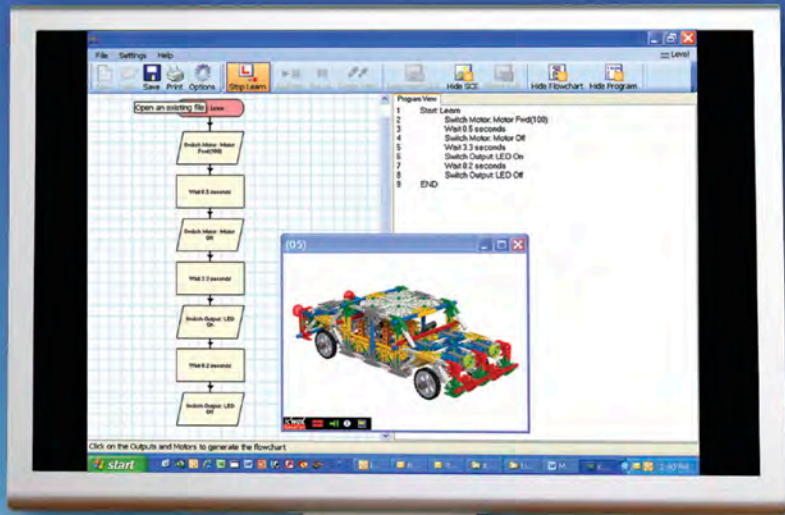


KNEX®

Education

STEM EXPLORATIONS

Building Instructions



WARNING: CHOKING HAZARD – Small parts.
Not for children under 3 years.

10+
AGE

79118

CAUTION-ELECTRIC TOY:

Not recommended for children under 10 years of age.
As with all electric products, precautions should be observed during handling and use to prevent electric shock.

INPUT: 120 Vac \sim 60 Hz 0.6 A
OUTPUT: 6 Vdc \equiv 2000 mA

- The product should be examined periodically for potential hazards; any potentially hazardous components should be repaired or replaced.
- The toy must only be used with the recommended transformer.
- The transformer is not a toy.
- The transformer used with the toy is to be regularly examined for damage to the cord, plug, enclosure and other parts, and in the event of such damage, they must not be used until the damage has been repaired.
- Disconnect transformer before cleaning any components.

Keep these instructions in a handy location.
They contain important safety information.

Read all warnings and instructions before you
start to build and operate the model.

 **WARNING: CHOKING HAZARD -**
Small parts. Not for children under 3 years.

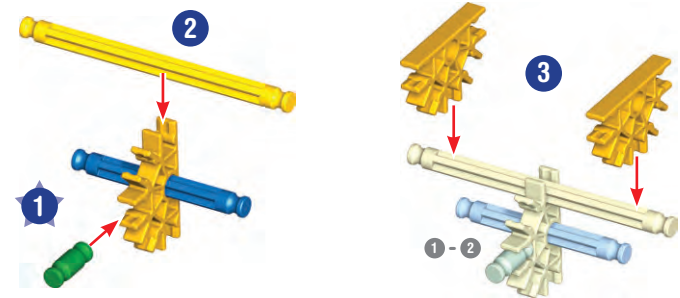
CAUTION: Keep hair, hands, face, clothing and power cords away from all moving parts.

Do not put rods smaller than 2 inches in any openings of the motor; they will damage the motor, and cannot be removed. Use care where you use these models. They could damage furniture or walls, or injure people or pets.

K'NEX BUILDING BASICS

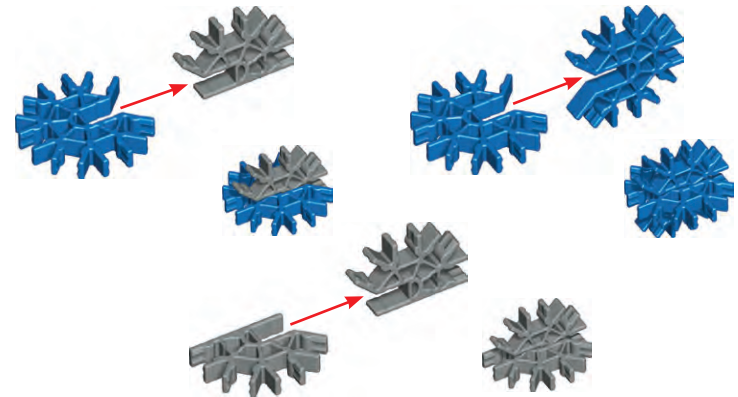
Start Building

To begin your model, find the **1** and follow the numbers. Each piece has its own shape and color. Just look at the pictures, find the pieces in your set that match and then connect them together. Try to face your model in the same direction as the instructions while you build. The arrows show you where the parts connect, but not all connections points have arrows. Faded colors show you this section is already built.



Connectors

There are blue and gray connectors with special long slots. They slide together as you see in the pictures. Push these parts together until you hear a "click."

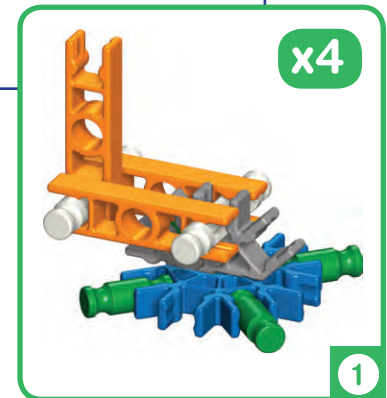
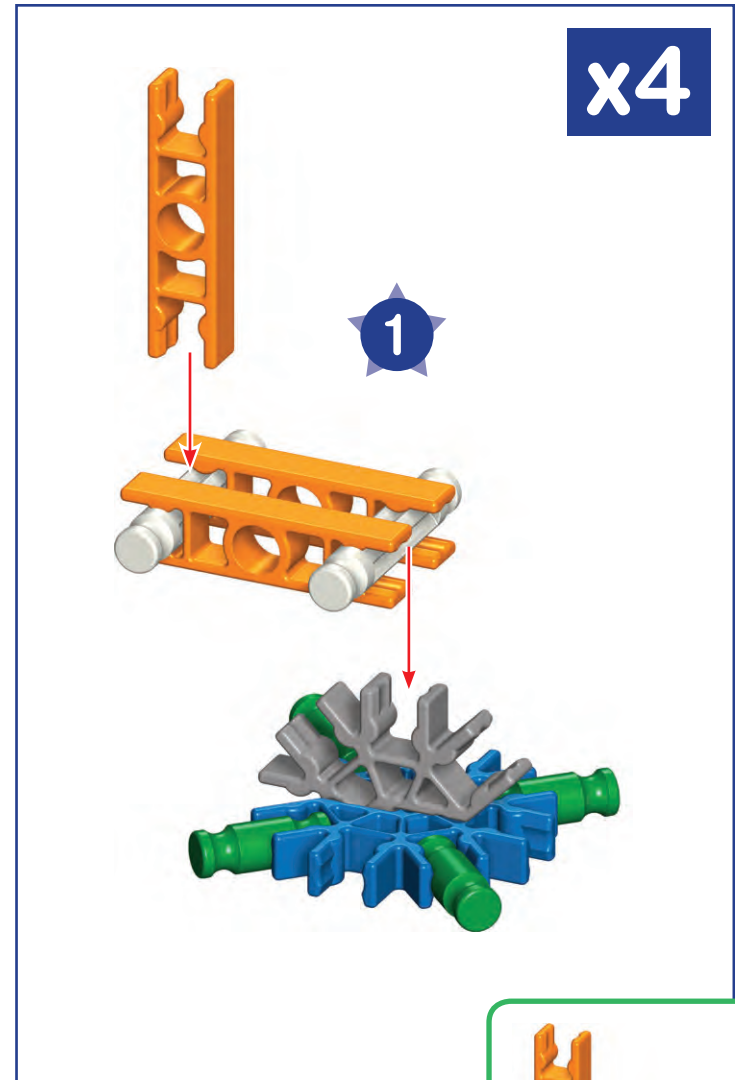
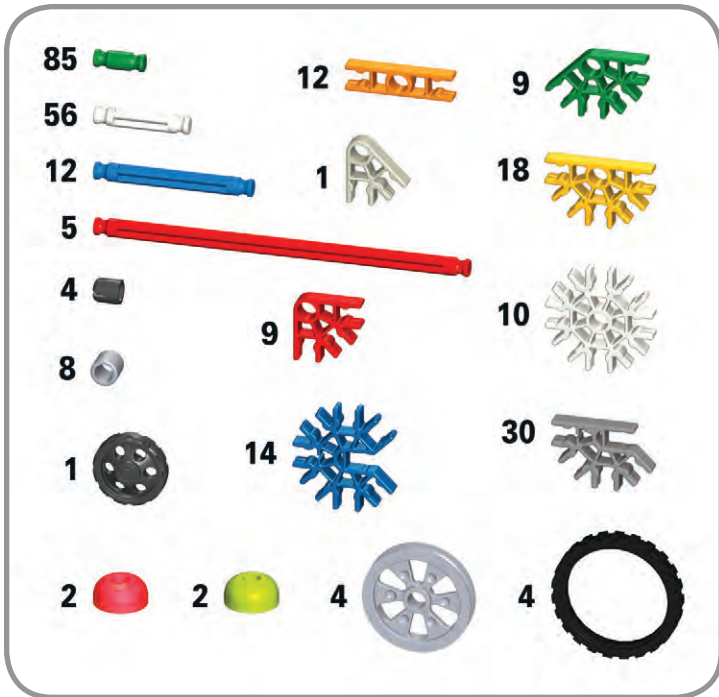


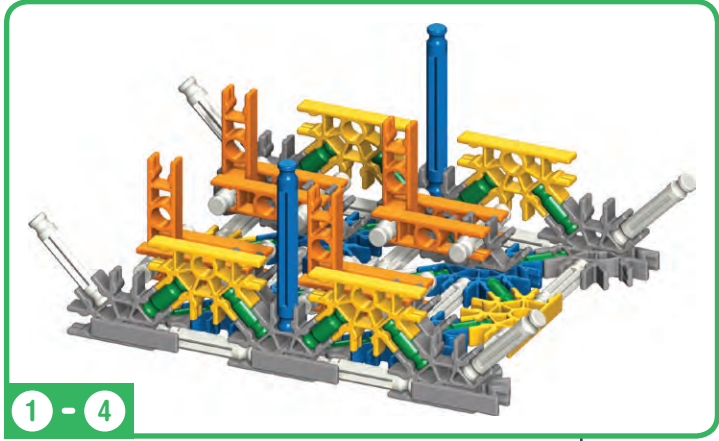
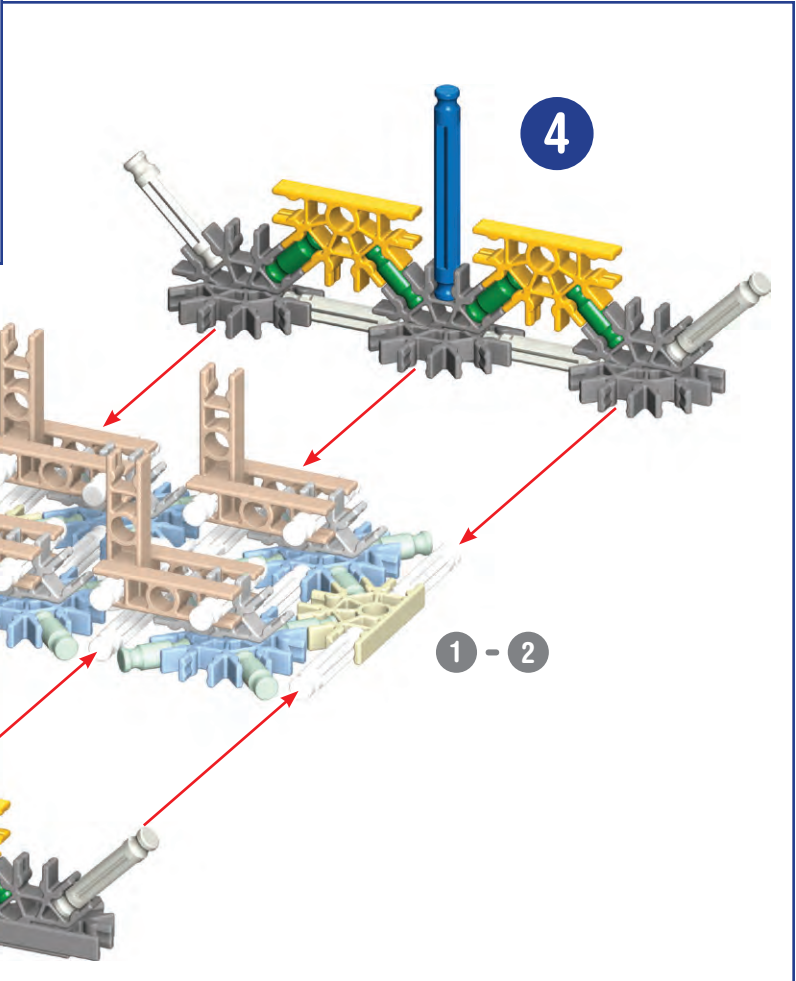
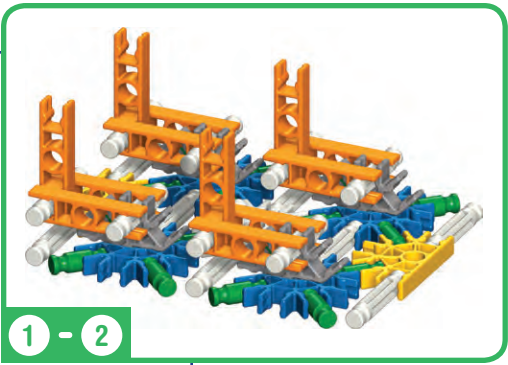
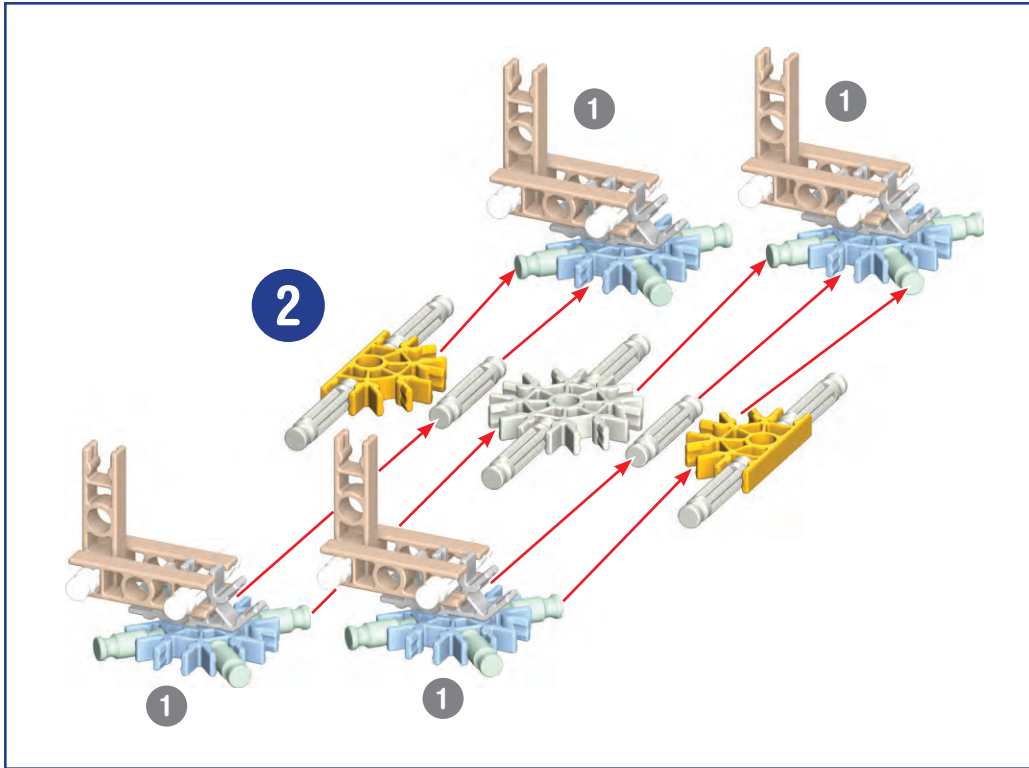
Spacers

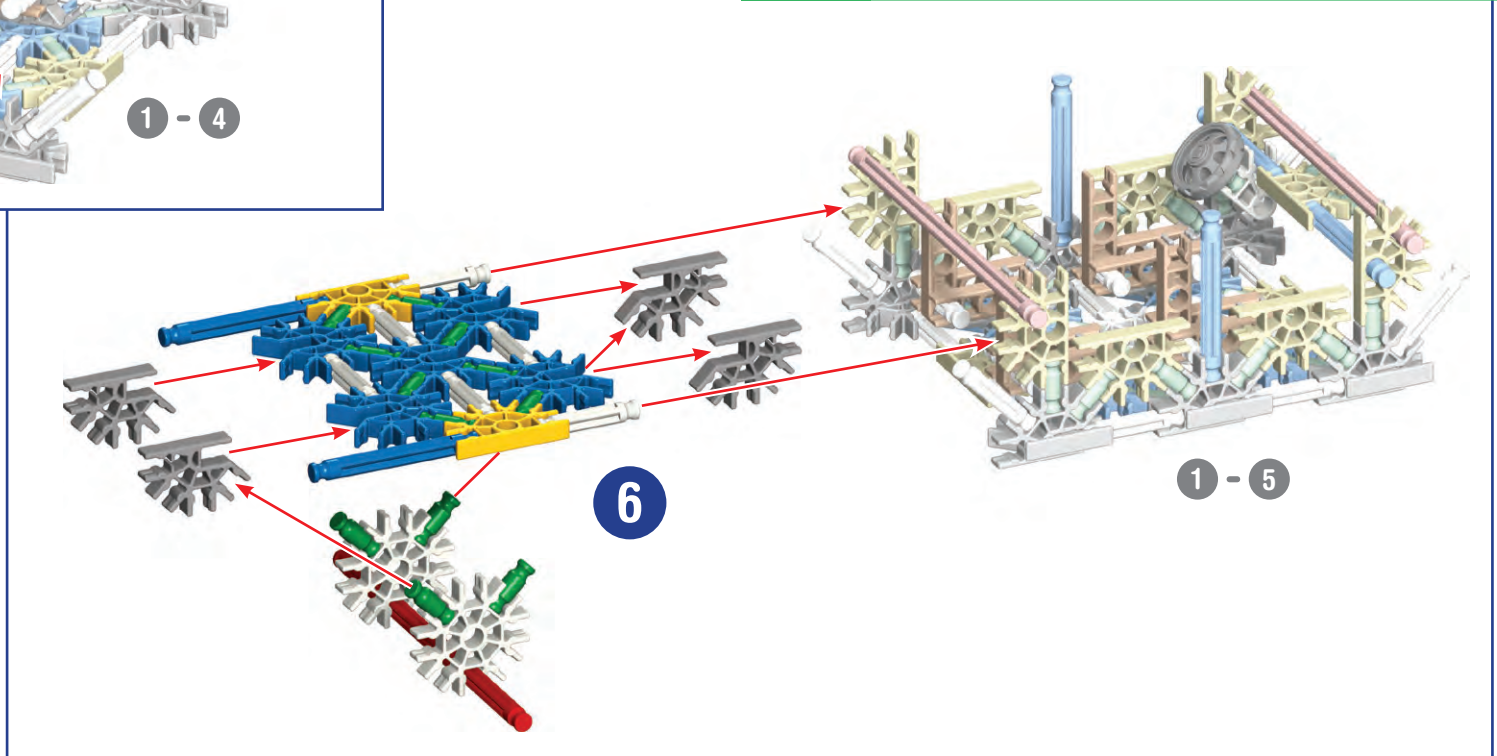
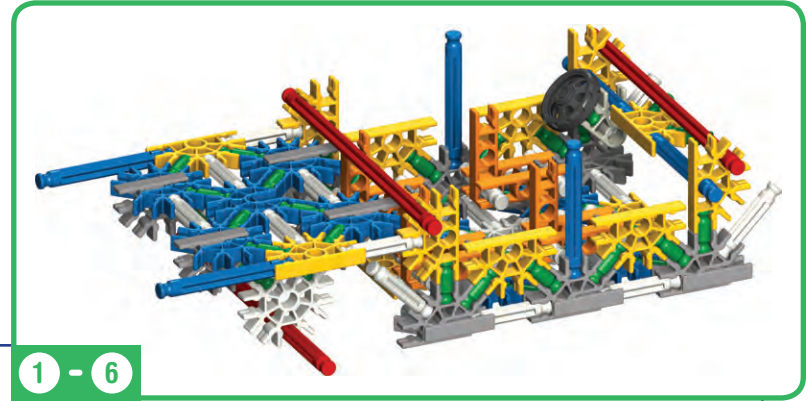
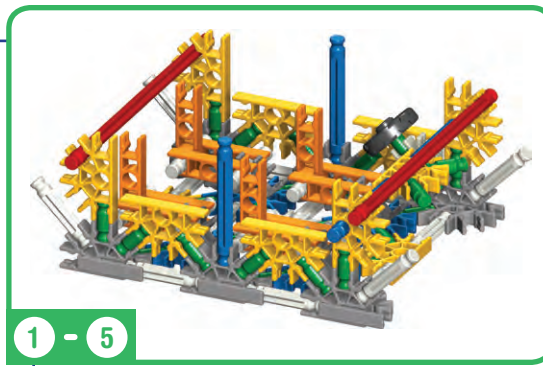
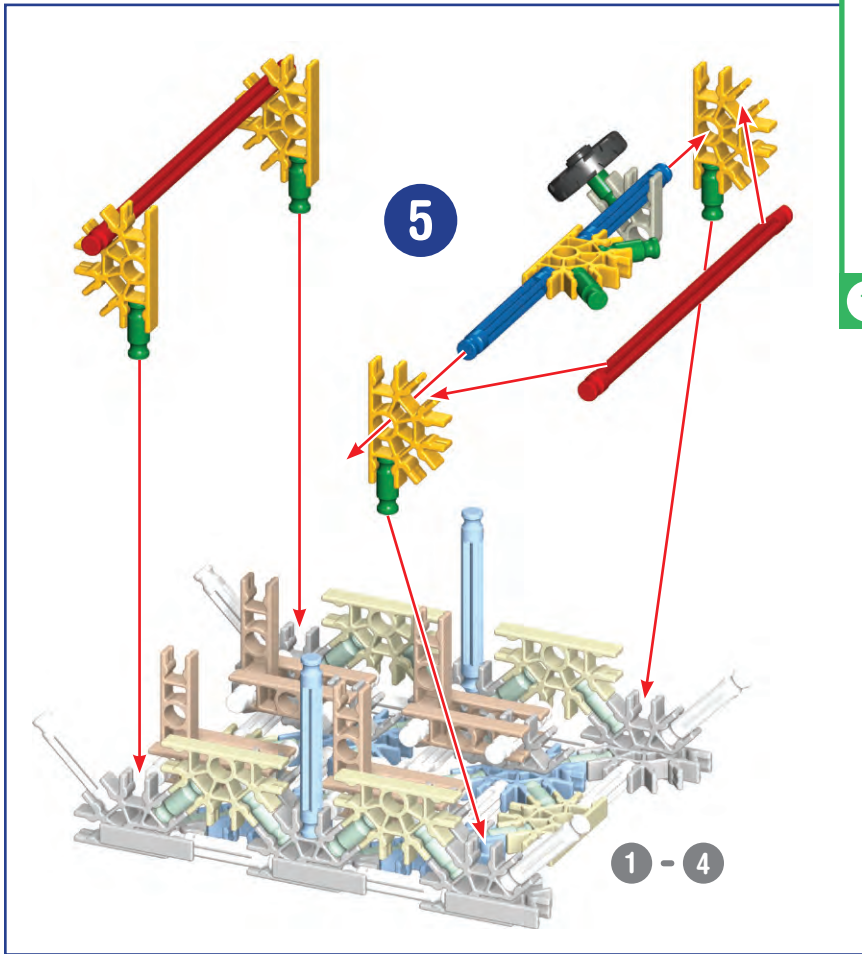
There are places in your model where you need to add blue and silver spacers. Be sure to use the right color and count them carefully.

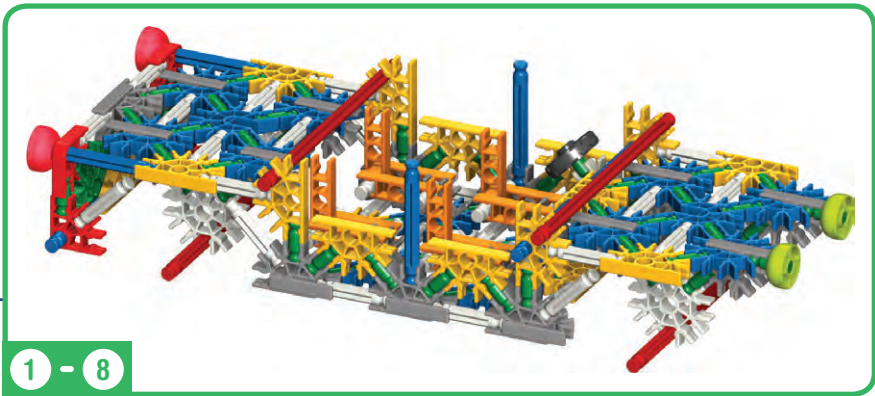
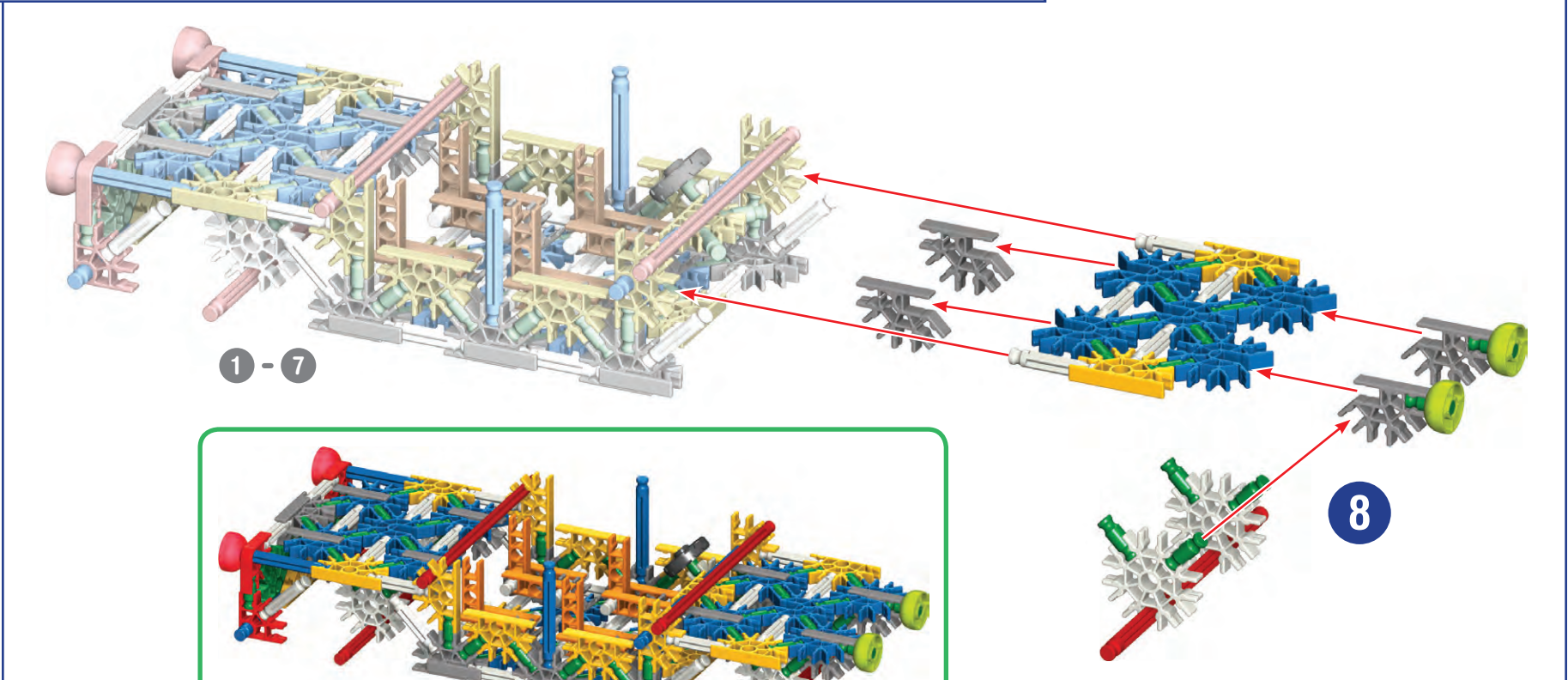
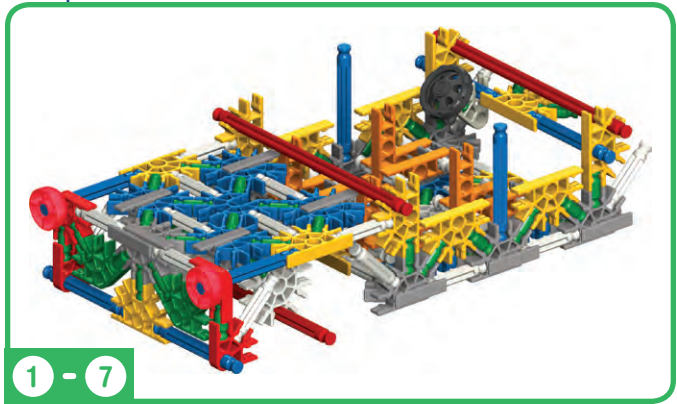
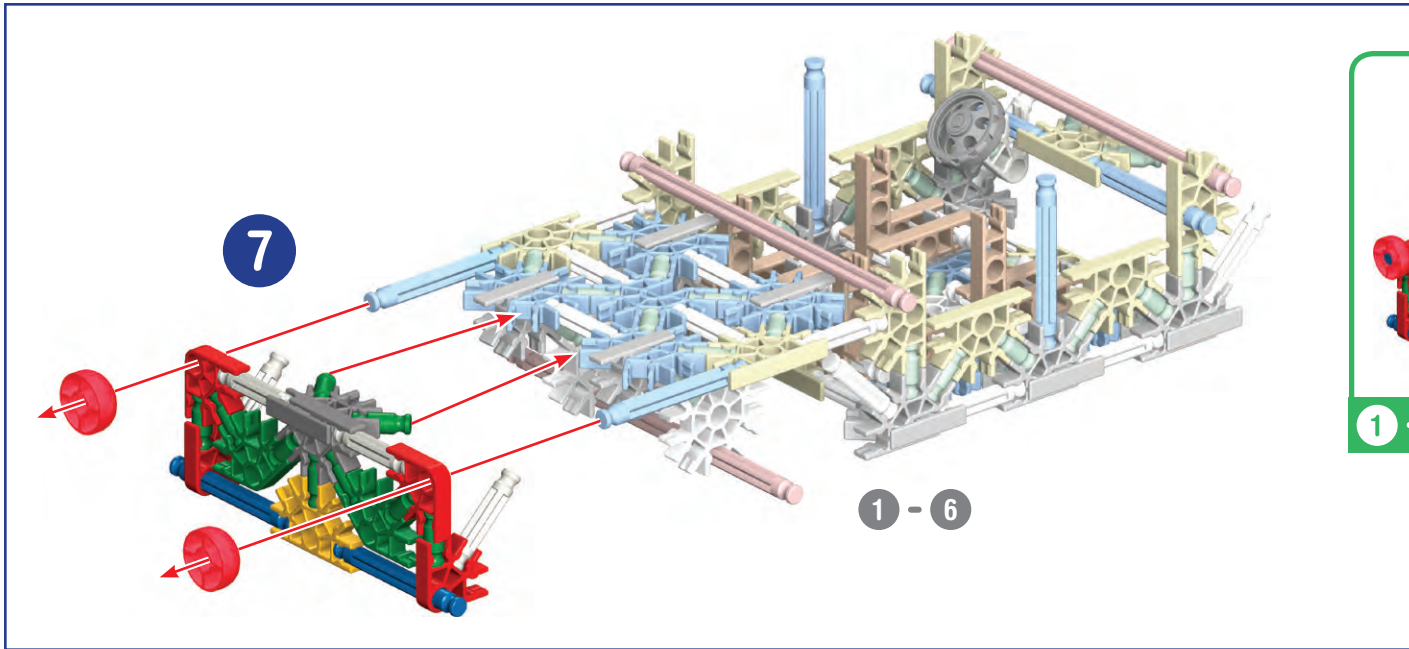


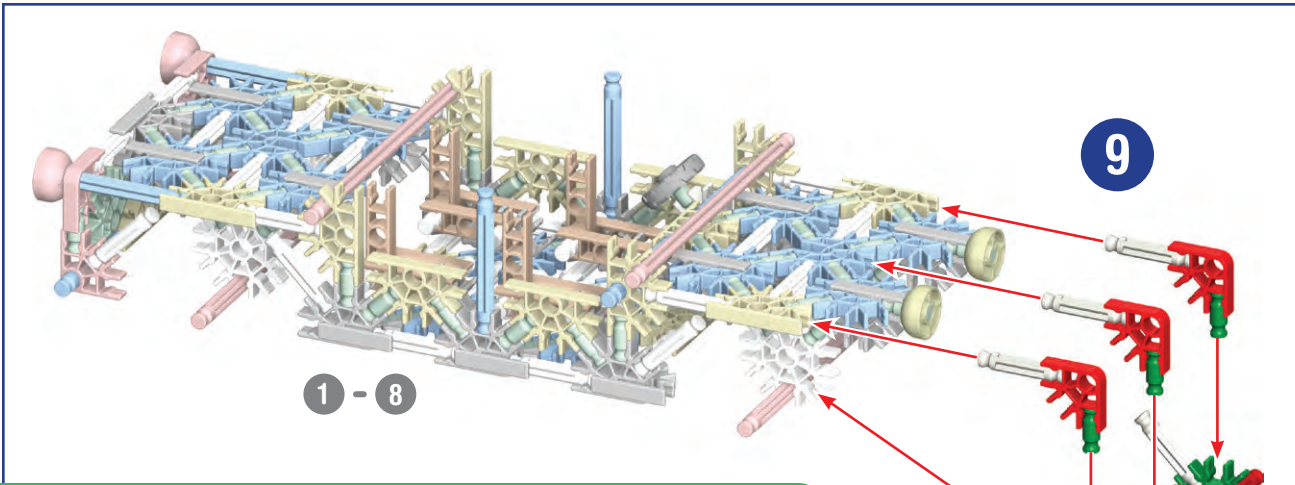
K'NEX Car





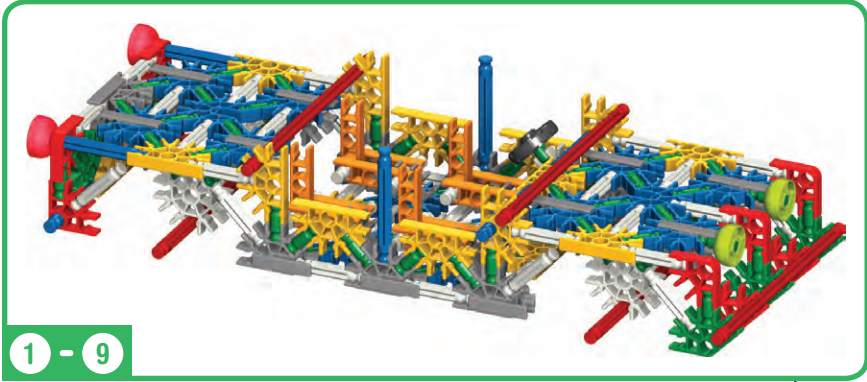




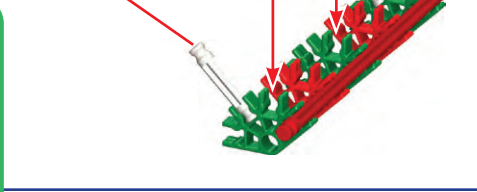


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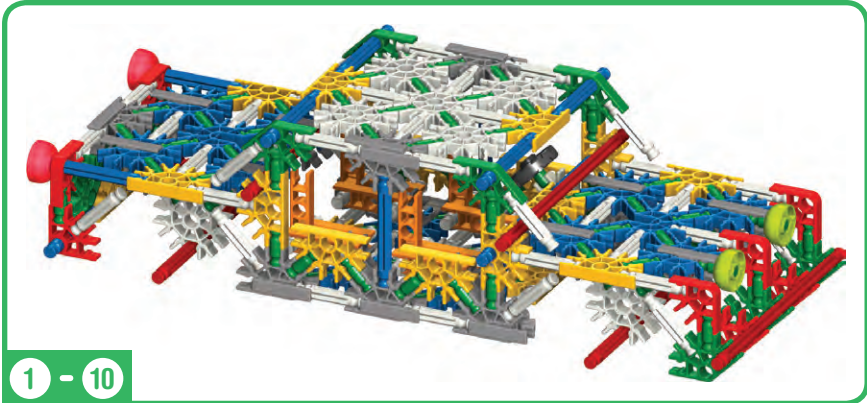
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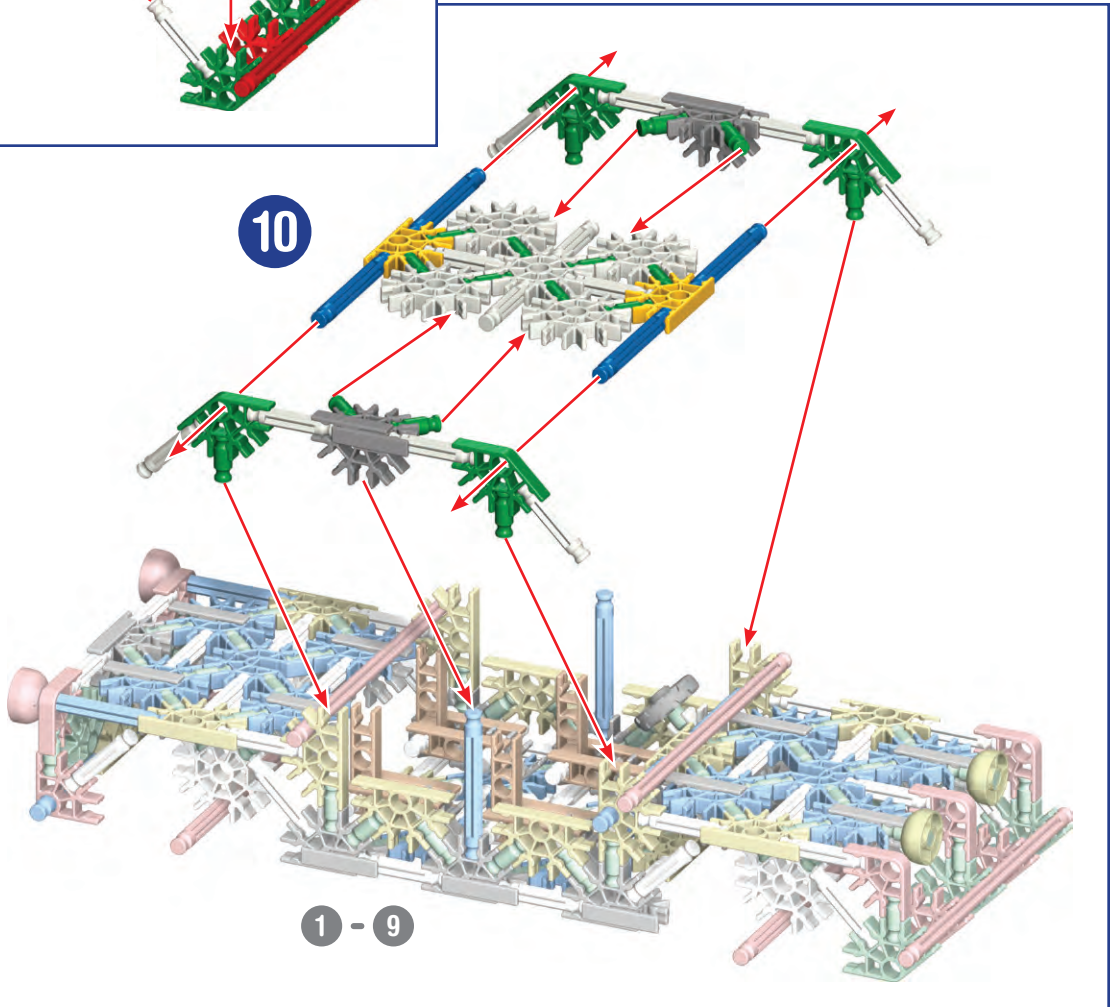
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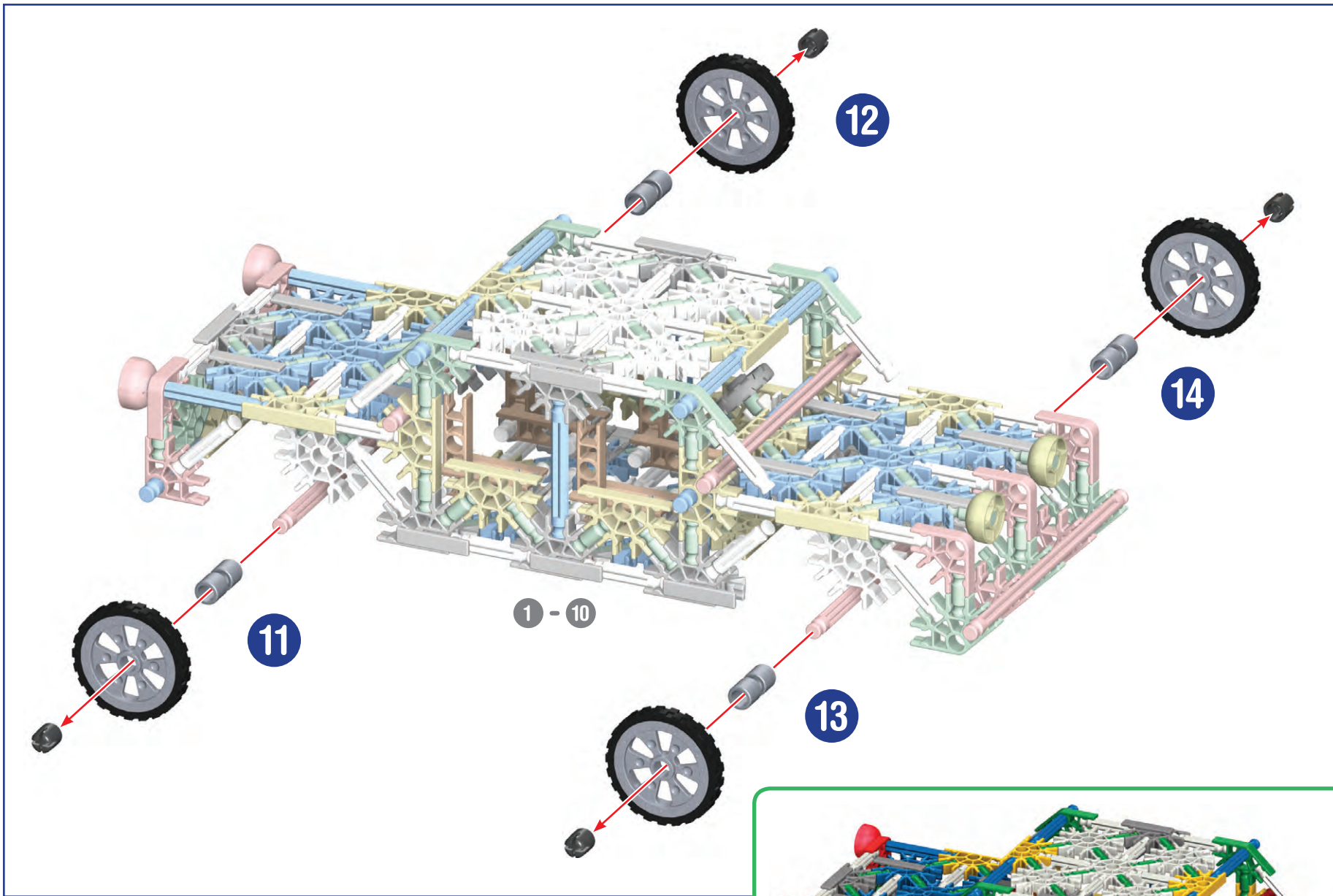
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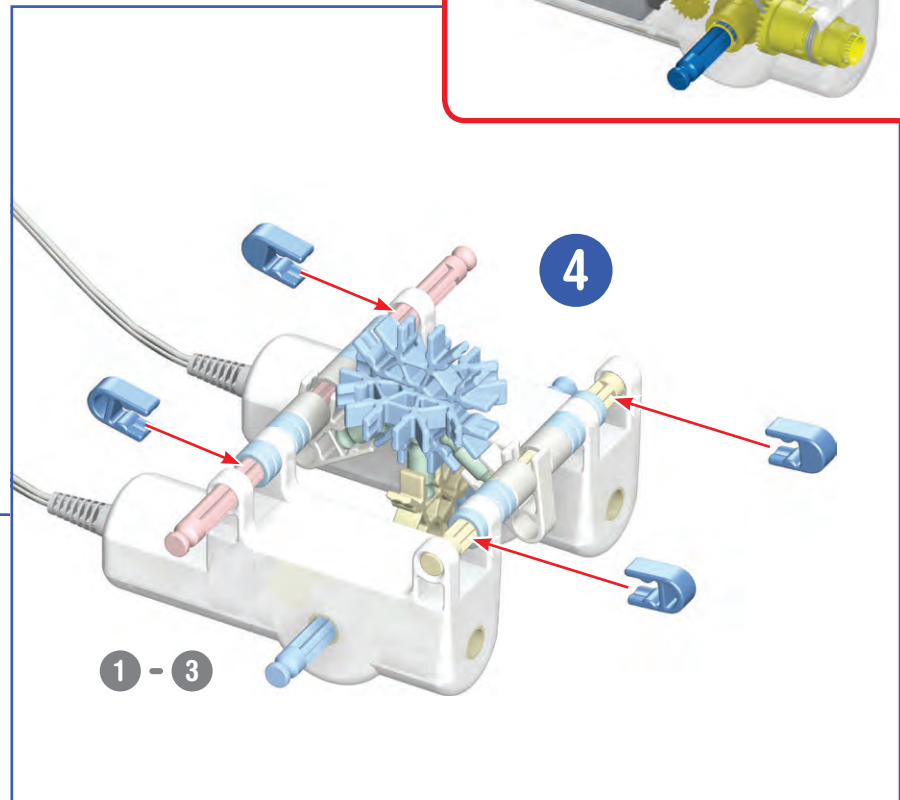
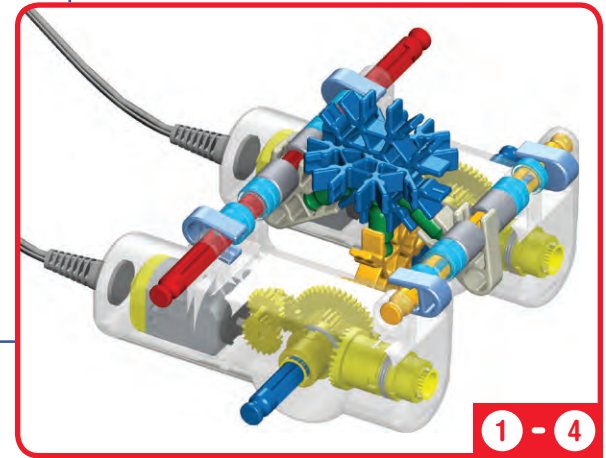
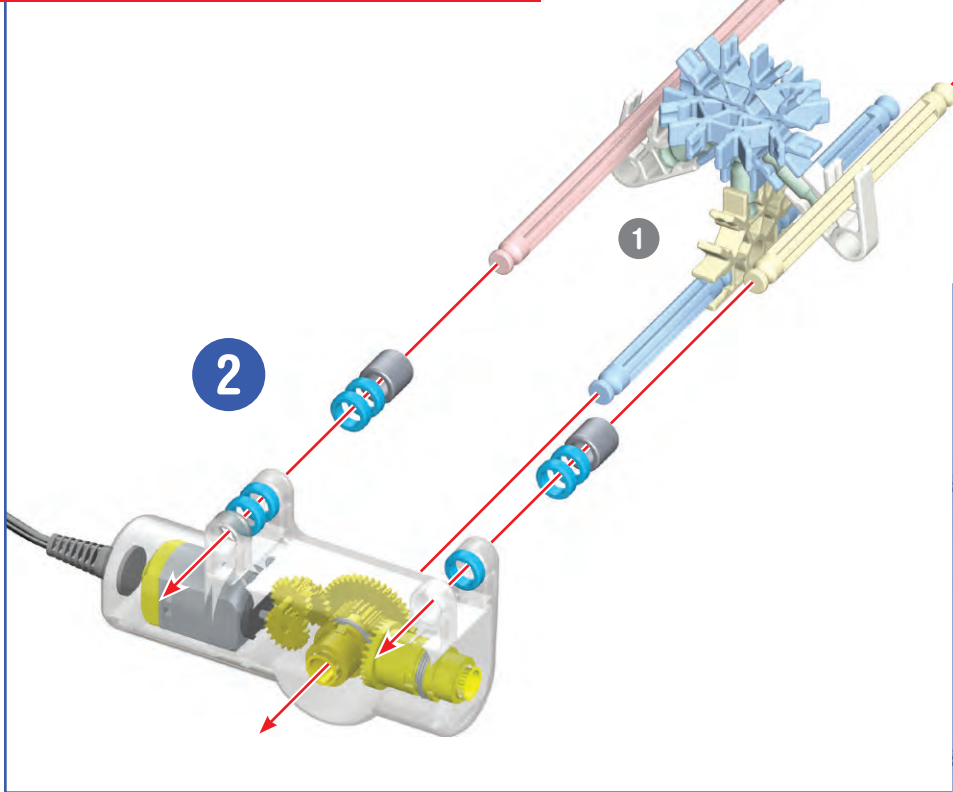
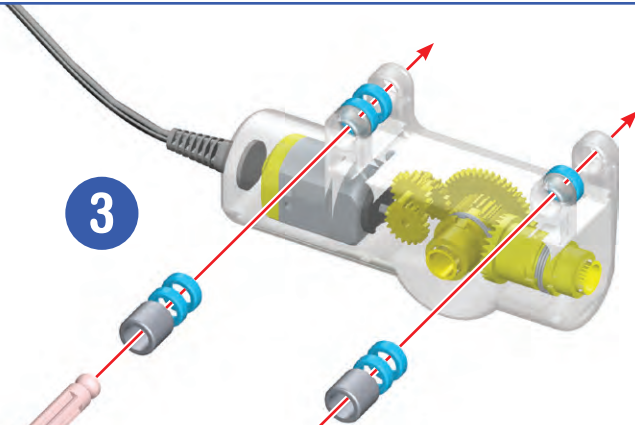
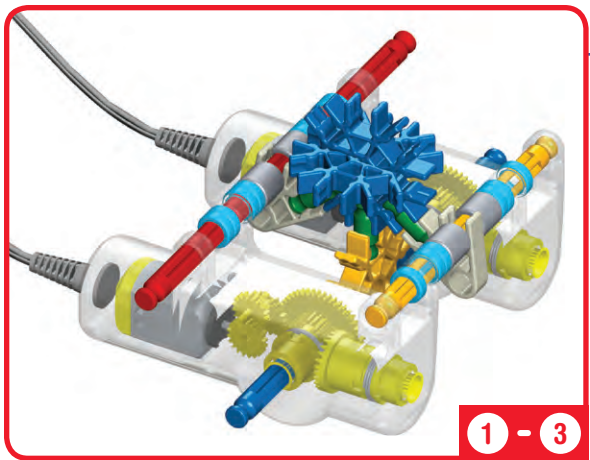


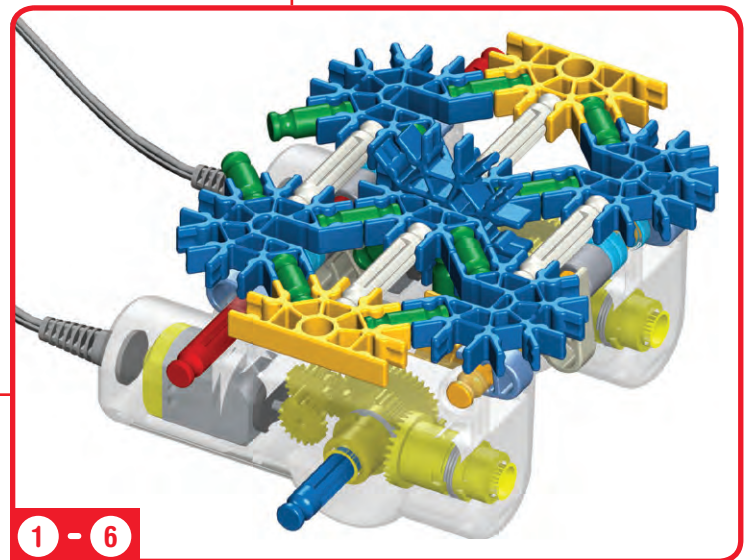
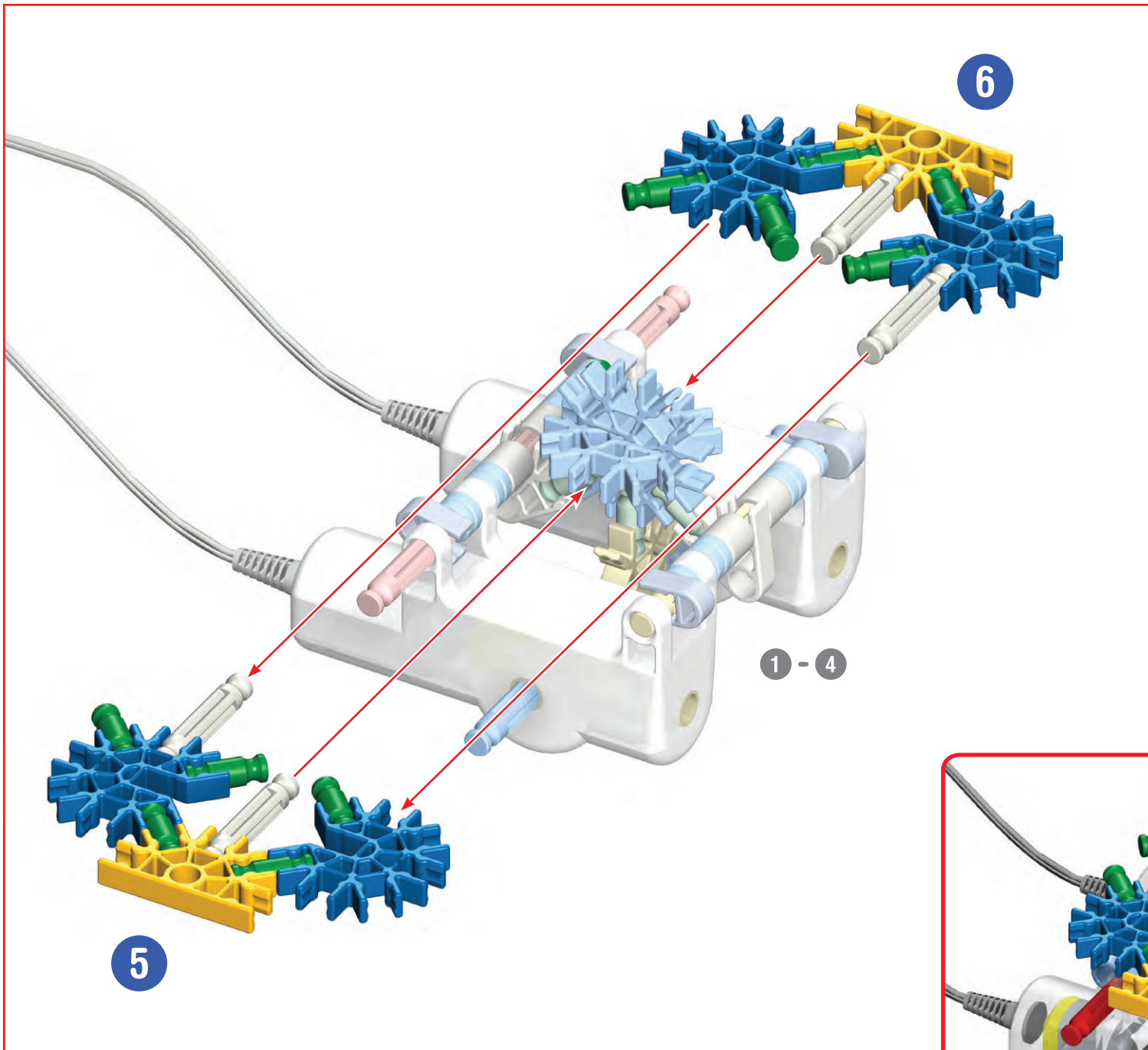
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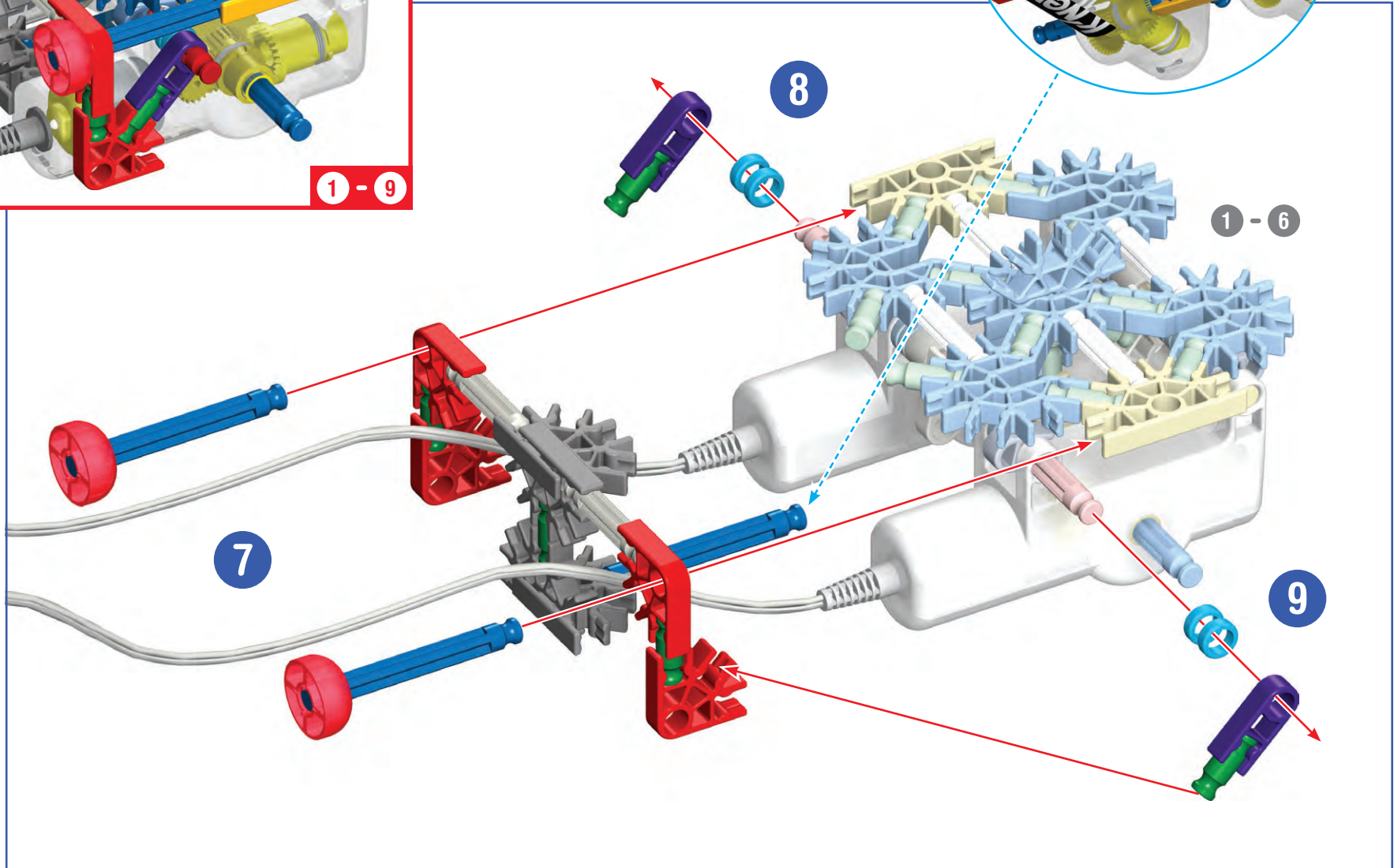
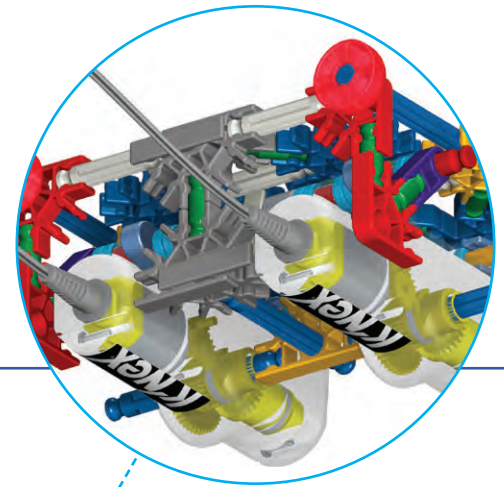
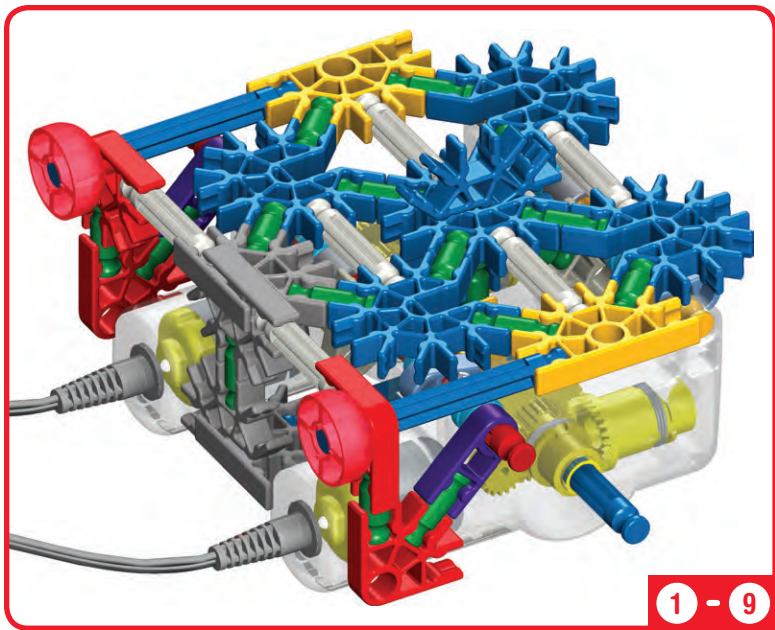


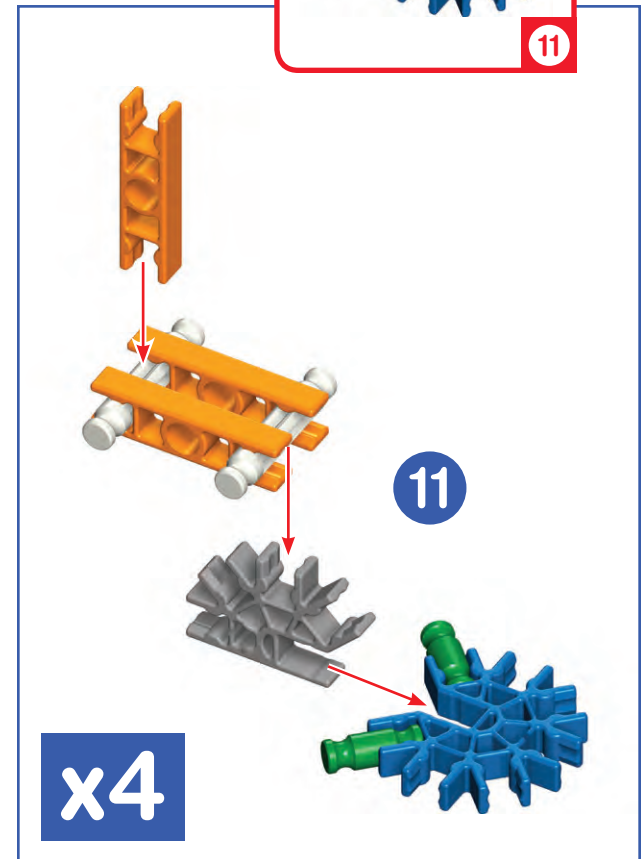
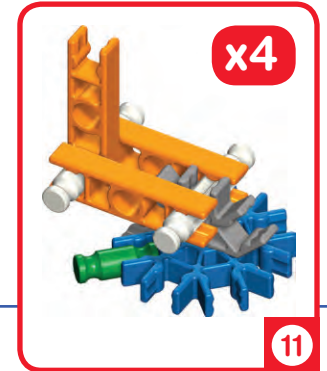
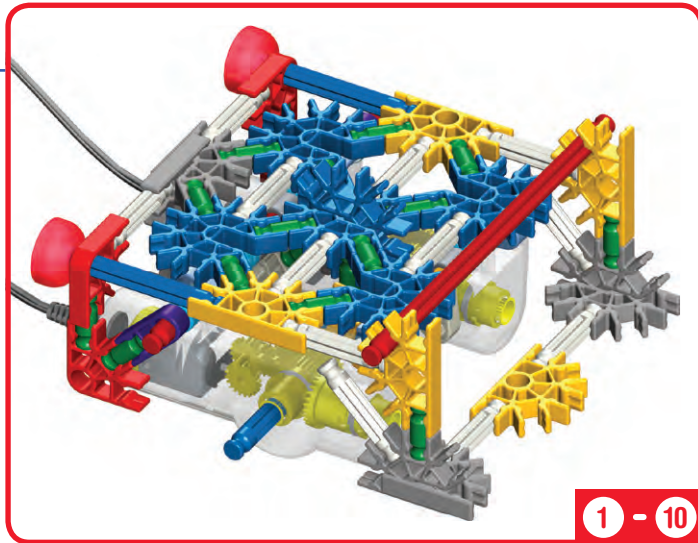
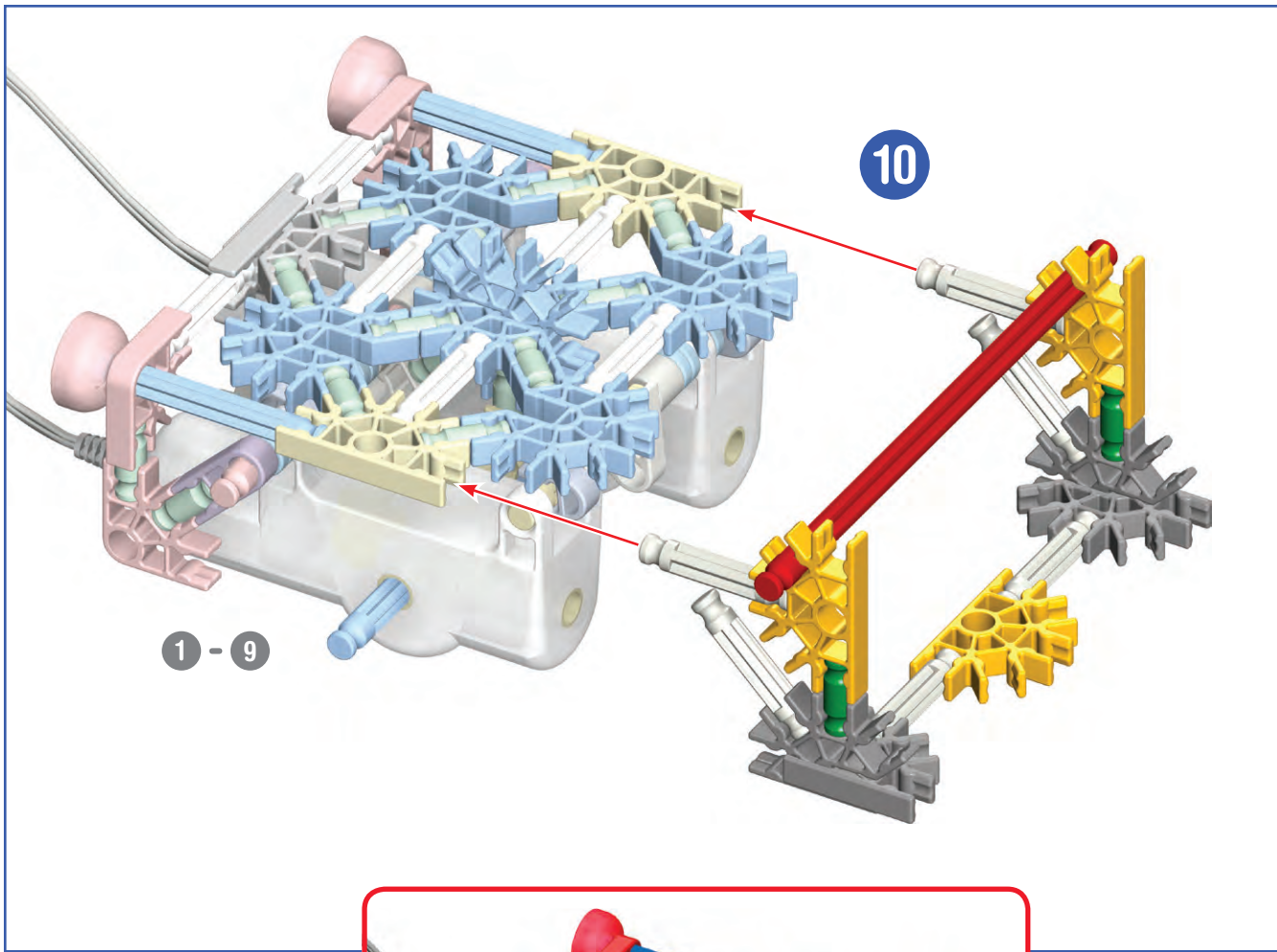
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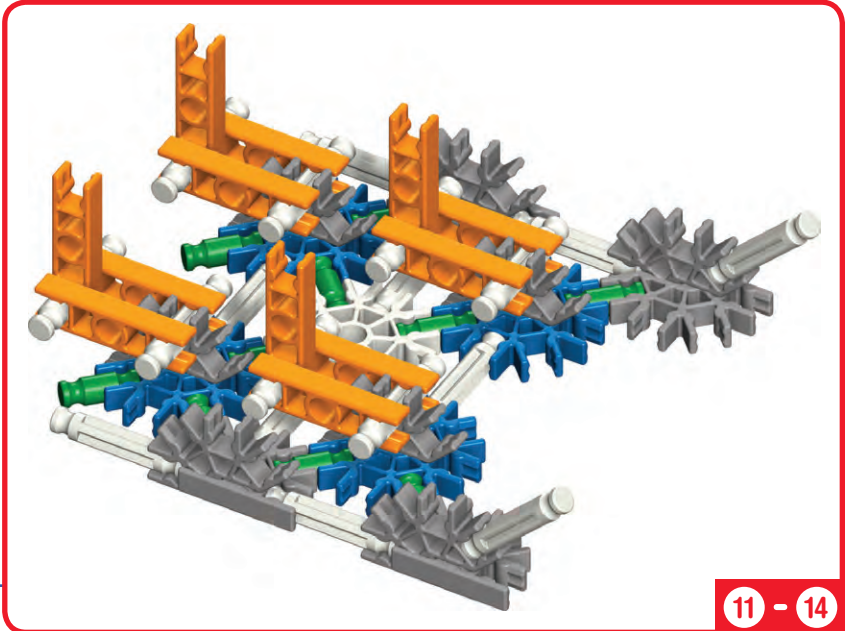
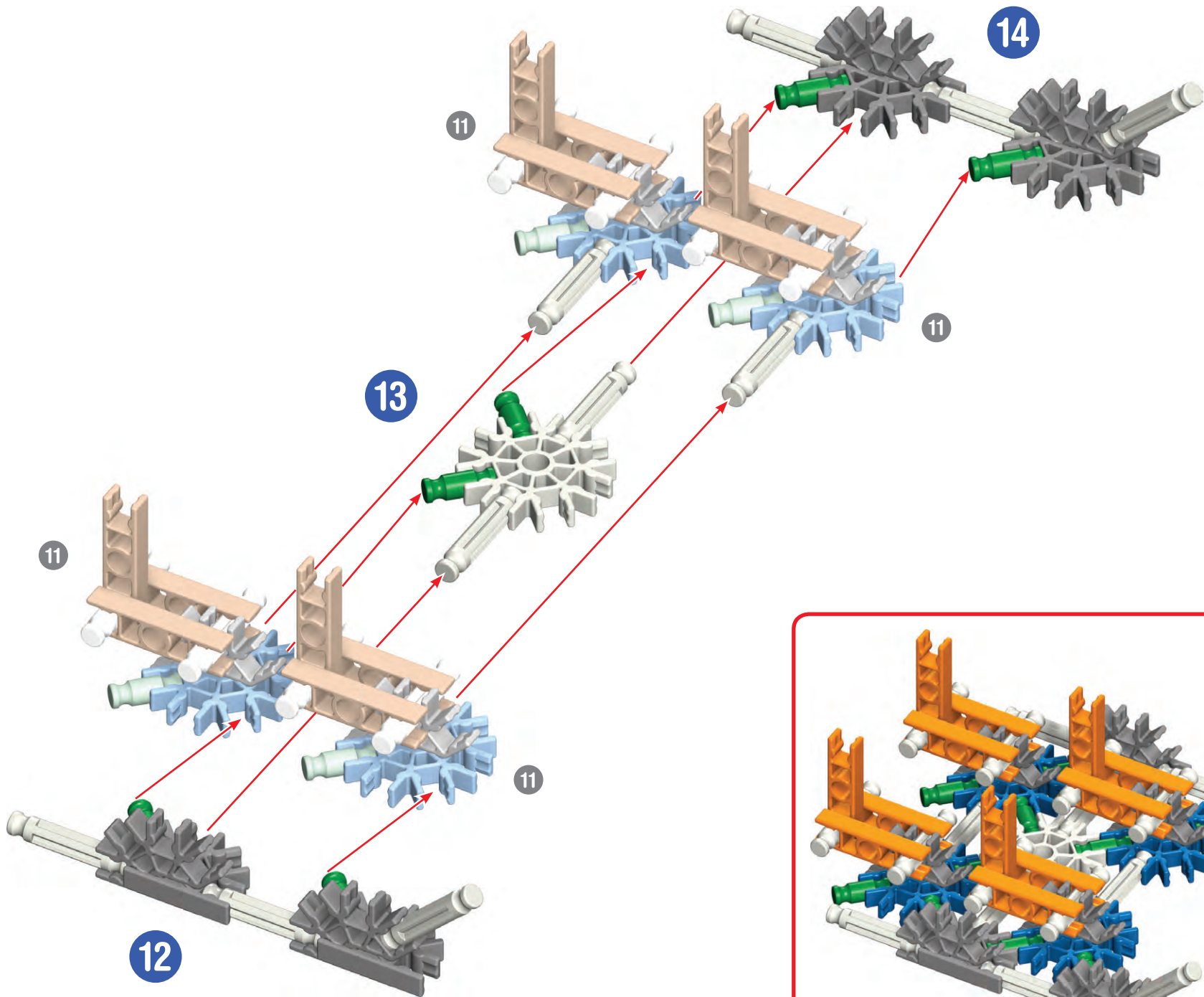


