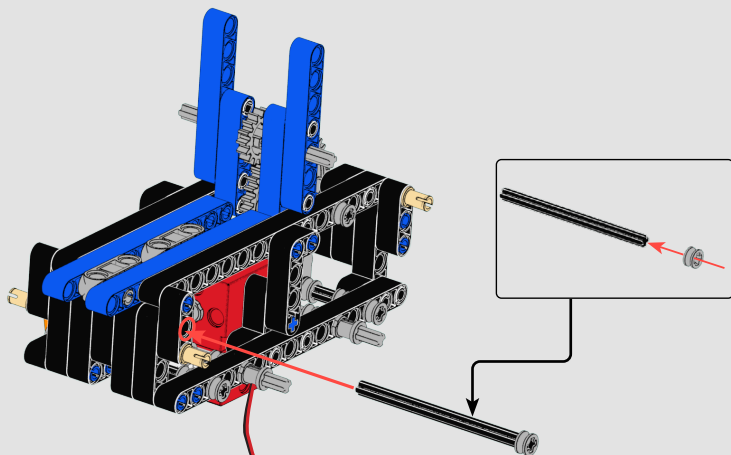
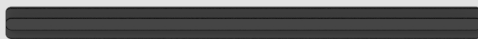


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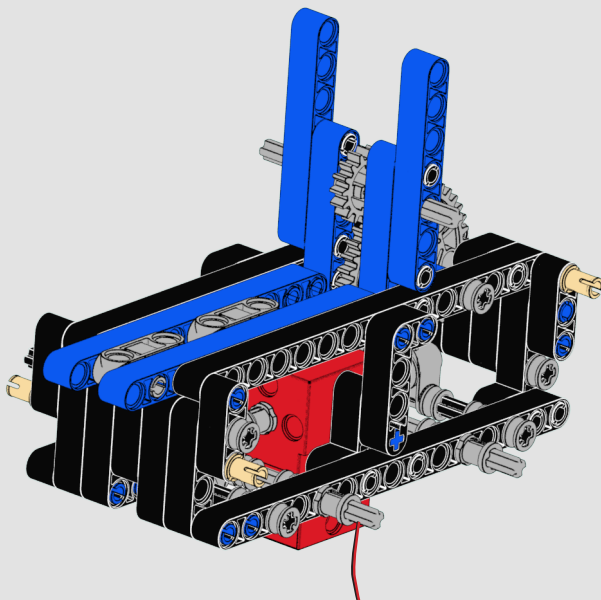
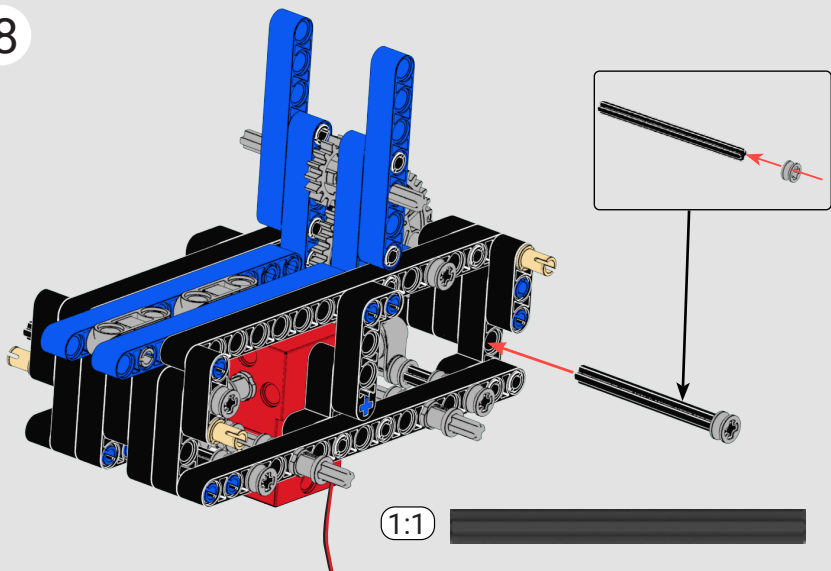


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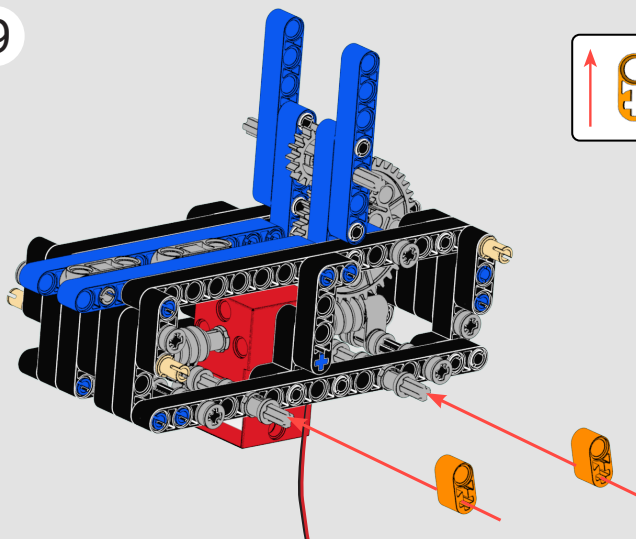
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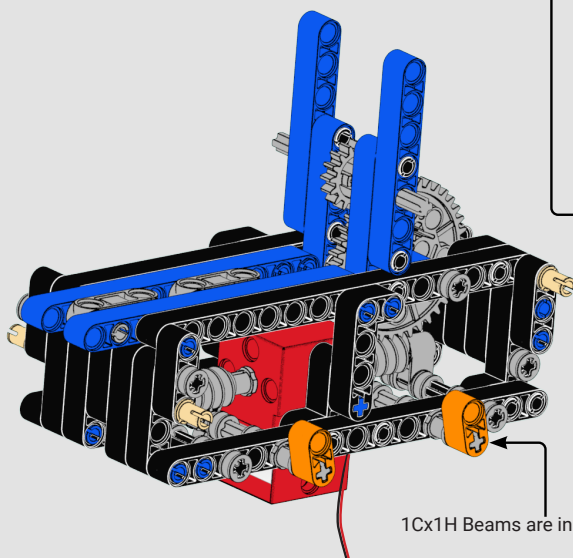
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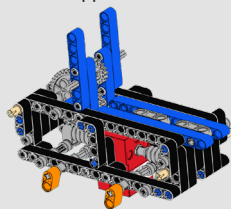
39



Note: Two 1Cx1H Beams are Attached on either sides with opposite directions.

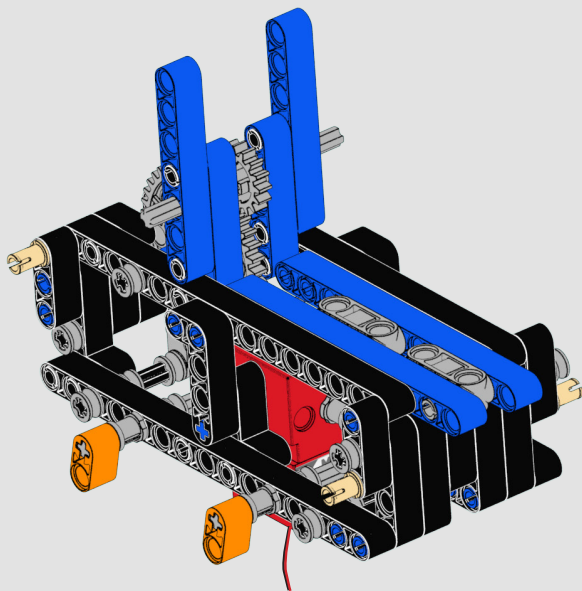
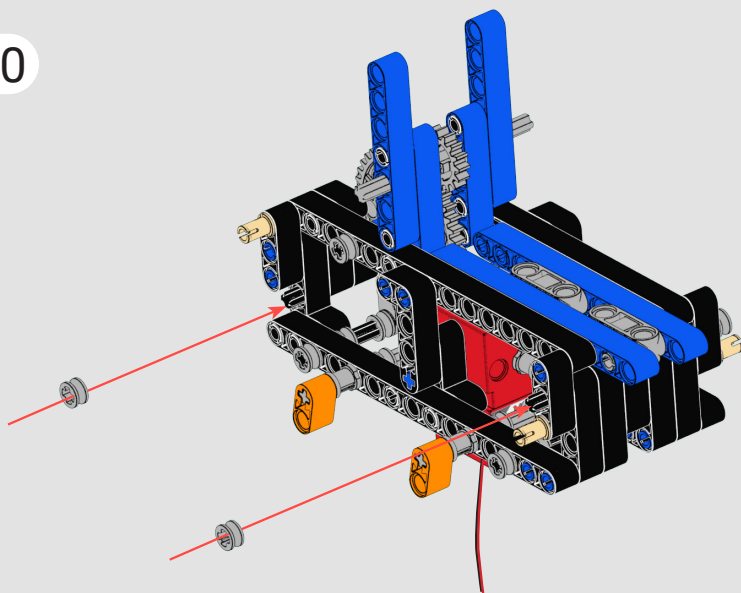


