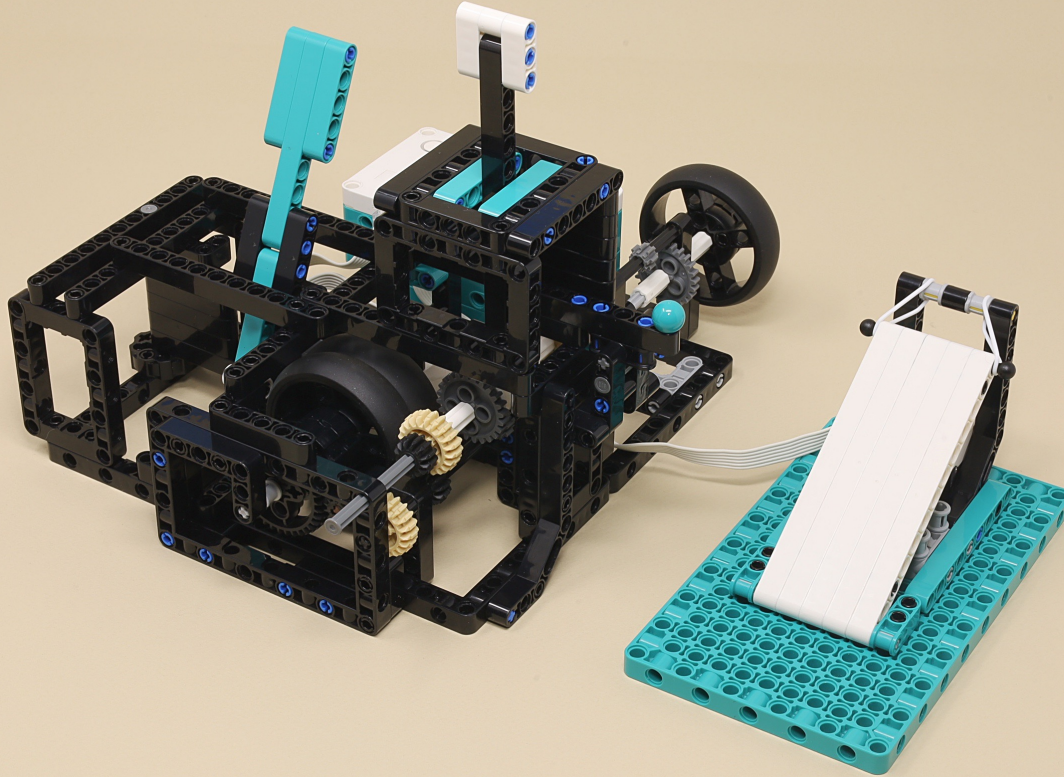


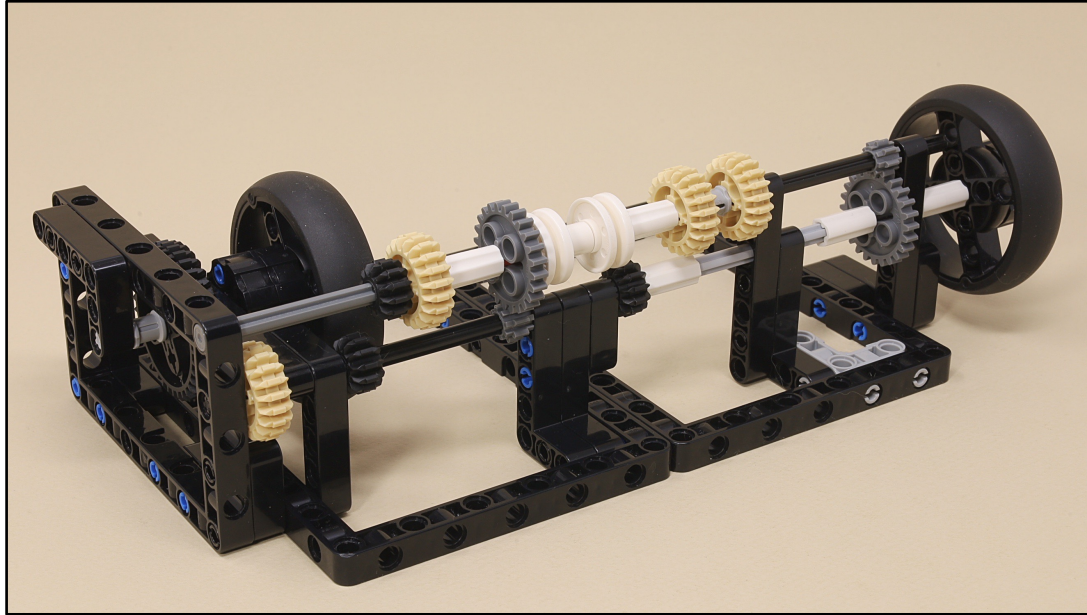
# Manual Transmission



Scroll for  
building  
instructions



First, build:

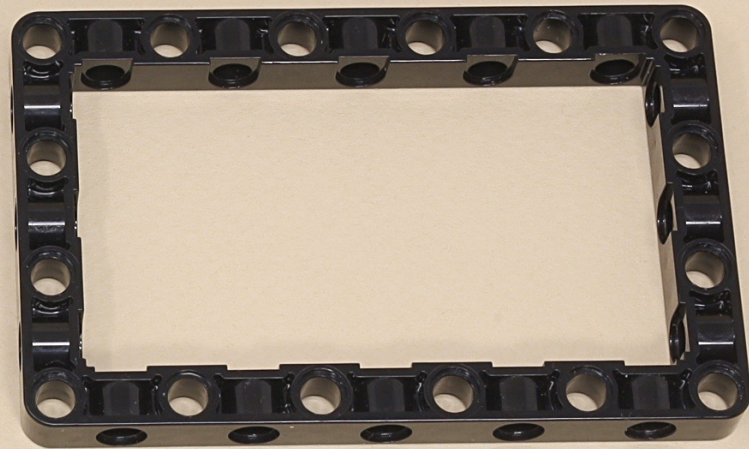
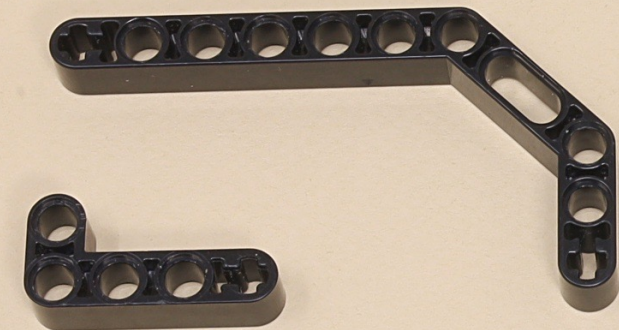


3-Speed Gearing

...then continue here to complete the Manual Transmission





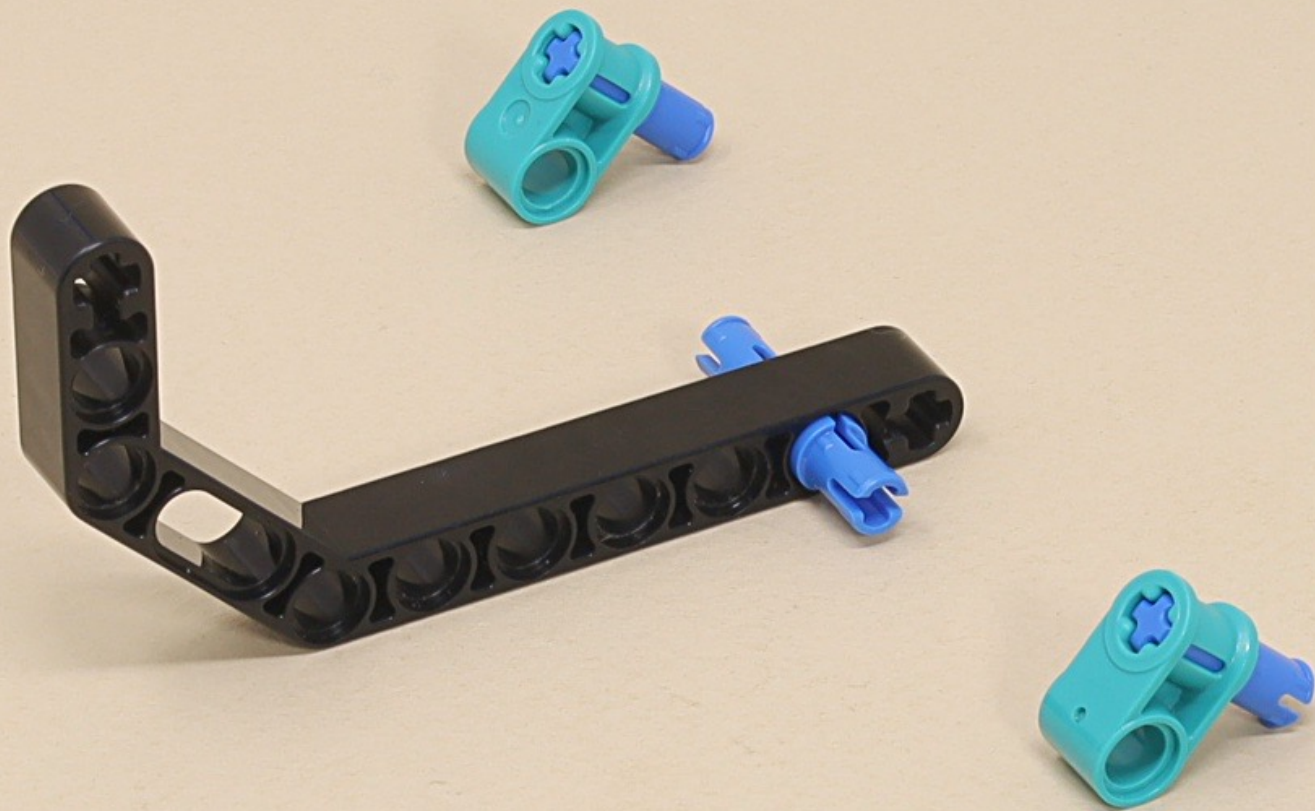


4

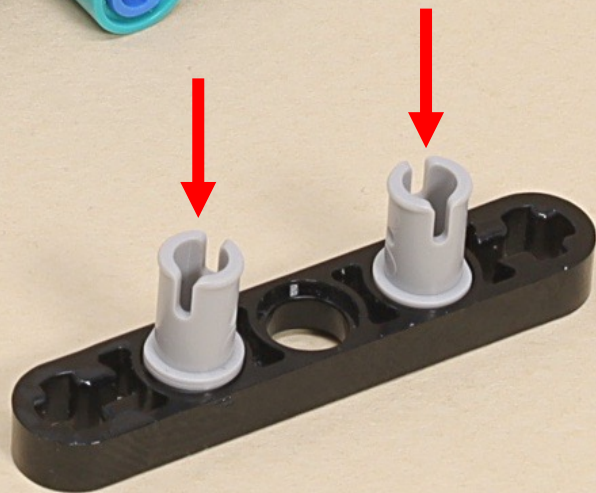
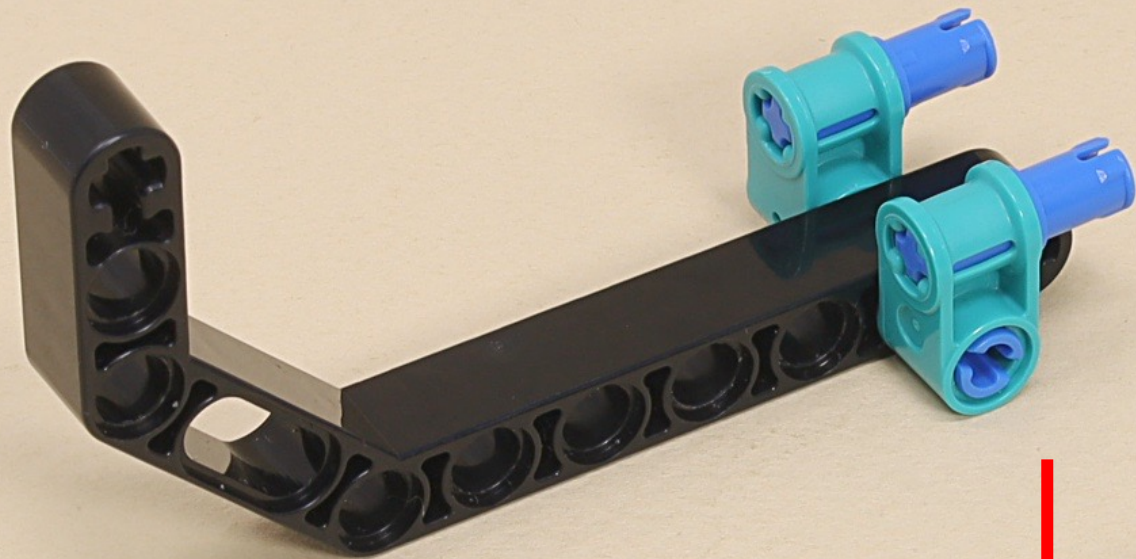


(8 x)