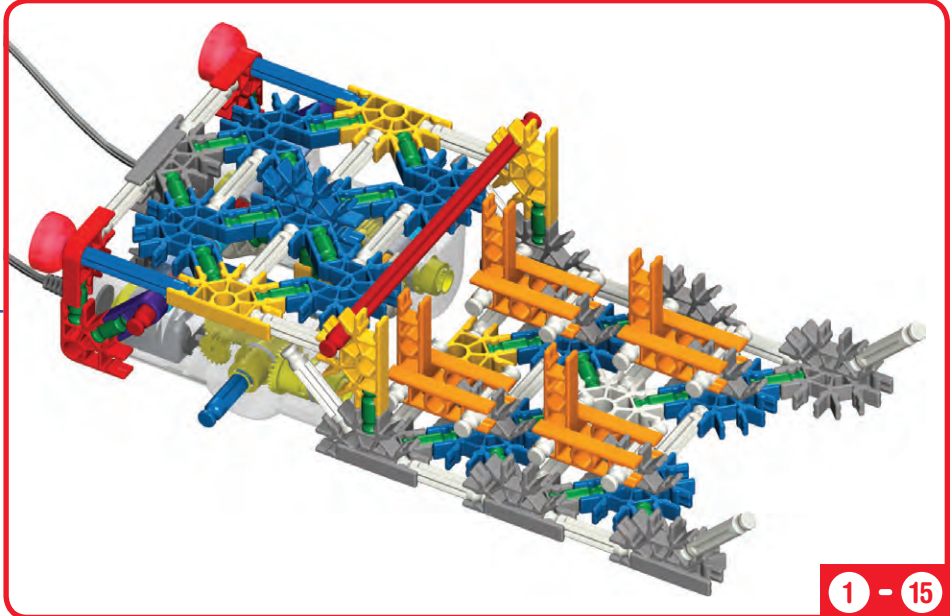
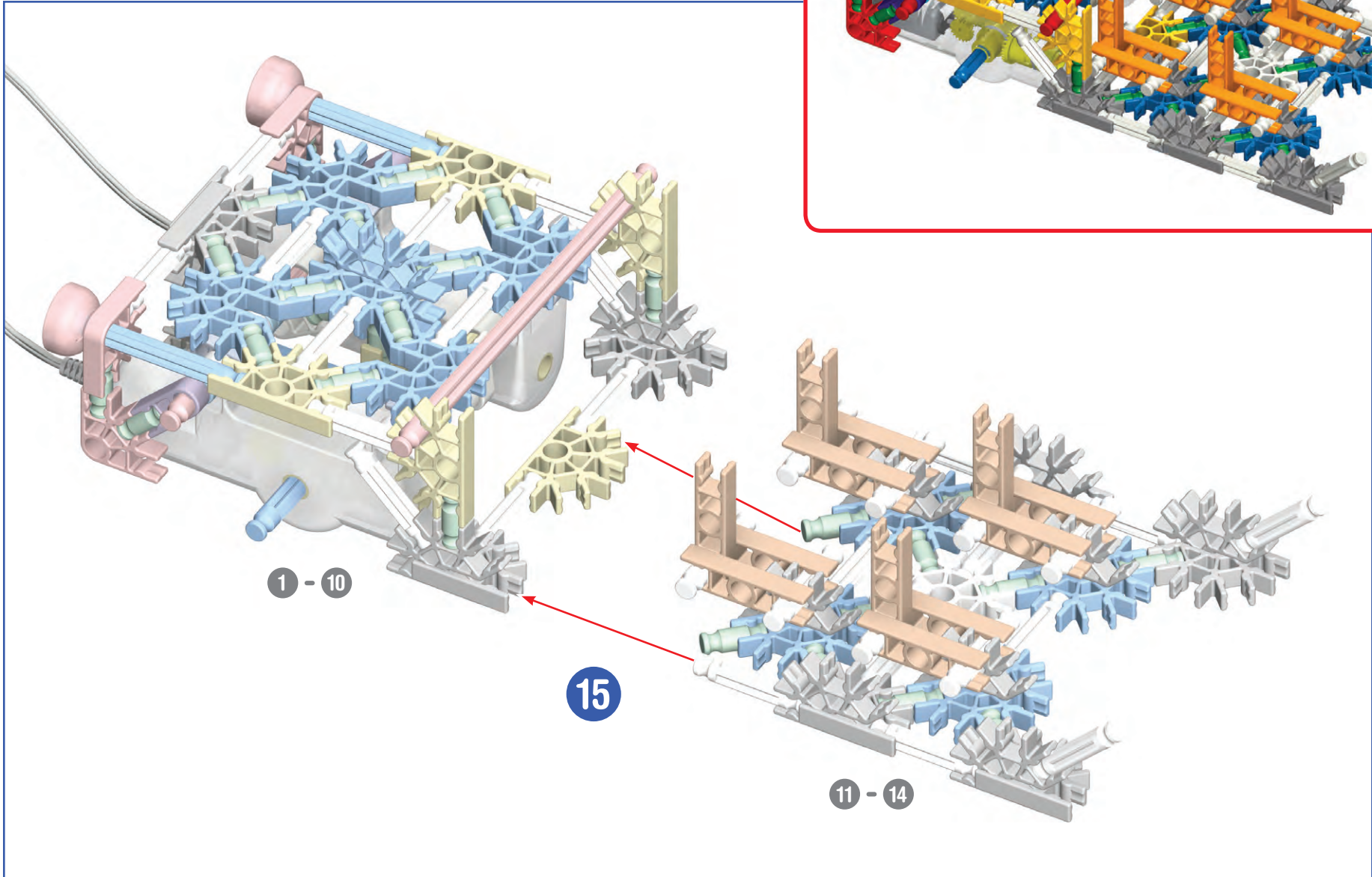


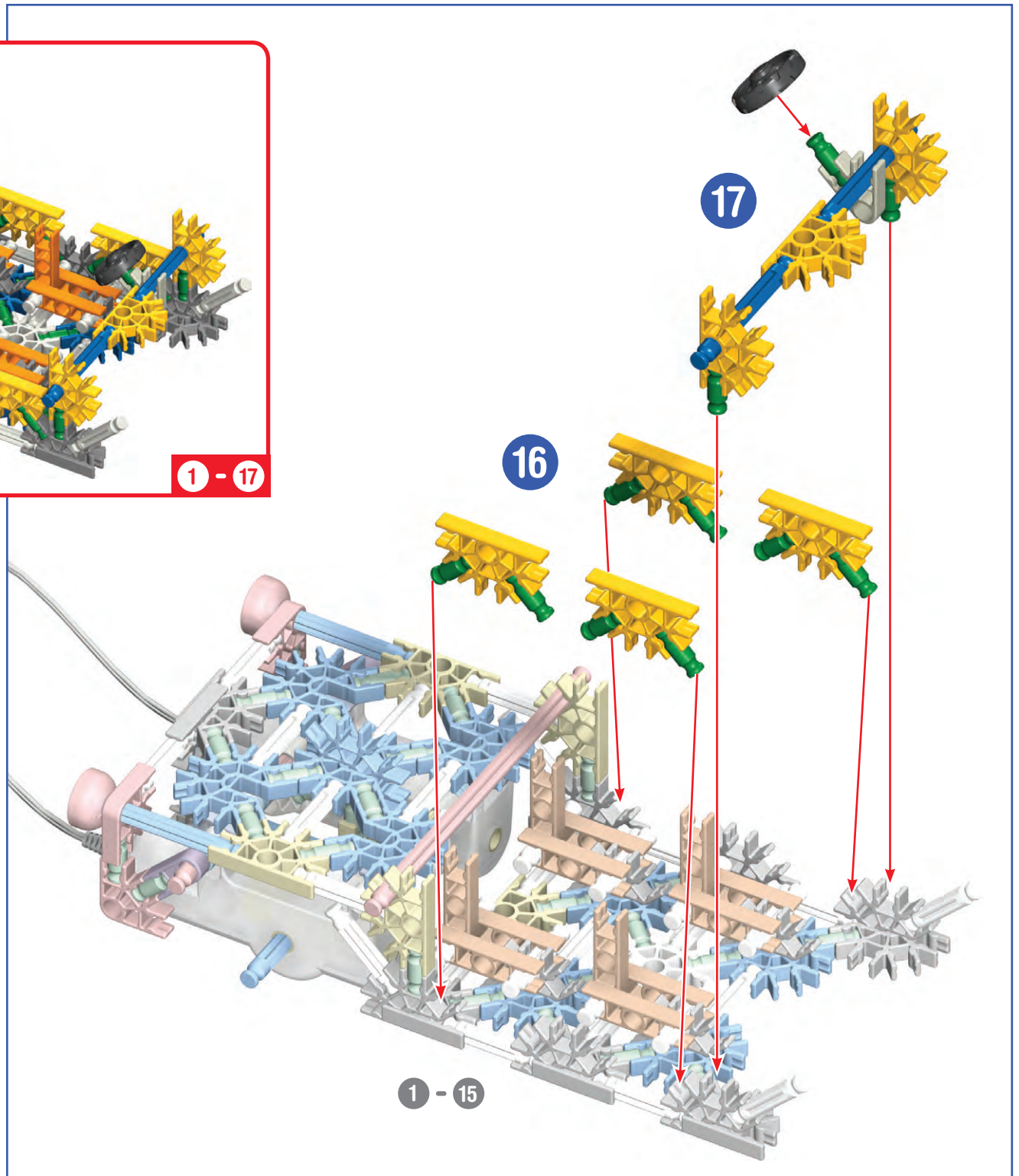
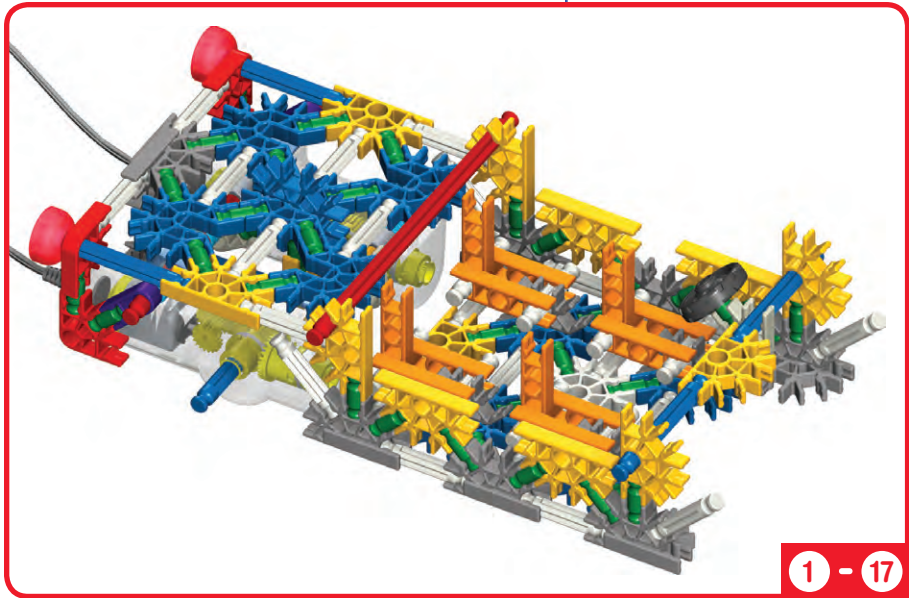


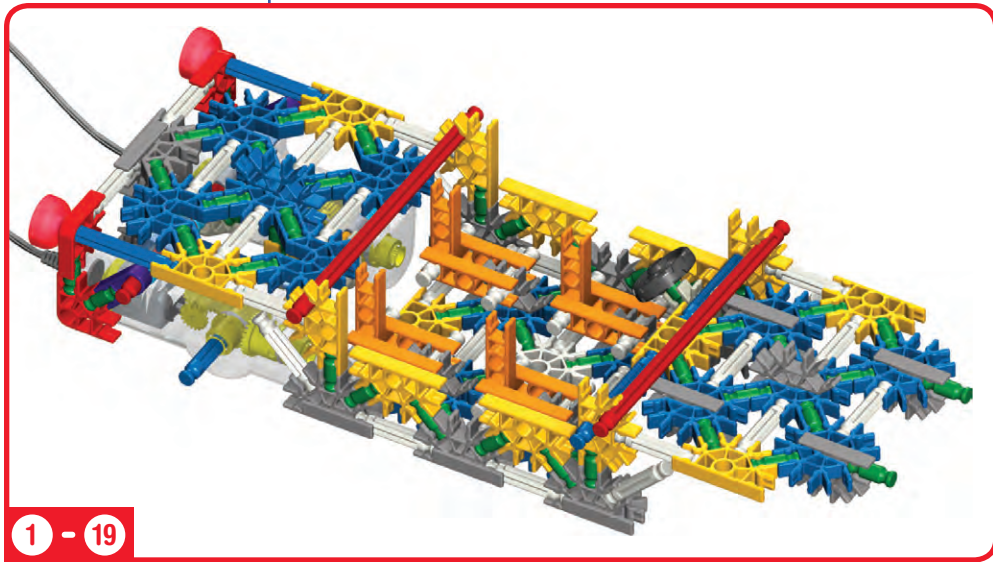
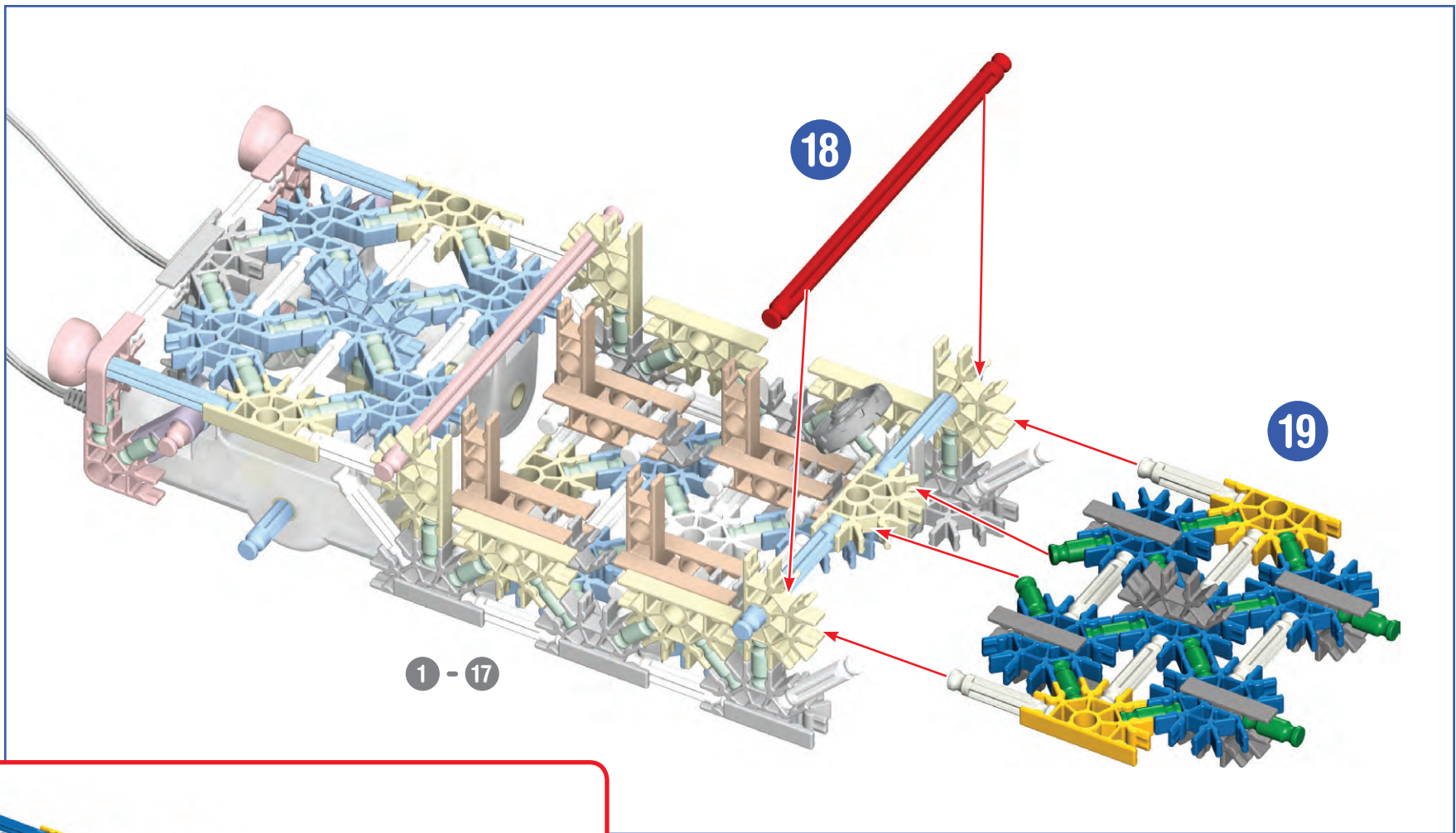


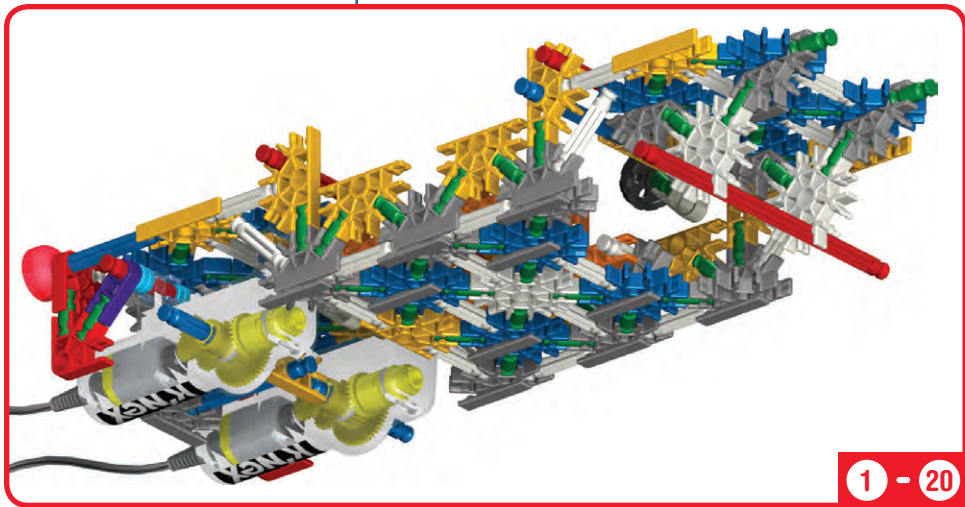
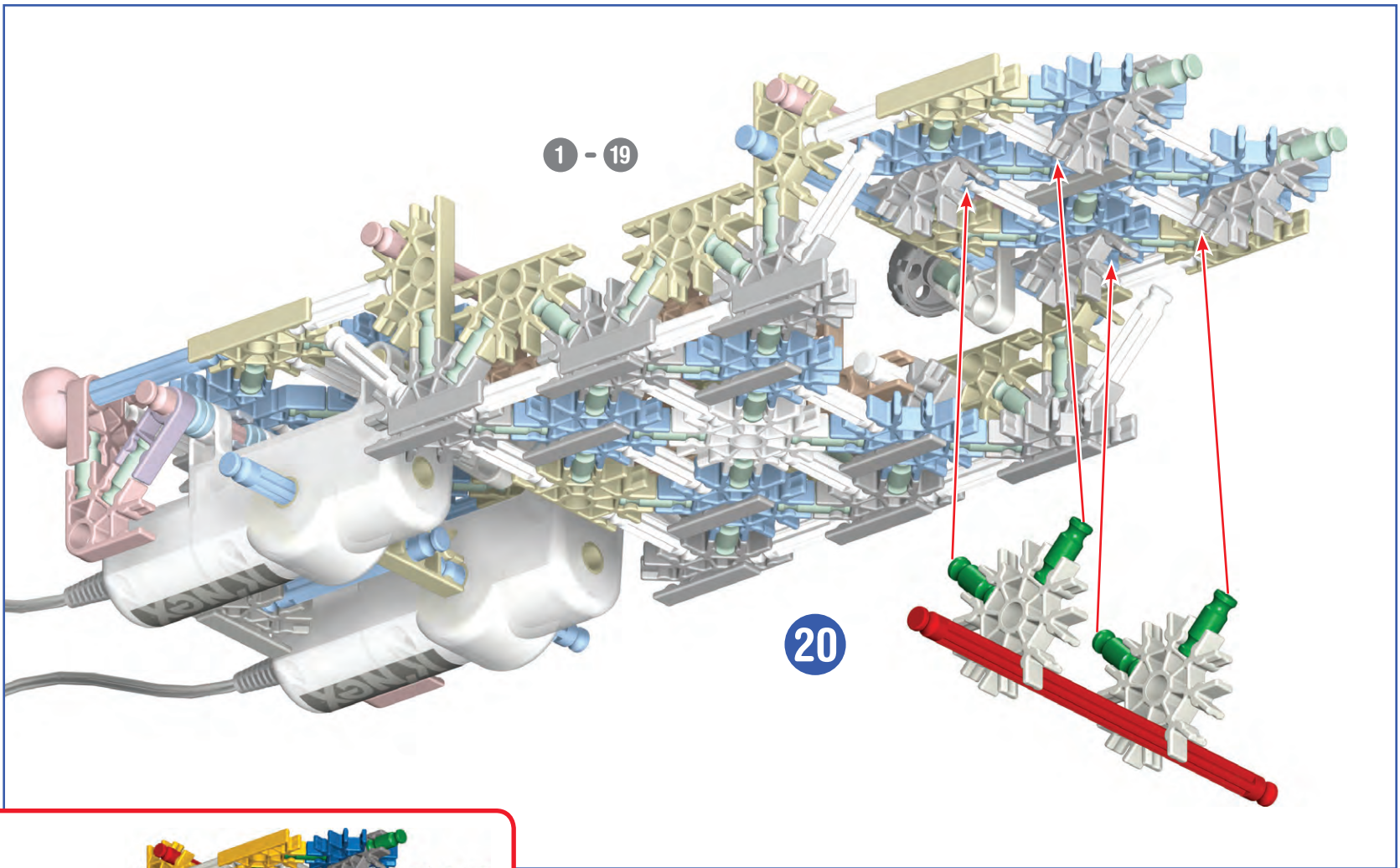


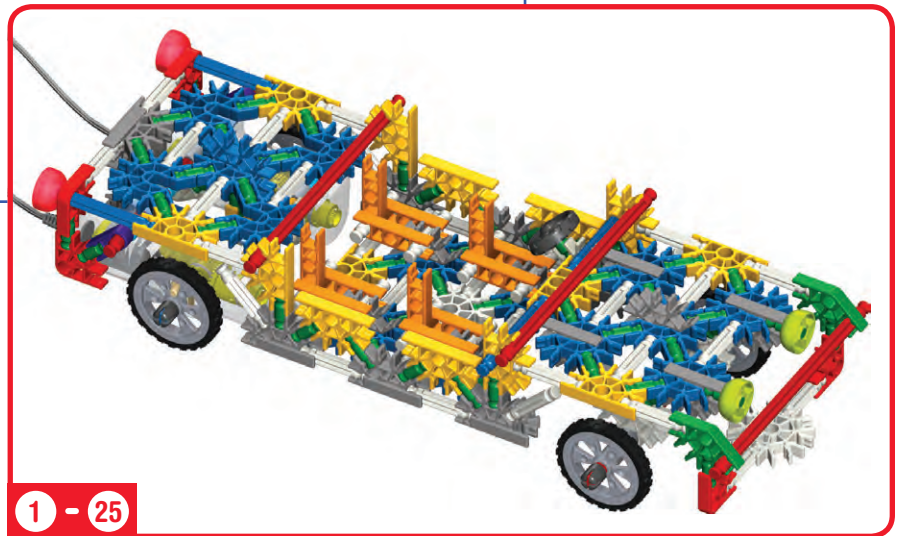
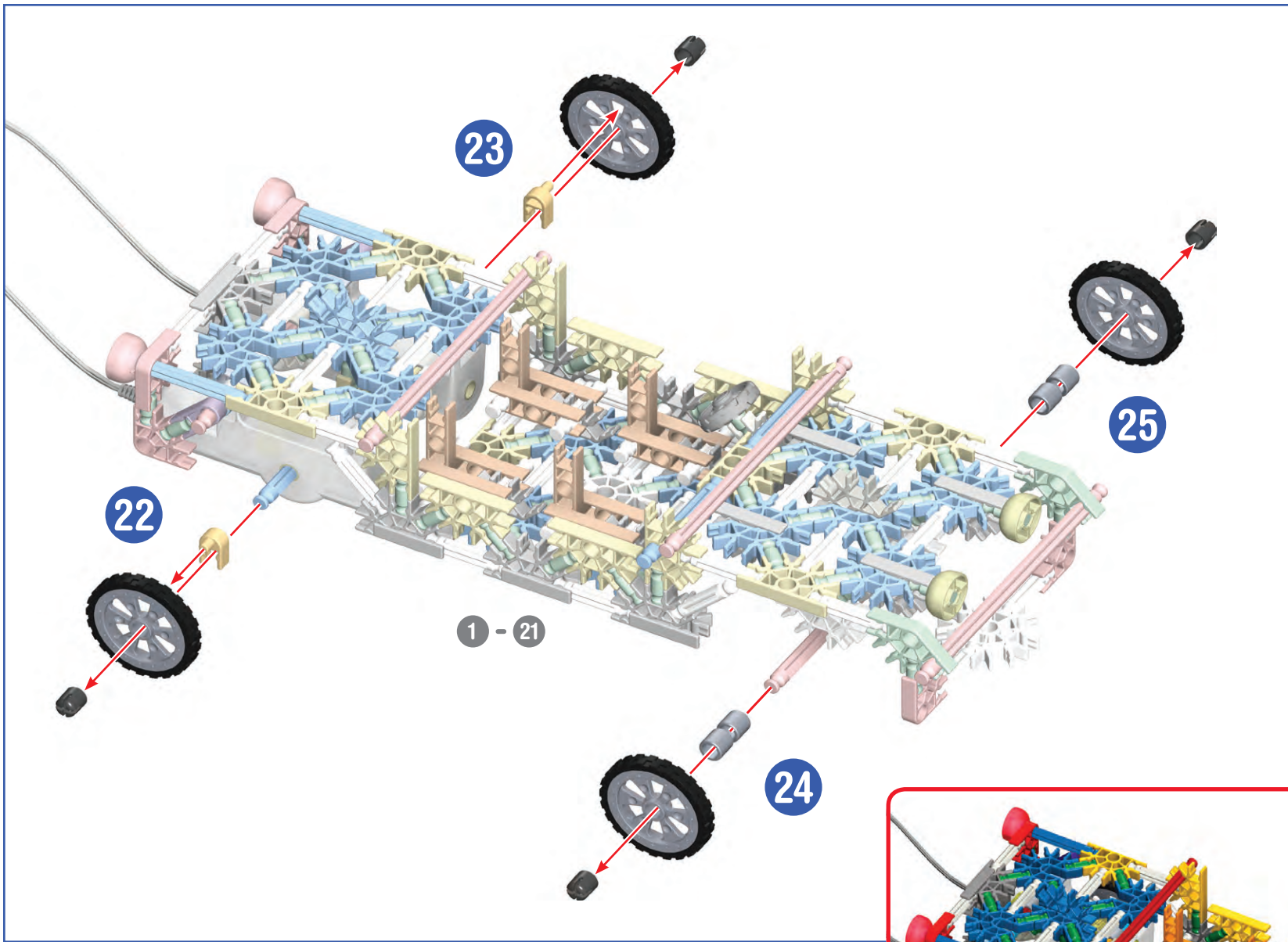


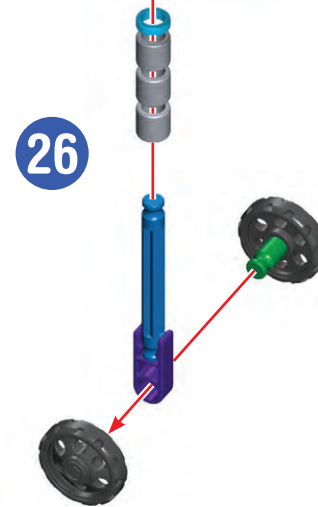
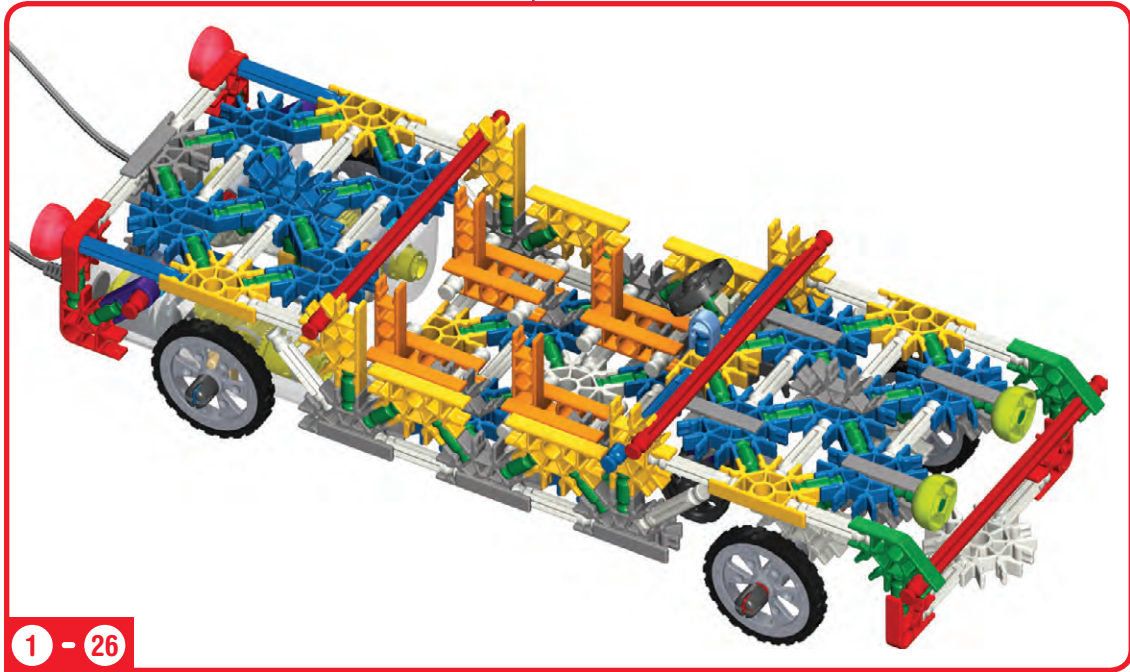
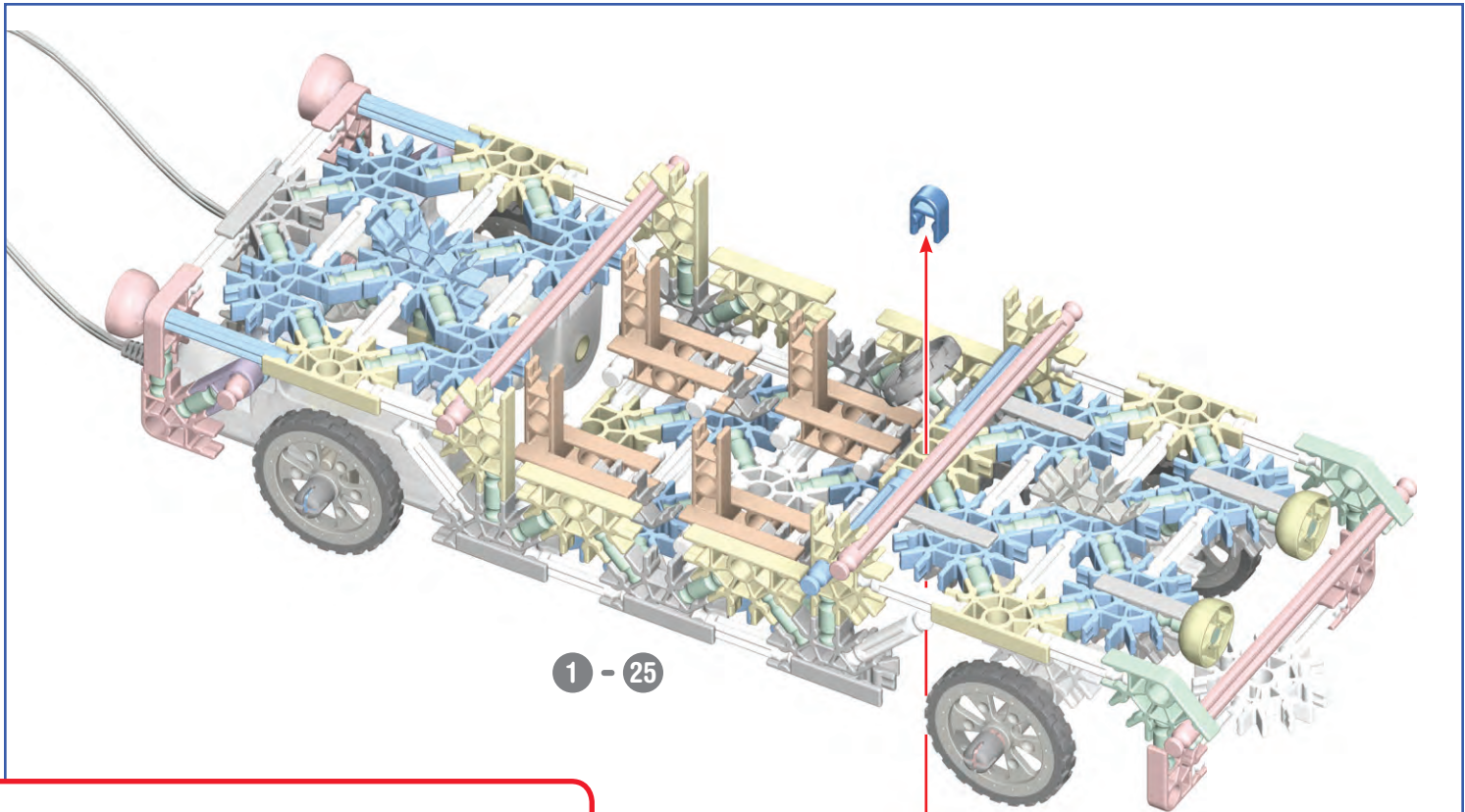


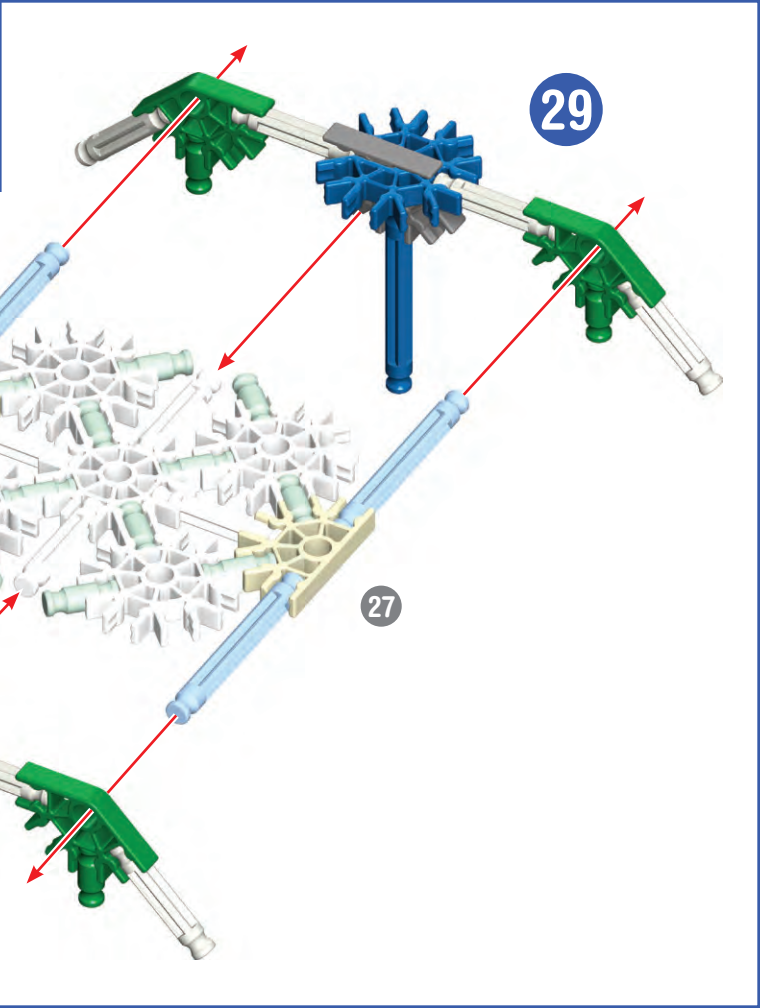
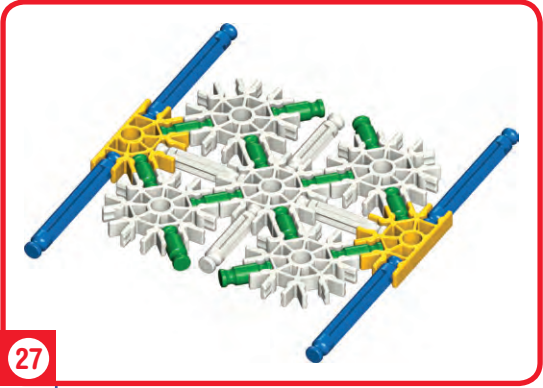
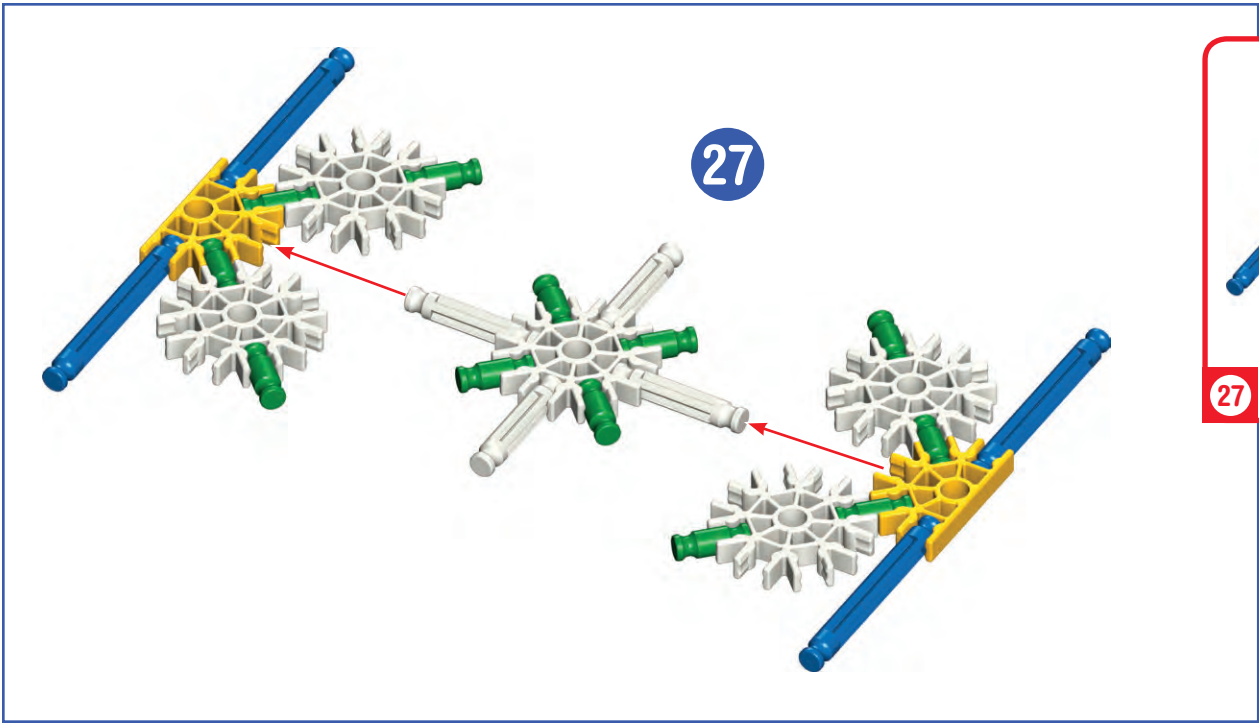


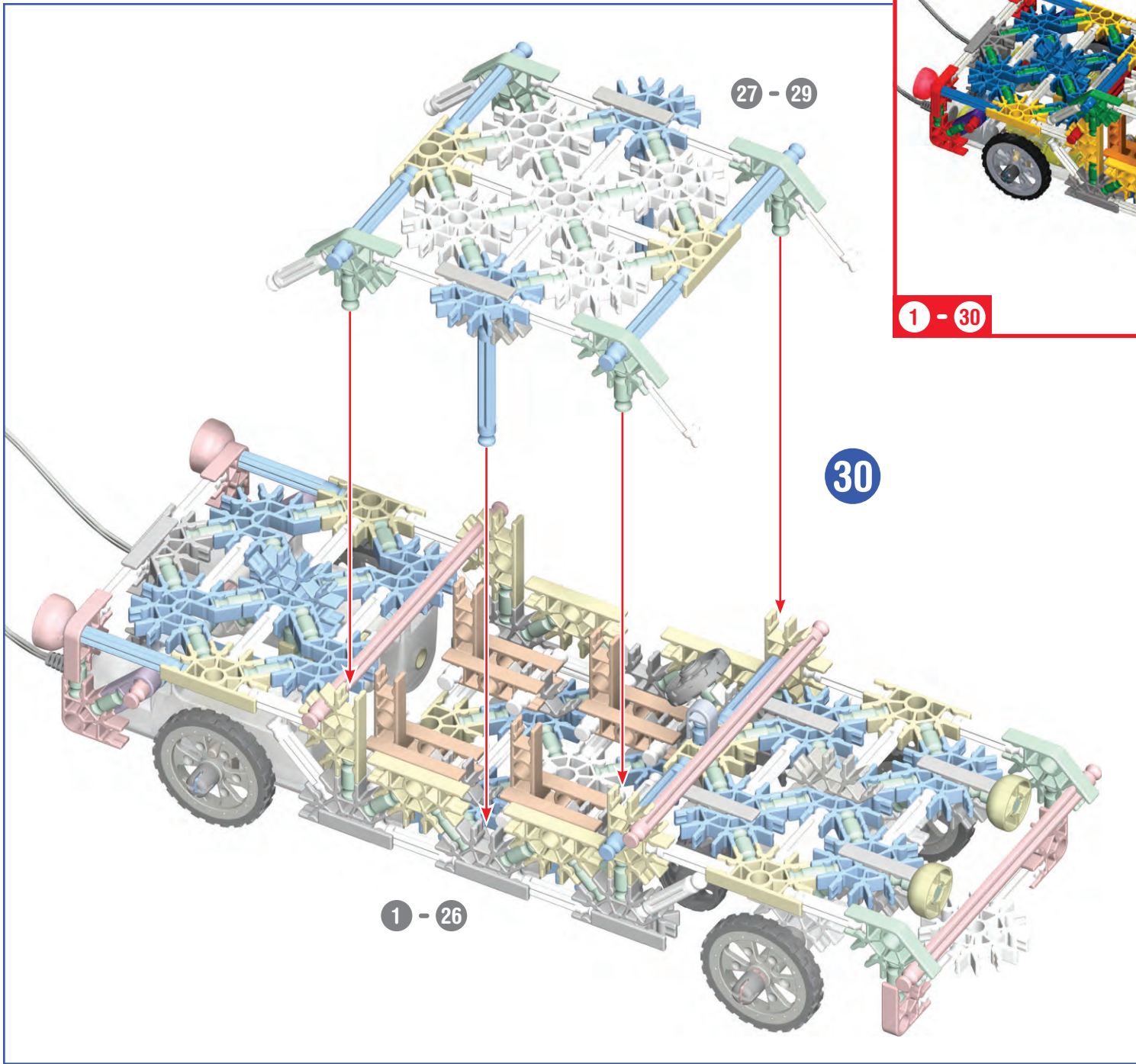




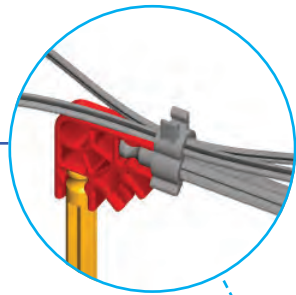






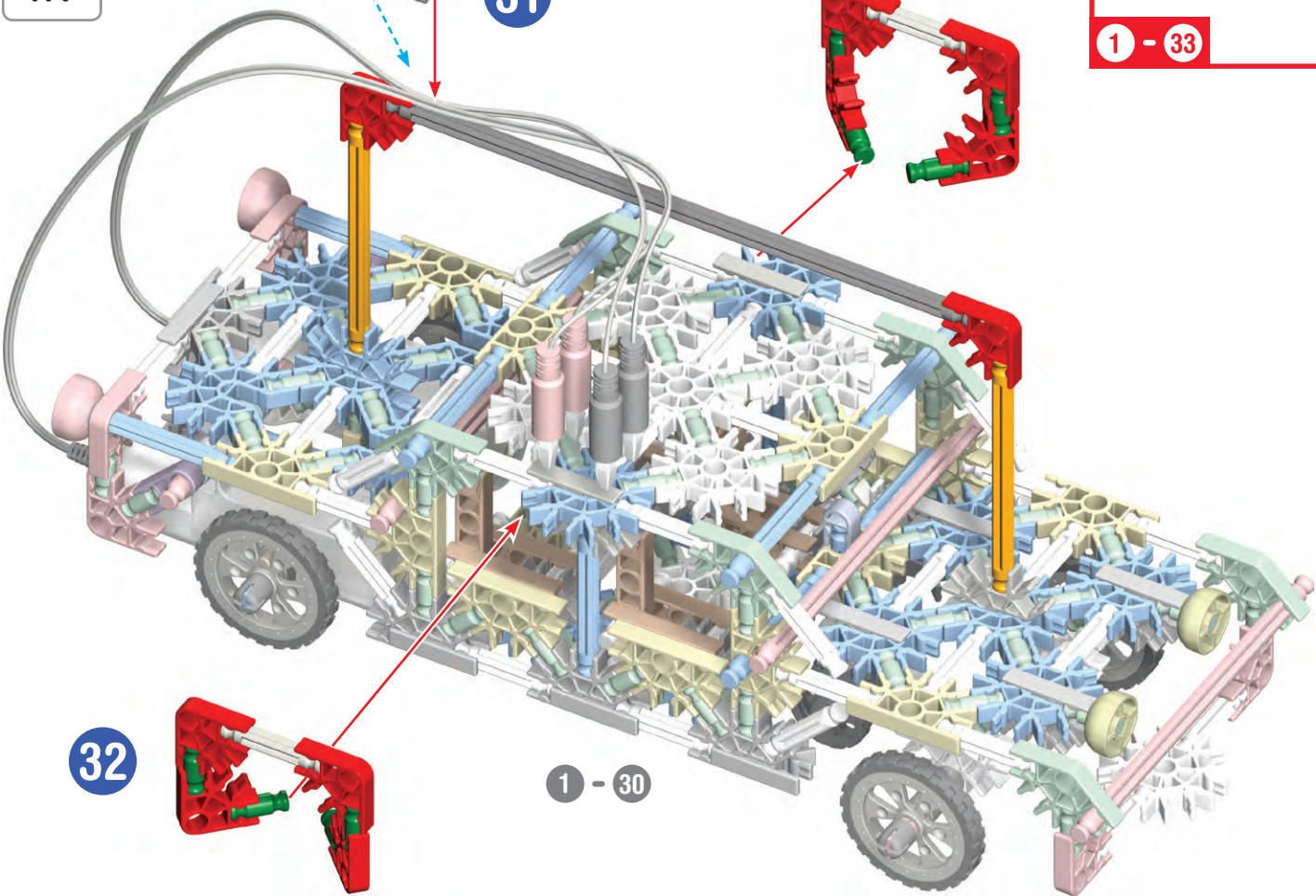



x1



31

33

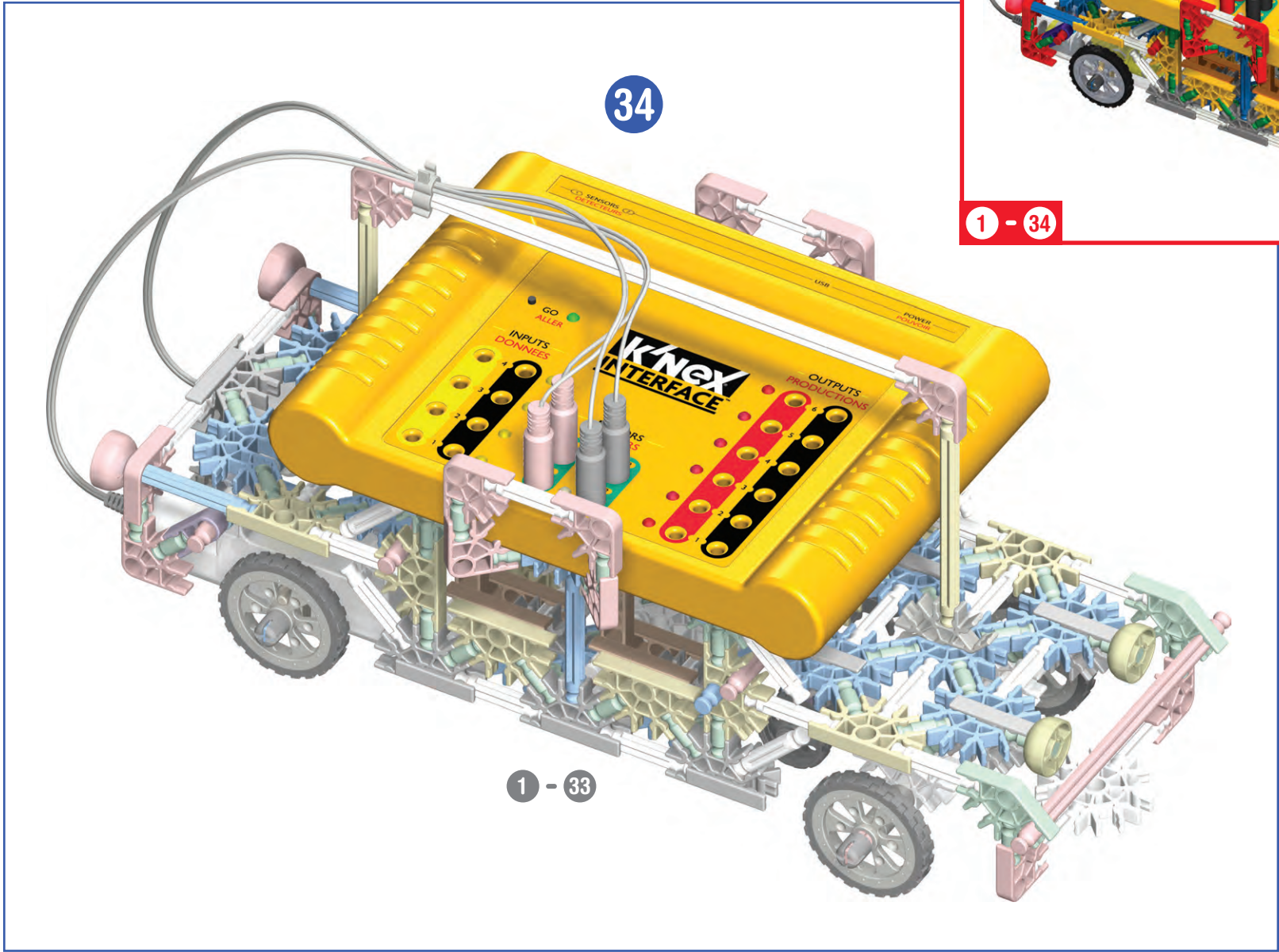


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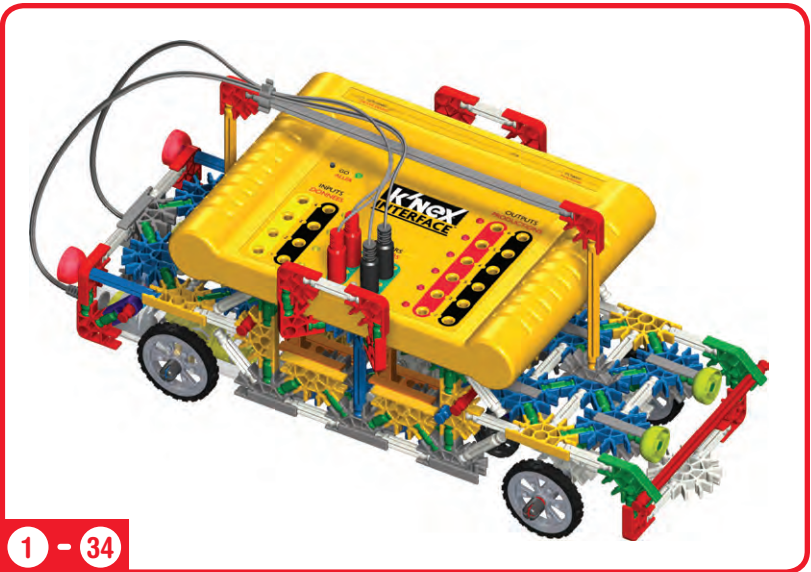
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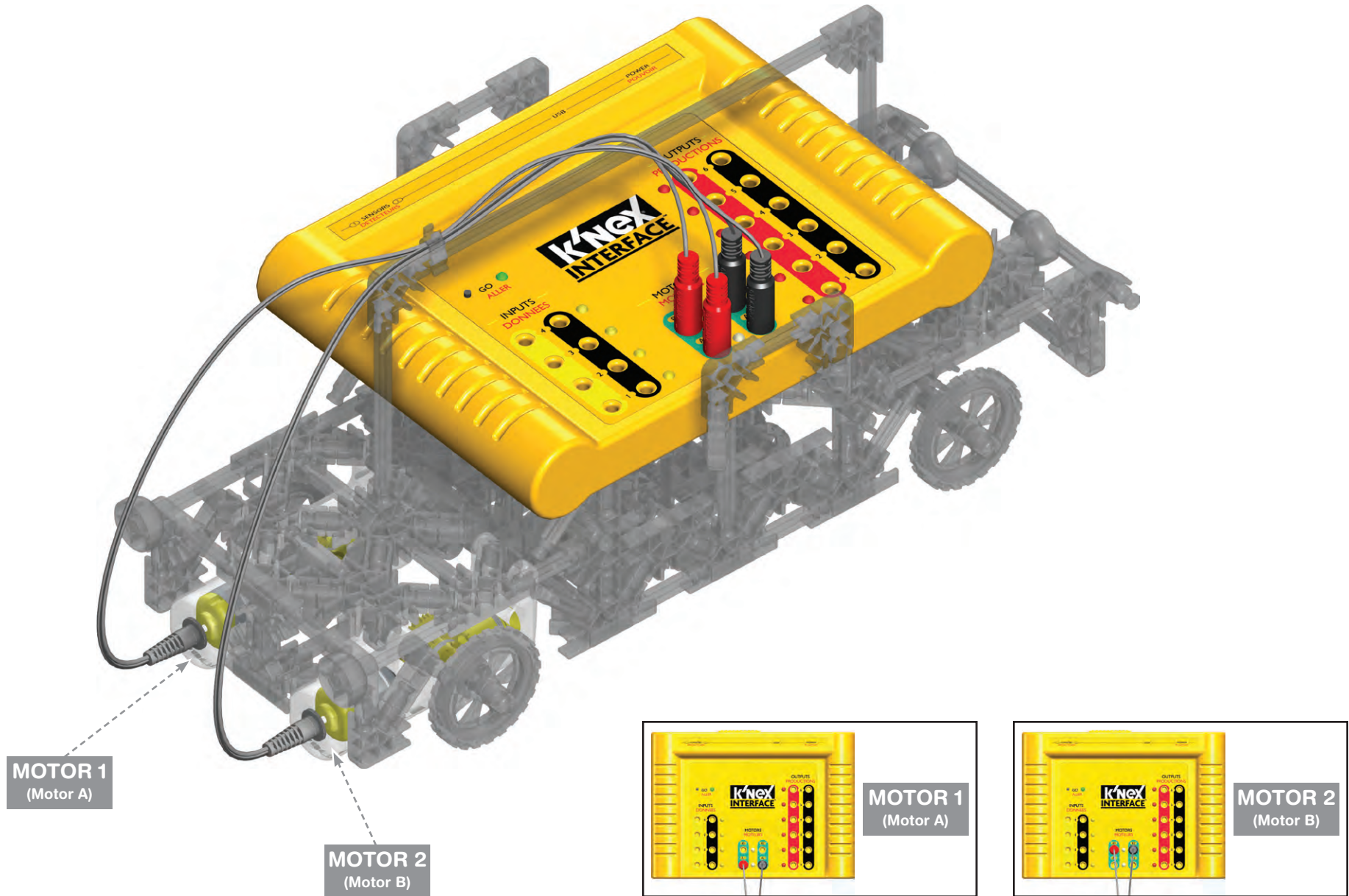




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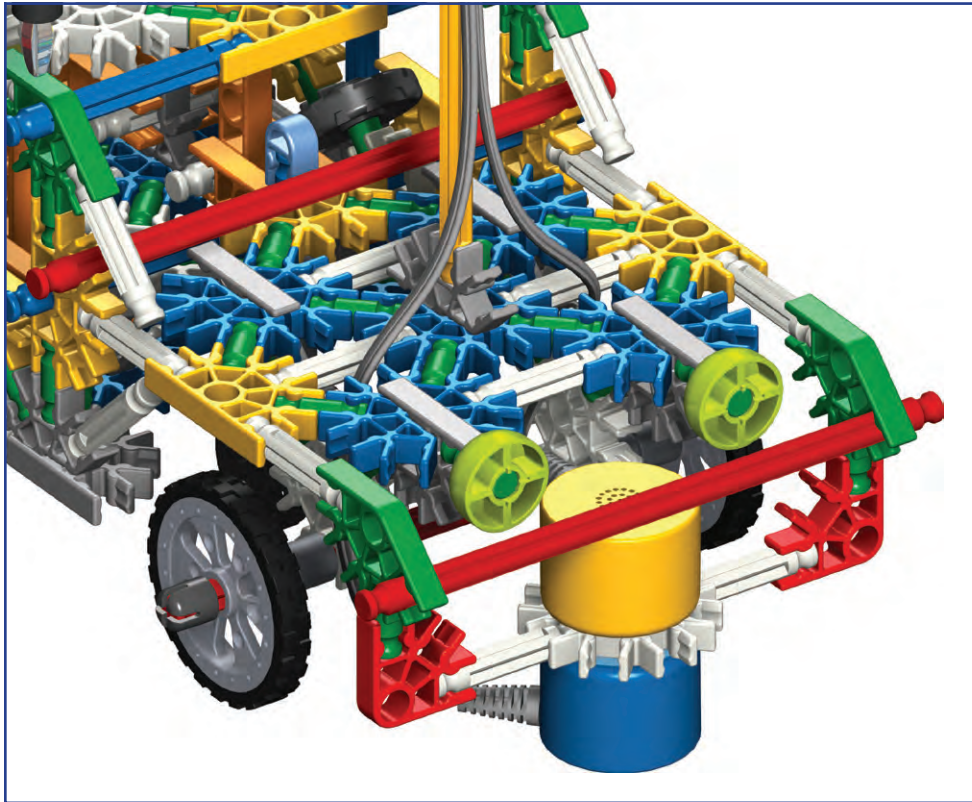


Tabletop Car – CONTROL BOX

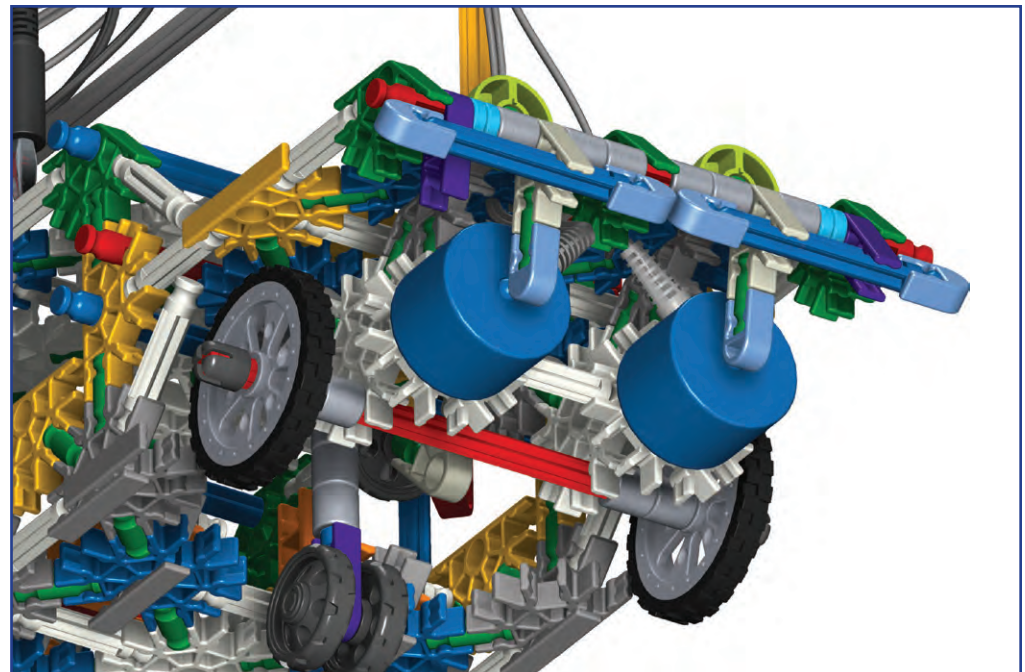
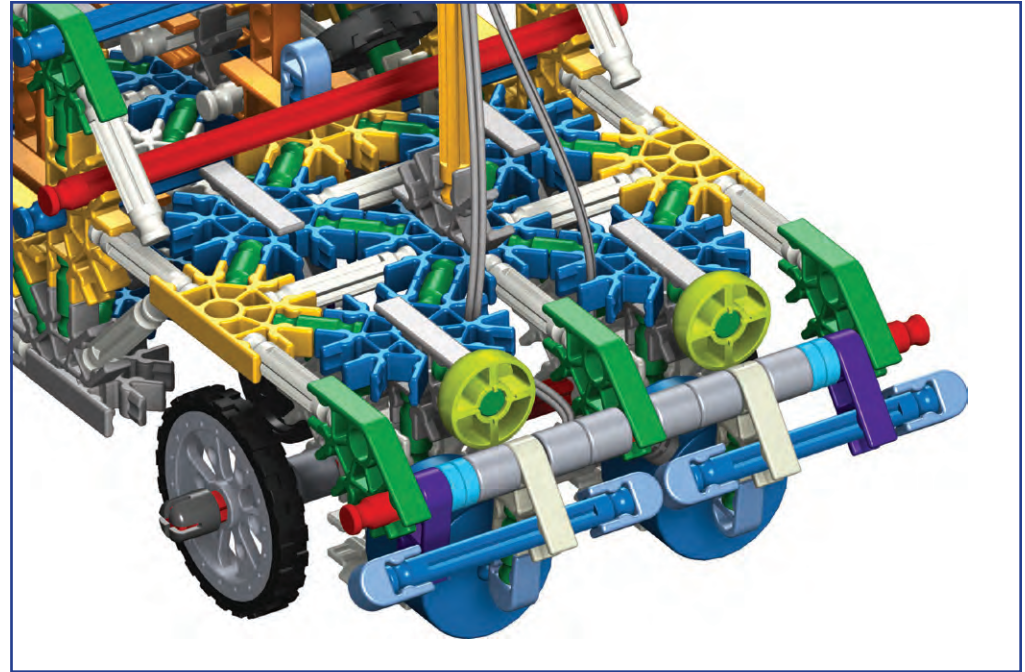


Other Building Options

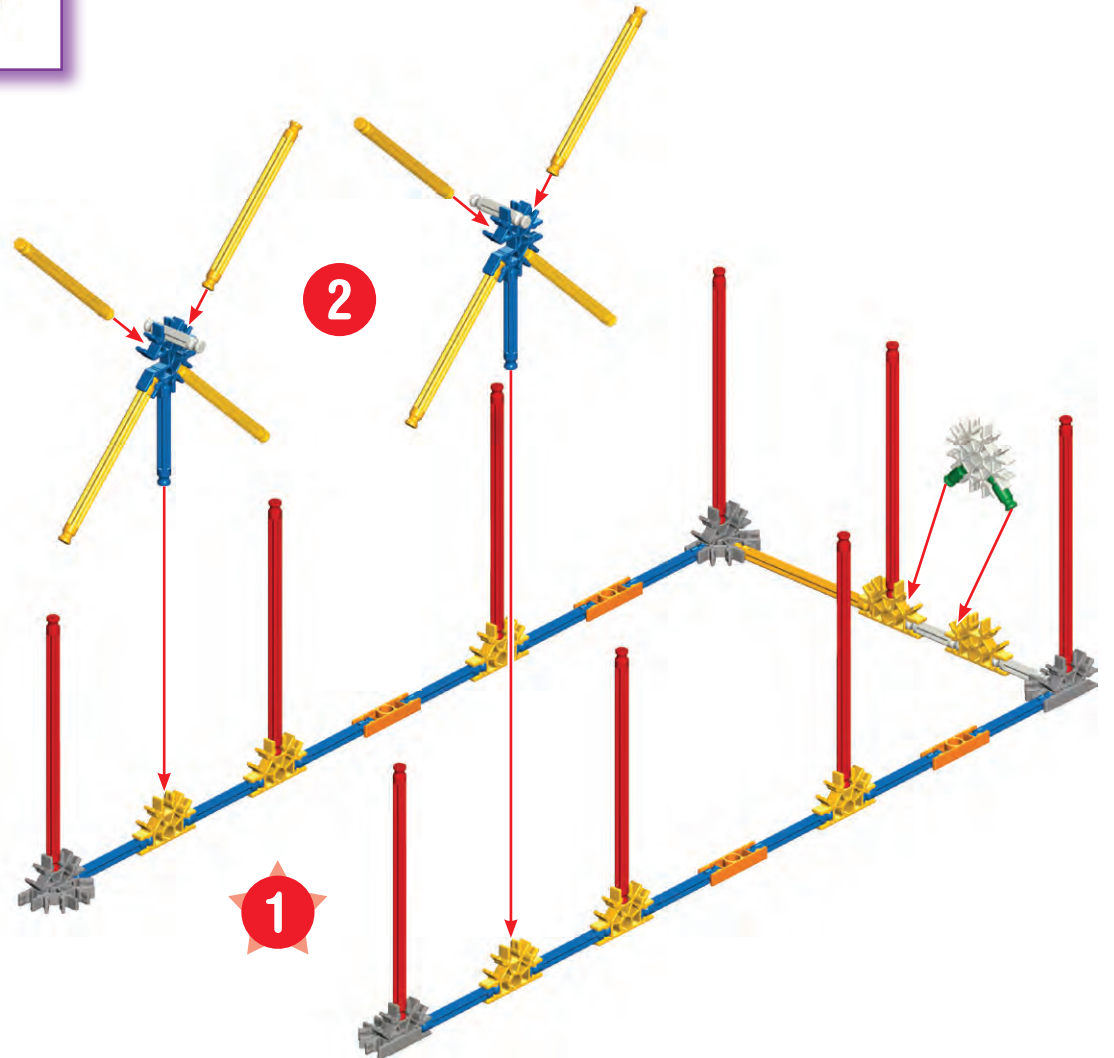
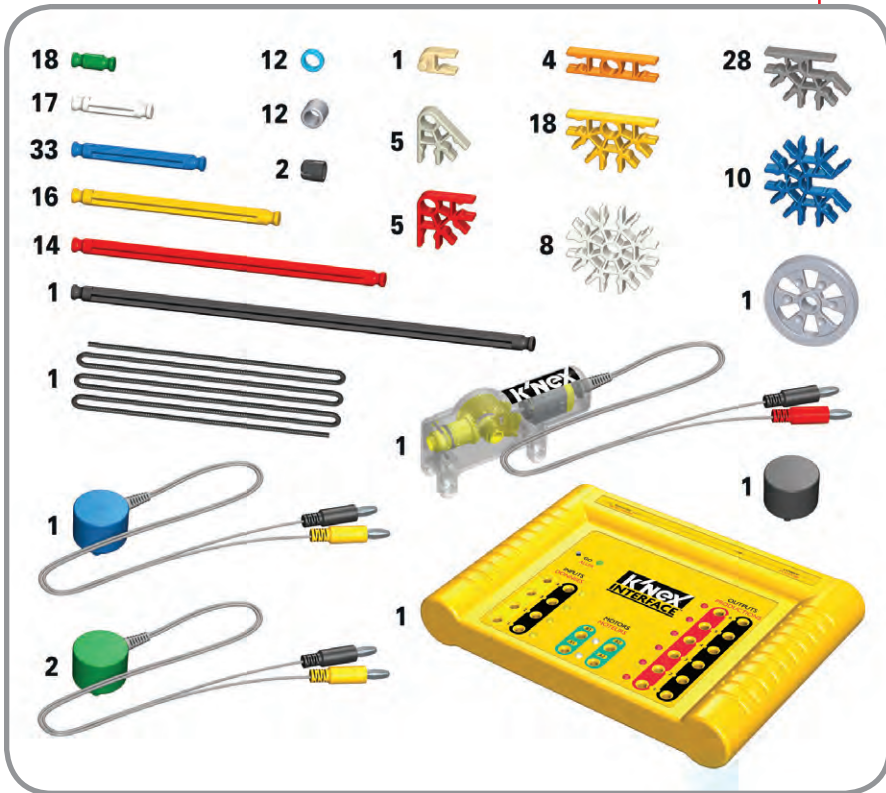
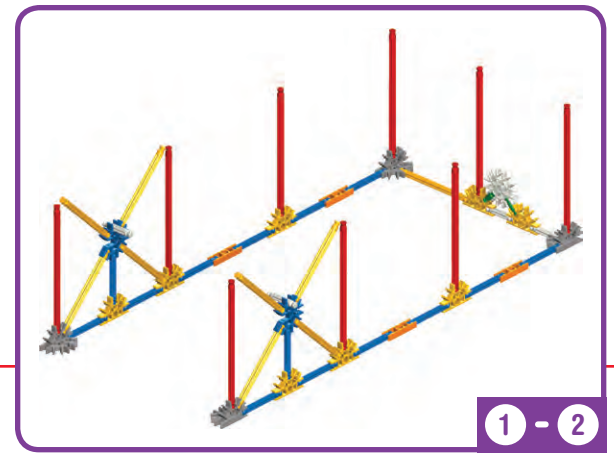
Tabletop Car – LEDGE

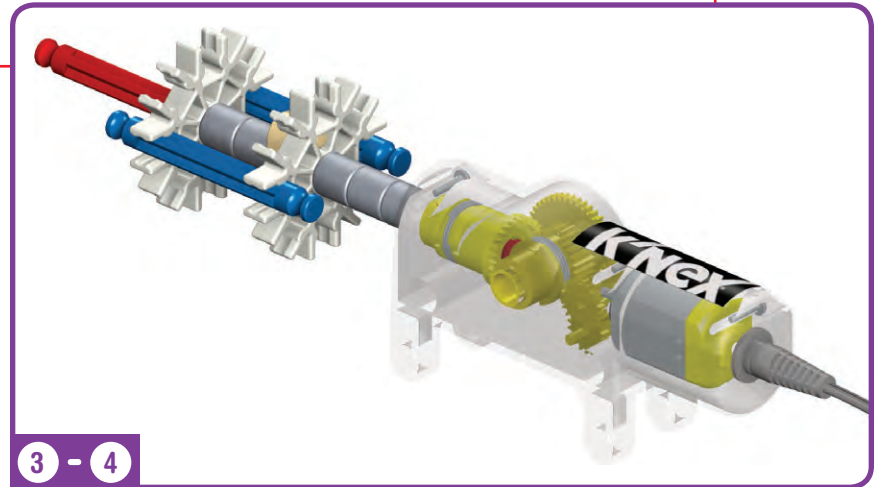
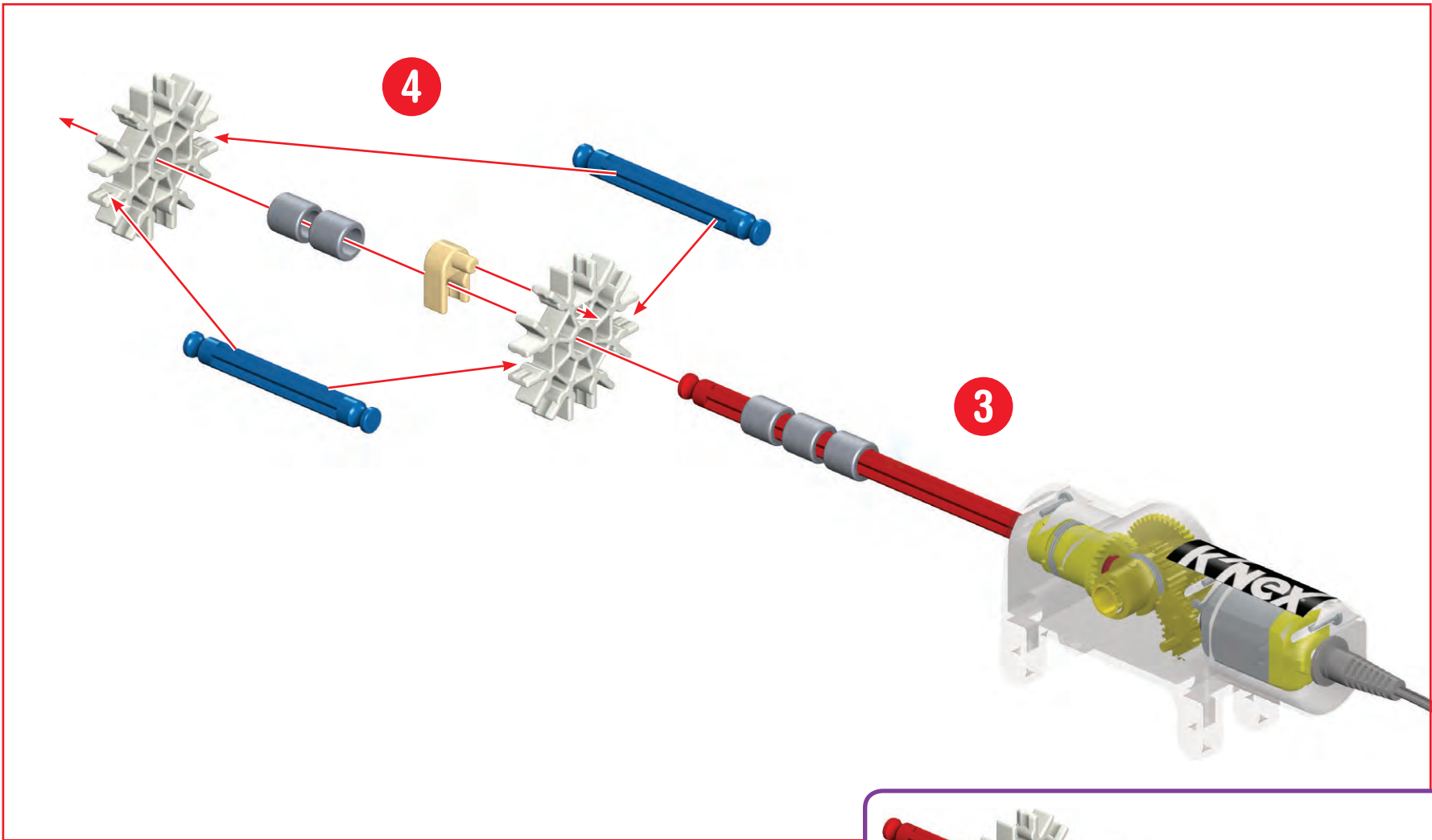