Opposite side

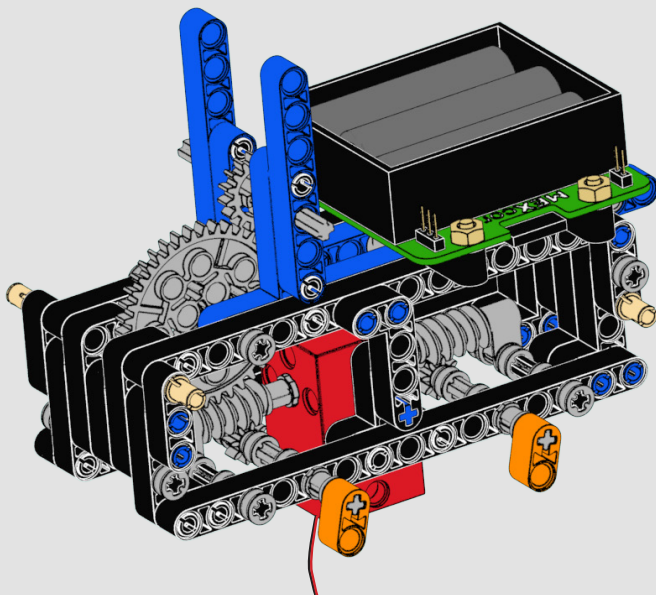
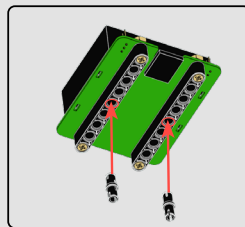
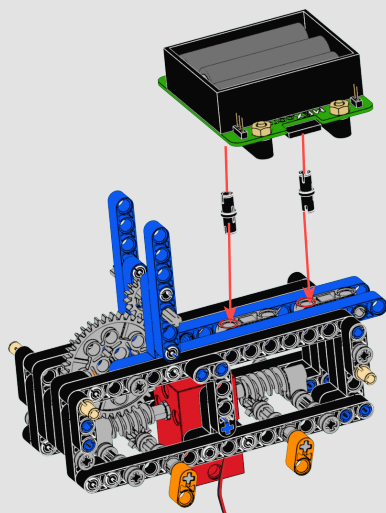


1Cx1H Beams are in opposite directions.

40

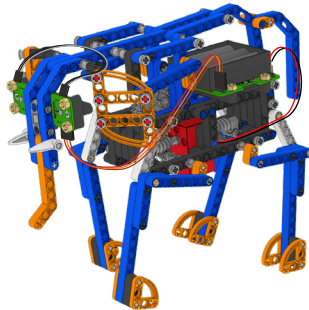


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Part 5: Full Body Assembly

Let's Build!



Things we need



2Cx10H
Double Bend
Beam
x 2



7H Beam
x 6



1Cx4H
L-Beam
x 2



2Cx1H
Thin-Beam
x 4



1Cx1H Beam
x 2



10H Axle
x 2



4H Axle
x 2



3H Axle
x 1



Long Pin-Blue
x 1



Medium
Pin-Black
x 2



Medium
Pin-Grey
x 2



Medium Axle
Pin-Blue
x 2



Axle Filler-Big
x 6



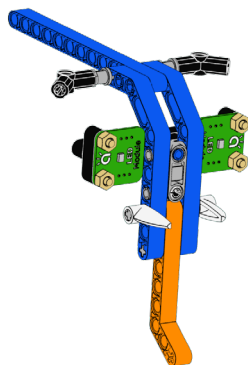
Axle Filler-
Small
x 8



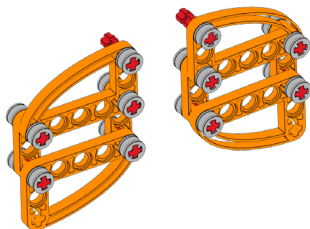
Pin wire
x 2



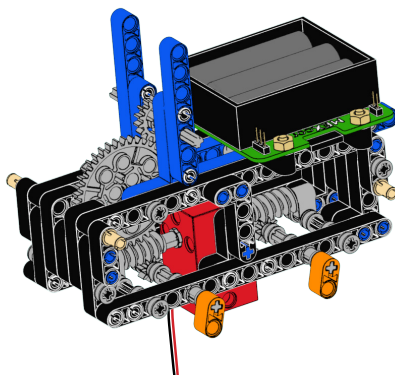
LEGS x 4



HEAD x 1



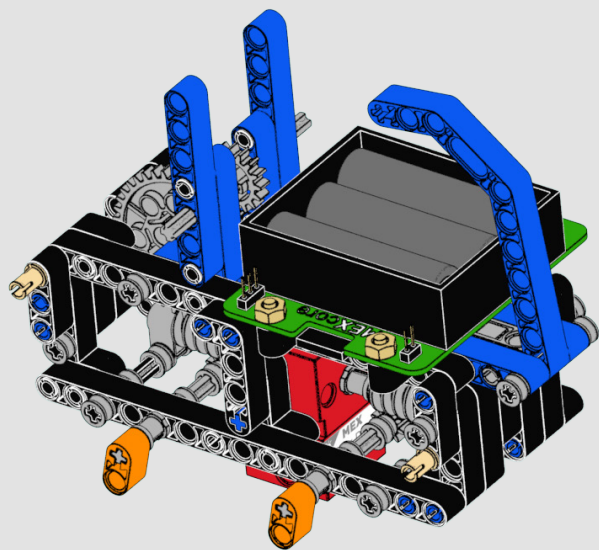
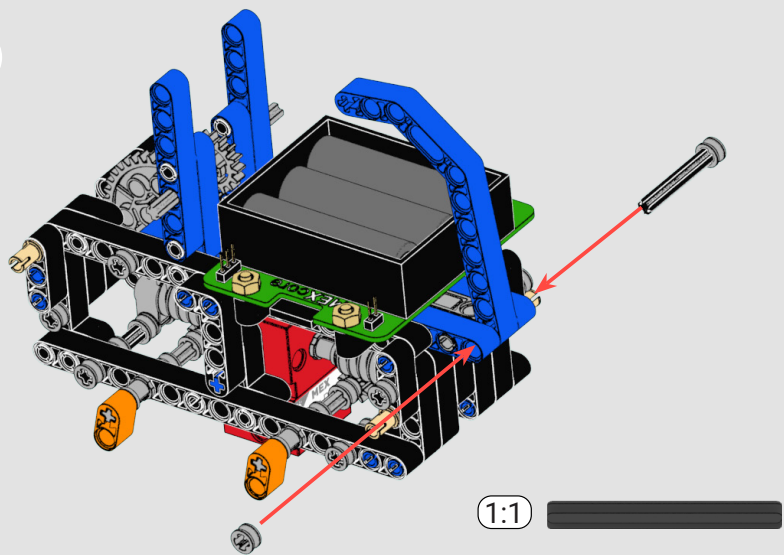
EARS x 2