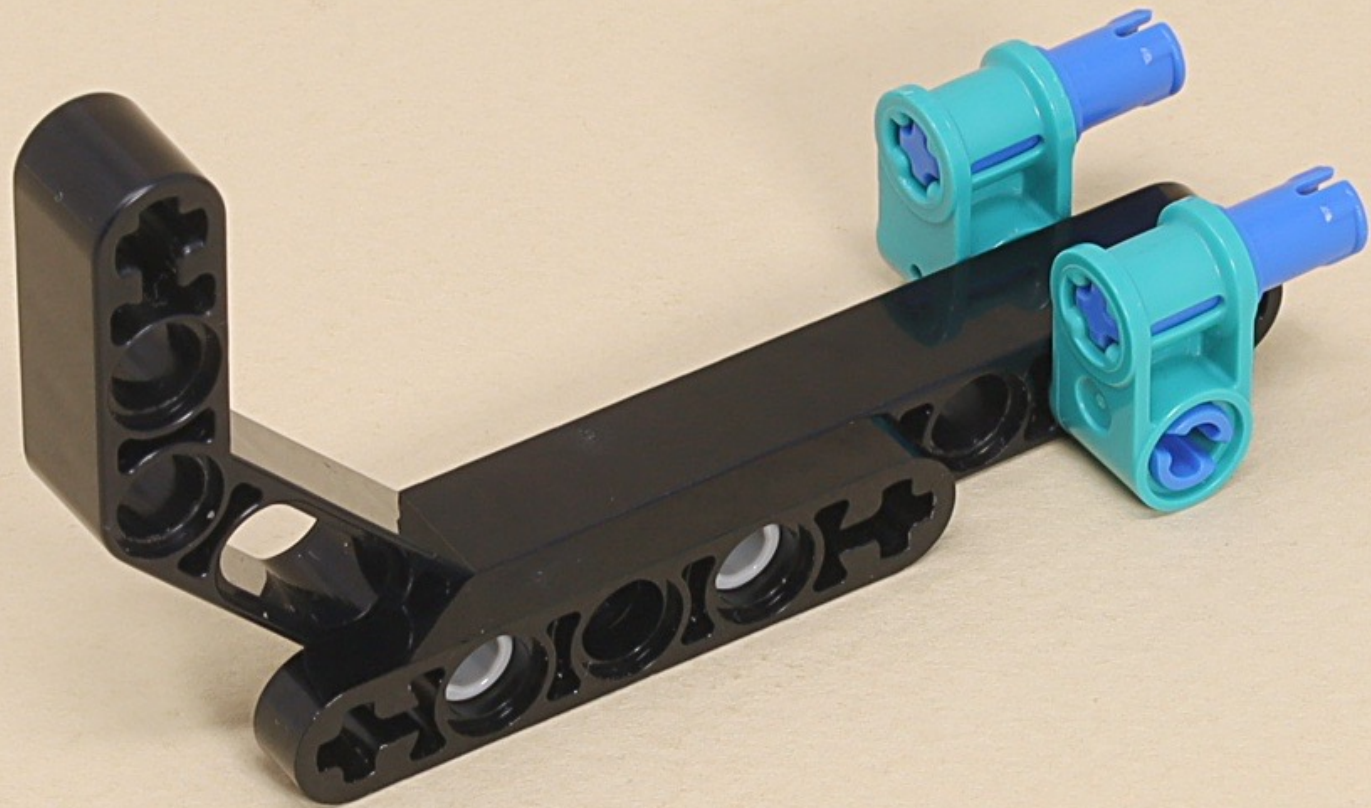


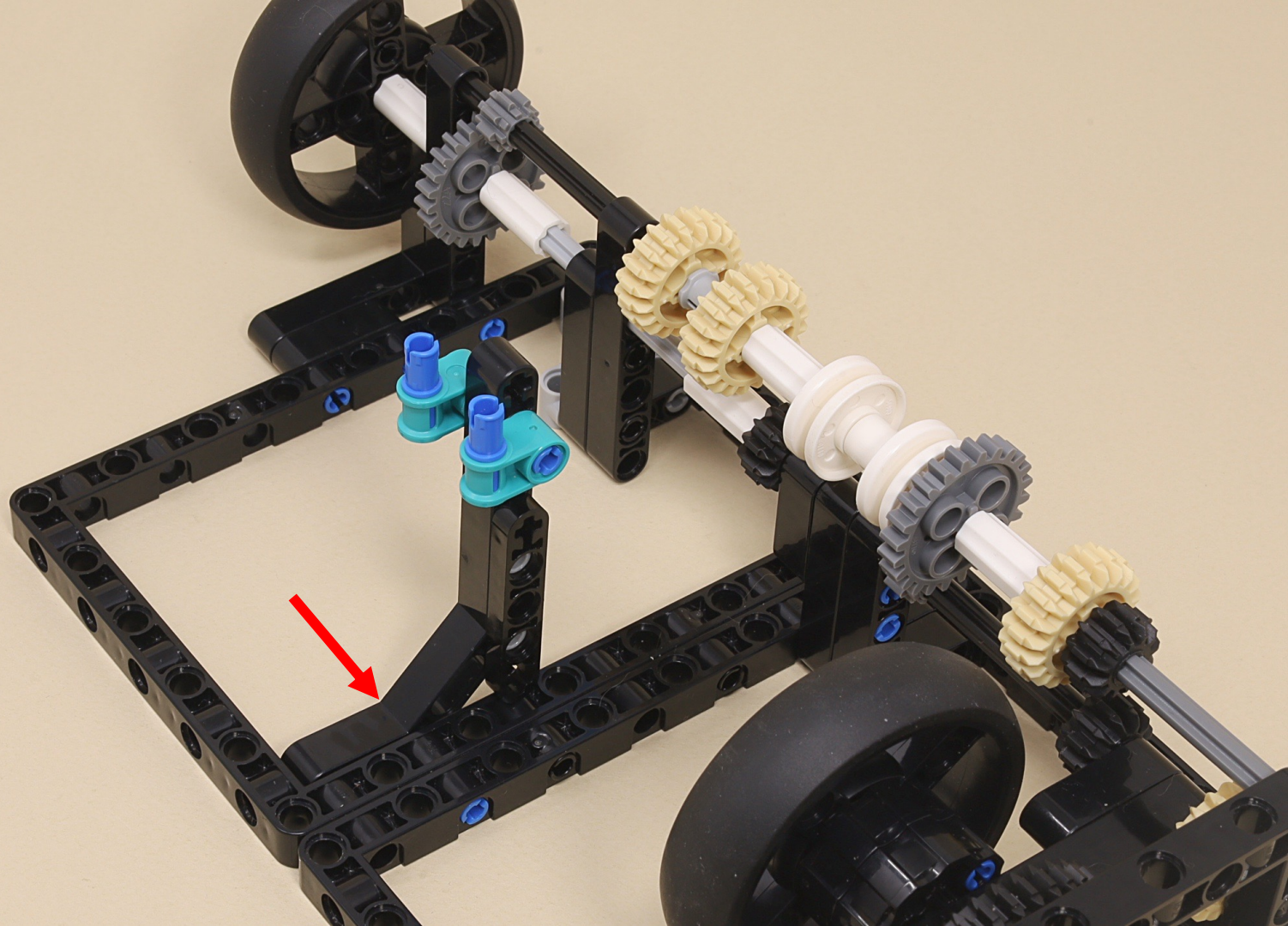




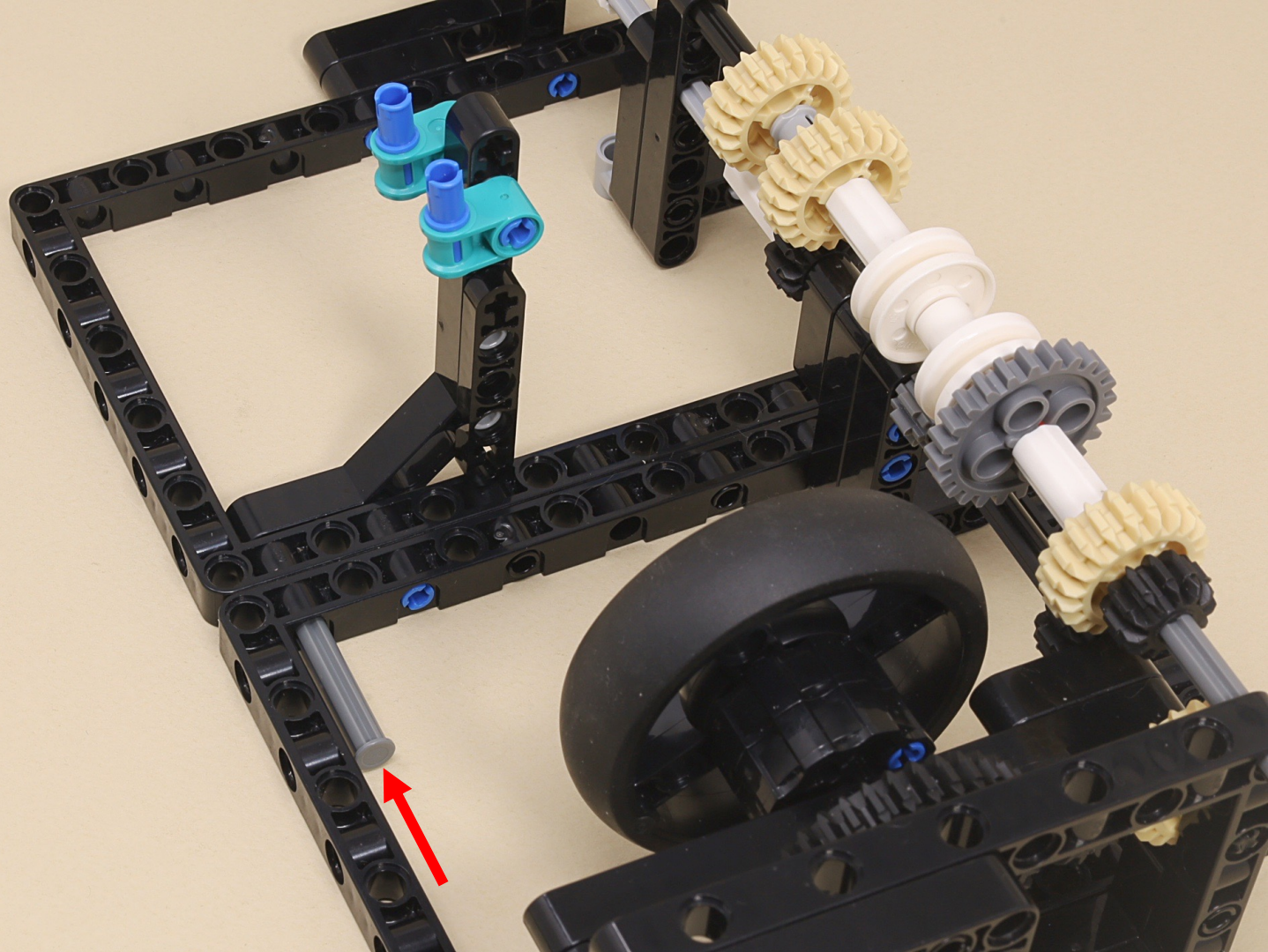




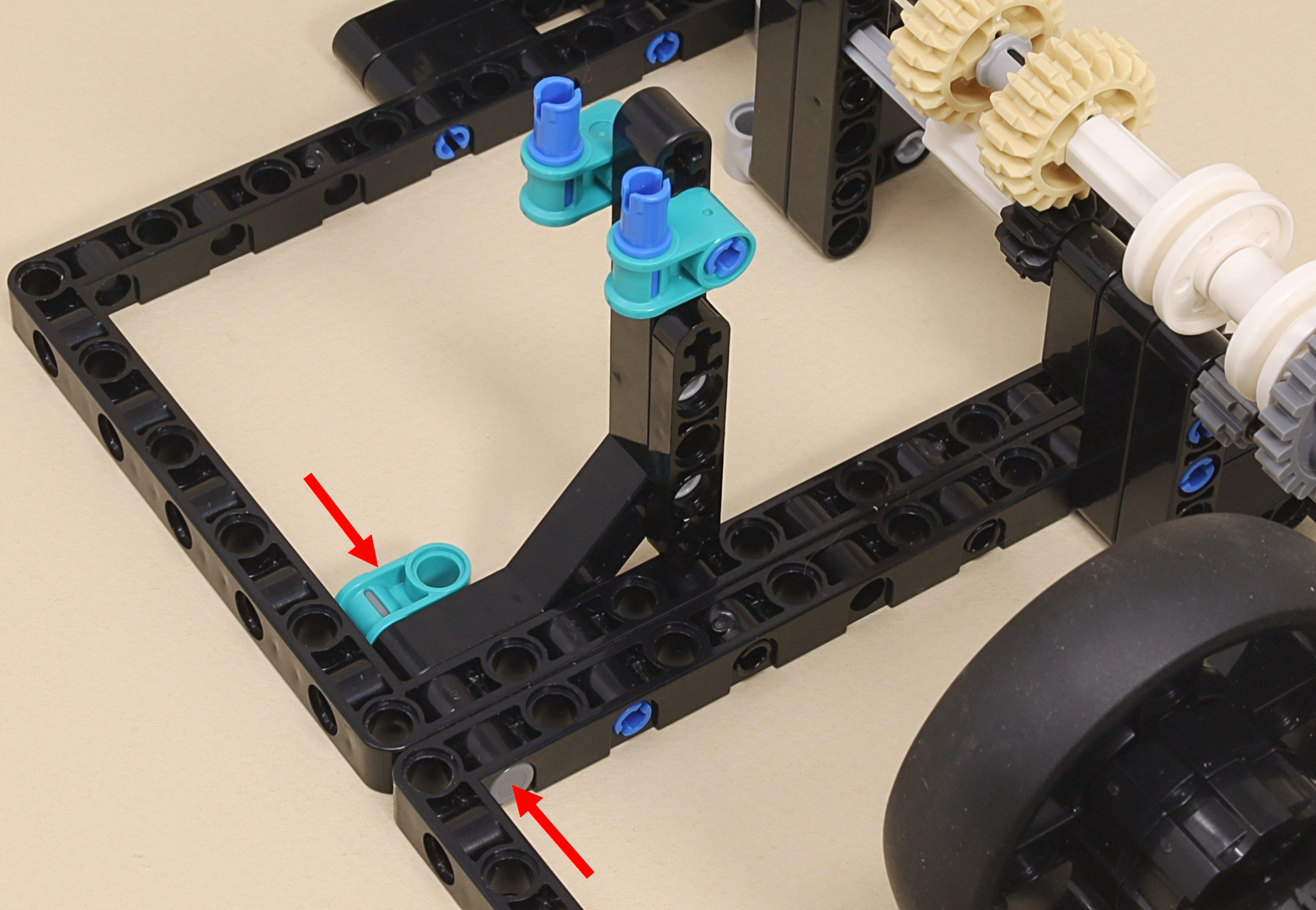




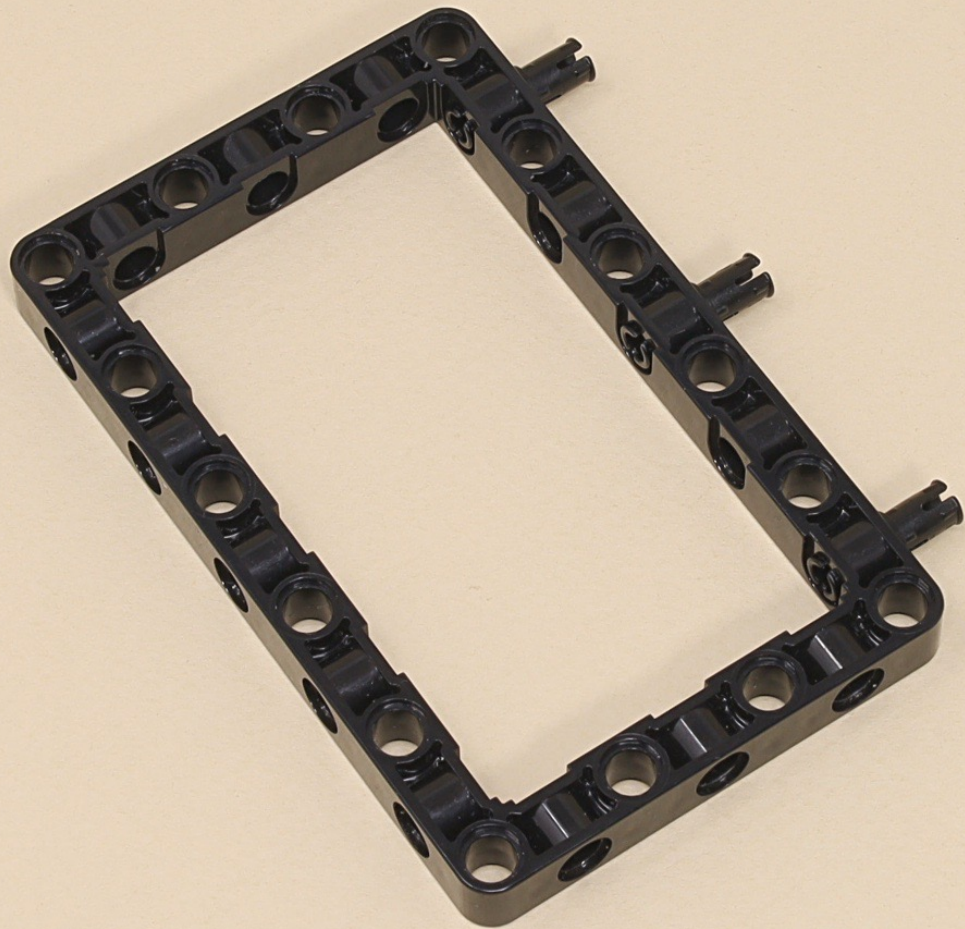




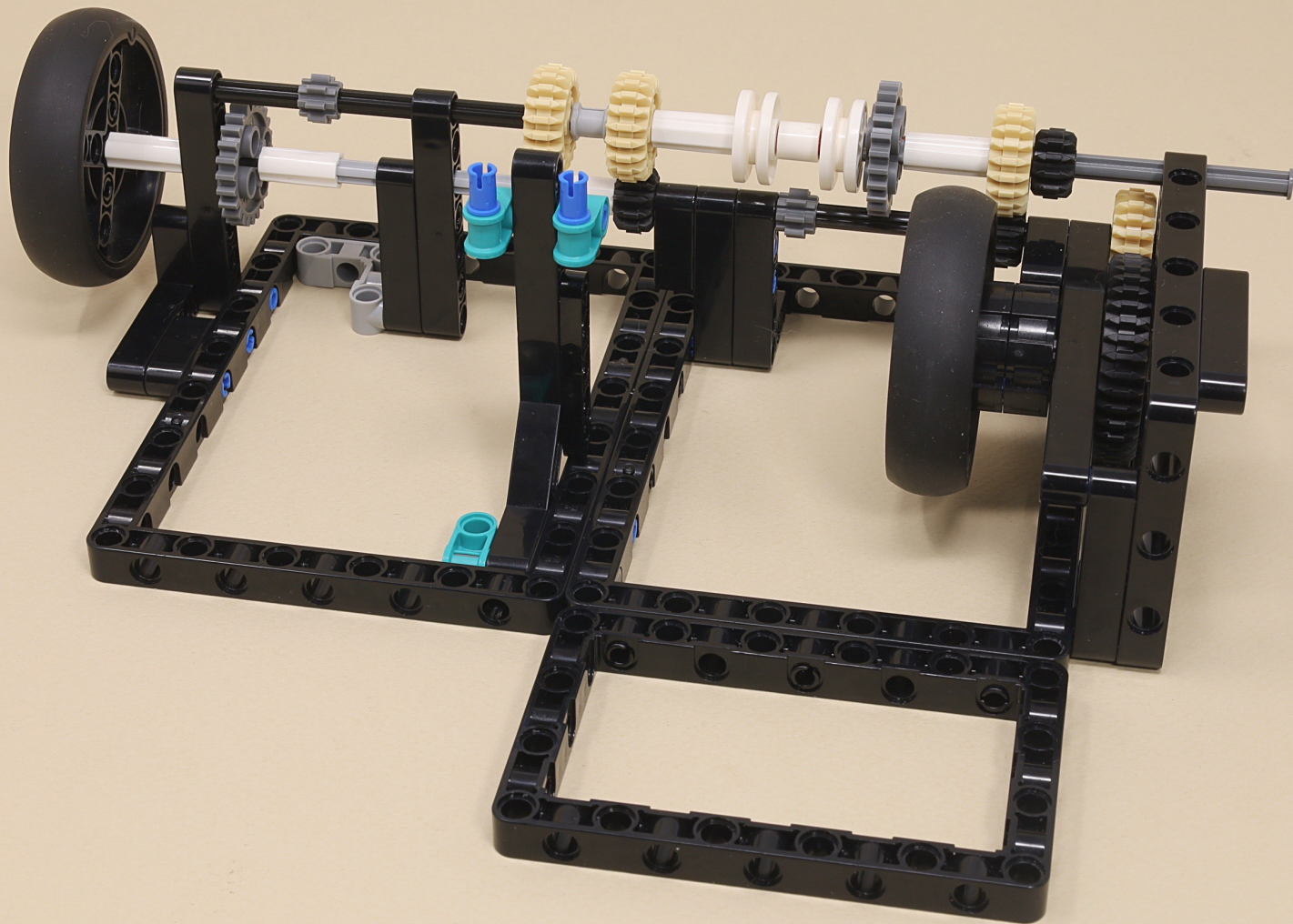




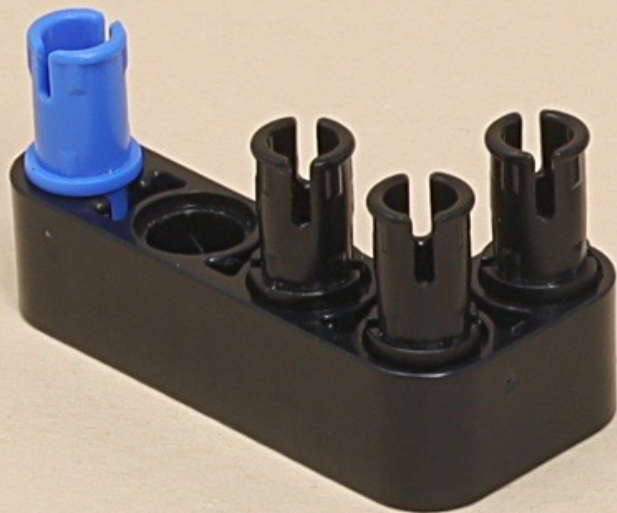


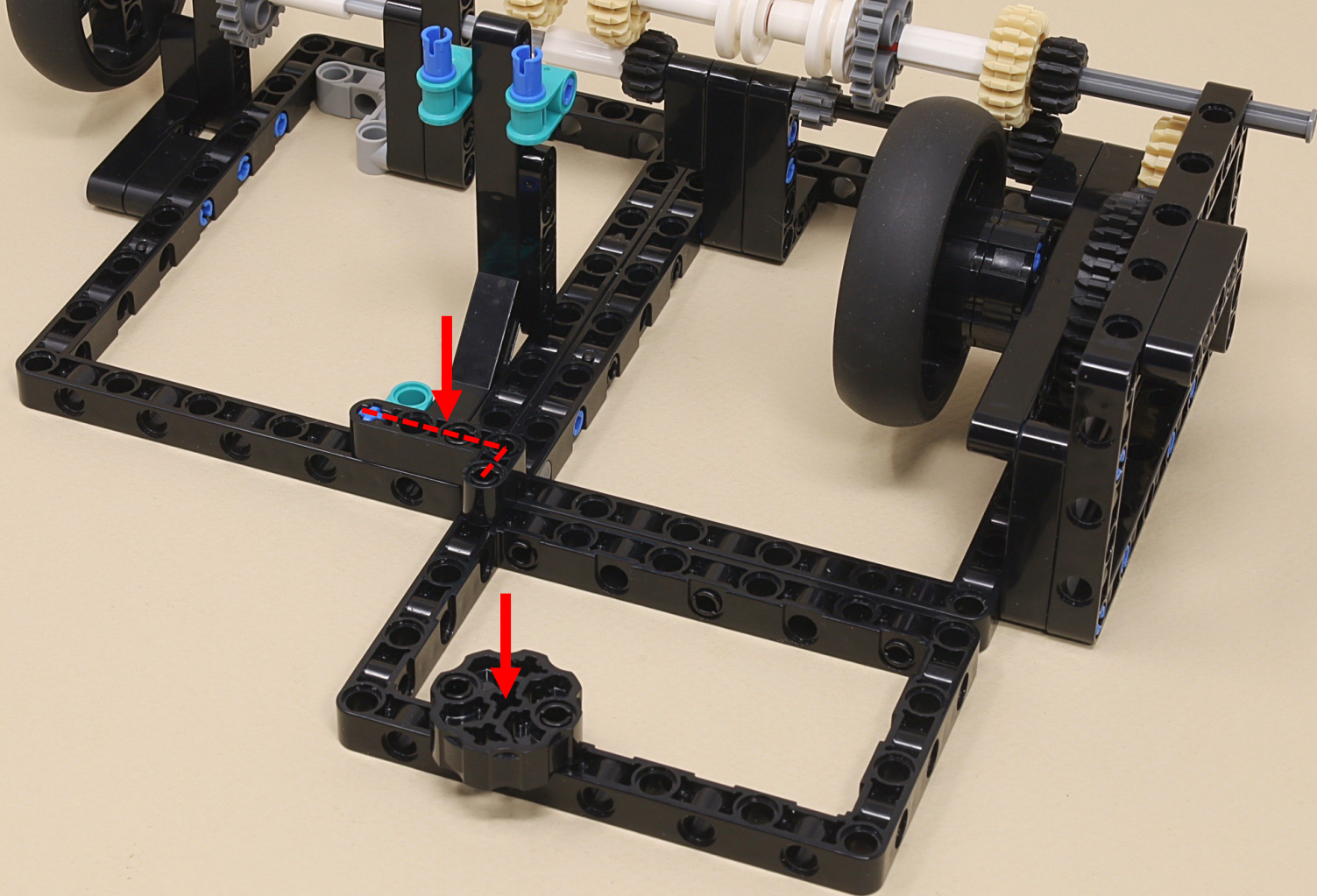
















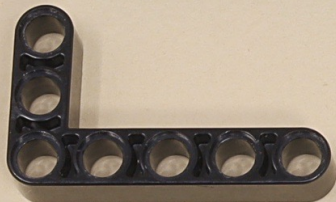
15



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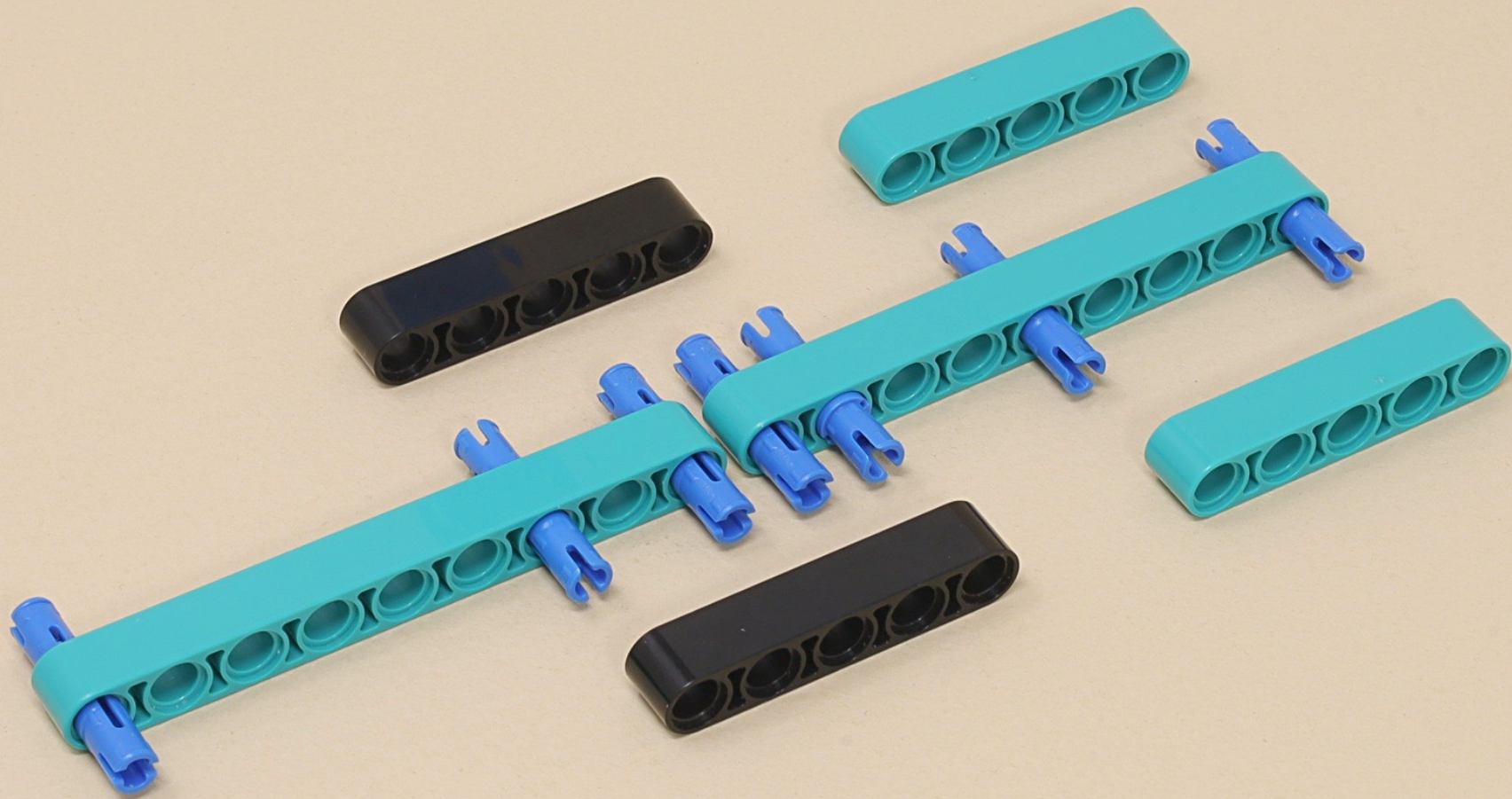


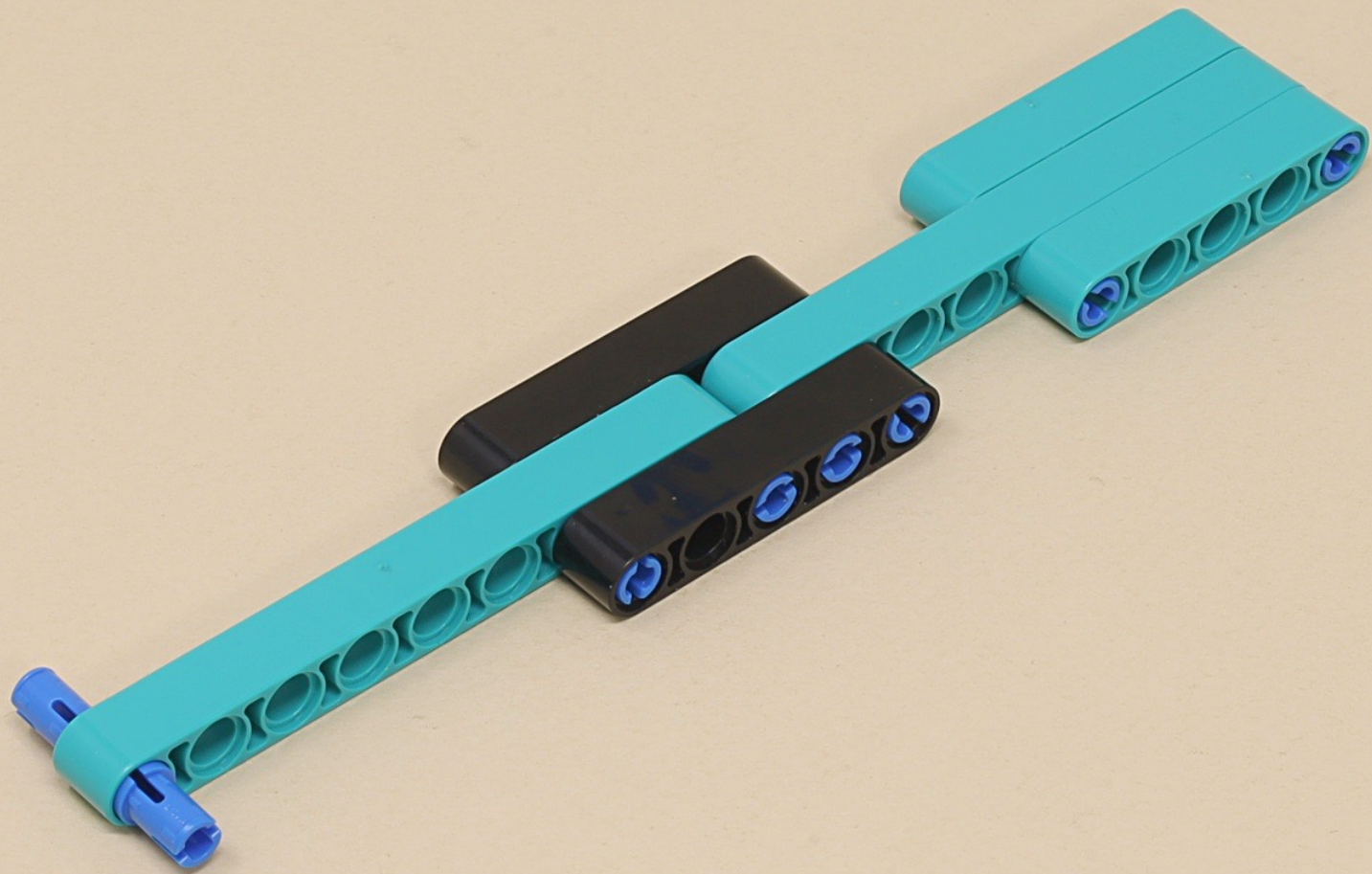
(7 x)



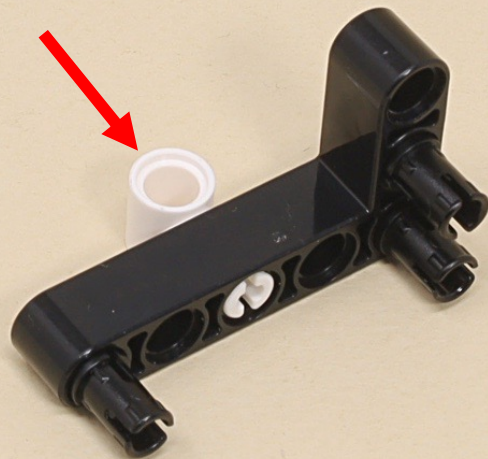
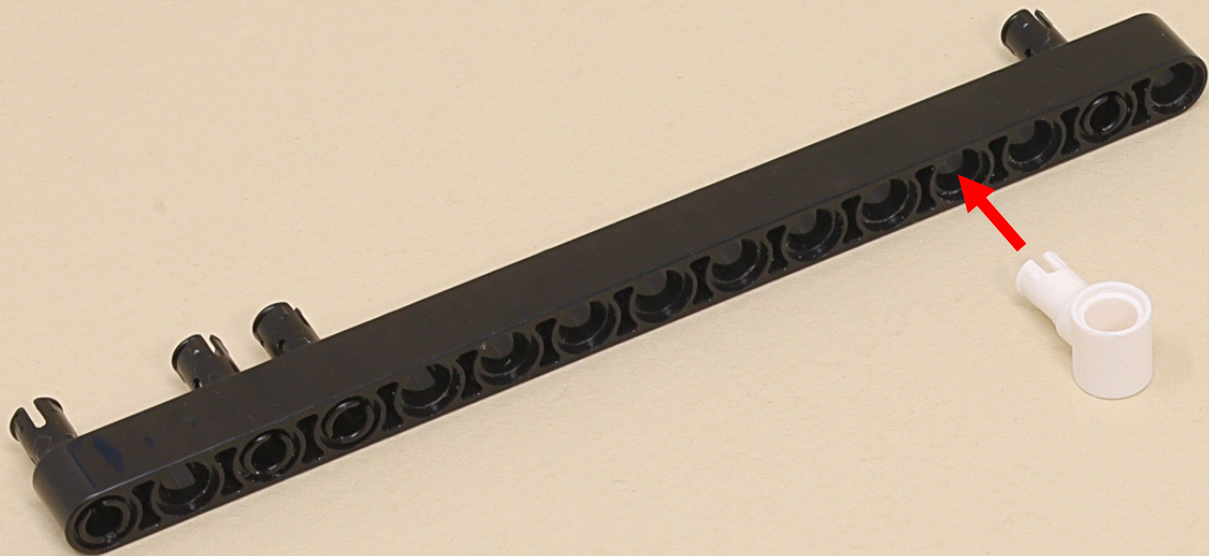
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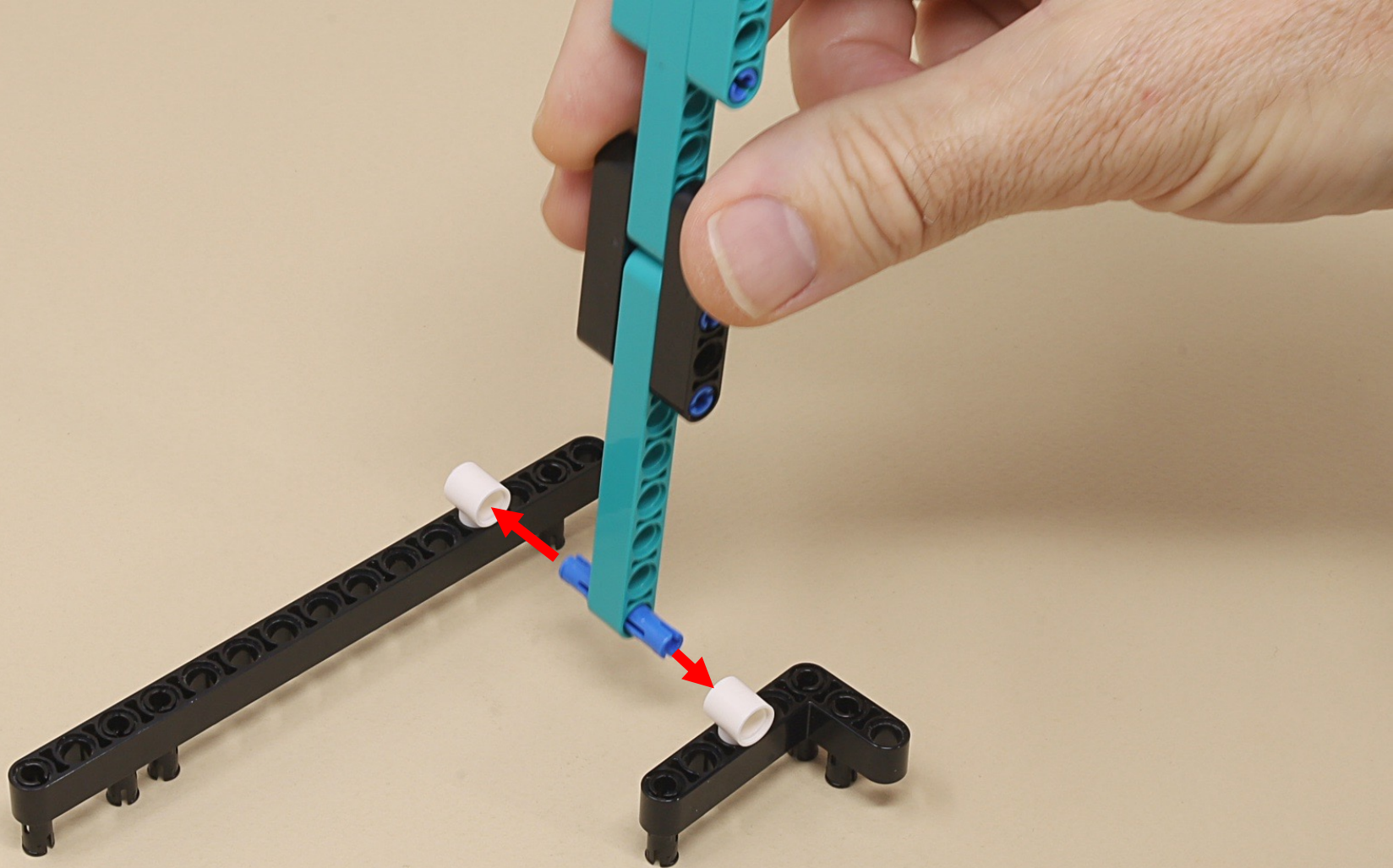