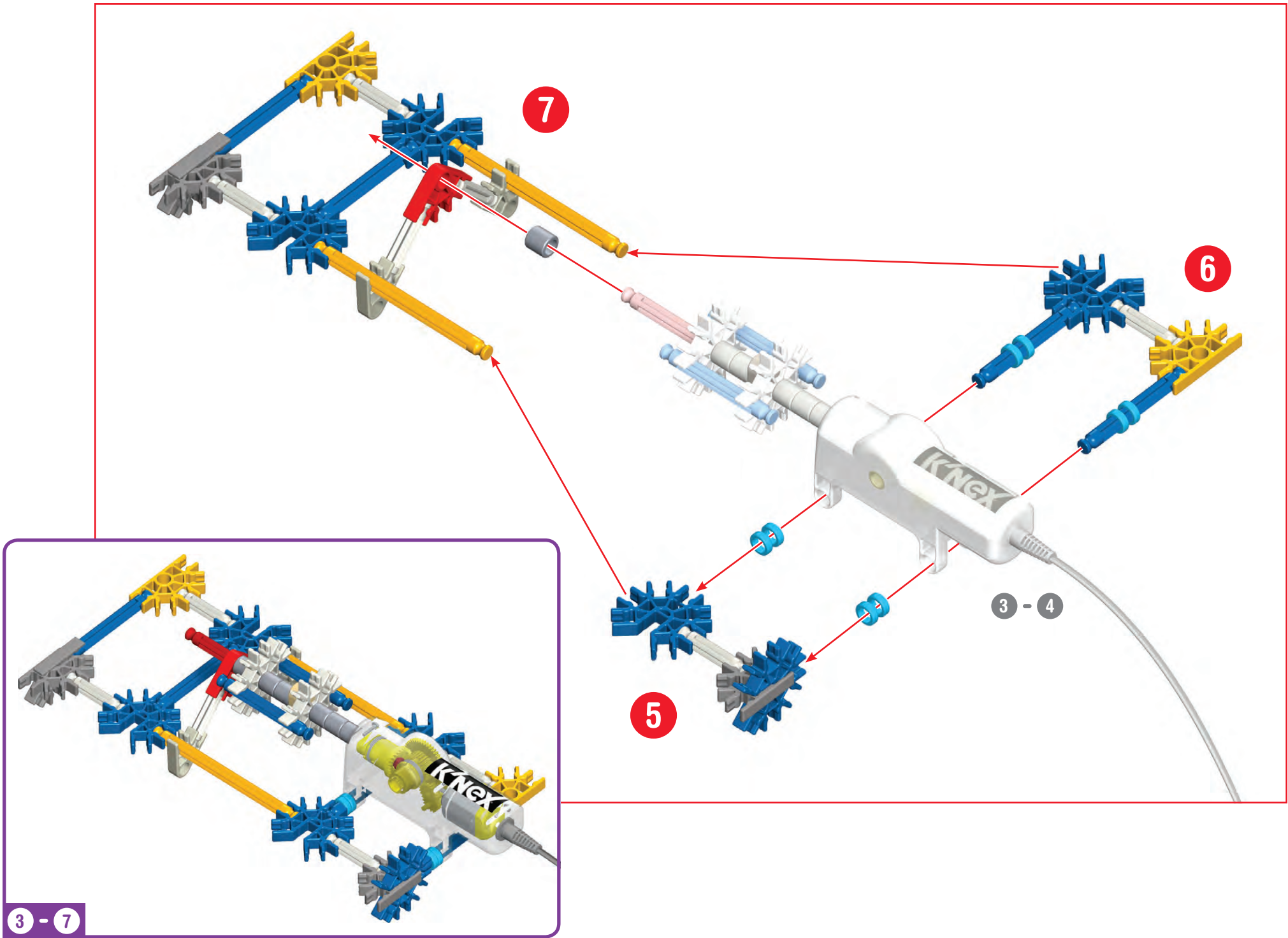
Tabletop Car – BUMPER

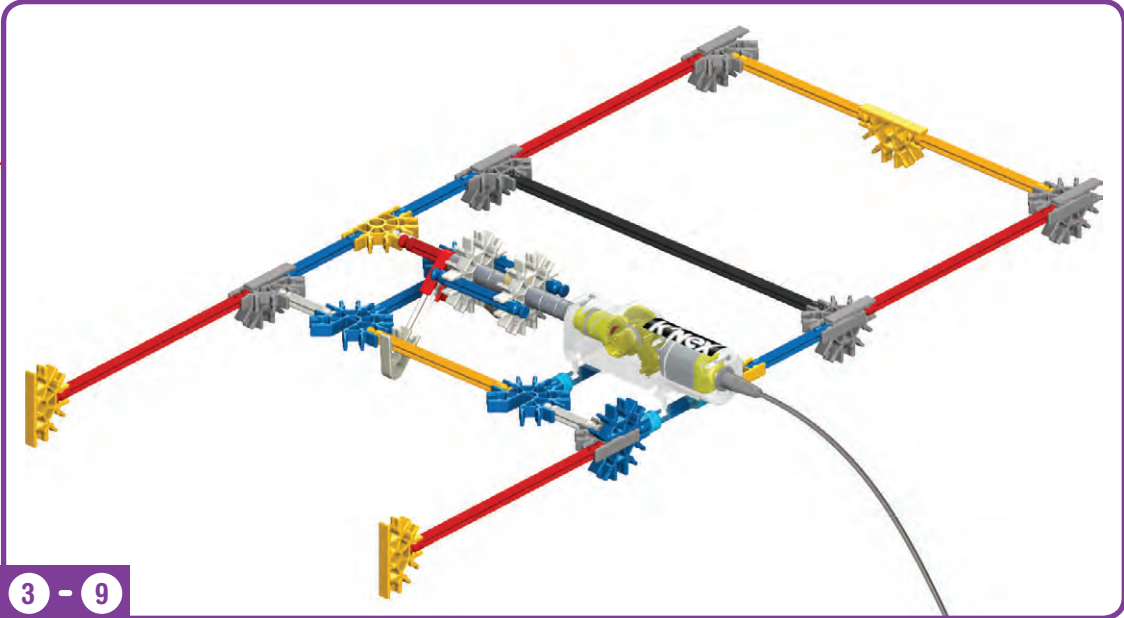
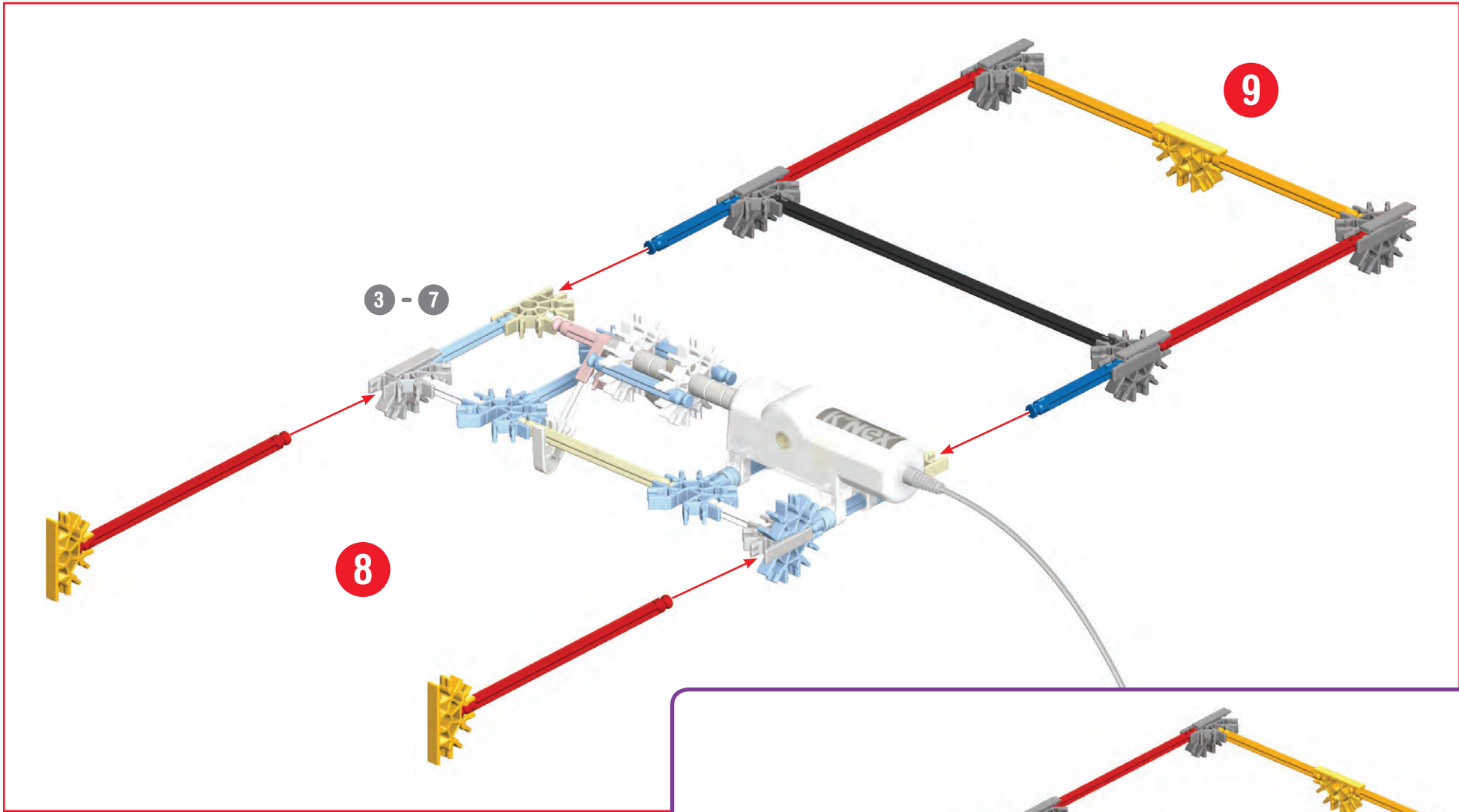


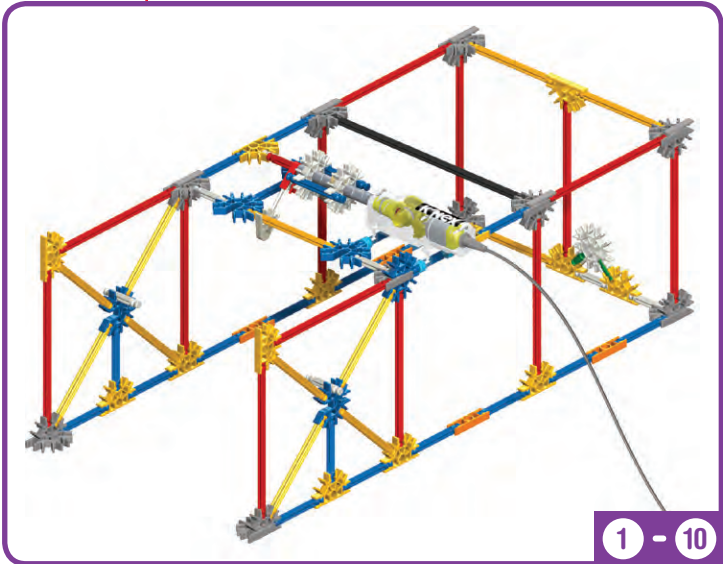
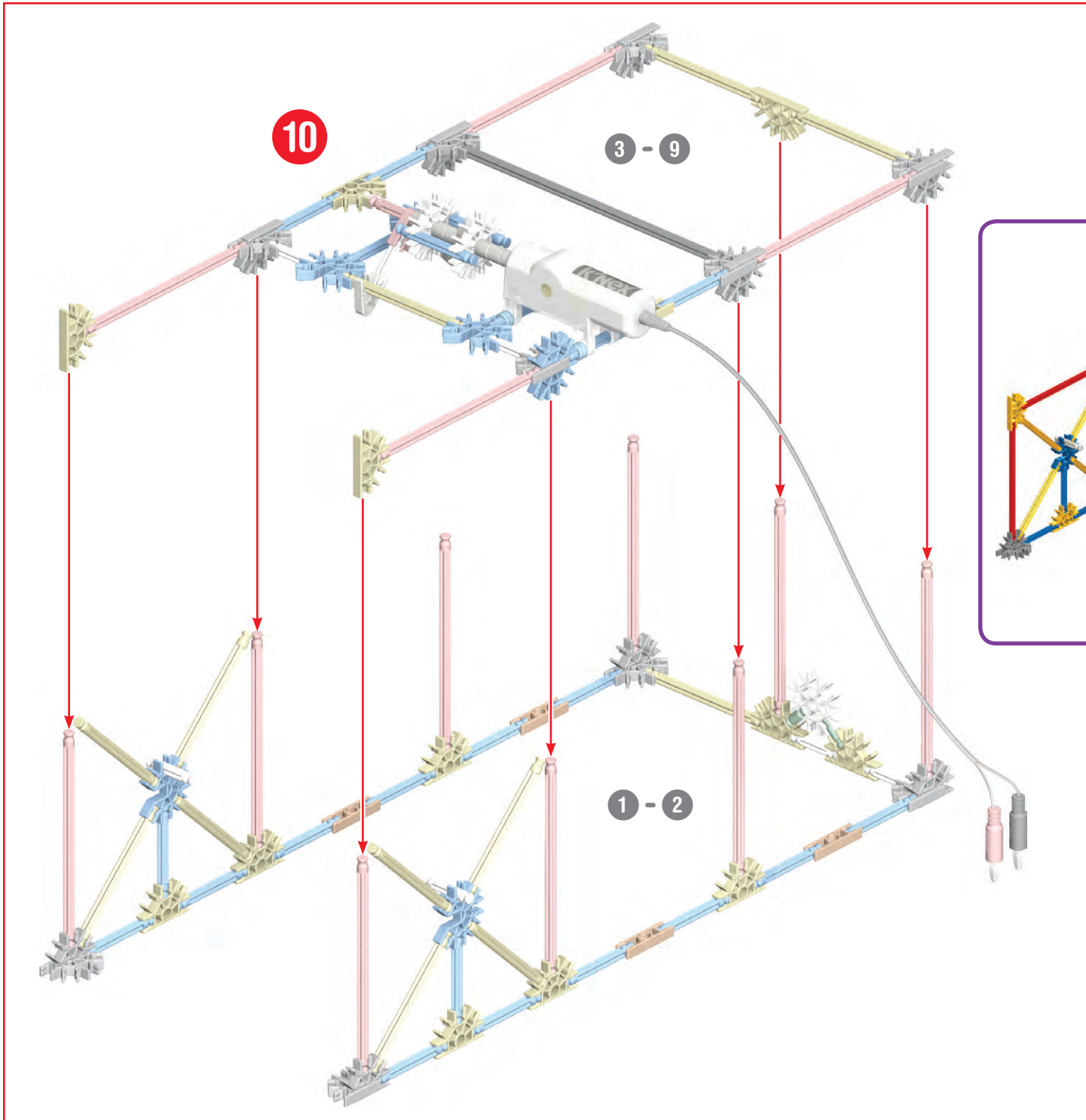
Garage

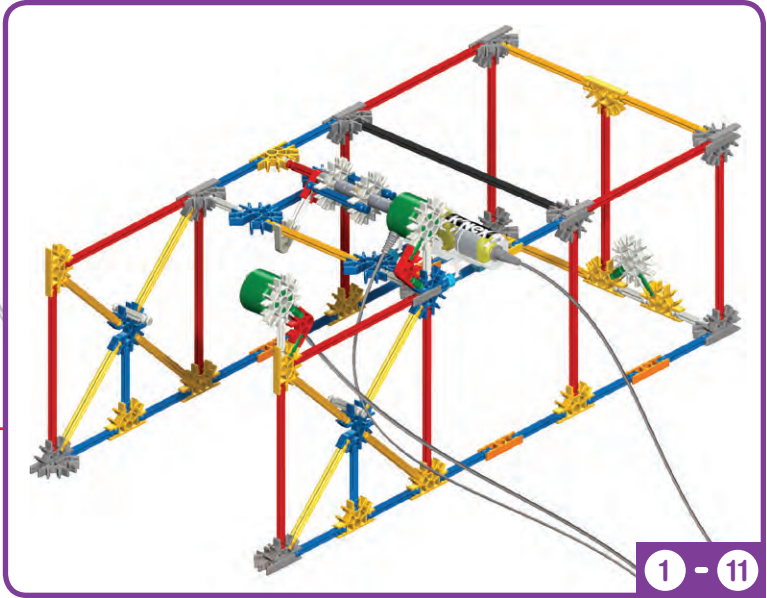
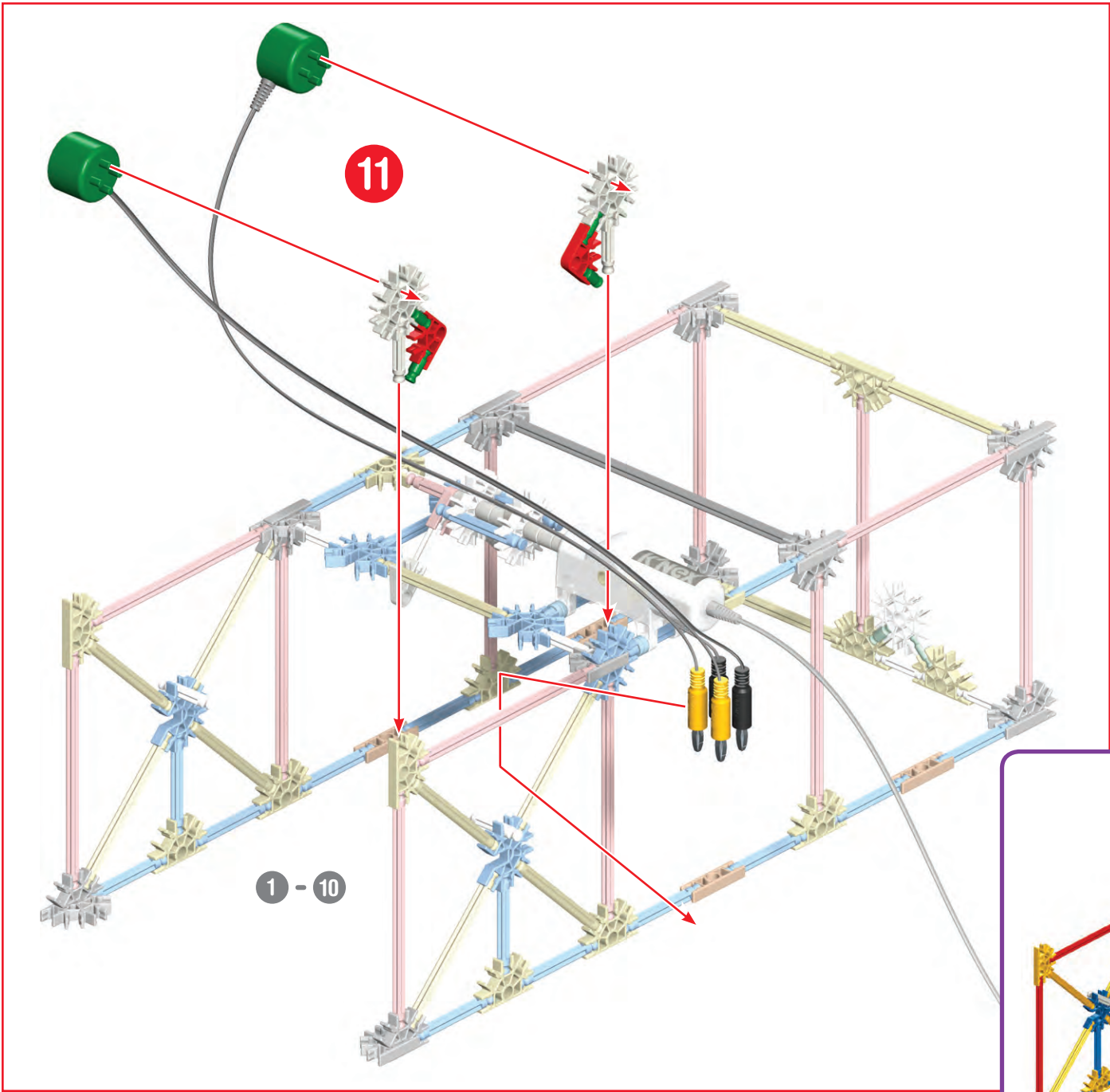


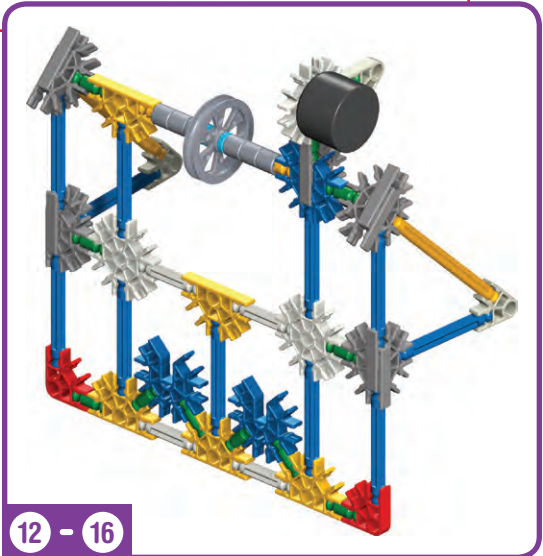
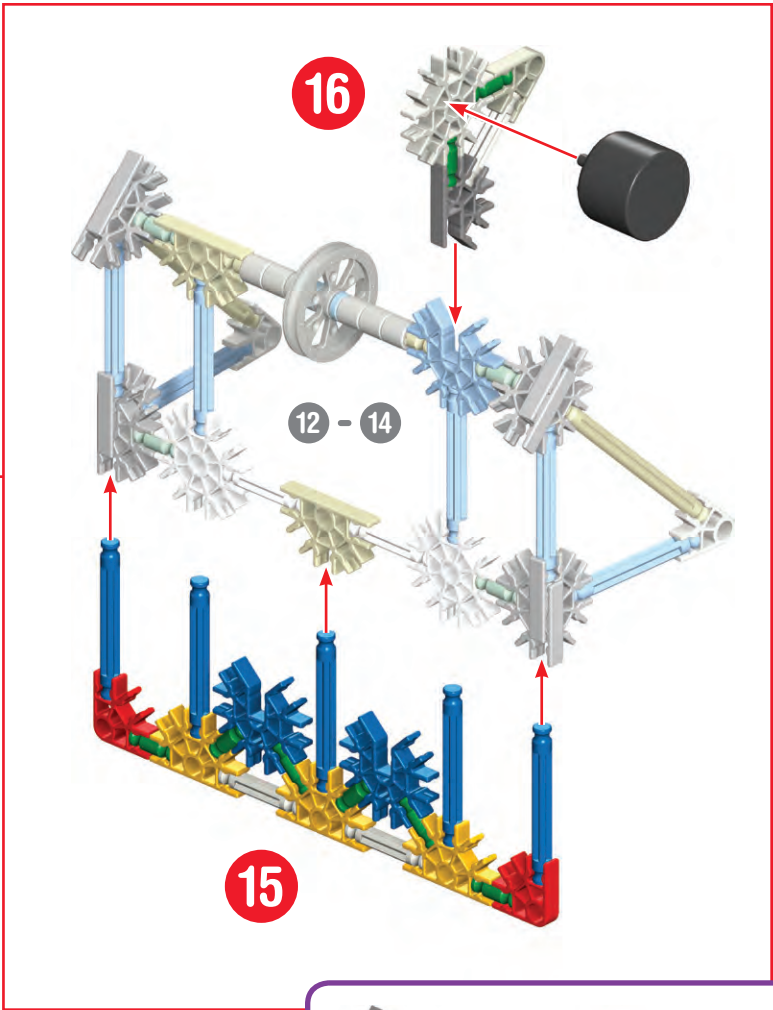
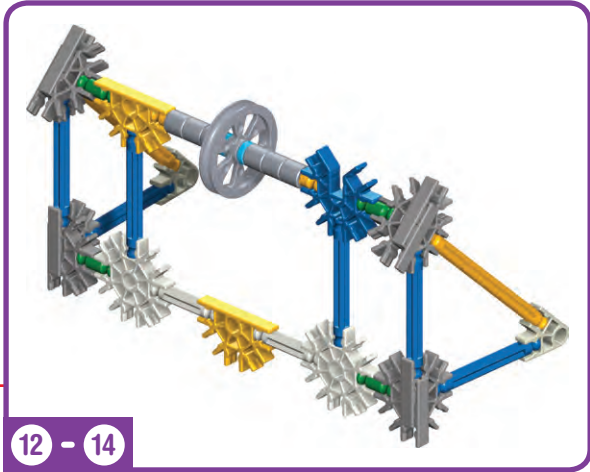
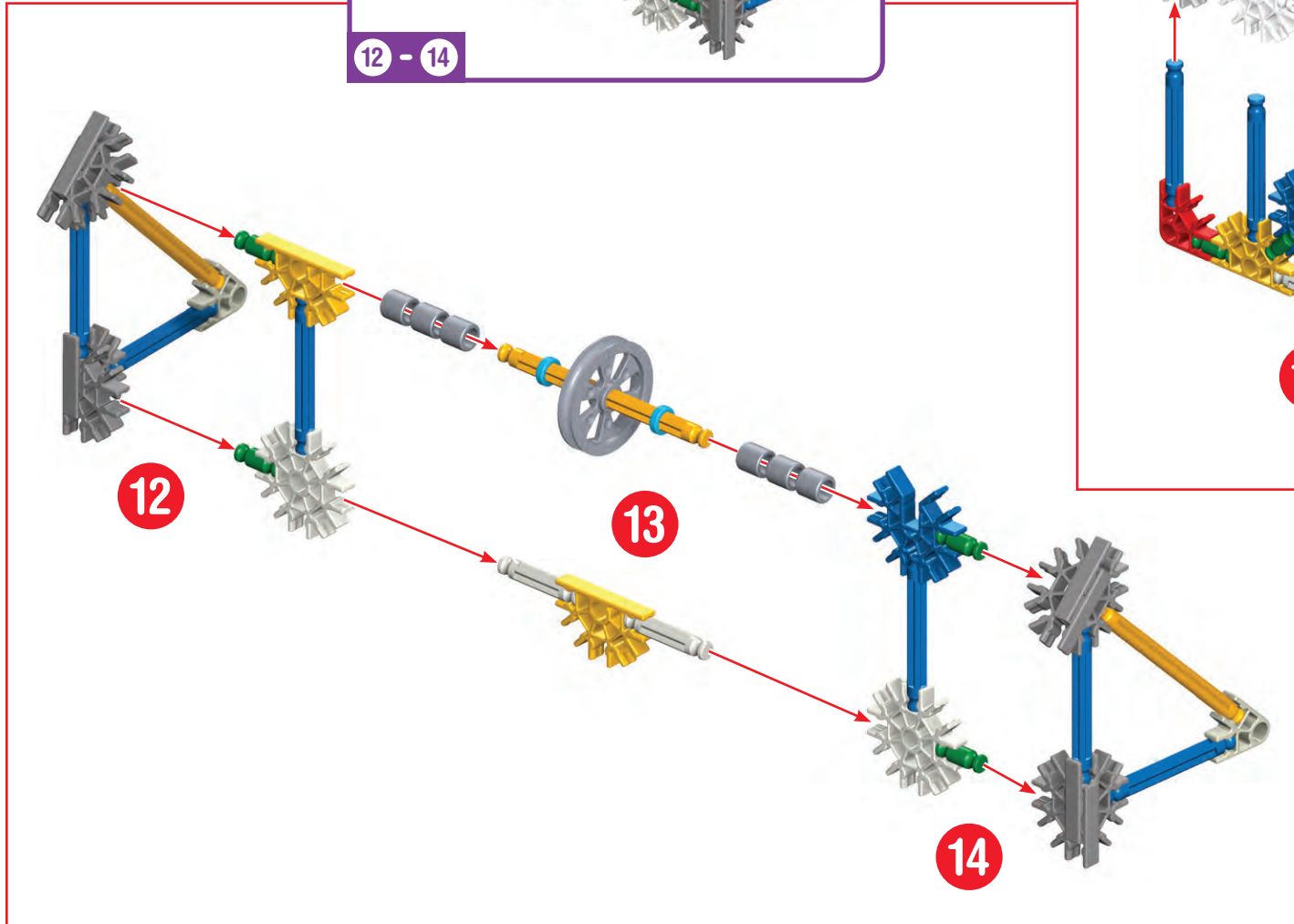


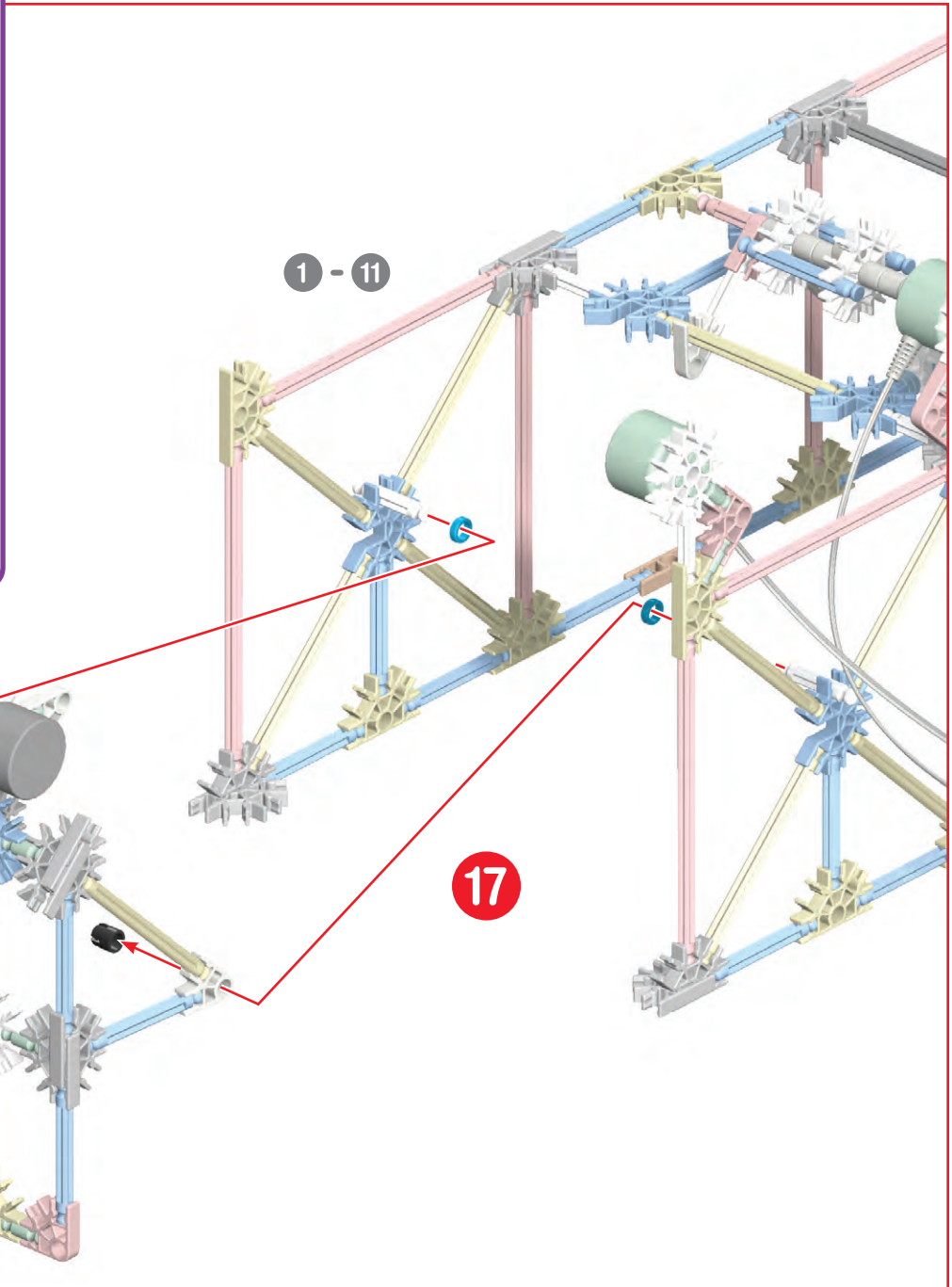
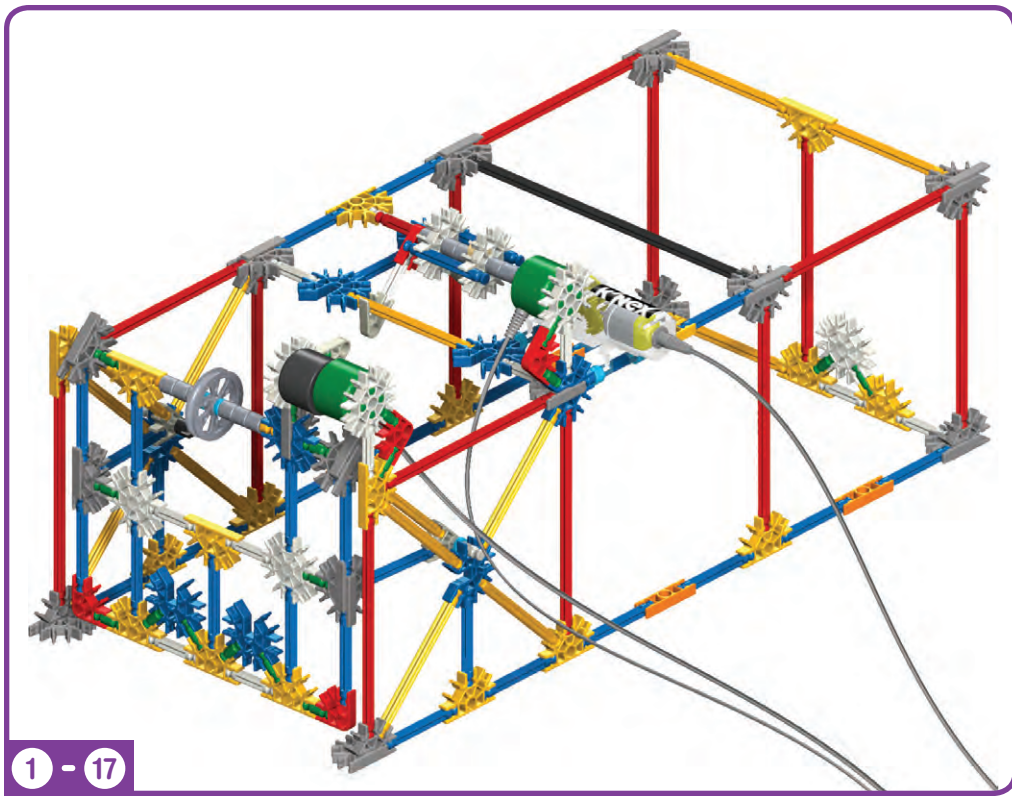






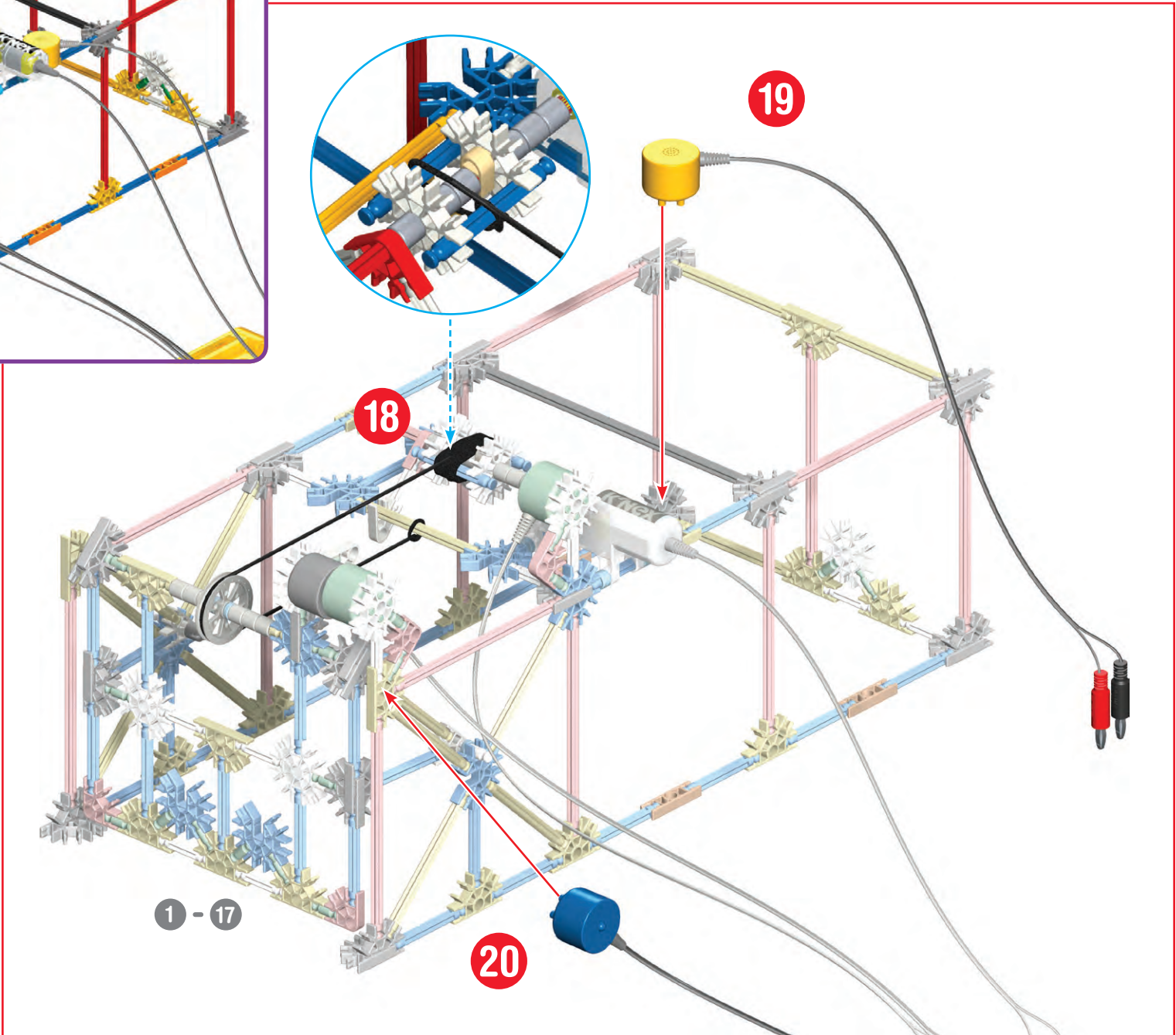
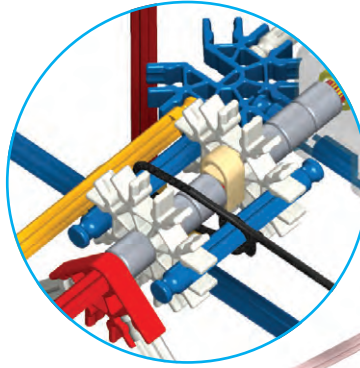








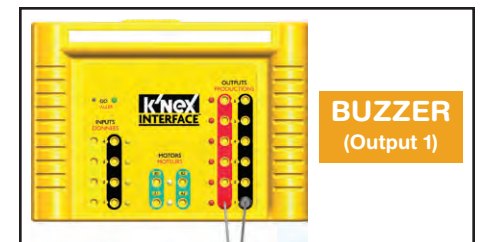
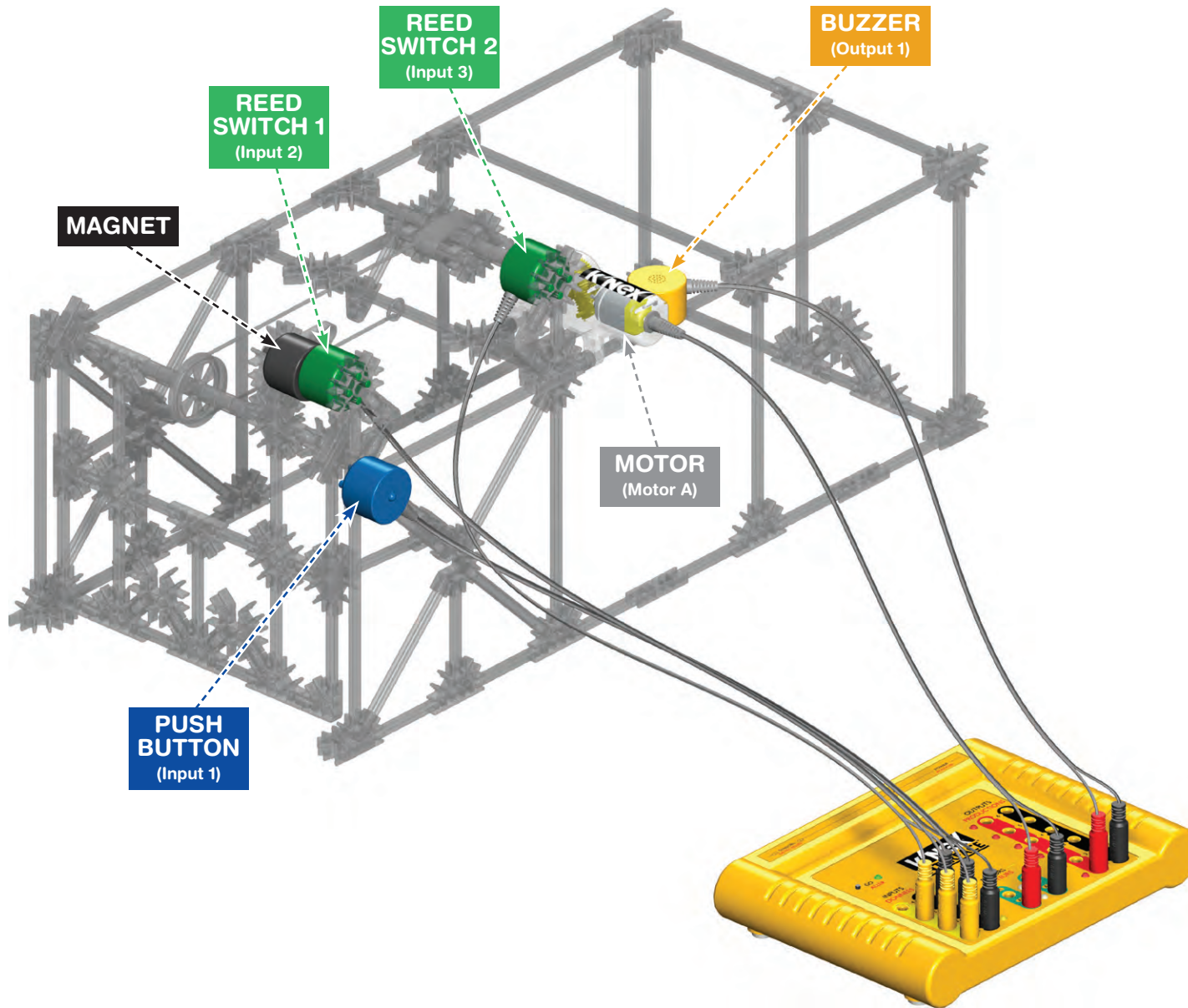
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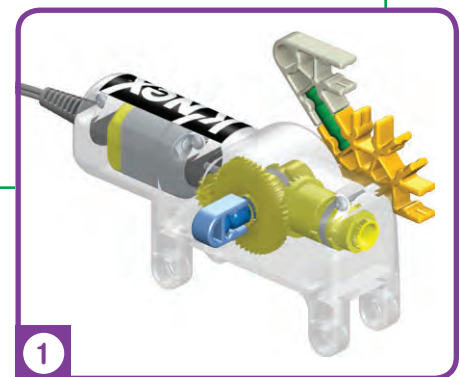
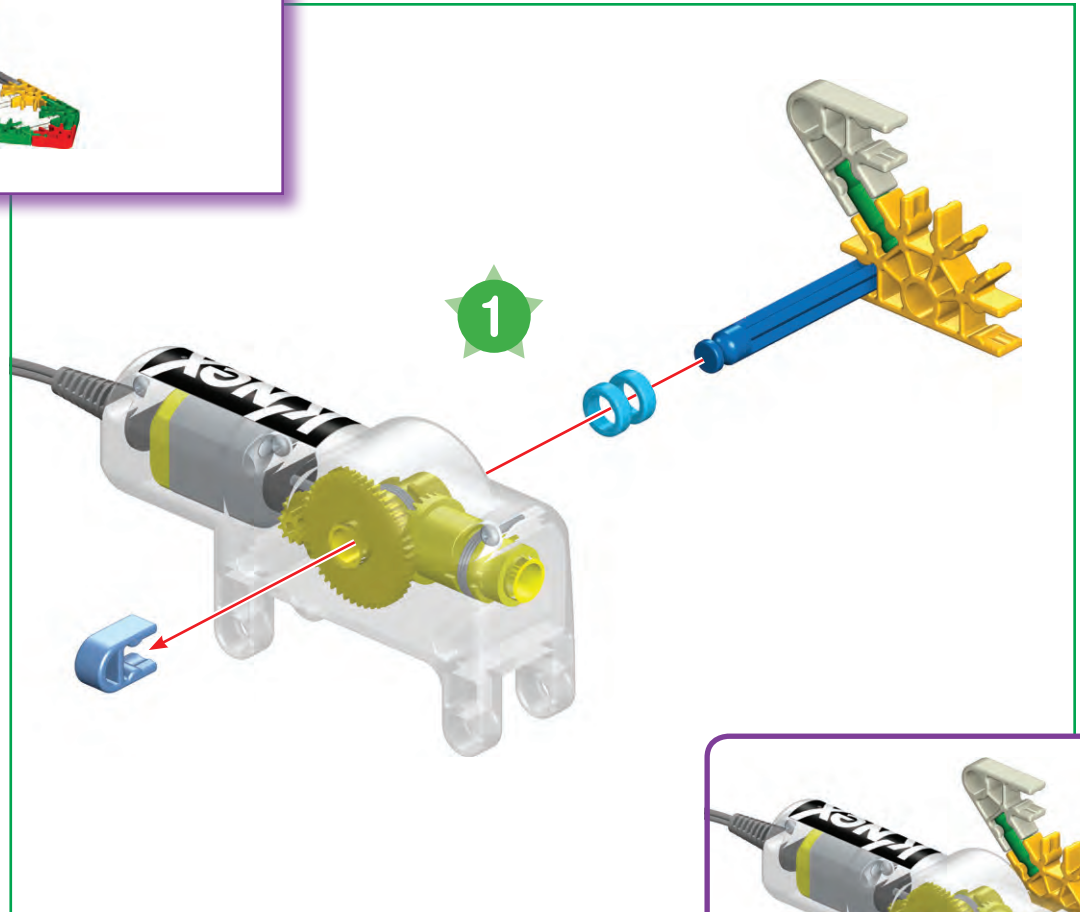
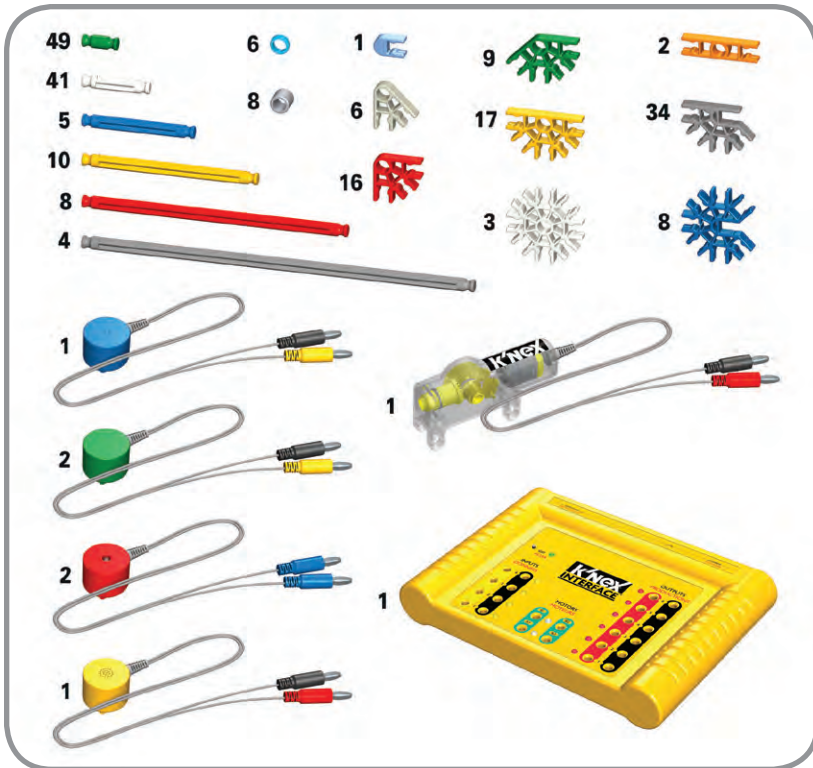
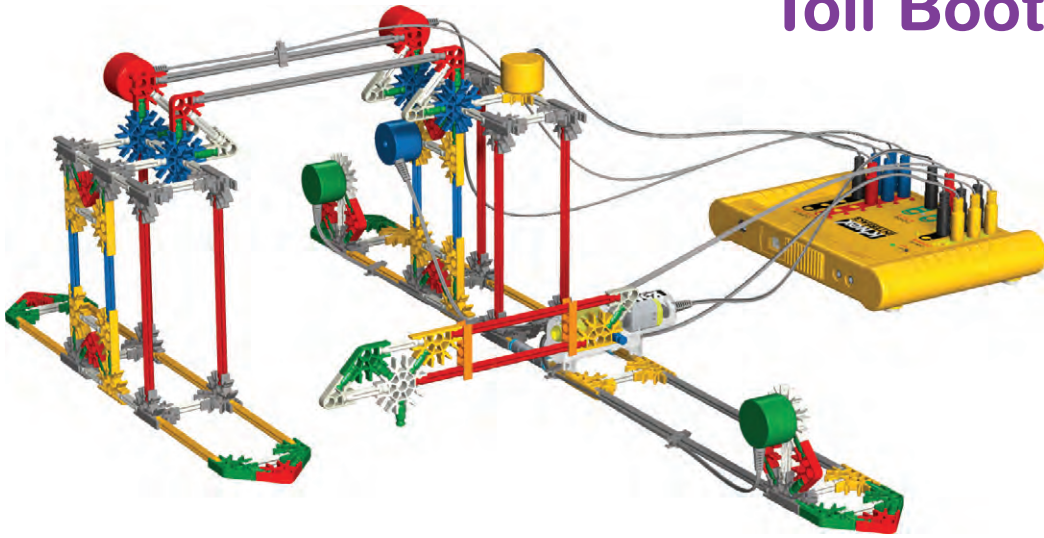
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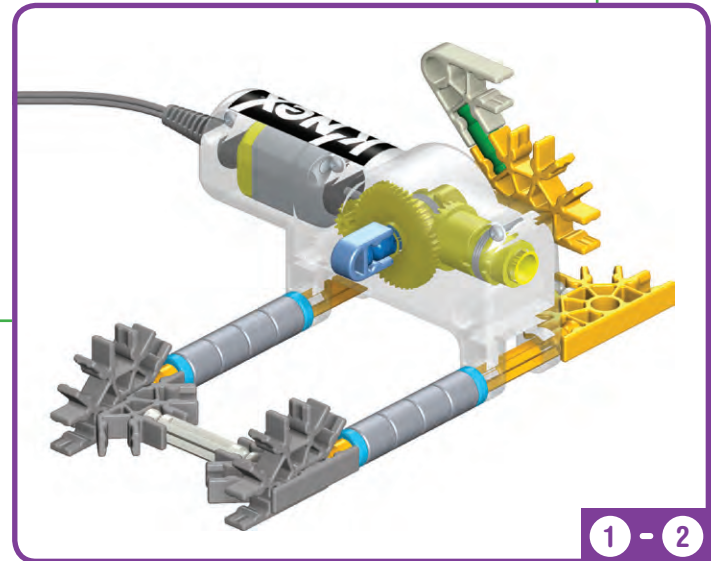
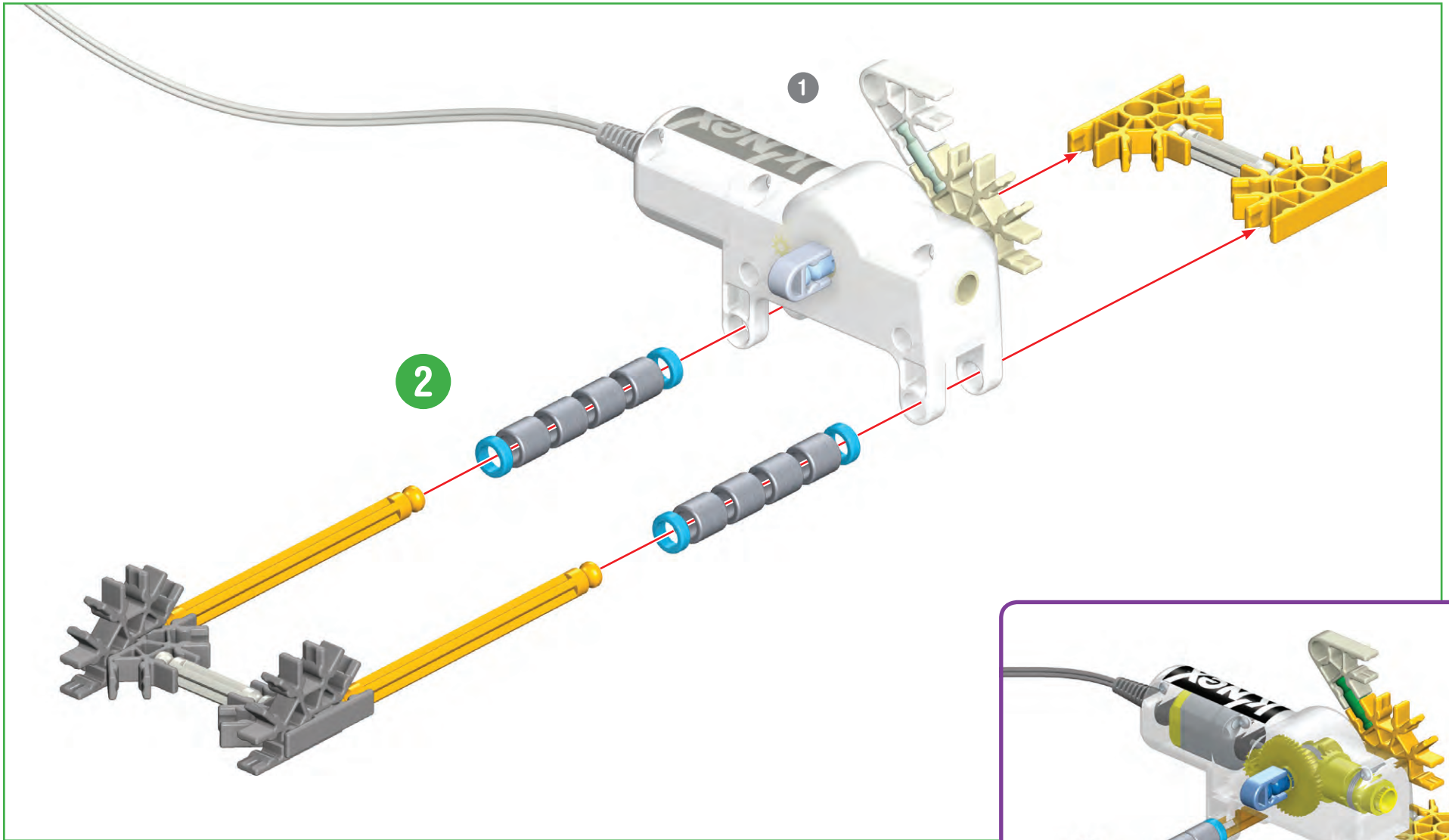
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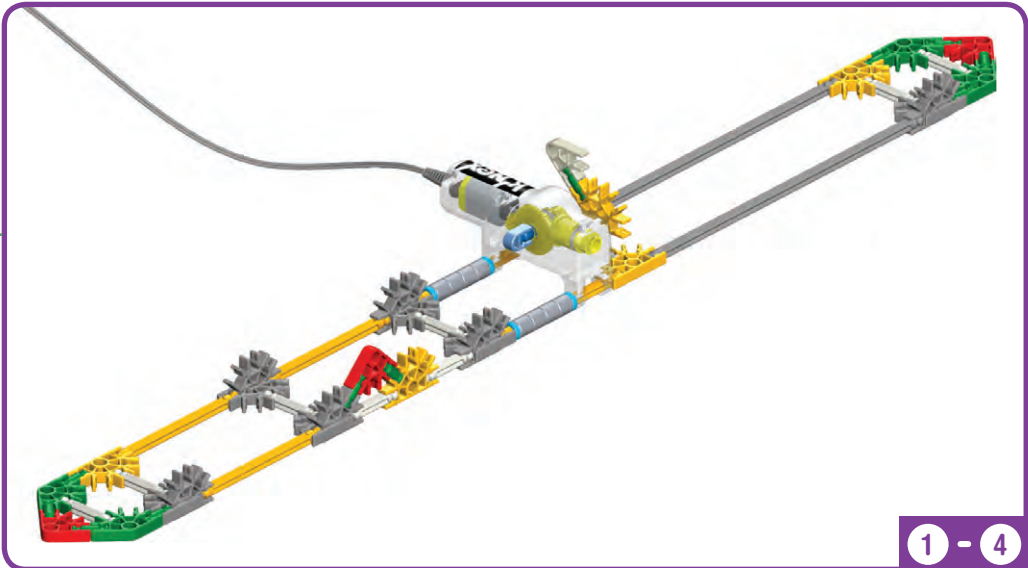
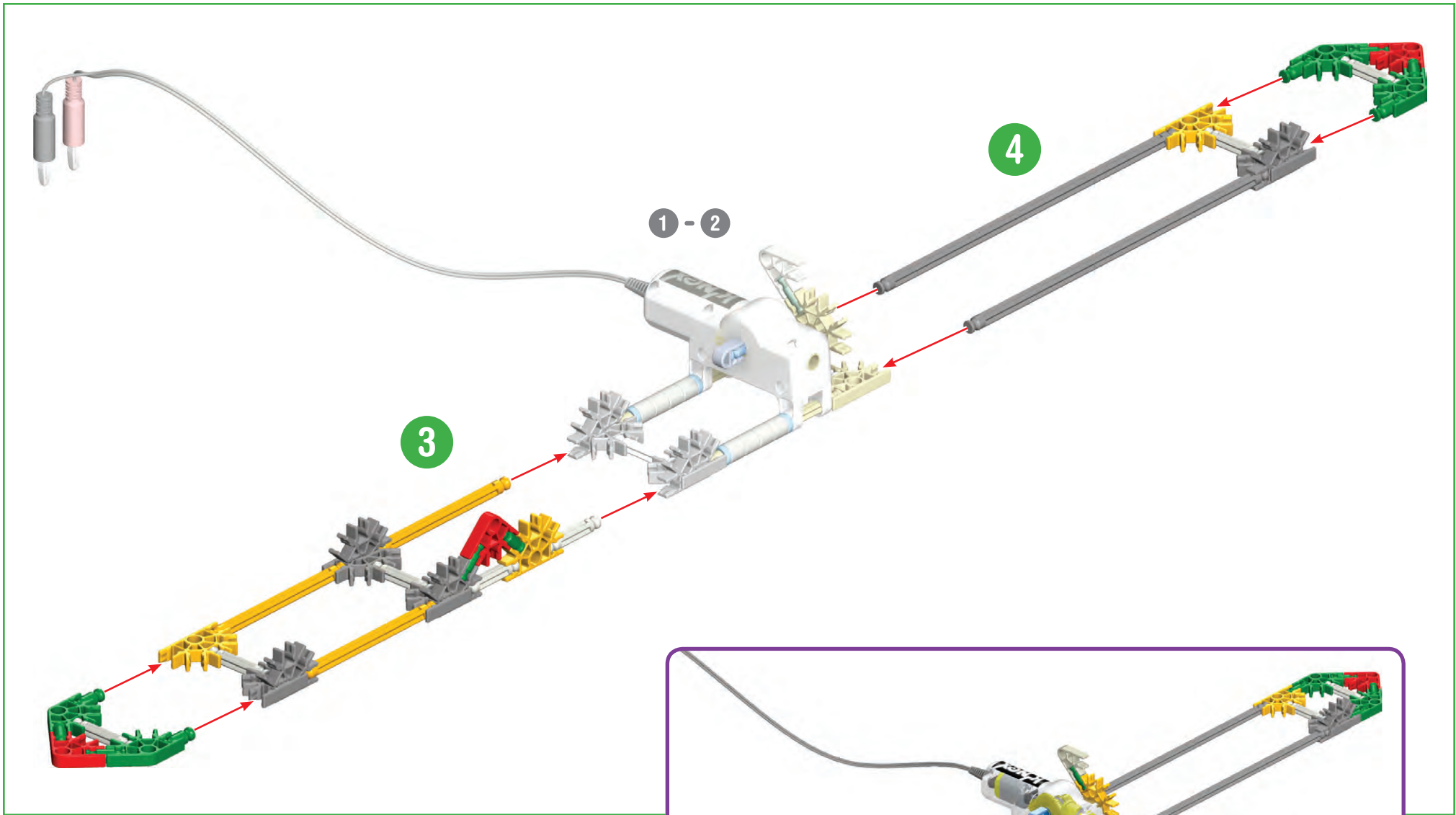
Garage – CONTROL BOX

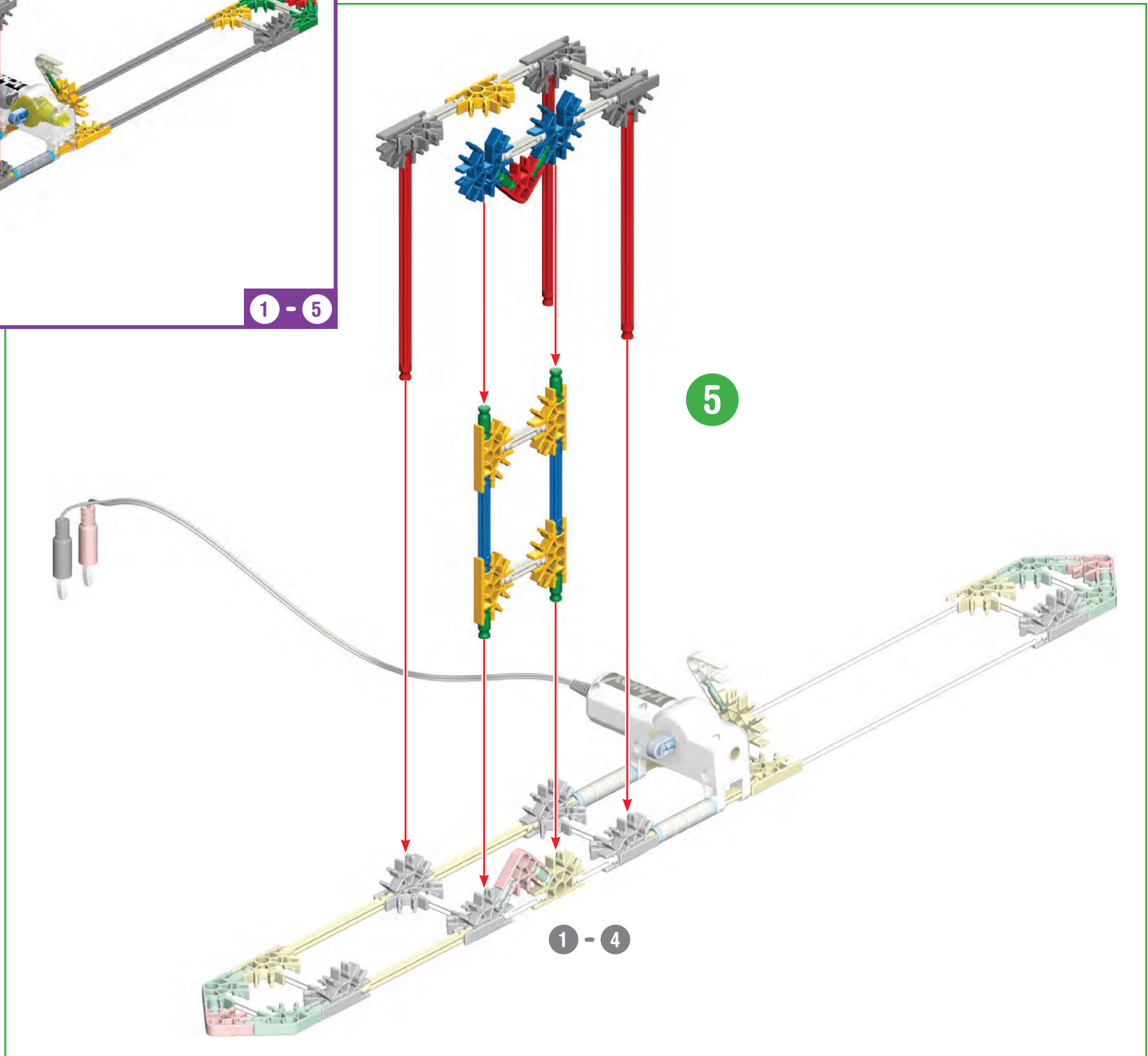
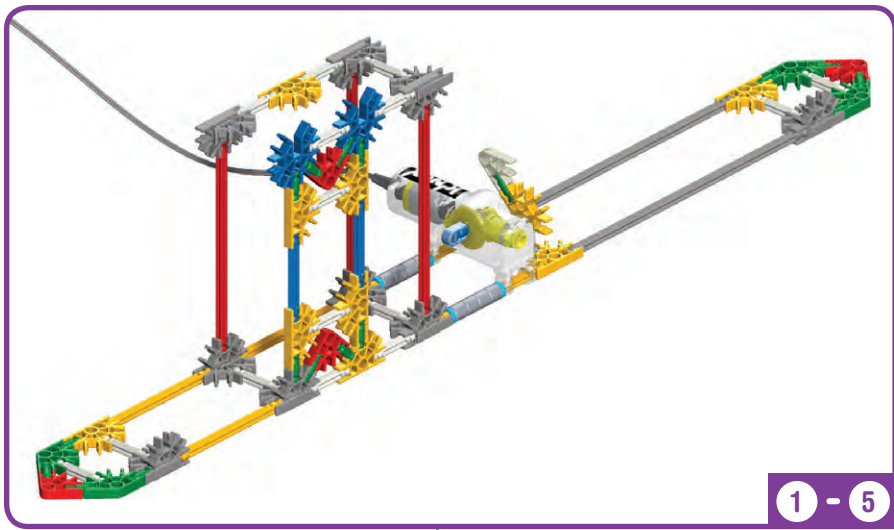


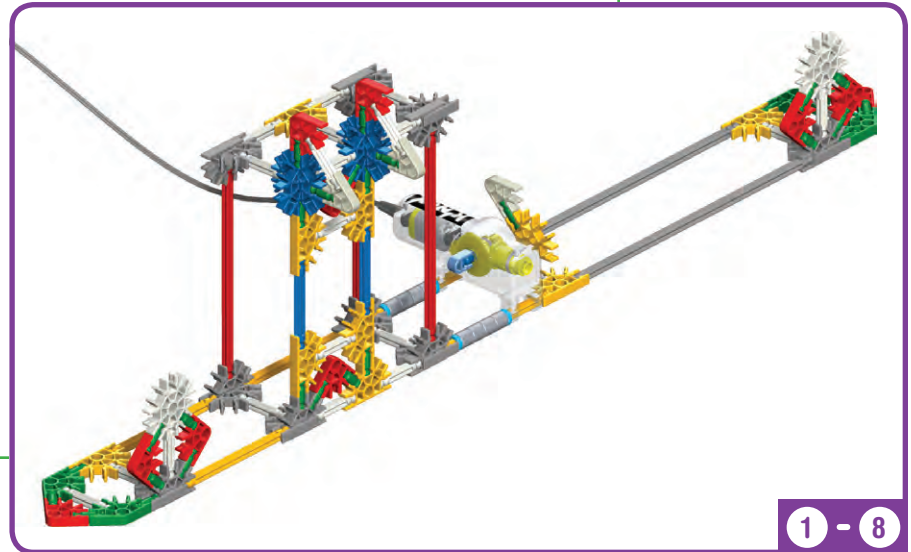
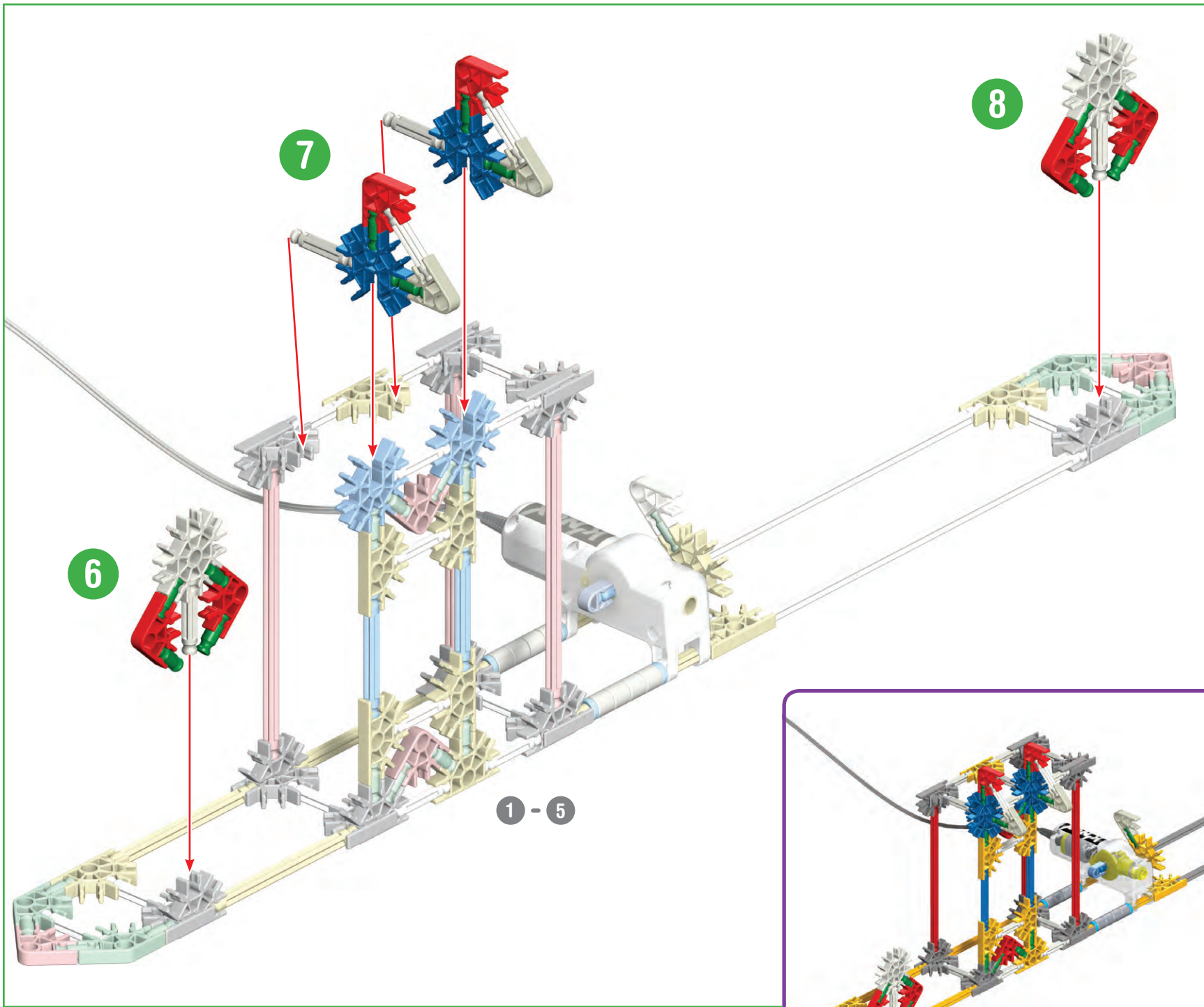
Toll Booth

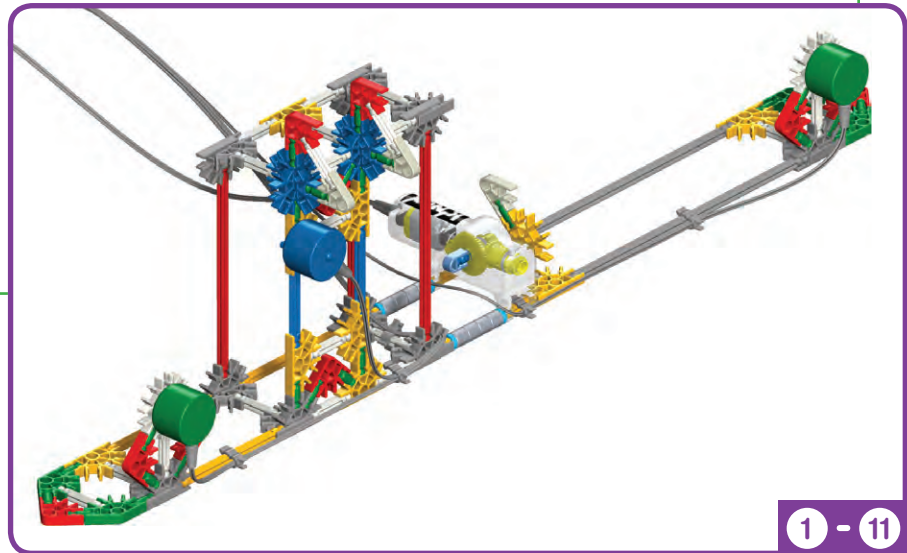
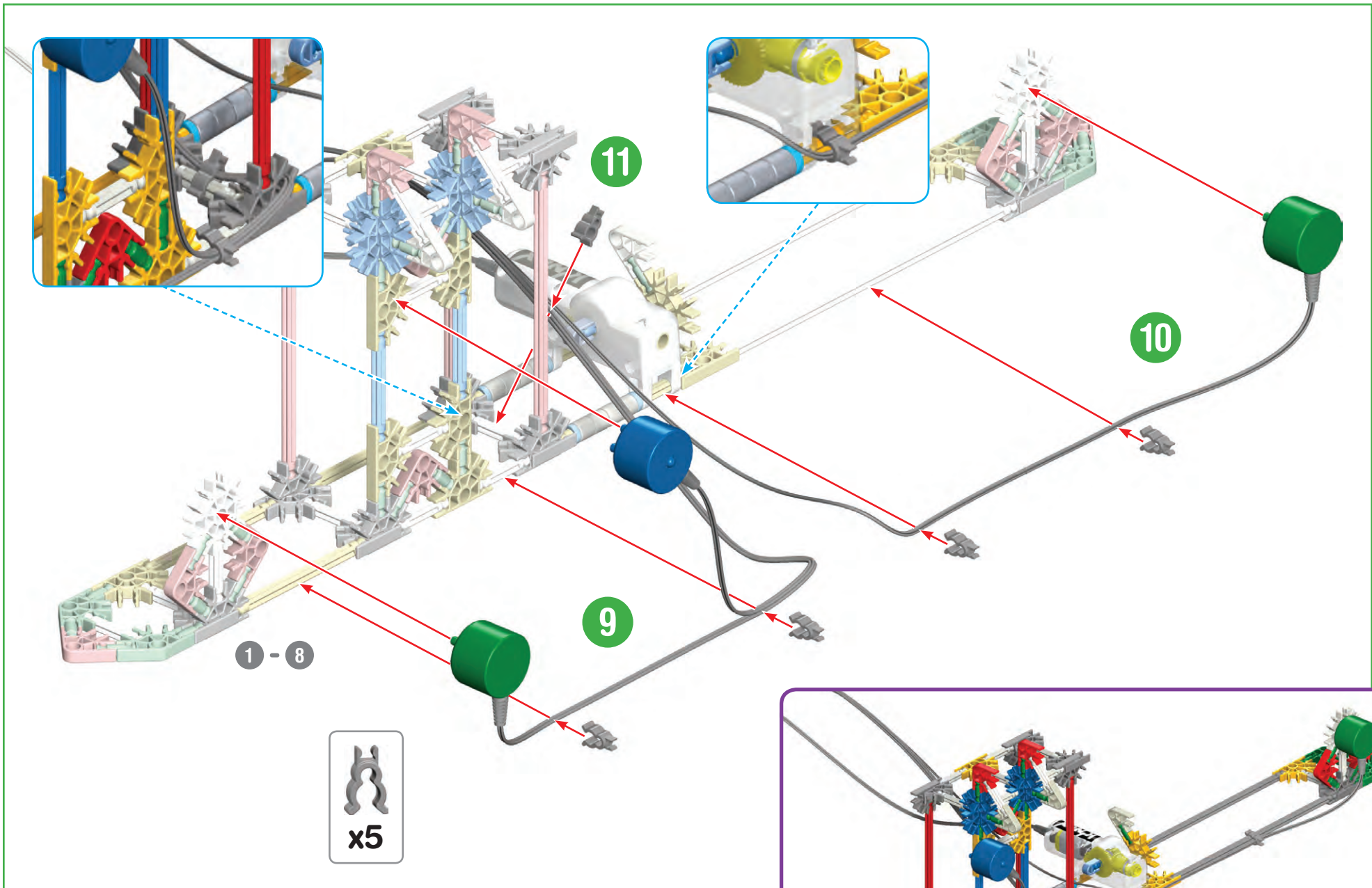