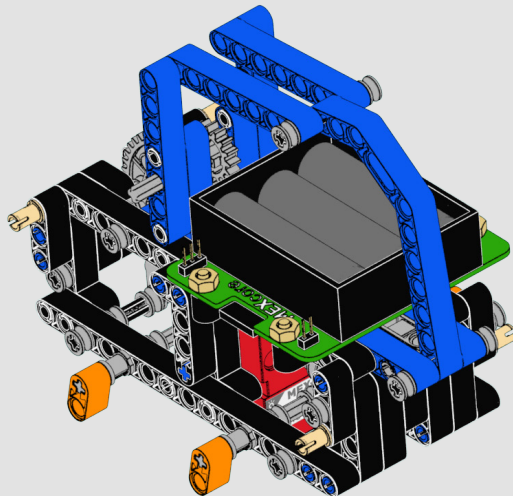
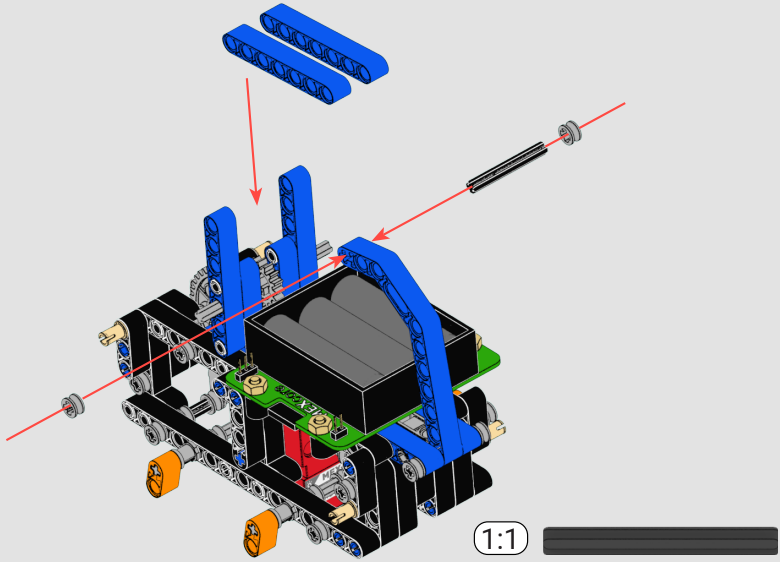
STOMACH x 1

Steps

1

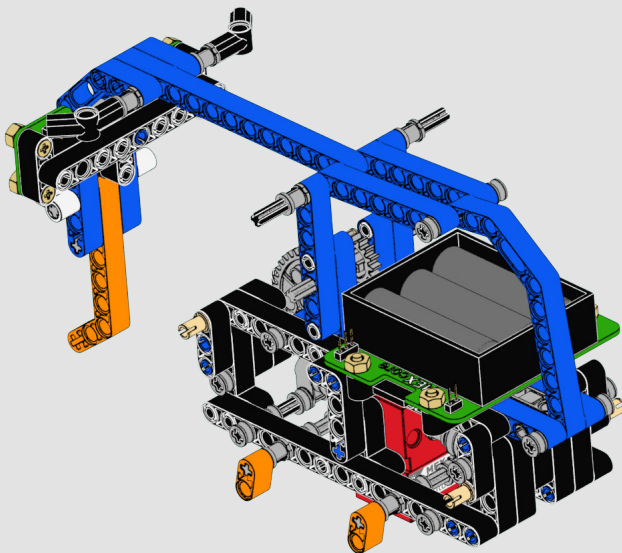
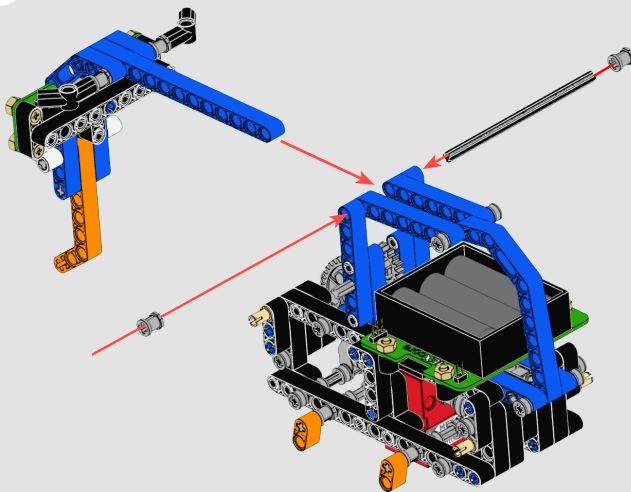


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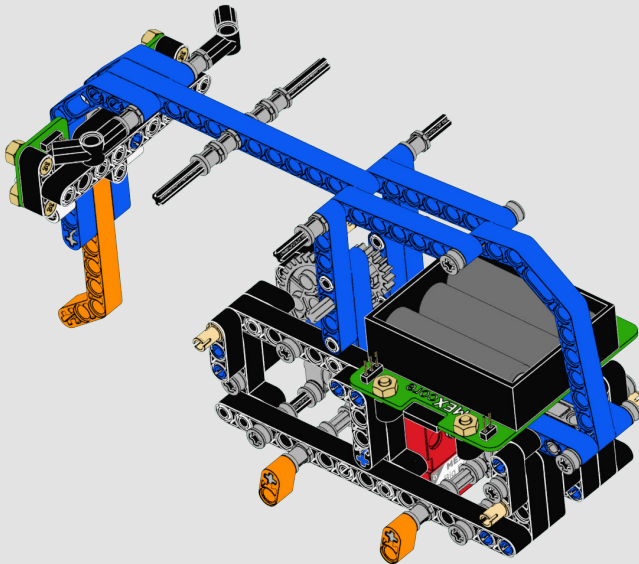
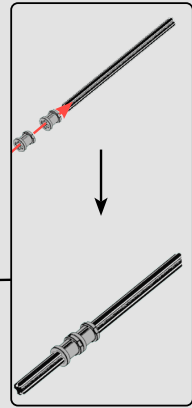
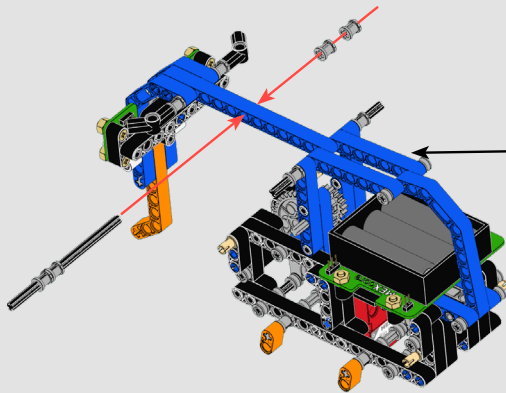
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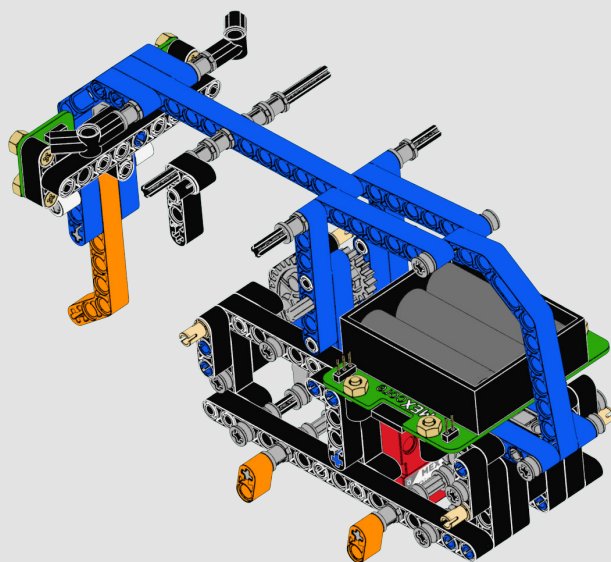
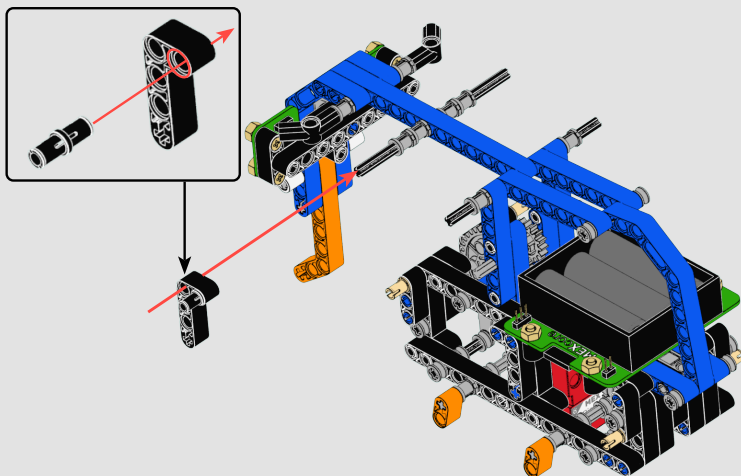