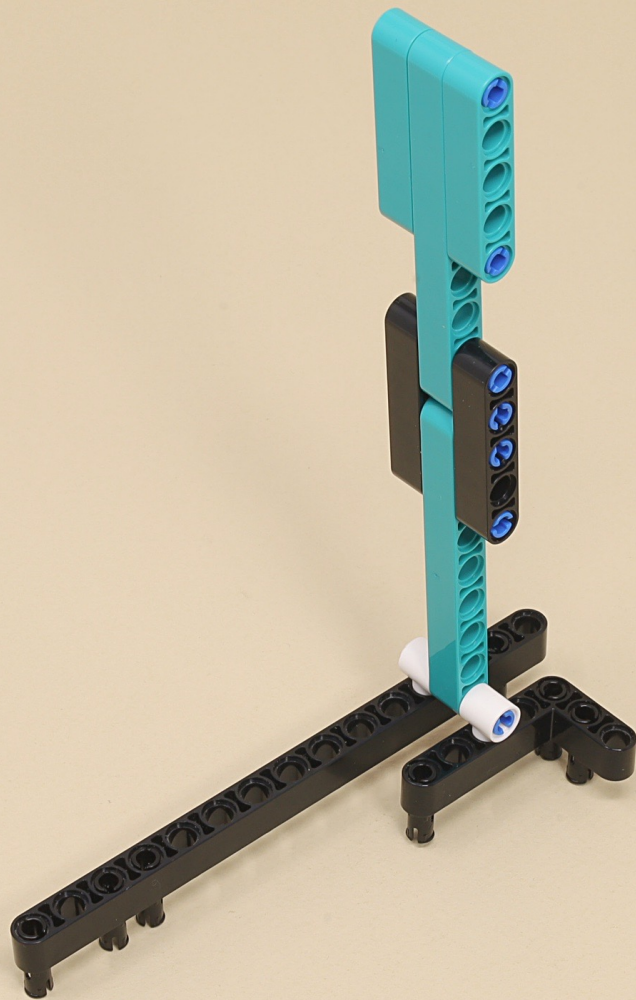


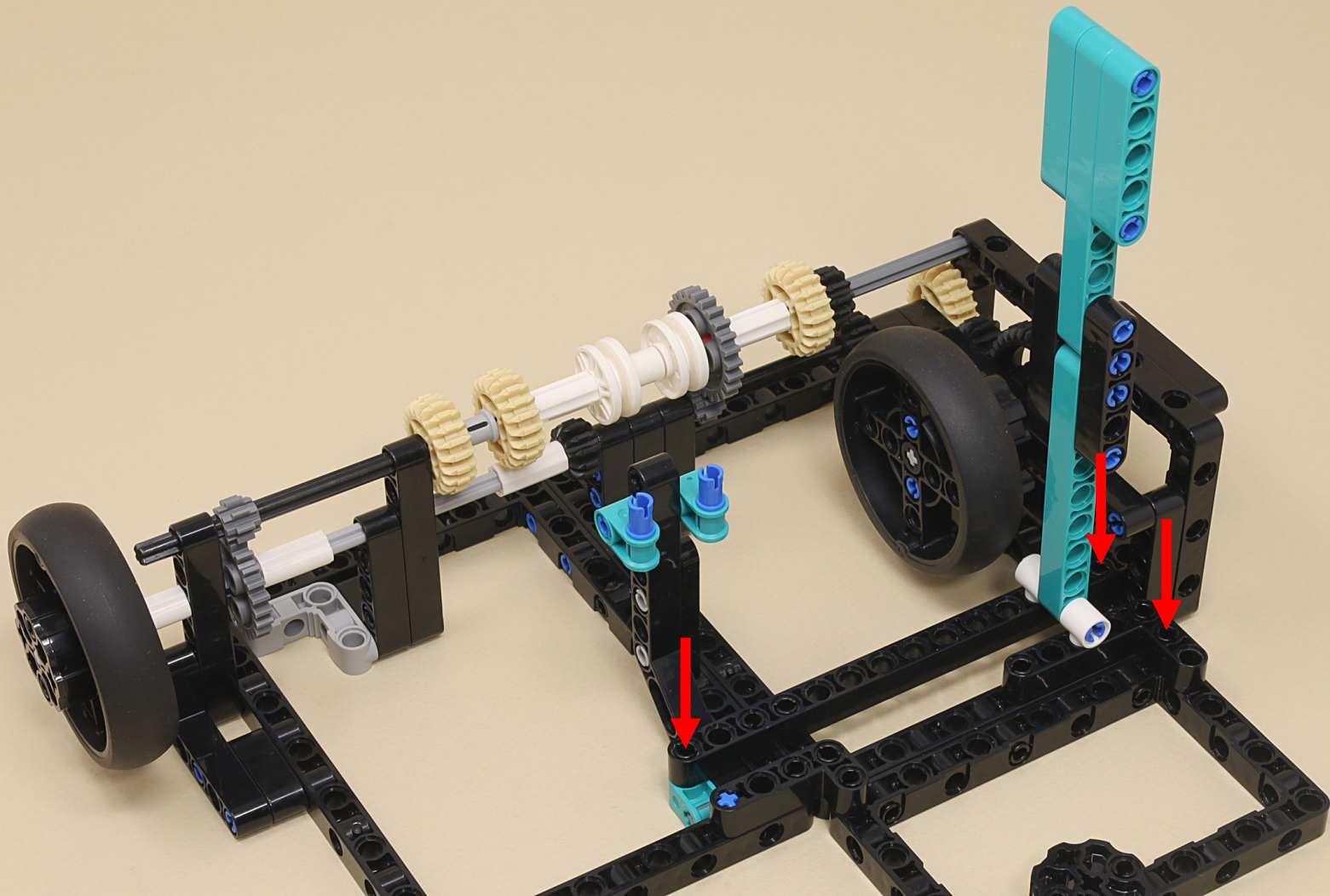




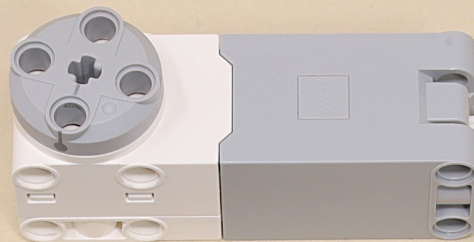












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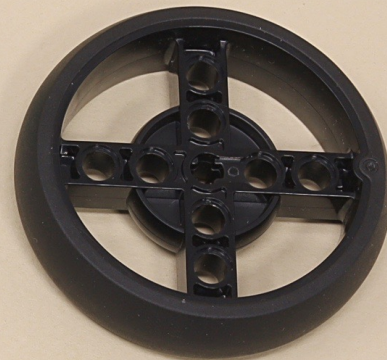
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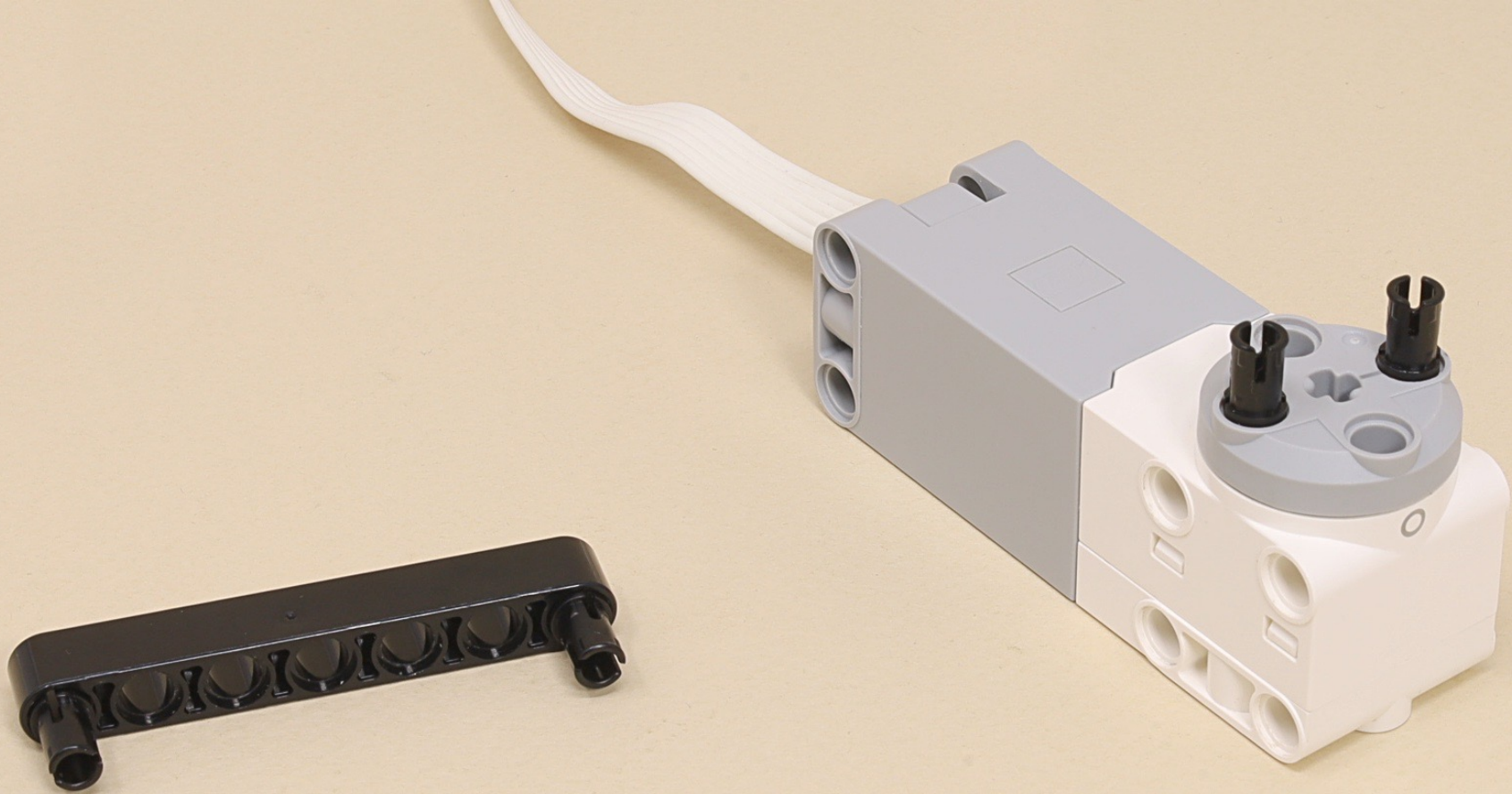
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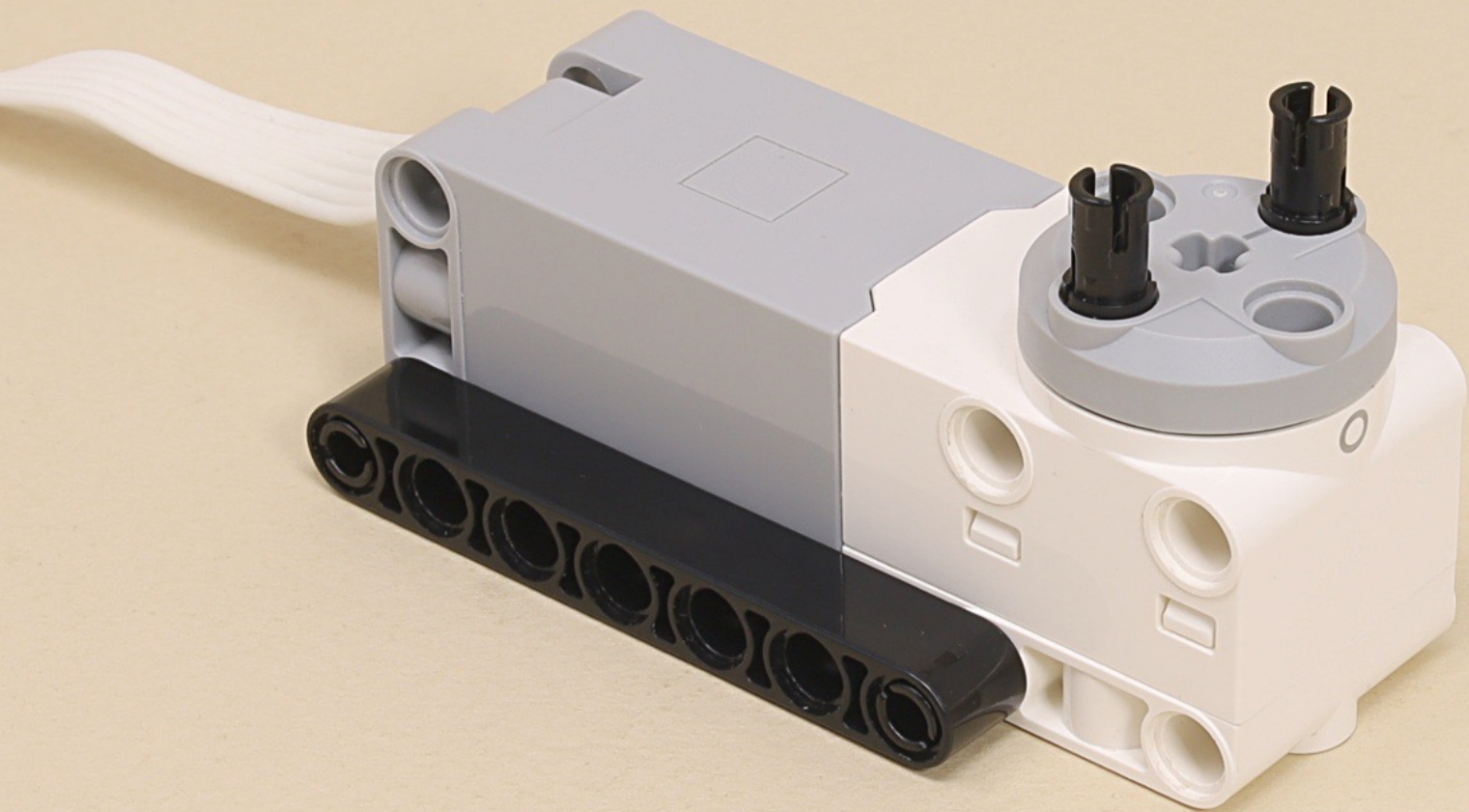
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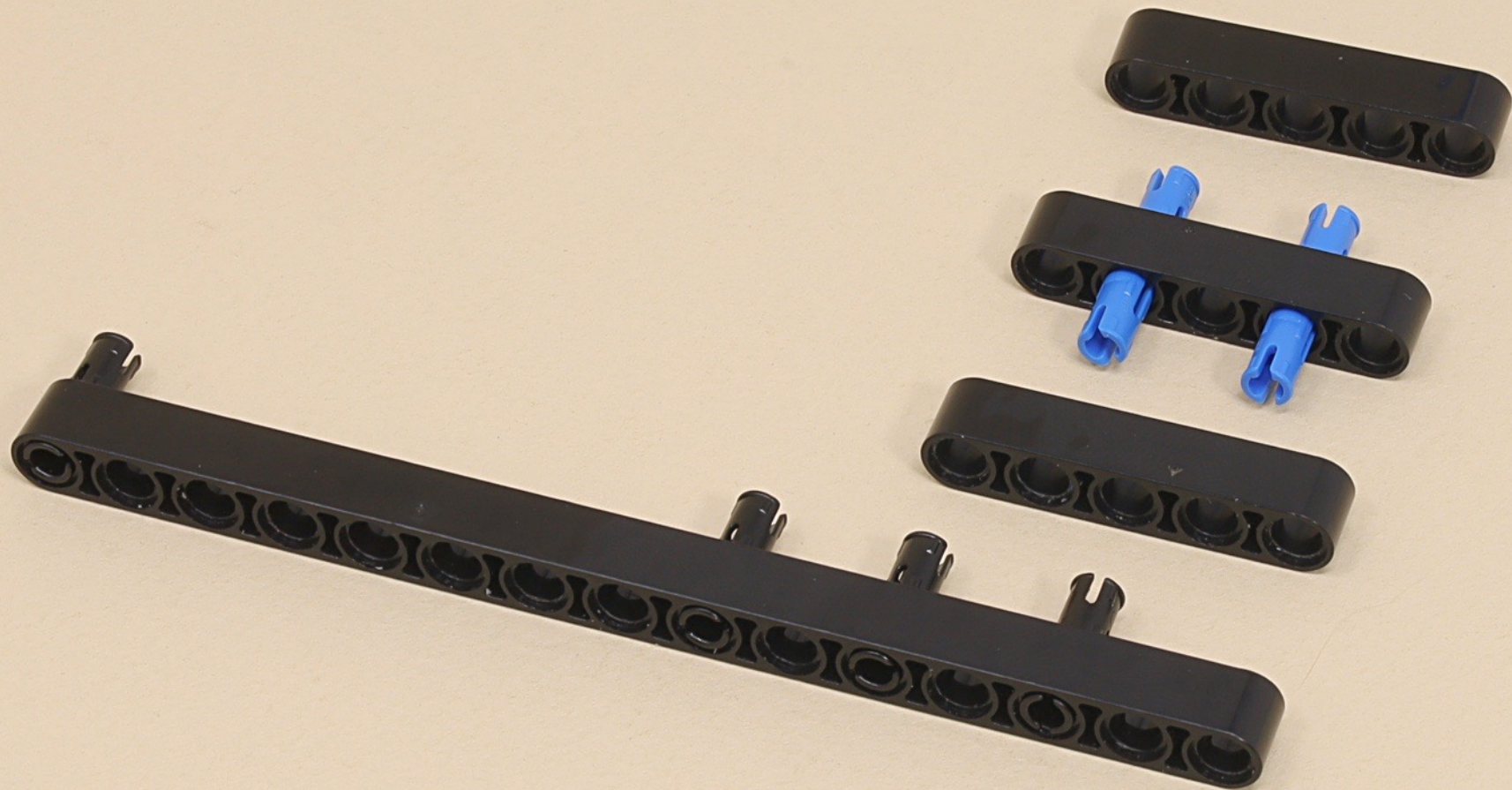




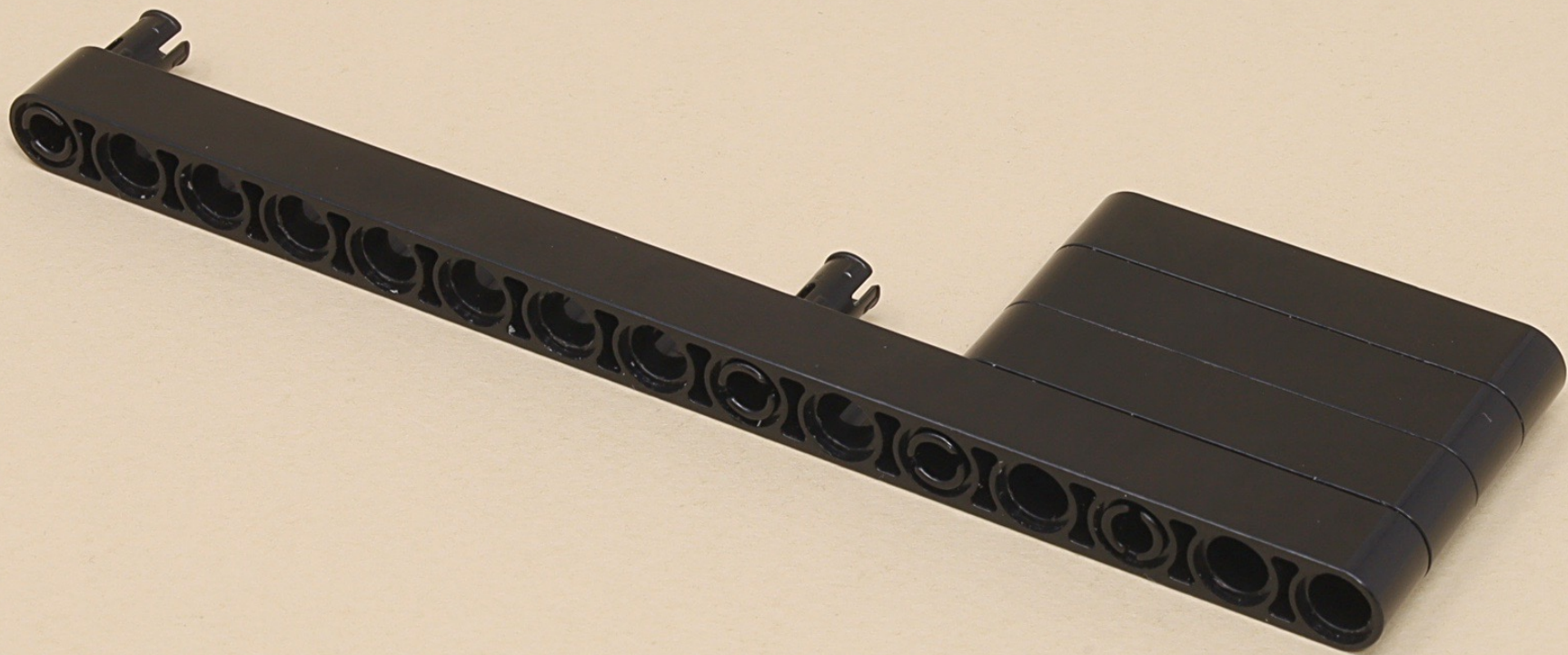


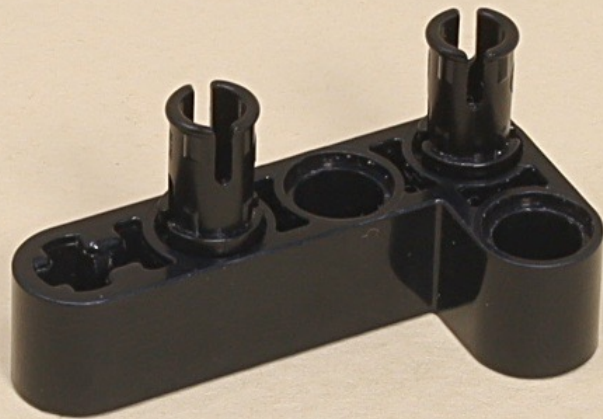




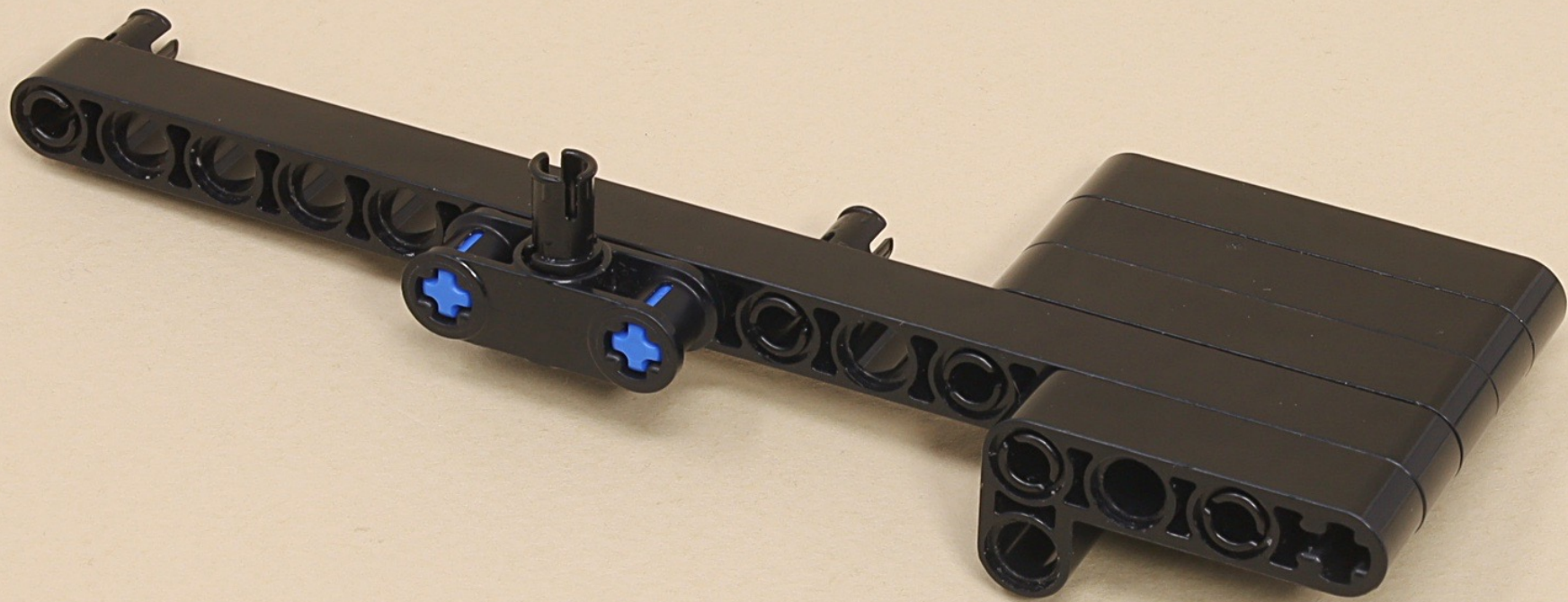


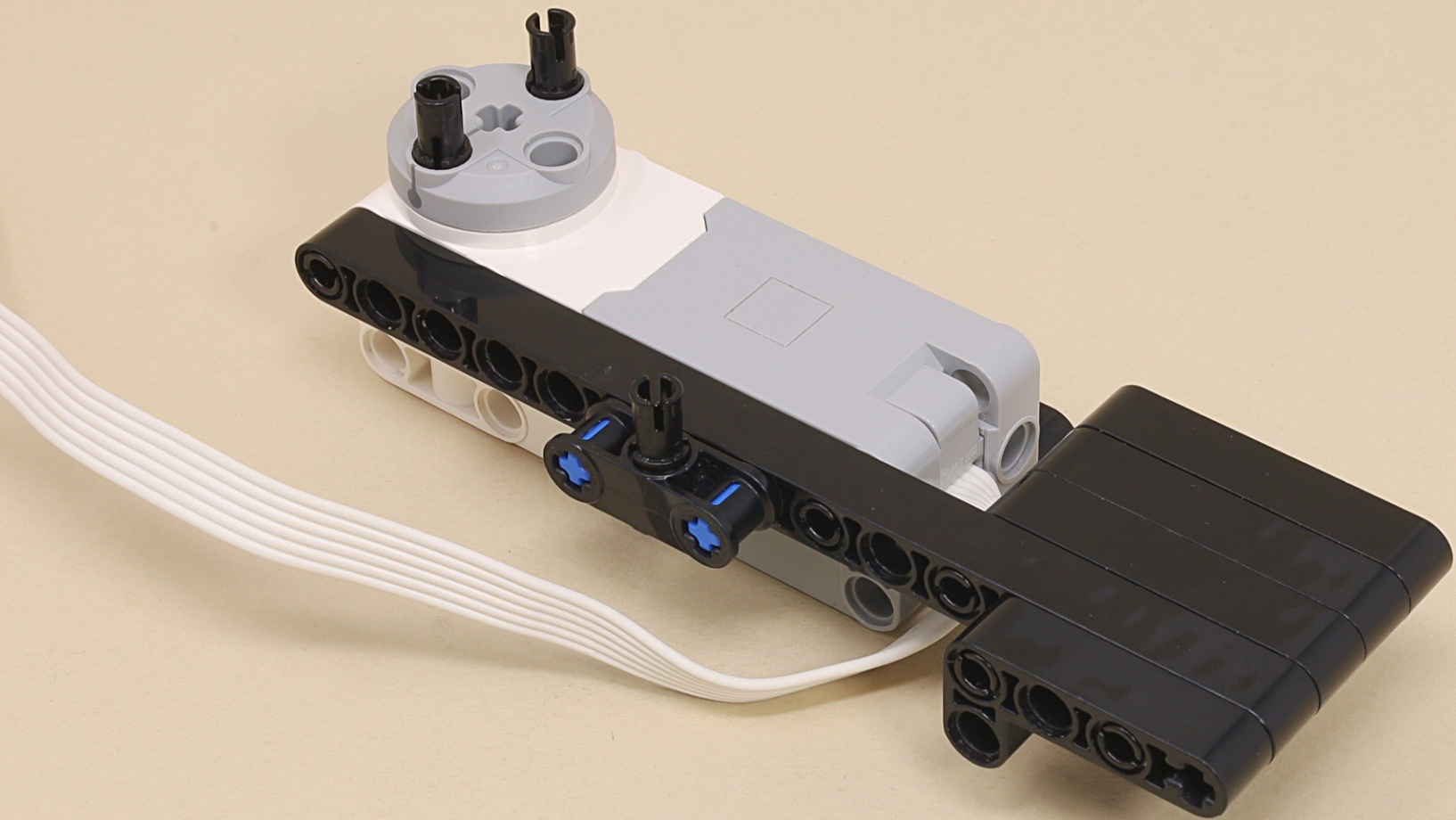




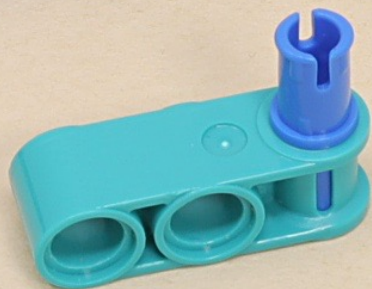
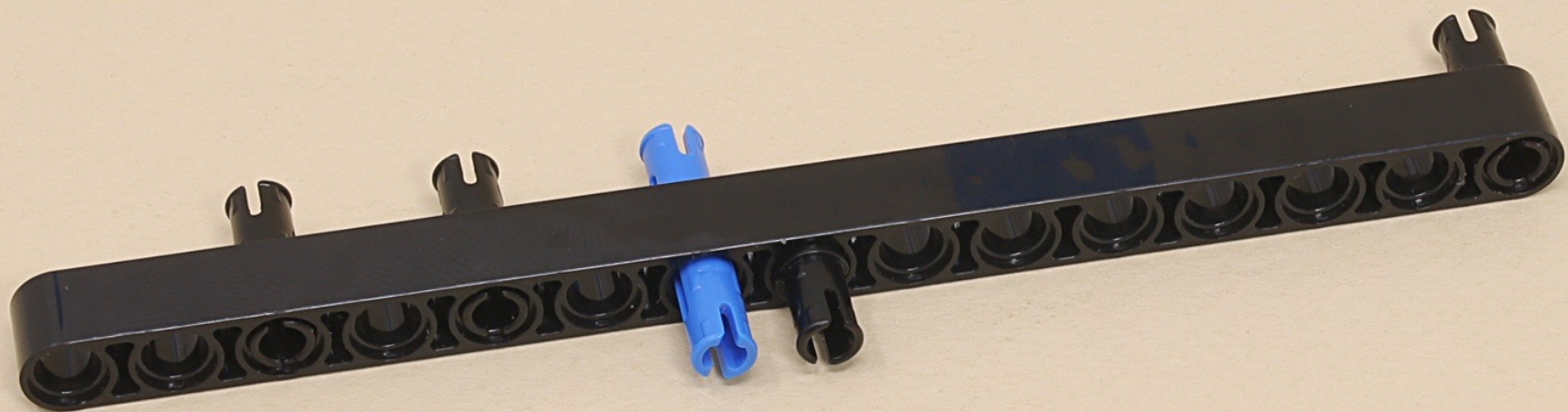