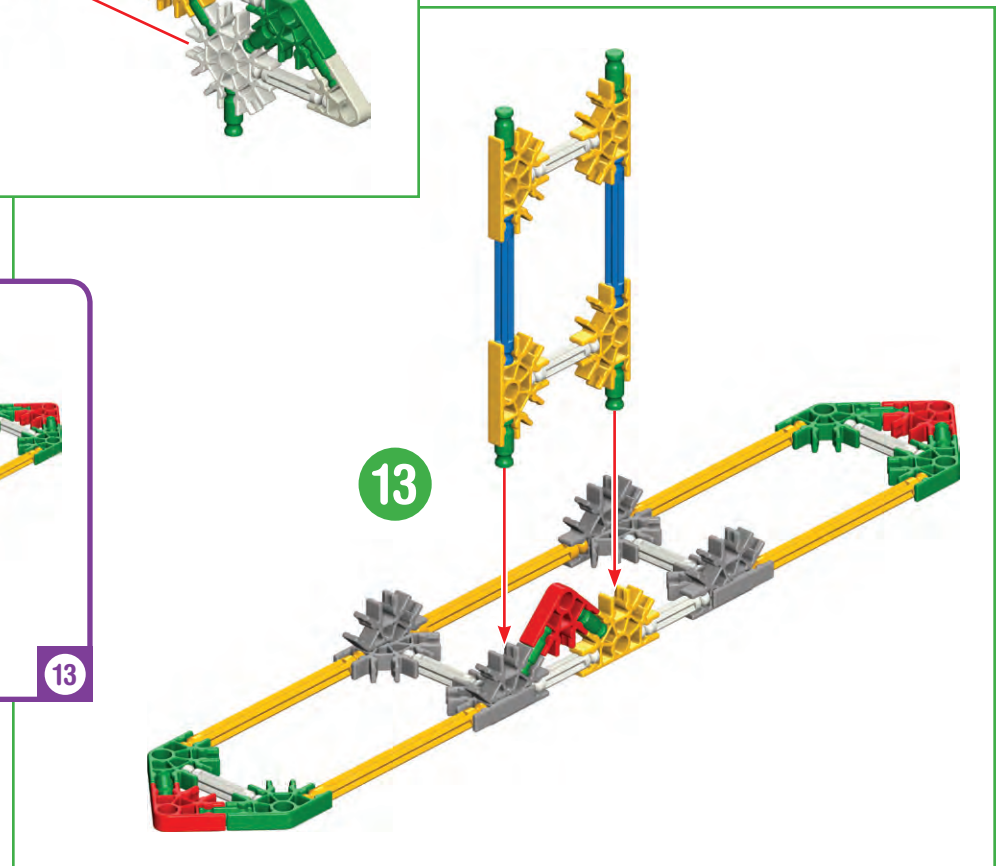
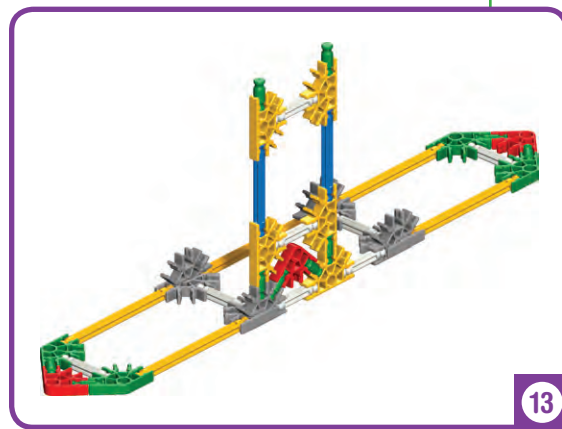
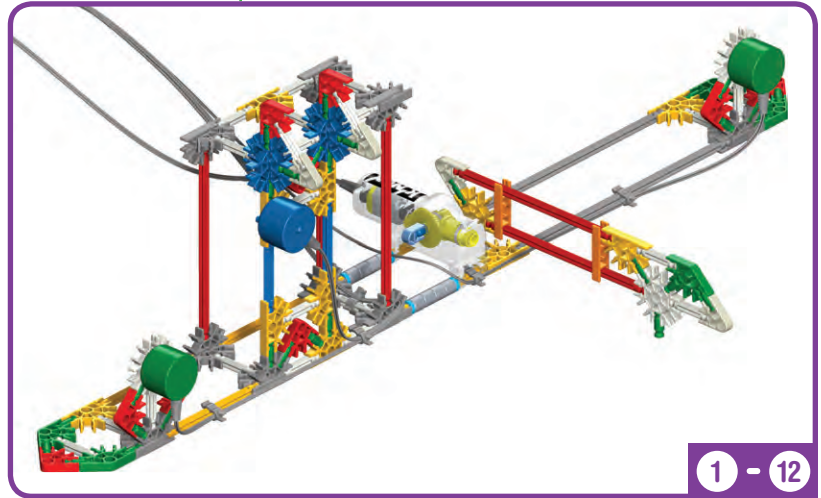
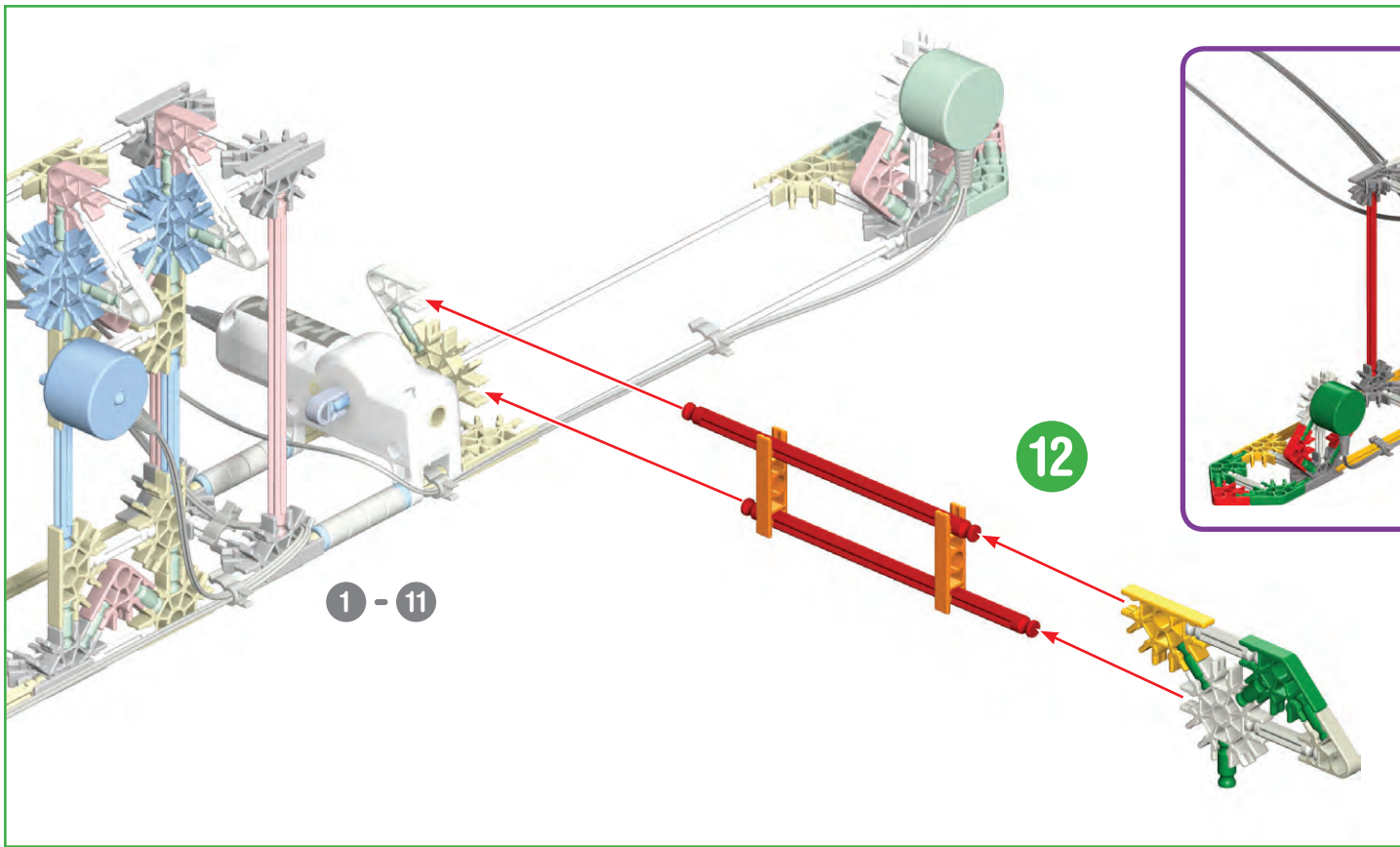


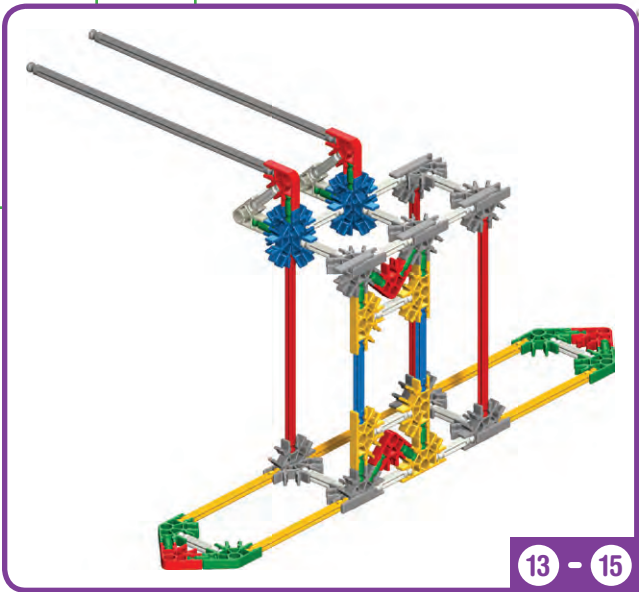
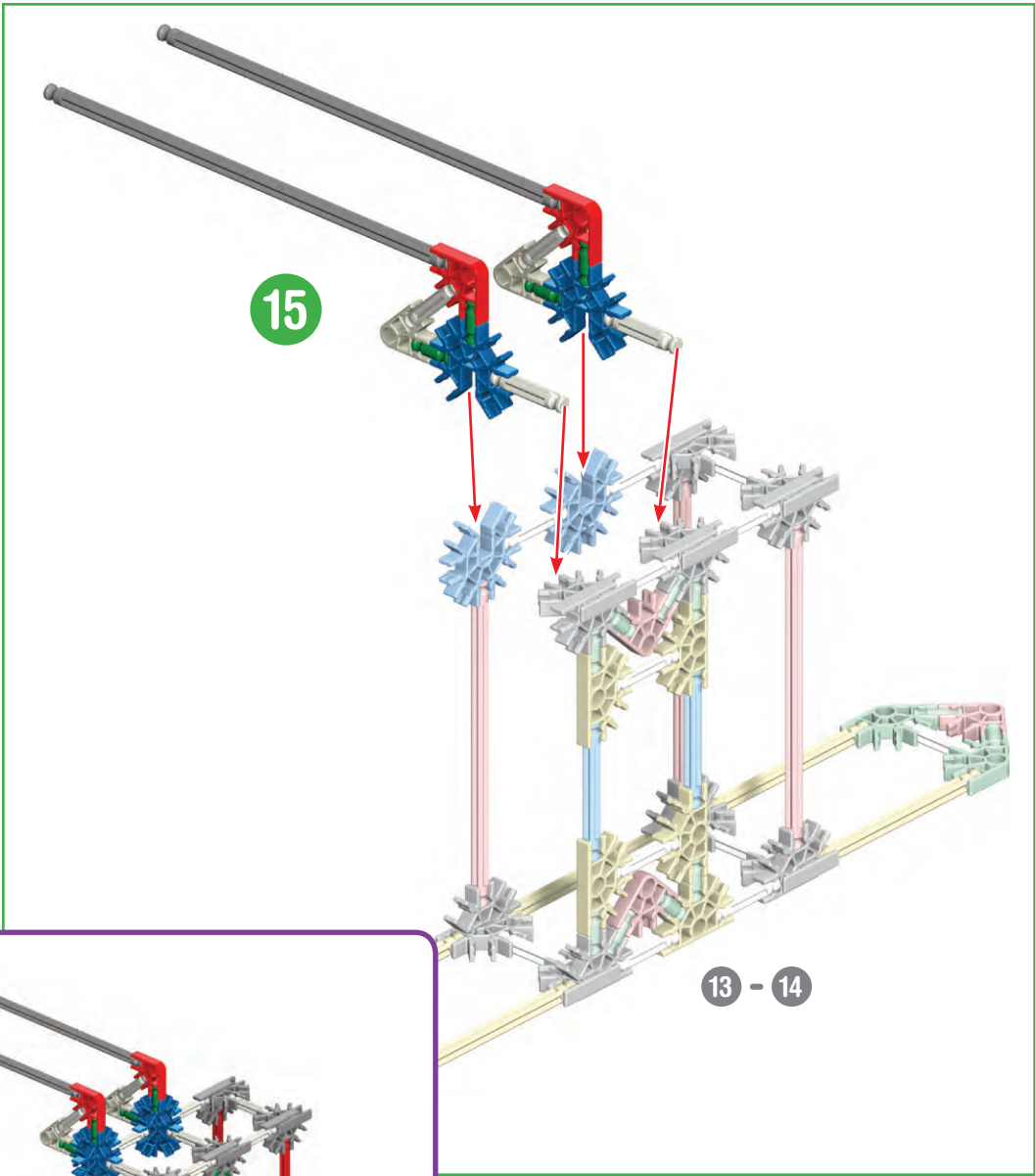
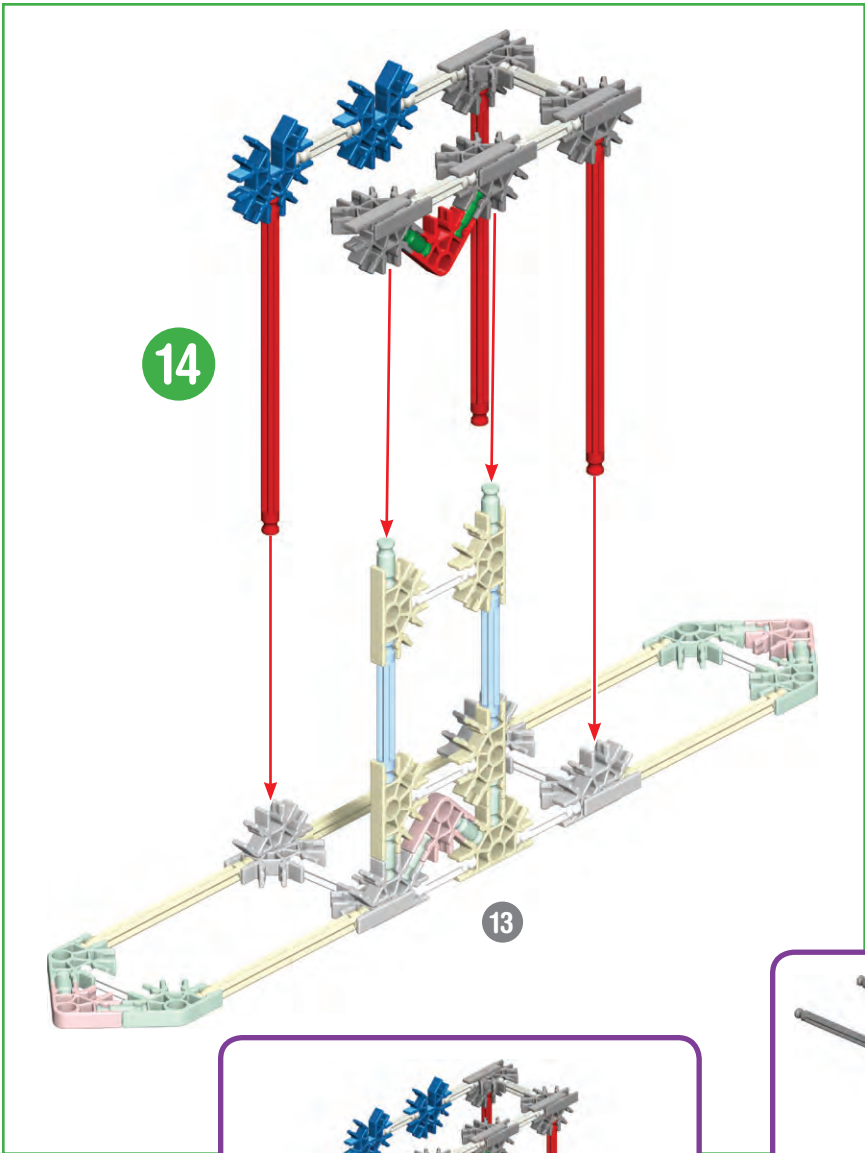


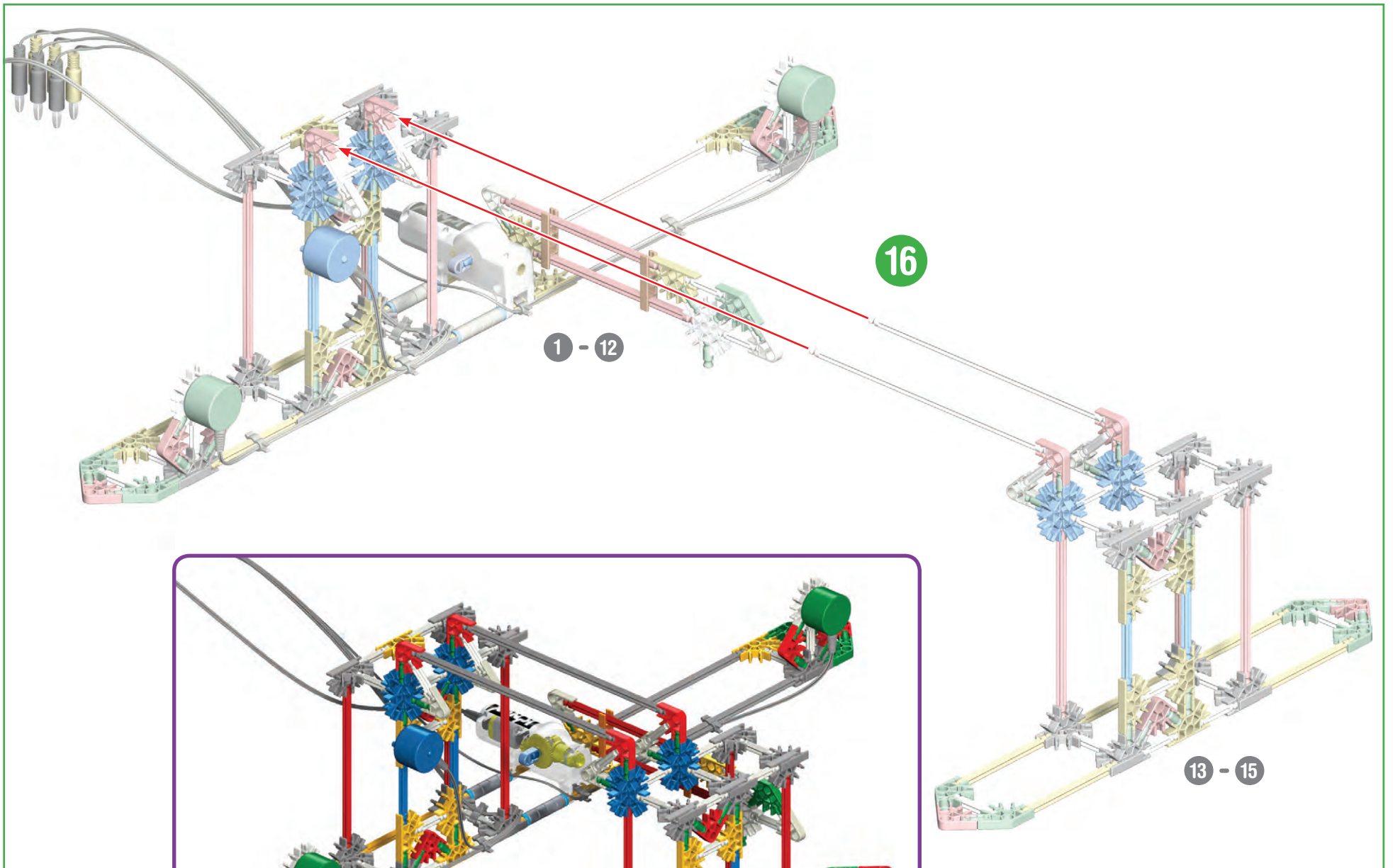


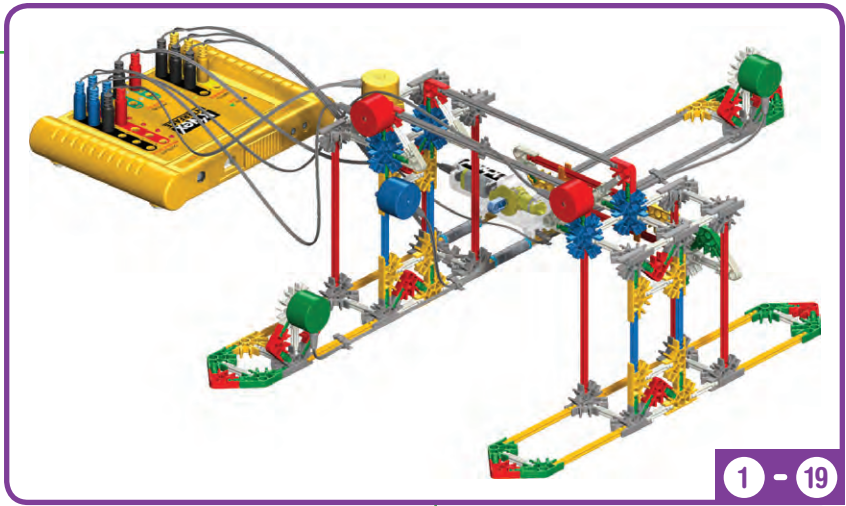
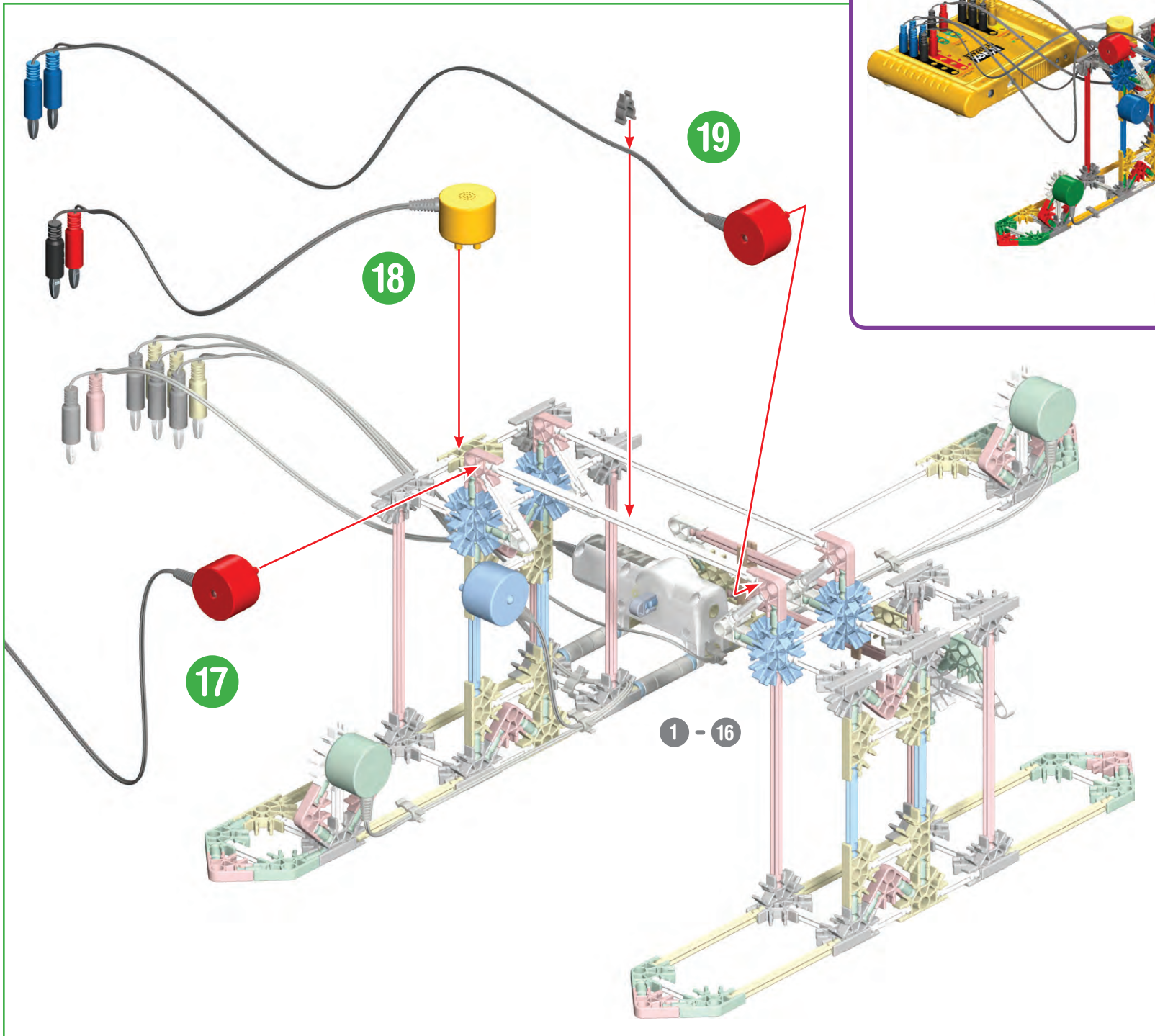






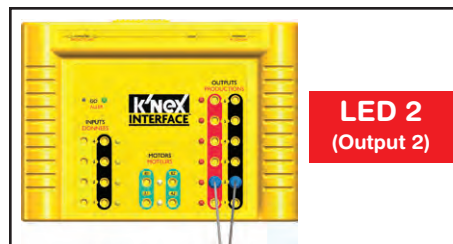
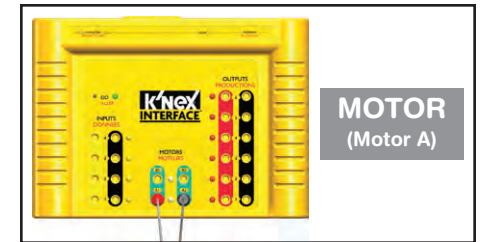
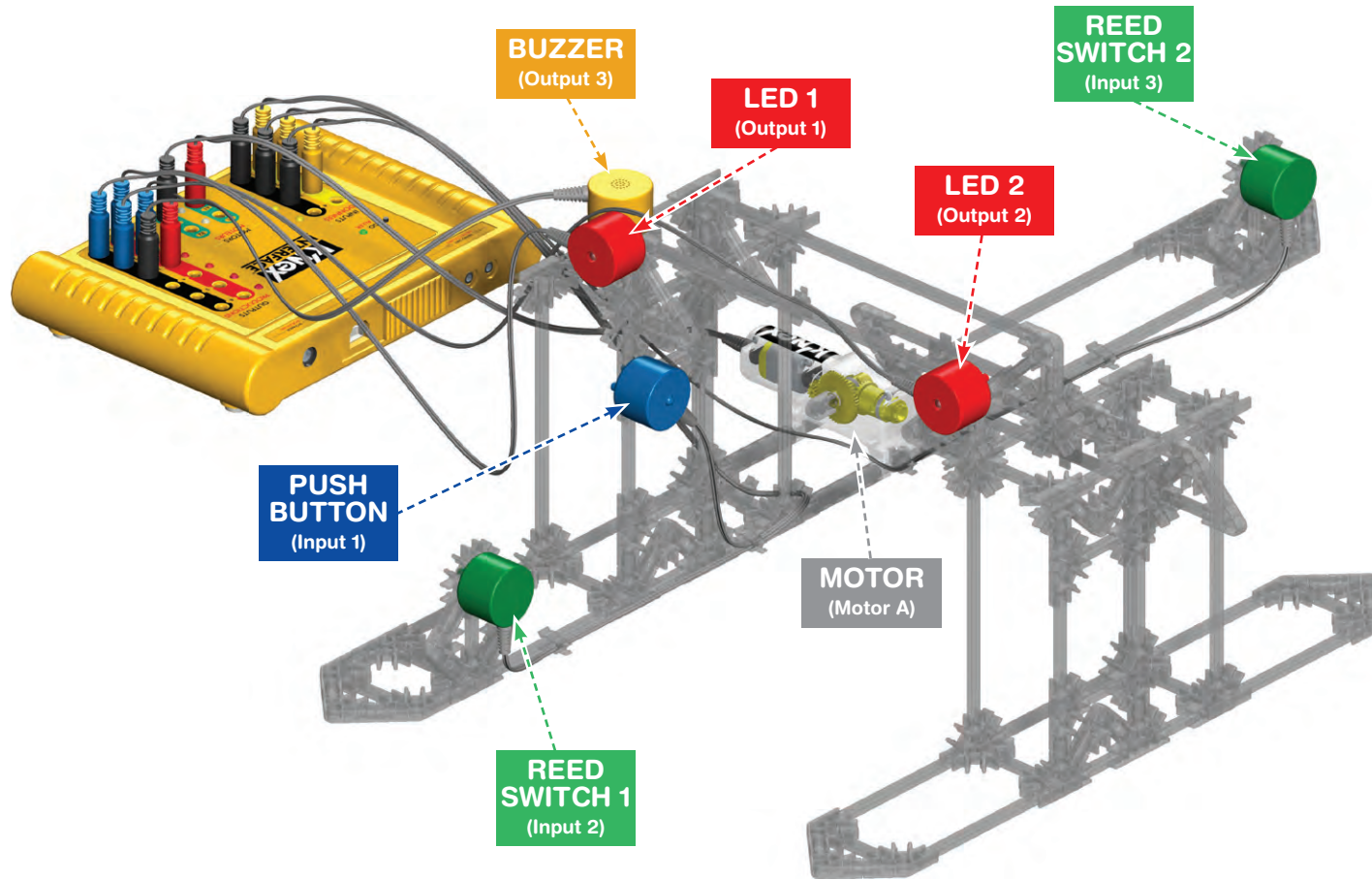




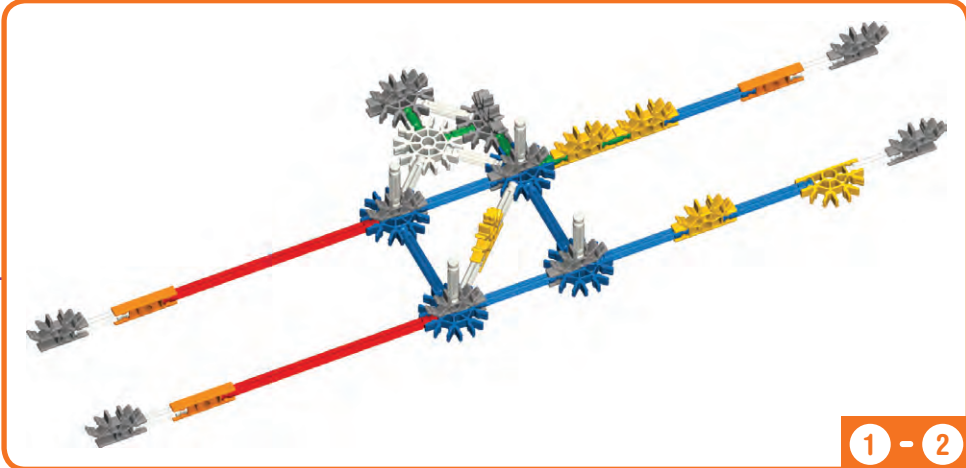
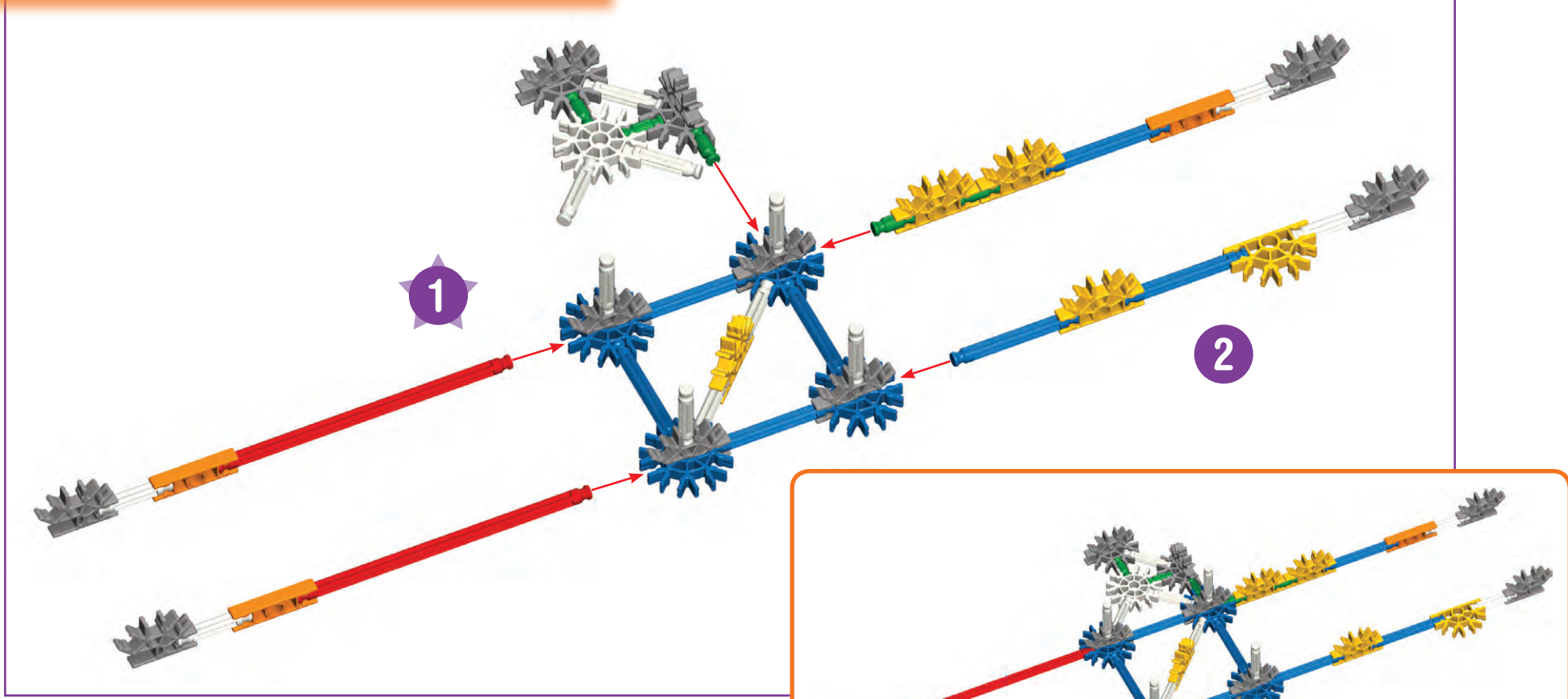
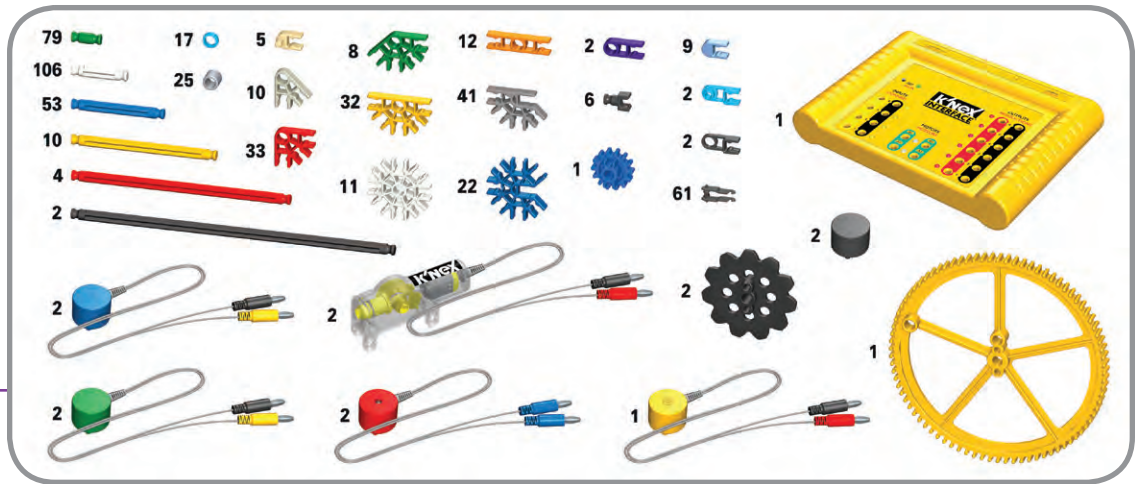


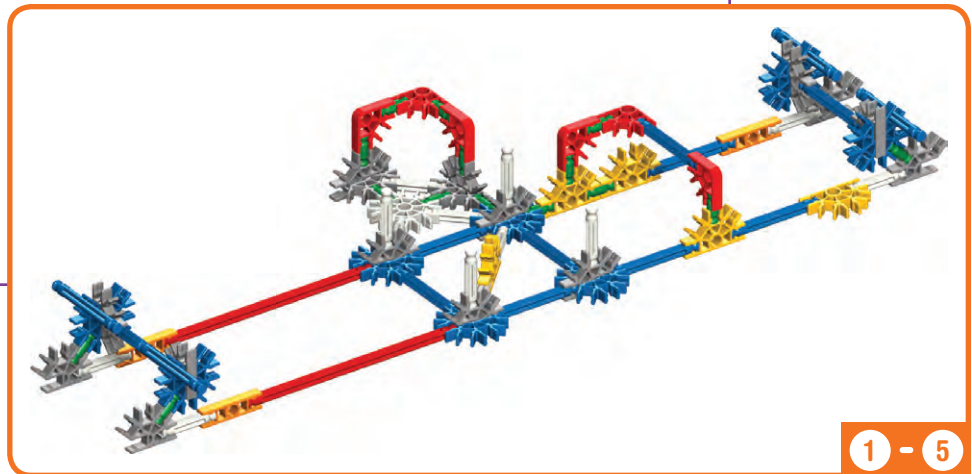
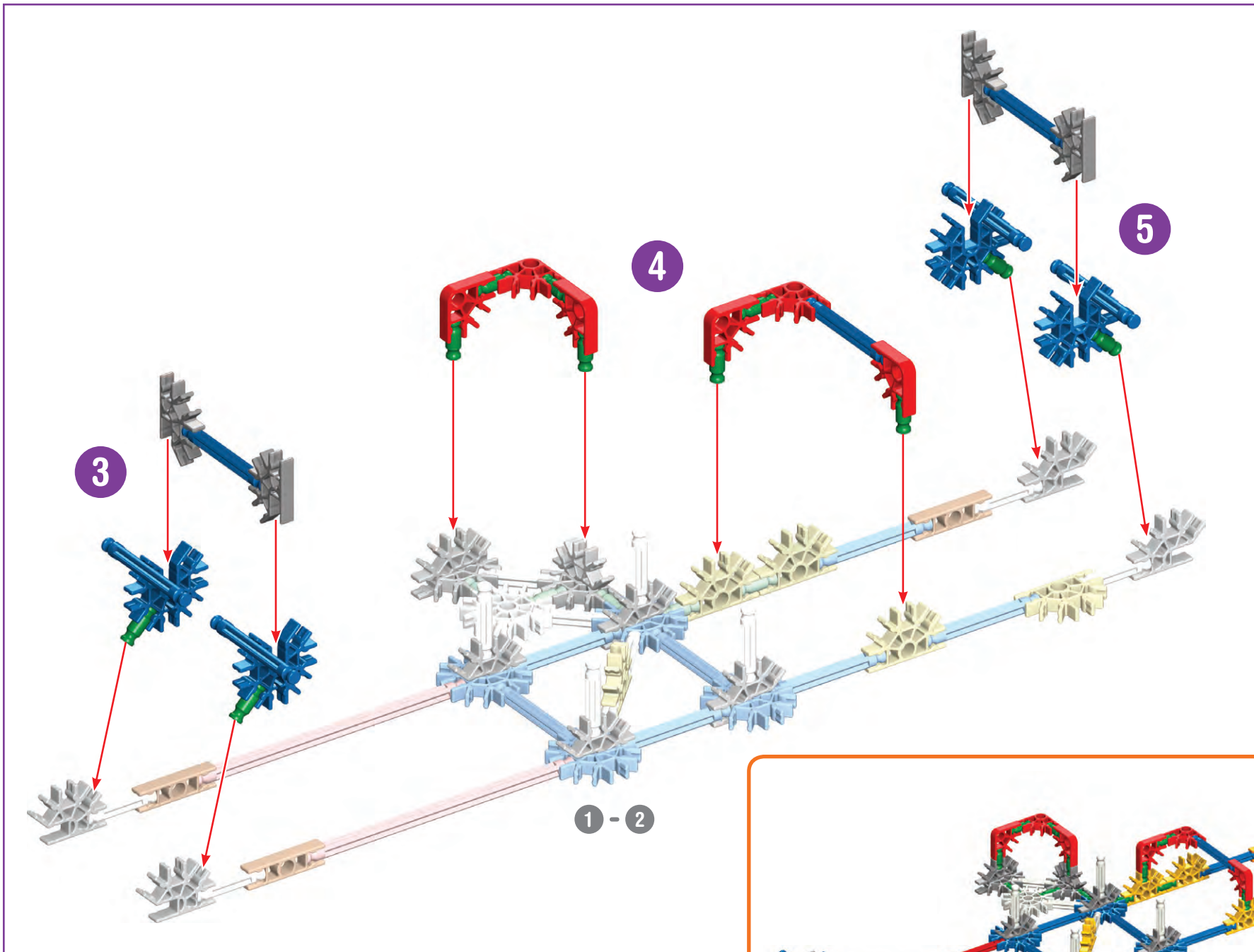
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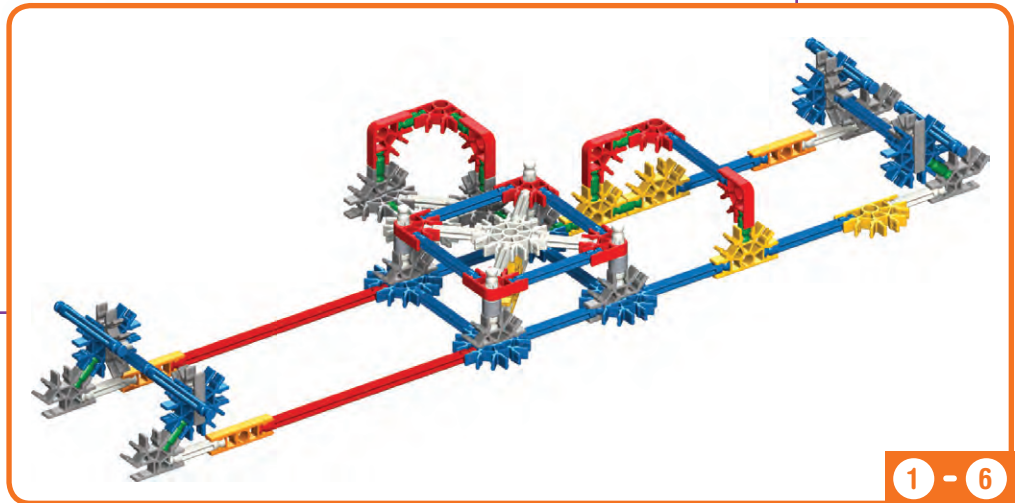
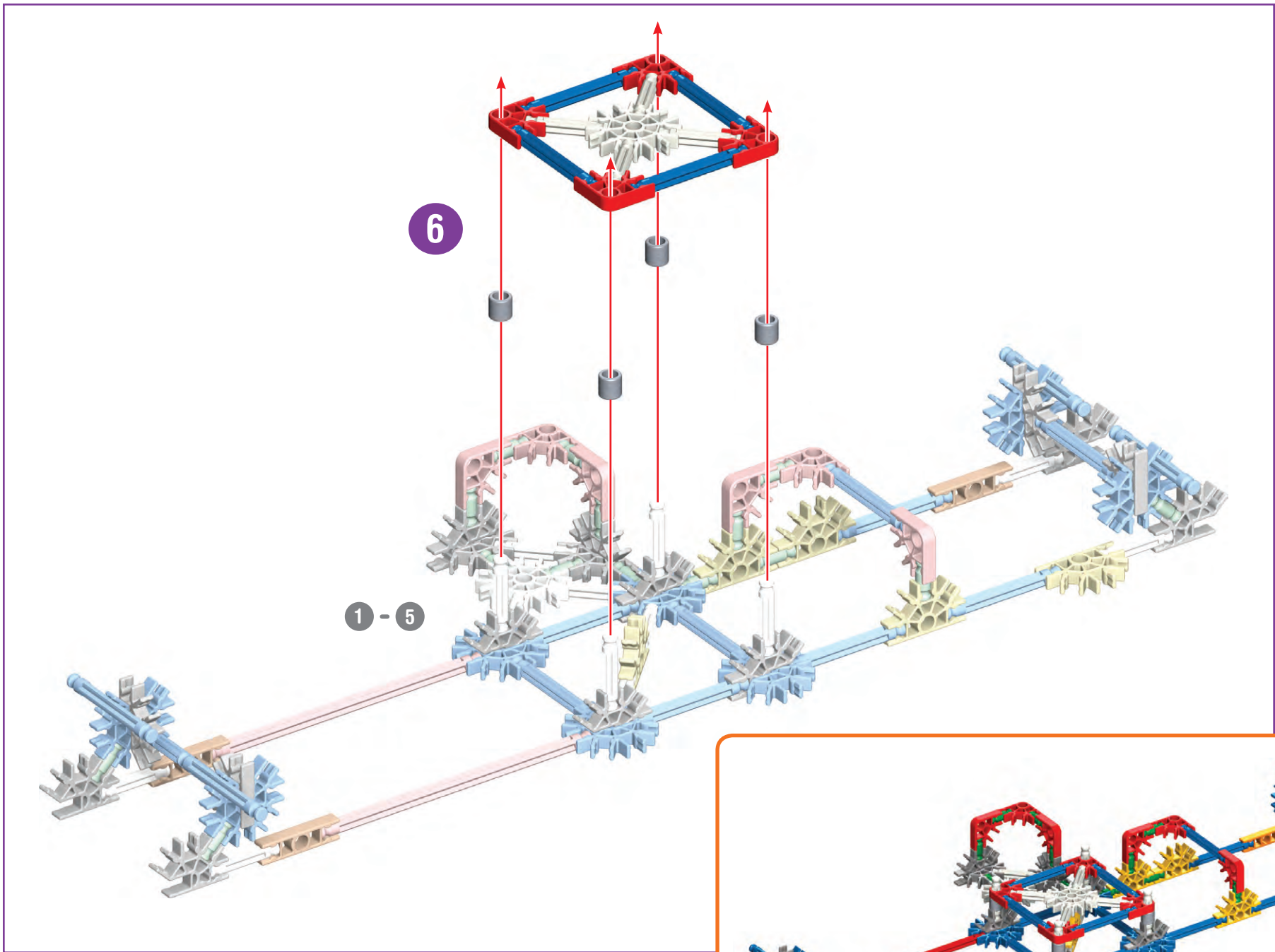
Toll Booth – CONTROL BOX

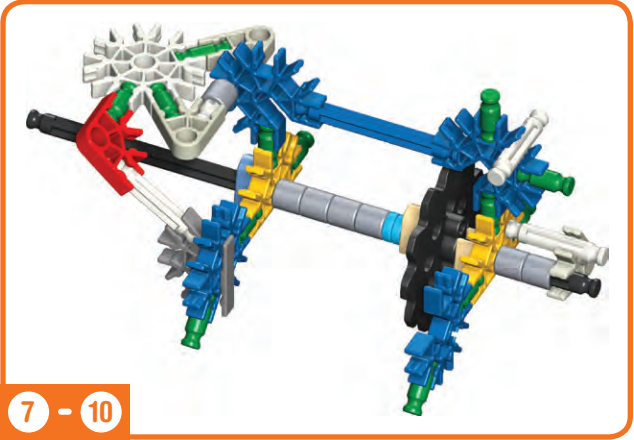
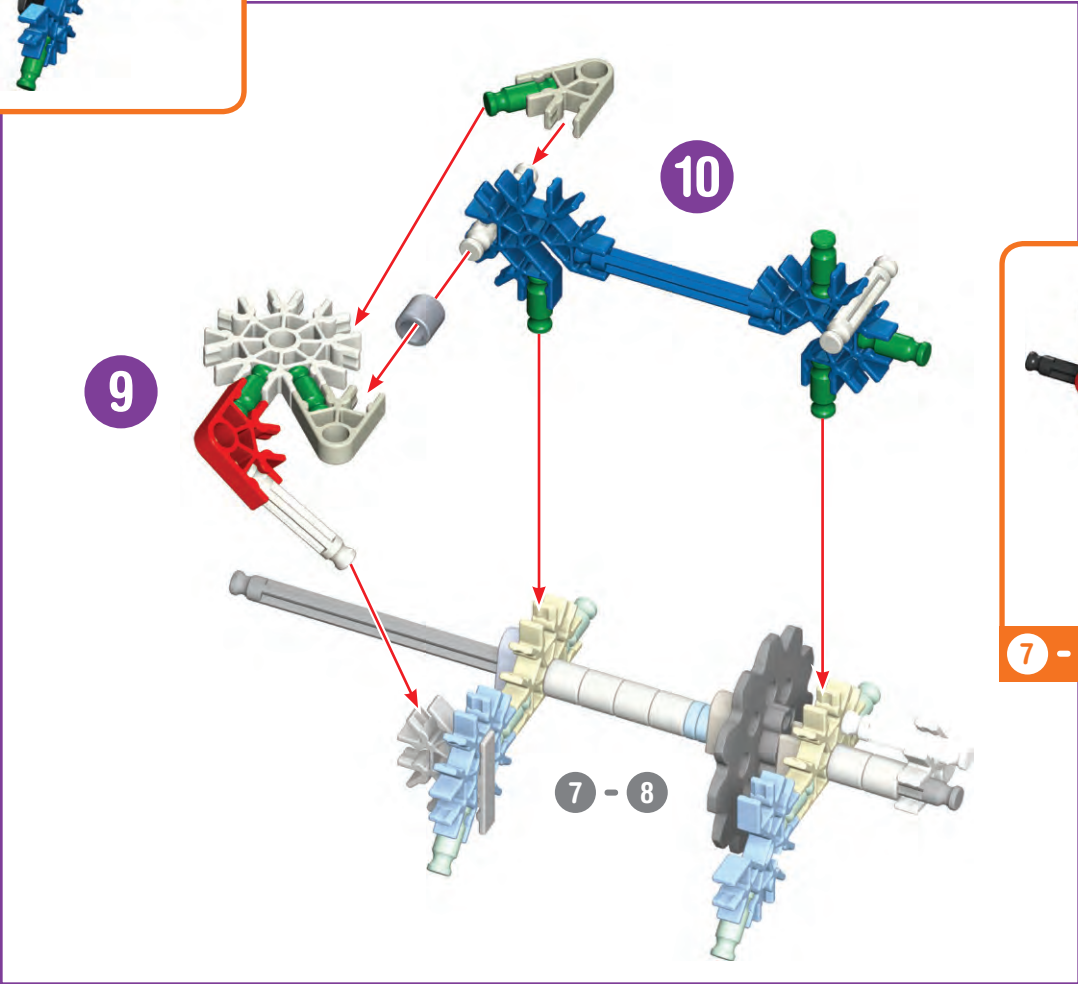
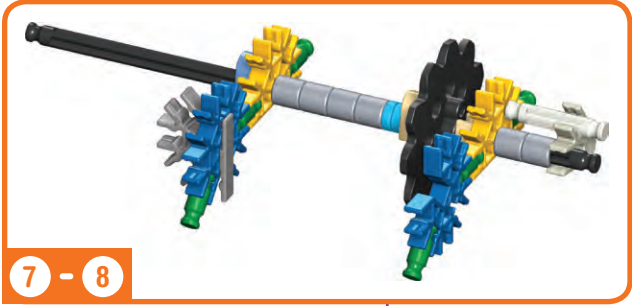
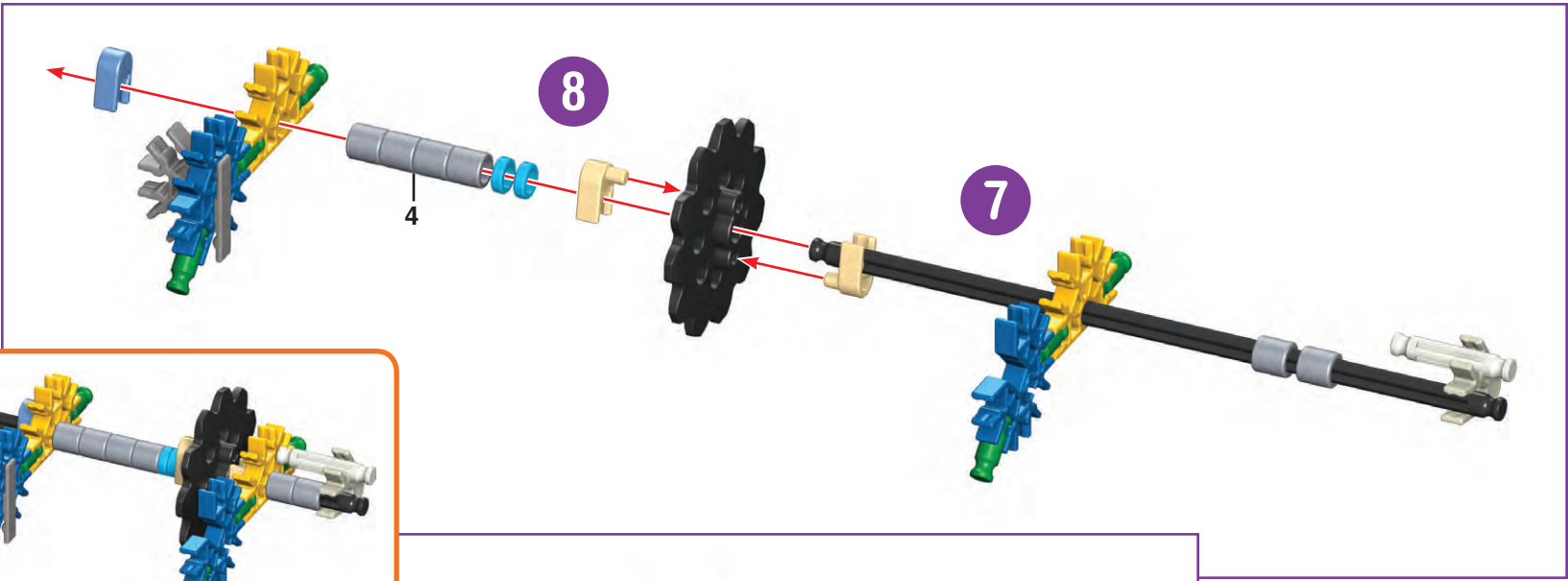


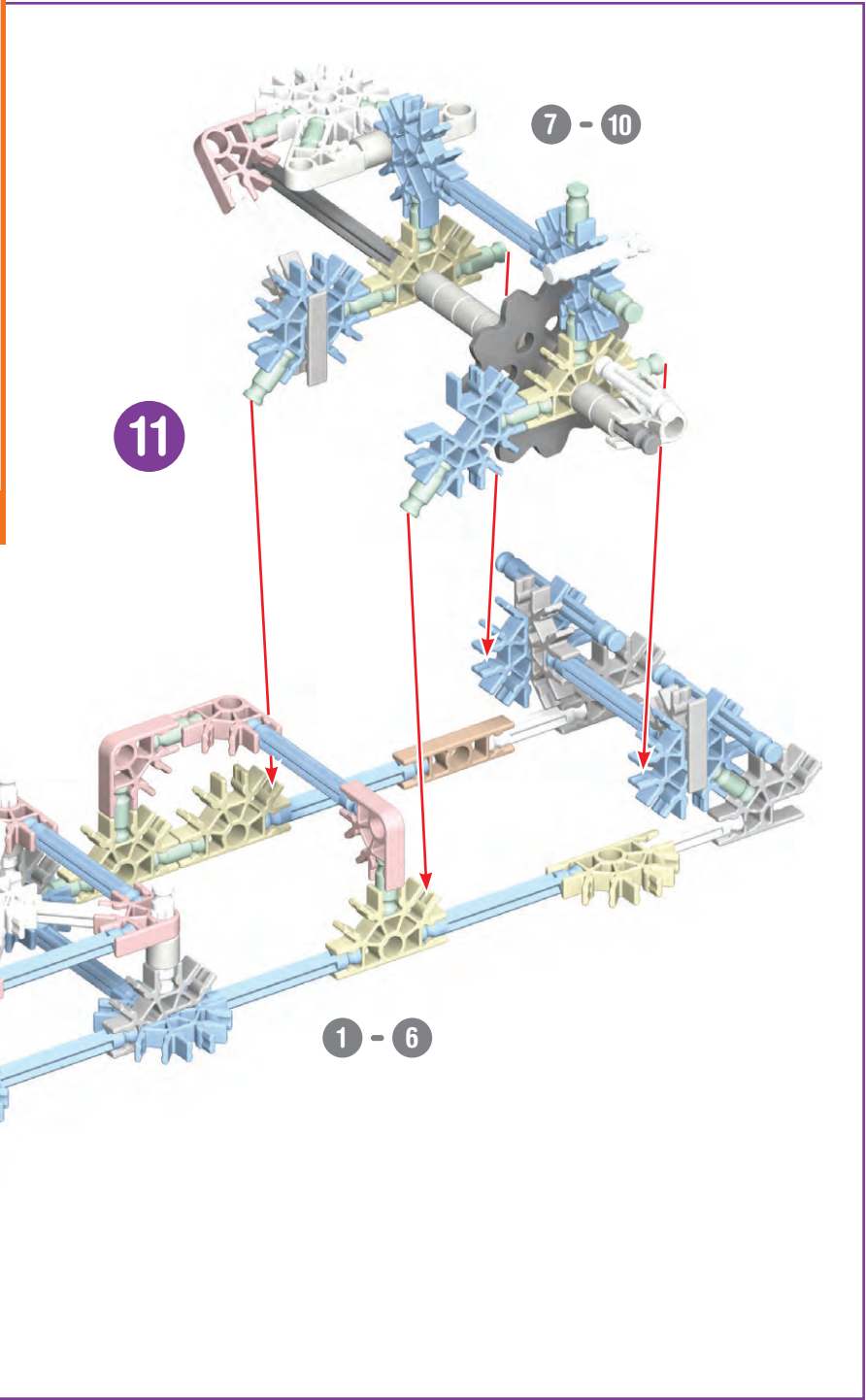
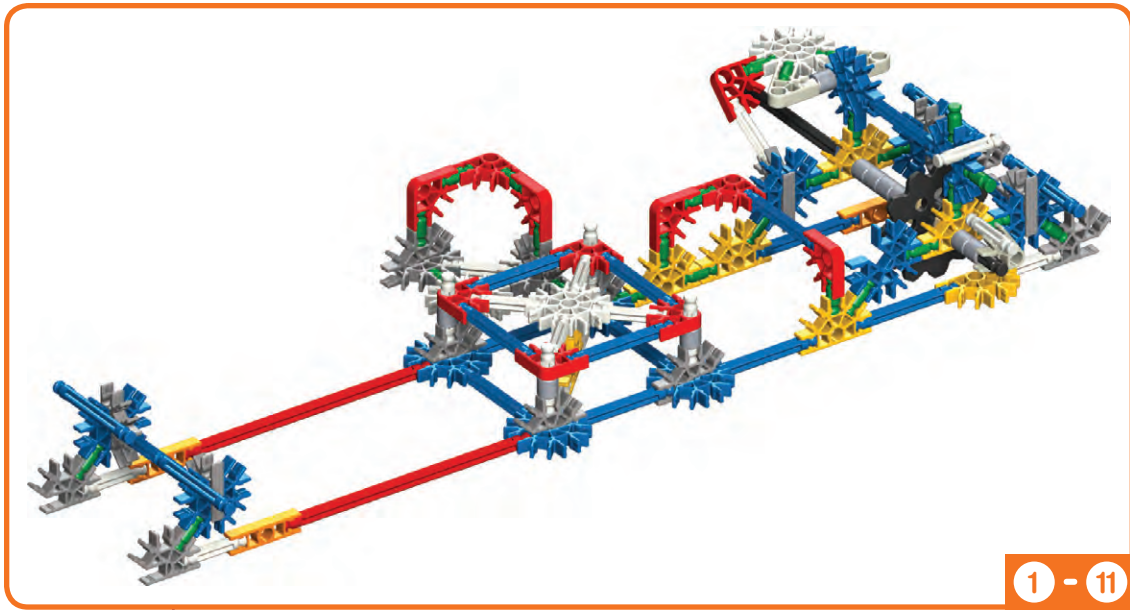
Swing Bridge

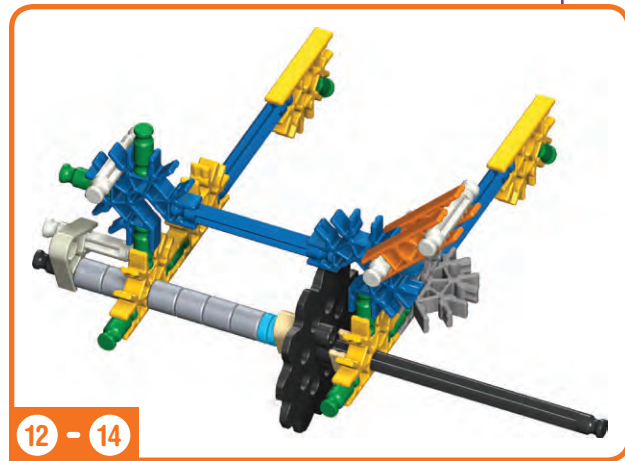
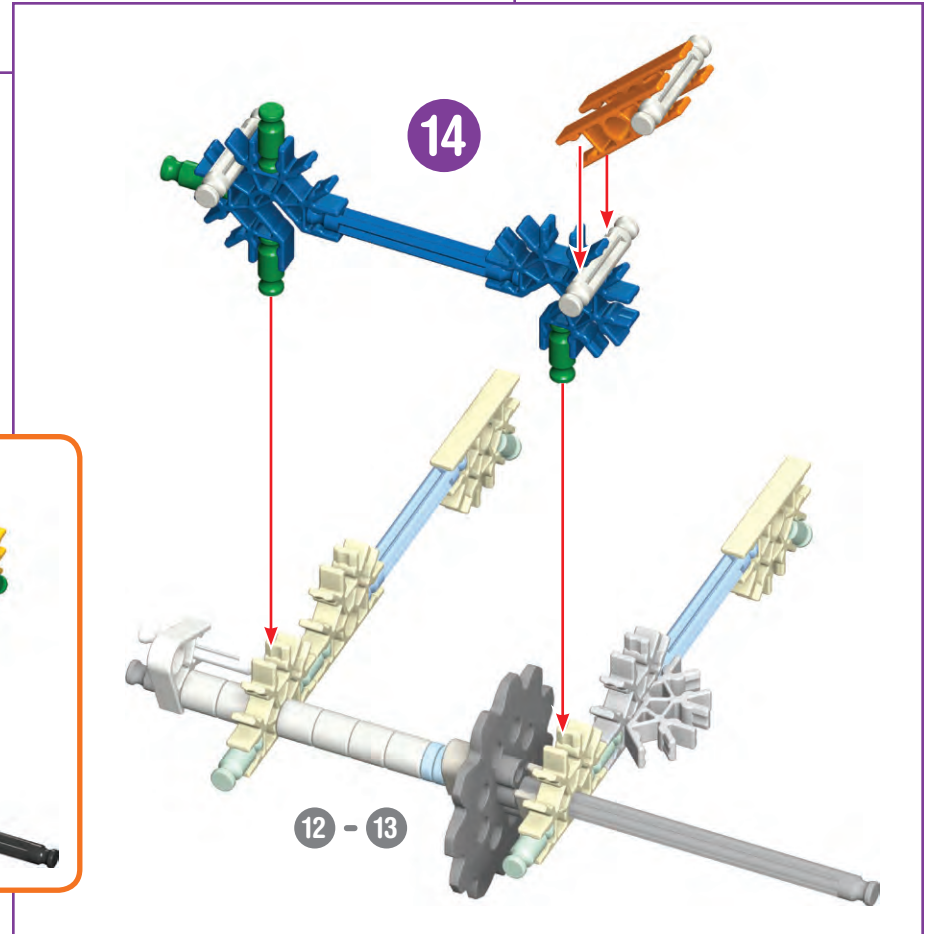
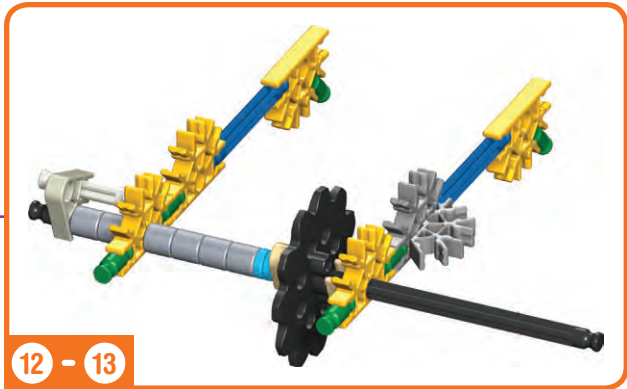
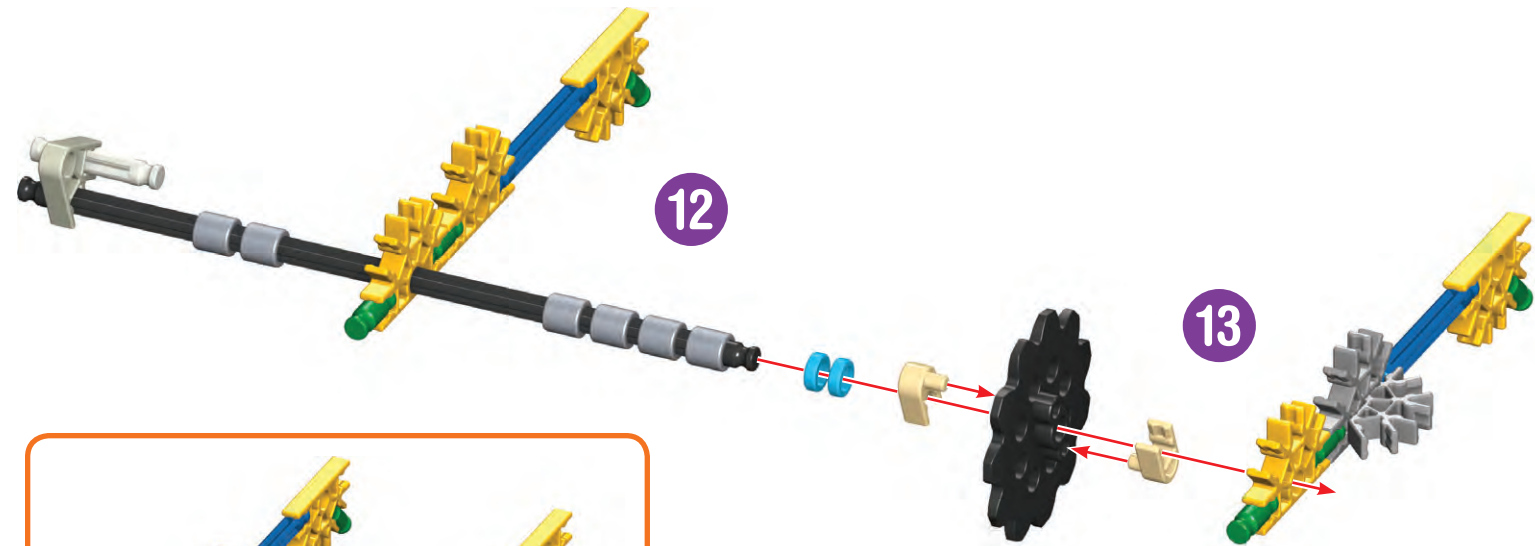


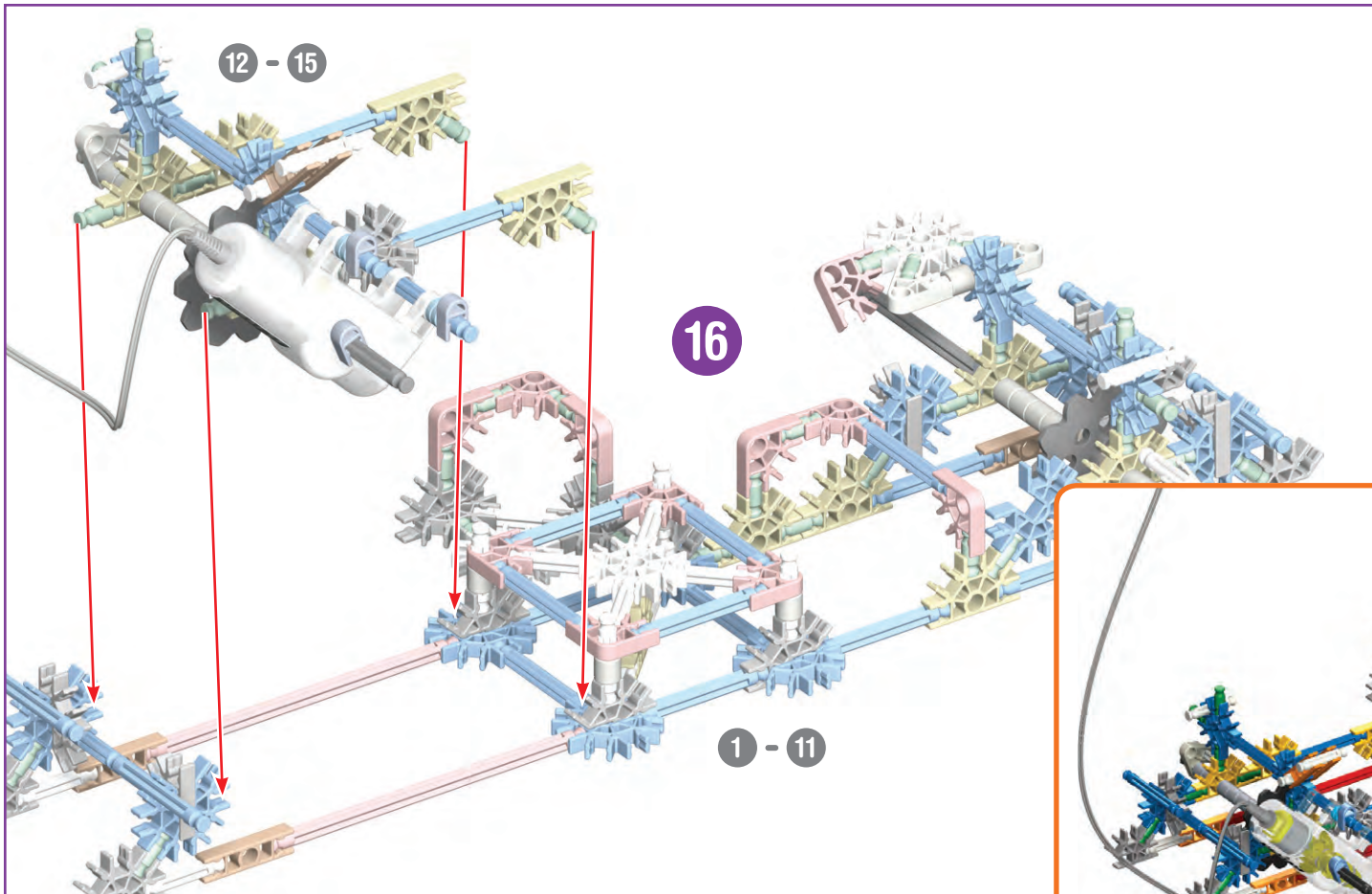
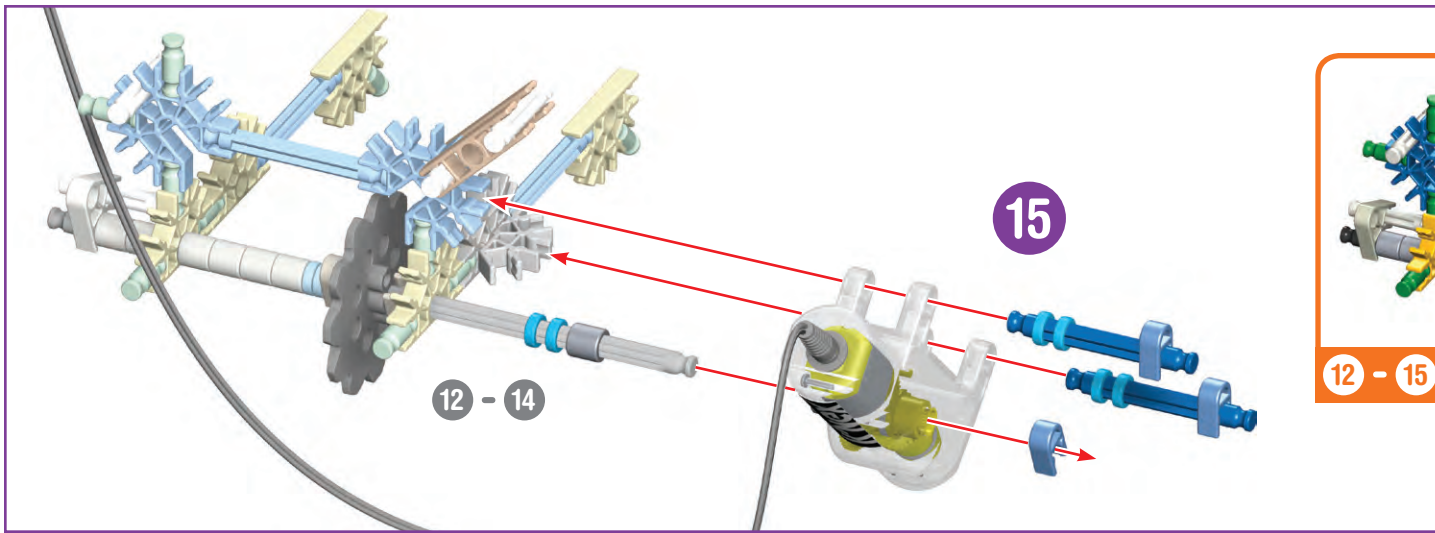