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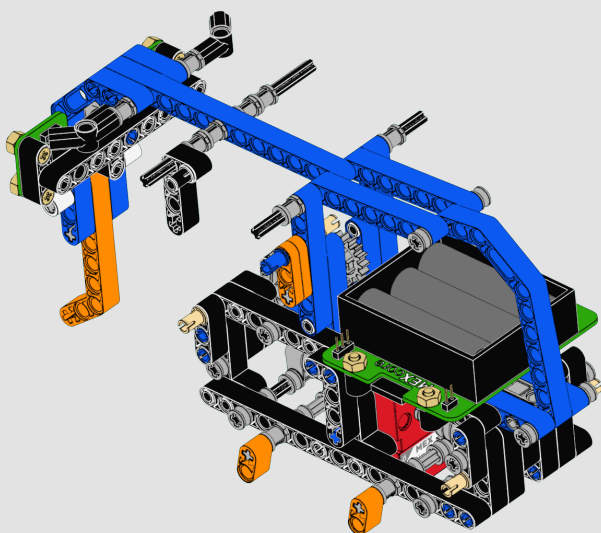
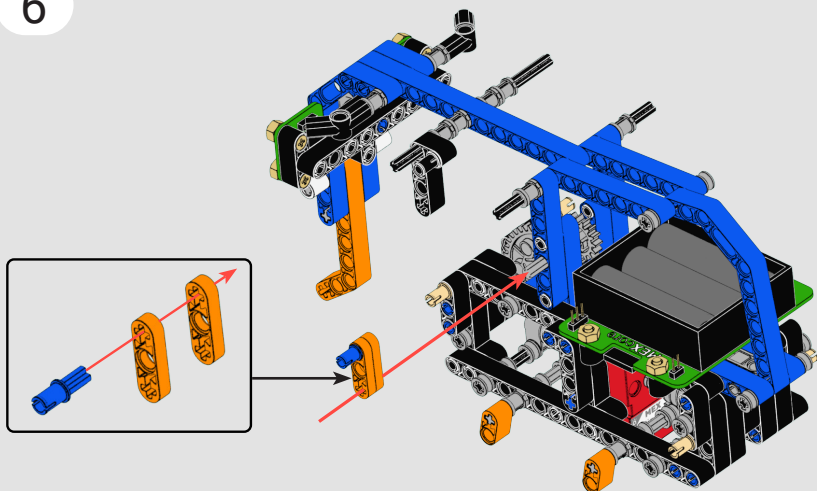
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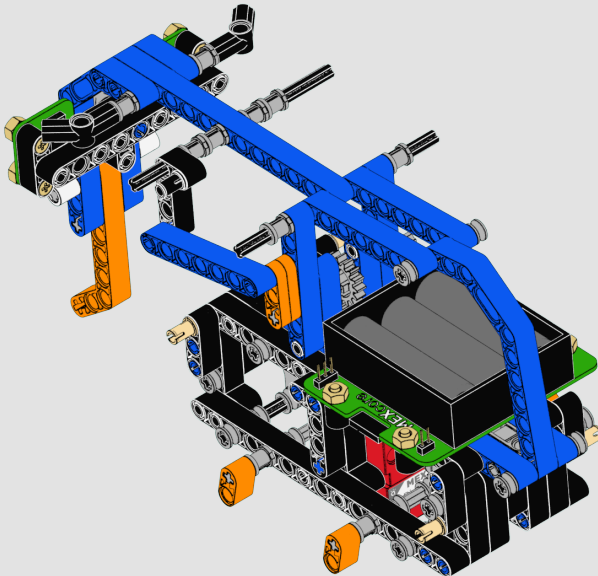
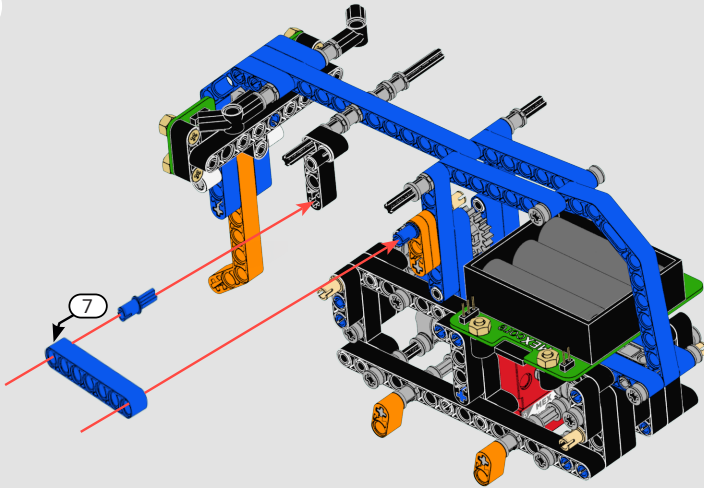
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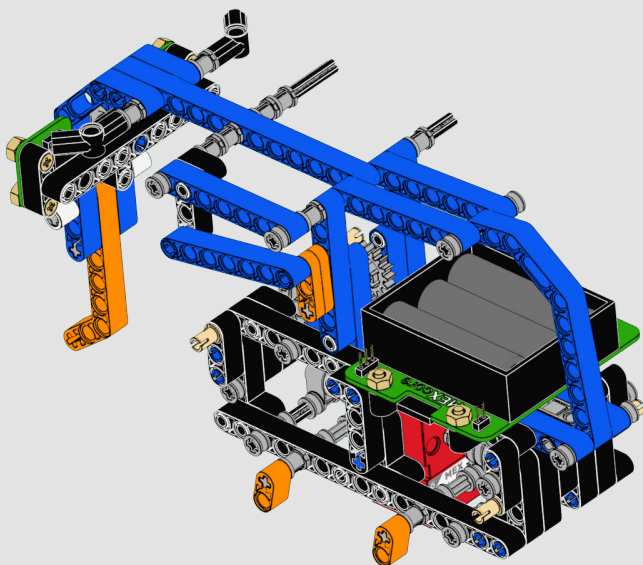
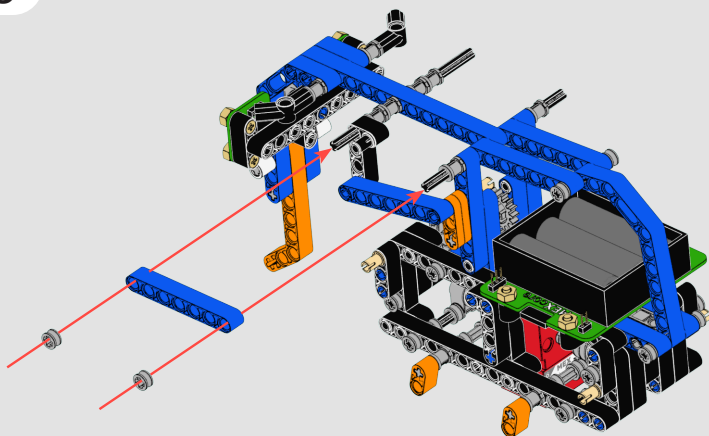
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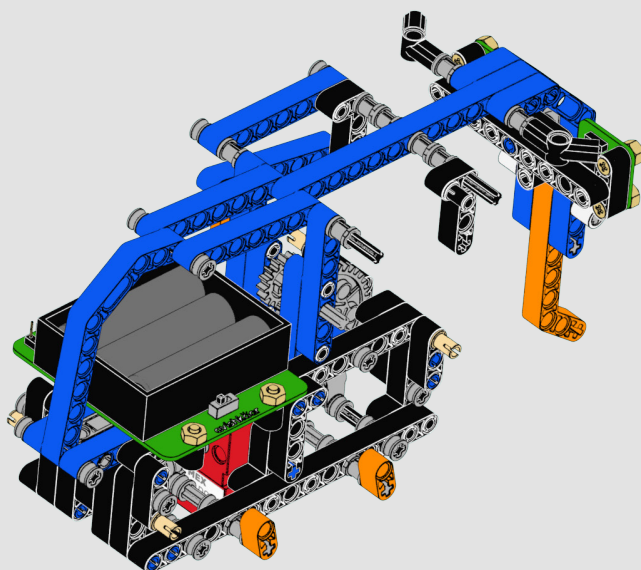
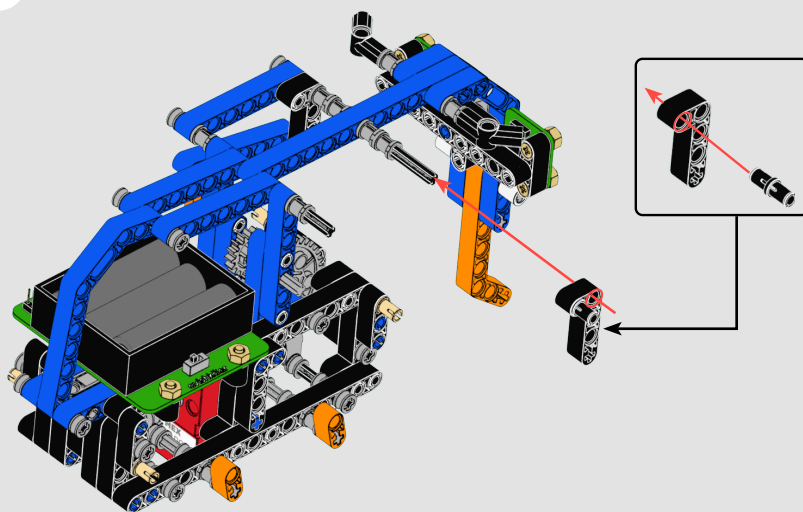
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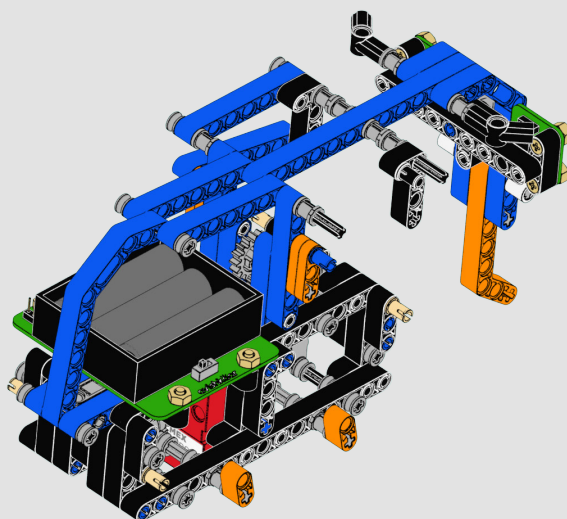
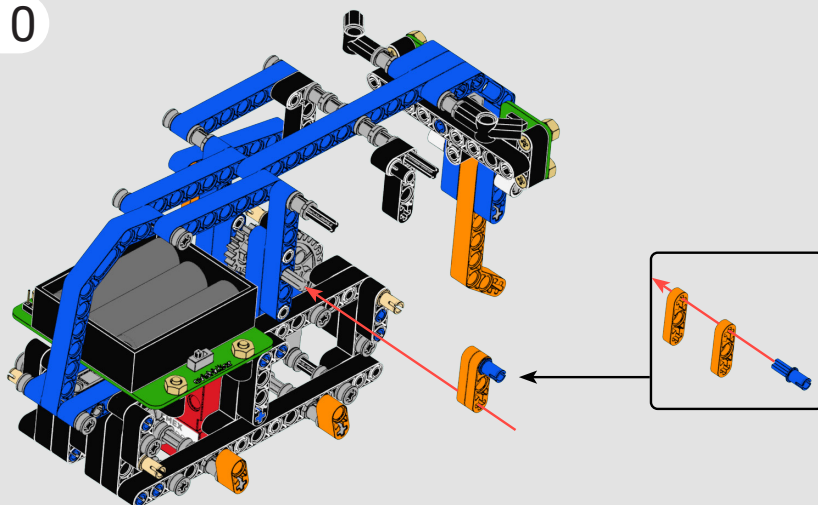
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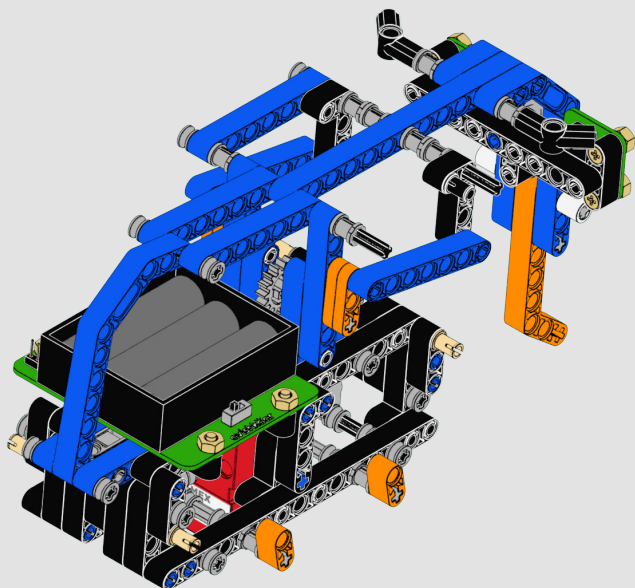
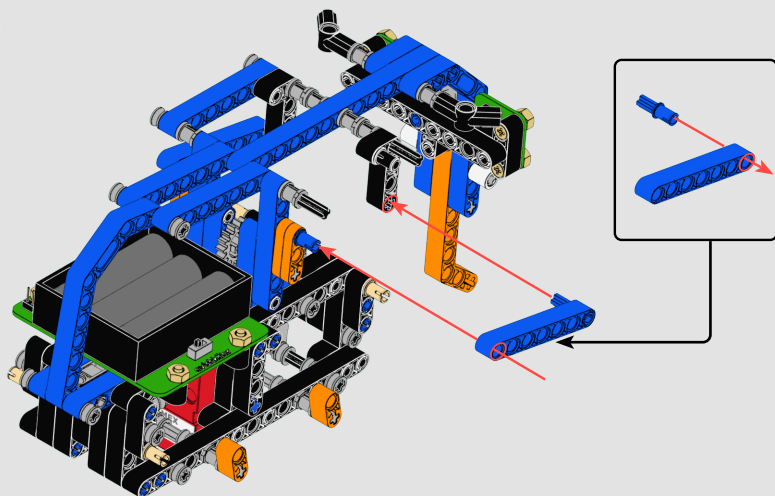
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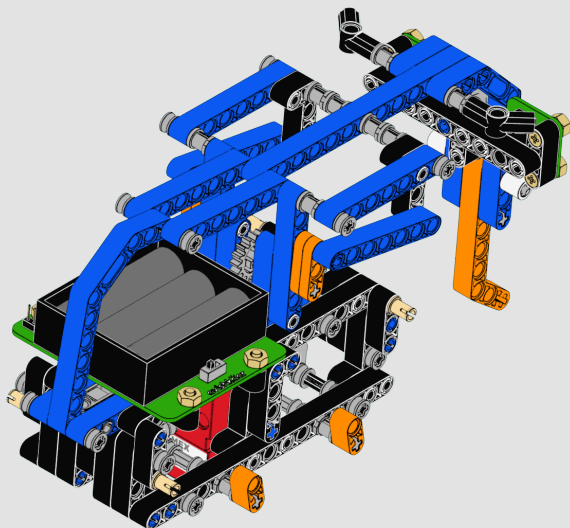
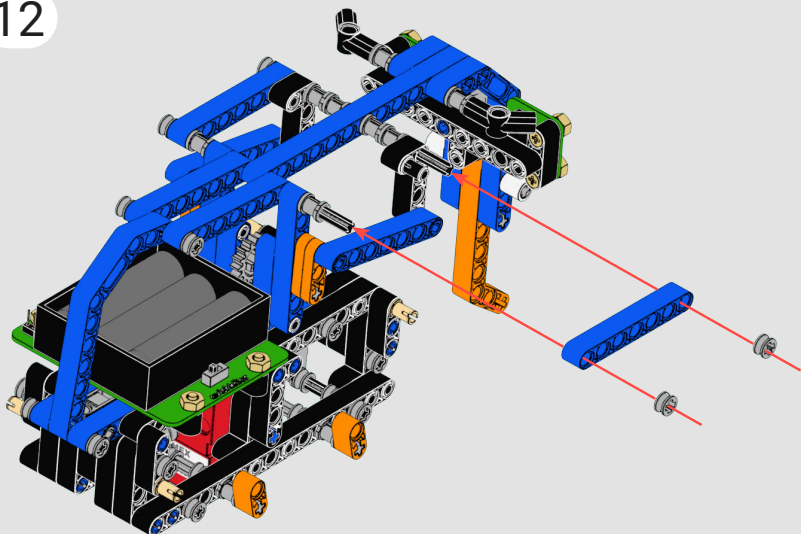
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11