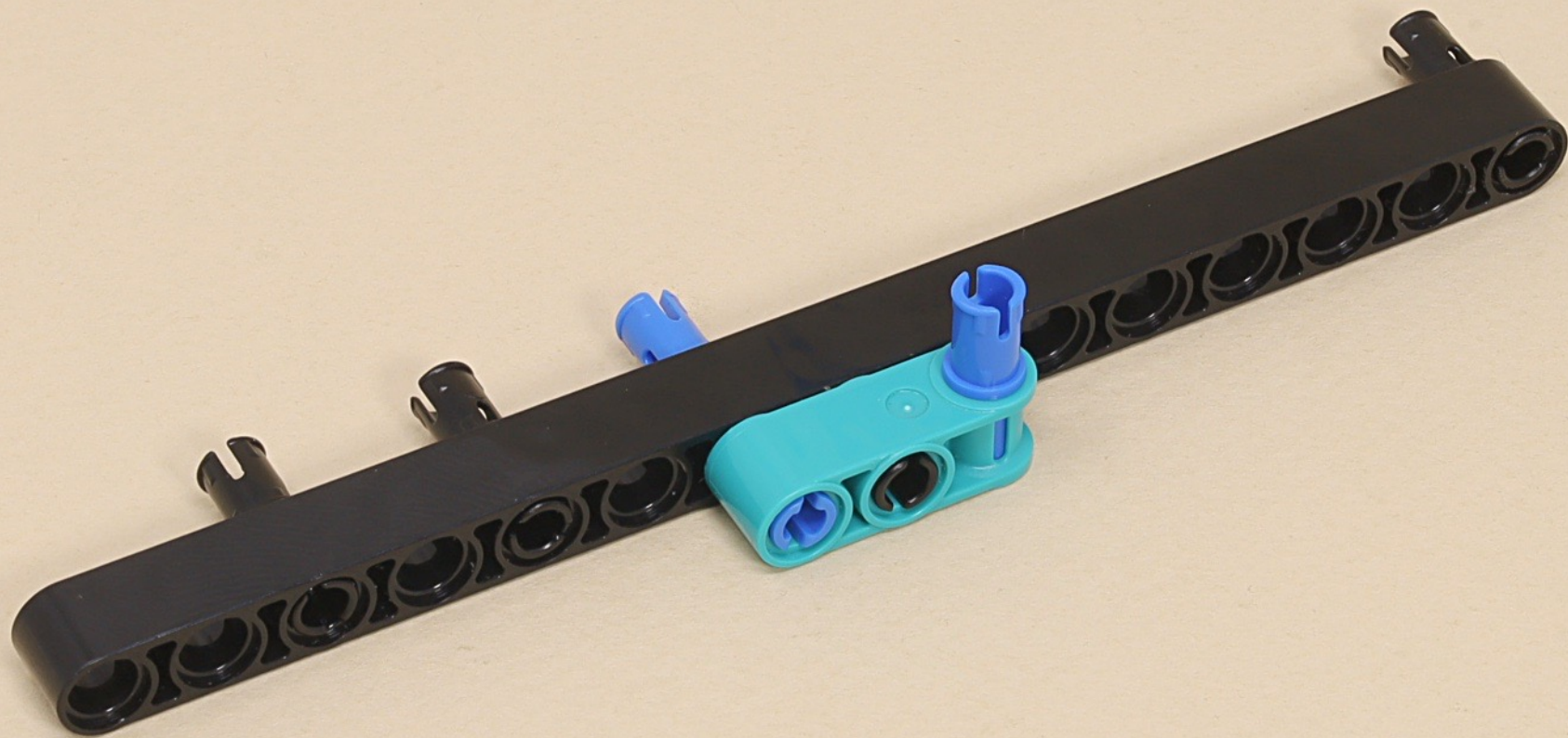




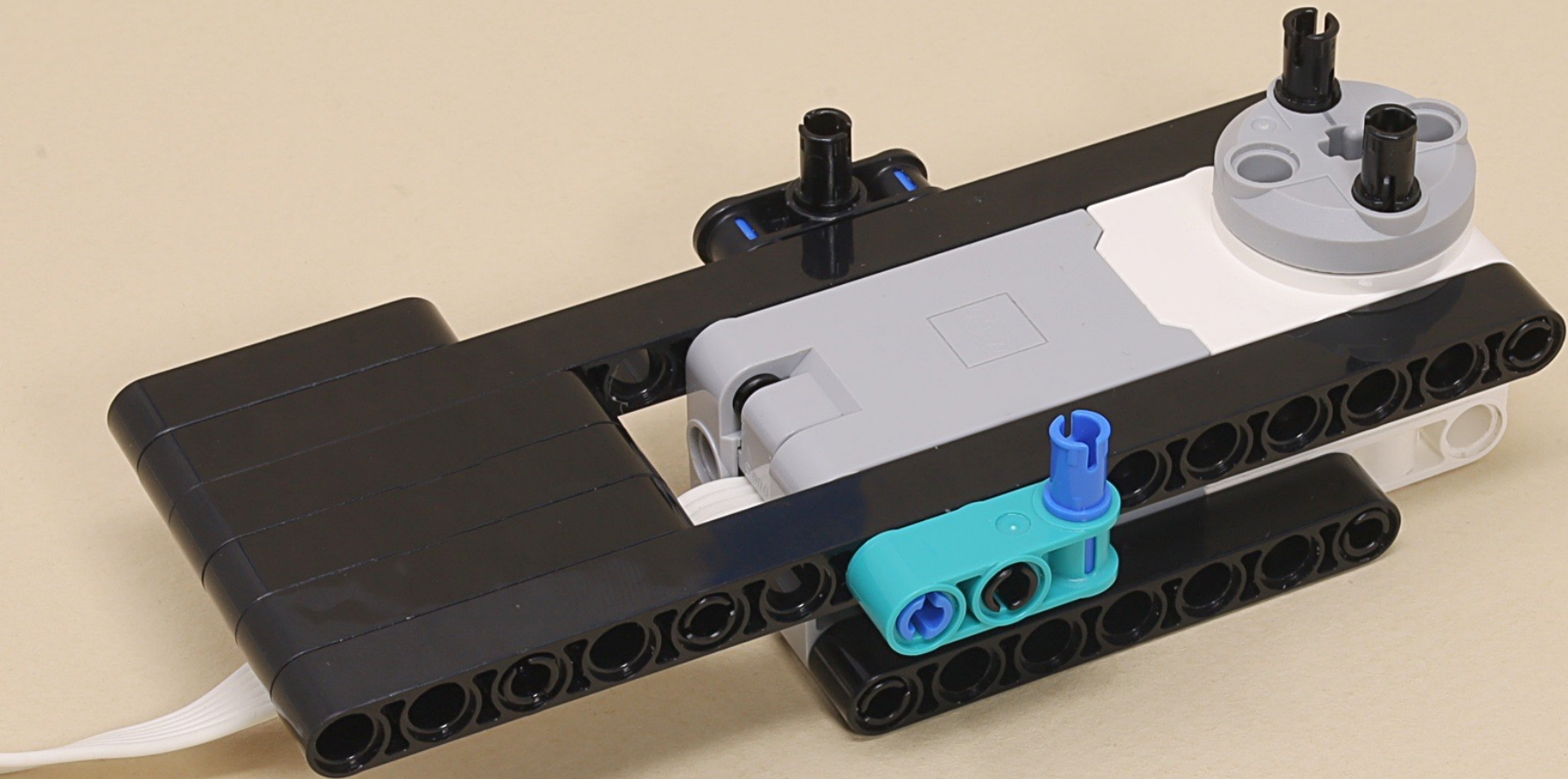


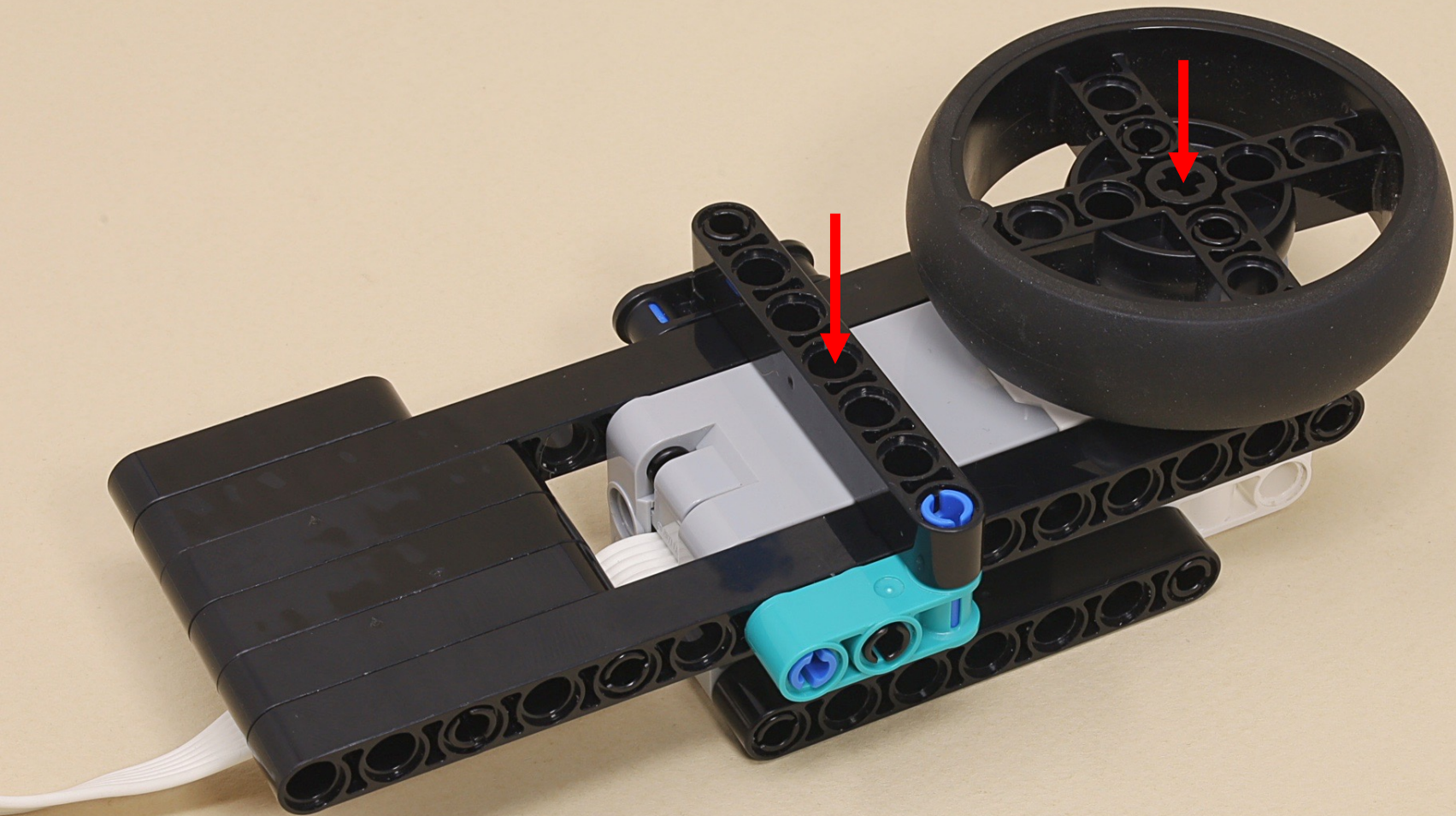
















3



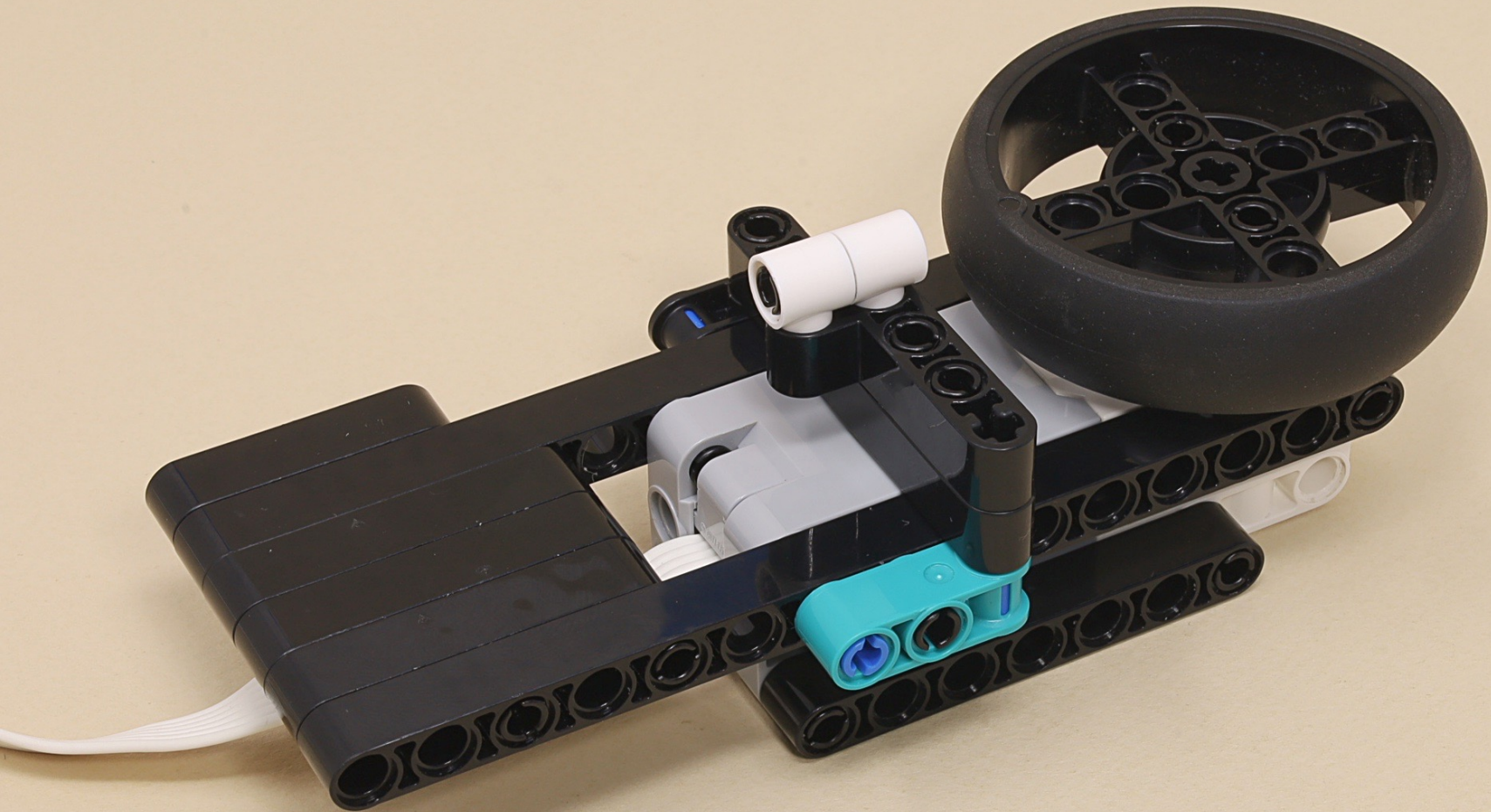
(5 x)



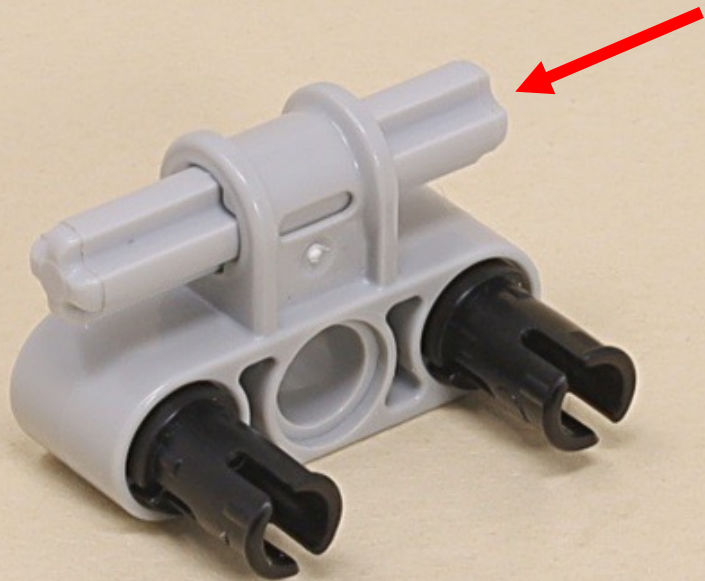


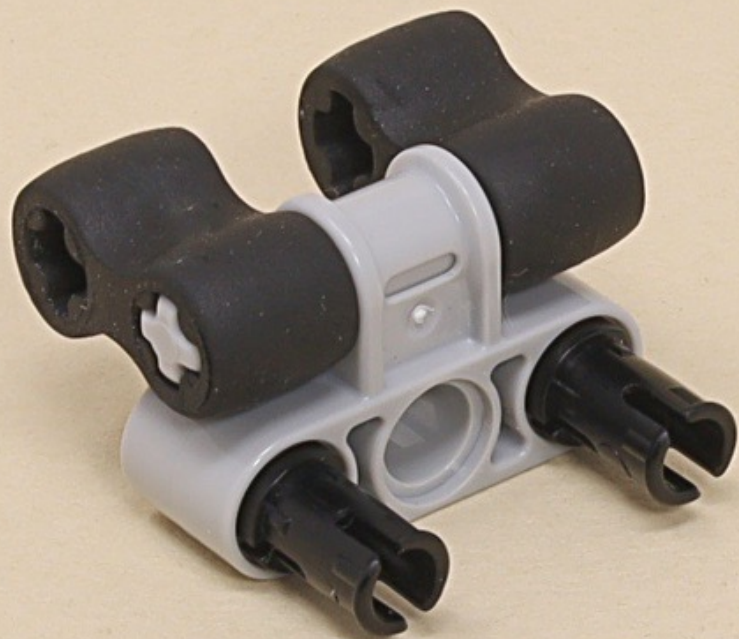




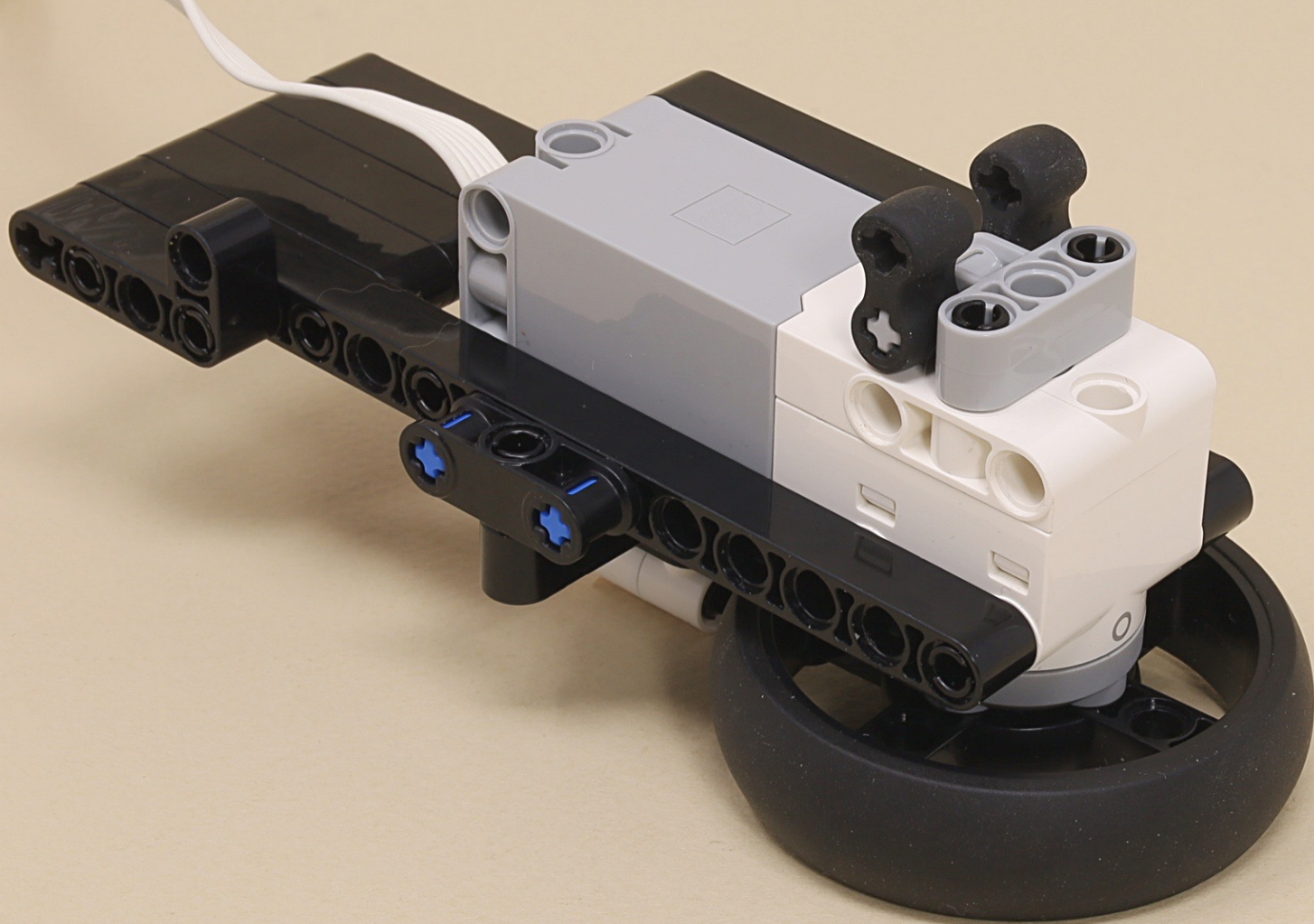




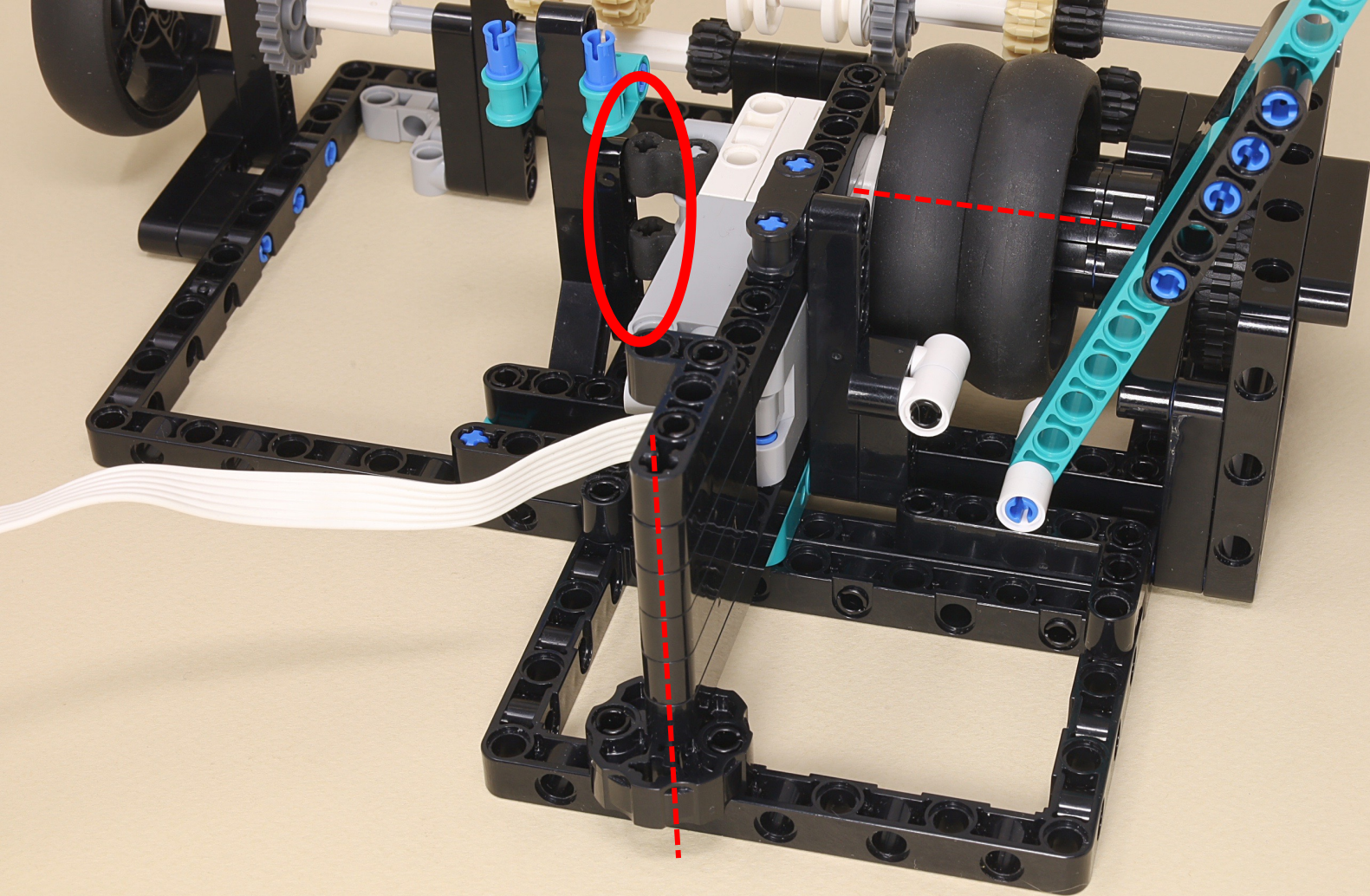
















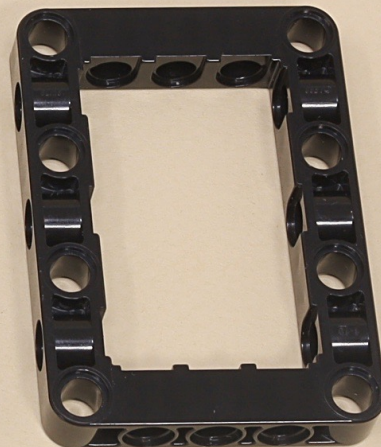
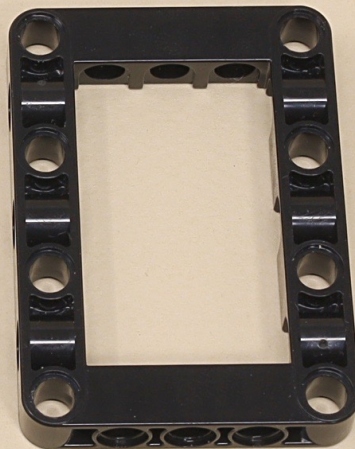
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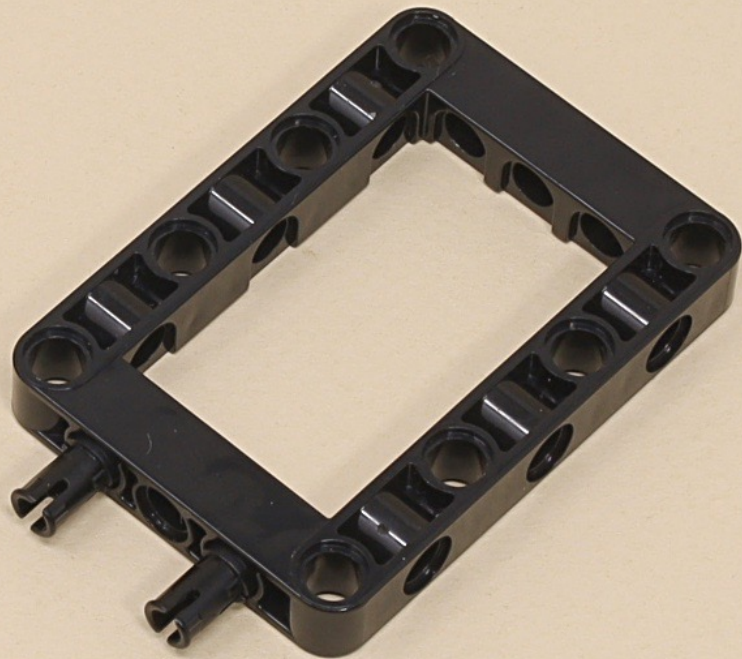
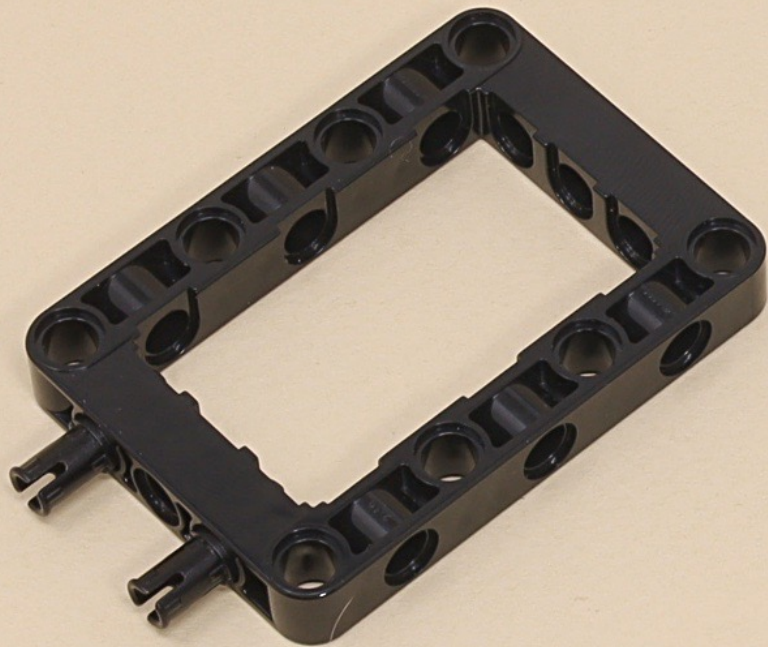


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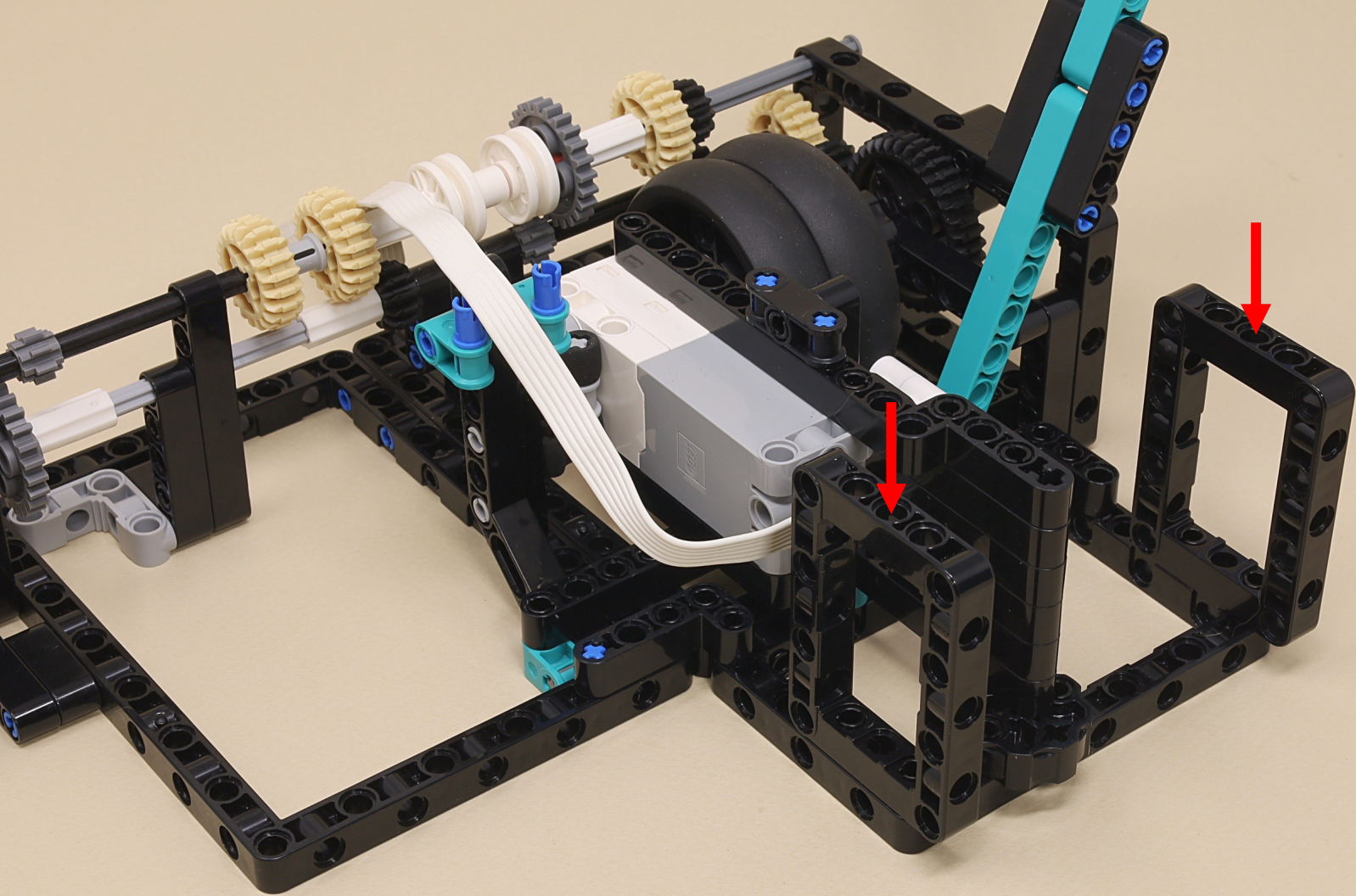


(6 x)