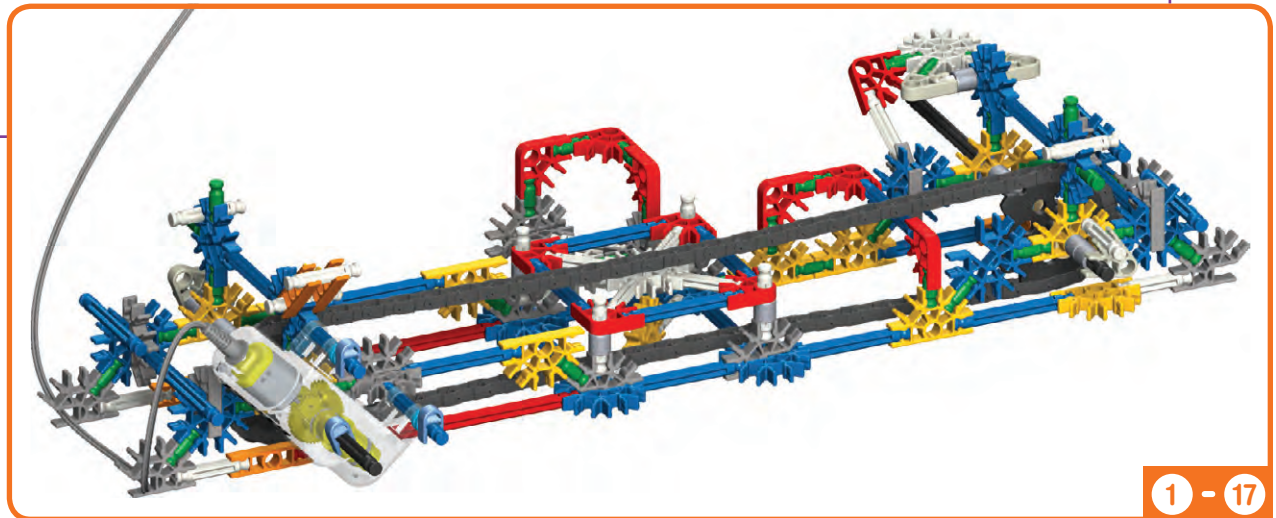
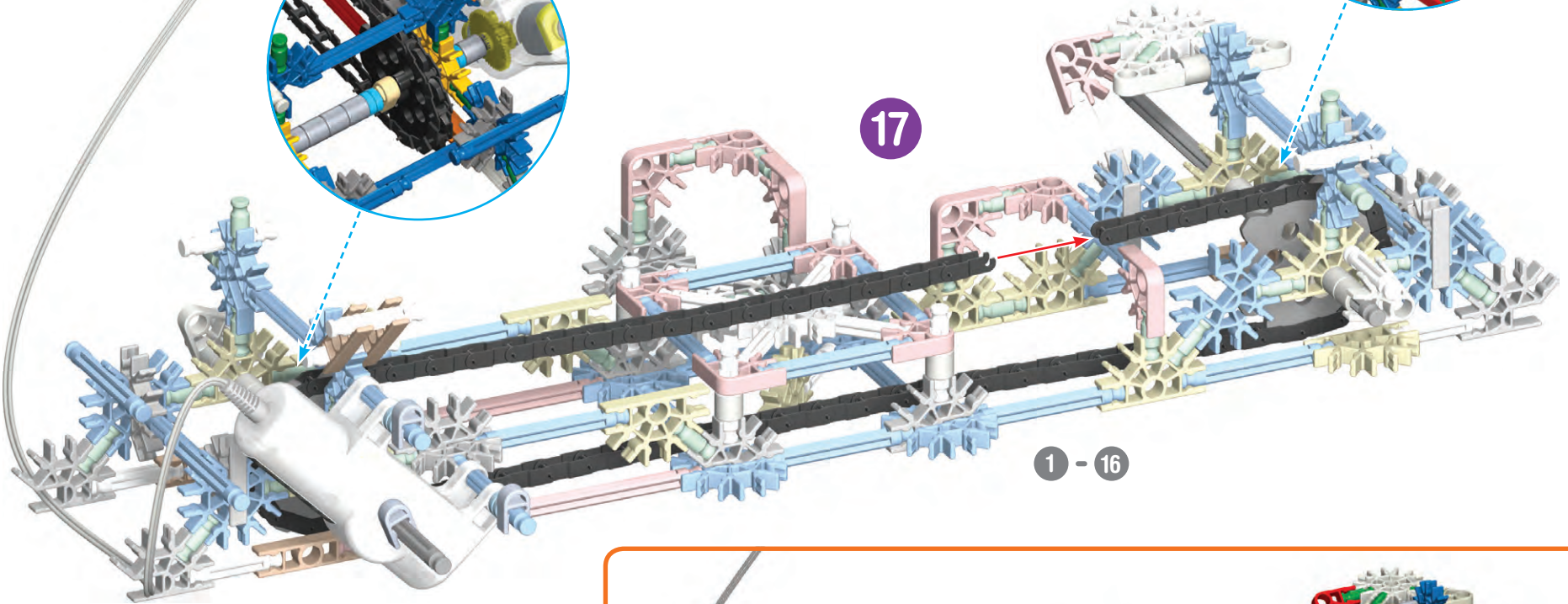
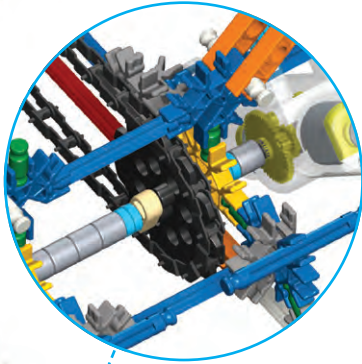
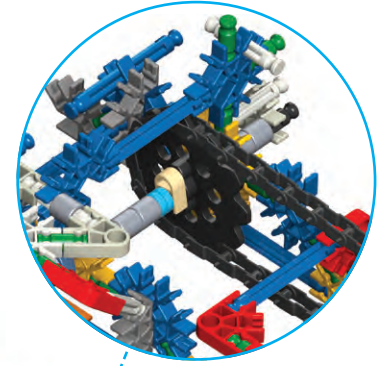


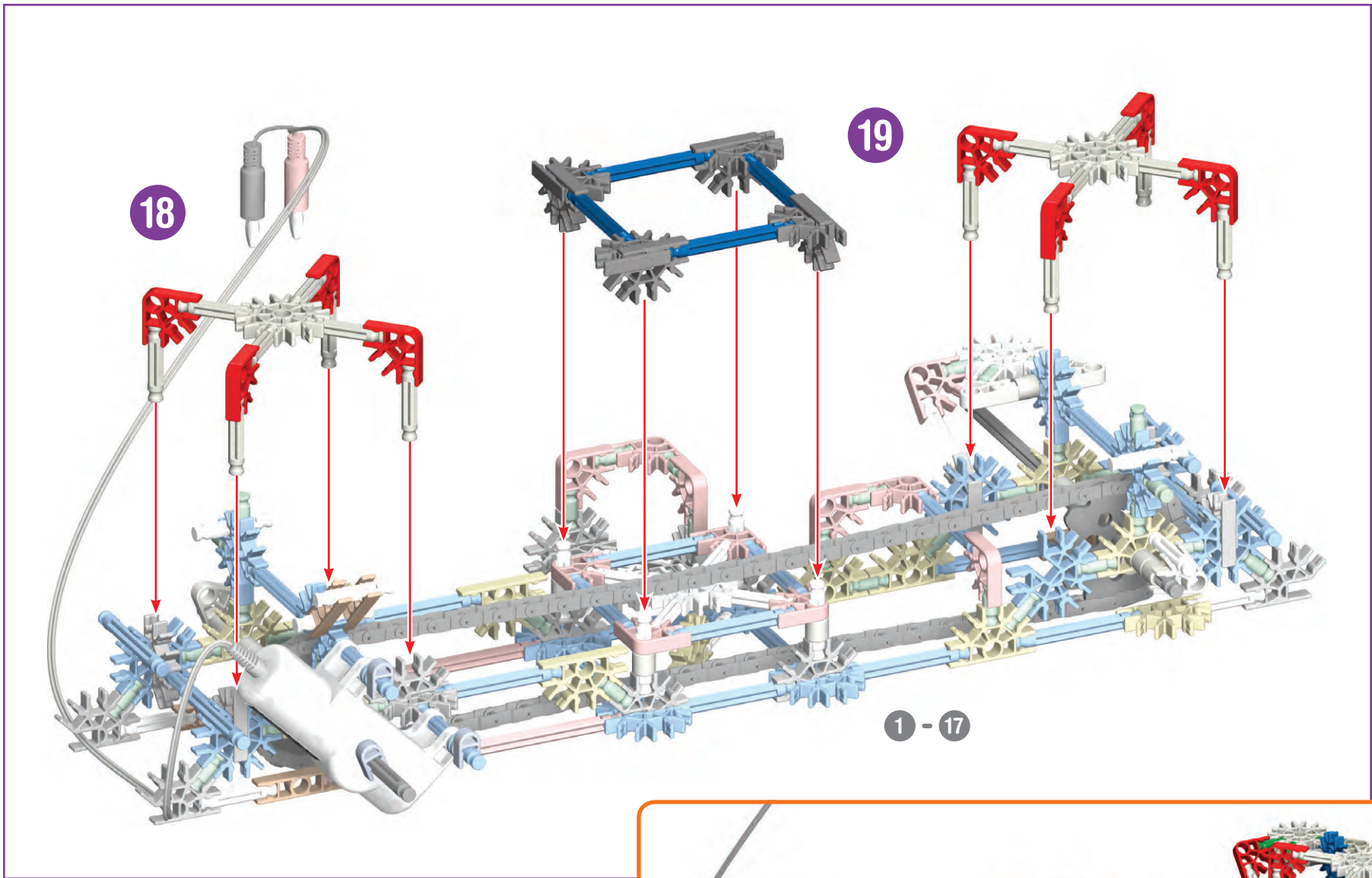


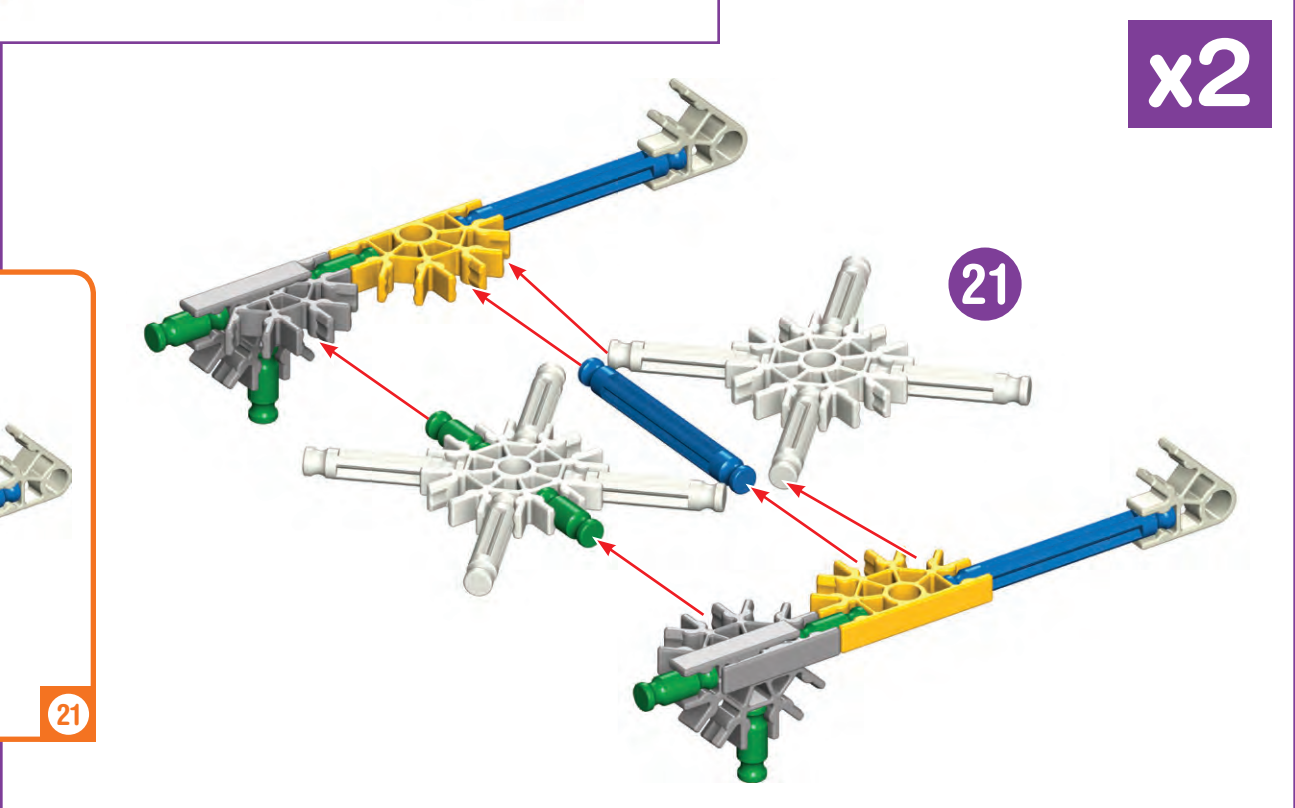
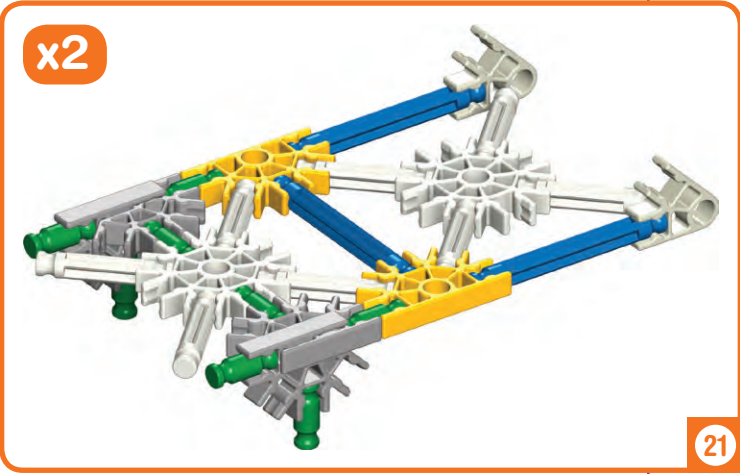
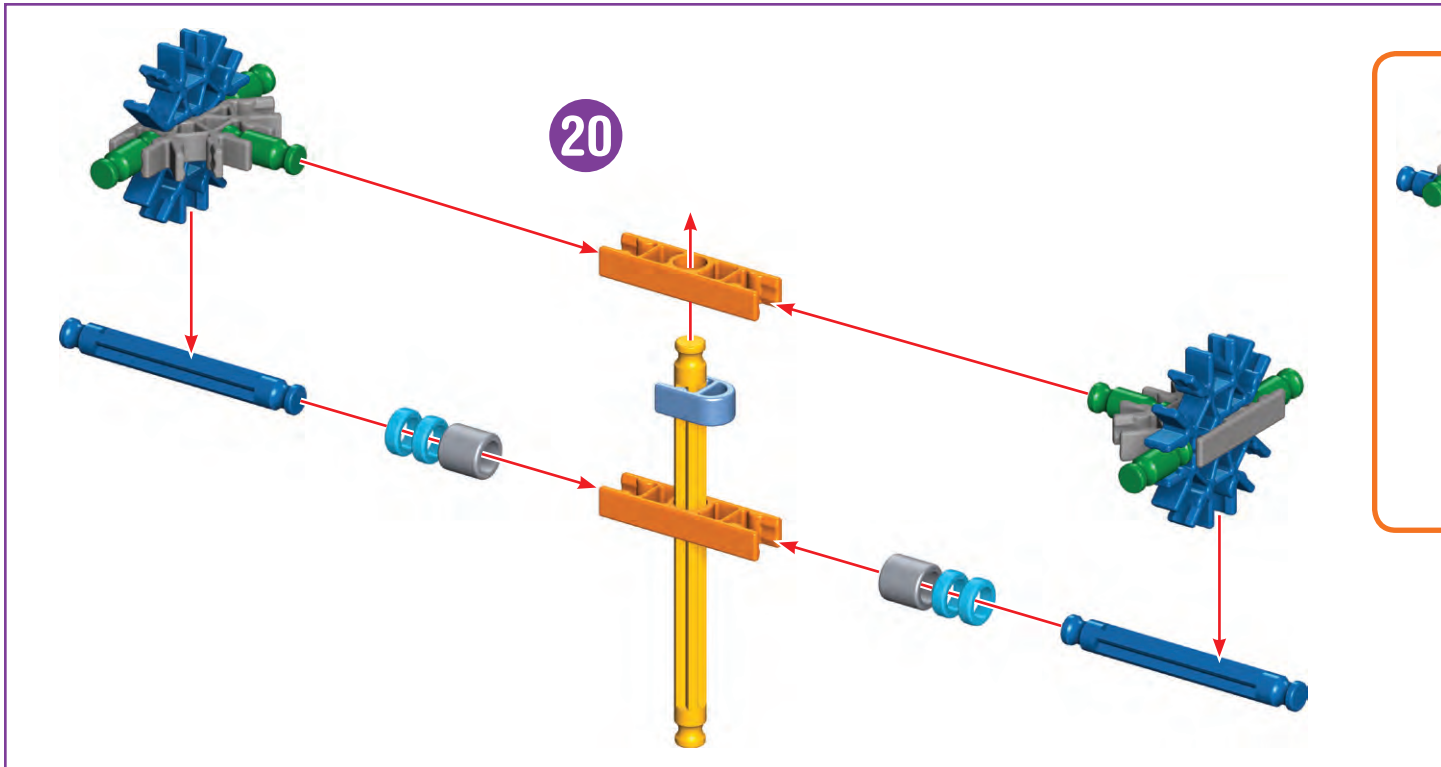


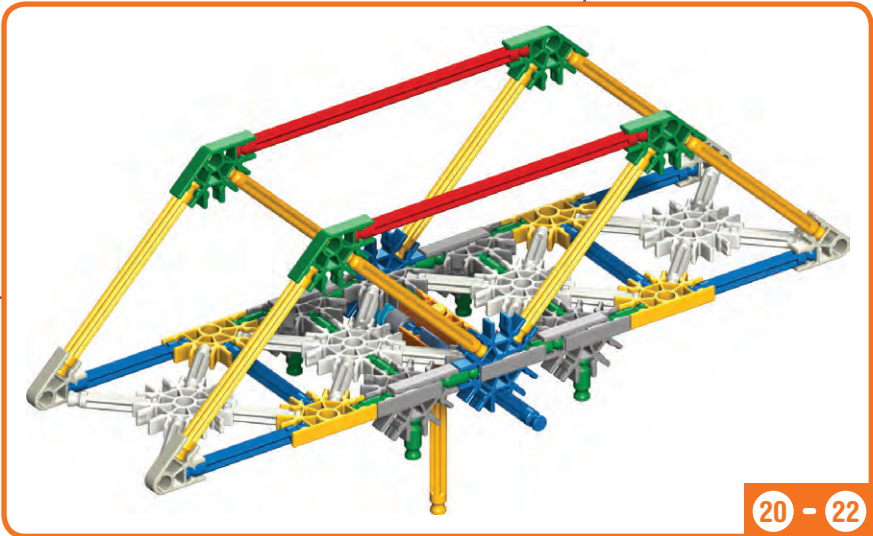
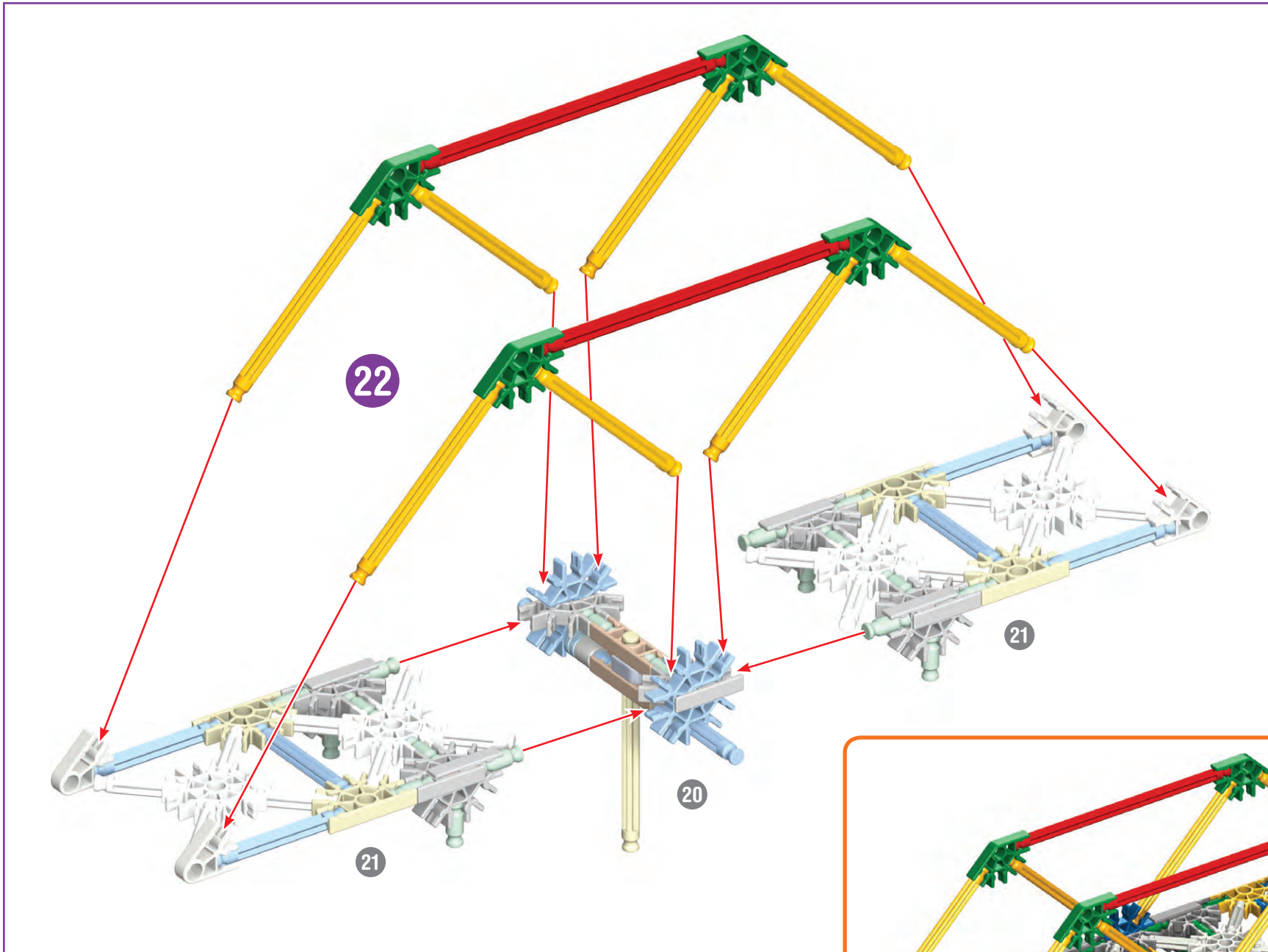
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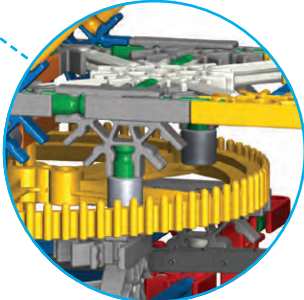
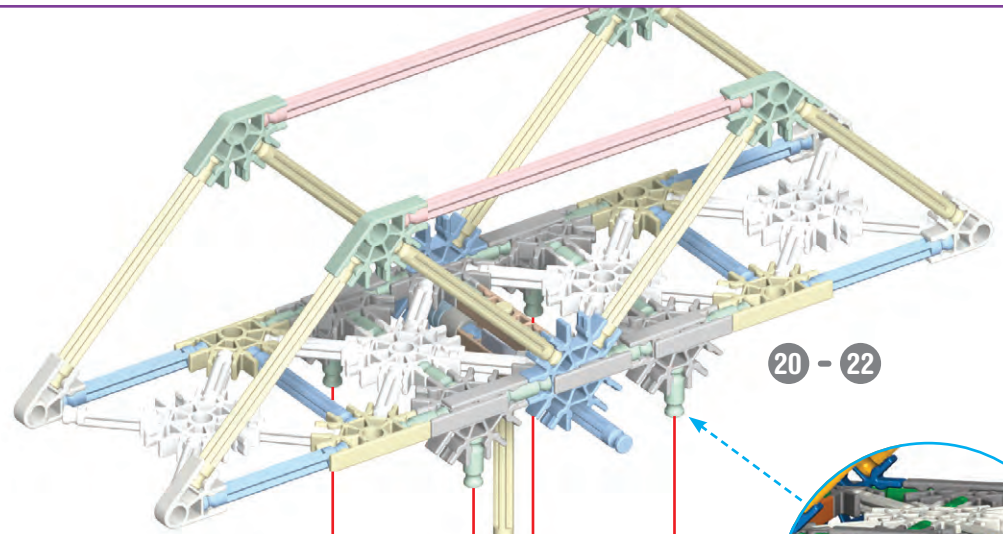
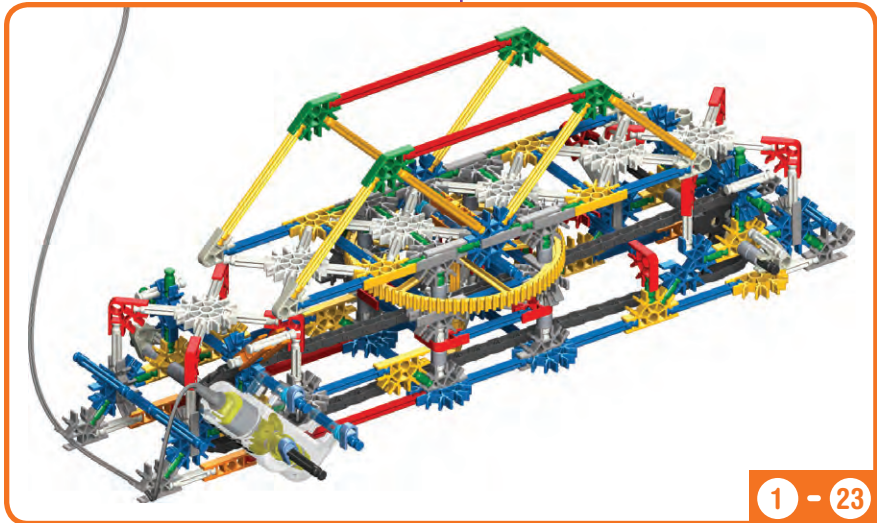
IMPORTANT: Attach all the chain links in the same direction.



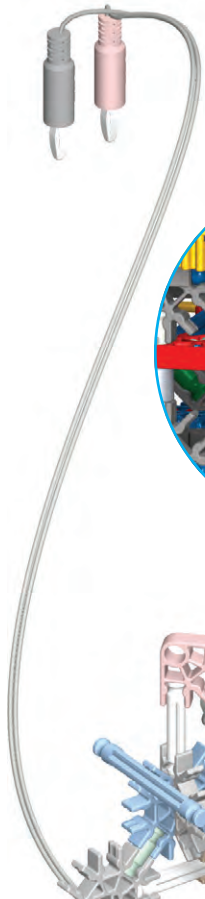
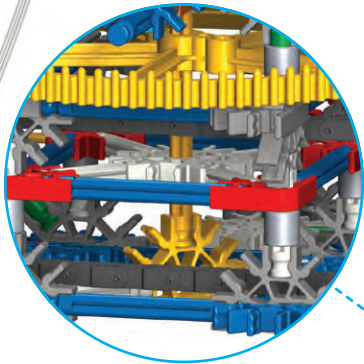
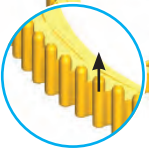




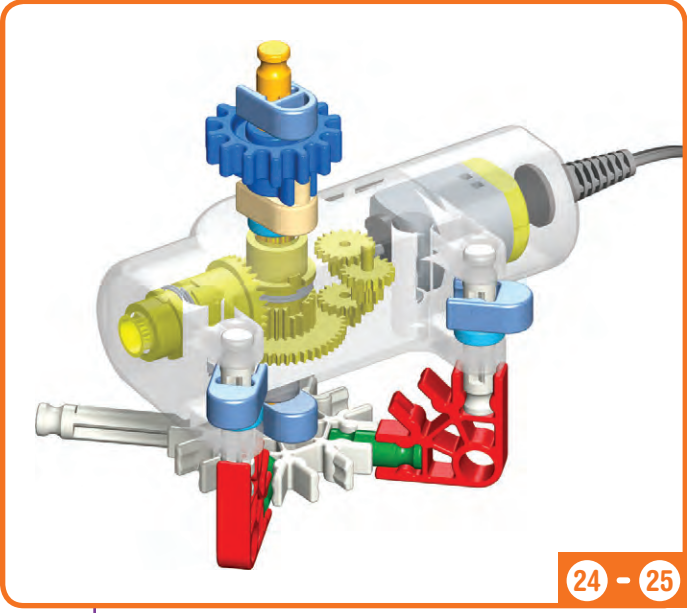
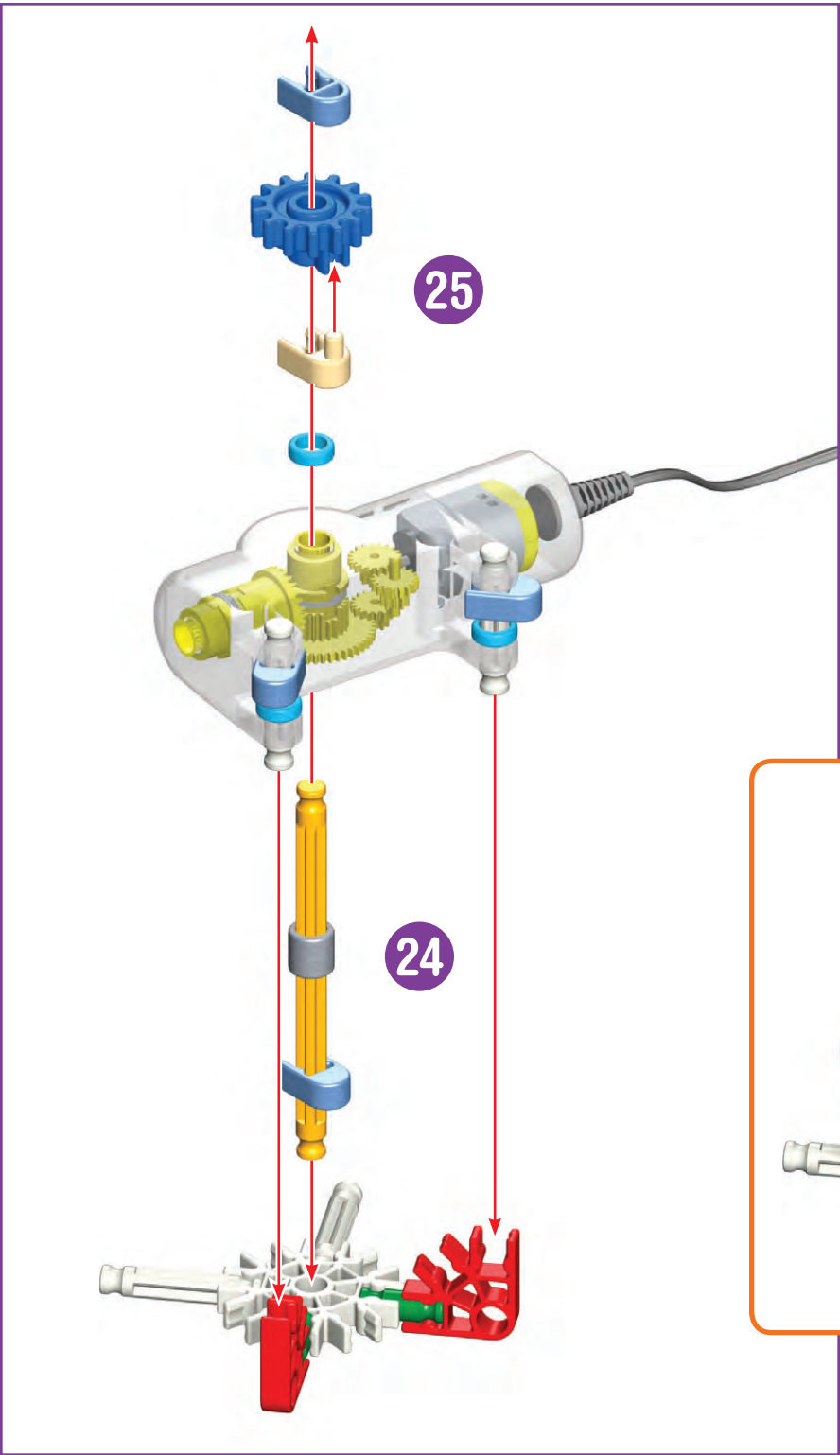




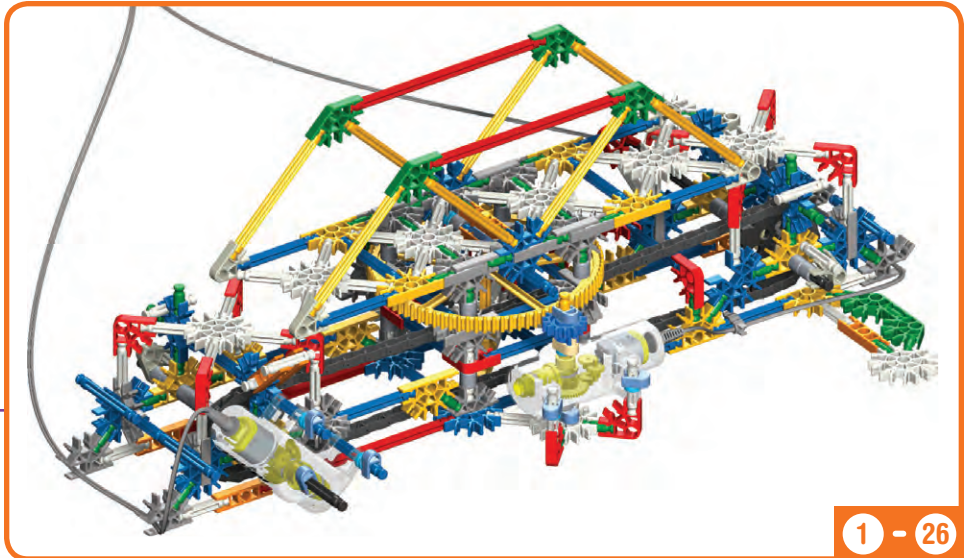
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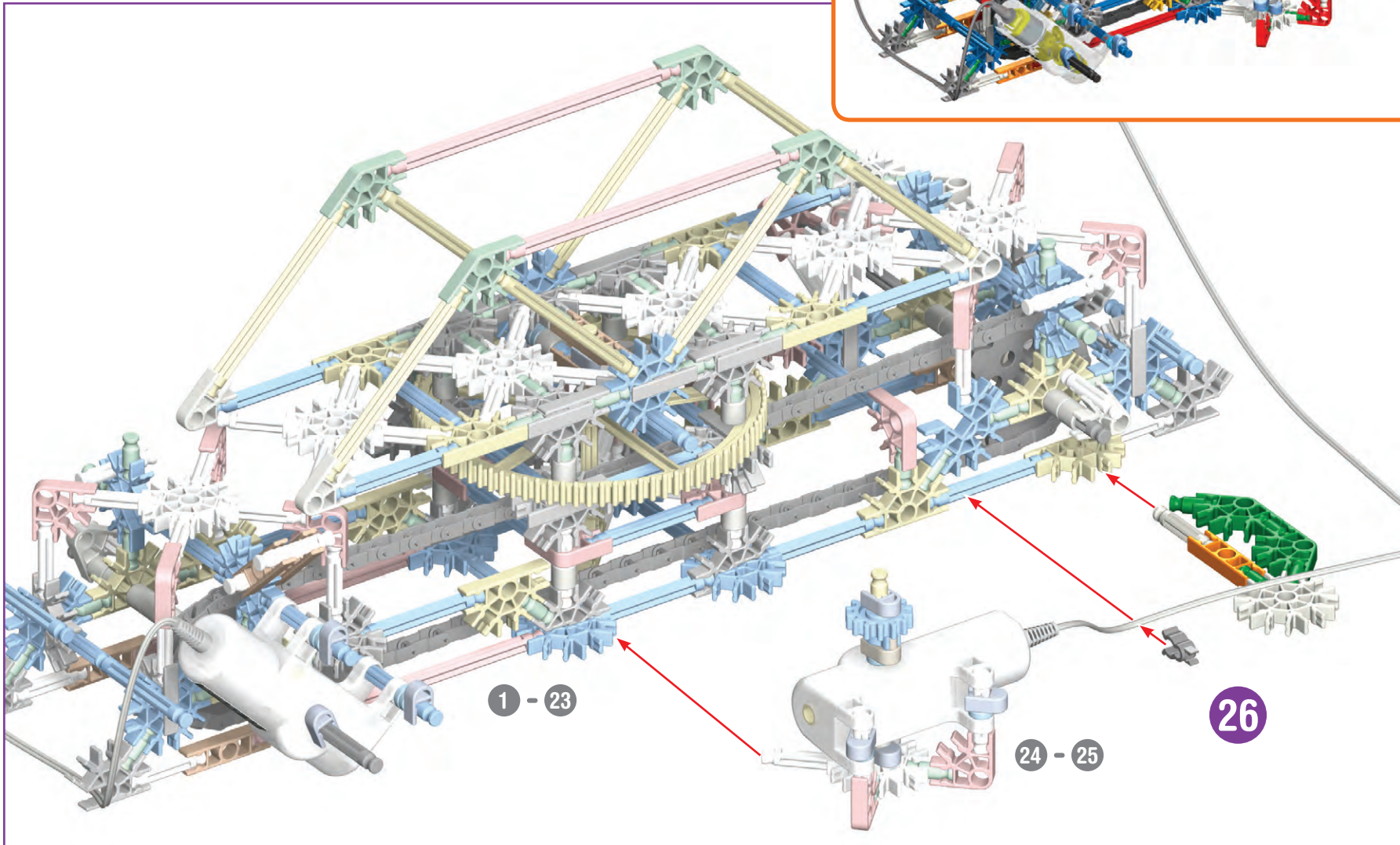
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24 - 25



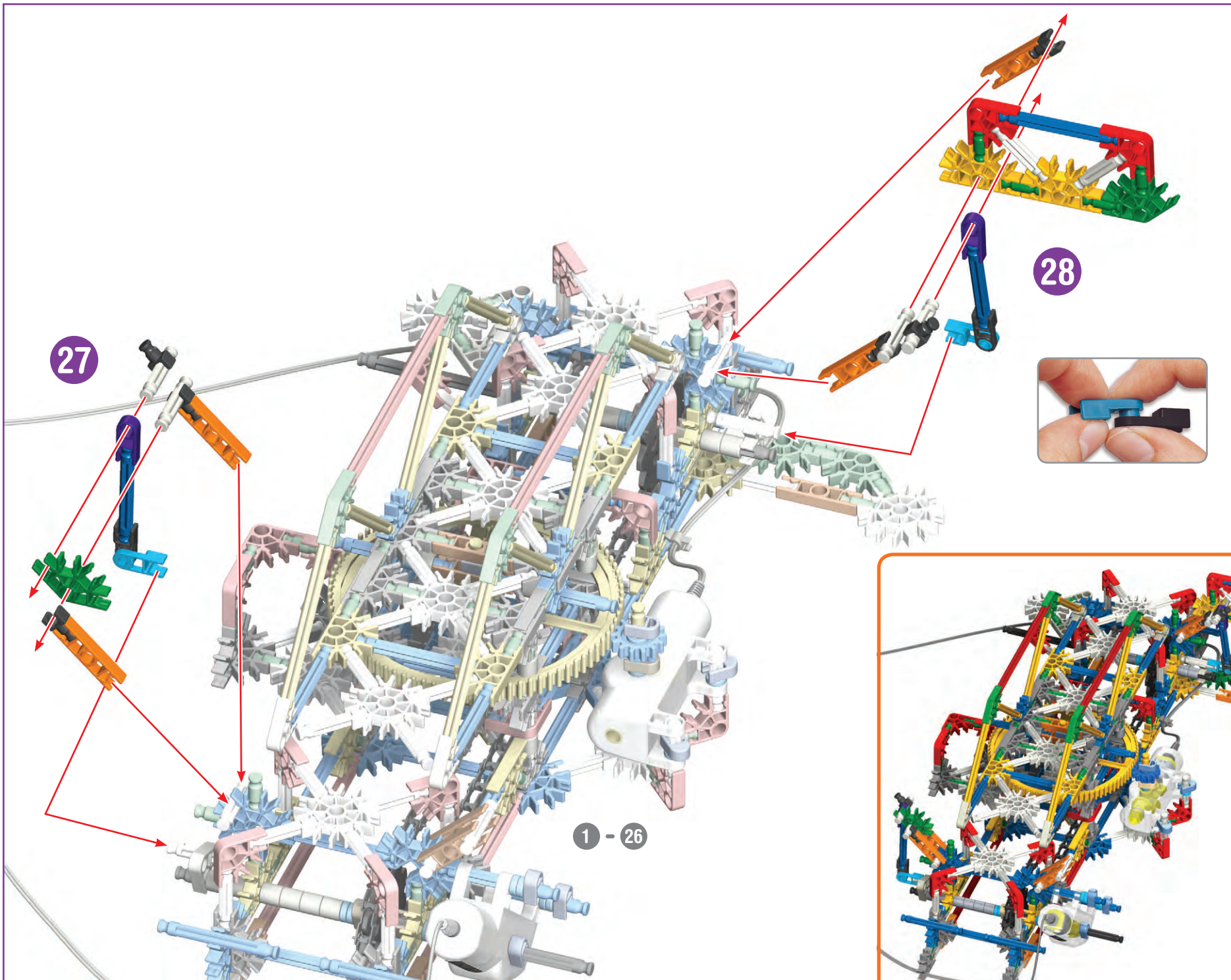
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1 - 23

24 - 25

26



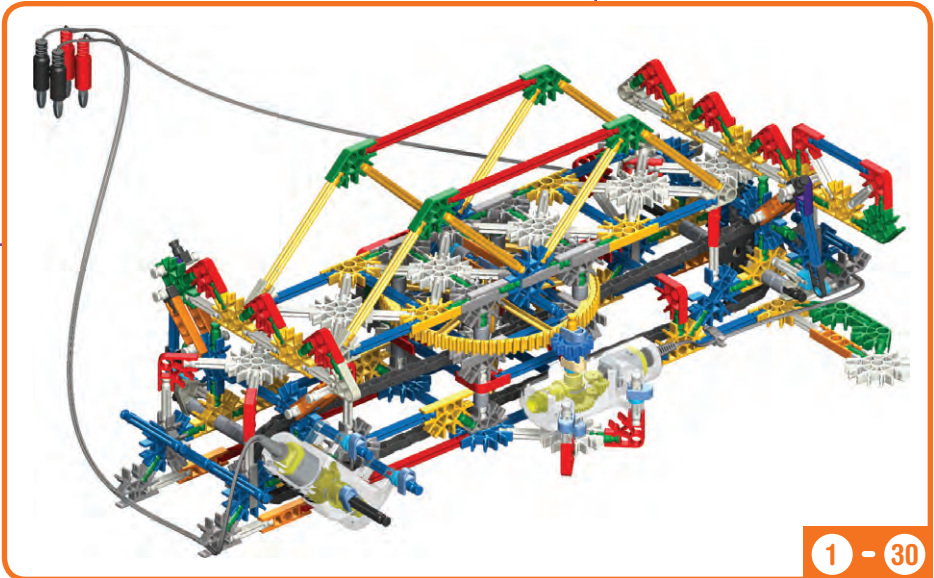
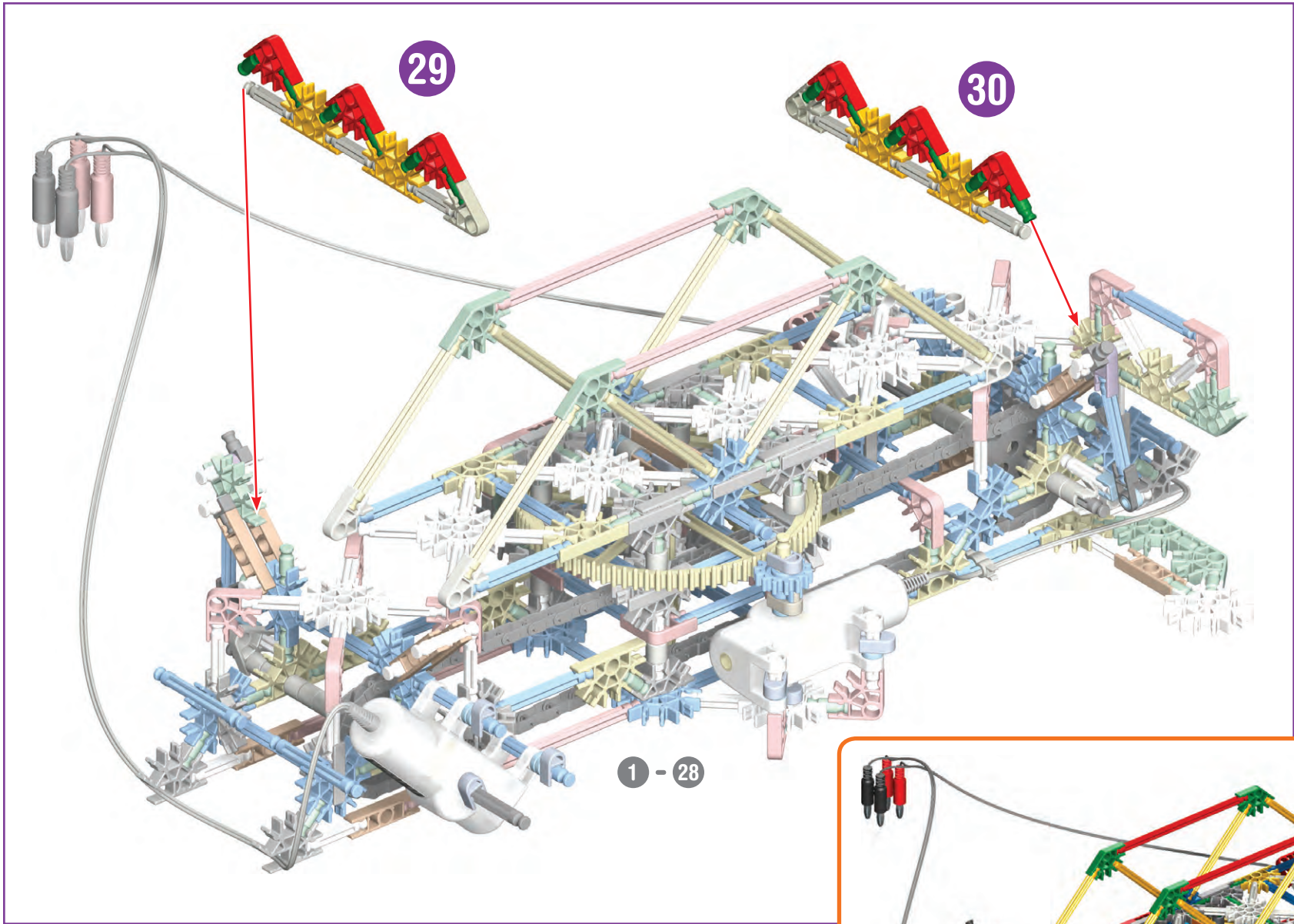
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28

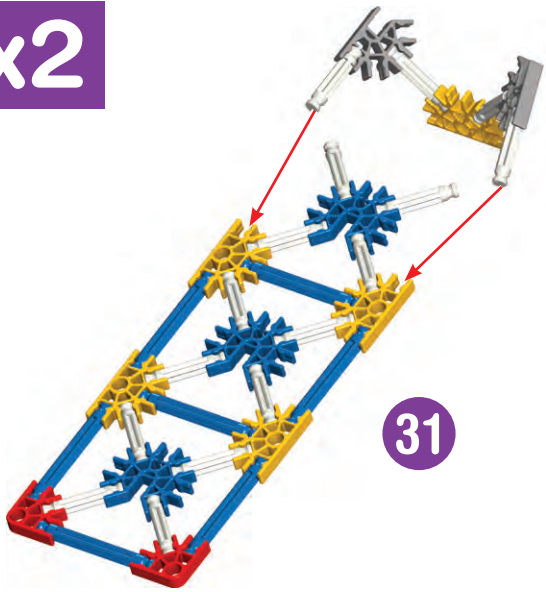
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1 - 28



x2

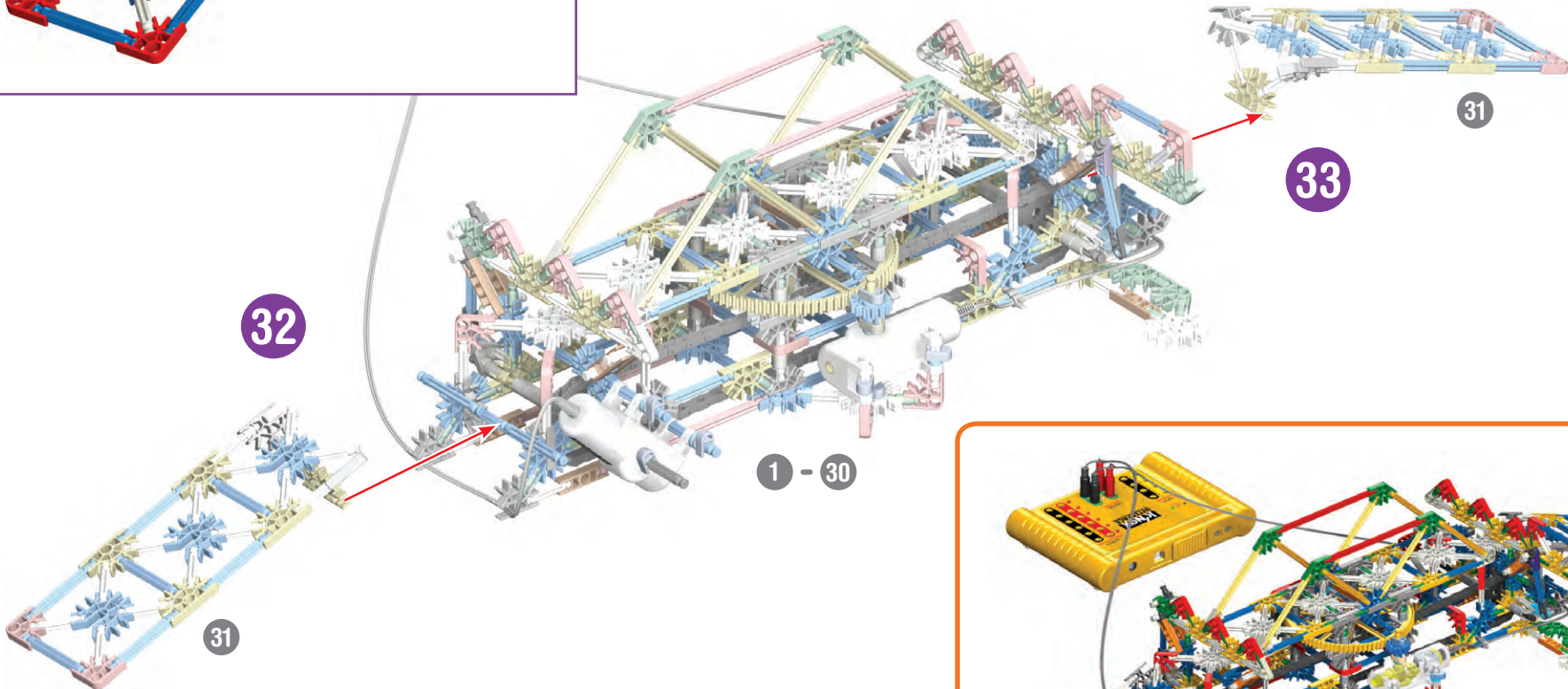


31

x2



31



32

33

31

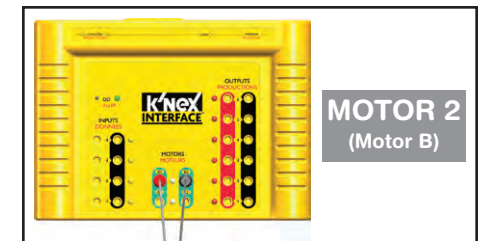
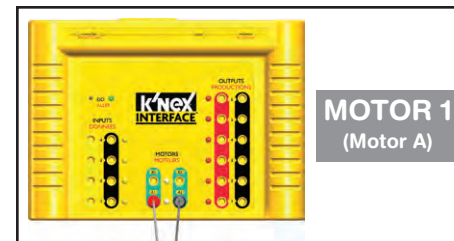
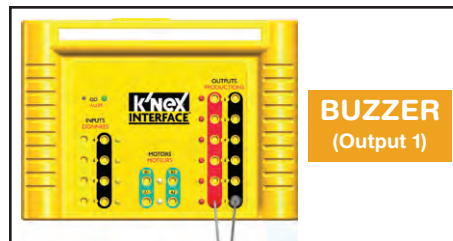
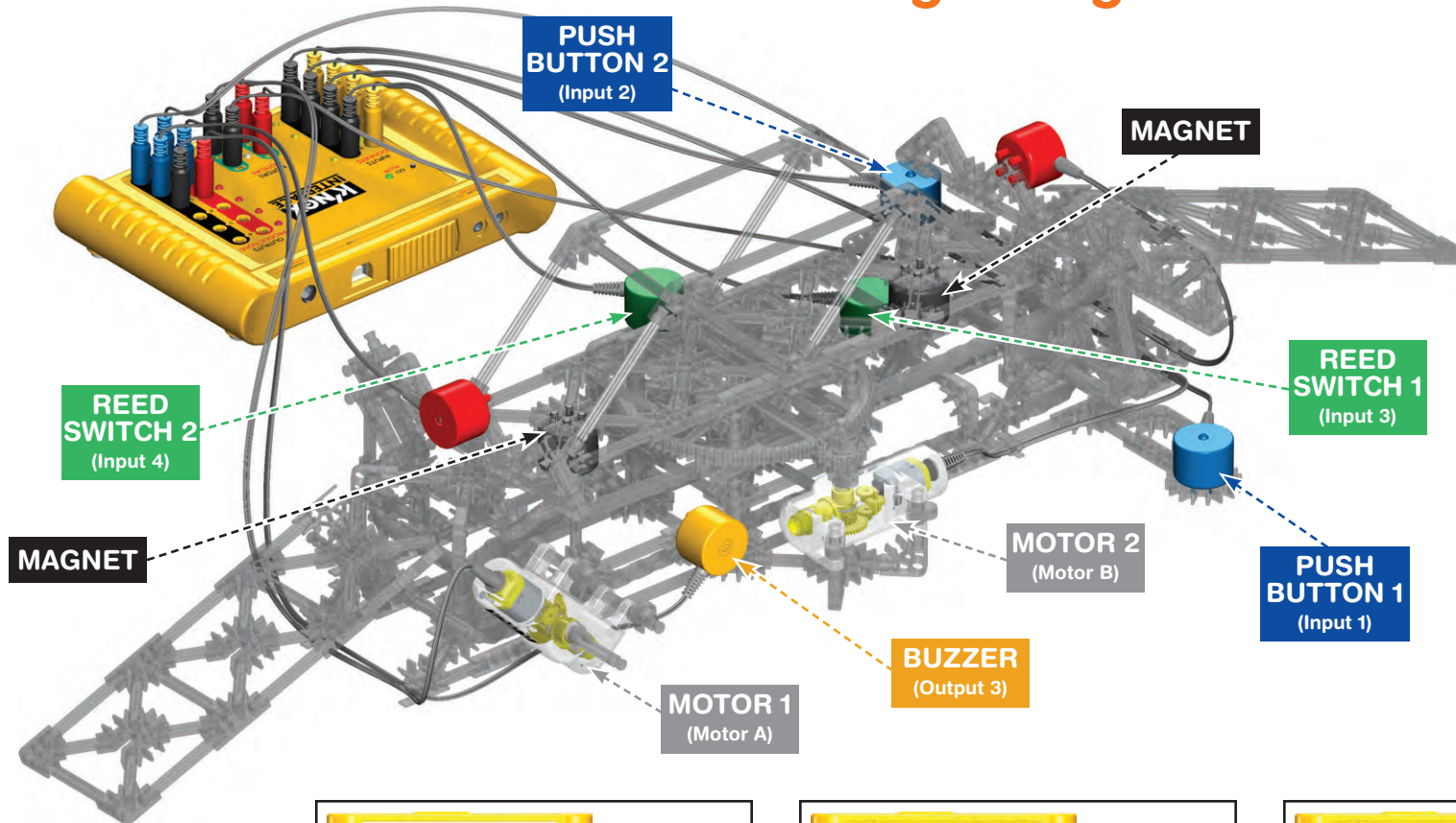
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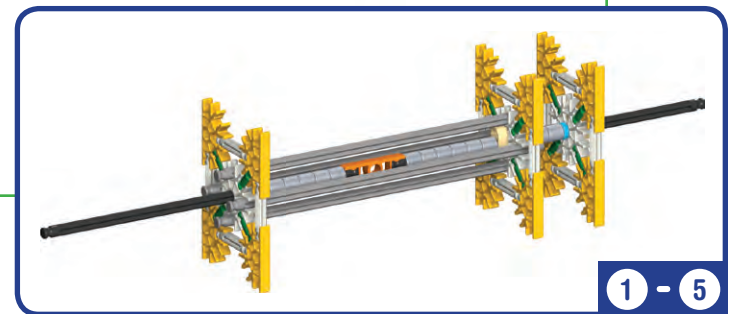
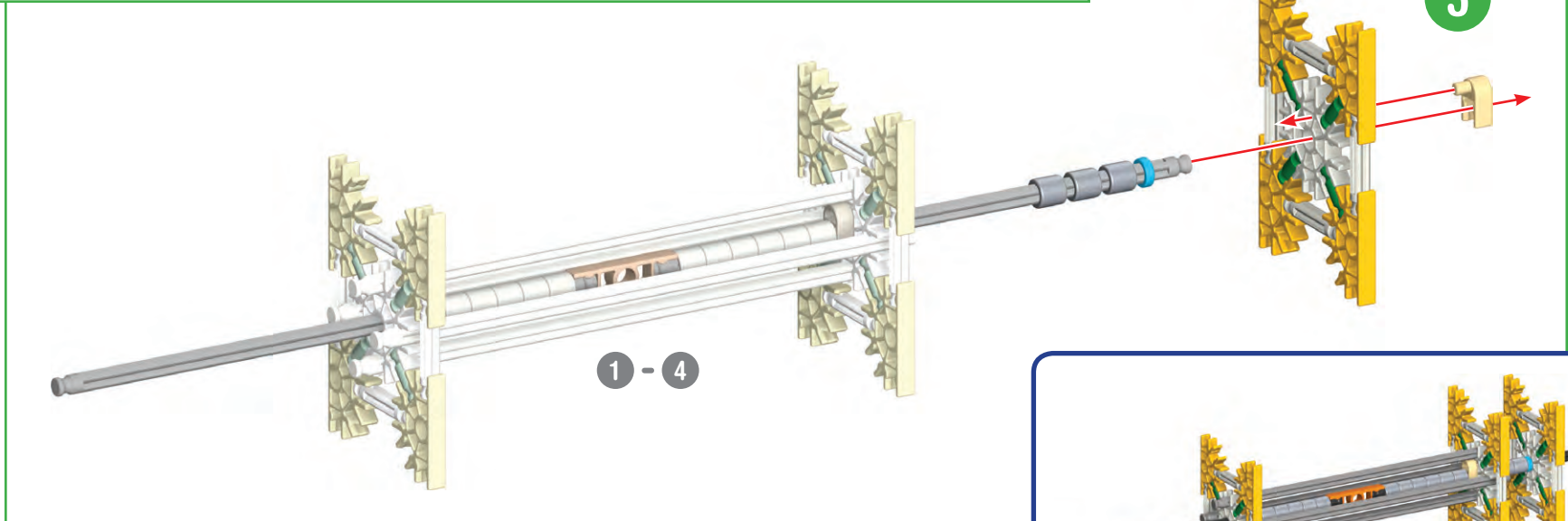
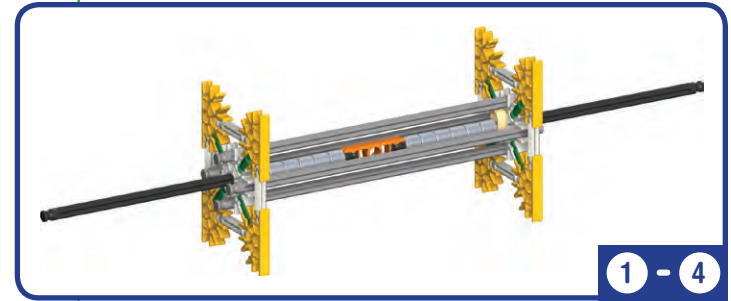
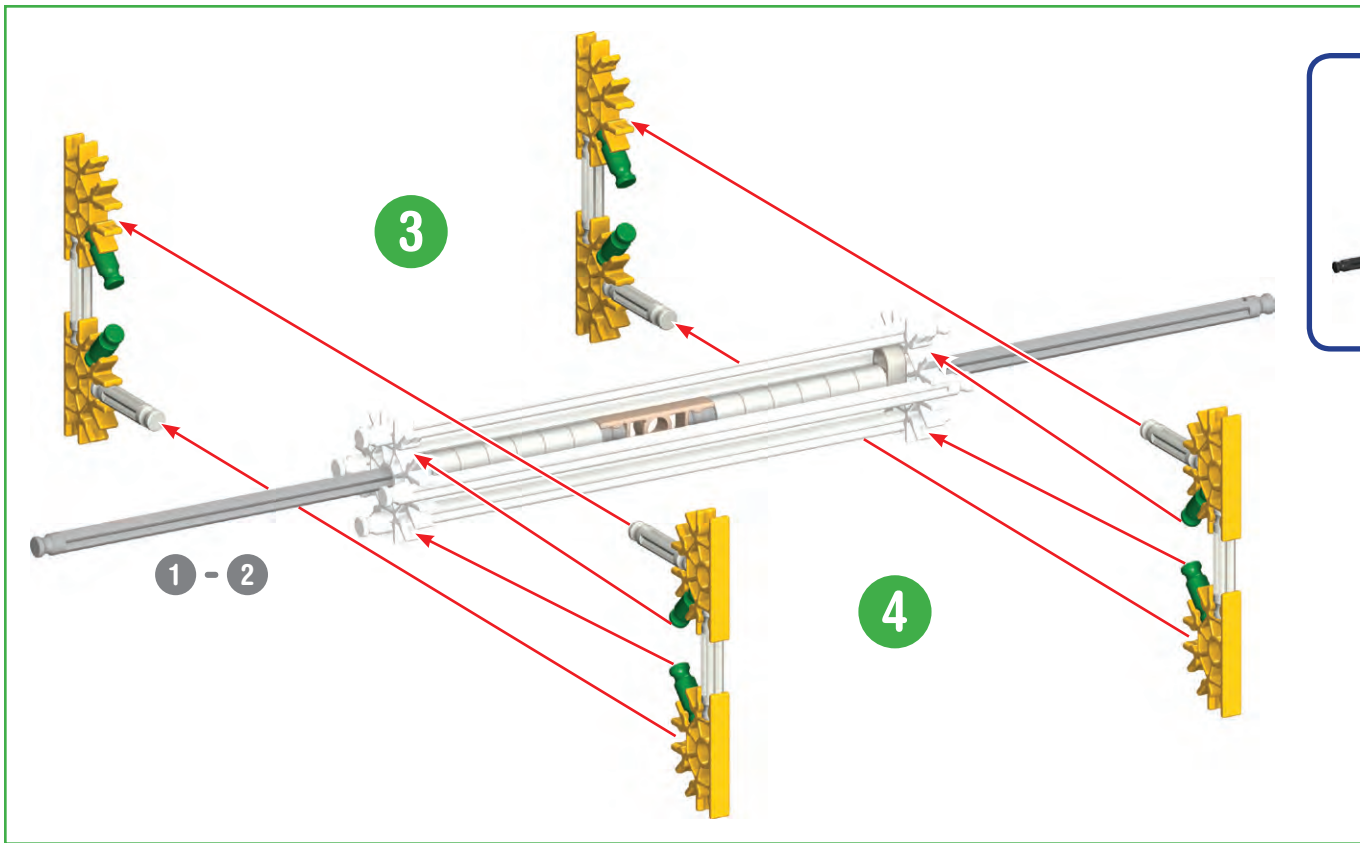
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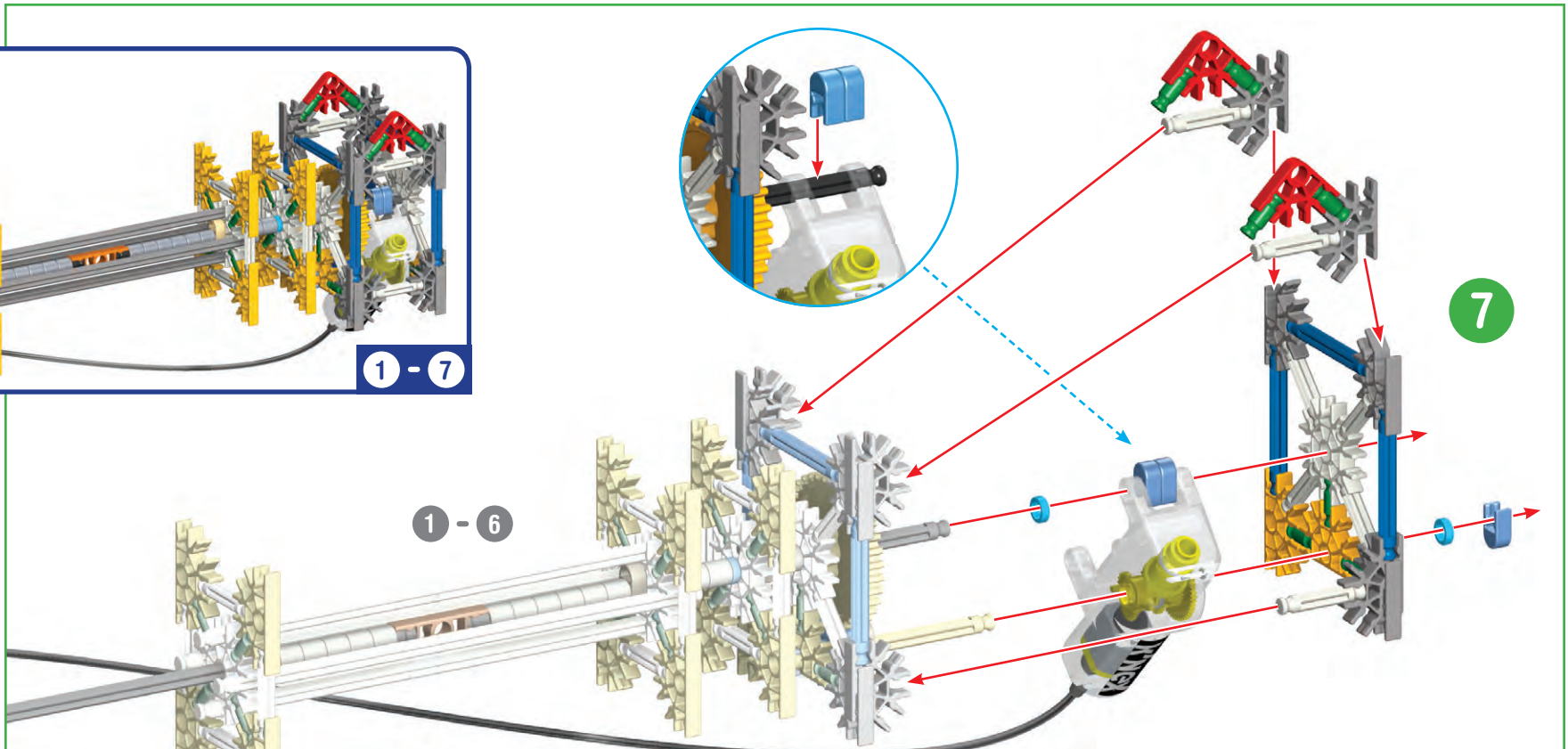
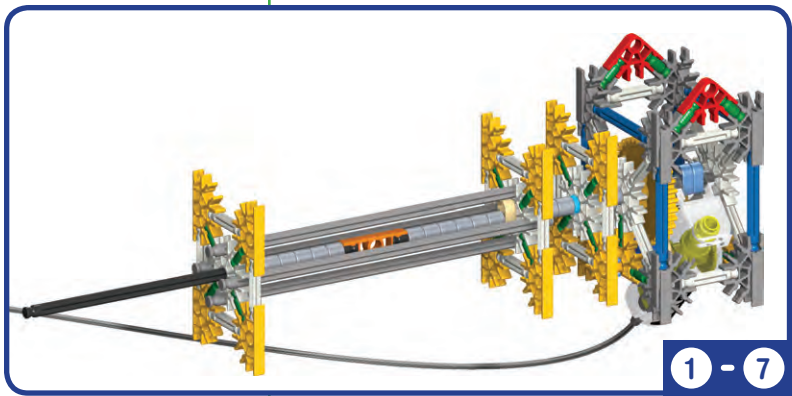
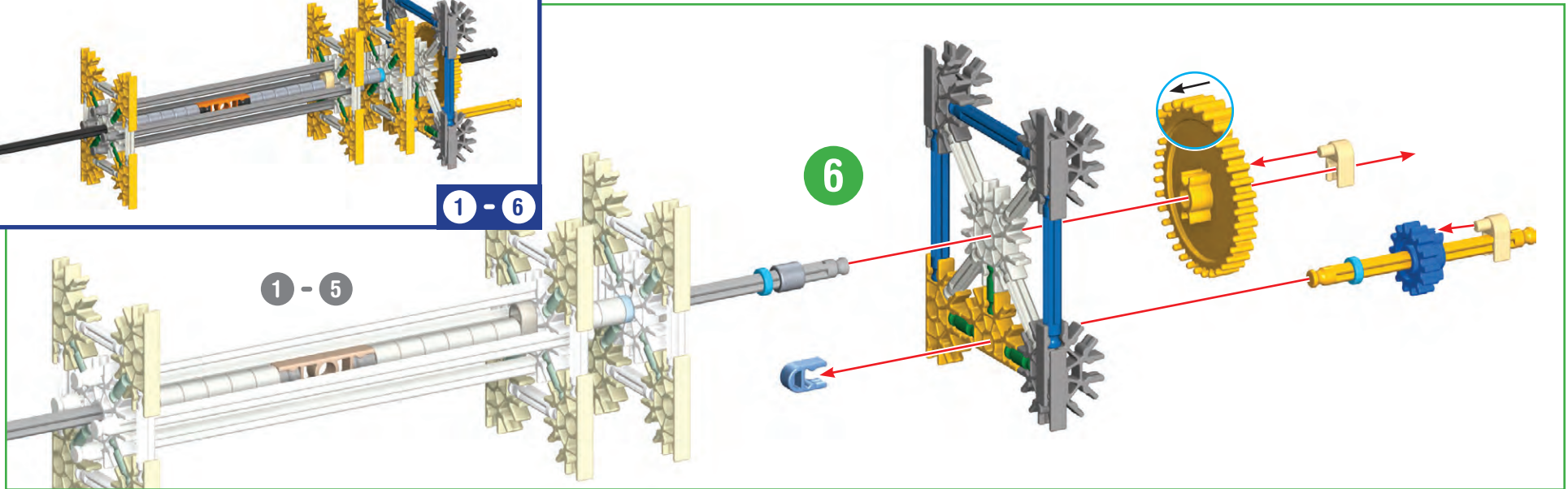
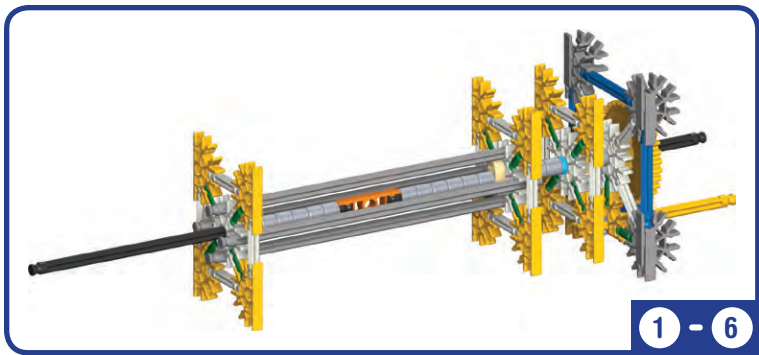