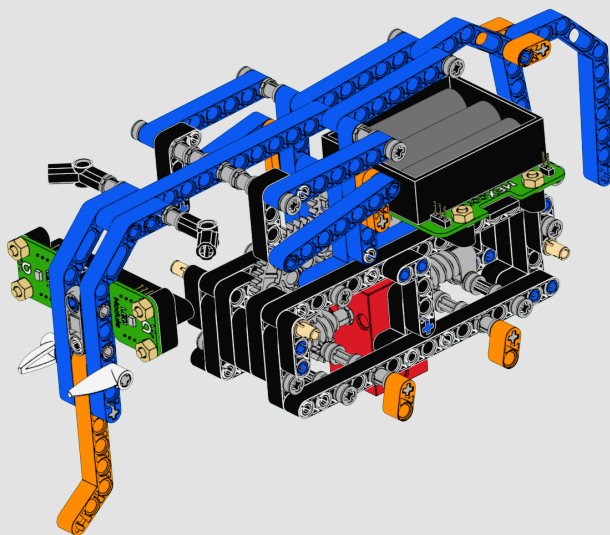
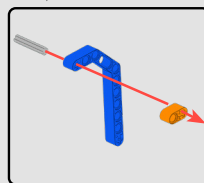
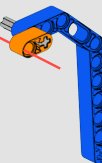
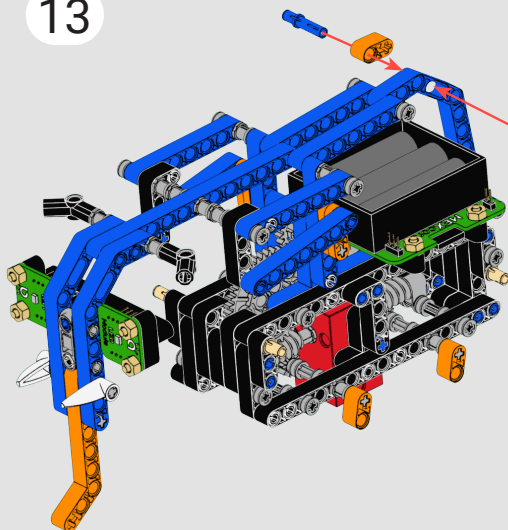