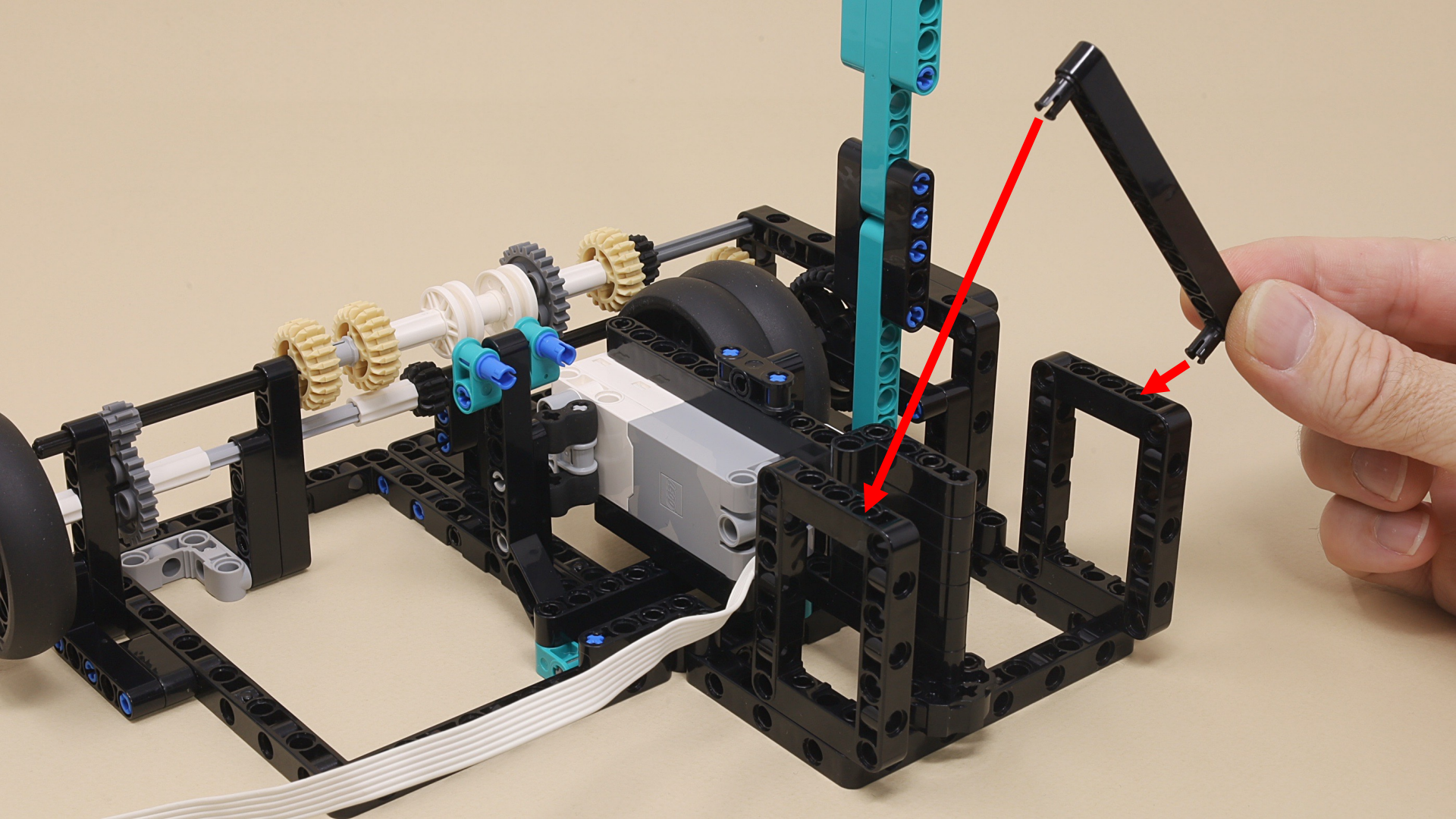




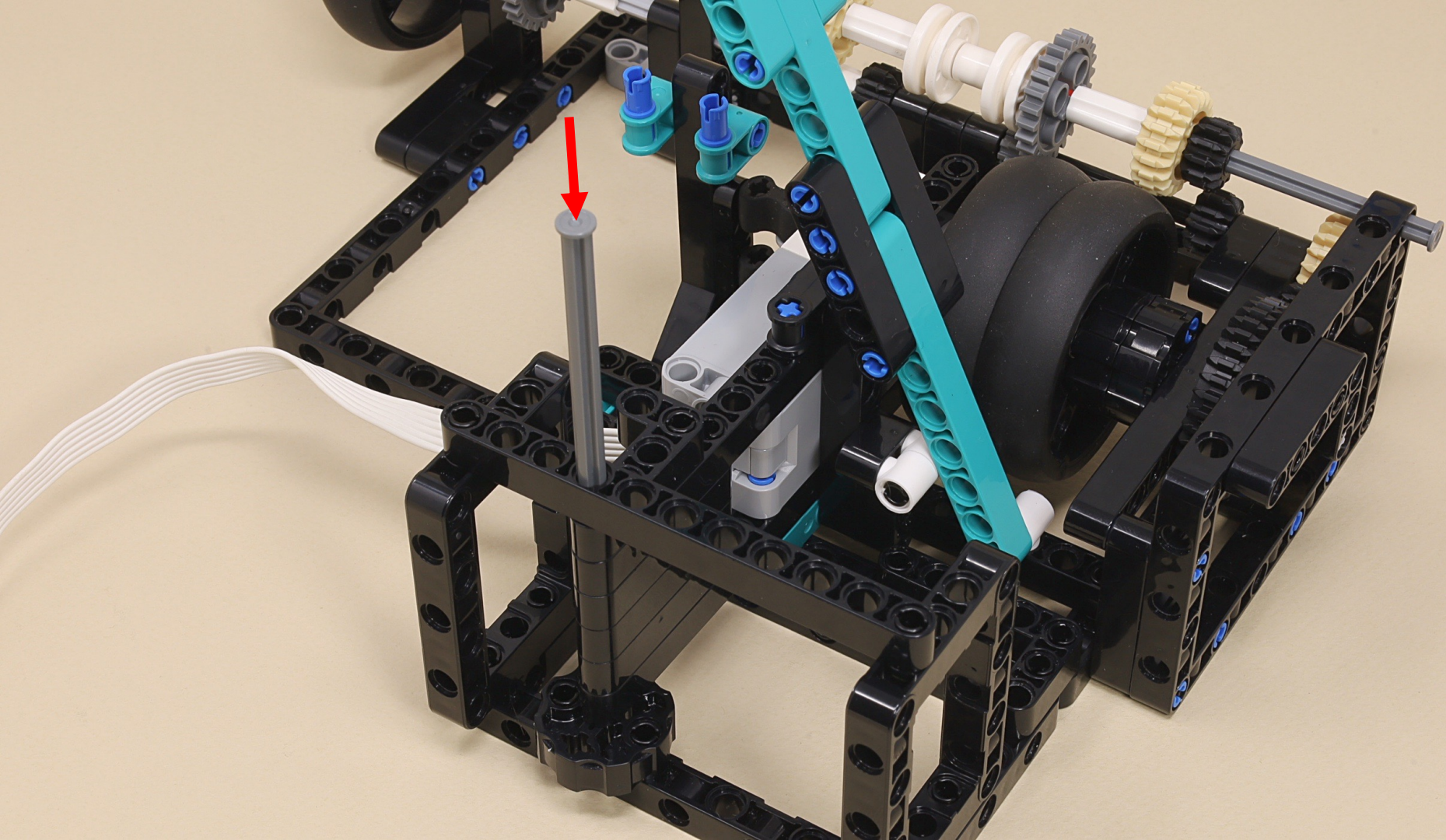




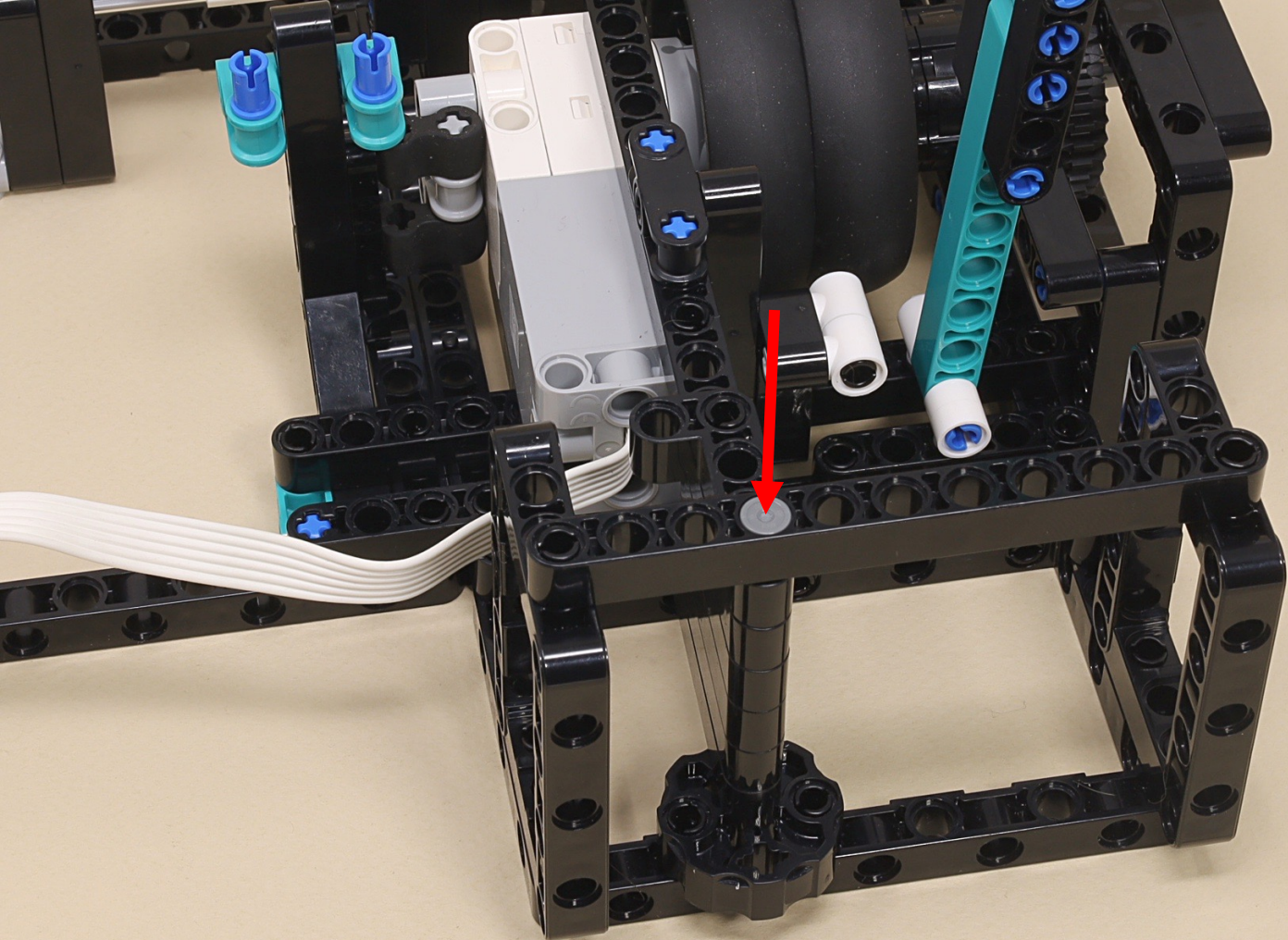
















15



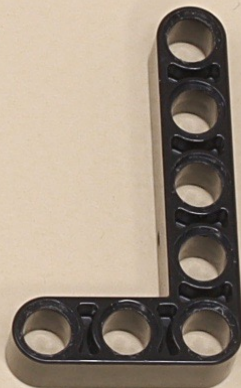
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11

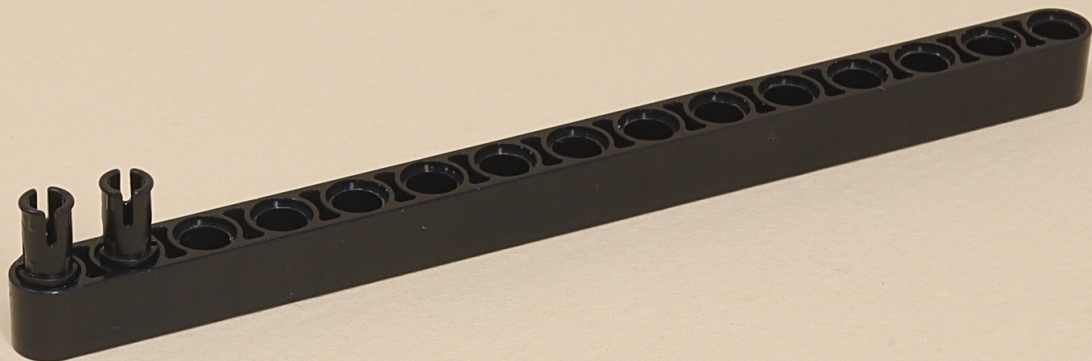
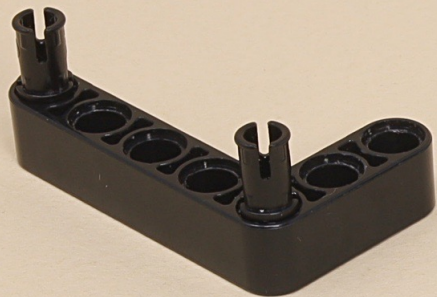


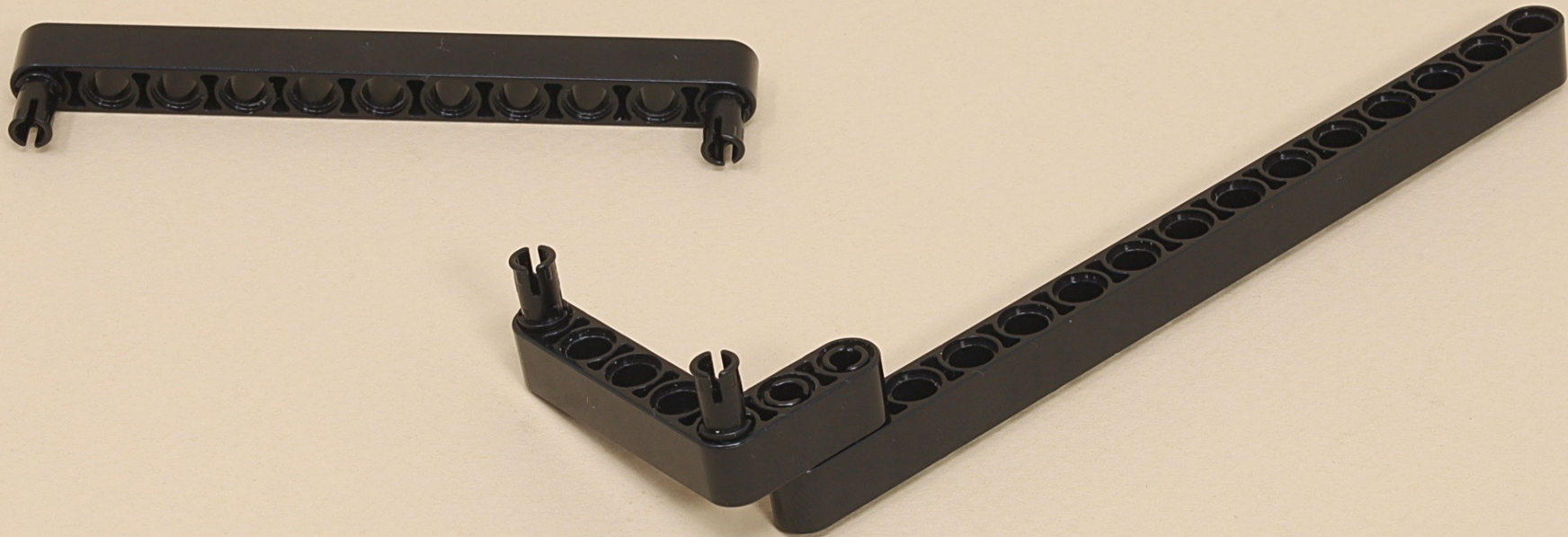
11



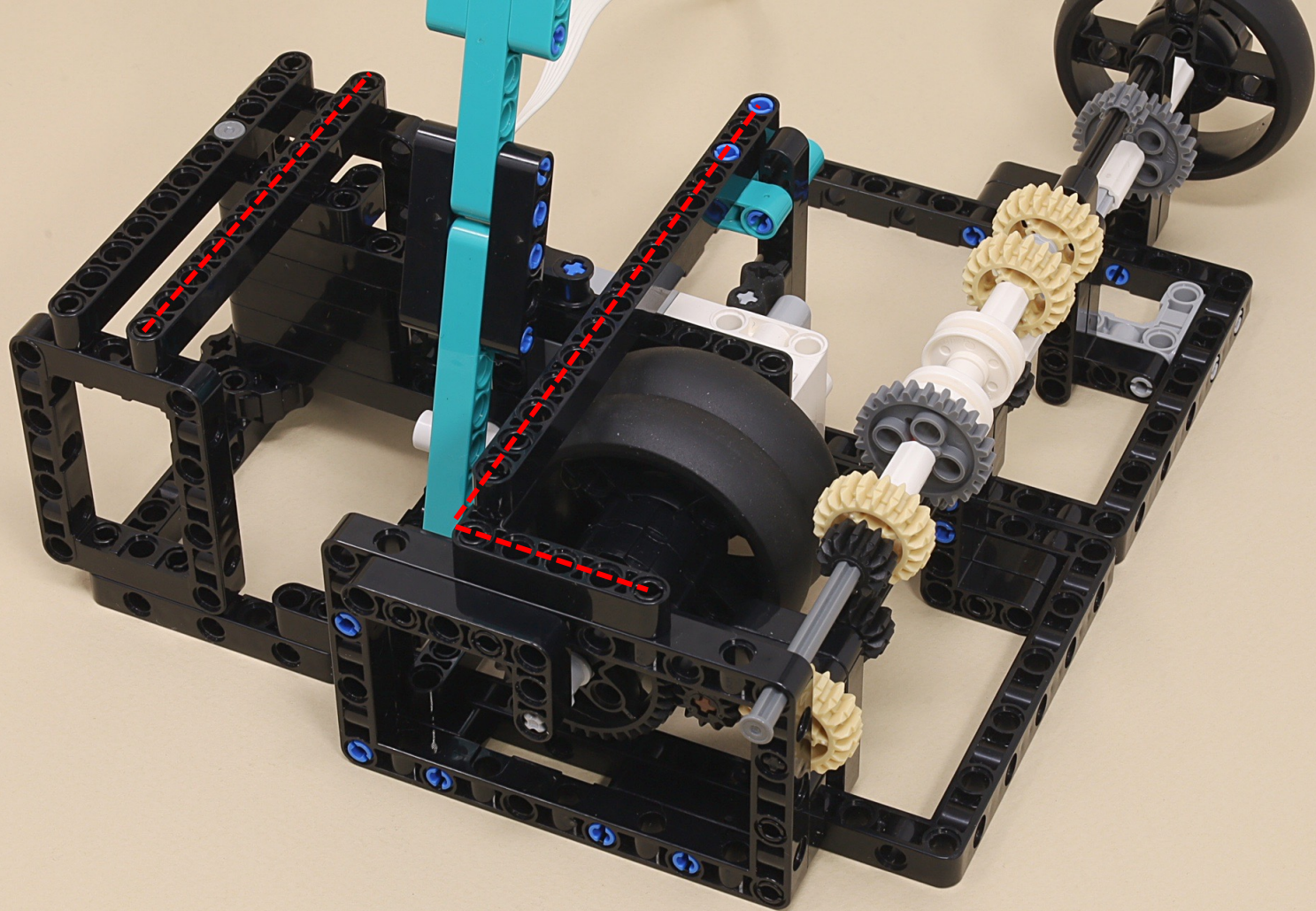
(10 x)





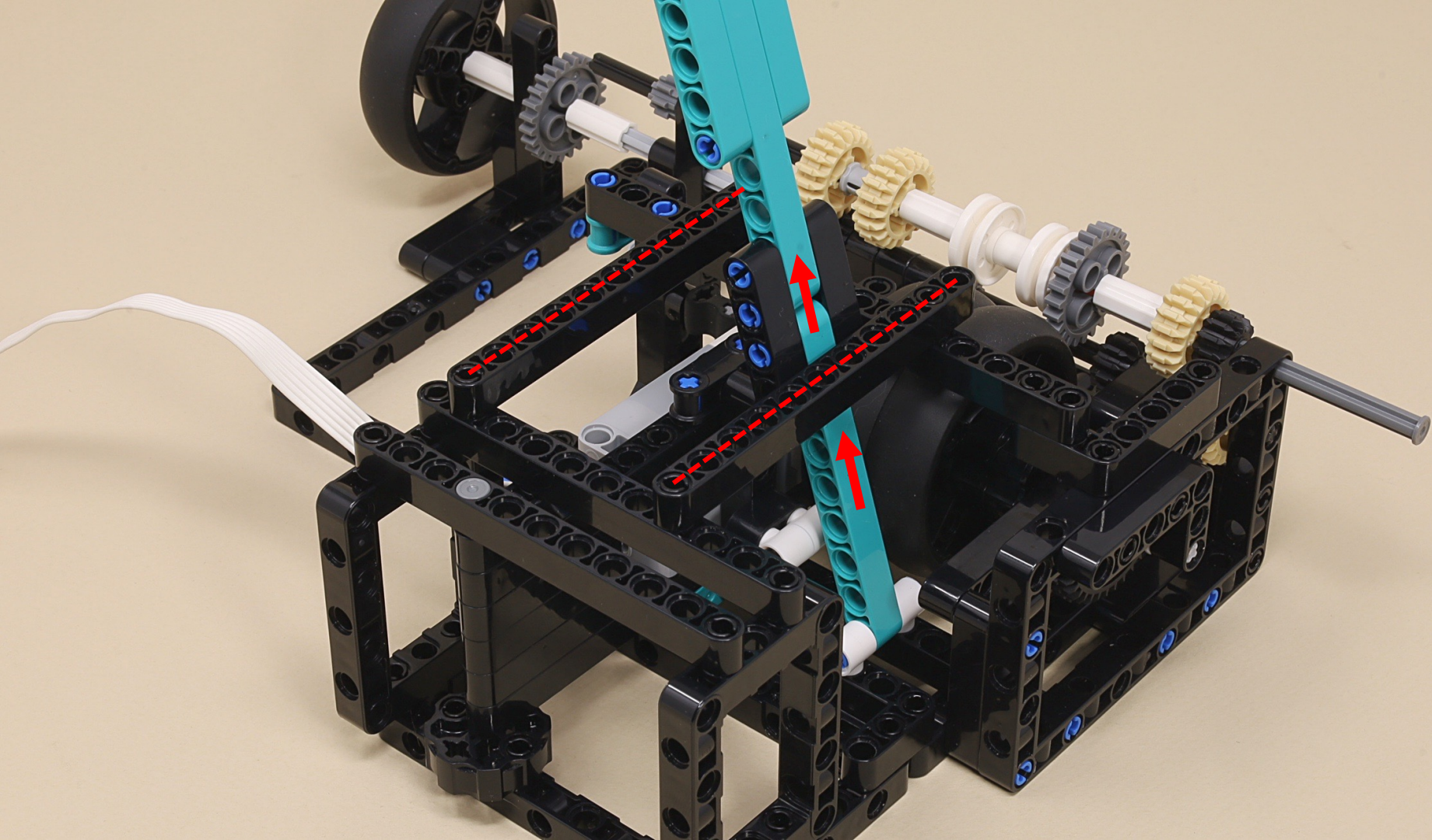




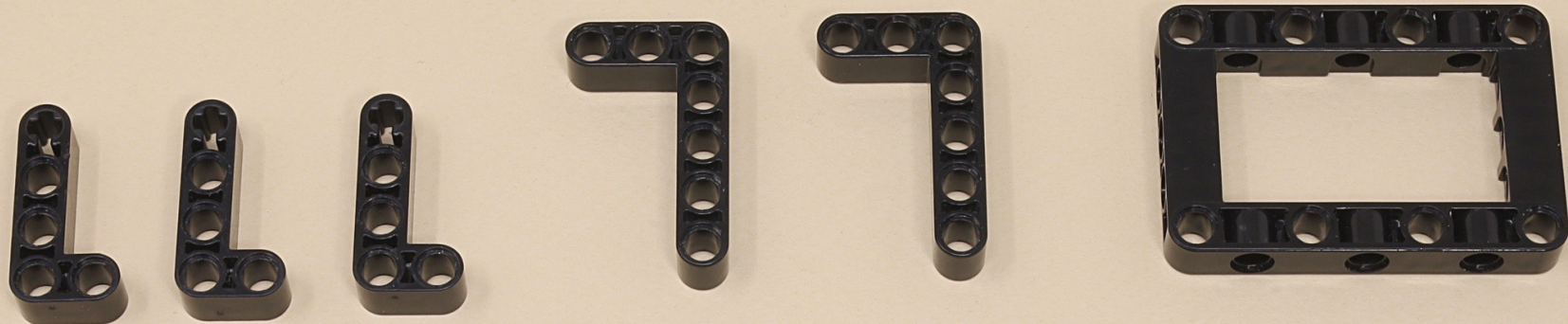












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4



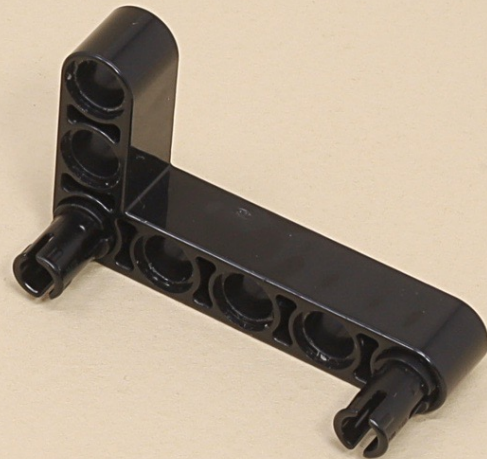
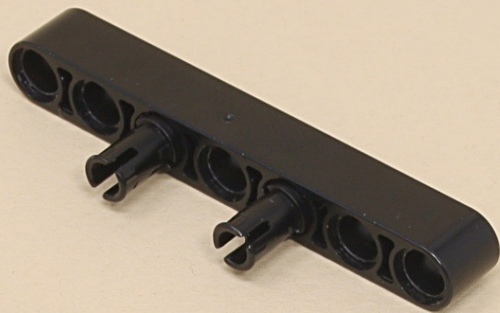
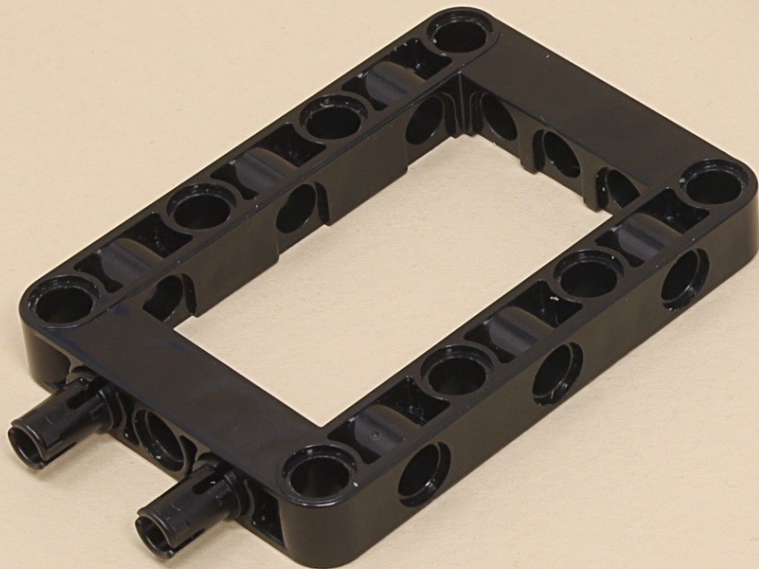
(14 x)

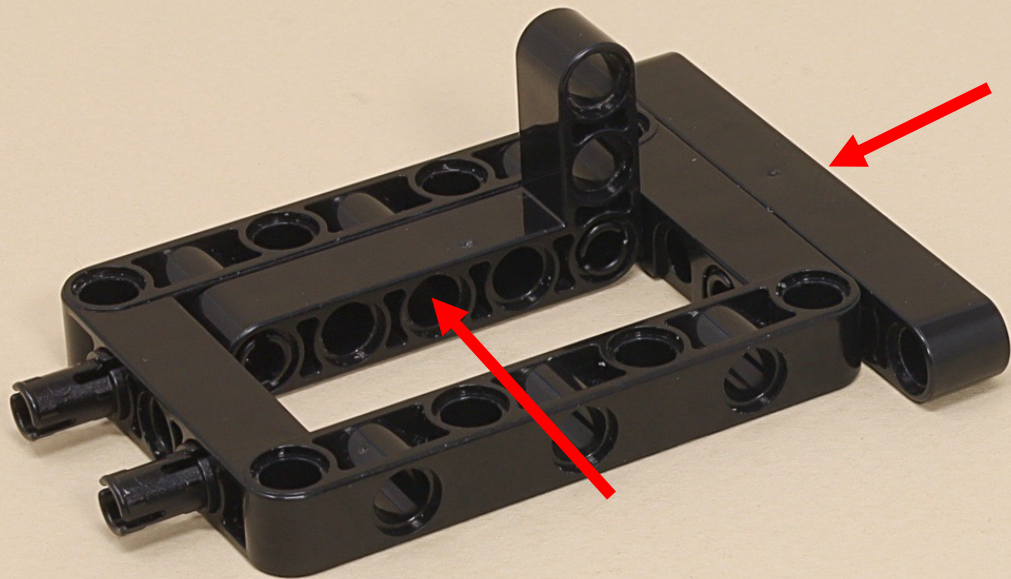


(5 x)

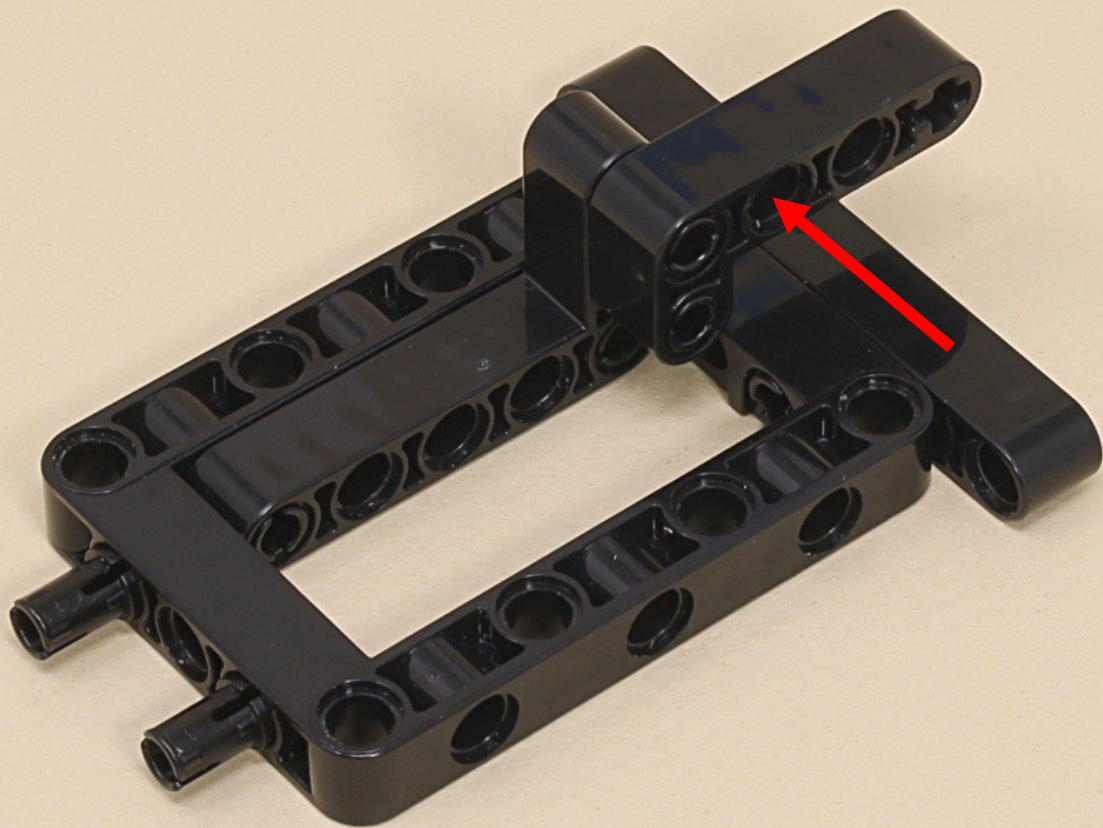






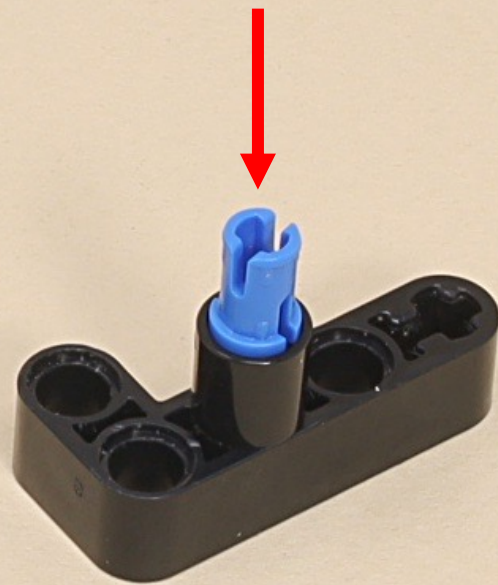
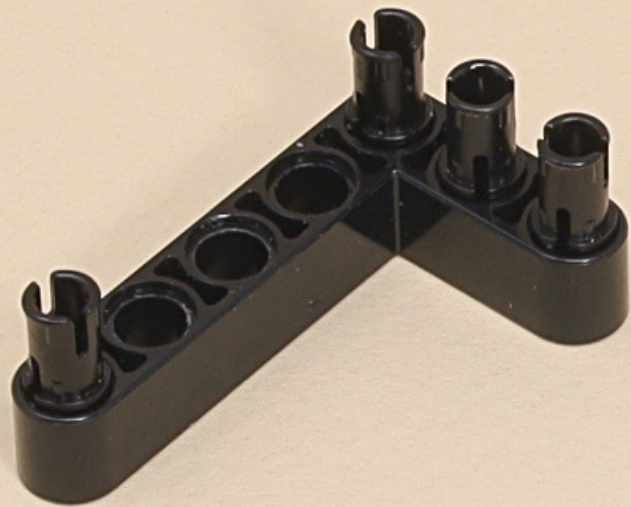