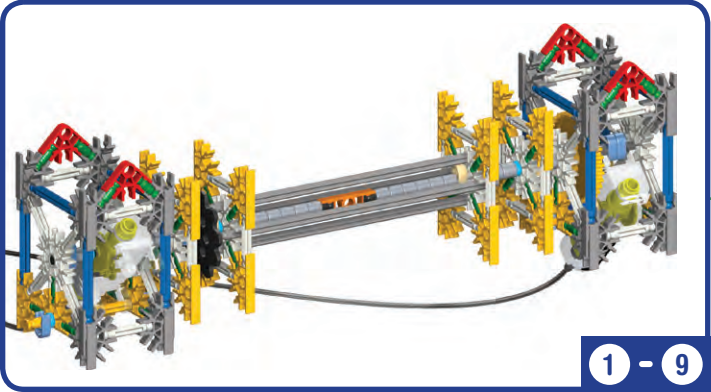
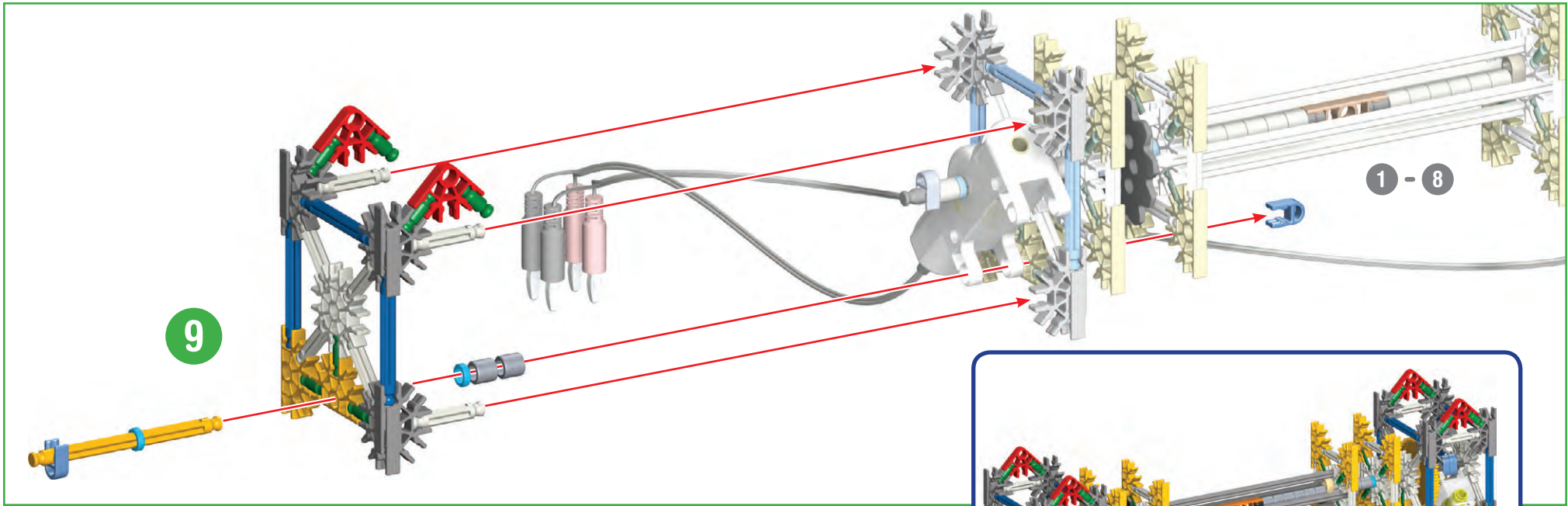
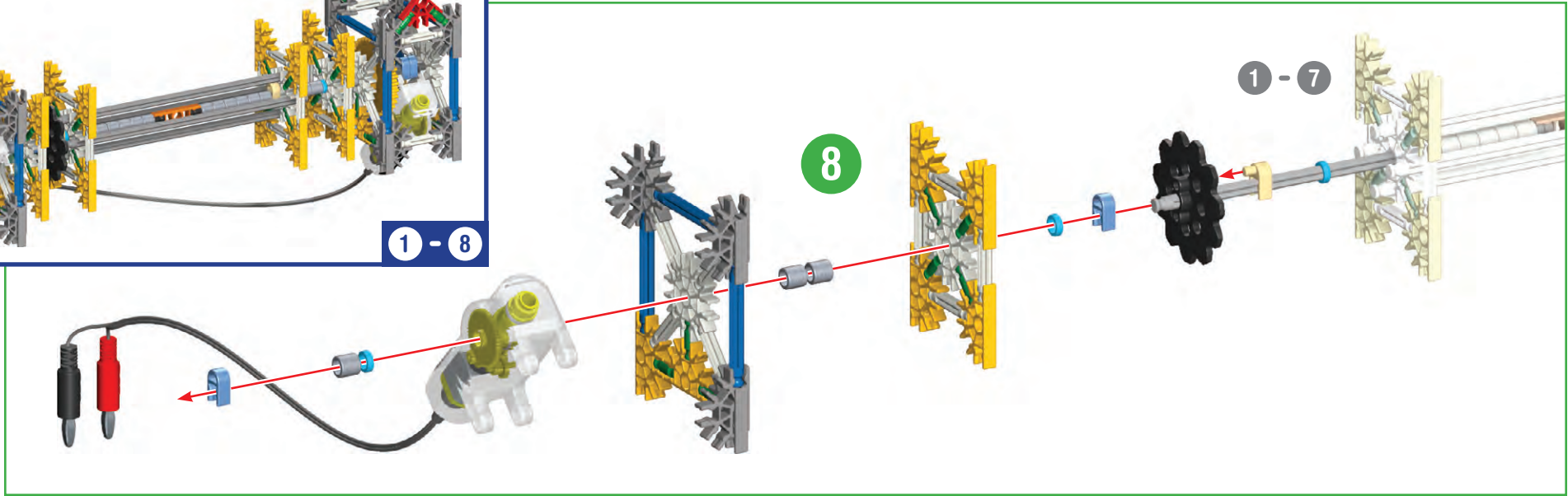
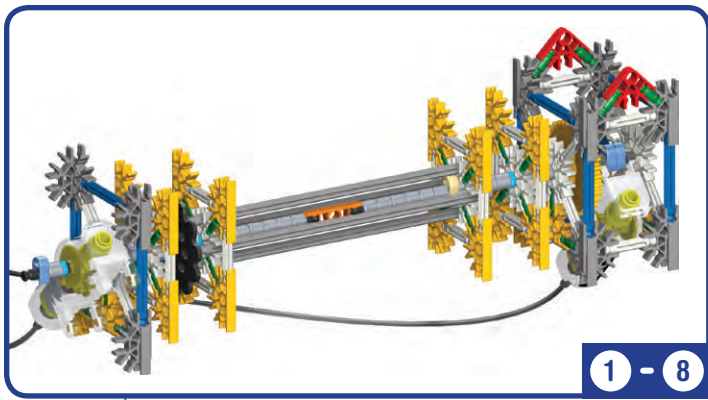
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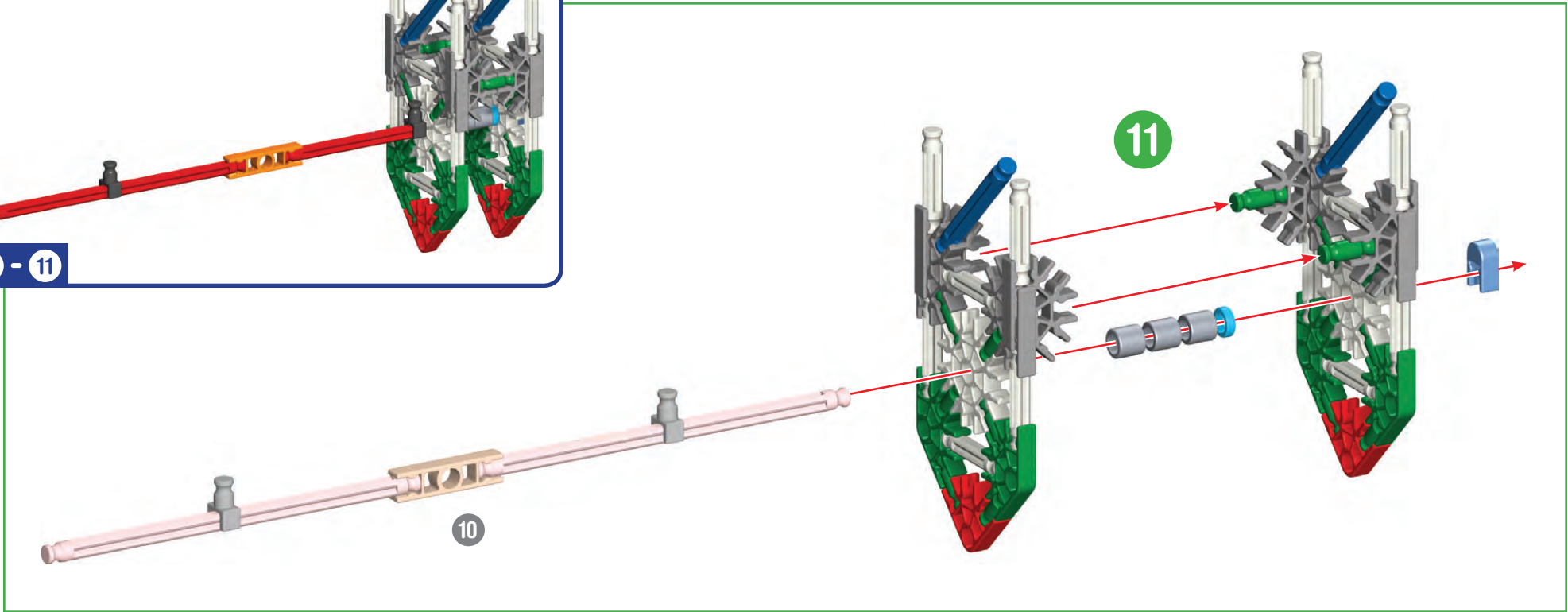
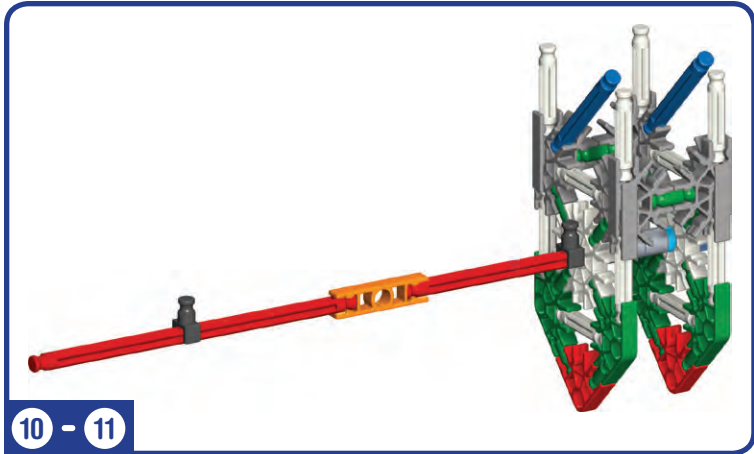
Swing Bridge - CONTROL BOX

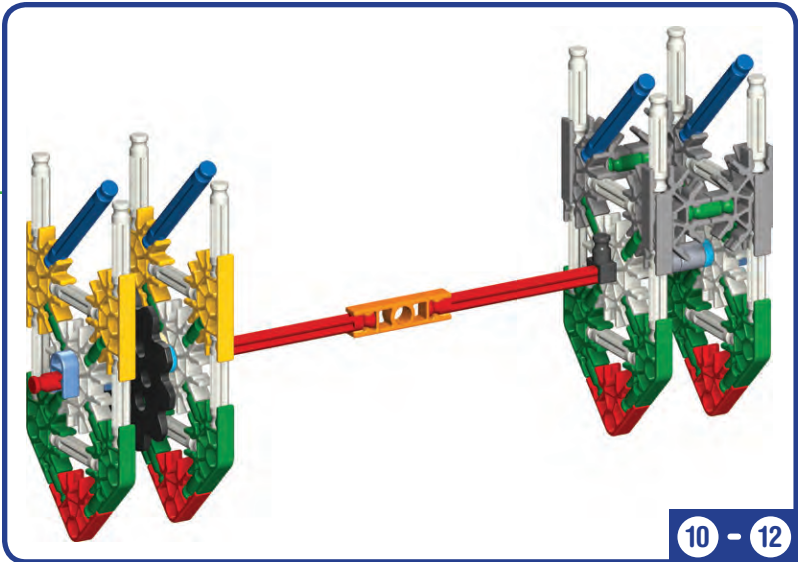
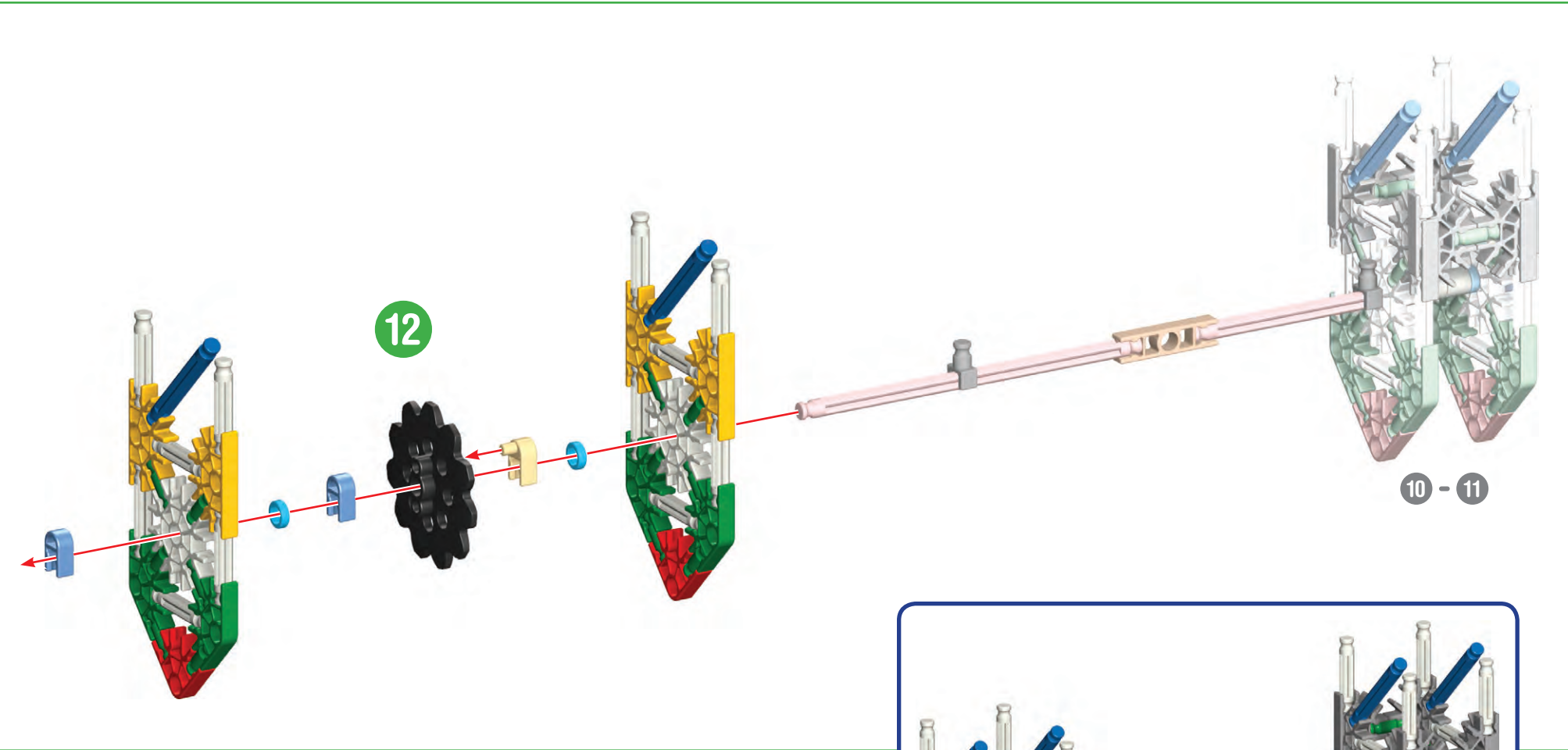


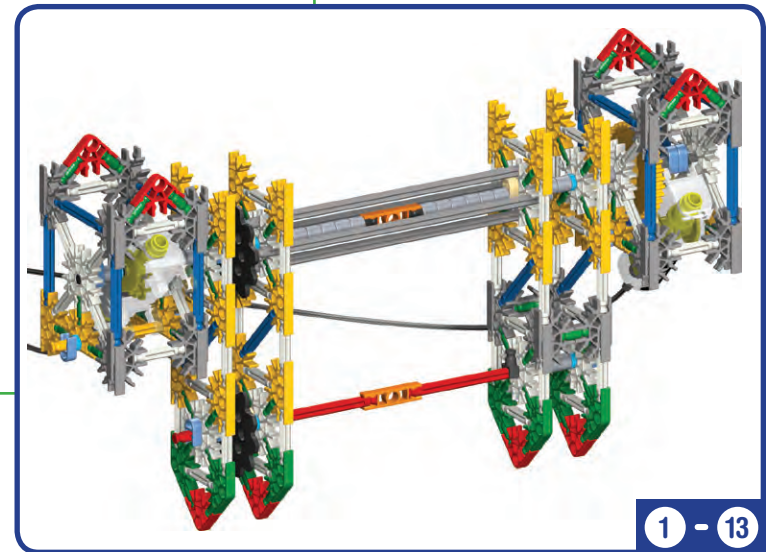
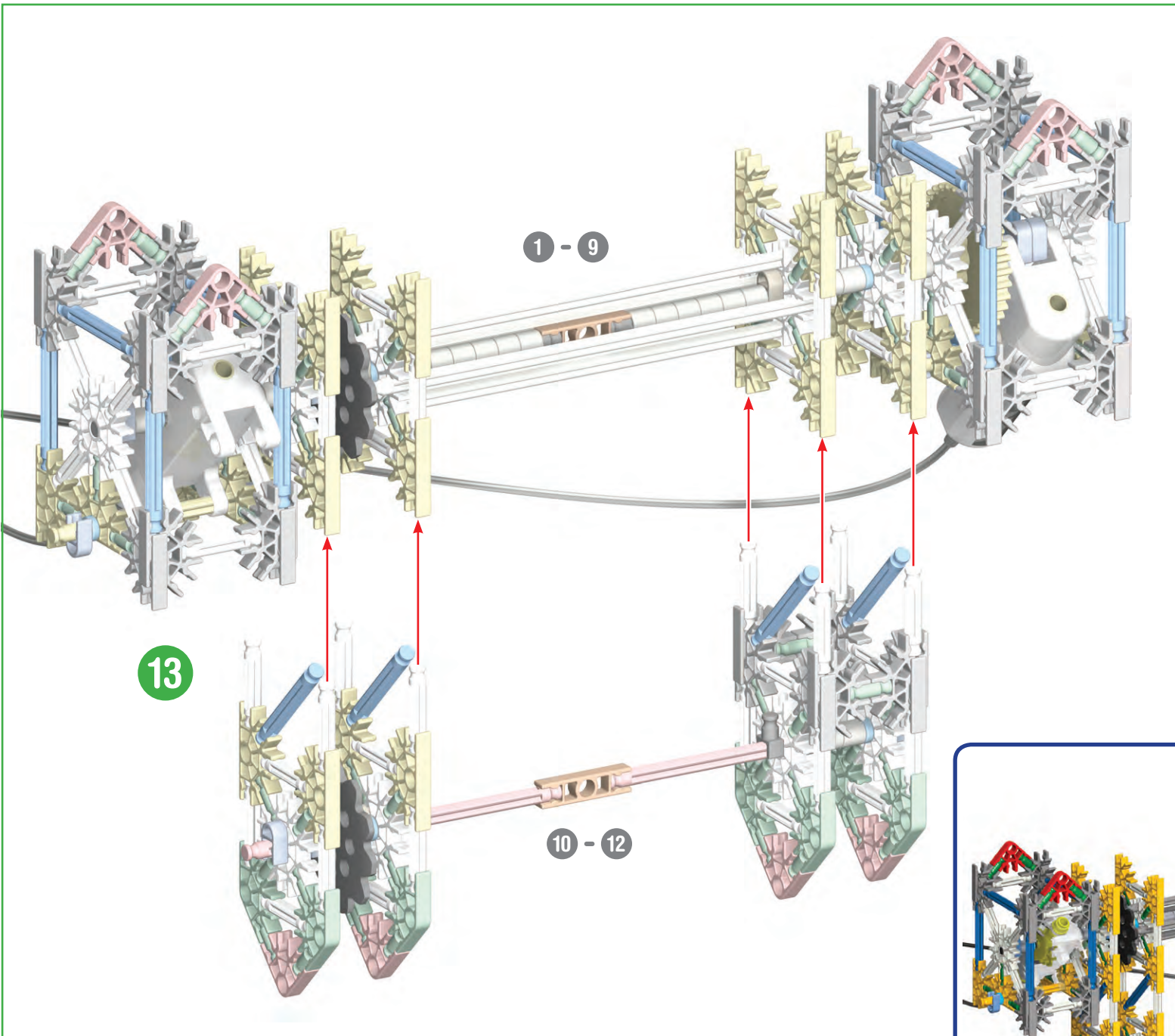






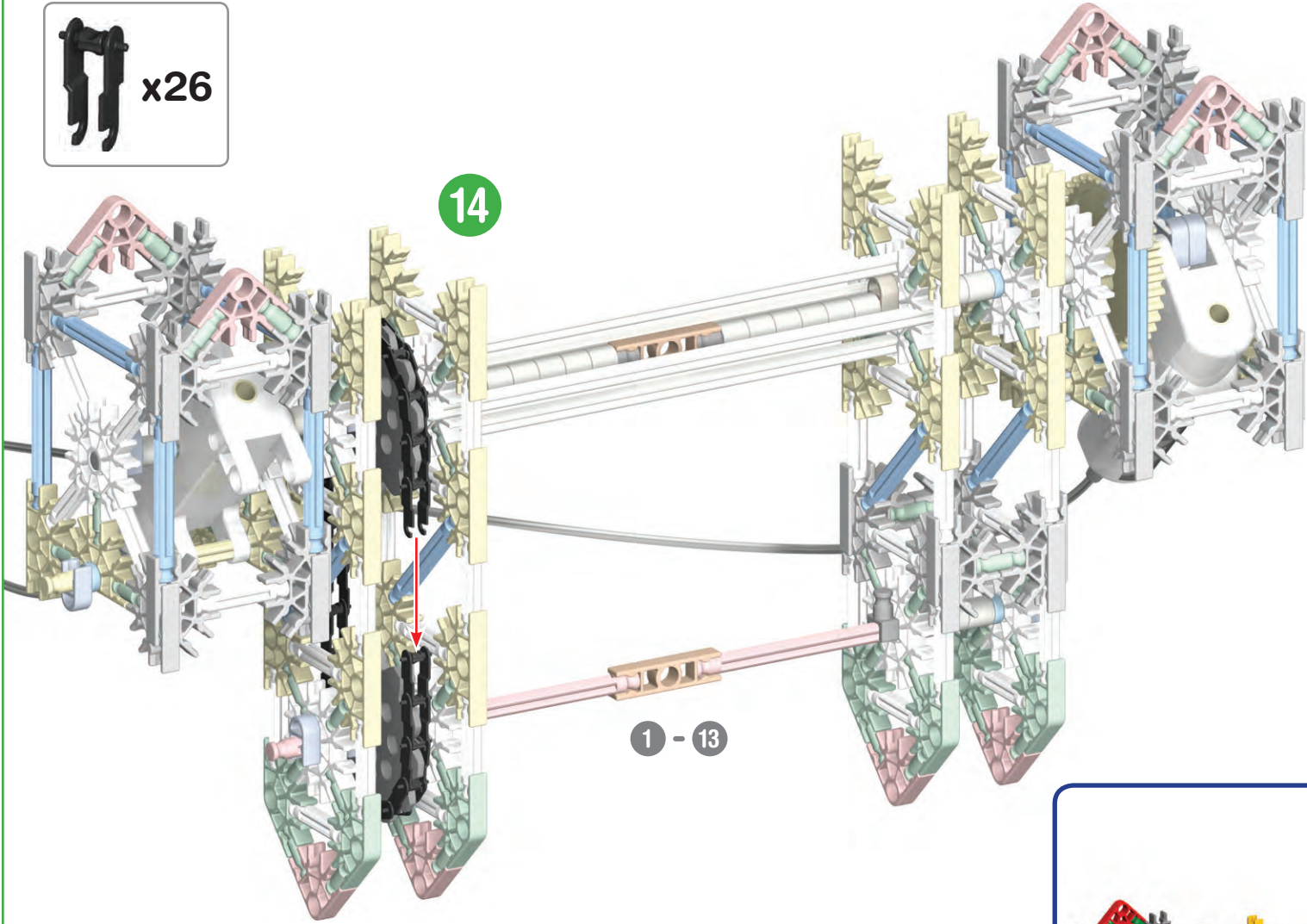






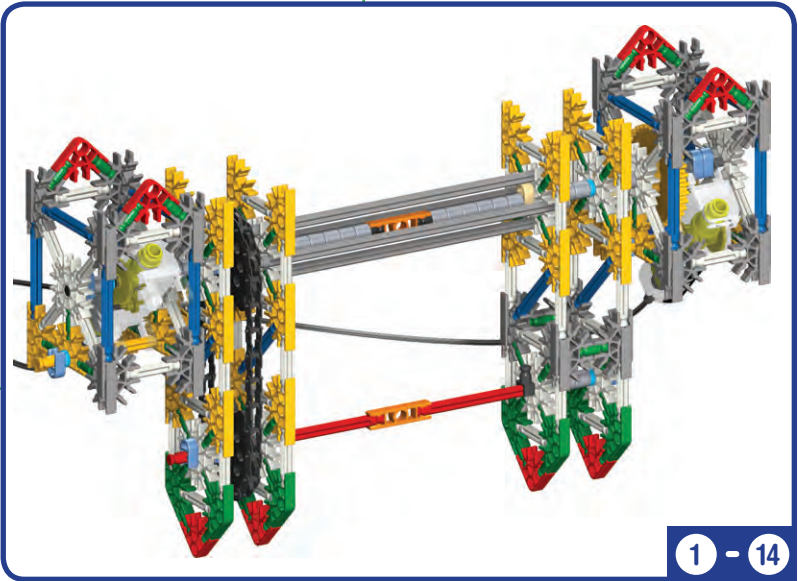


14

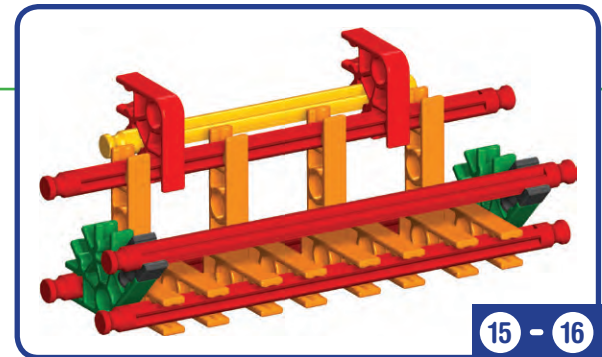
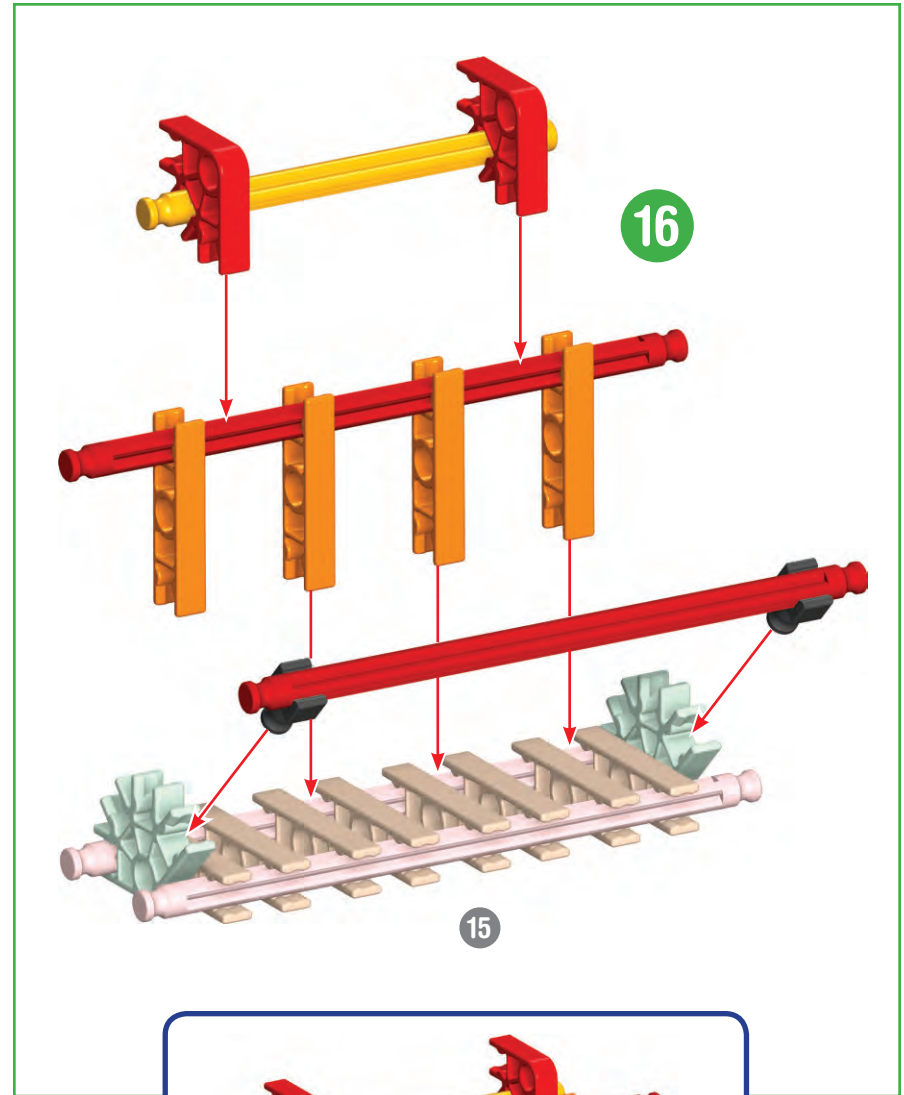
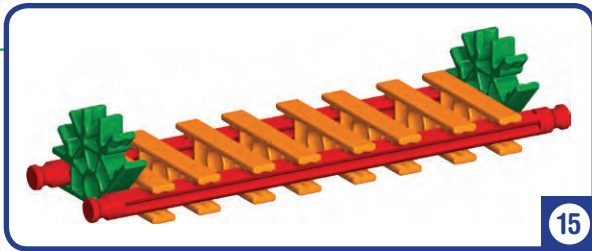
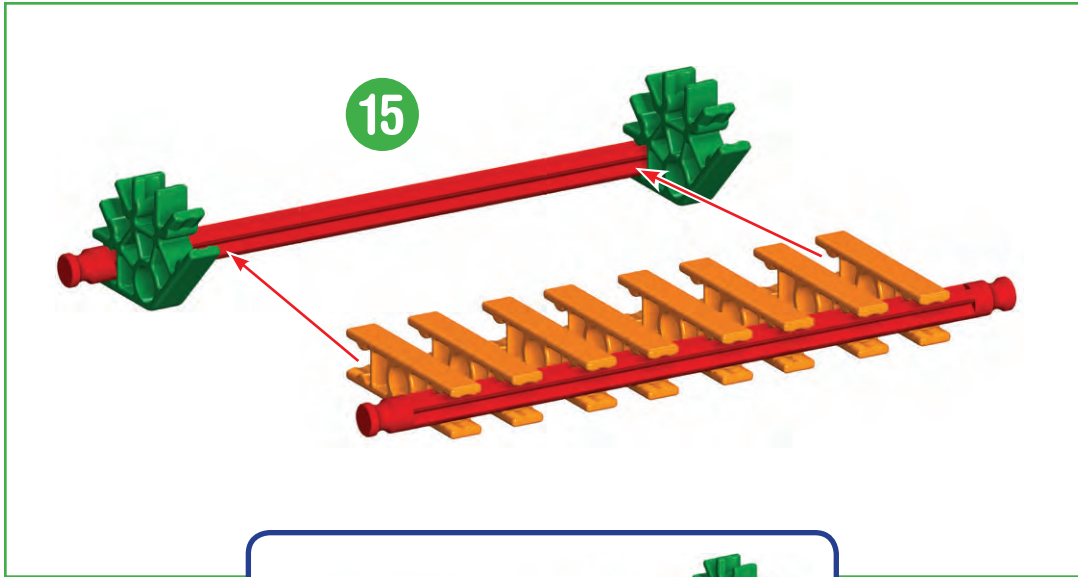


1 - 13

IMPORTANT: Attach all the chain links in the same direction.

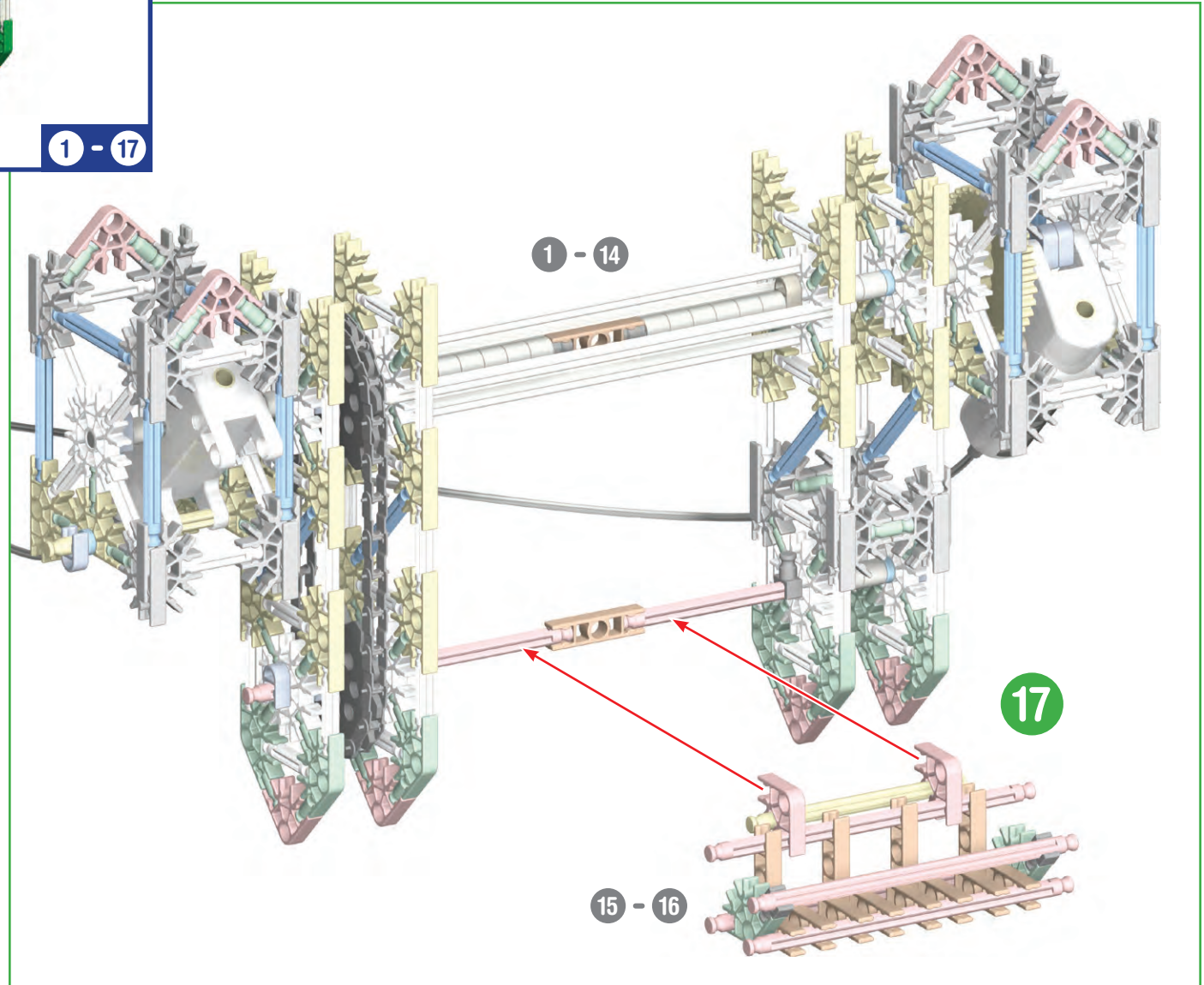


1 - 14





1 - 17

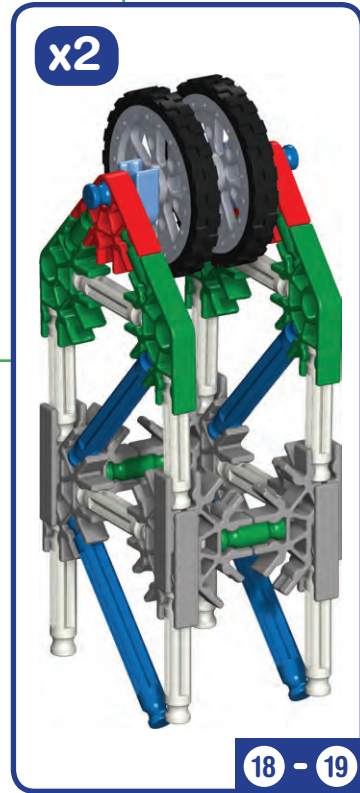
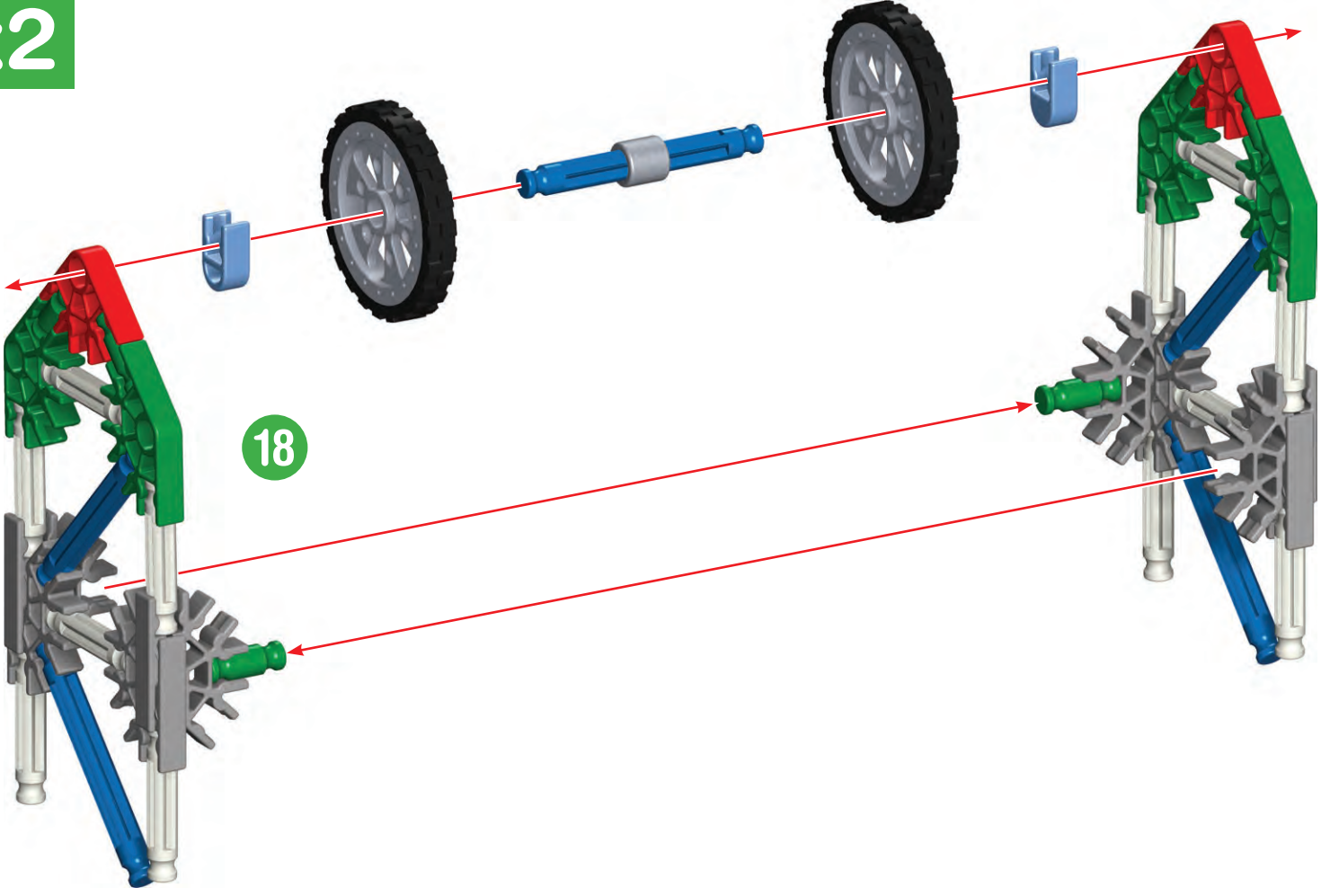


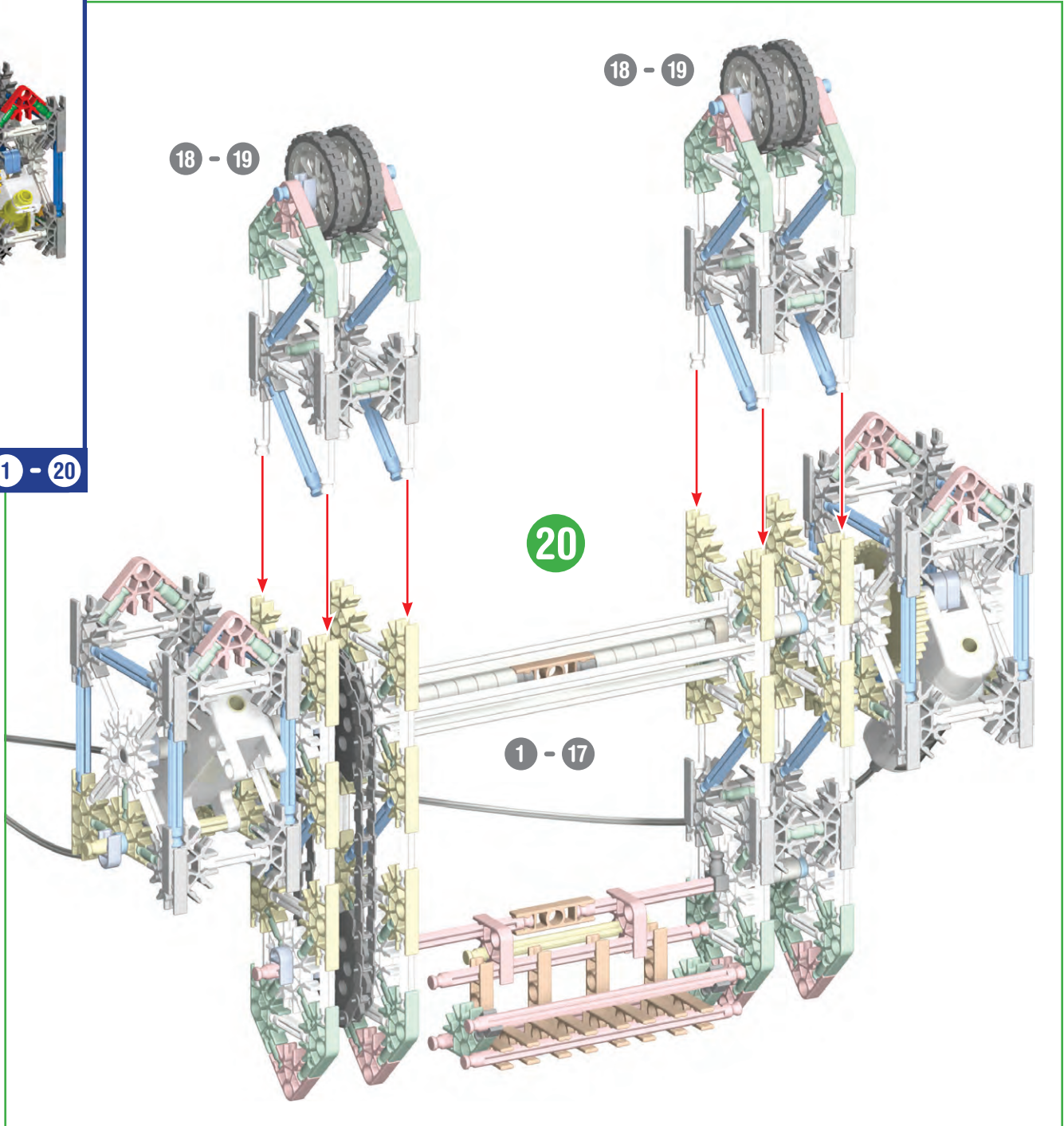
1 - 14

17

15 - 16

x2

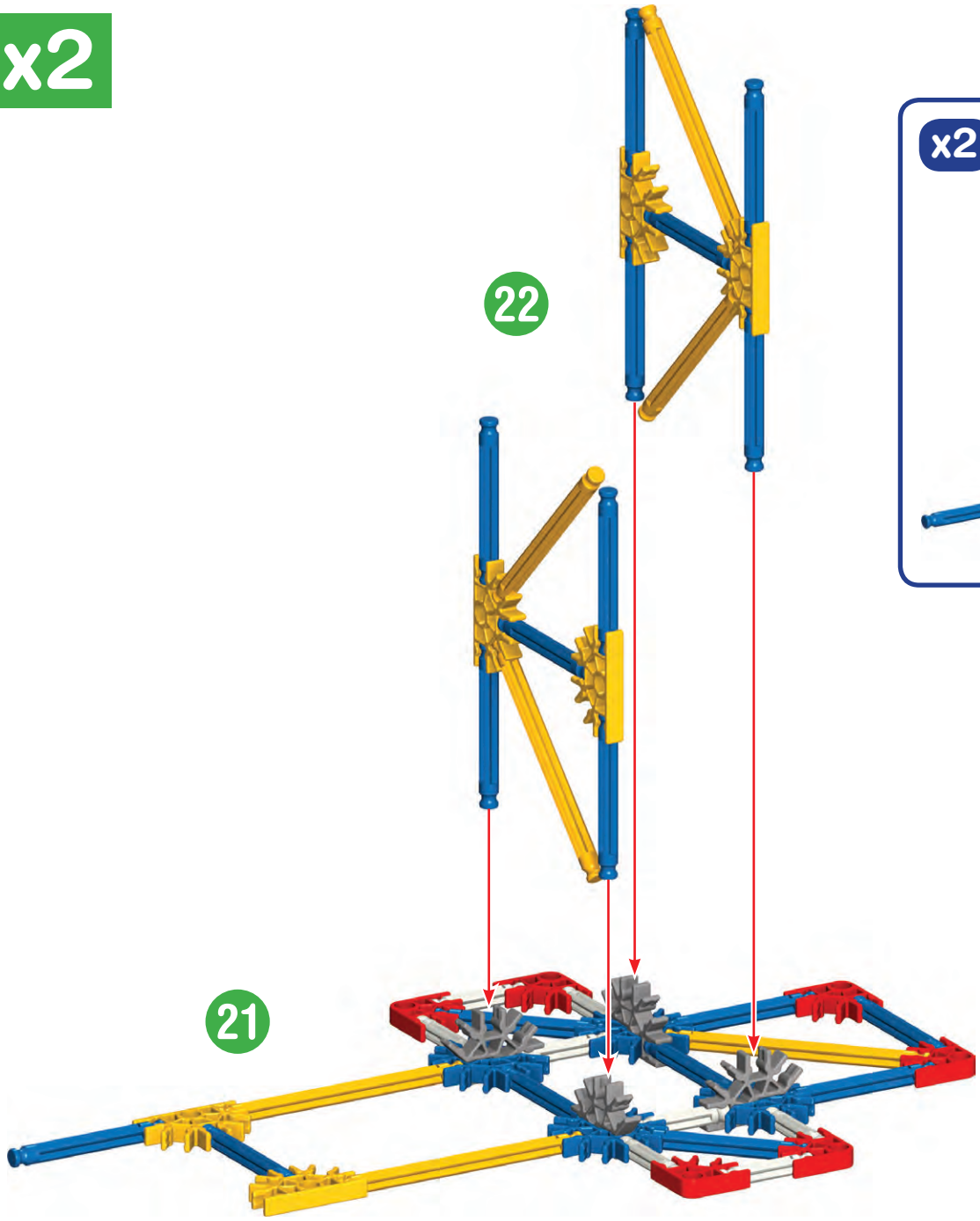




x2

22

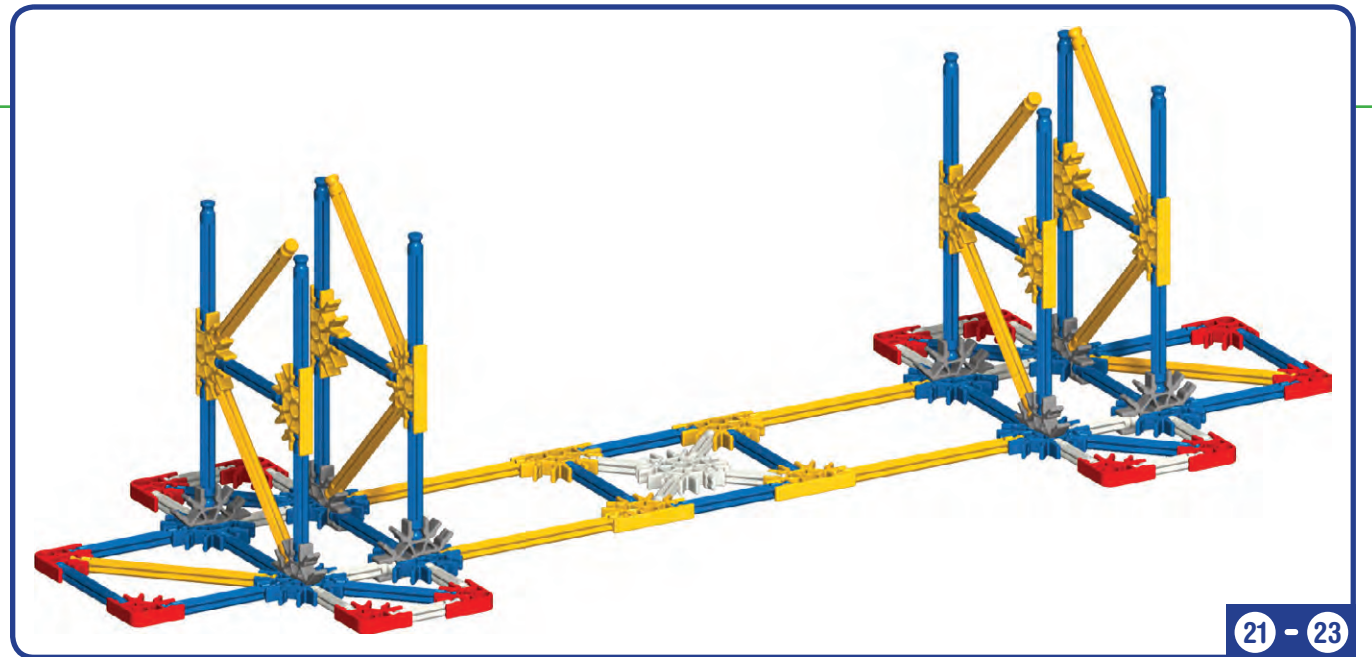
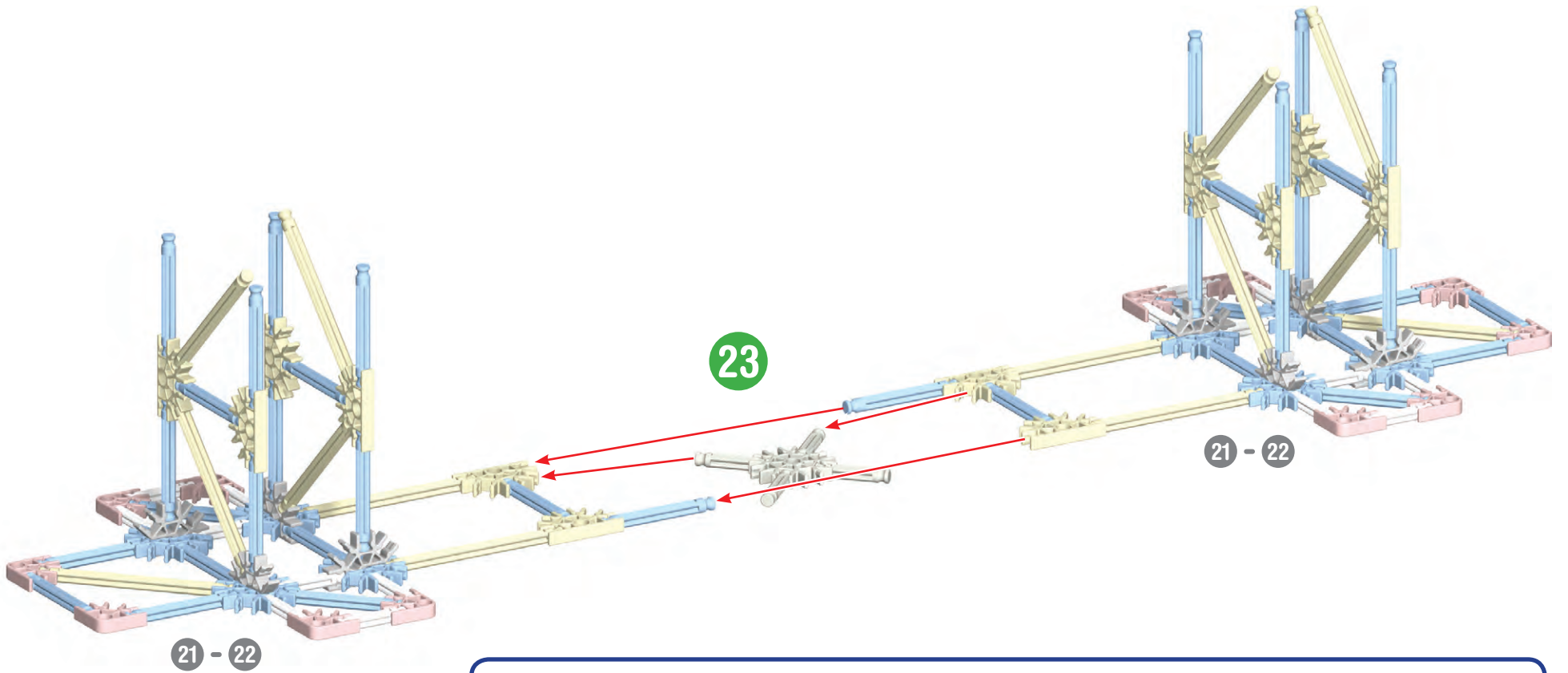
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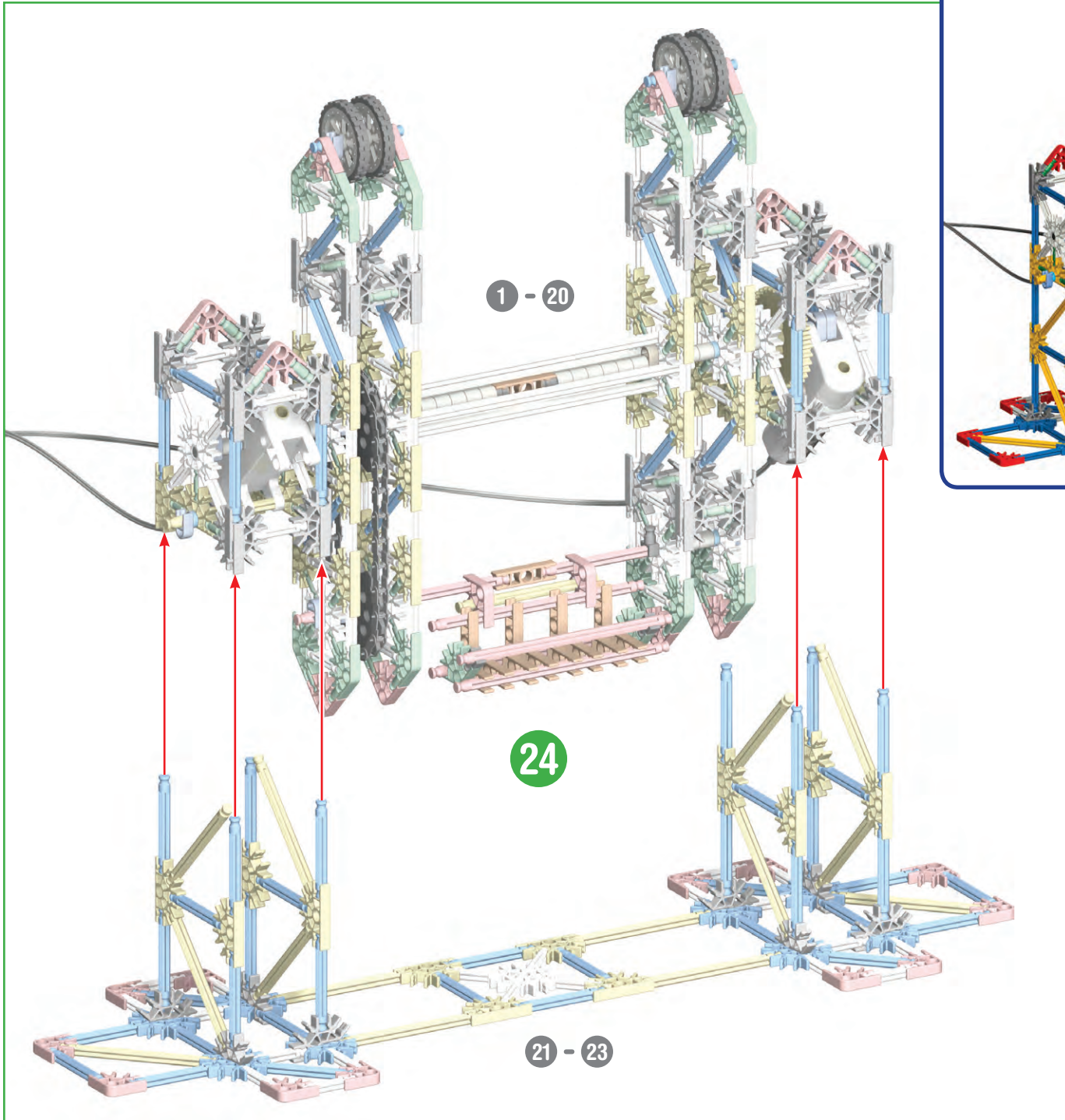


x2

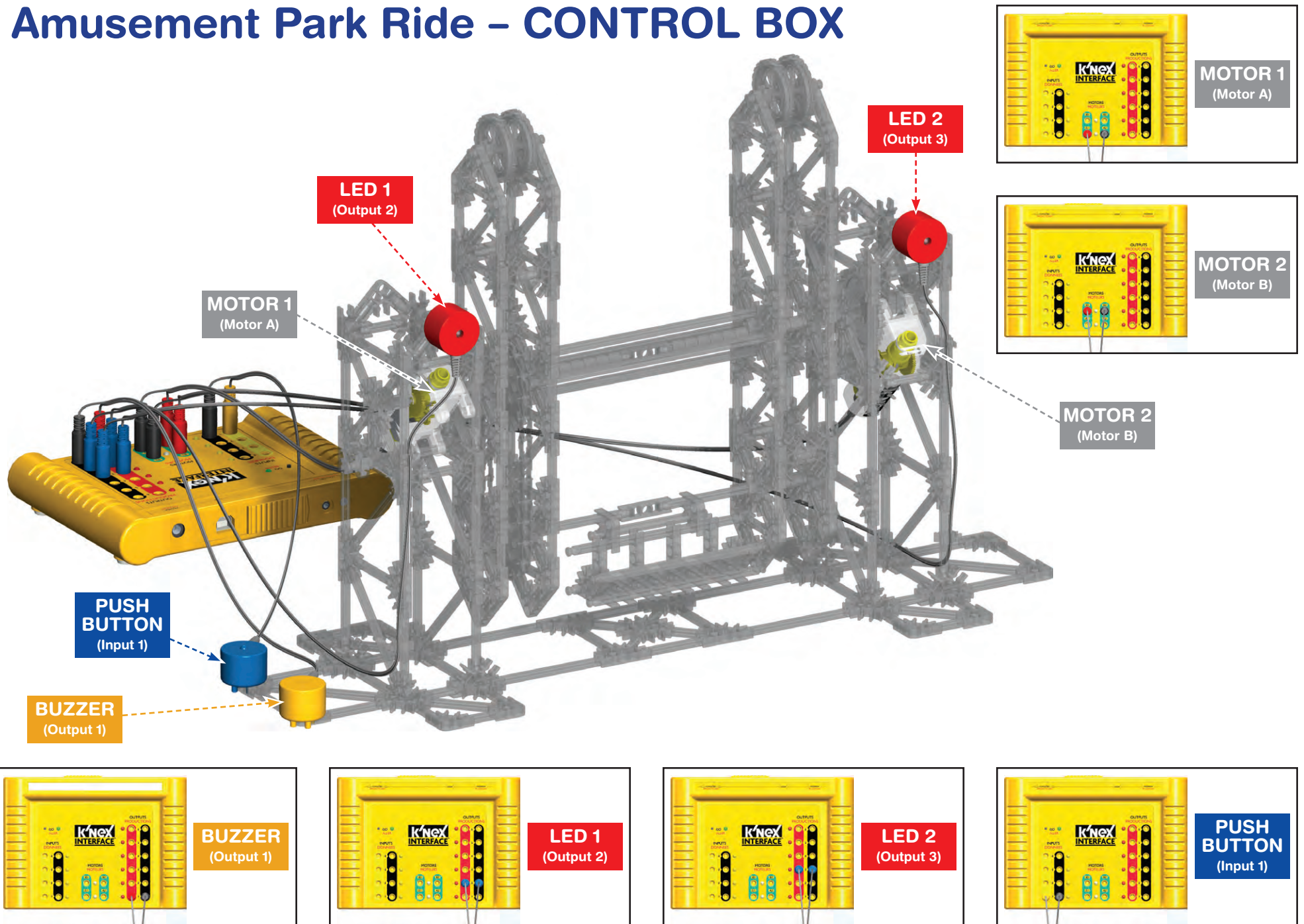
21 - 22



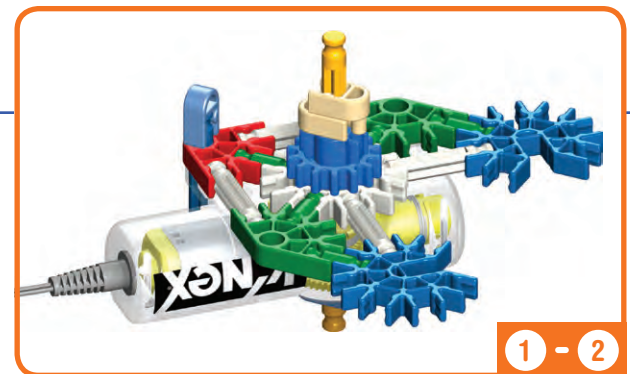
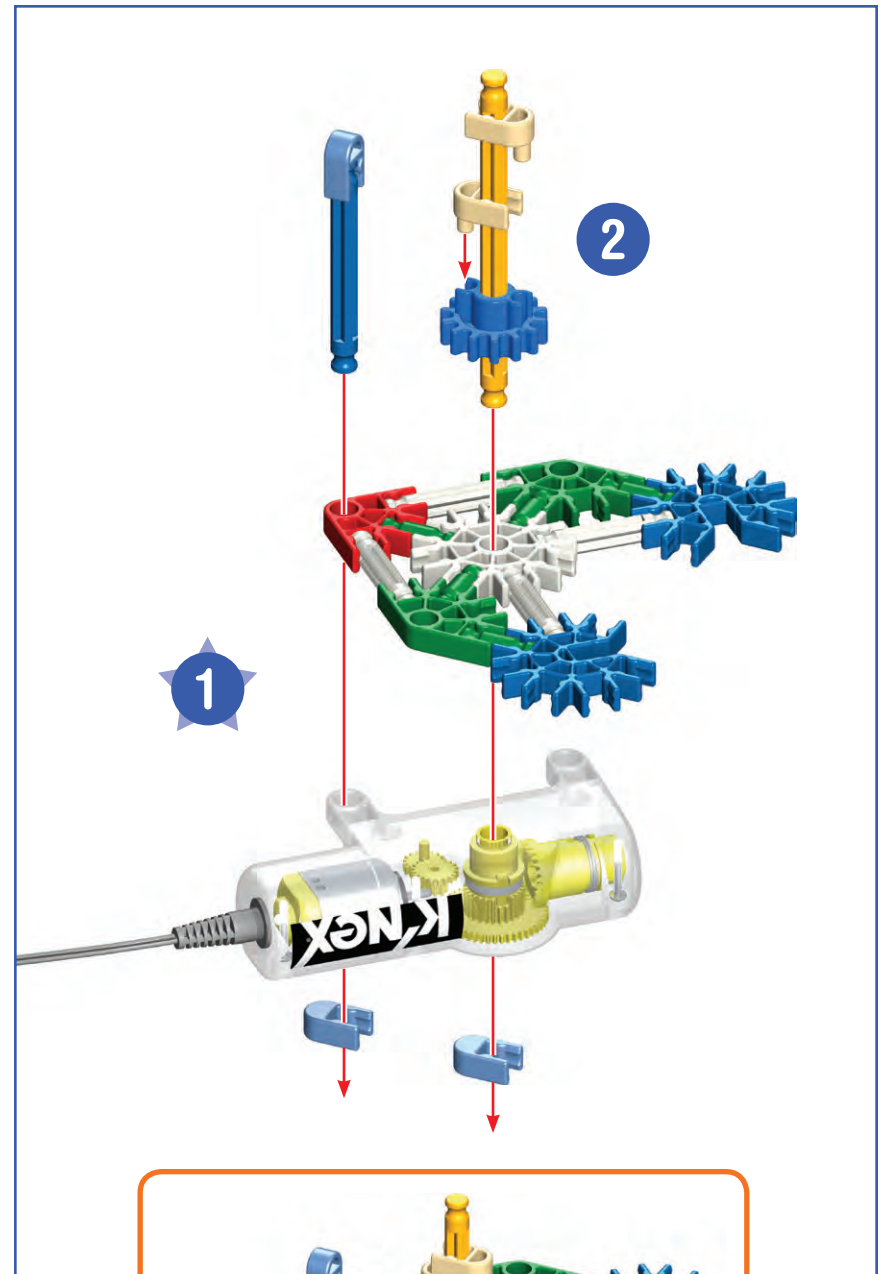
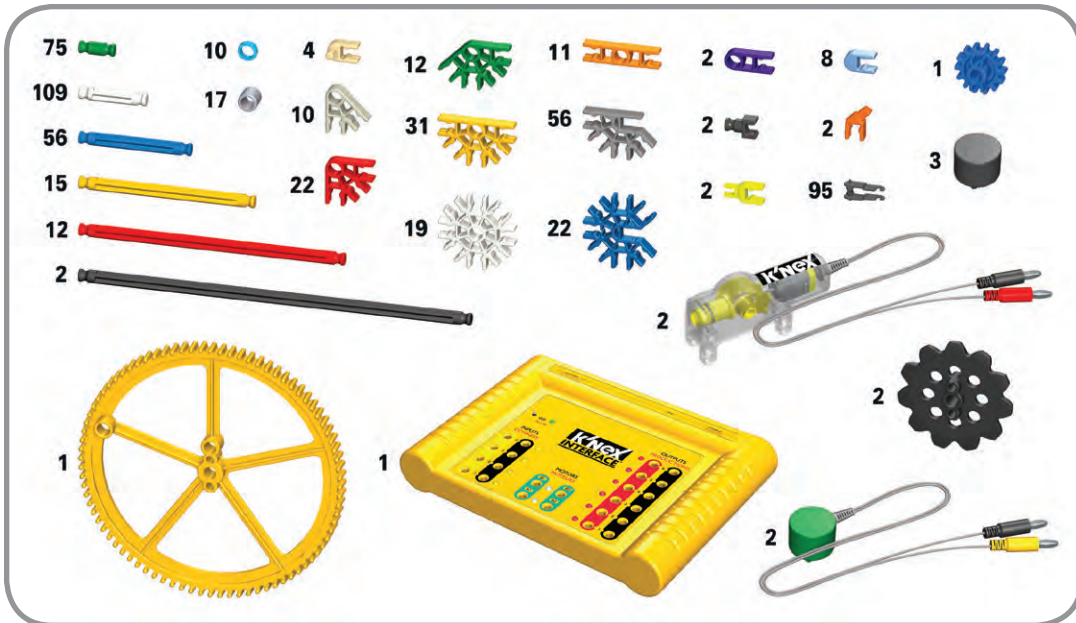




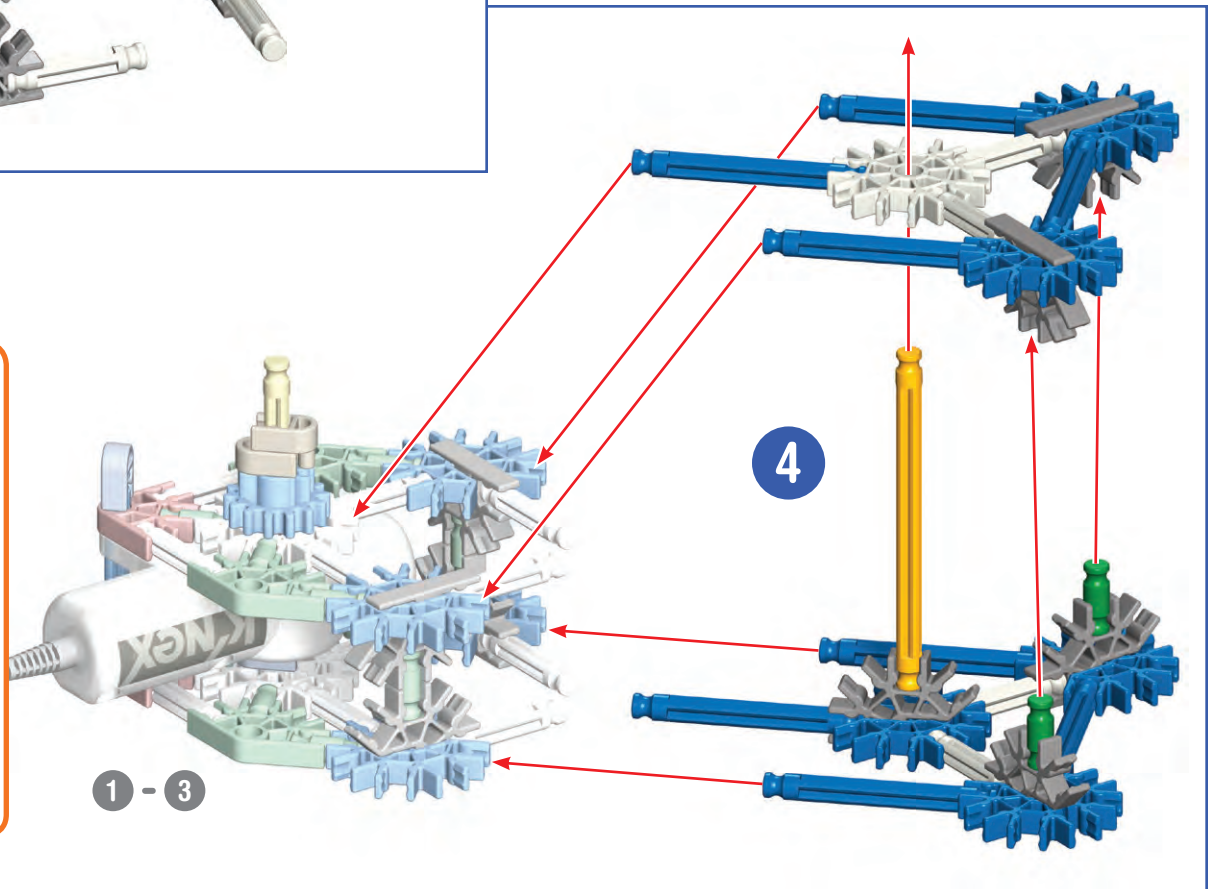
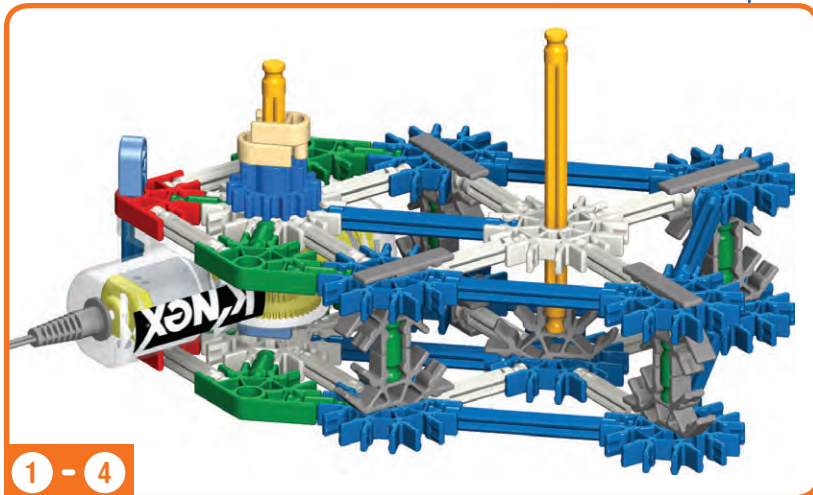
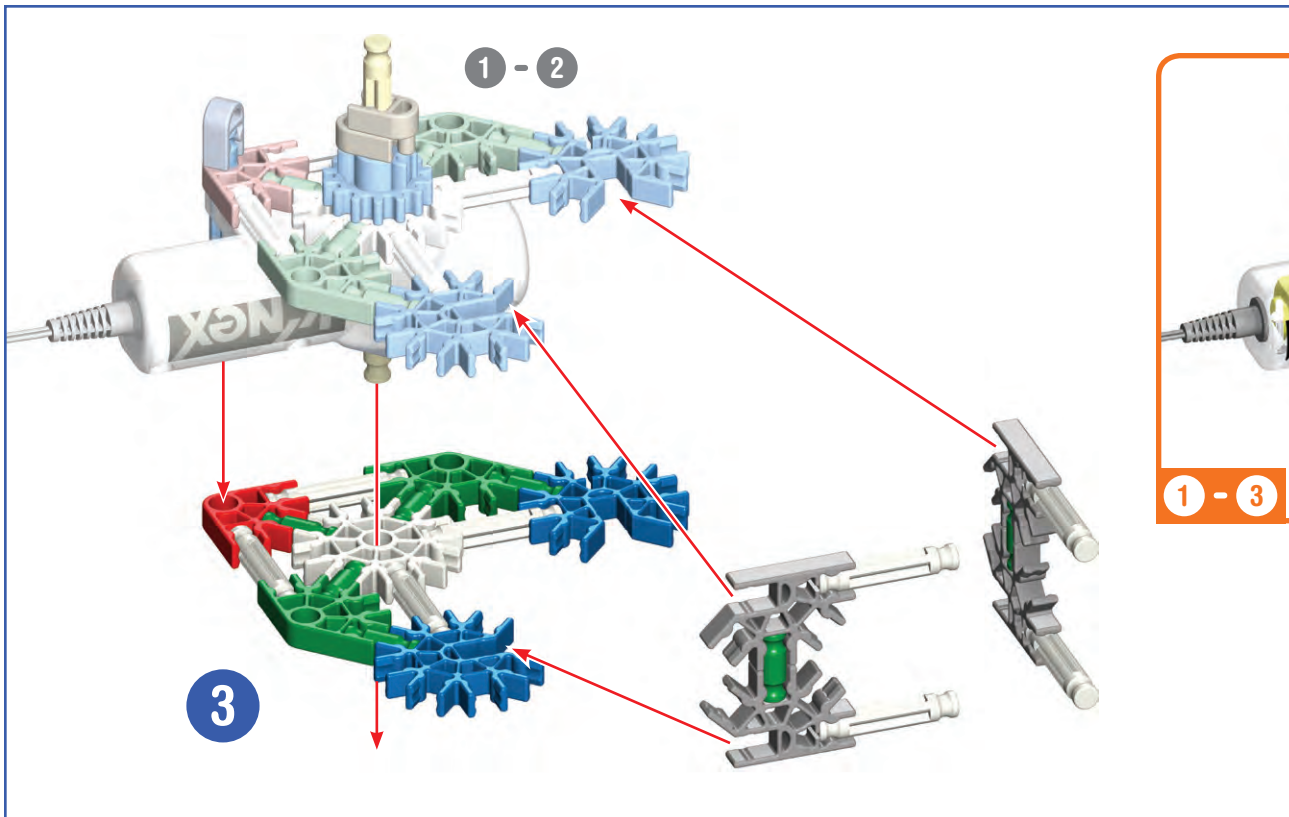
Amusement Park Ride – CONTROL BOX