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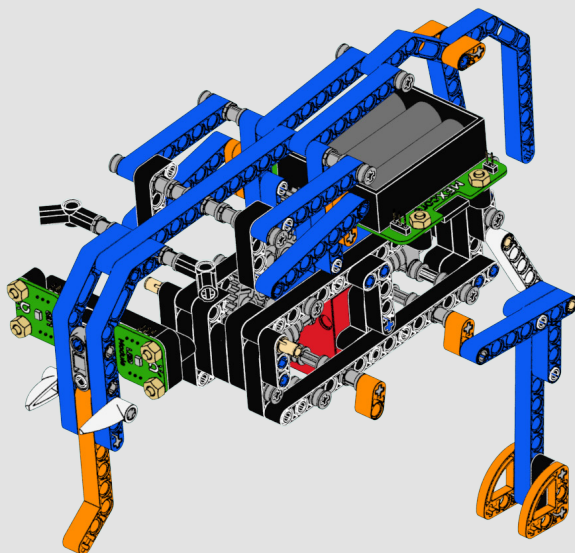
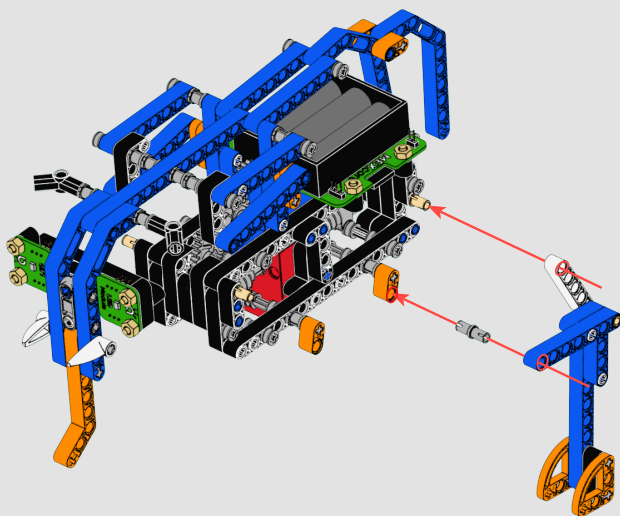


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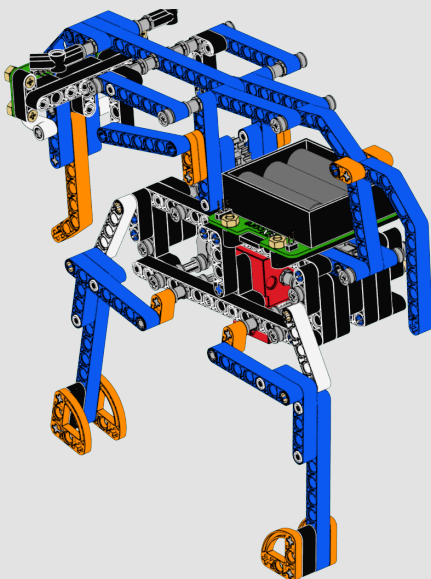
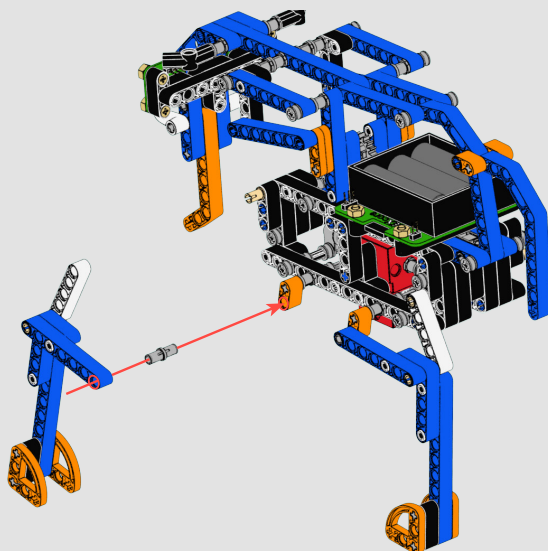
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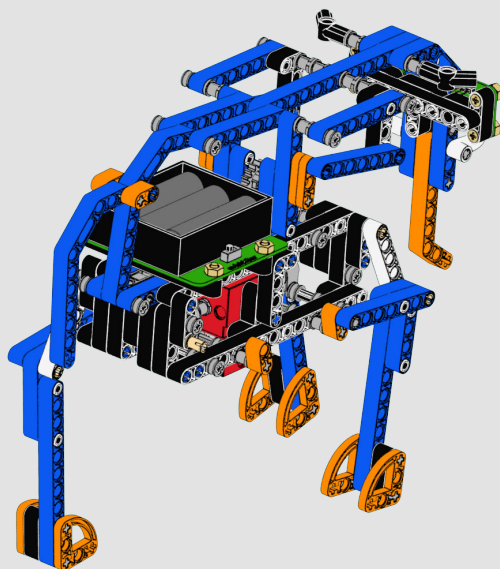
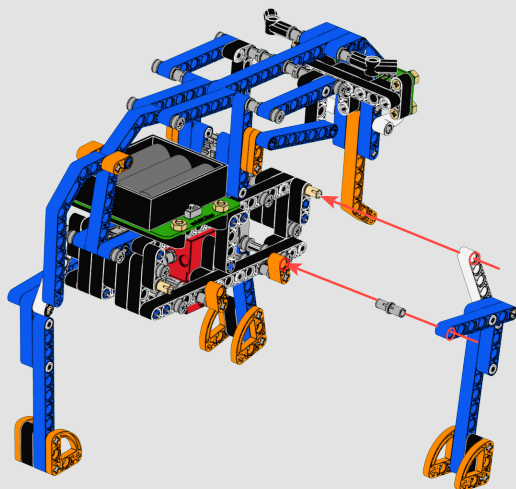
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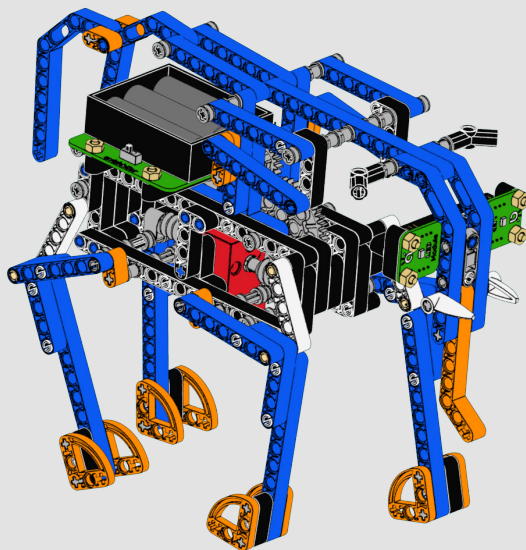
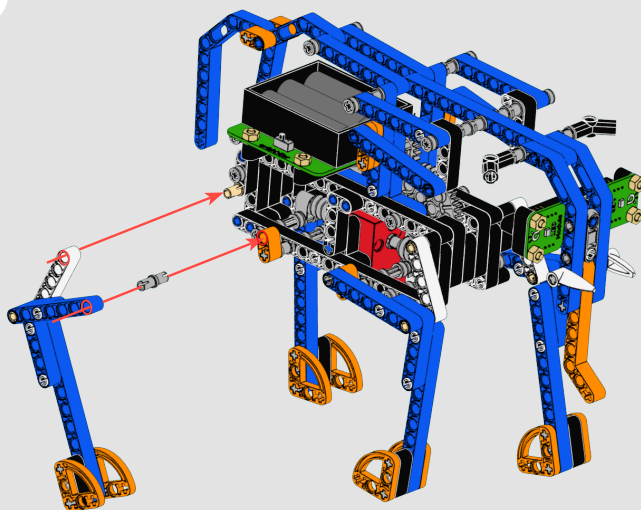
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16