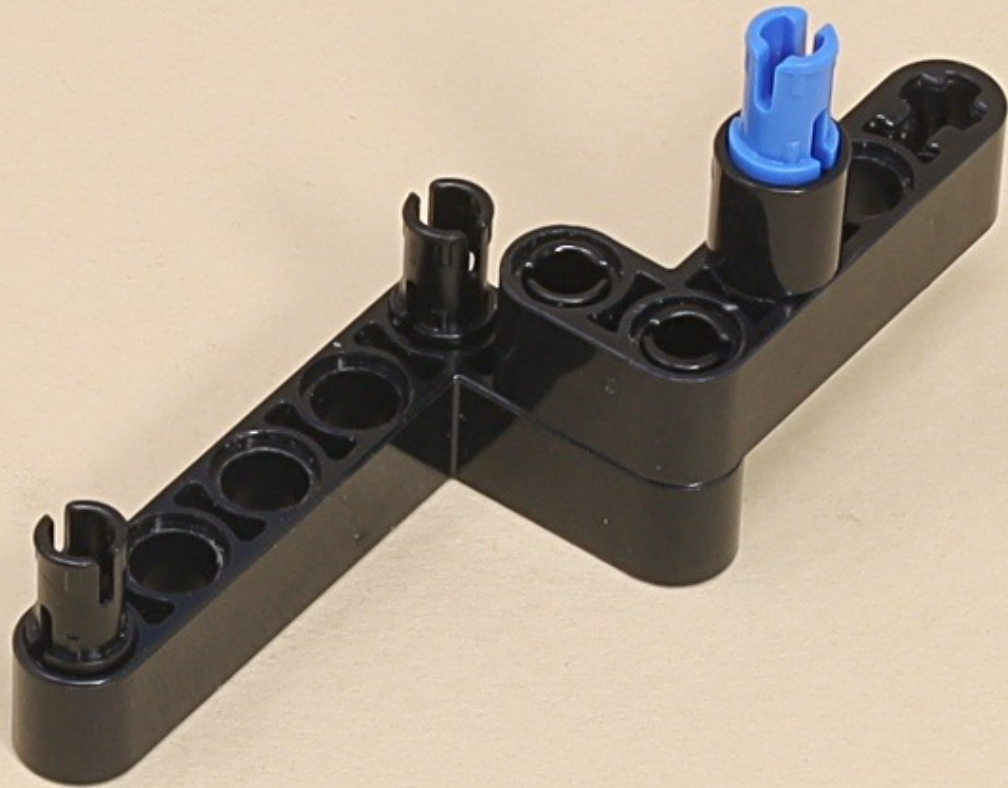




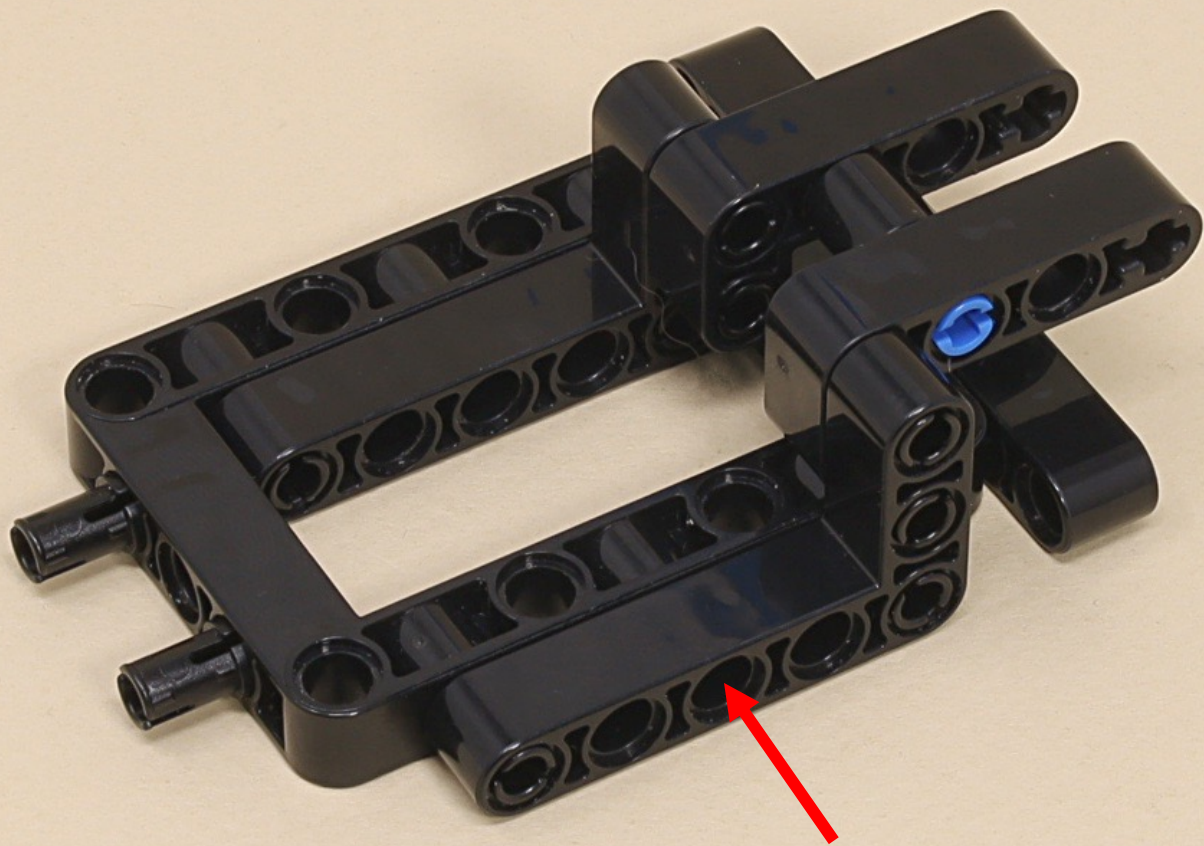


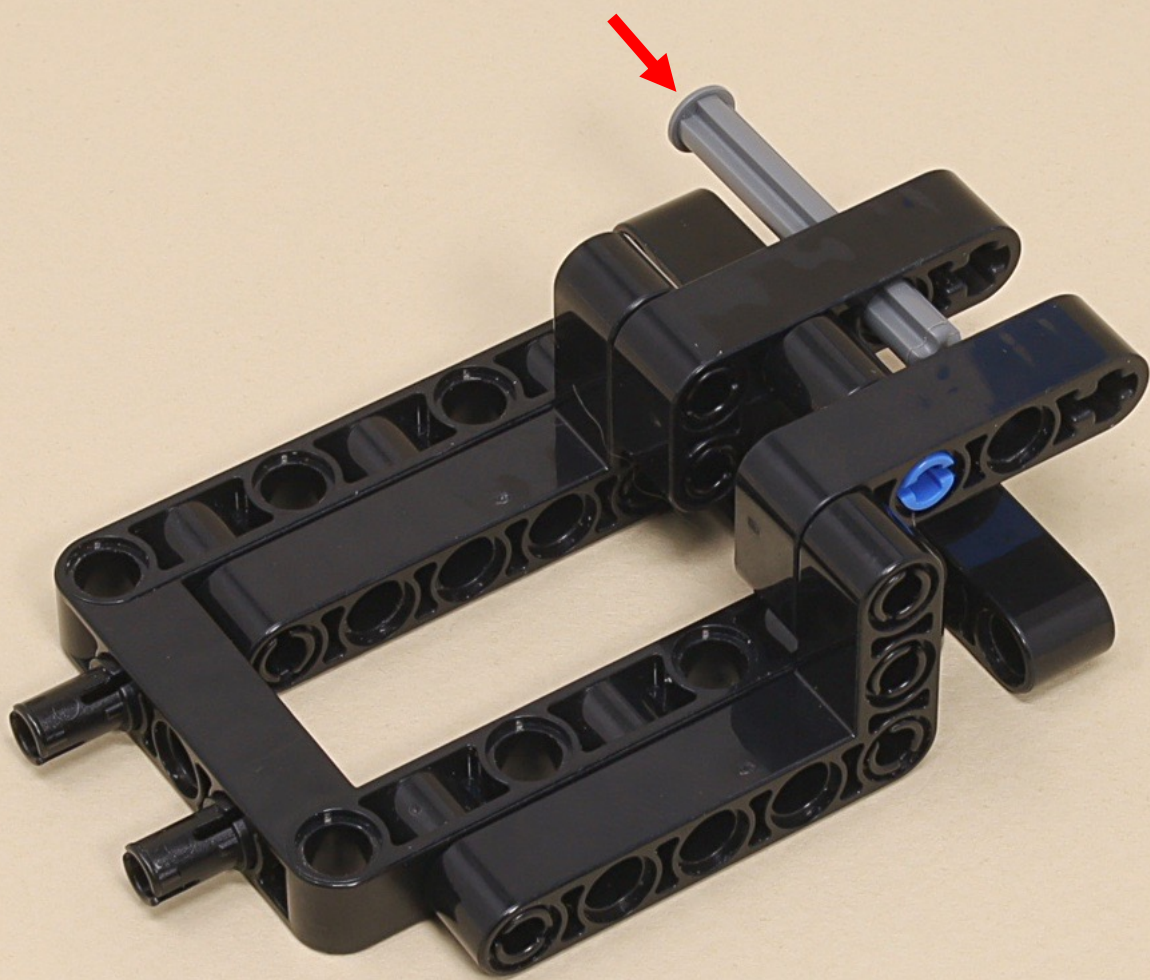




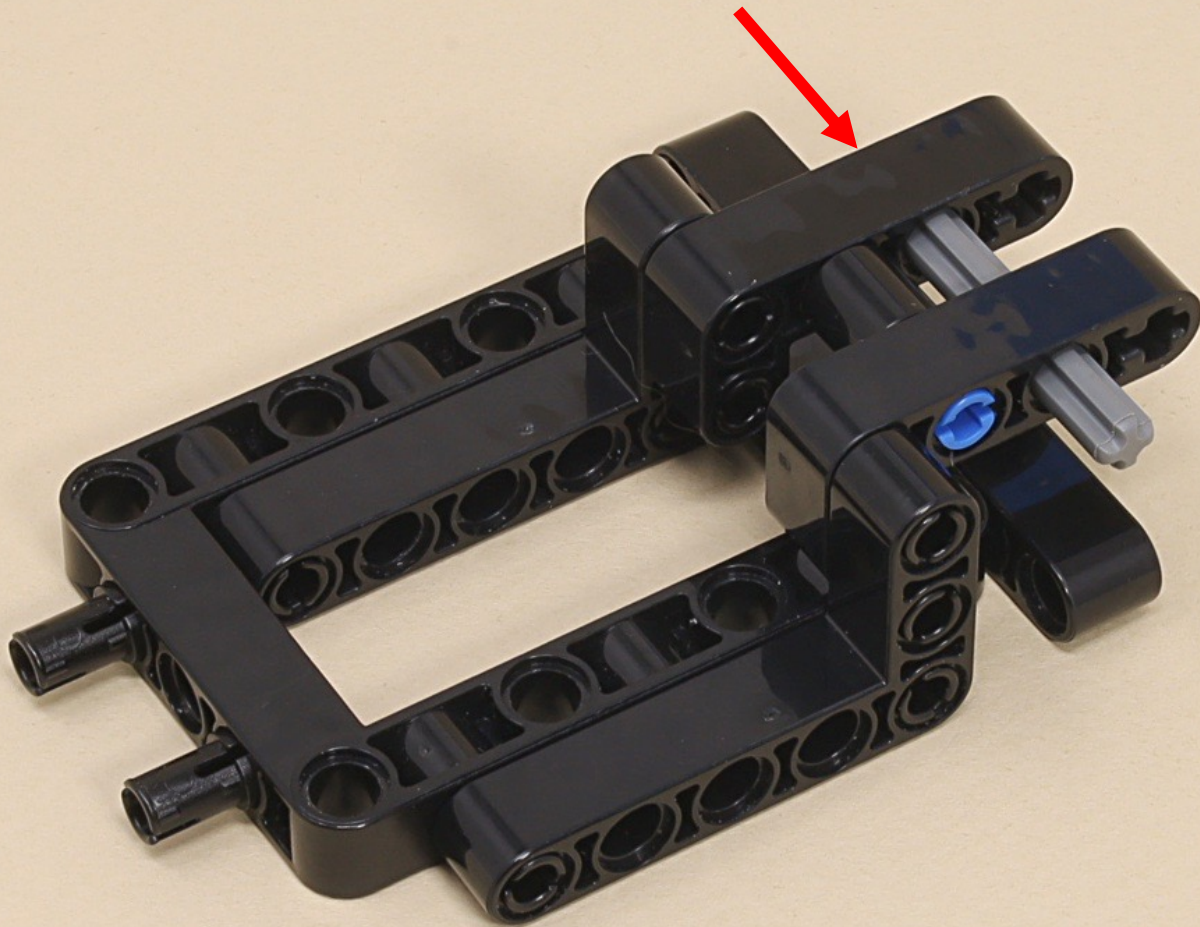


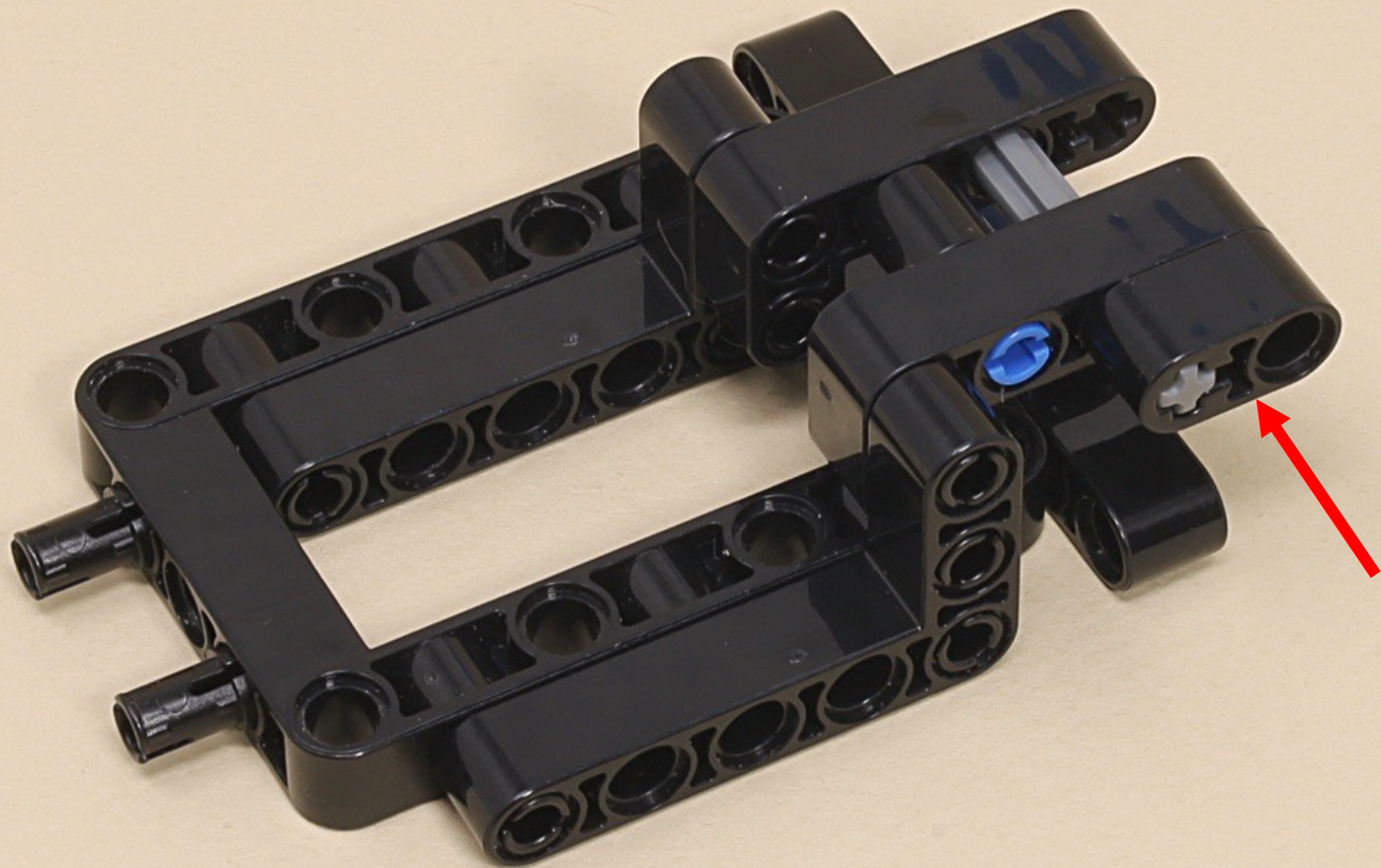






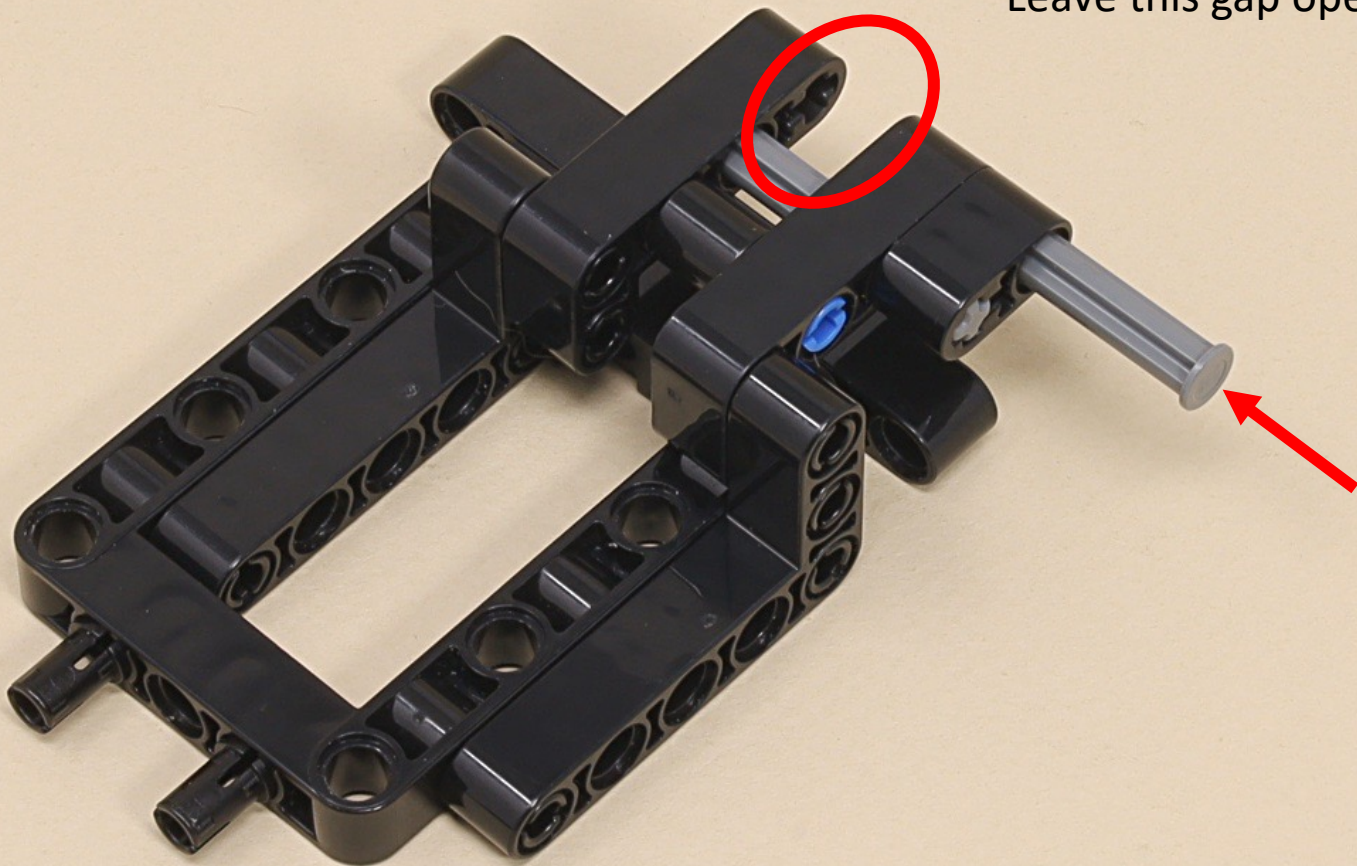


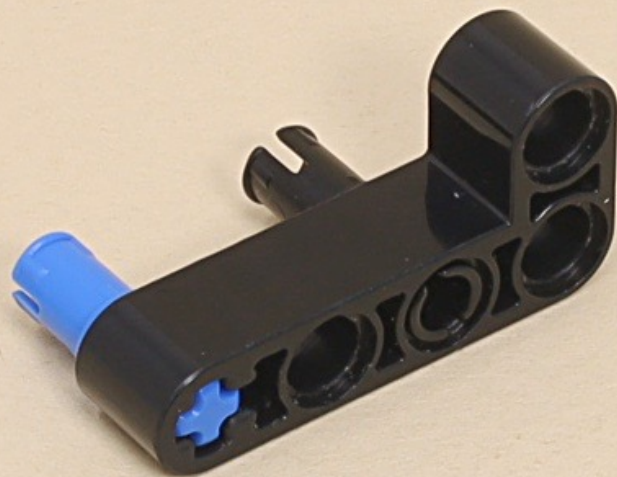




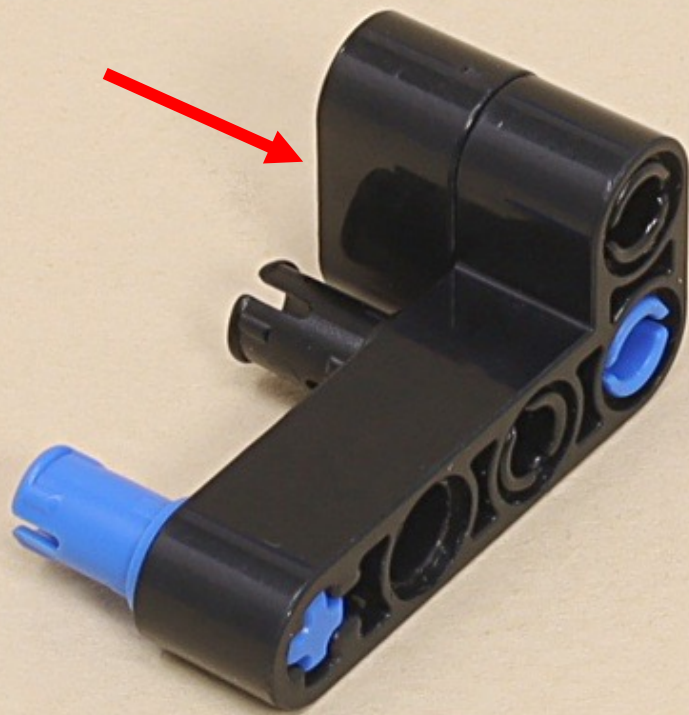


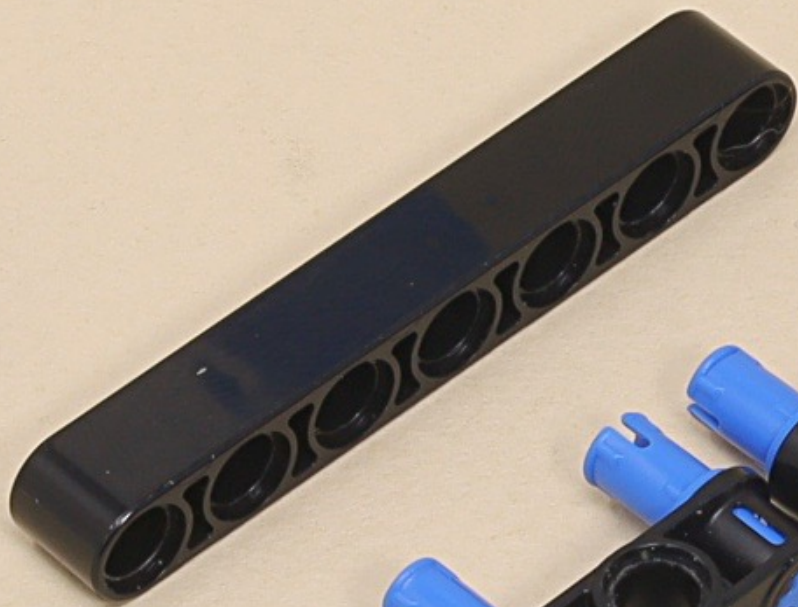
Leave this gap open for now.