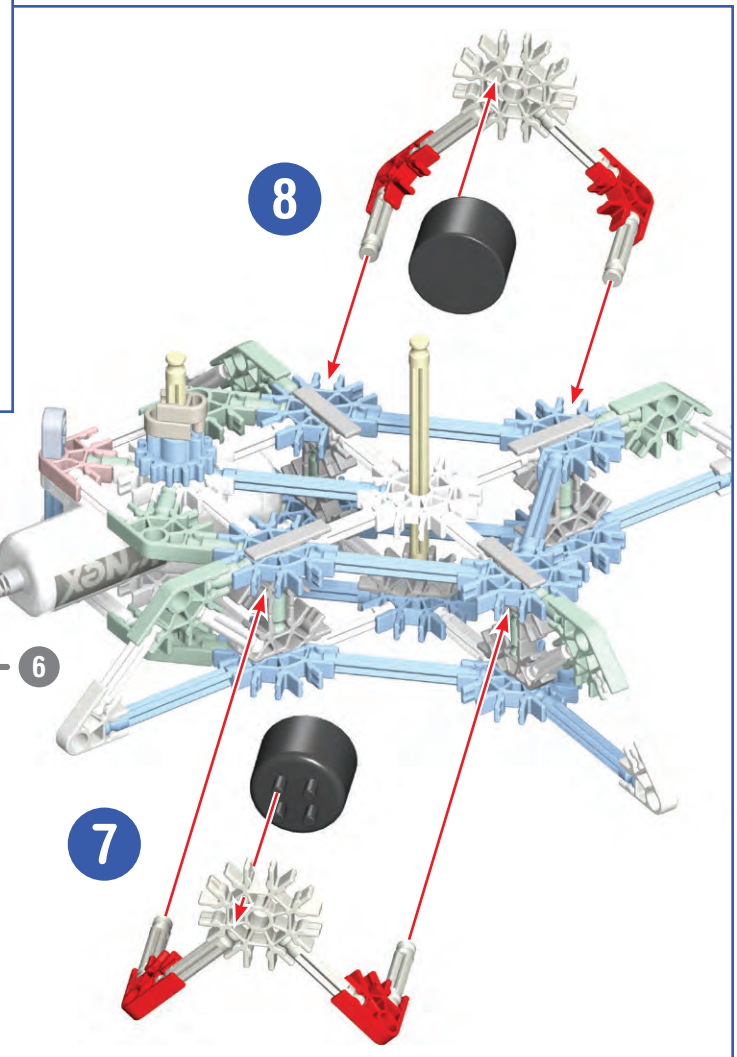
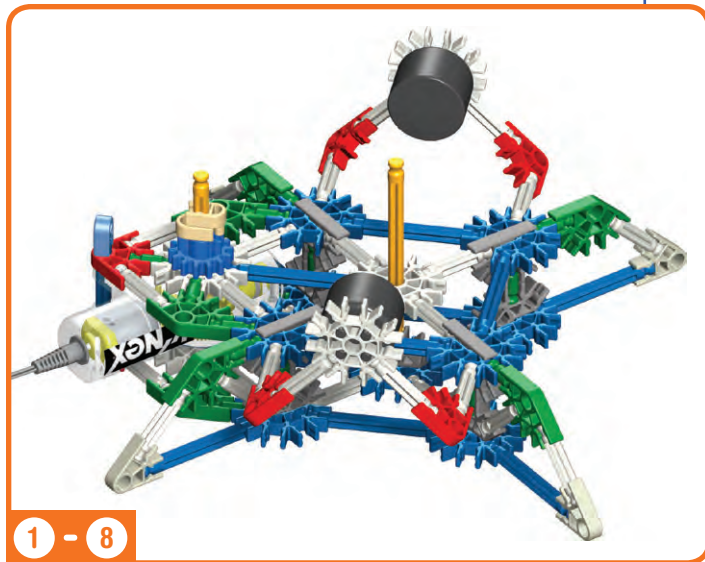
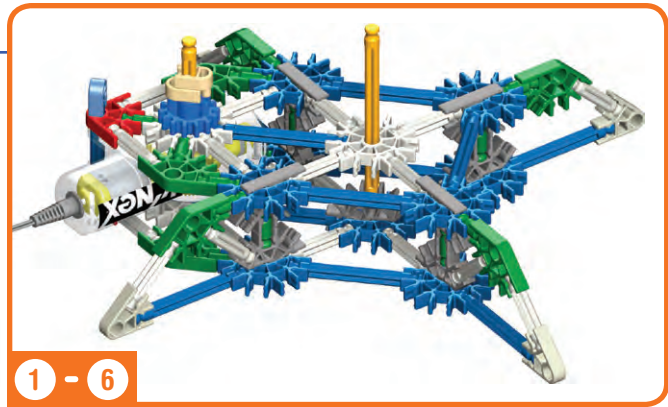
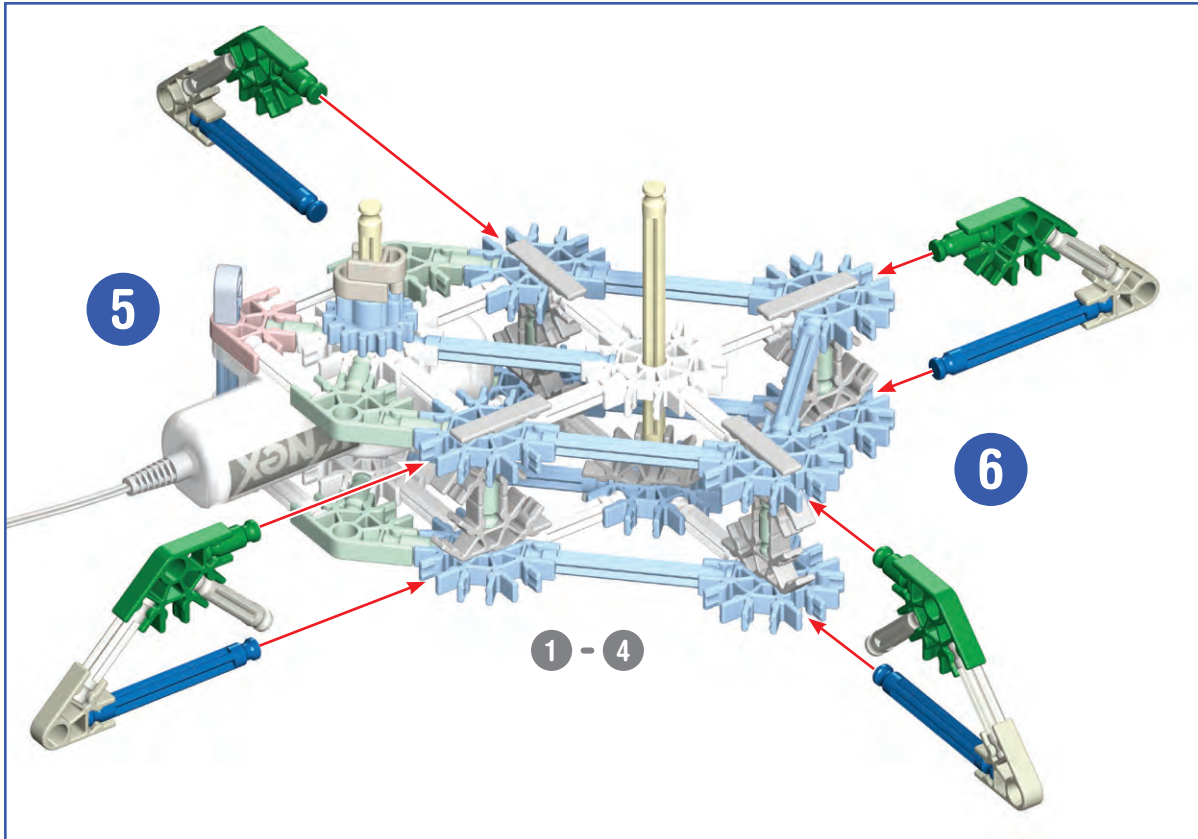


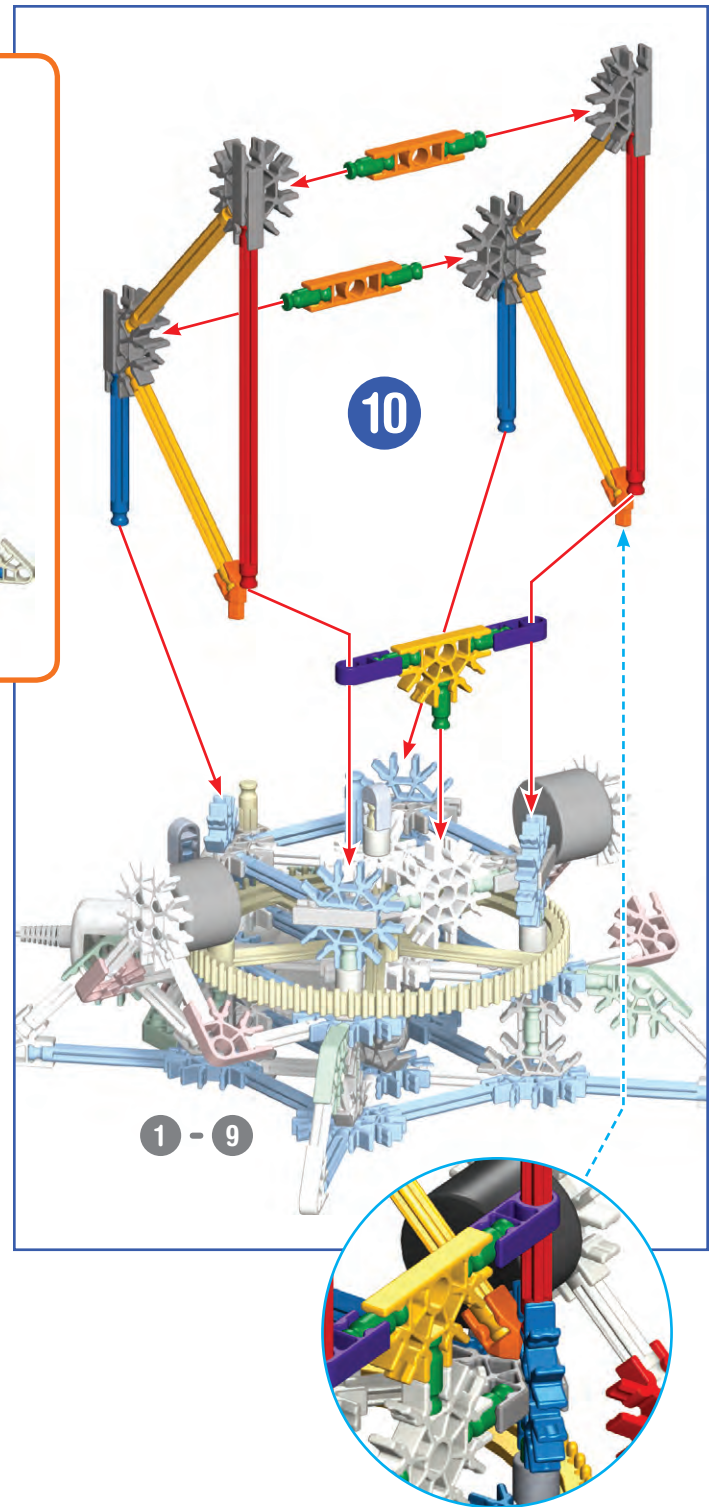
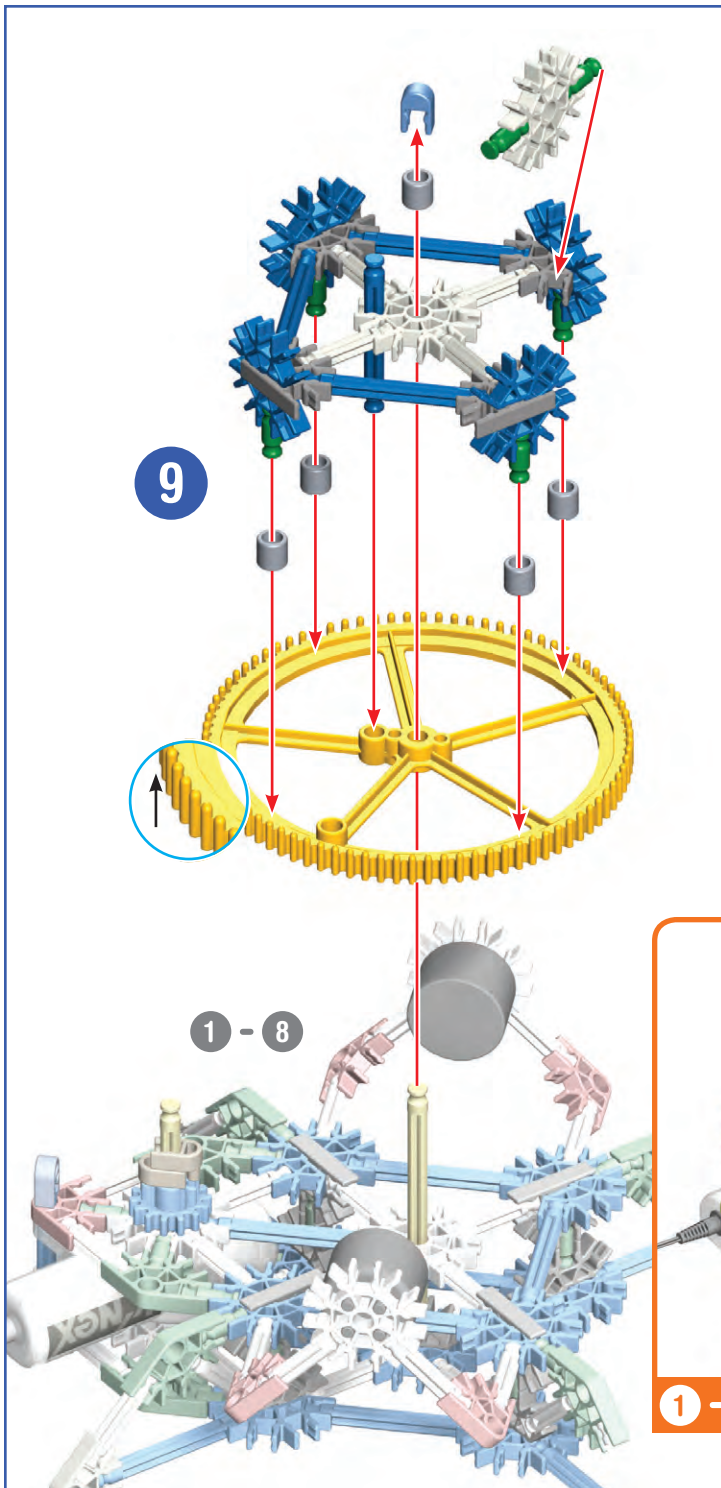
Crane

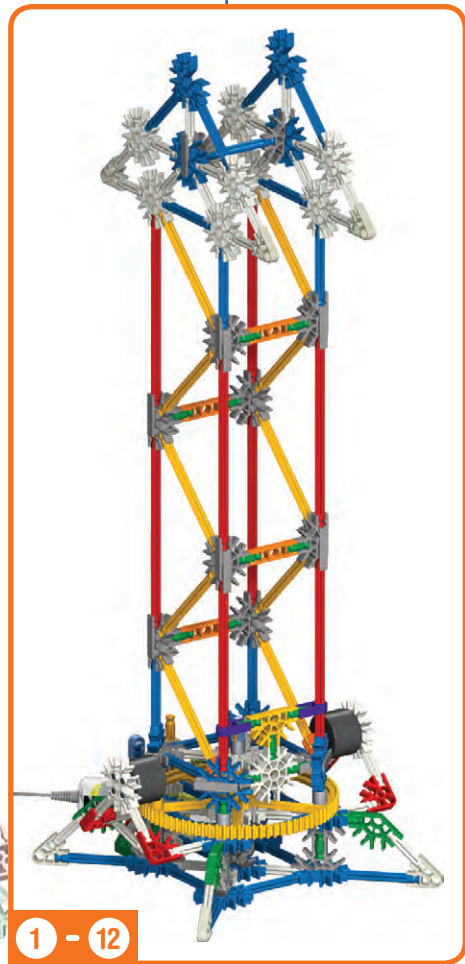
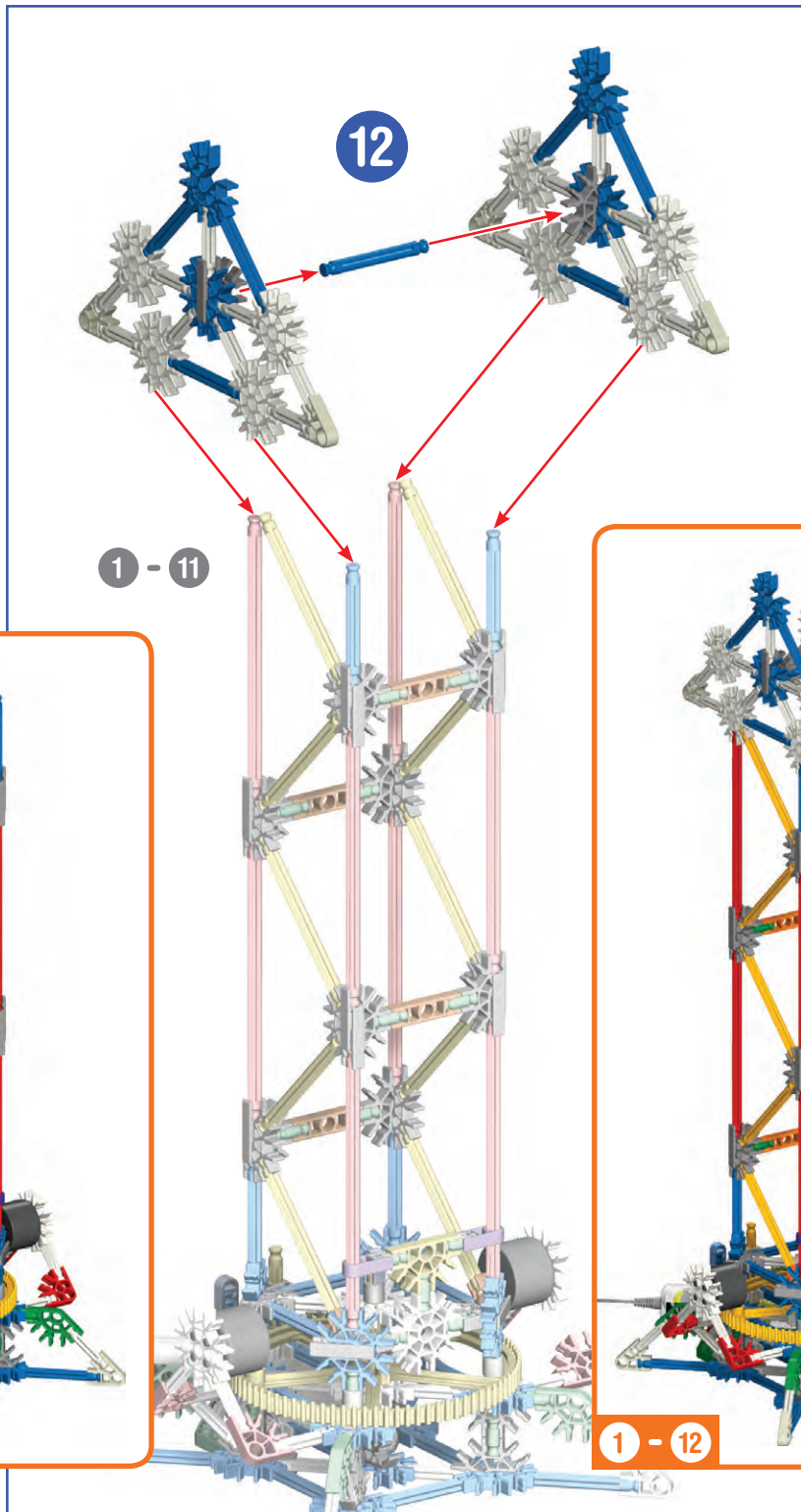
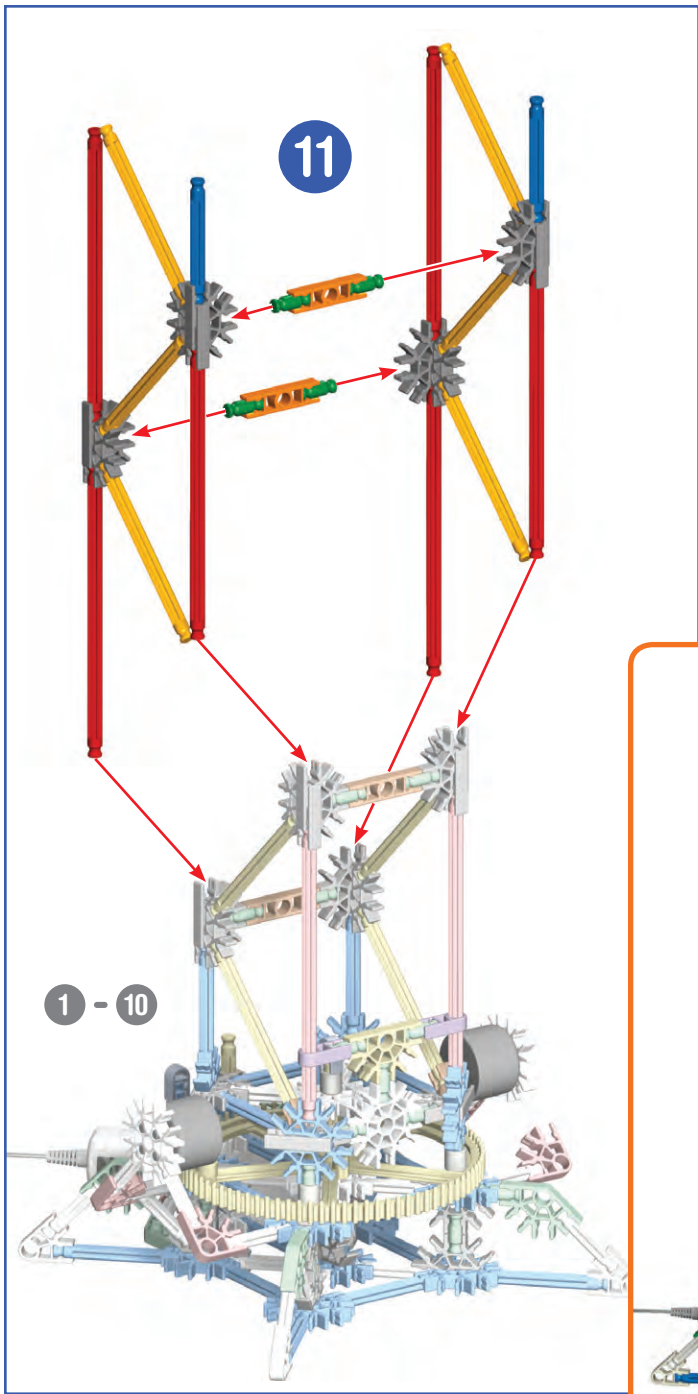


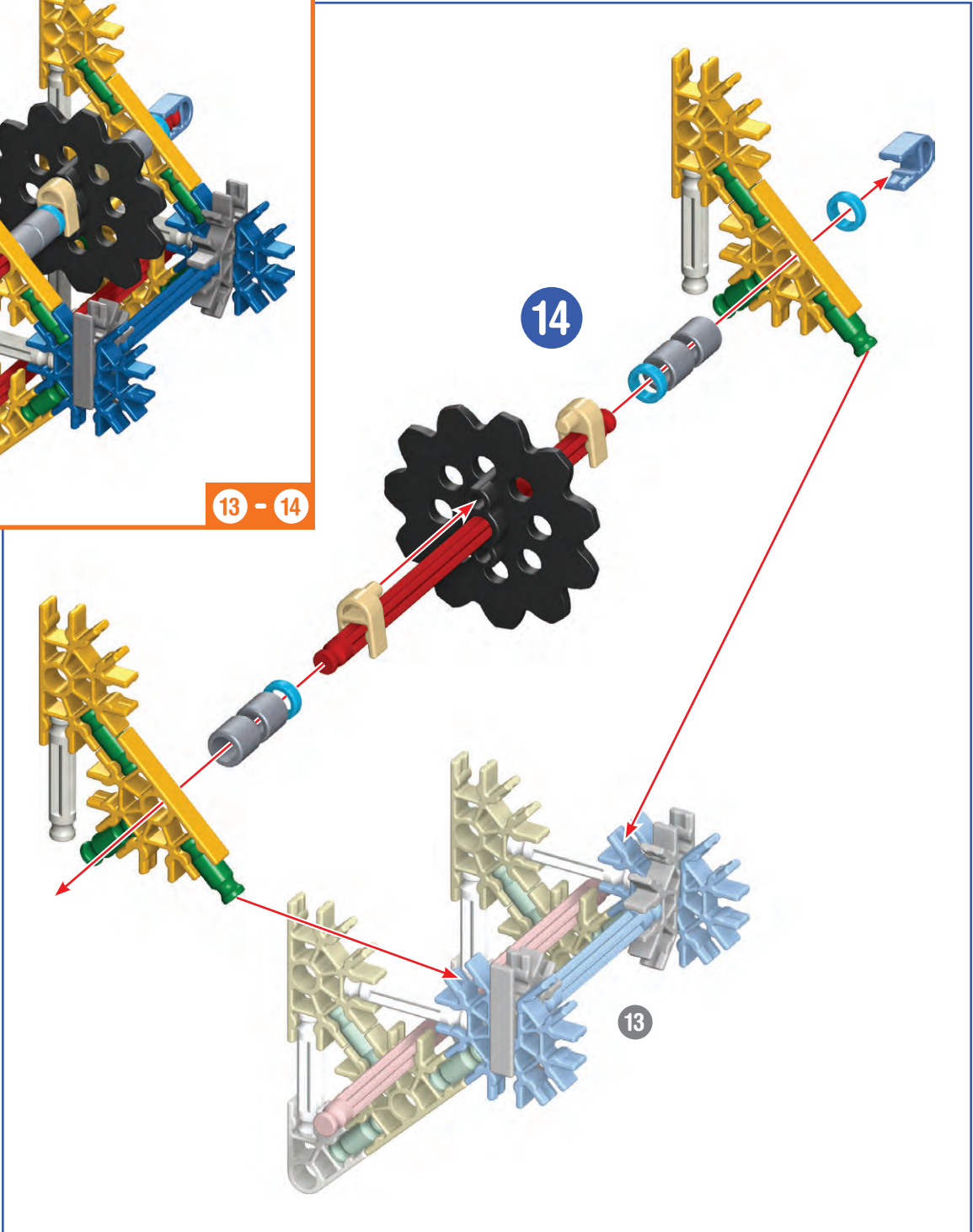
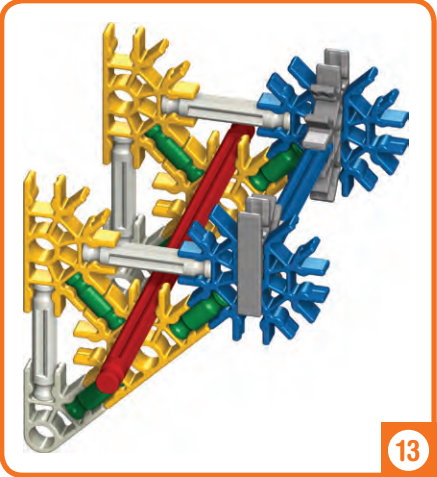
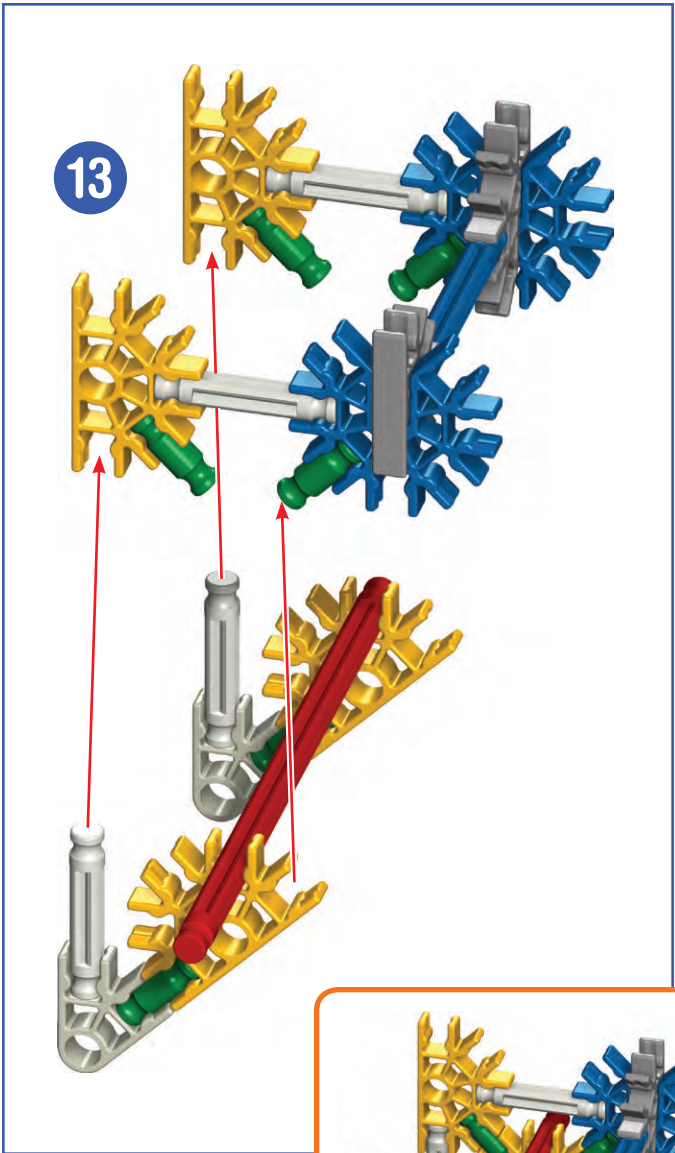
1 - 2

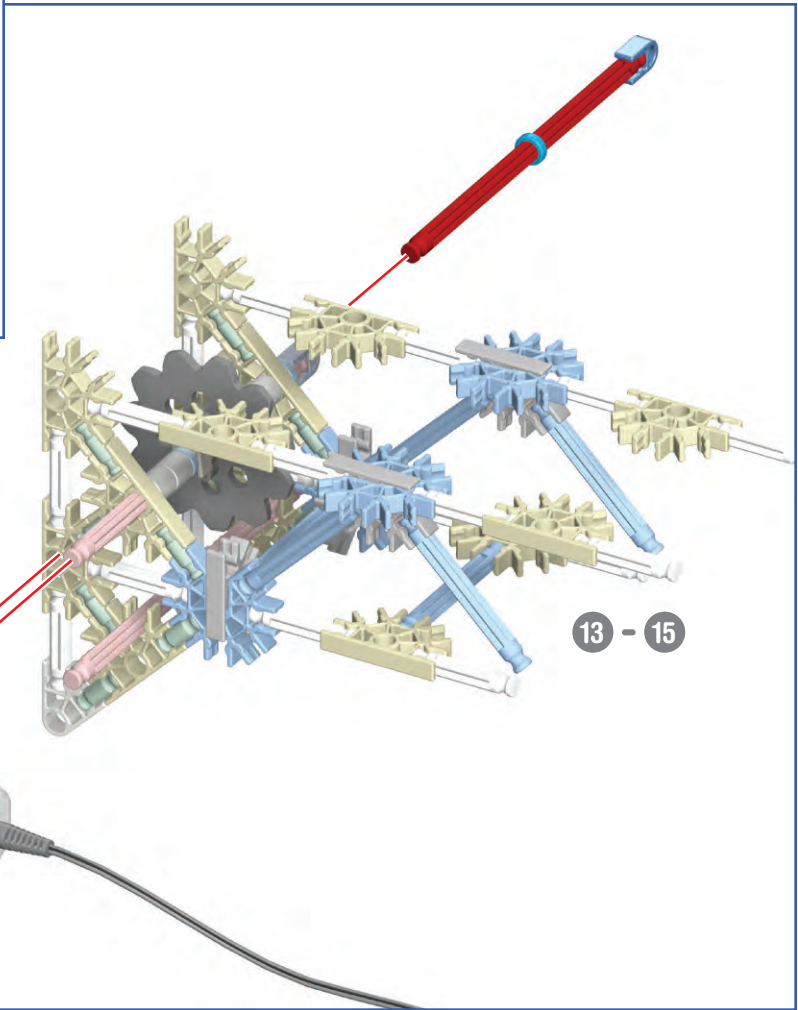
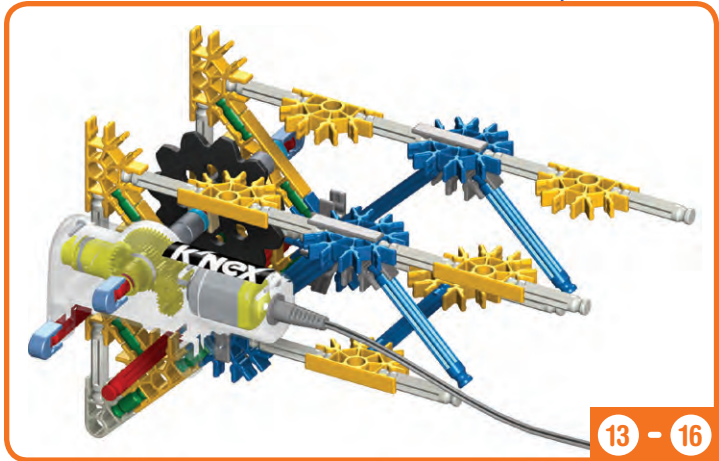
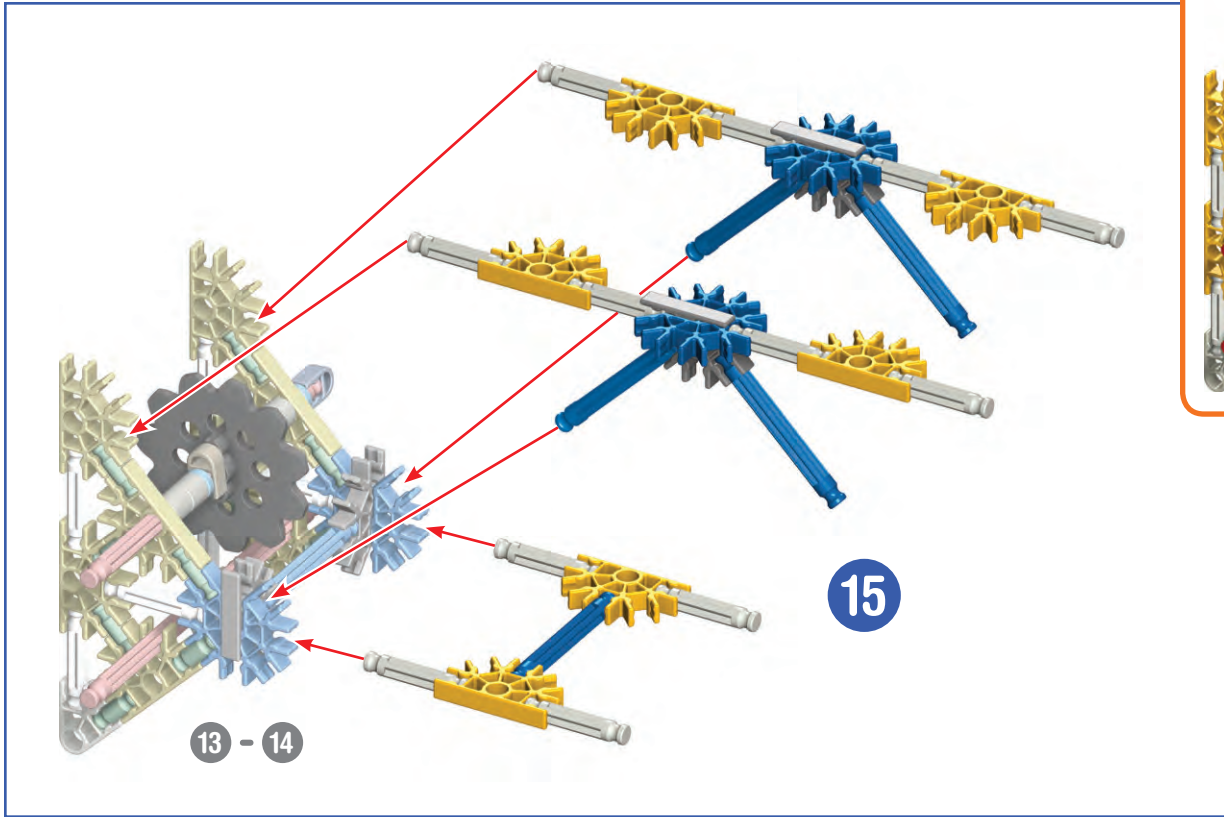


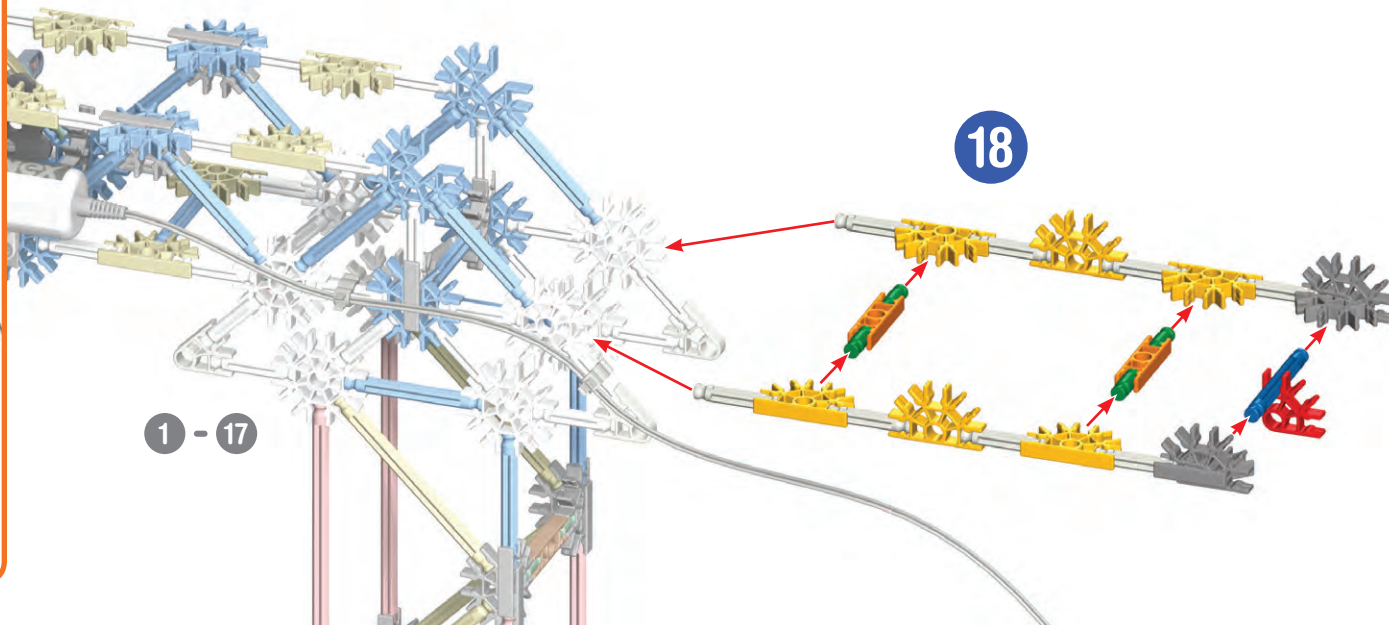
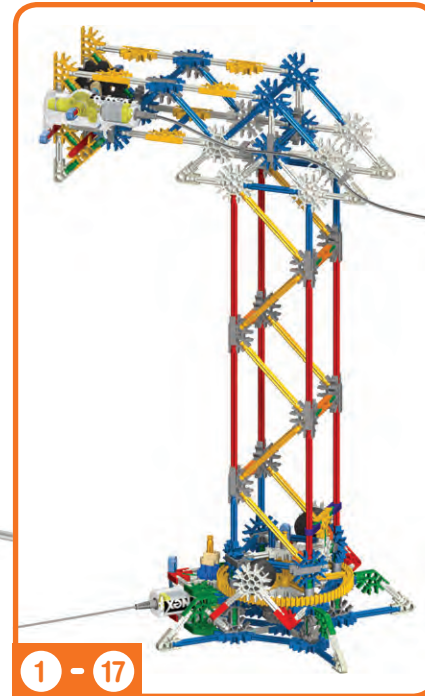
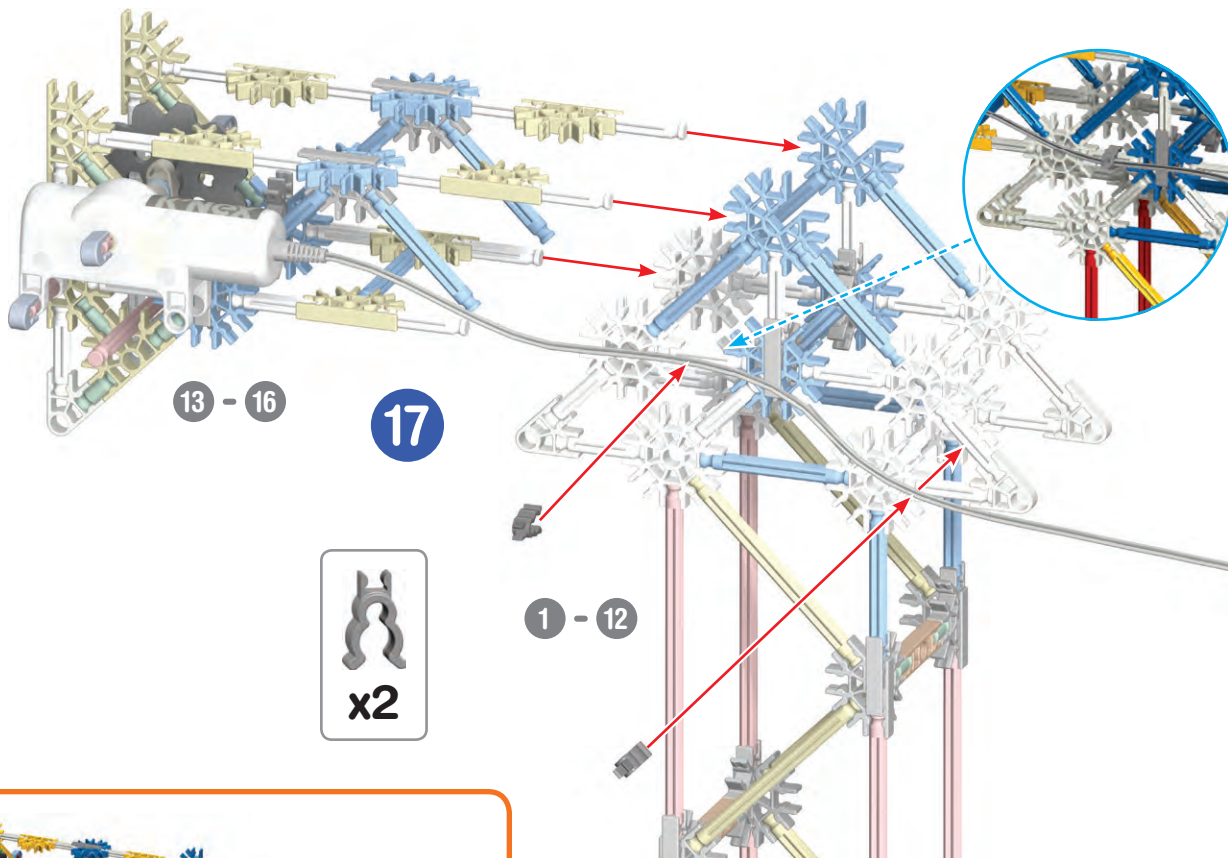


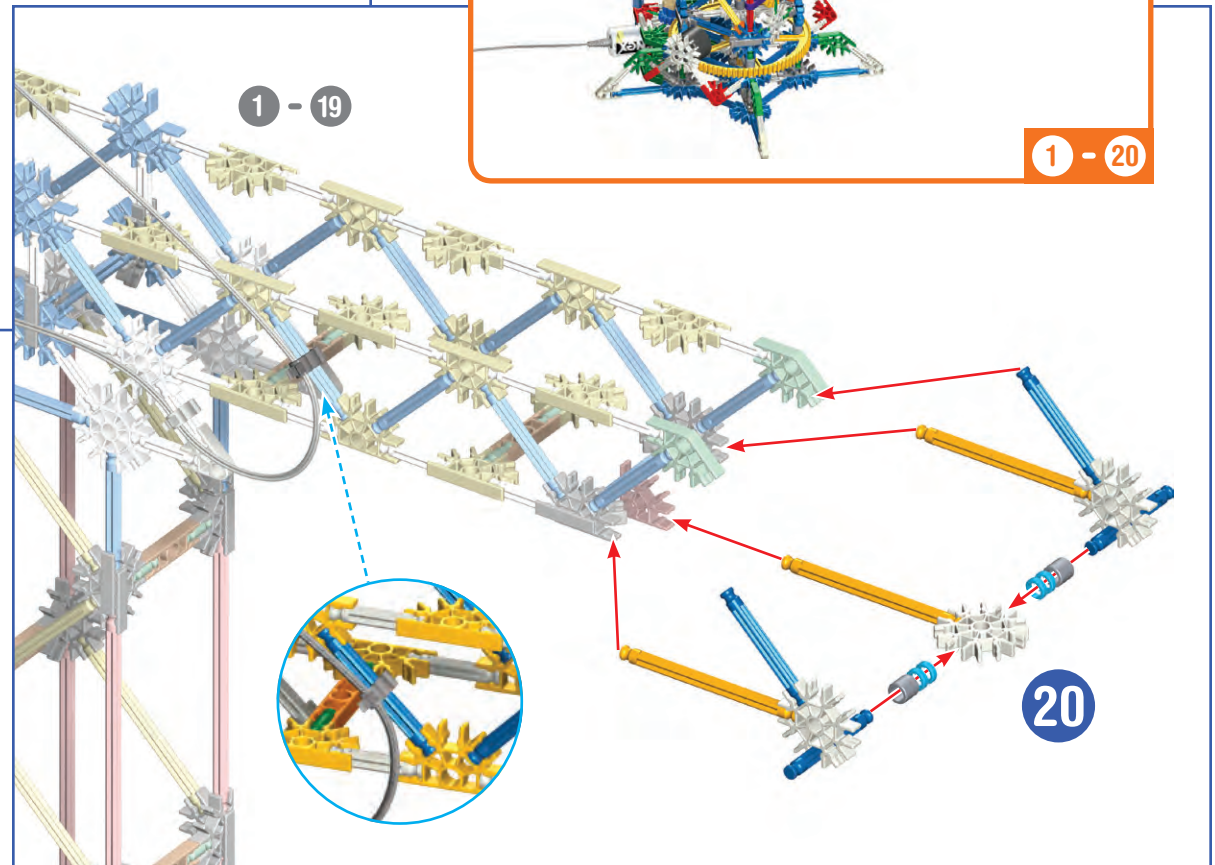
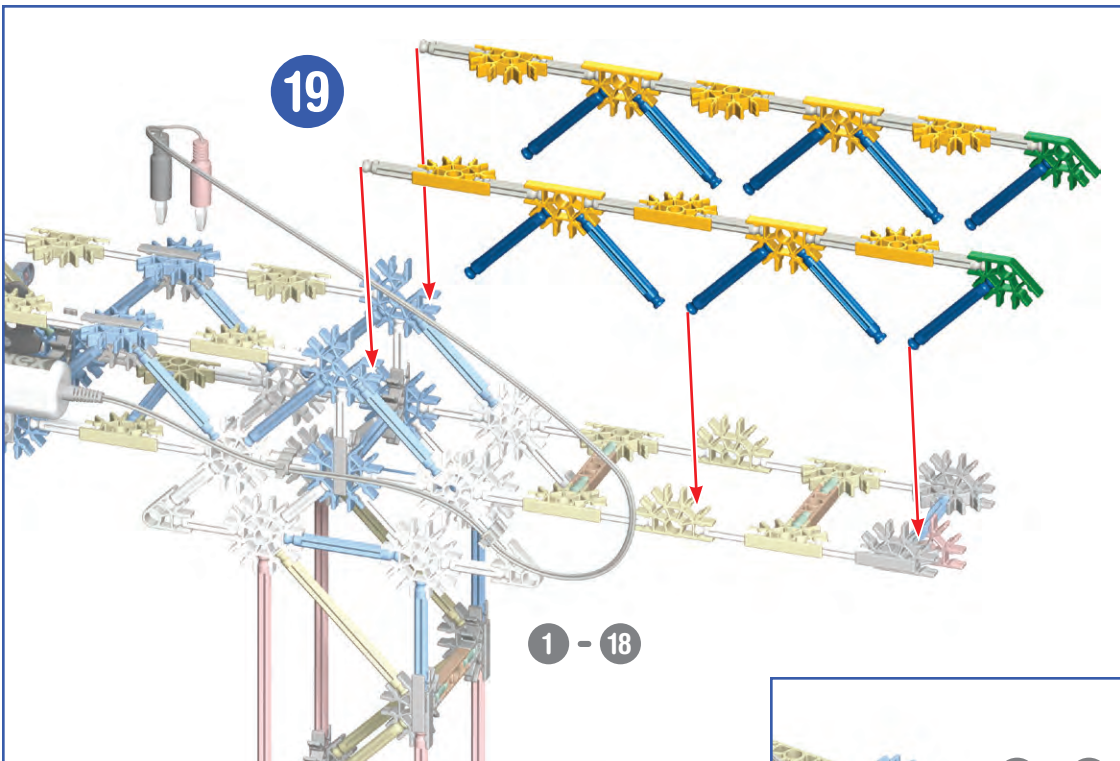


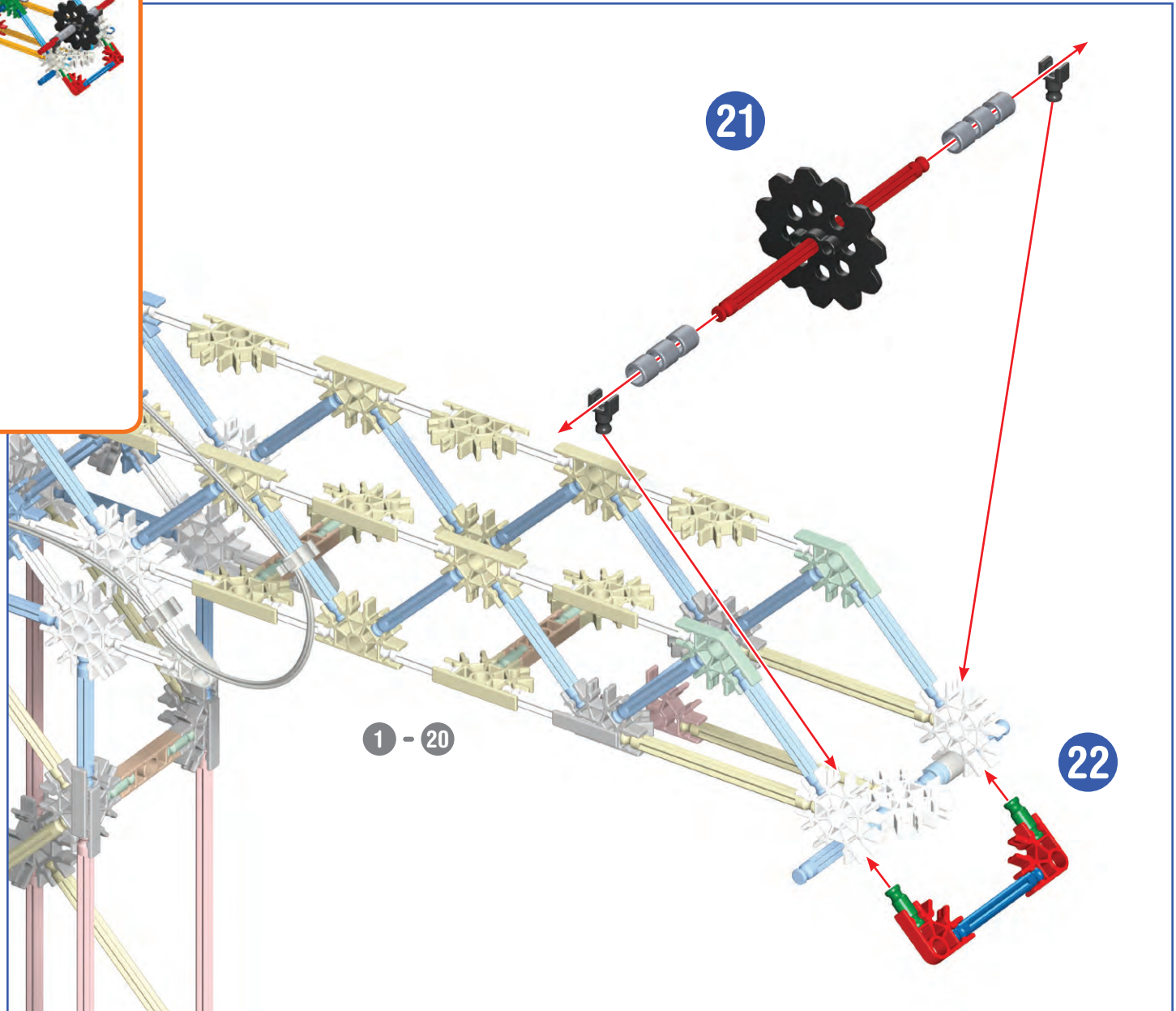


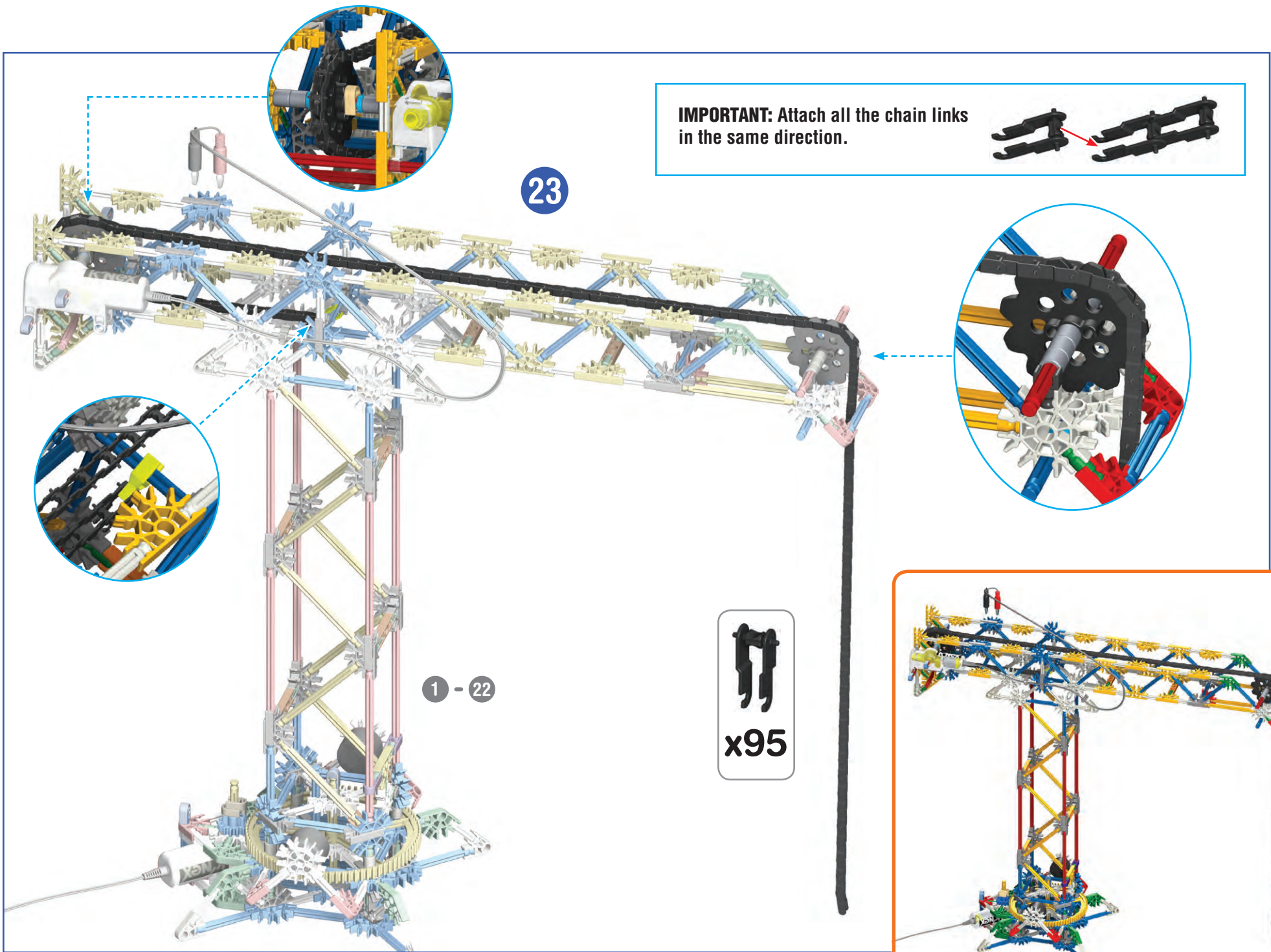






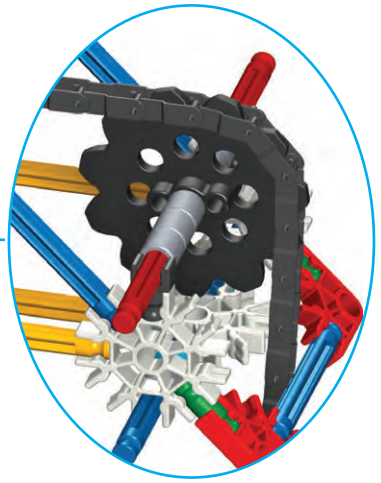
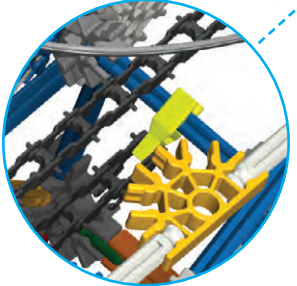






23

IMPORTANT: Attach all the chain links in the same direction.

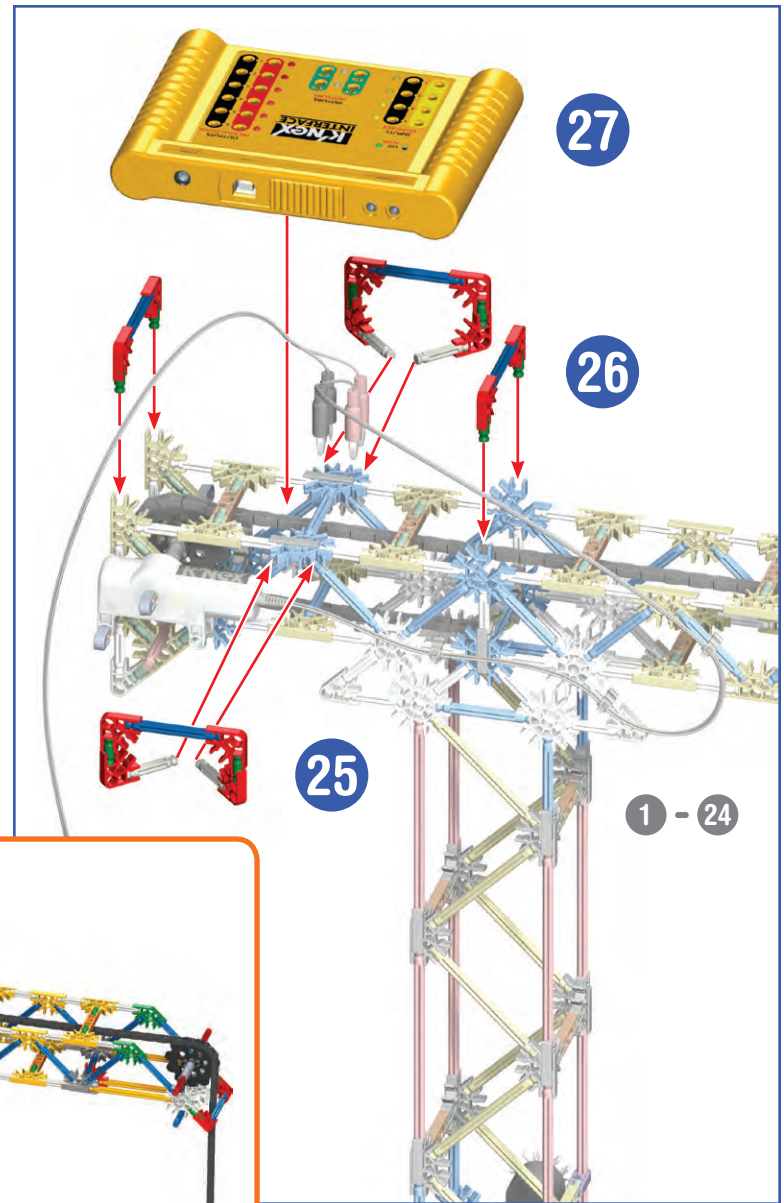
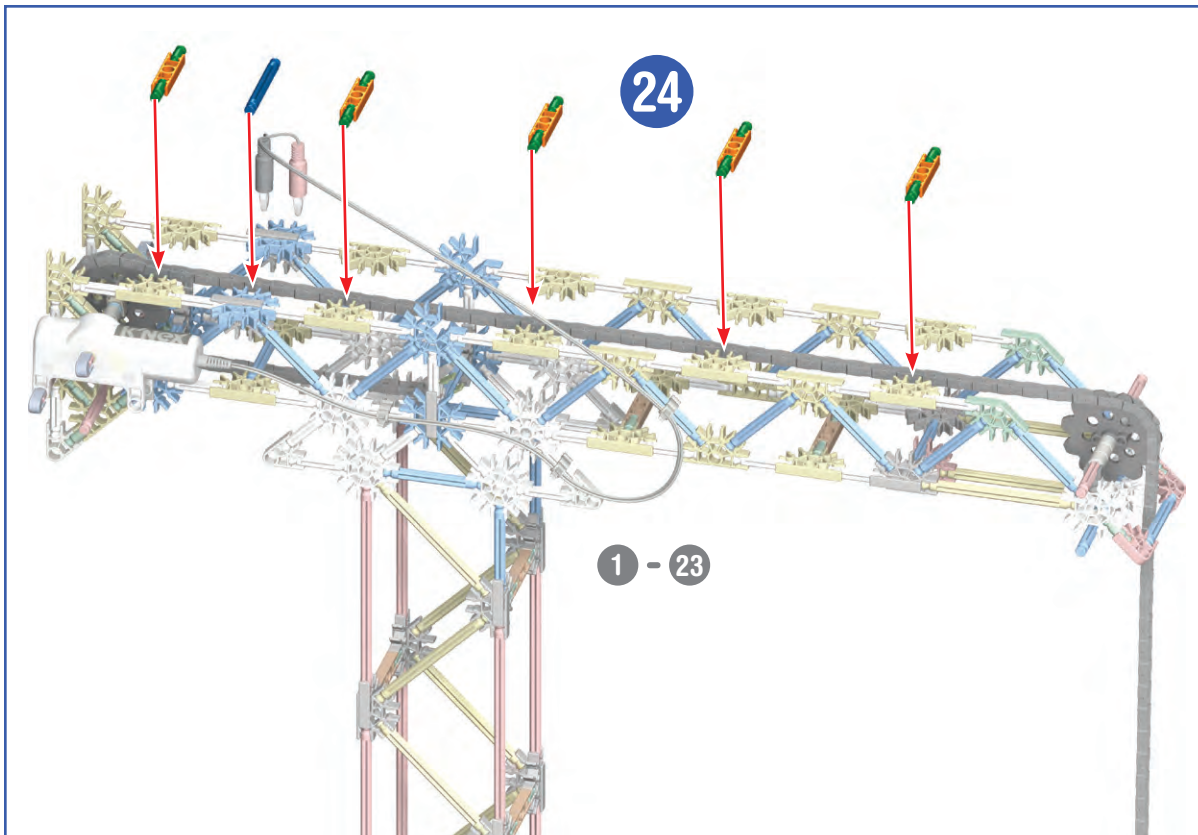


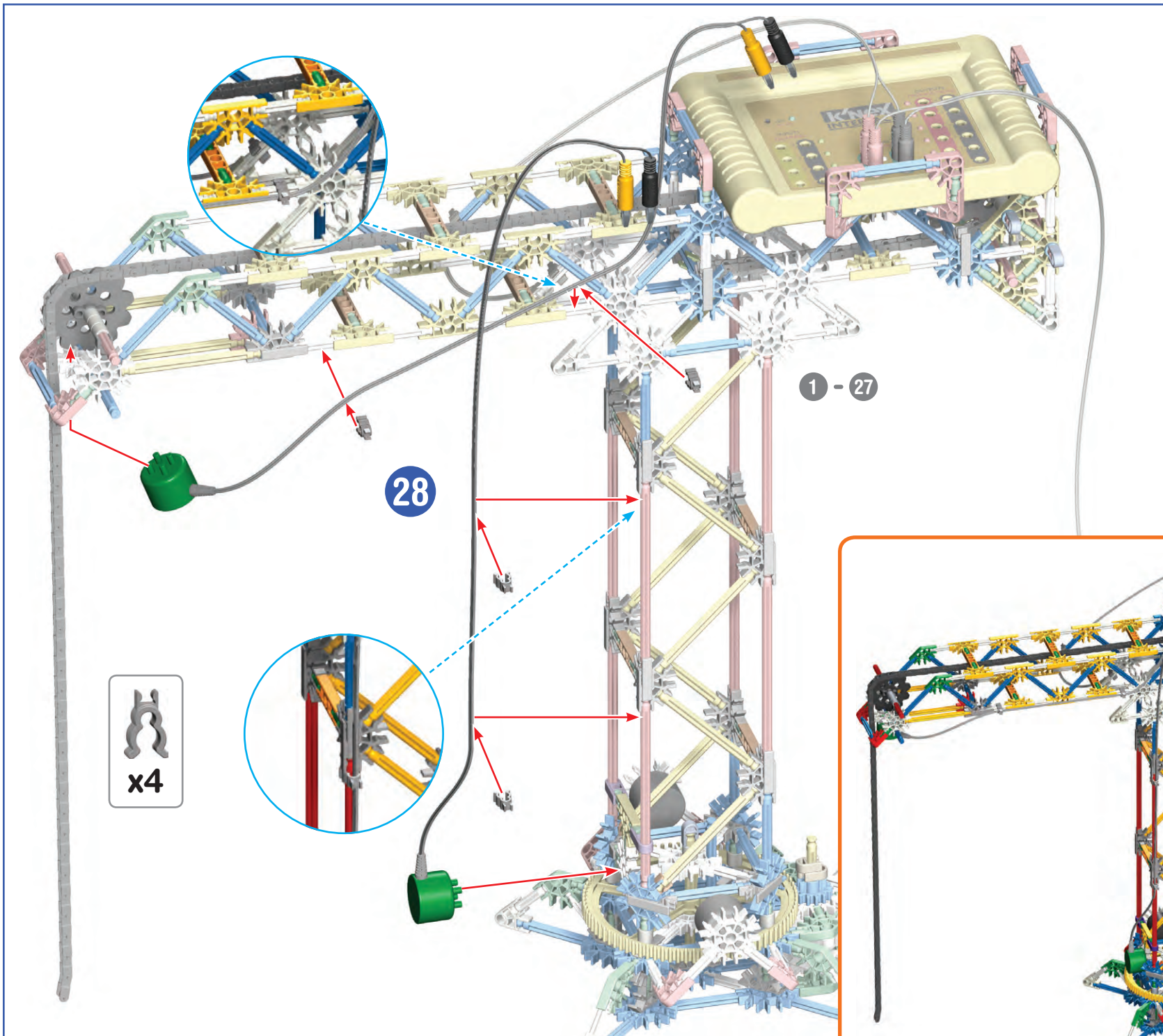
1 - 22


x95



1 - 23





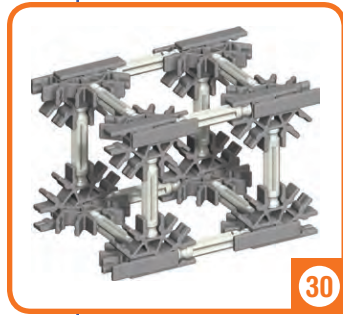
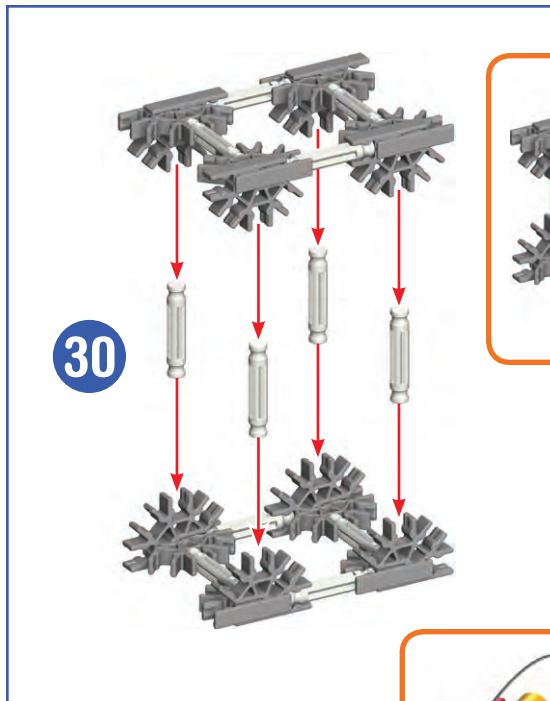
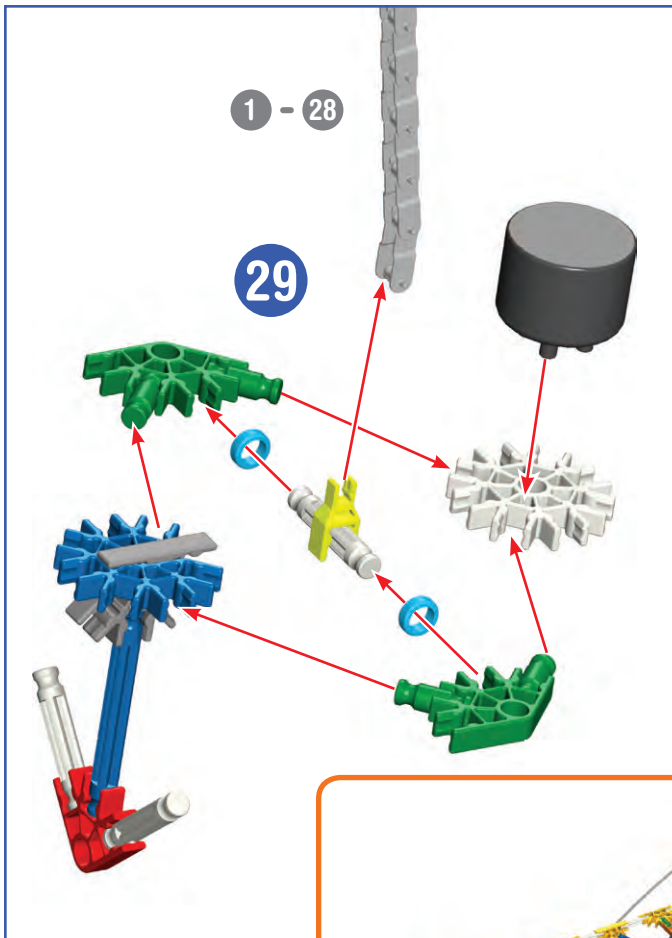
1 - 27

28

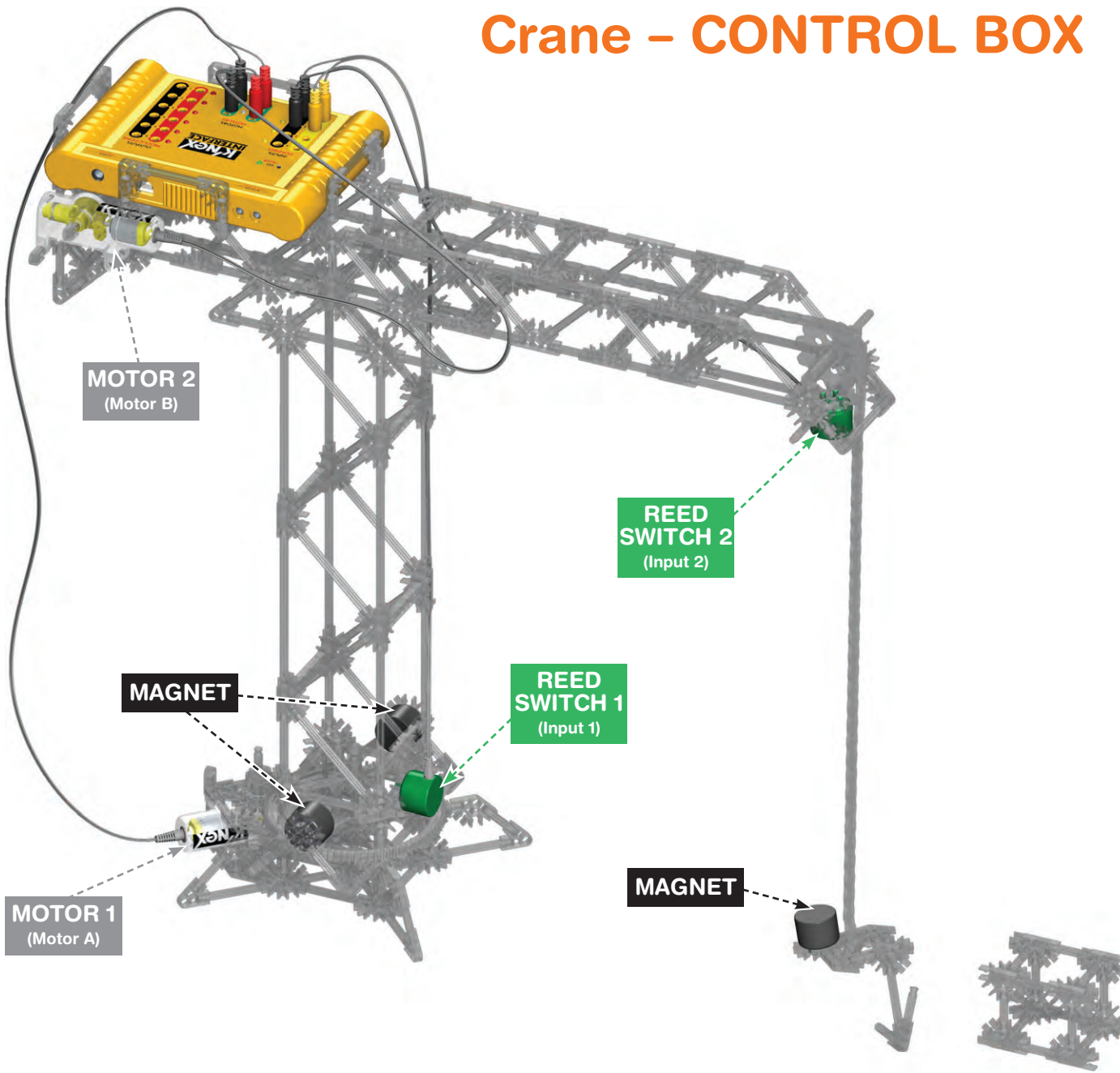

x4



1 - 28



Crane - CONTROL BOX



MOTOR 2
(Motor B)

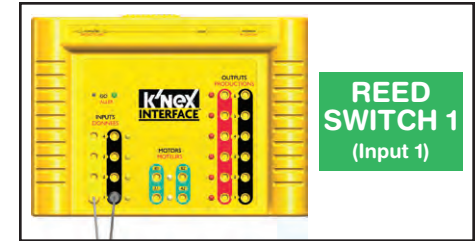
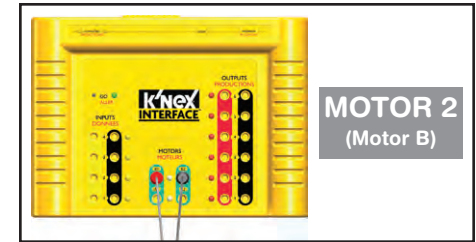
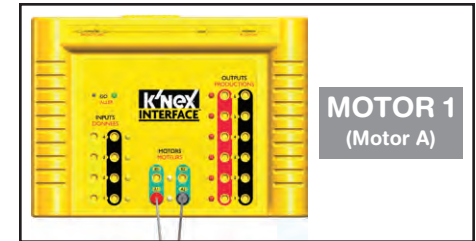
REED SWITCH 2
(Input 2)

MAGNET

REED SWITCH 1
(Input 1)

MOTOR 1
(Motor A)