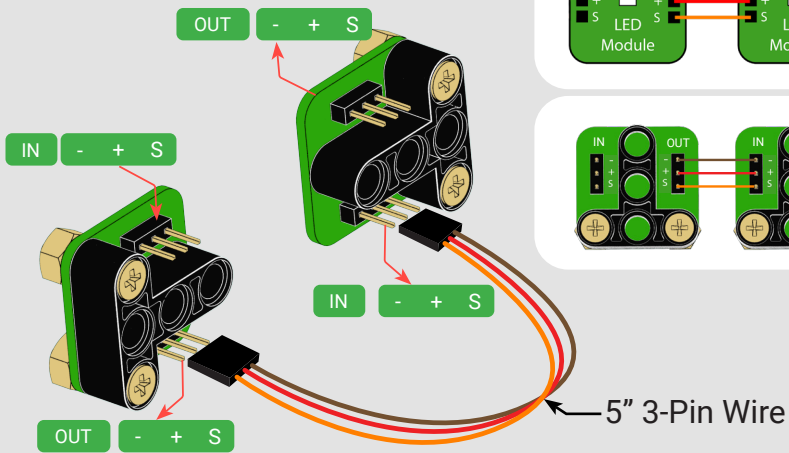


17

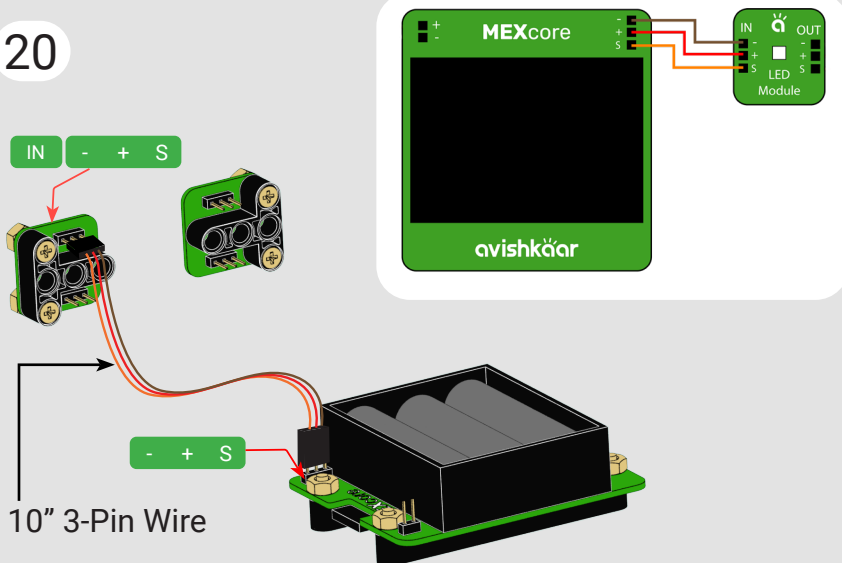


Let's do the wire connections first.

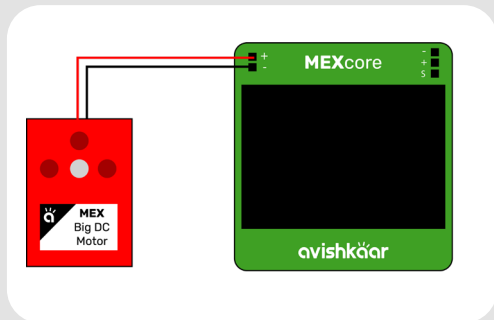
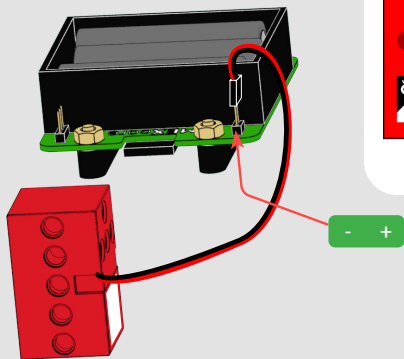
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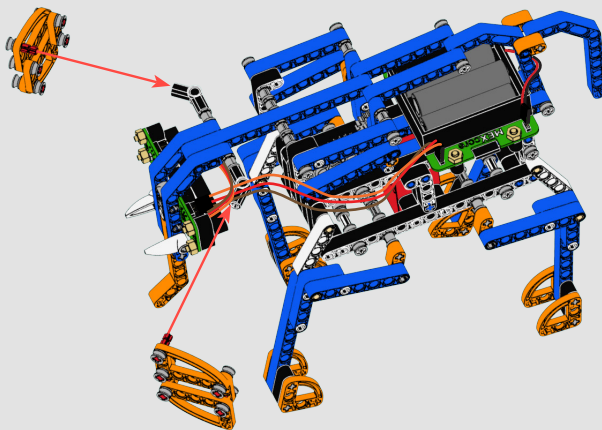
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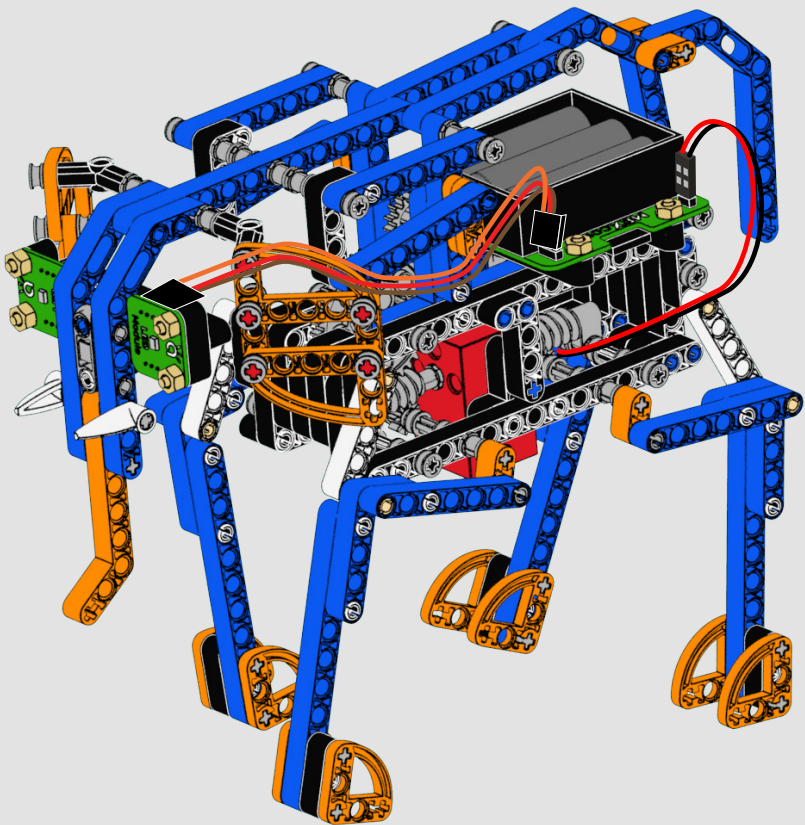


21



18

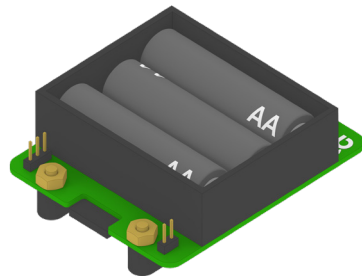
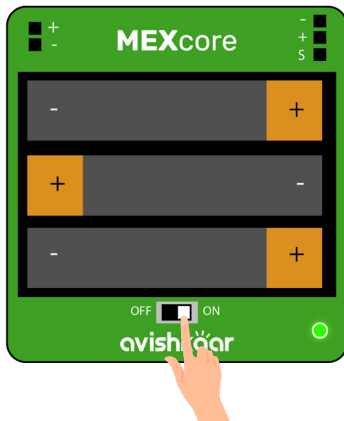