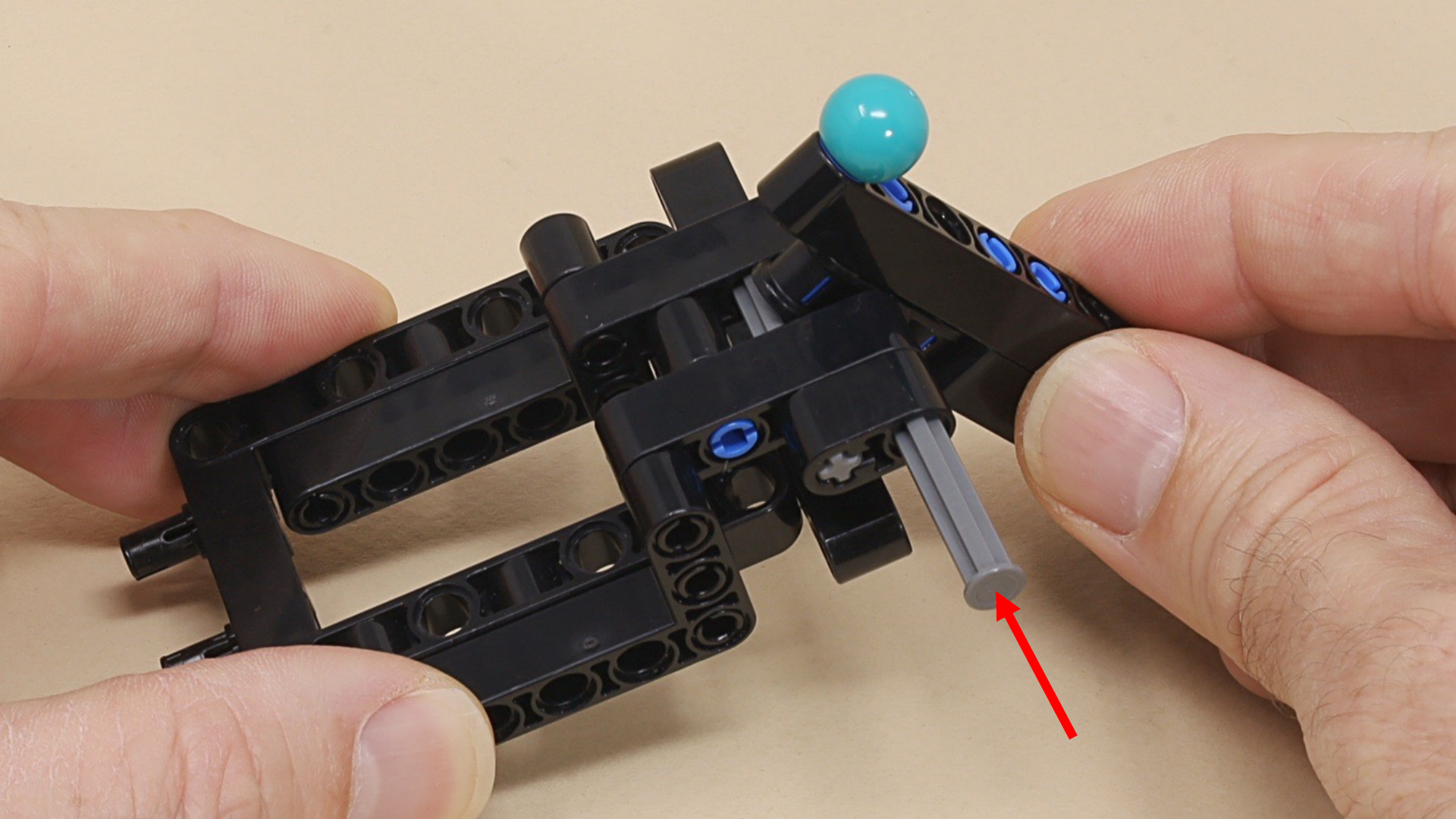




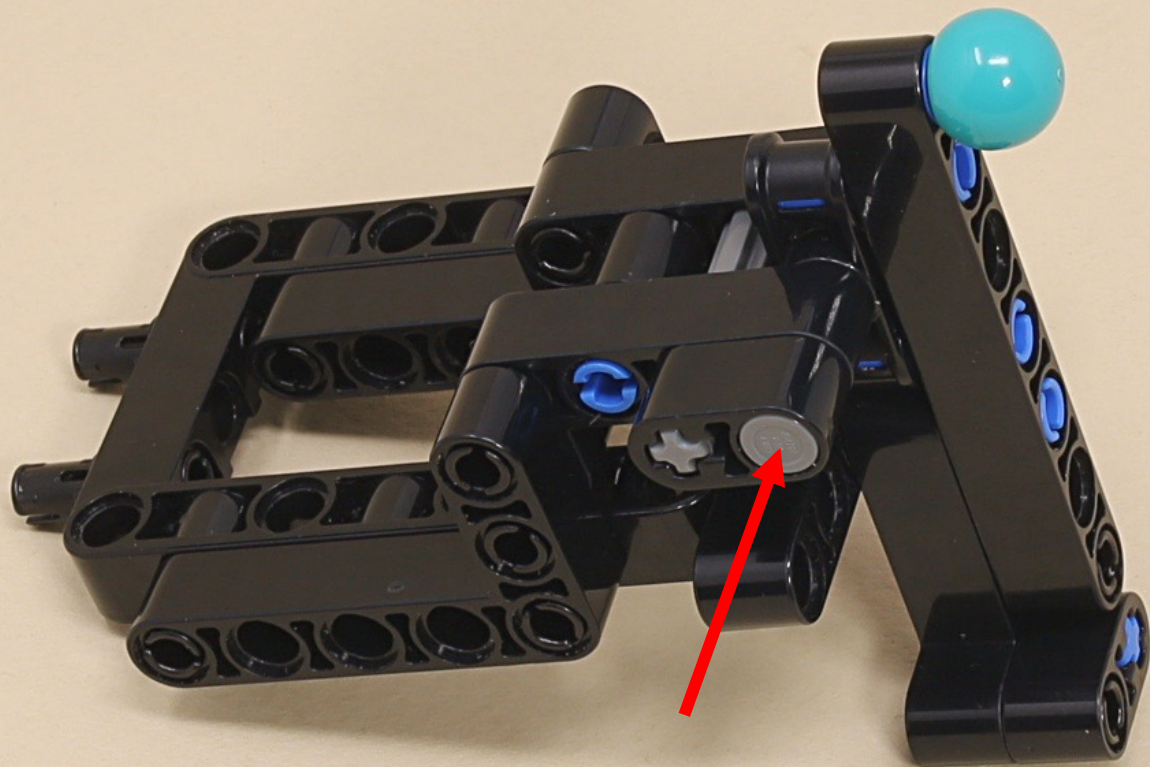


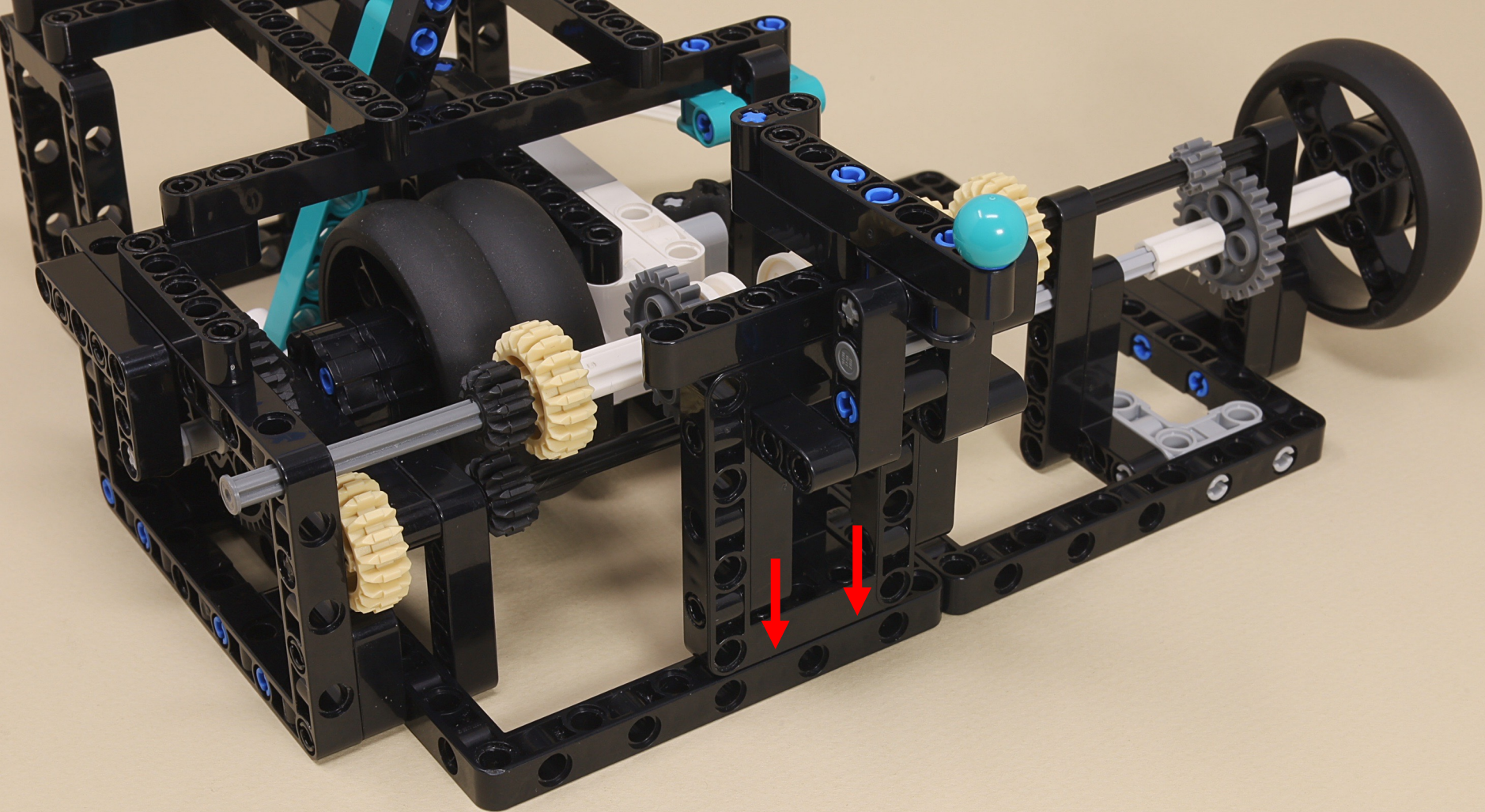




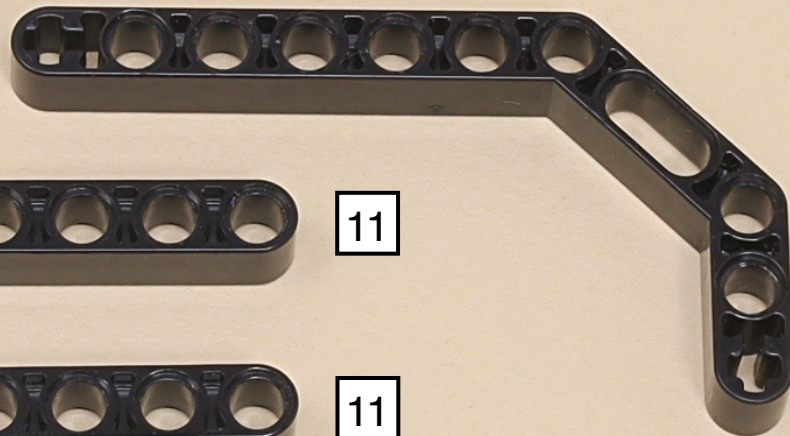












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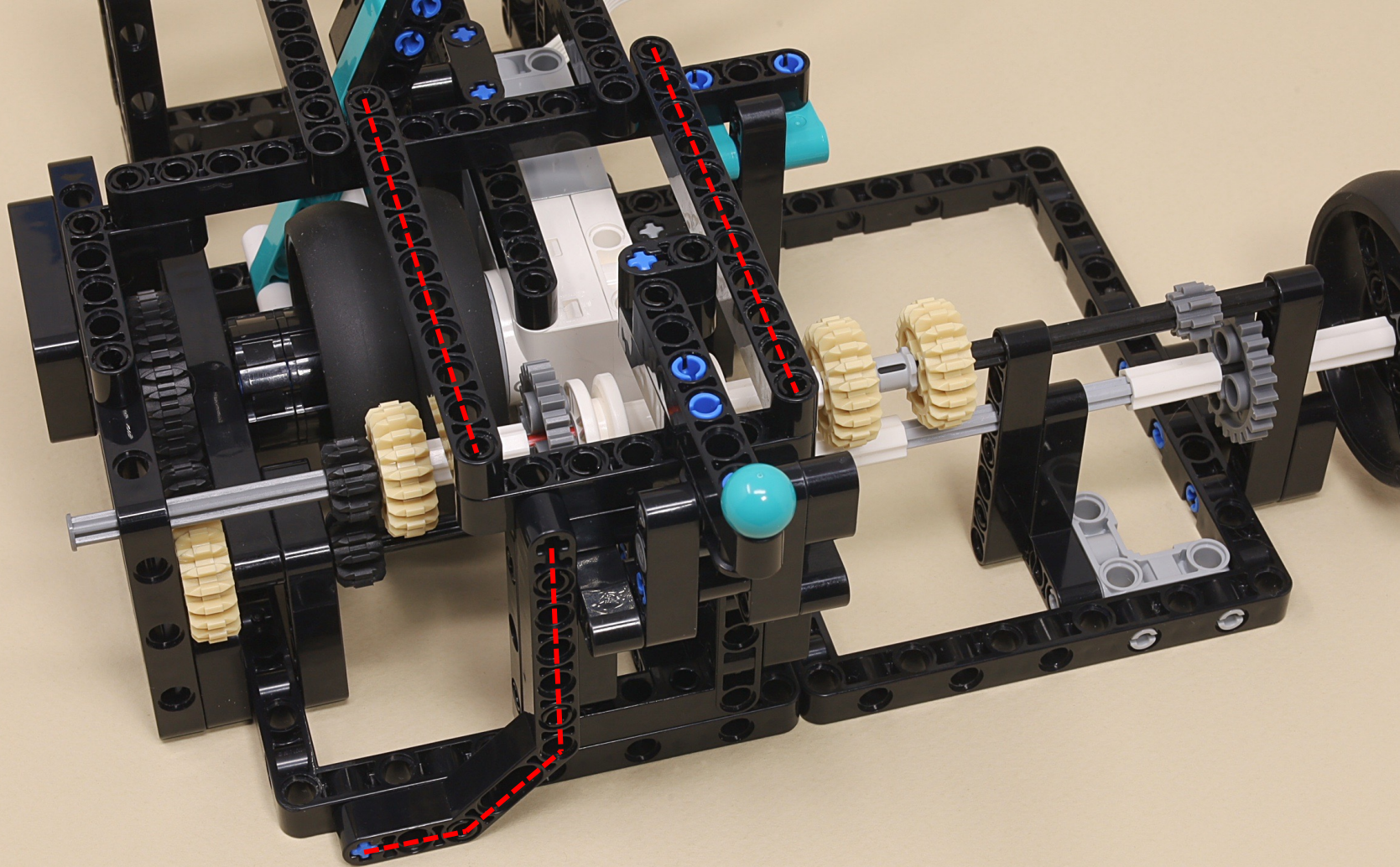


(7 x)













15



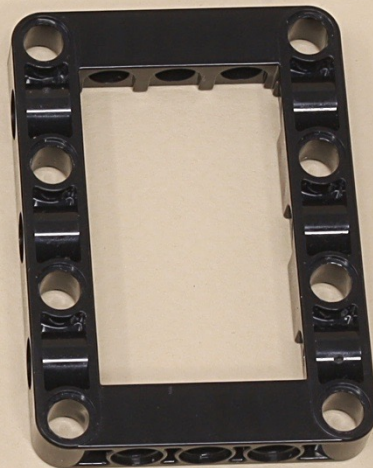
7



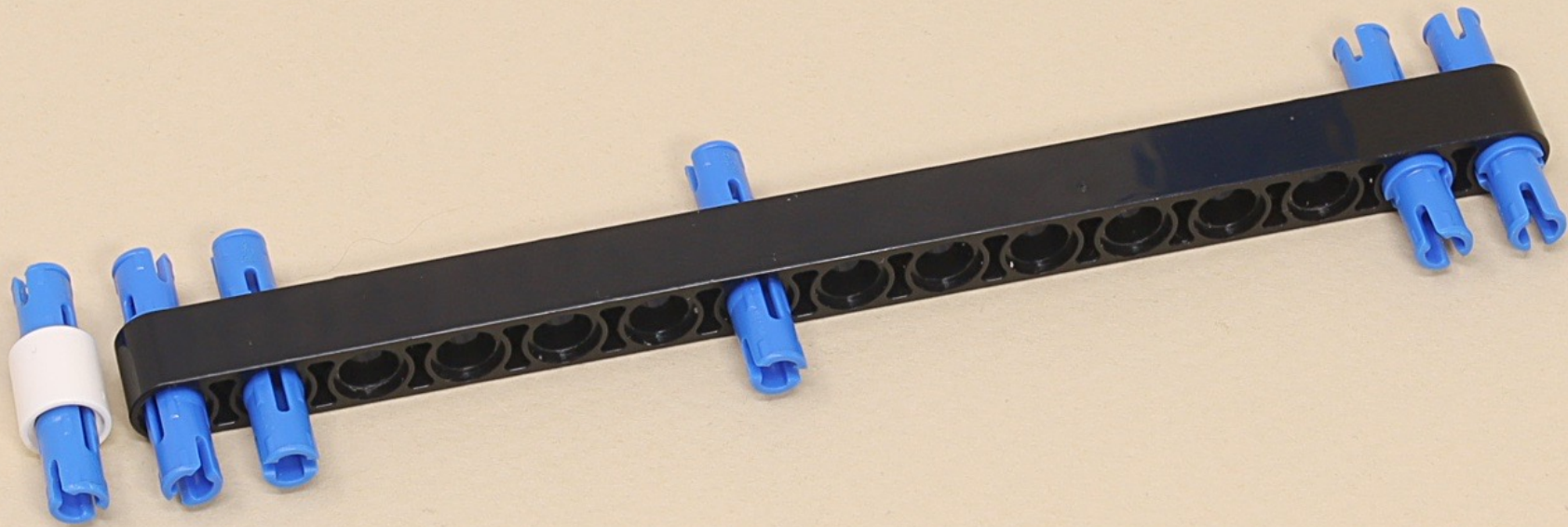
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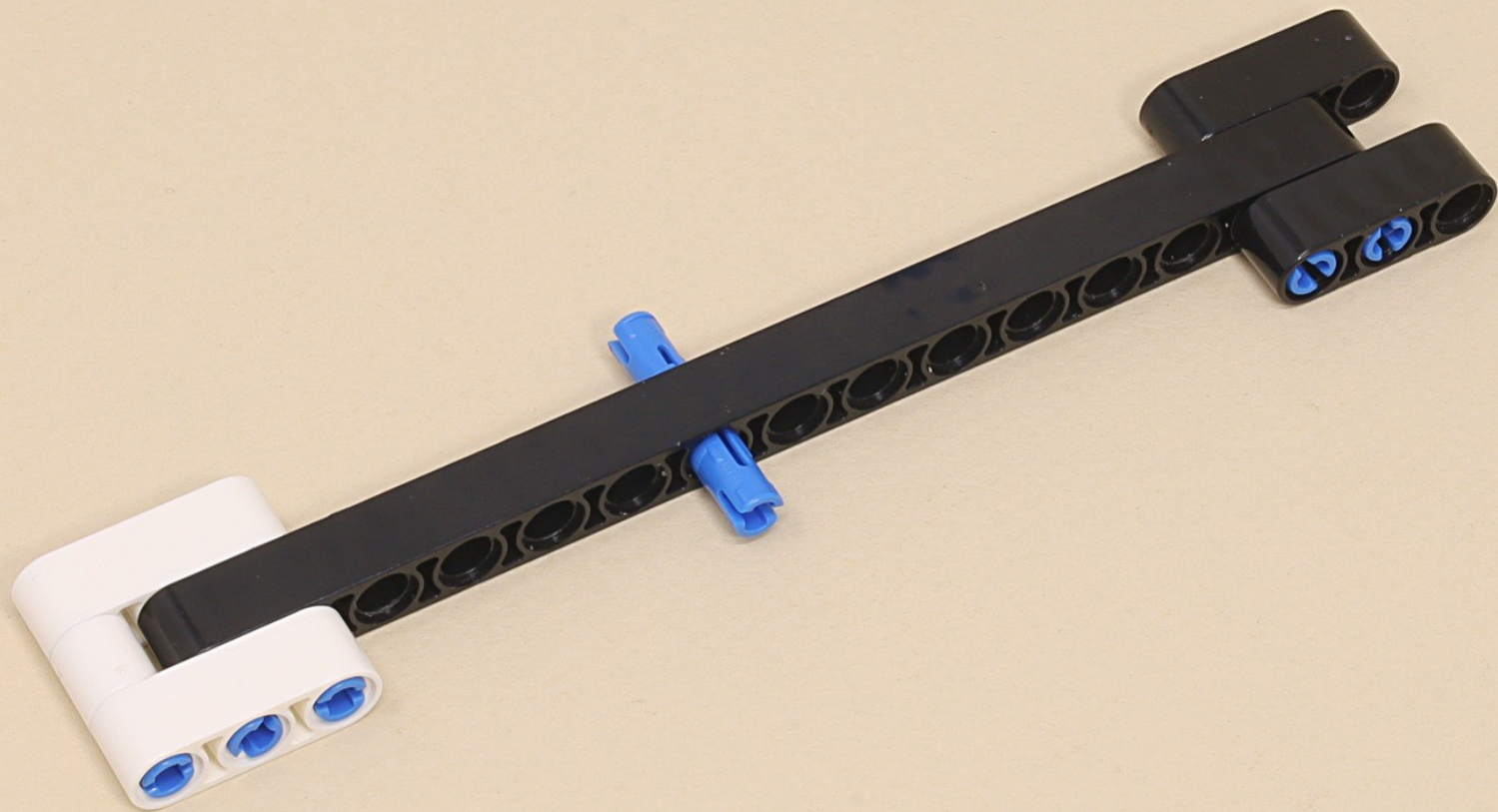


(10 x)

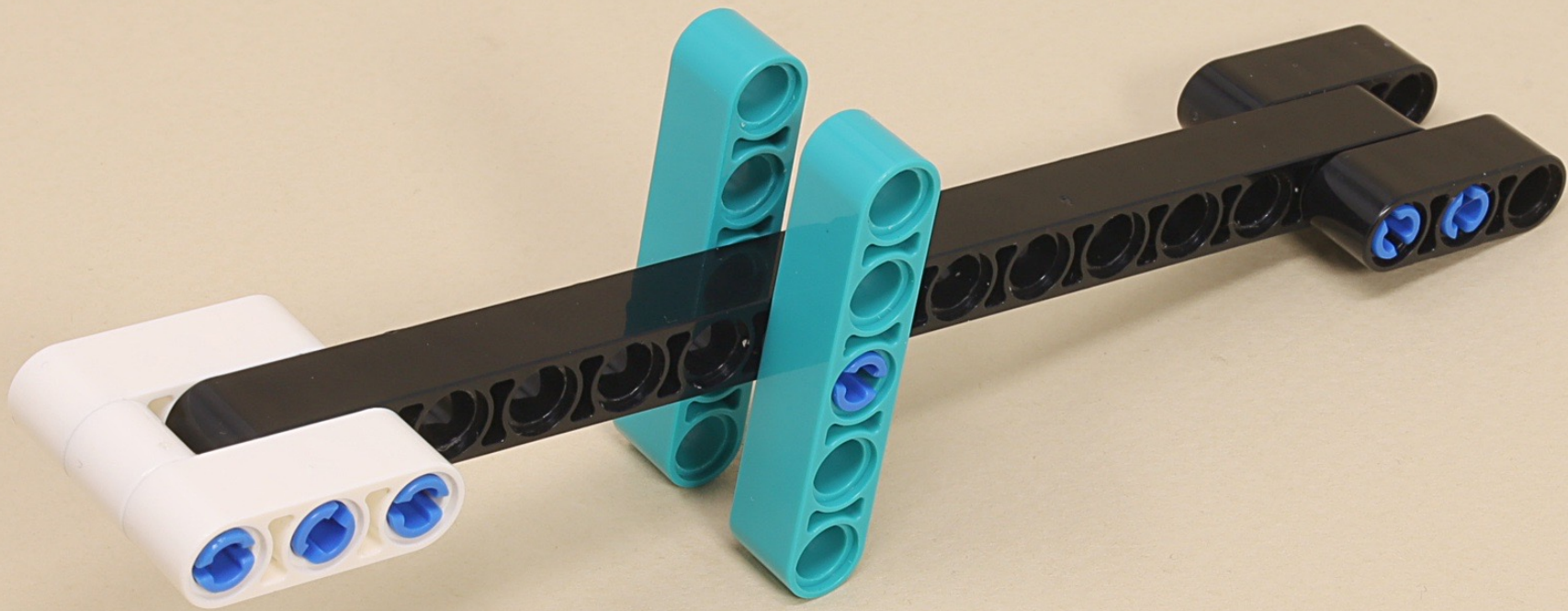


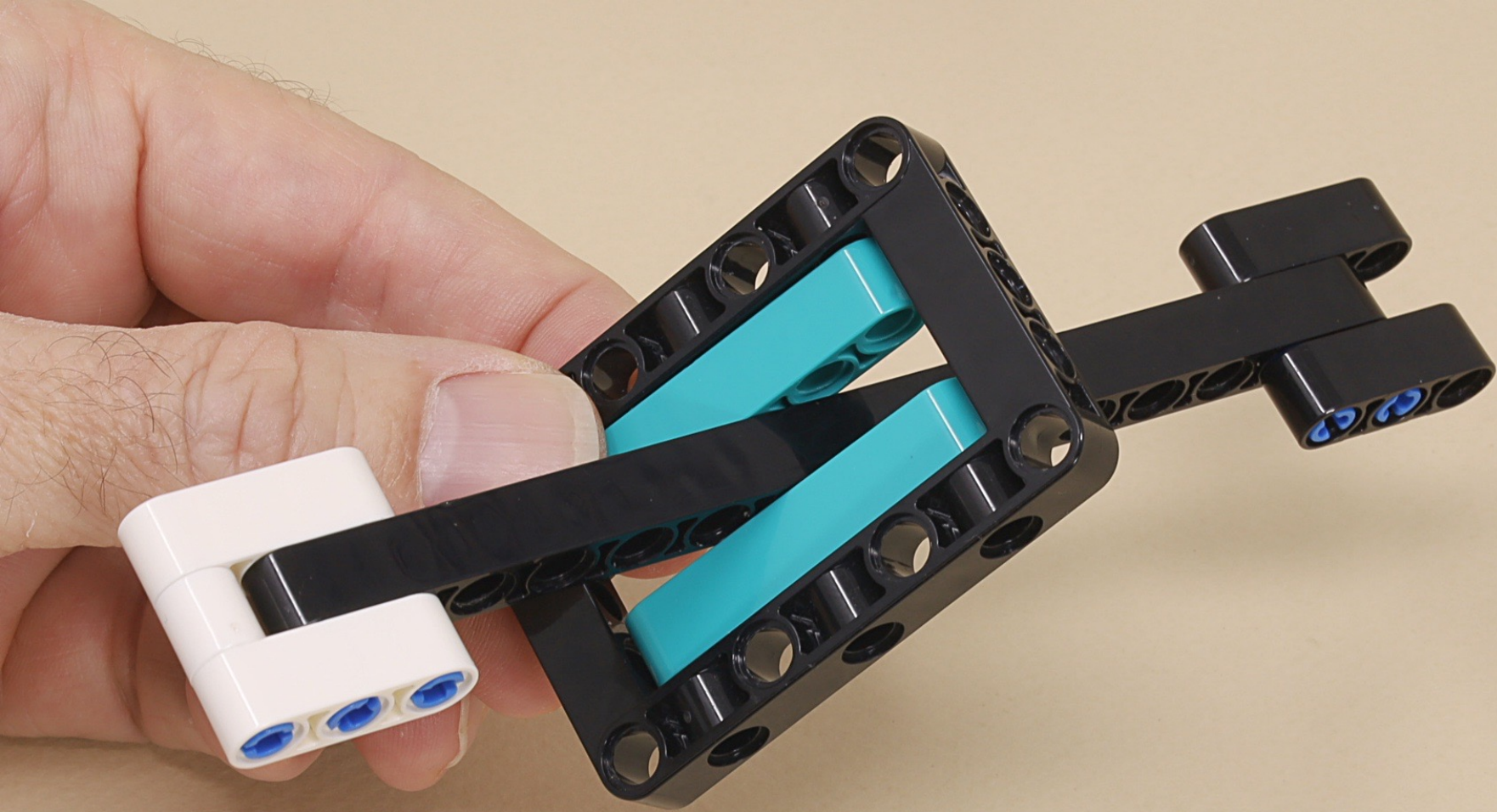




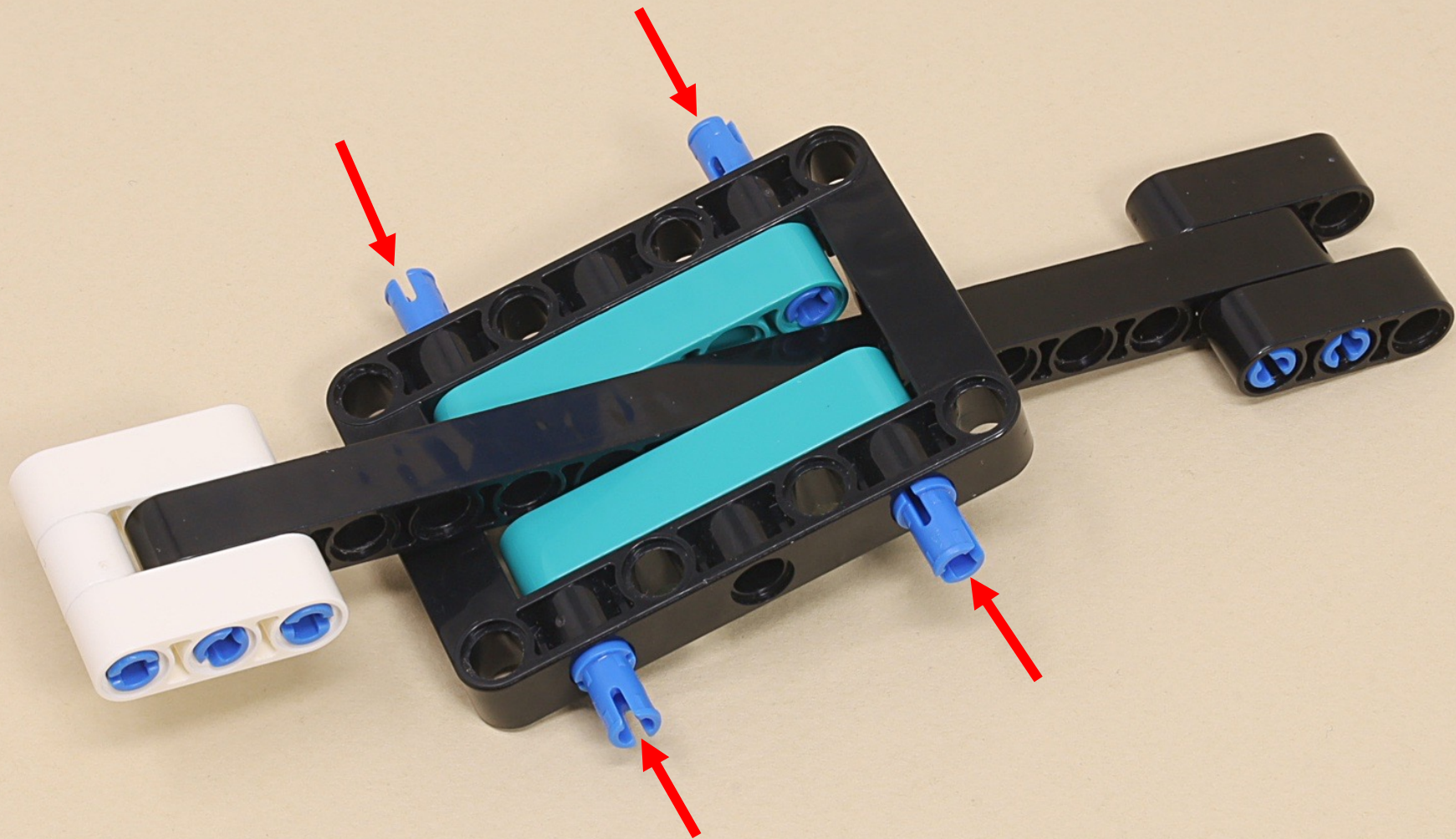


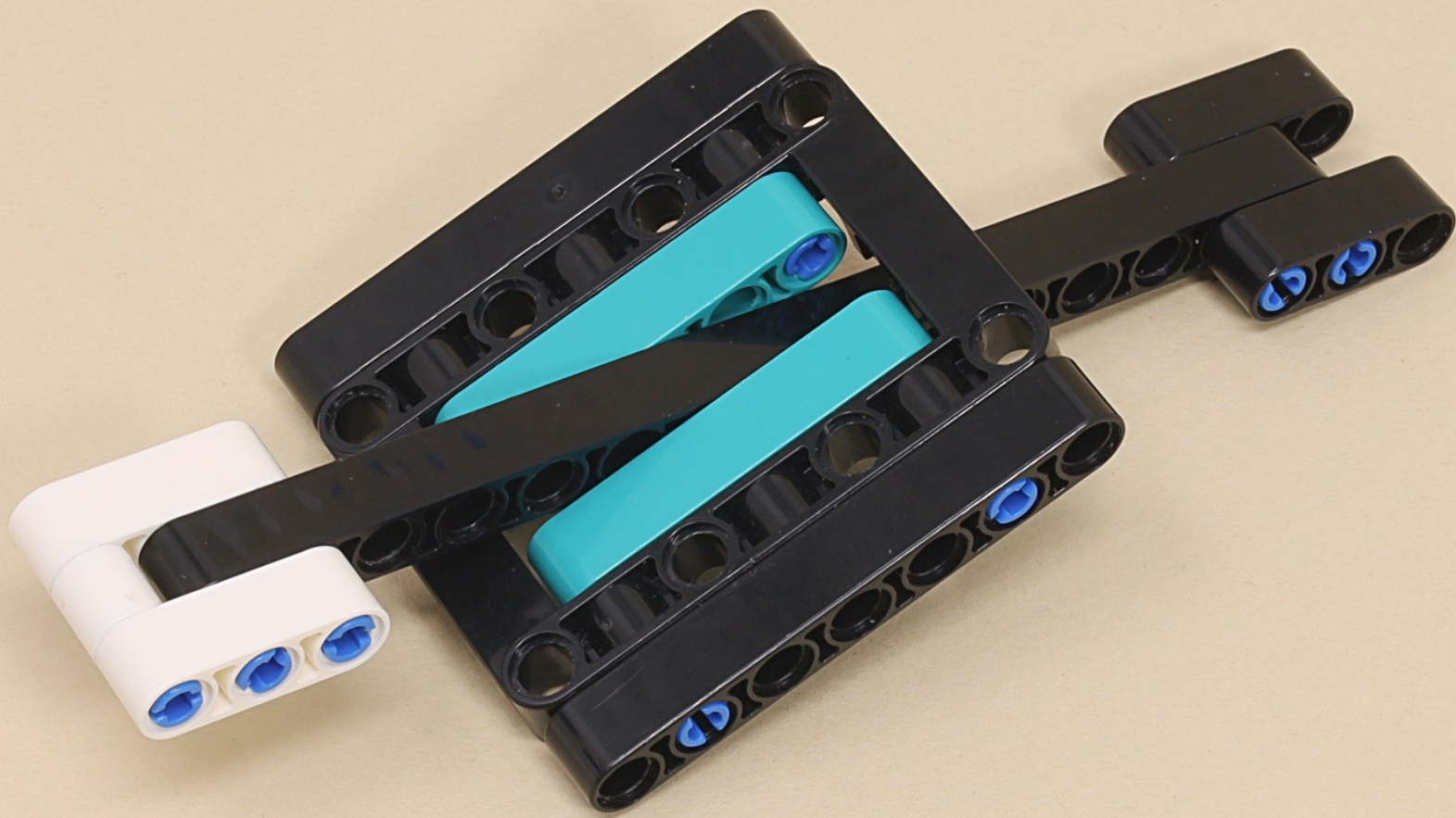
















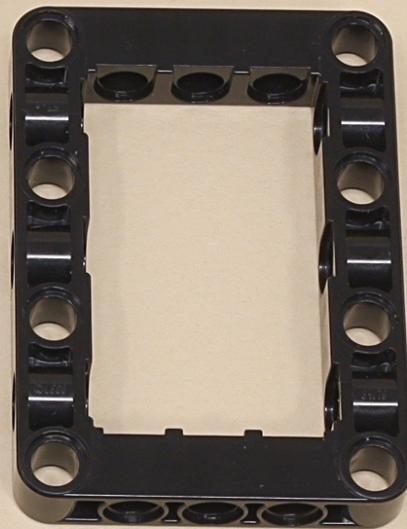
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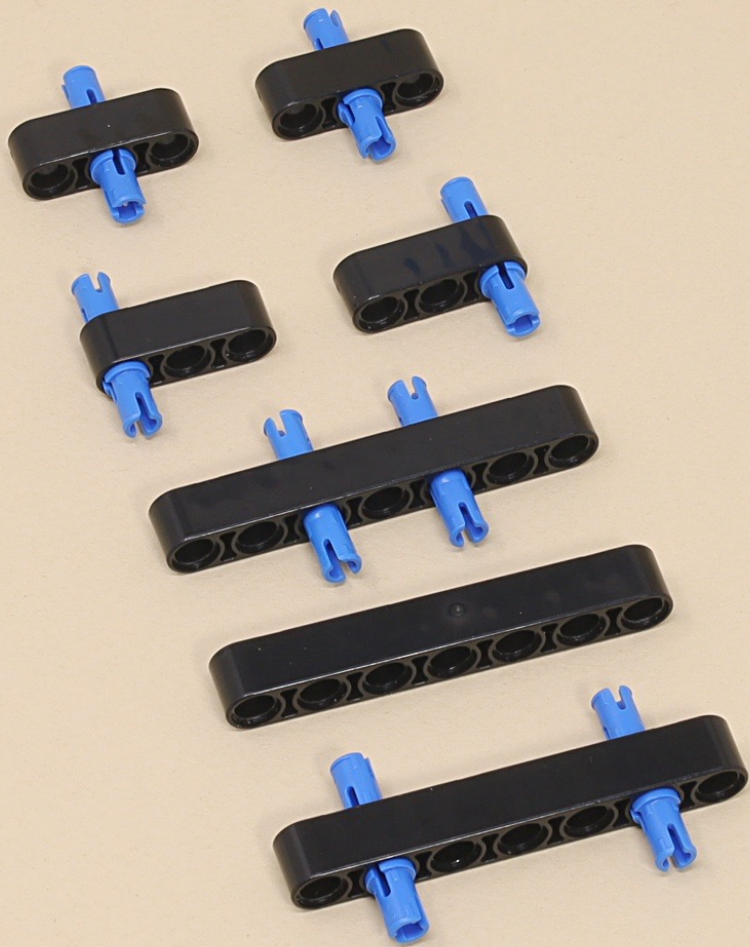
7



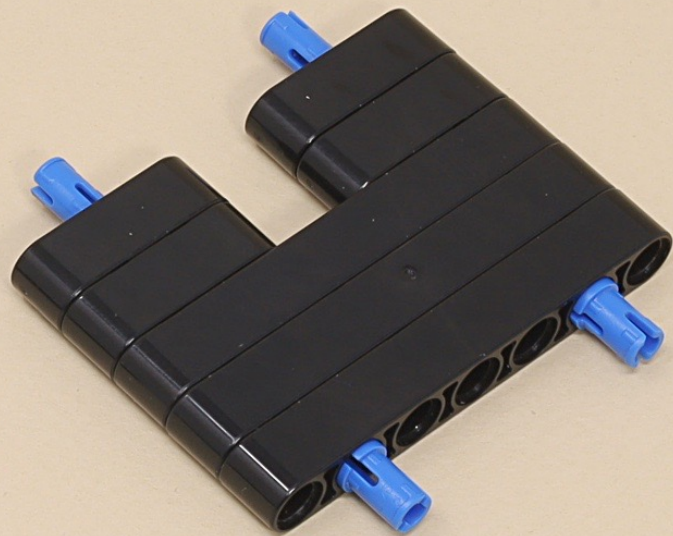
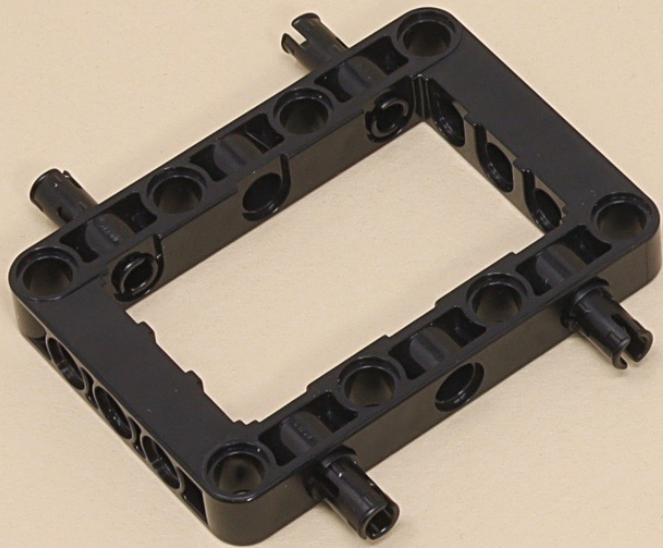
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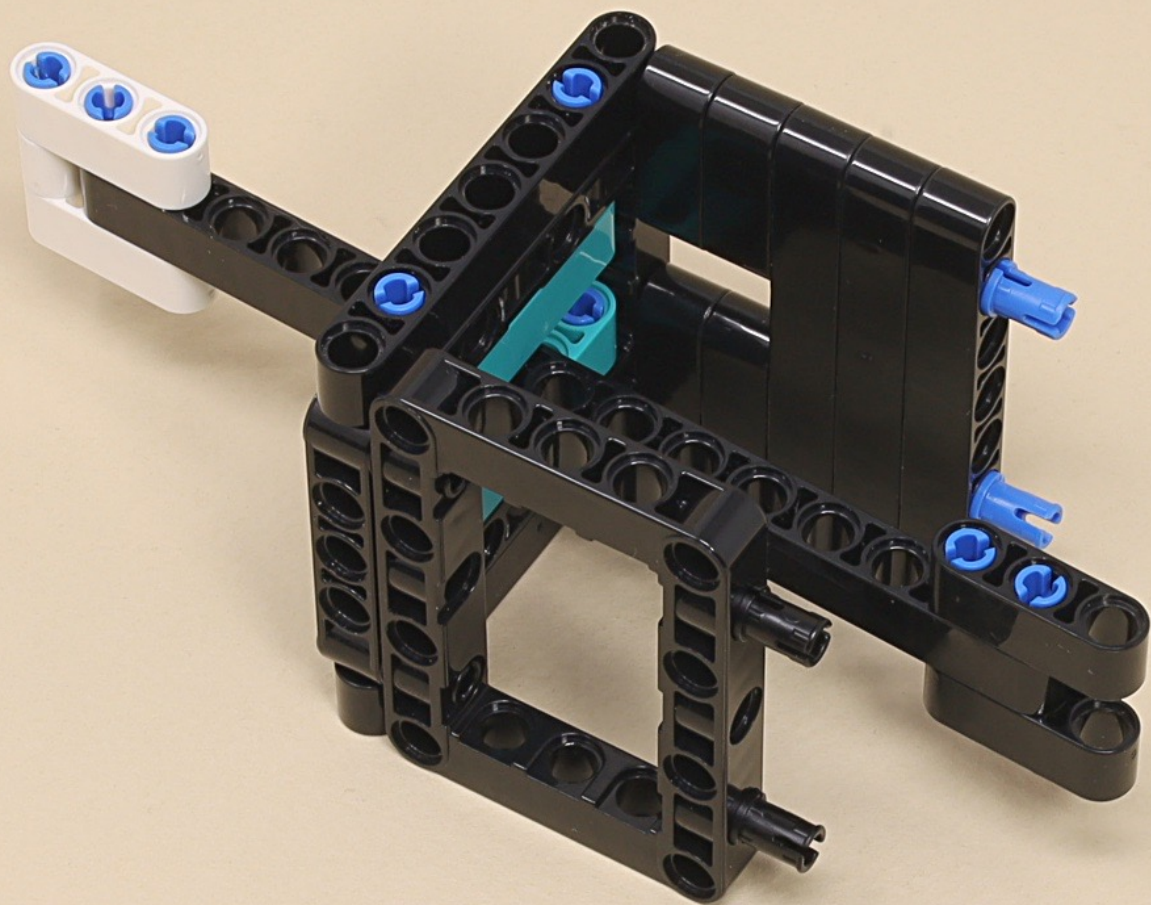


(8 x)

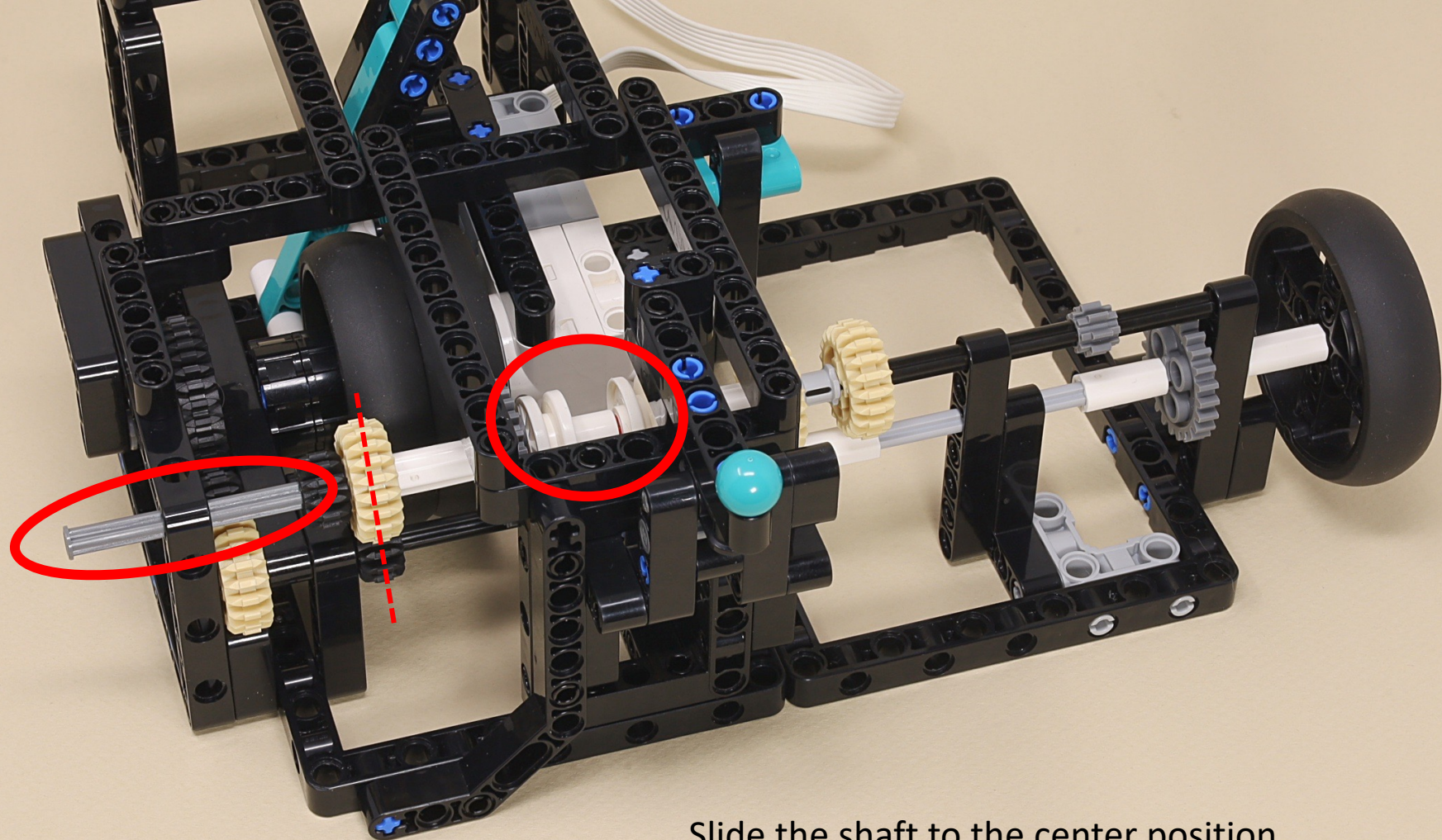






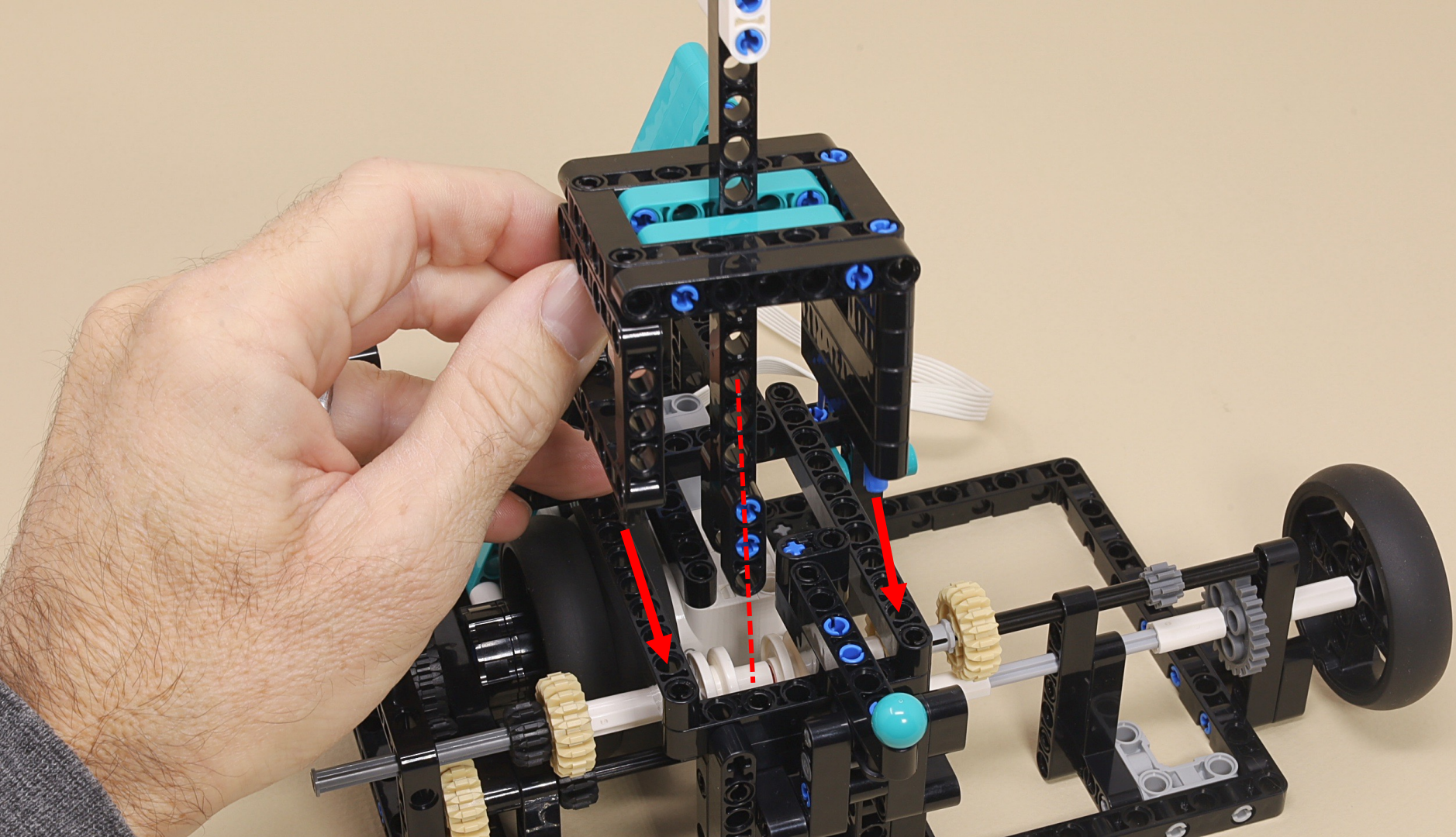






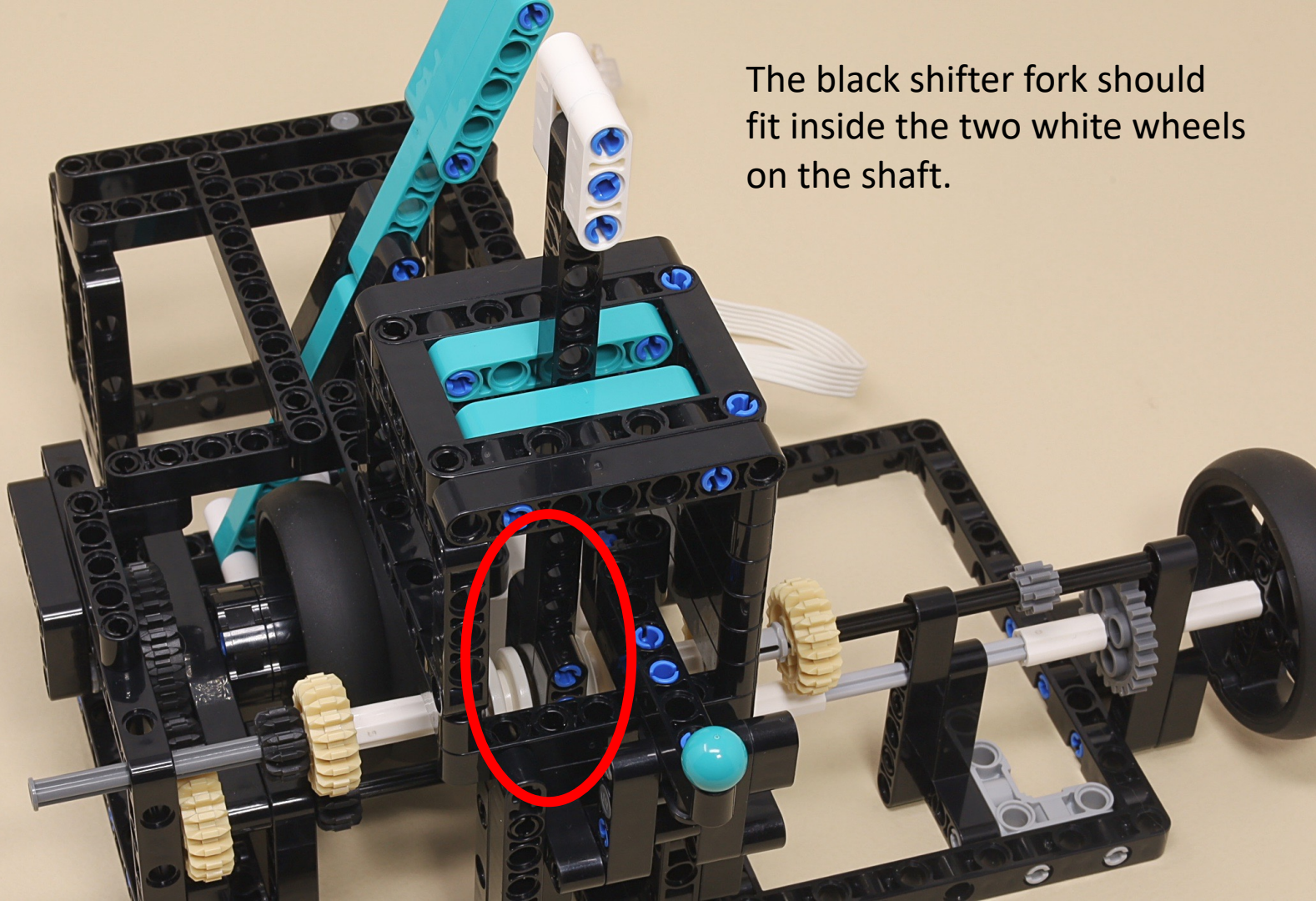
Slide the shaft to the center position.







The black shifter fork should fit inside the two white wheels on the shaft.







9



9



9



9



9



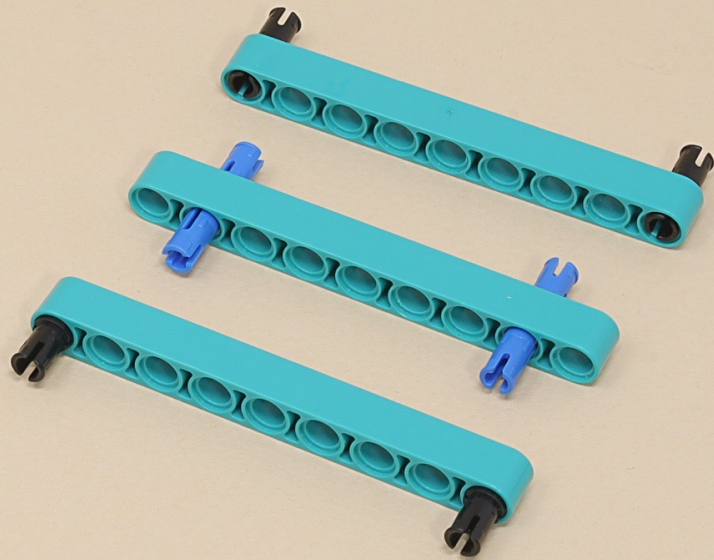
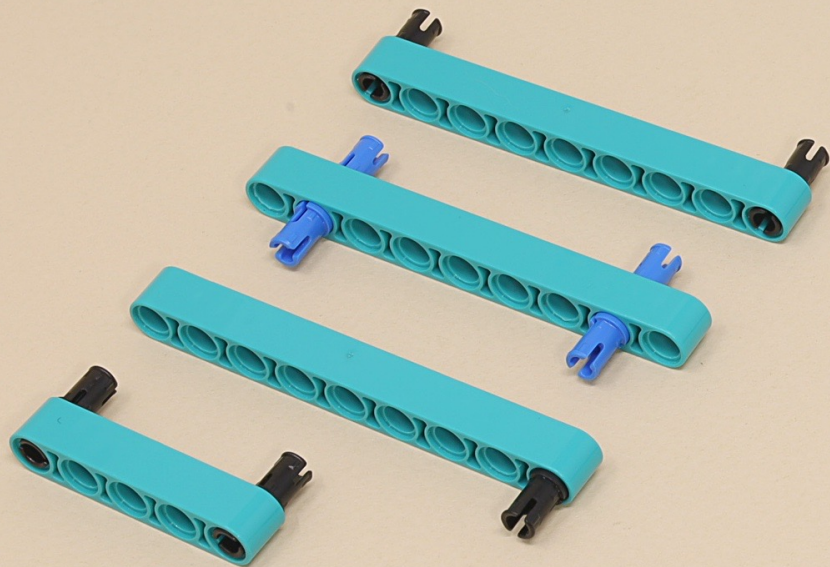
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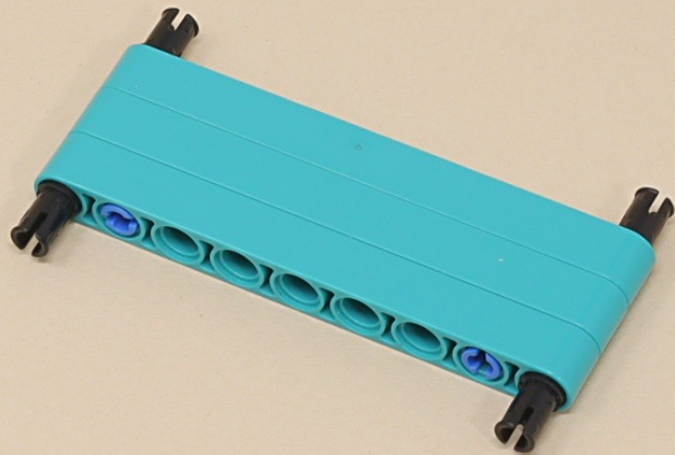
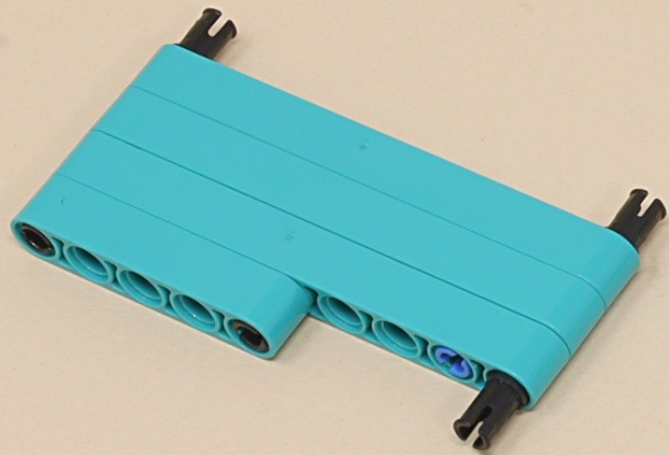


(9 x)

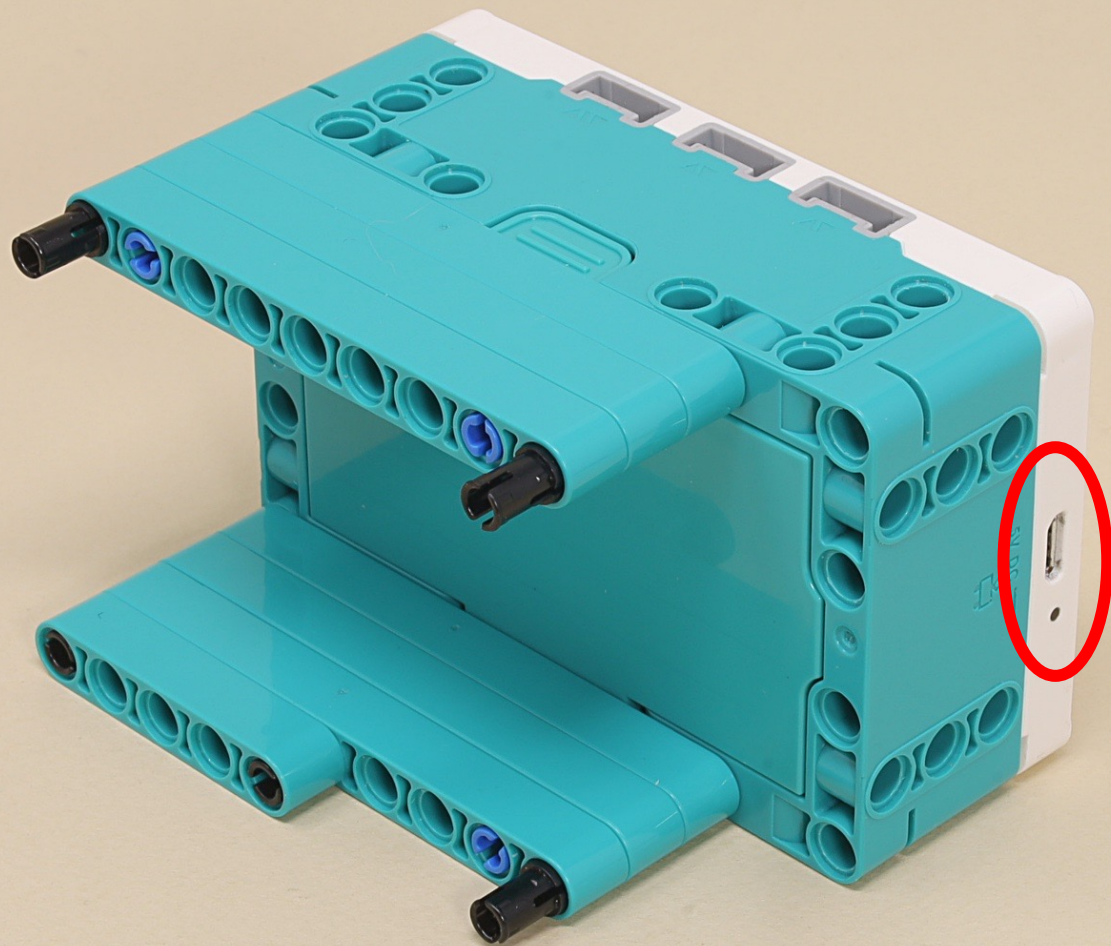




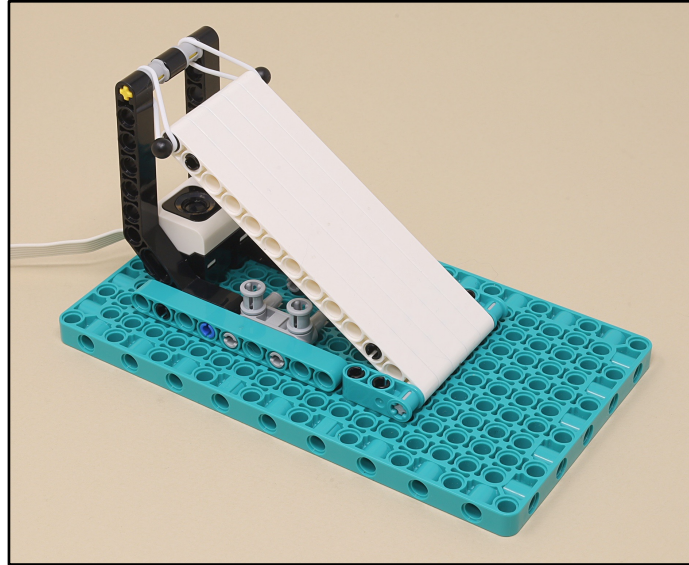








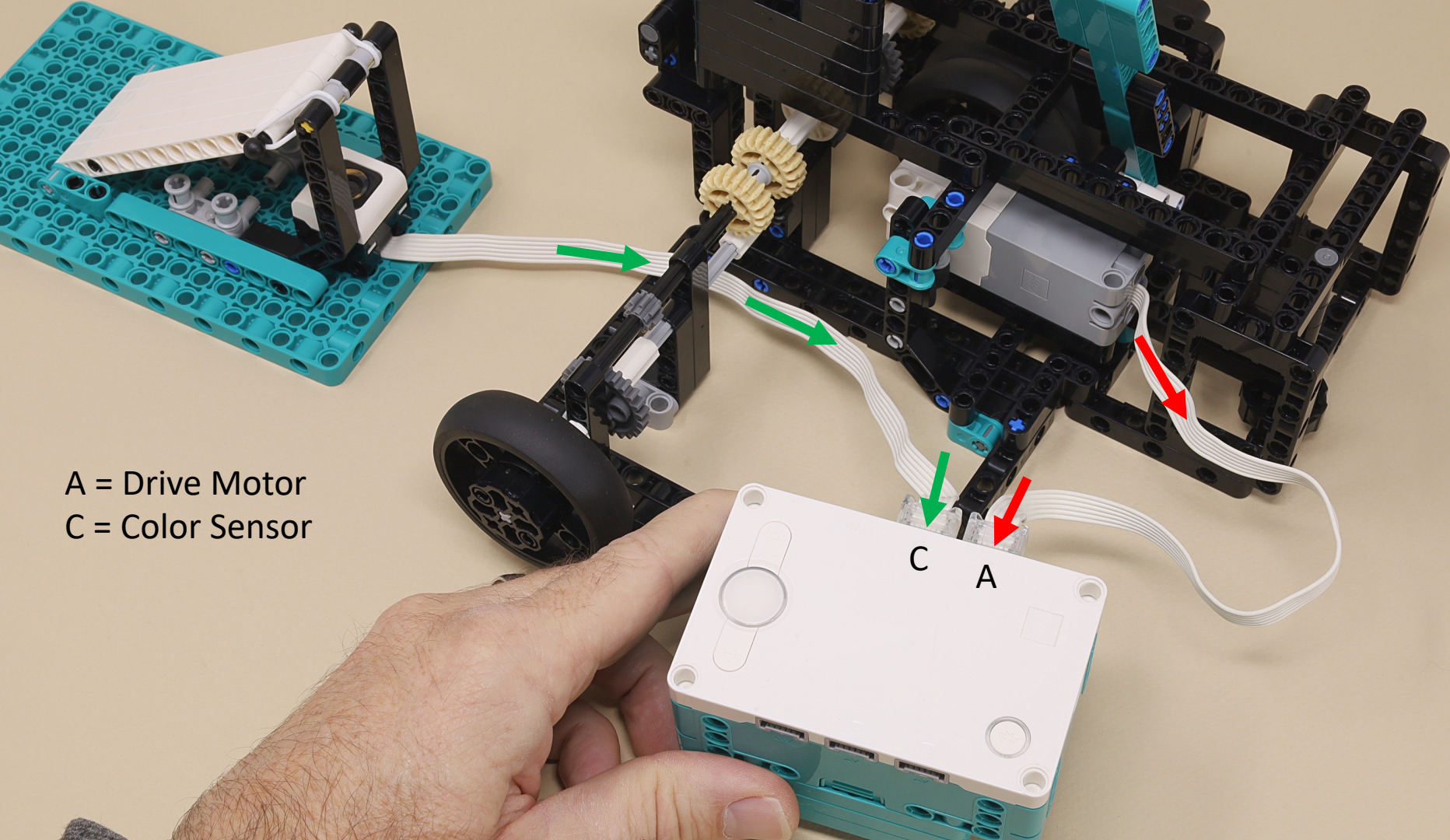
**Optional:** Build the Gas Pedal to control the motor speed with it.



Gas Pedal

If you skip the Gas Pedal, you can complete the last few steps without wiring in the Gas Pedal, and just power the motor using the built-in Play program on the hub.





A = Drive Motor  
C = Color Sensor