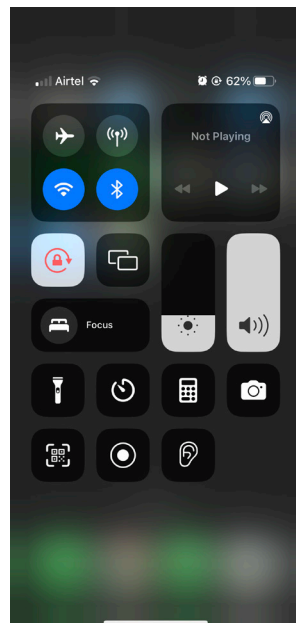
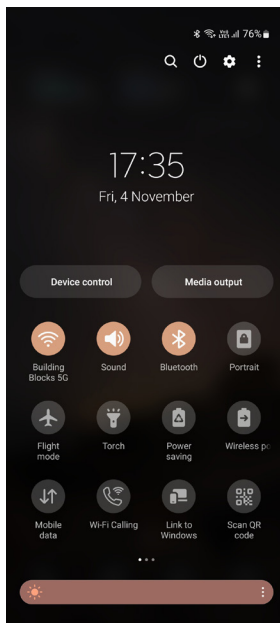
App Control

- 1 Insert the batteries in the MEXcore and turn it ON. You will notice the MEXcore LED blinking in green color.

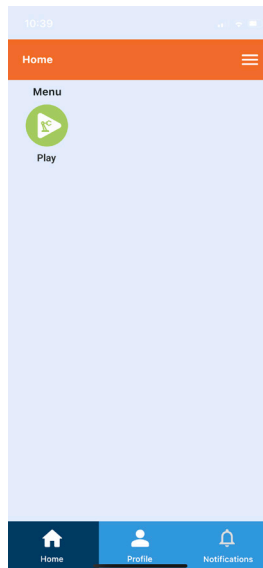
Note - Use AA alkaline cells only. (Any other type of cells can damage the MEXcore.)



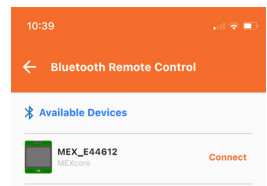
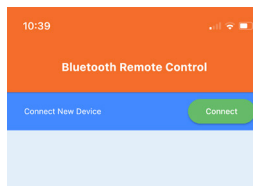
- 2 Turn ON the bluetooth on your phone.



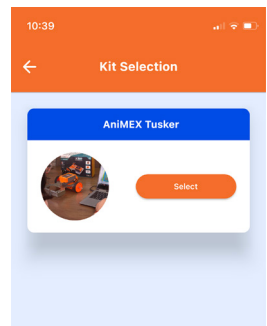
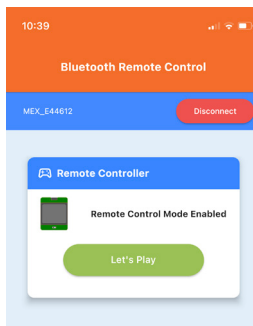
- ③ Open the Avishkaar App and click on the 'Play' button inside the 'Home' section.



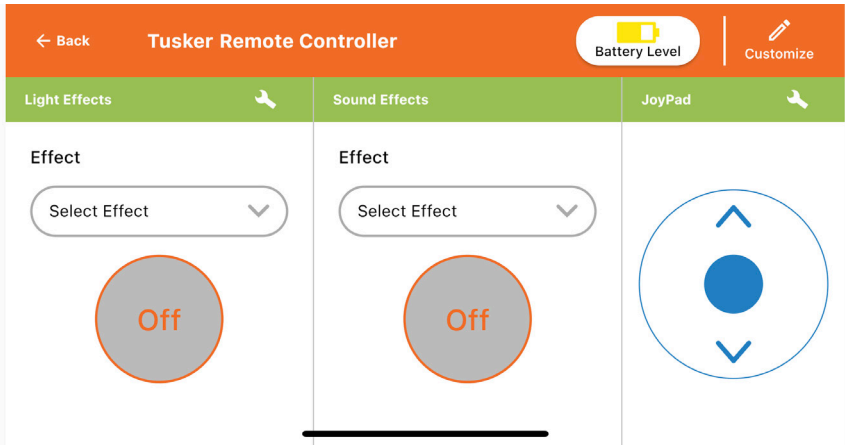
- ④ Click on 'Connect'. Your app should be able to find your MEXcore if it is turned ON. Click on 'Connect' once your app detects your MEXcore.



- ⑤ Click on 'Let's Play' and select 'Tusker' in the kit selection menu.

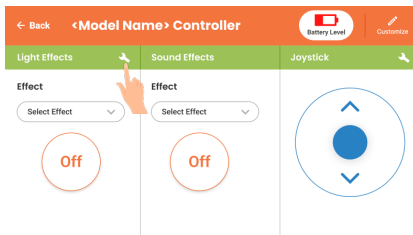


- 6 The remote control screen will open up which will allow you to control the LEDs motor and sound of your Tusker. Have fun!

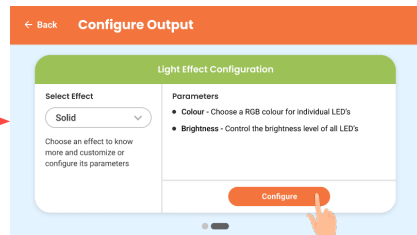


Configure

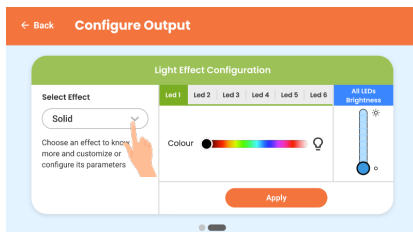
Light Effects



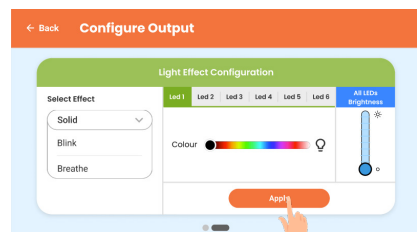
Go to the light effects setting.



Click on the configure button.

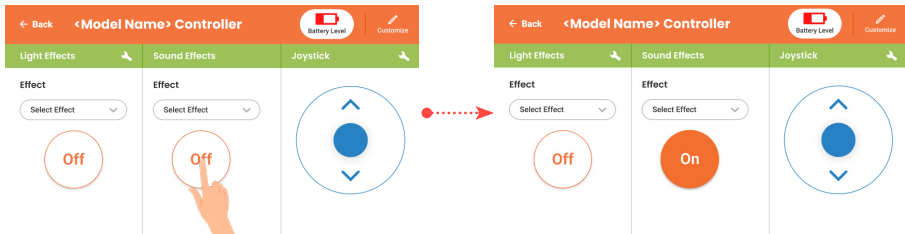


Select effects.



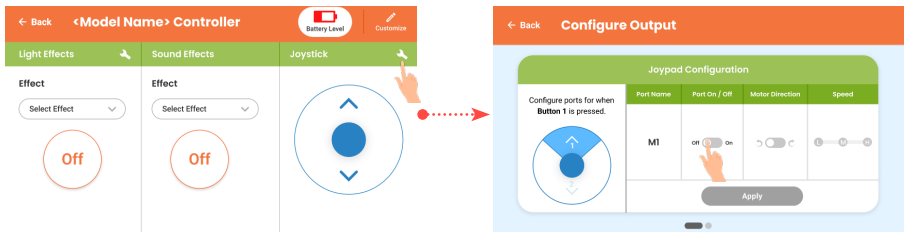
Click 'Apply' button.

Sound effects



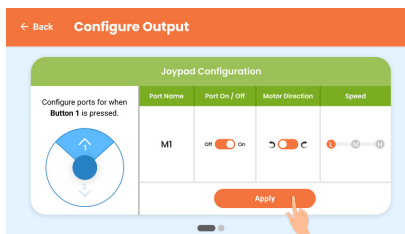
click the on /off button
for sound effects.

Joystick



Go to the joystick setting.

Configure ports ,motor direction and speed
intensity.



click 'Apply' button.

Facing an Issue?

Our technical support is available to assist you at these timings -

Monday to Saturday: 9am to 8pm

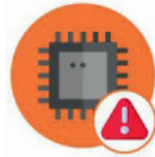
Sunday and 3rd Saturday: 9am to 6pm



Software Issues



Usability Issues



Hardware Issues

Contact support by scanning the QR Code.



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