MAGNET

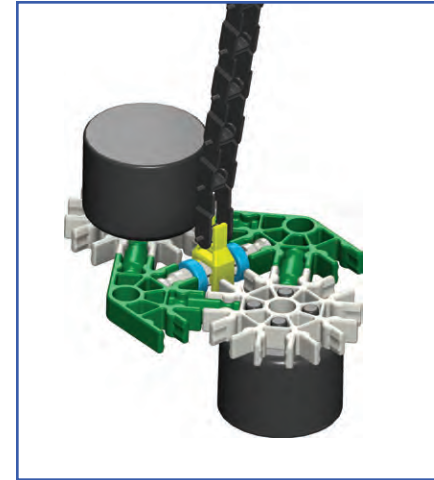


Other Building Options

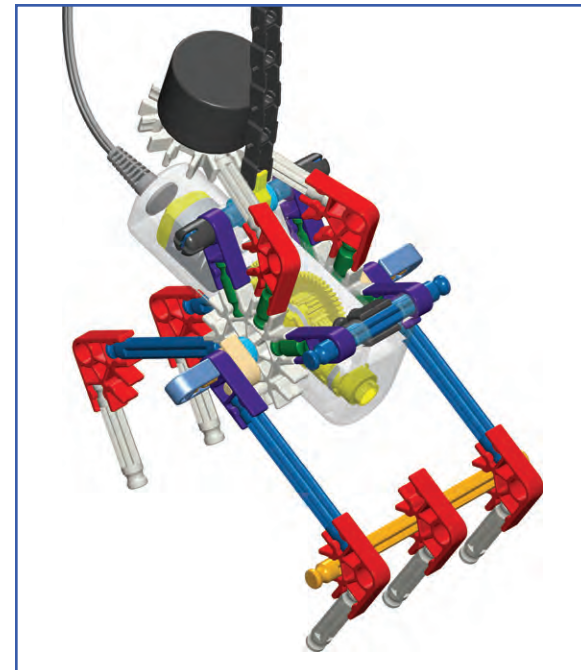
Crane - CRANK



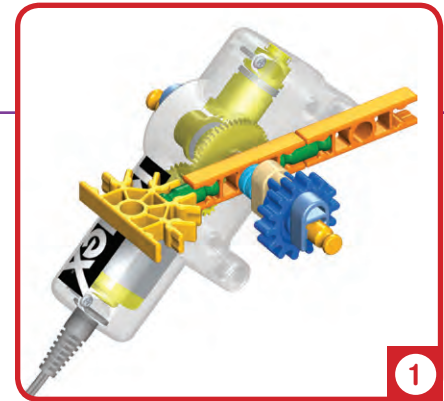
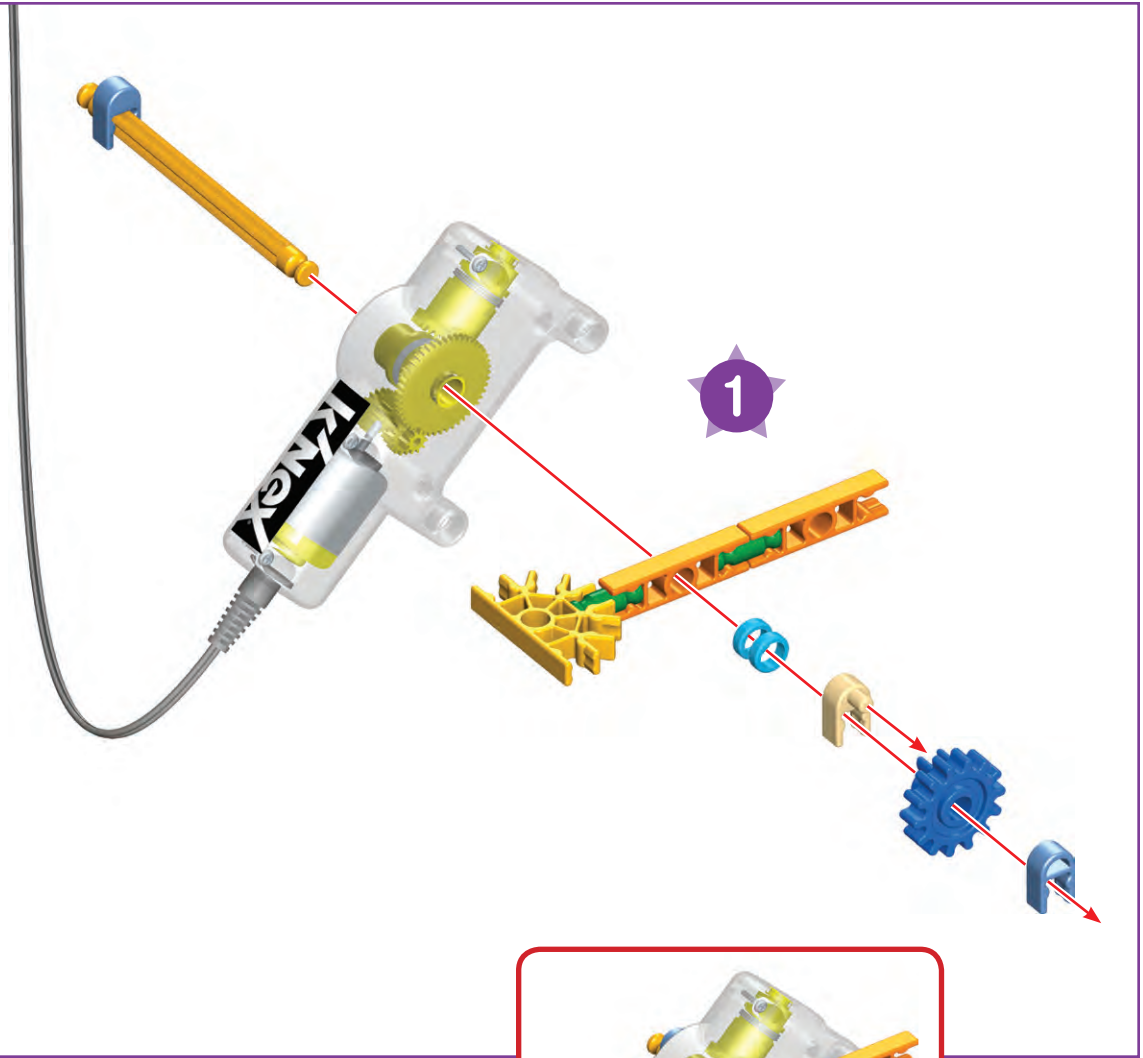
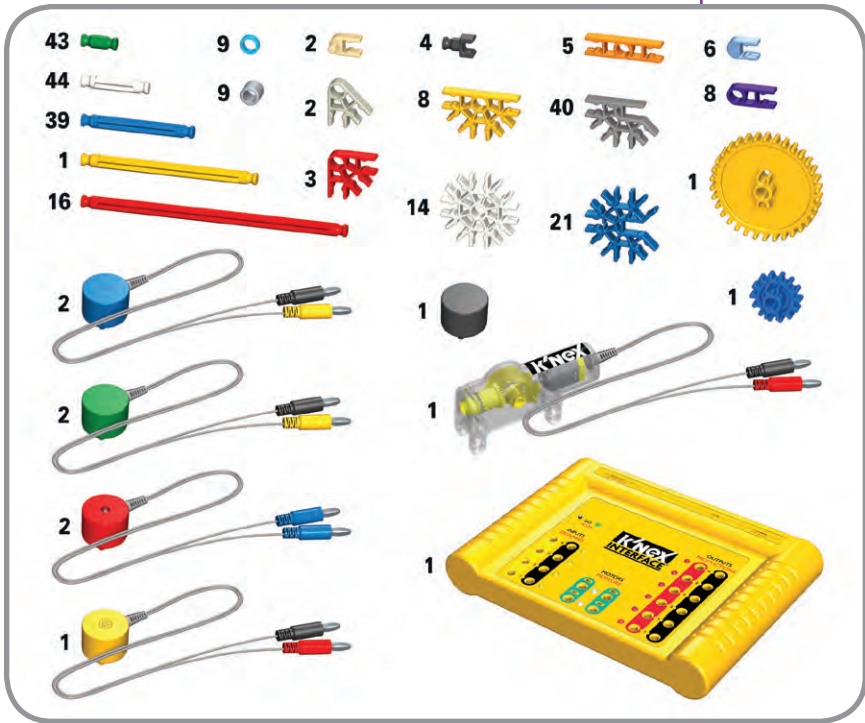
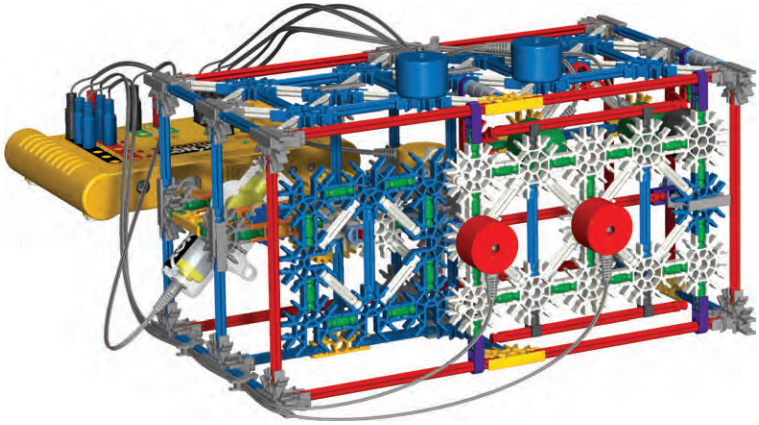
Crane - MAGNETS

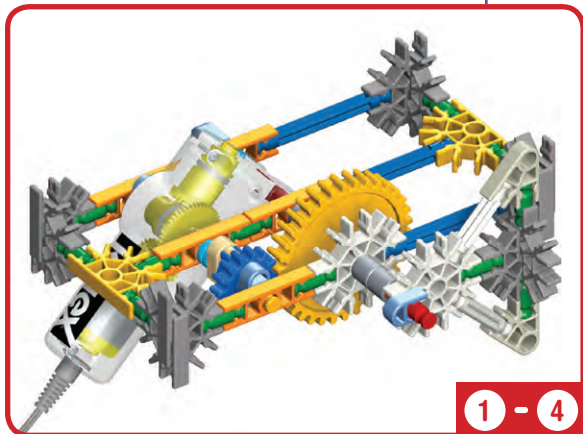
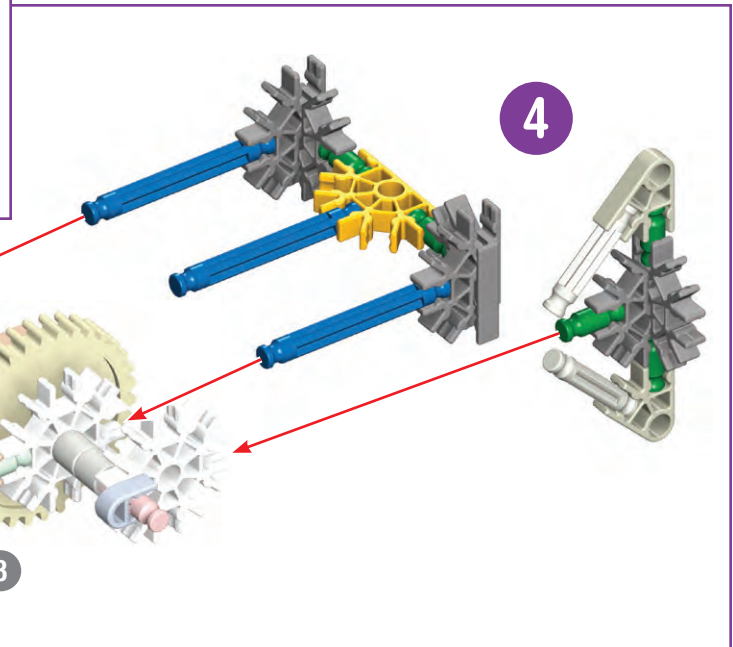
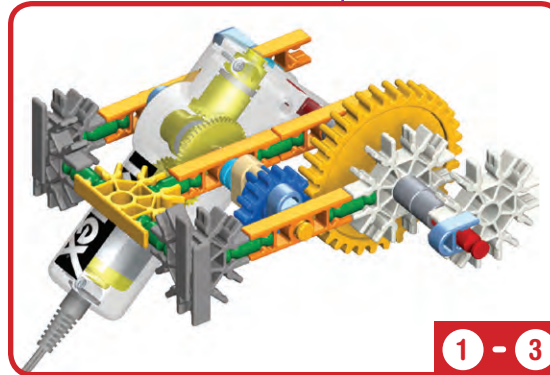
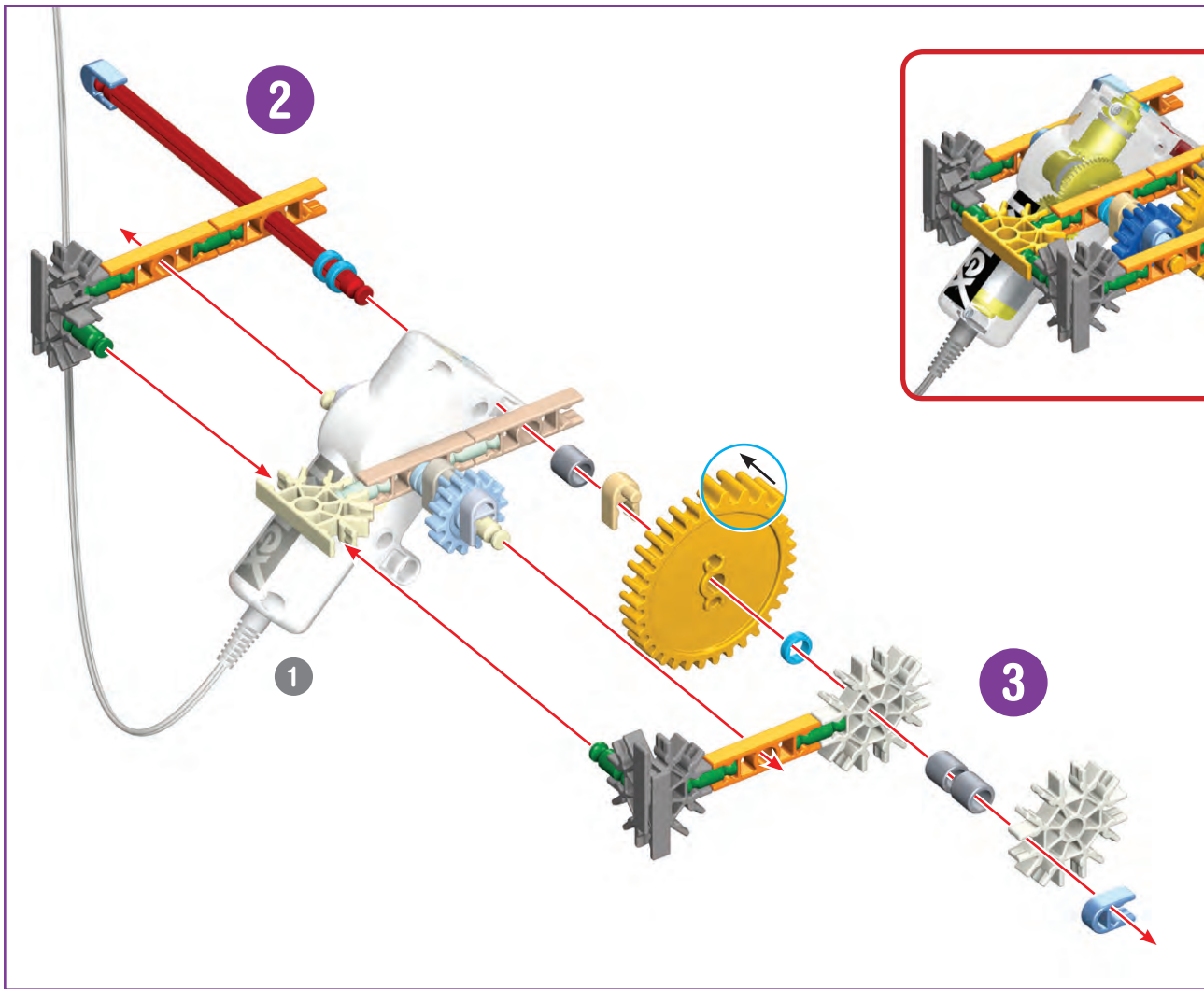


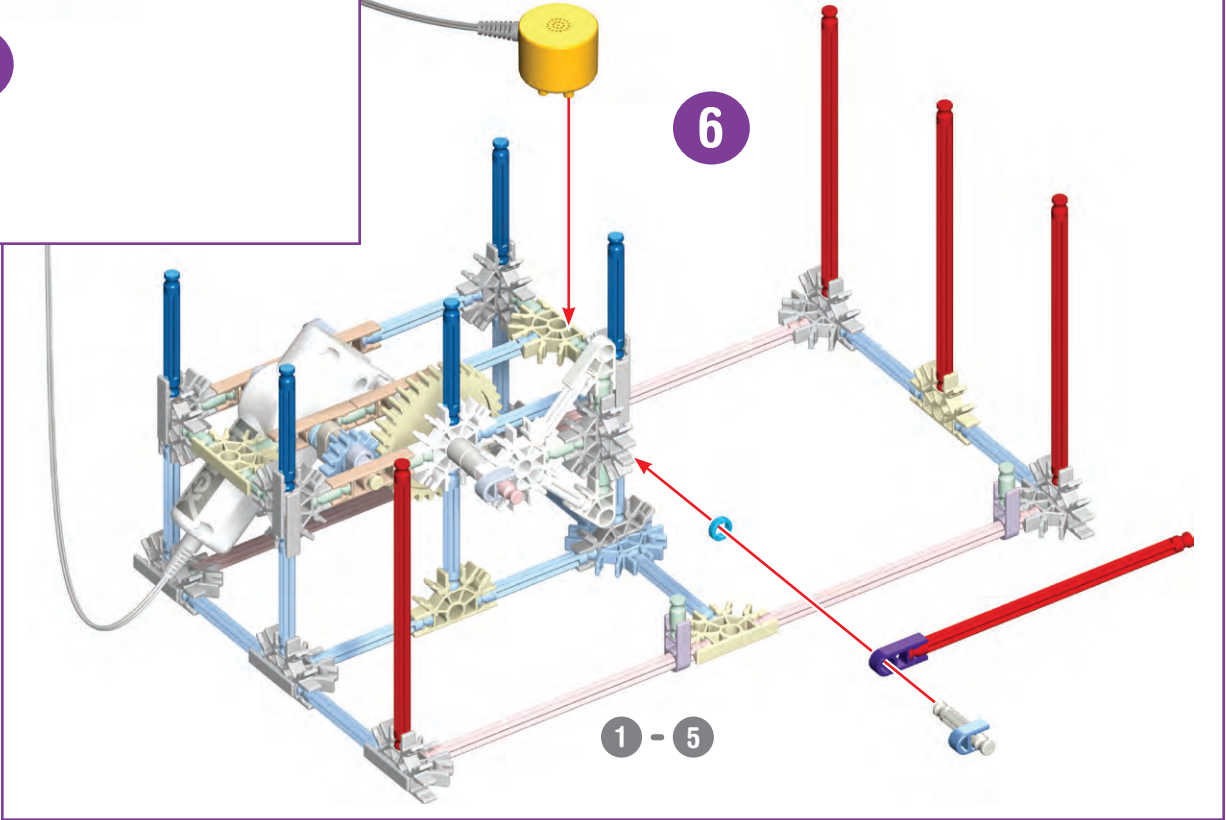
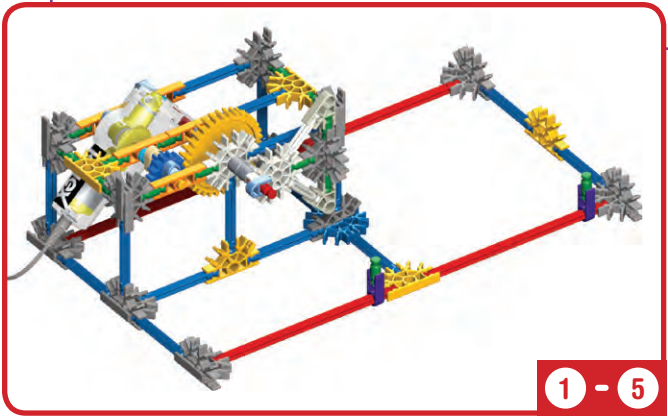
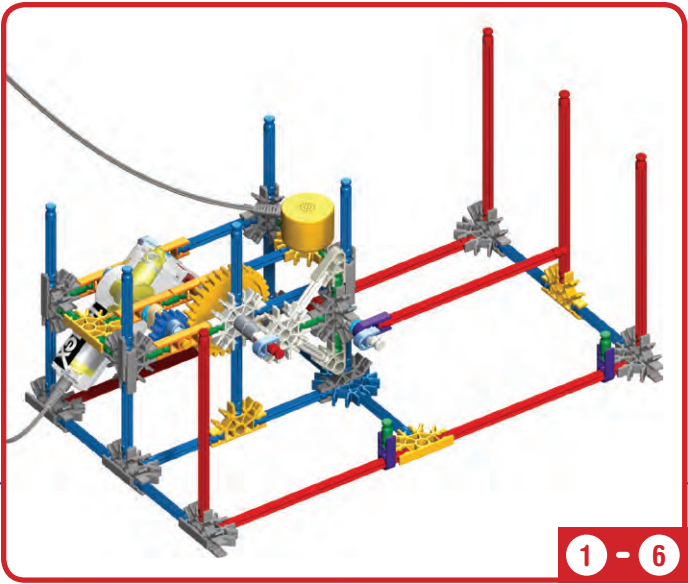
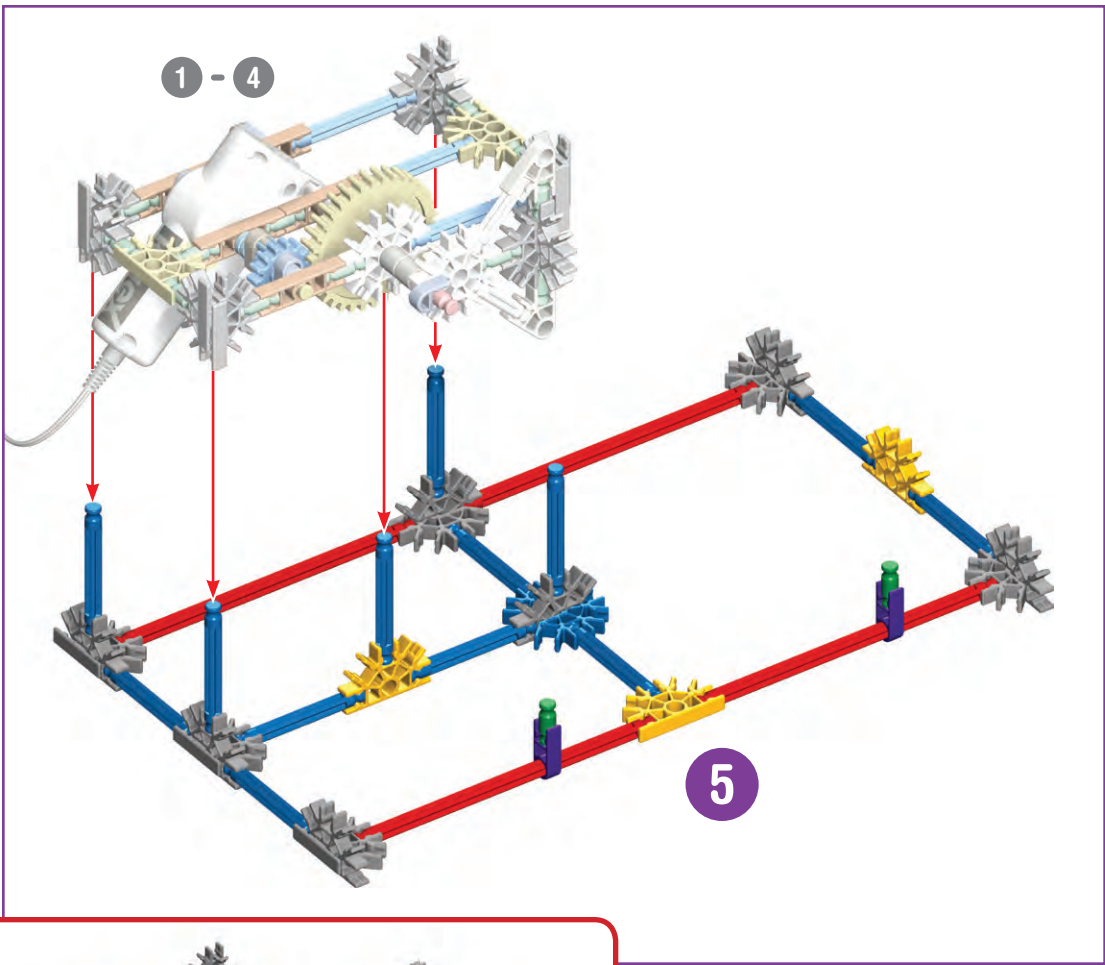
Crane - CLAW

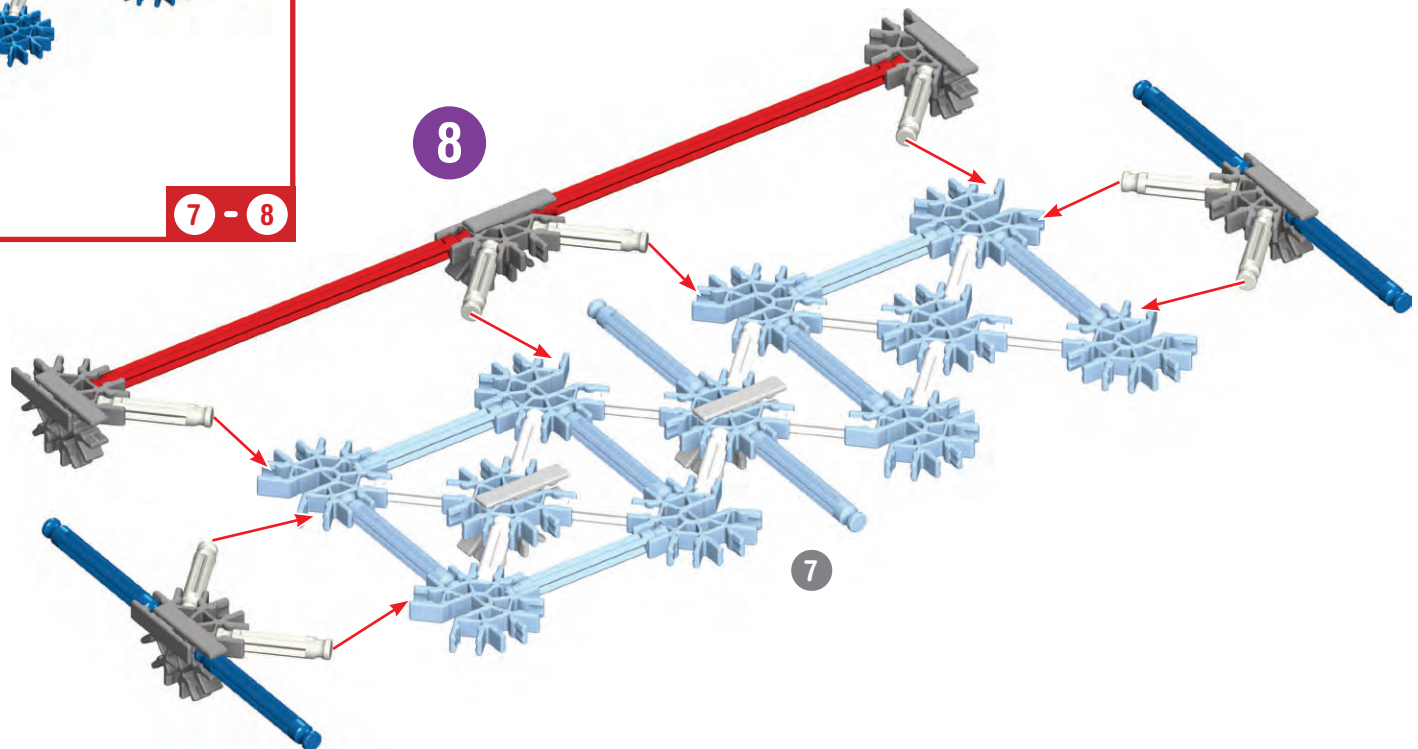
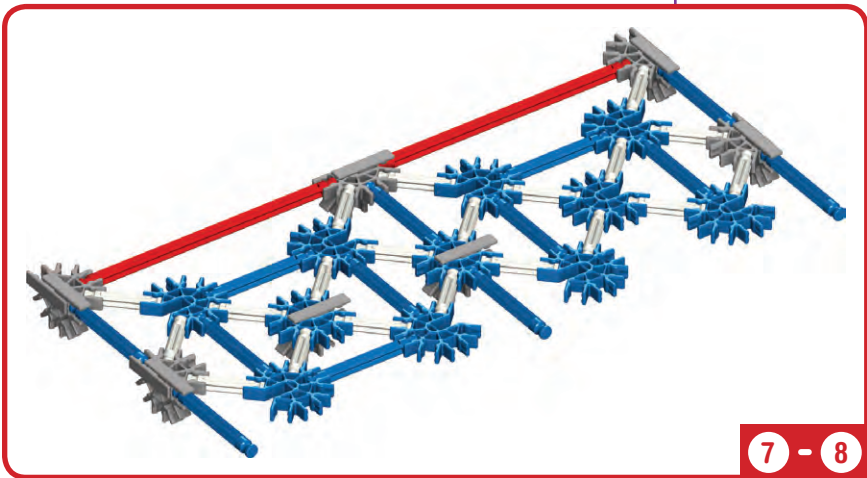
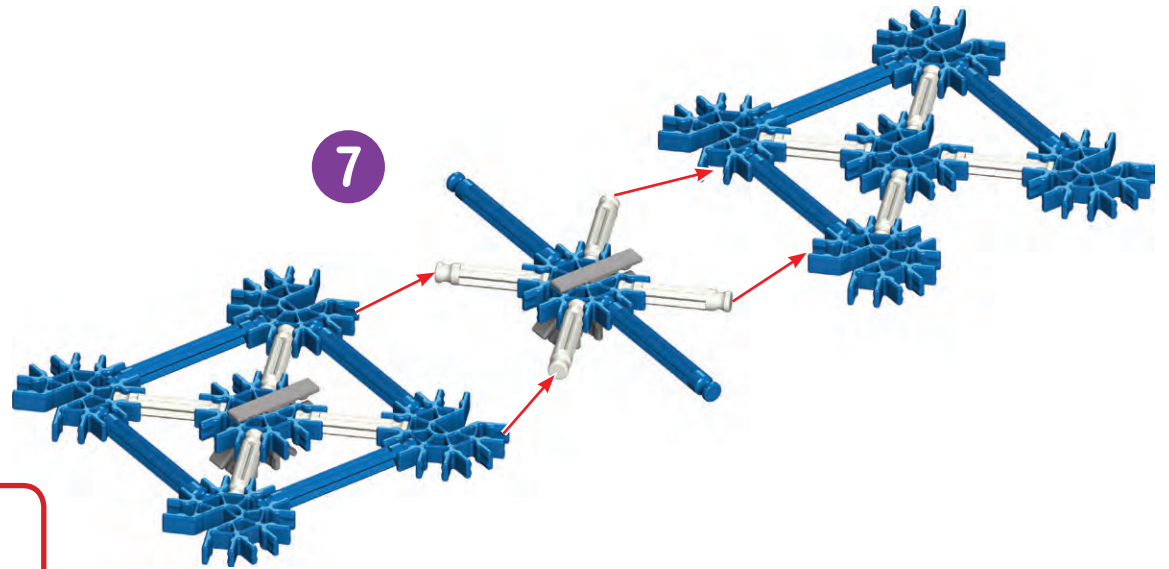
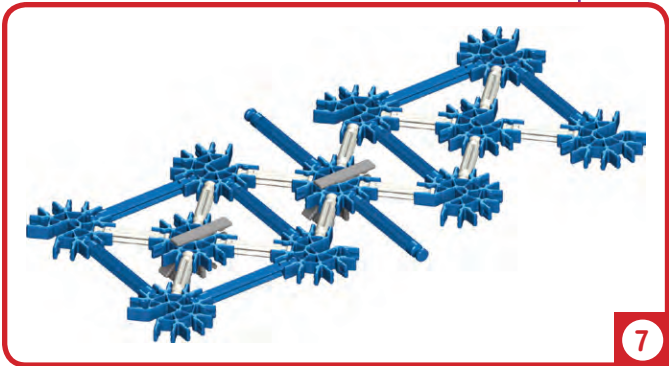


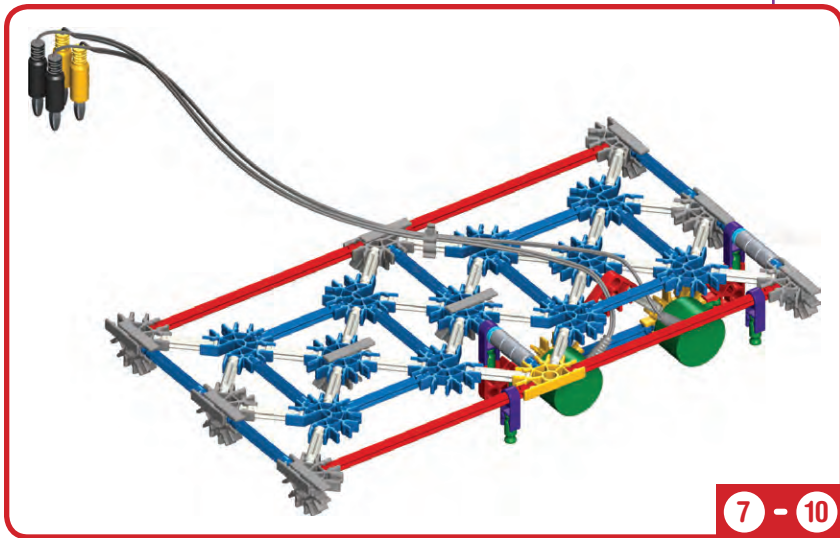
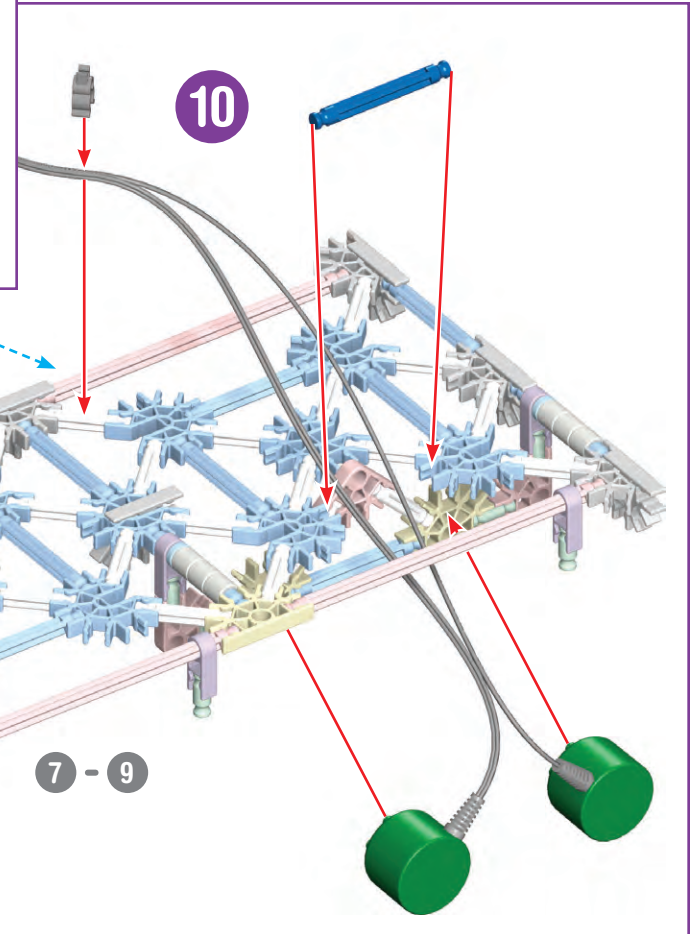
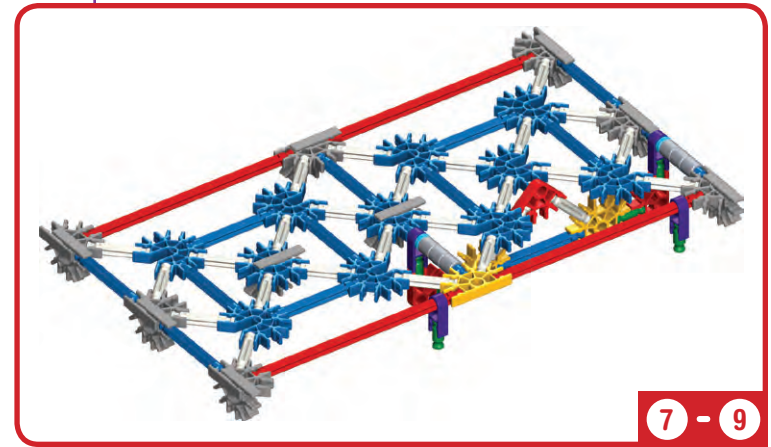
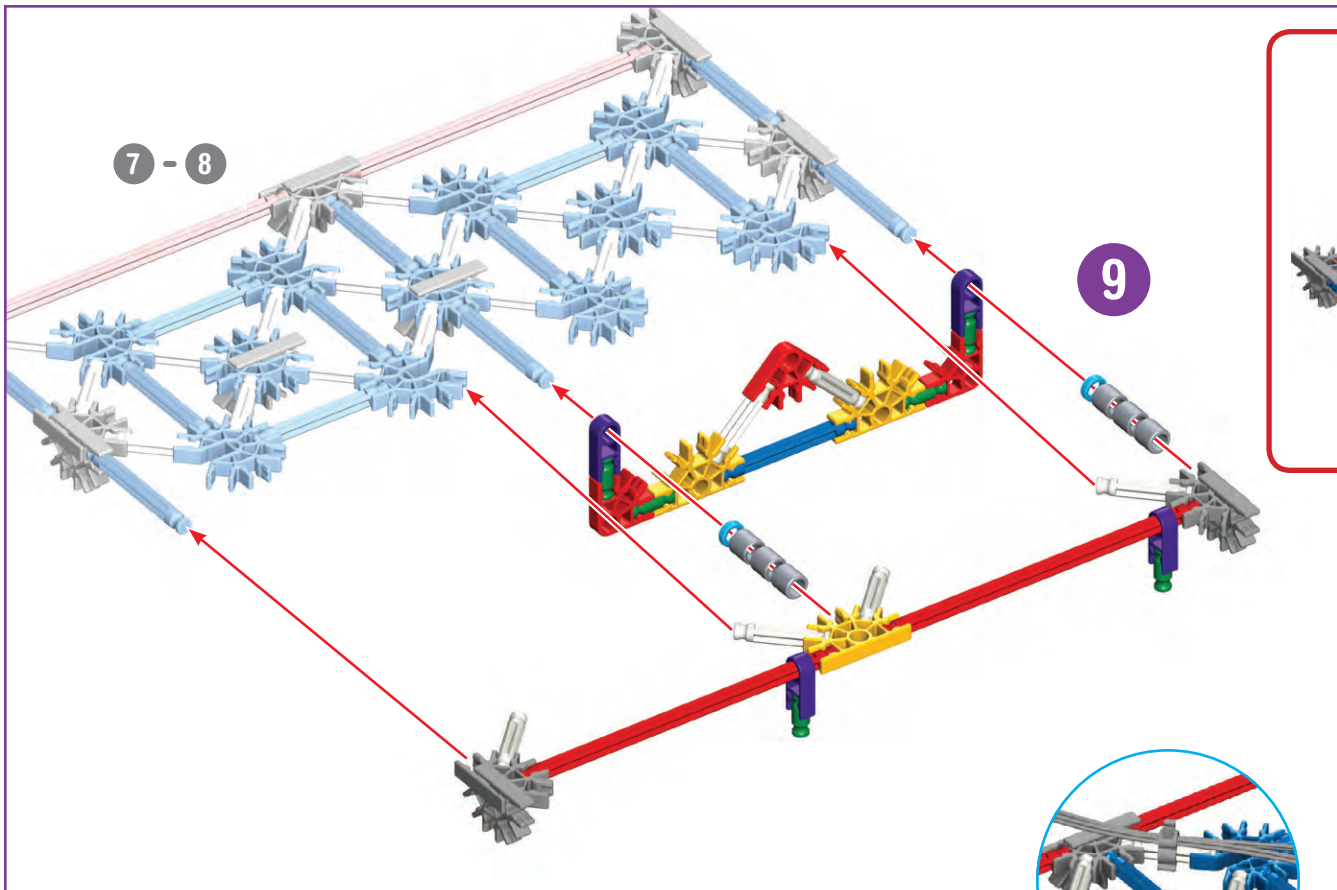
Programmable Safe

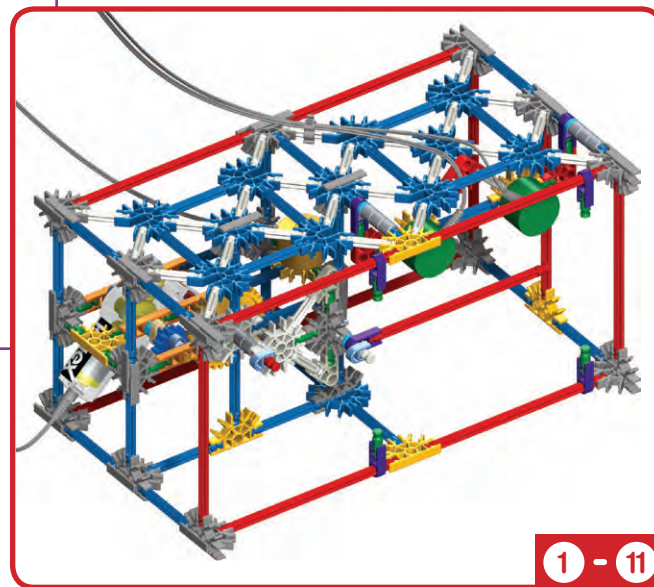
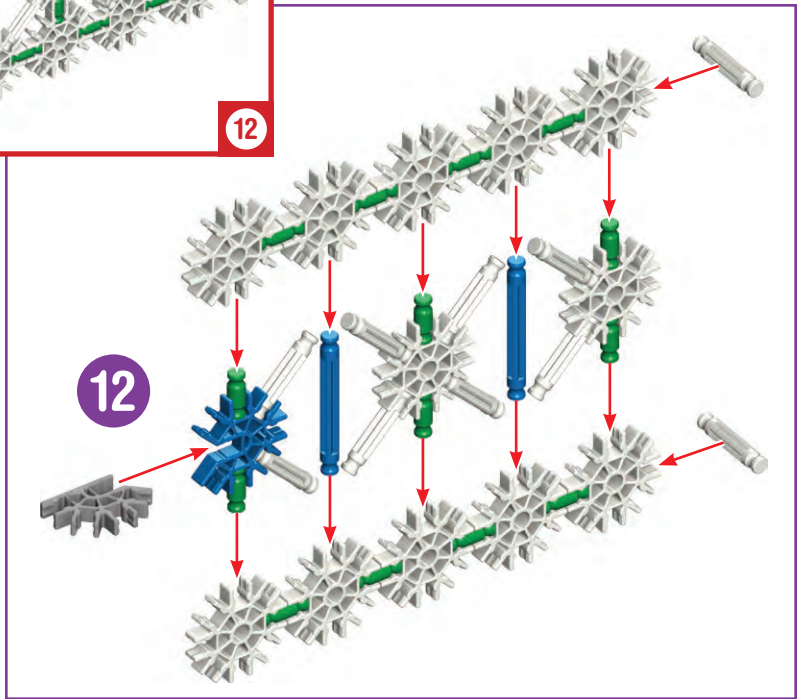
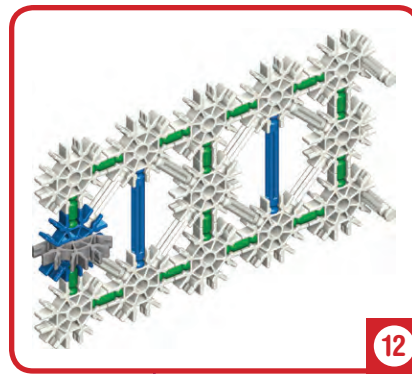
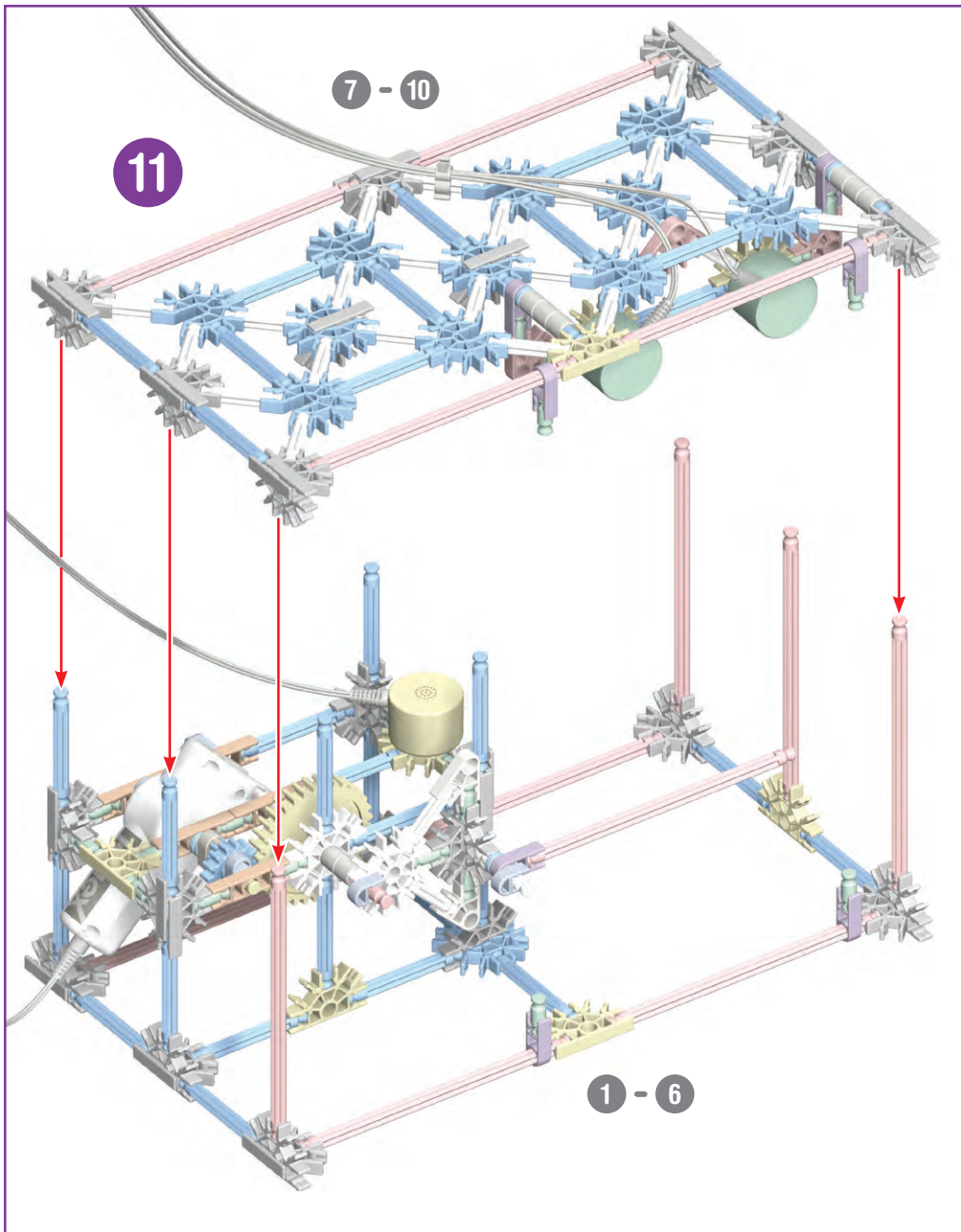


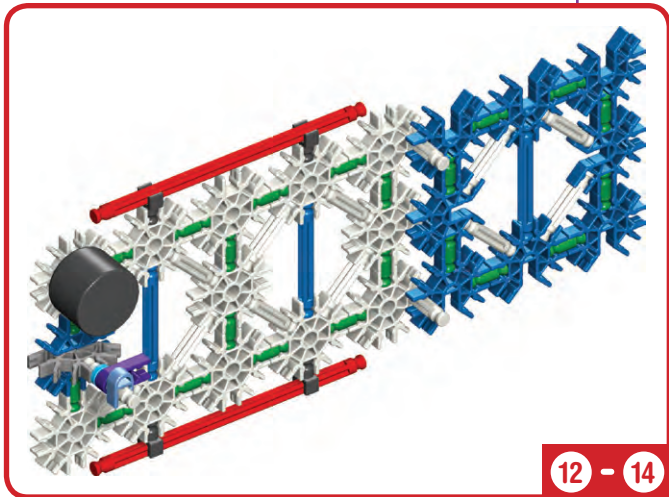
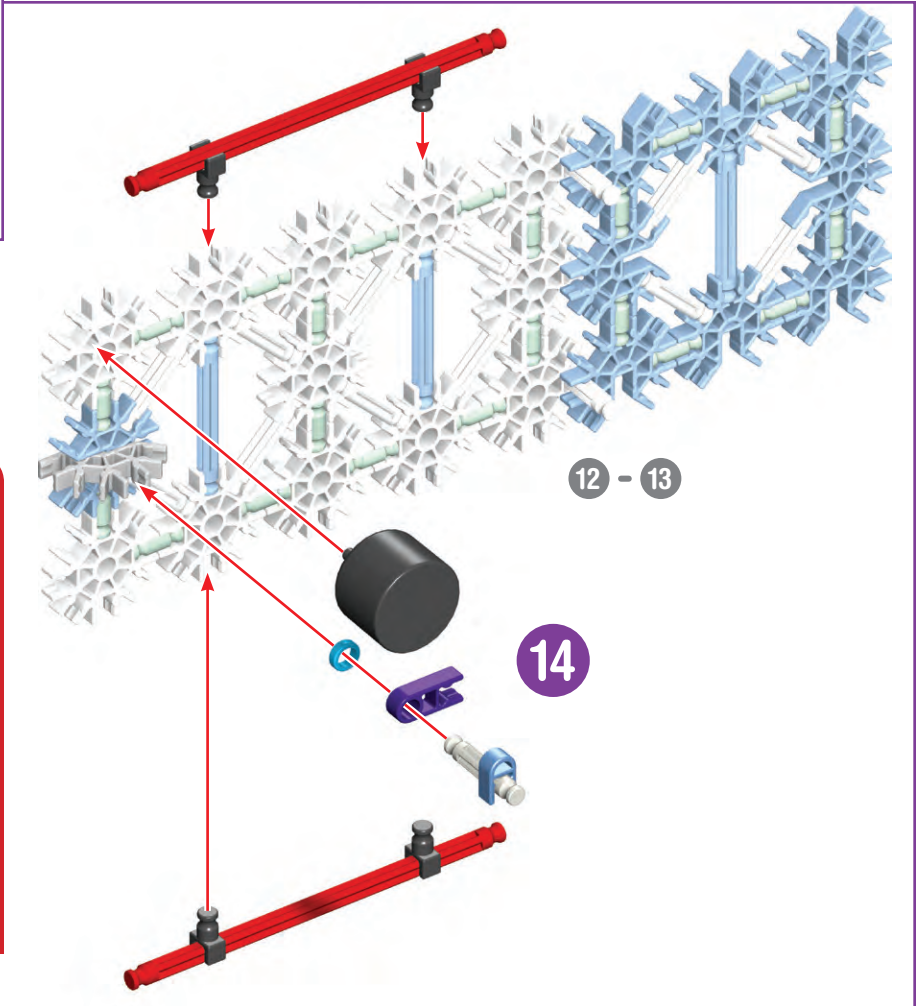
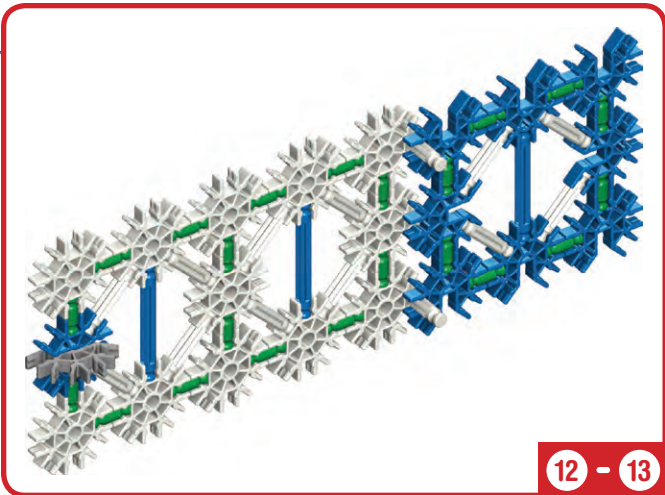
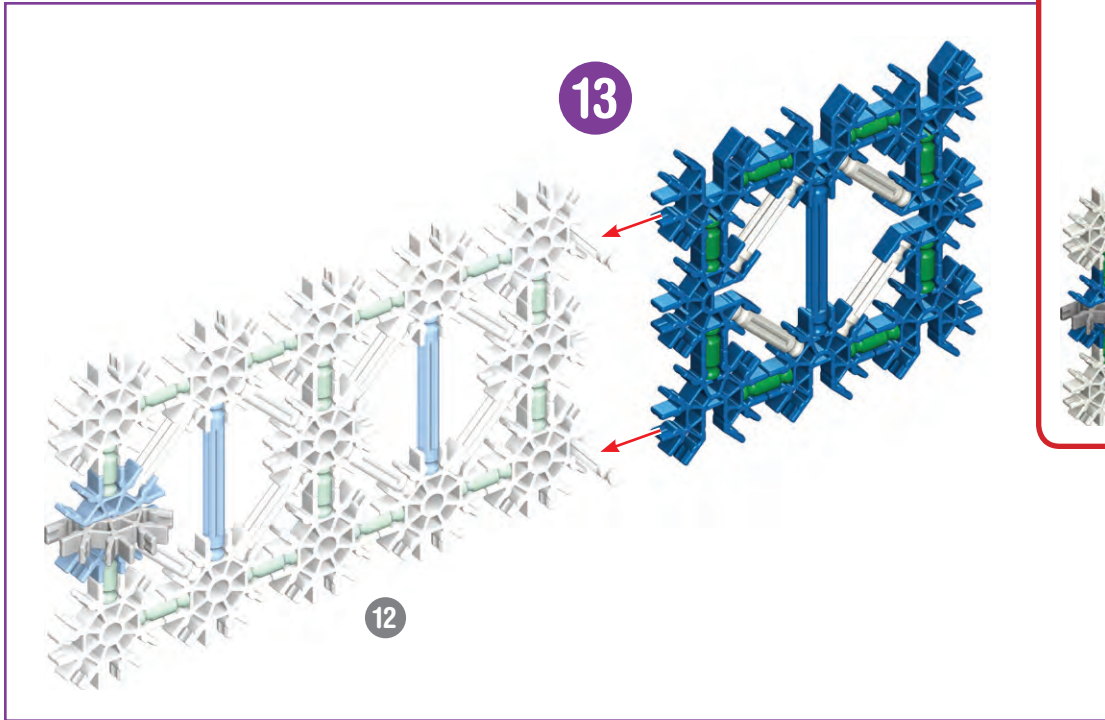


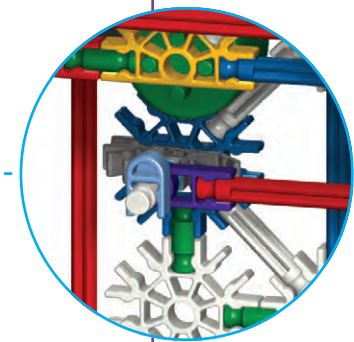
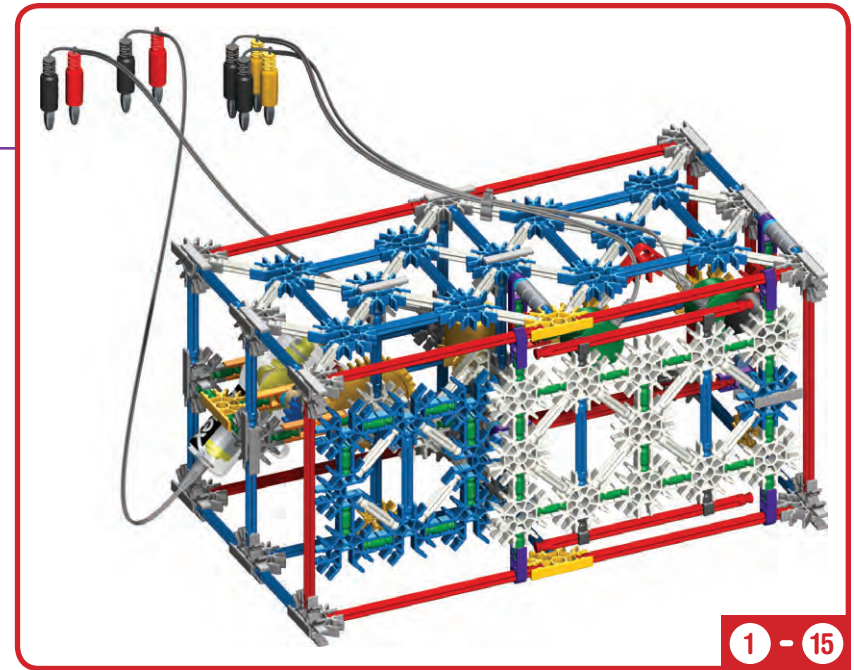
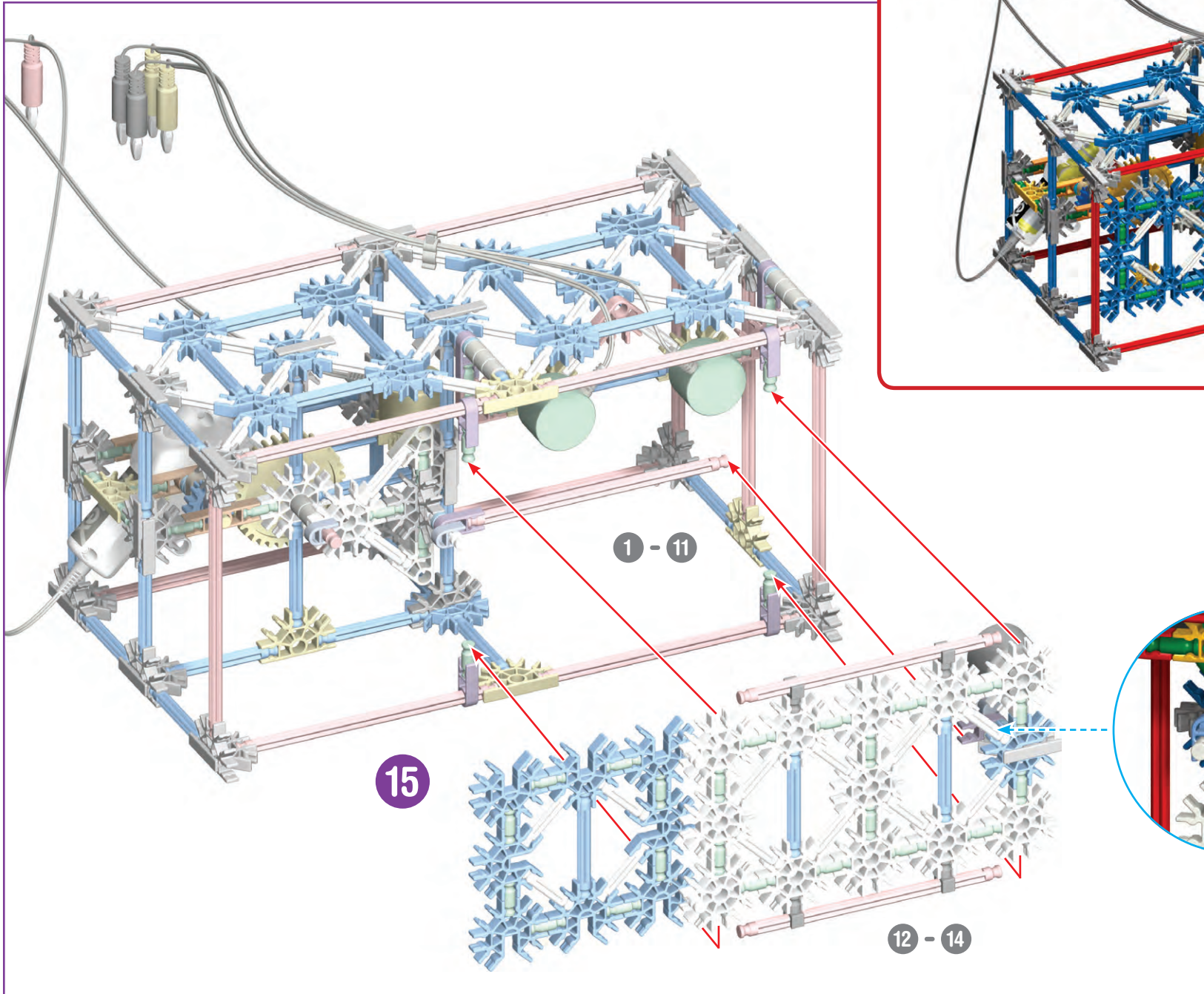


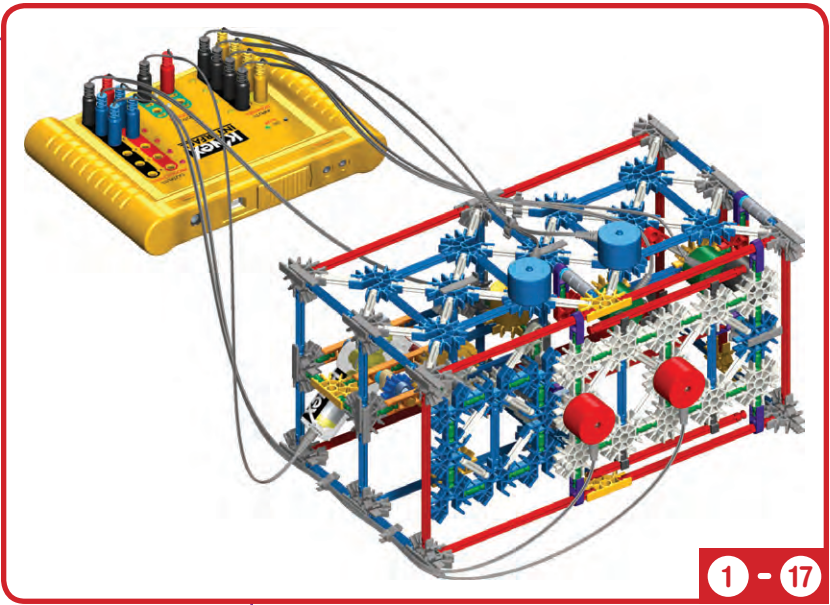
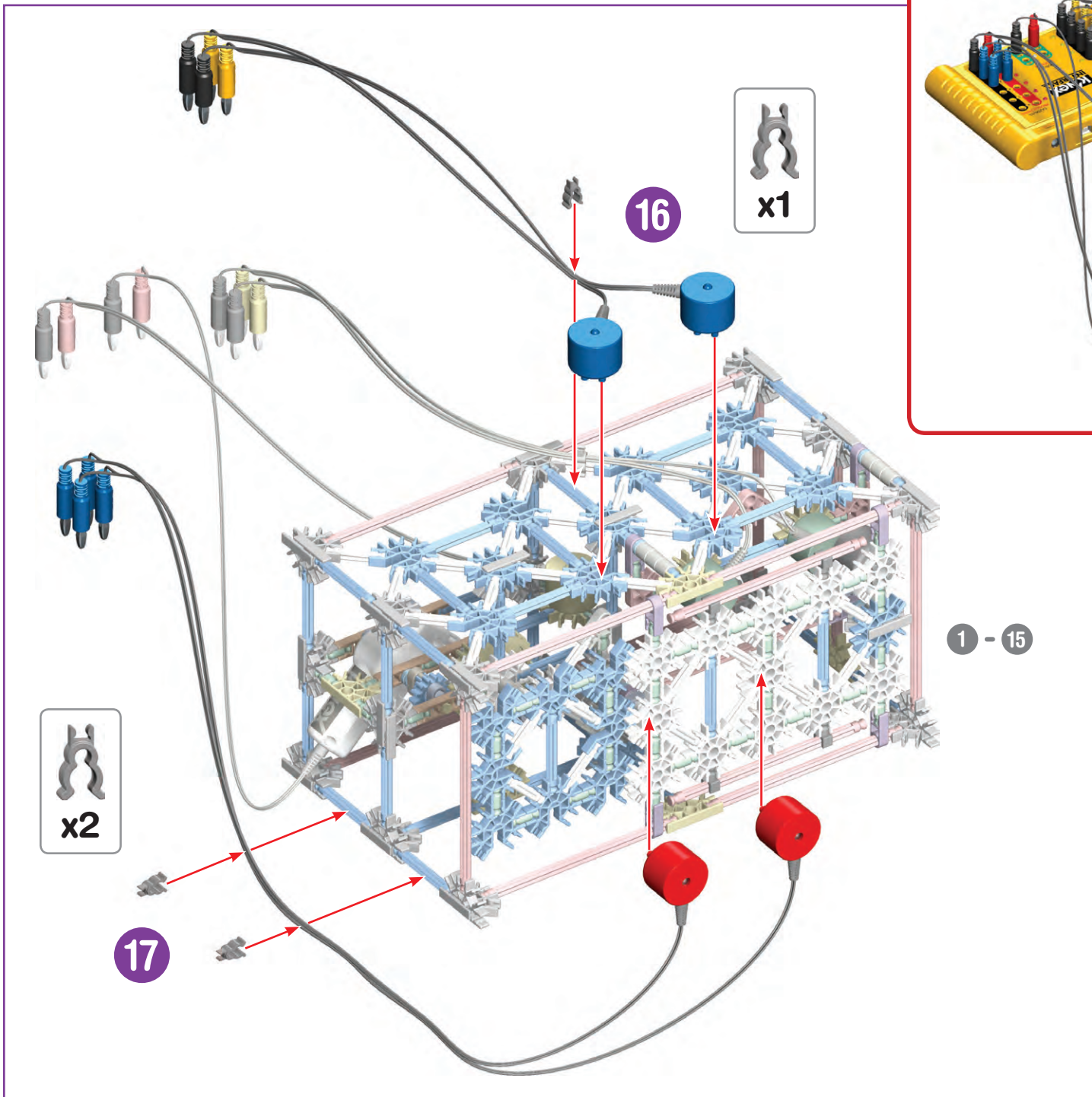




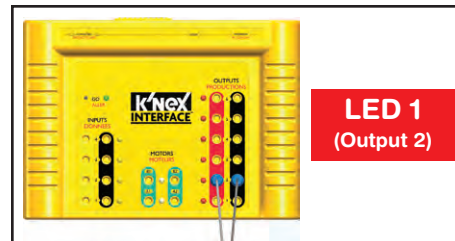
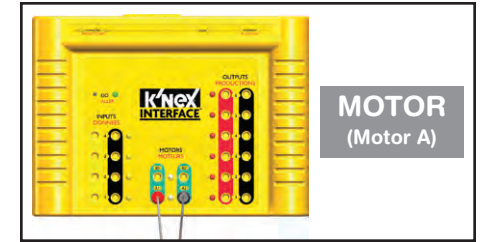
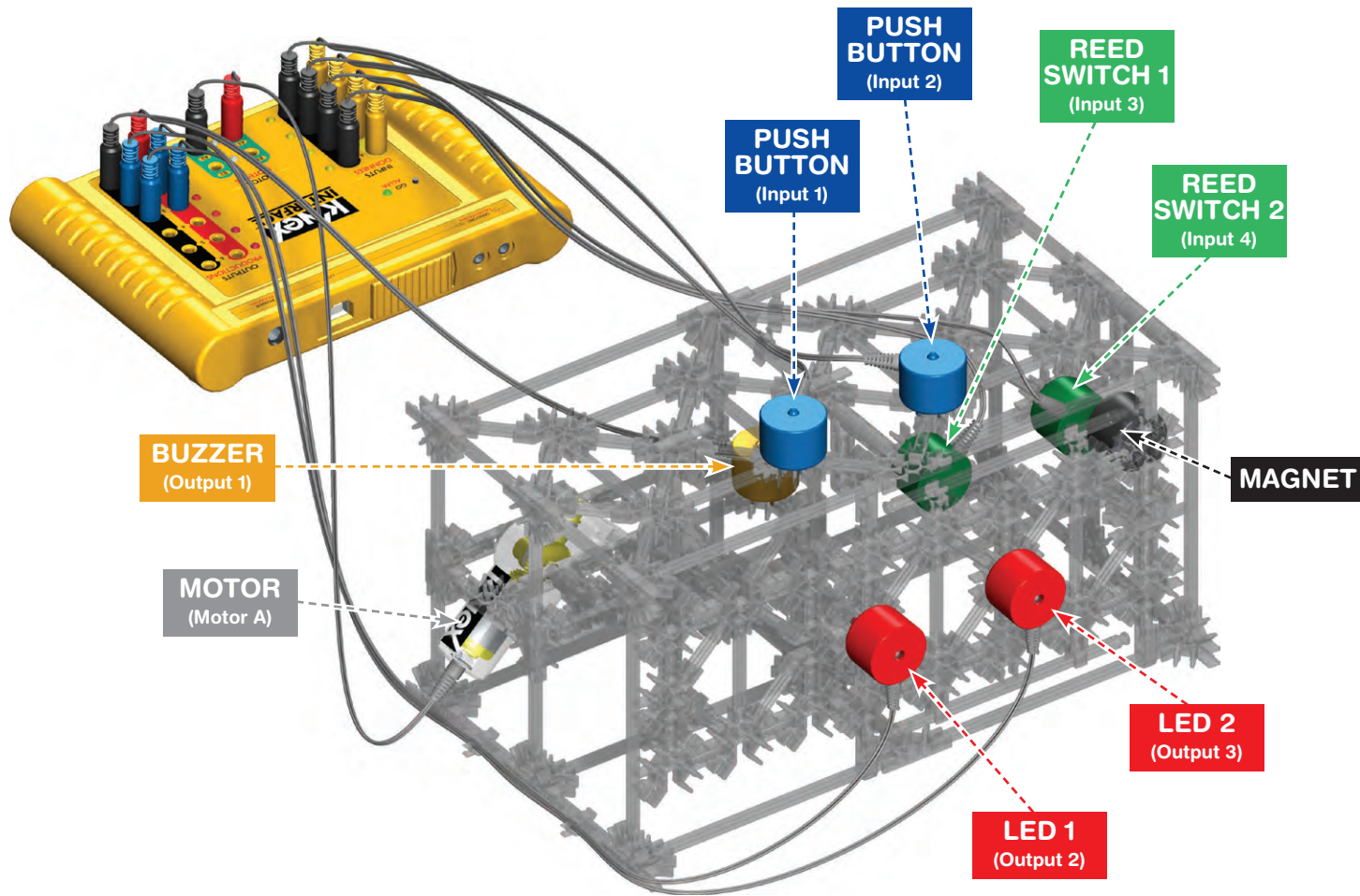




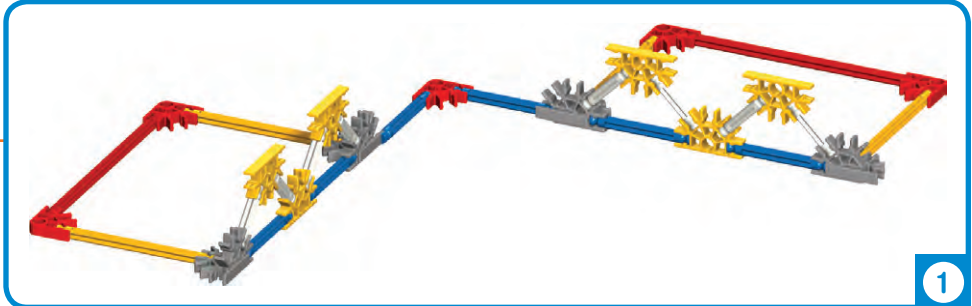
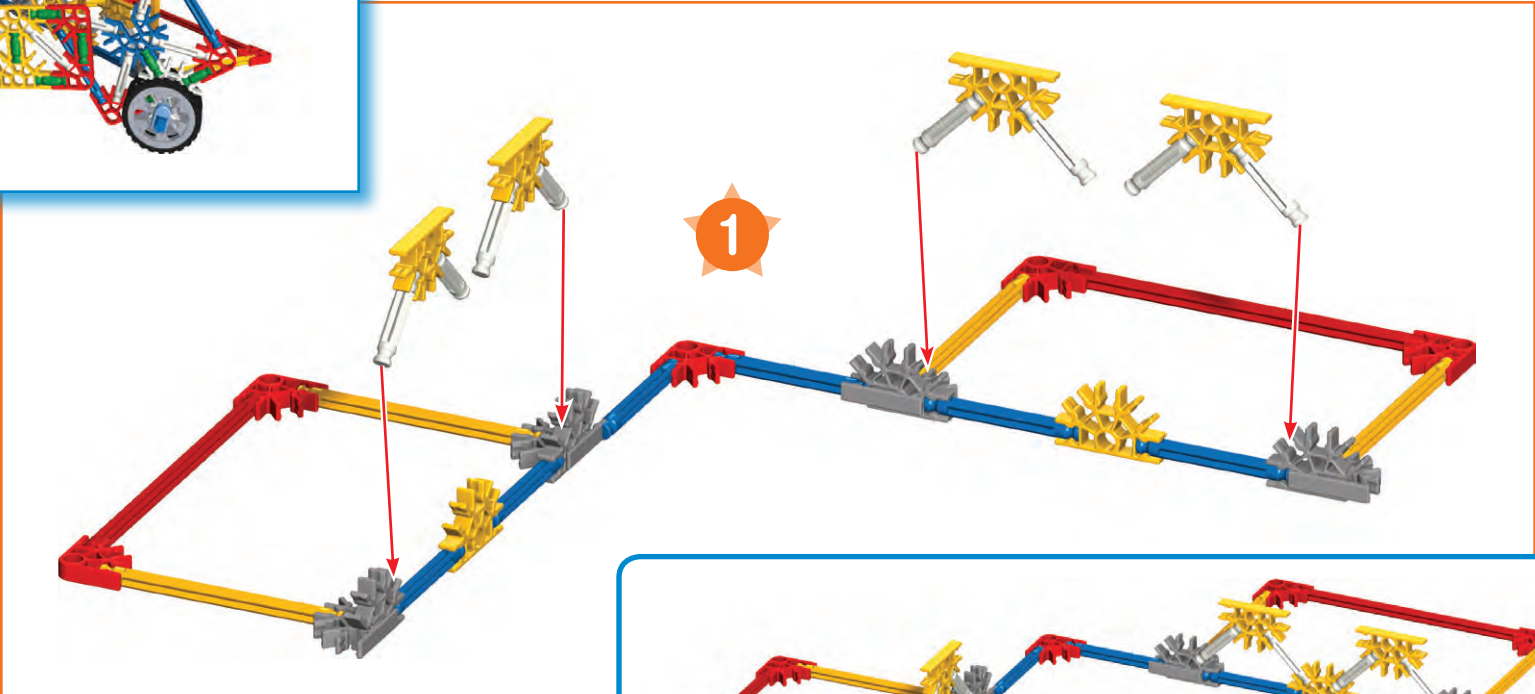
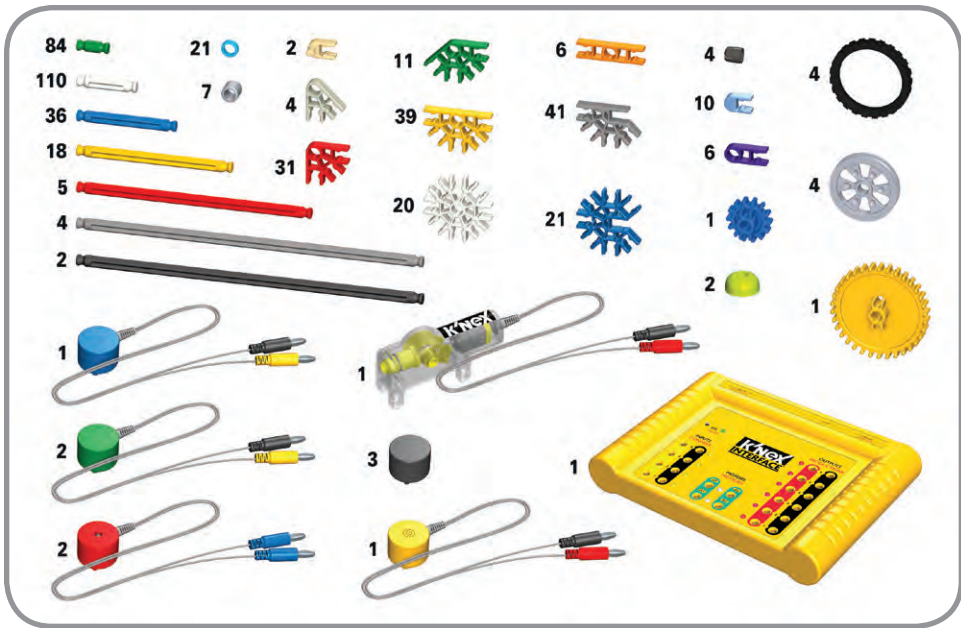


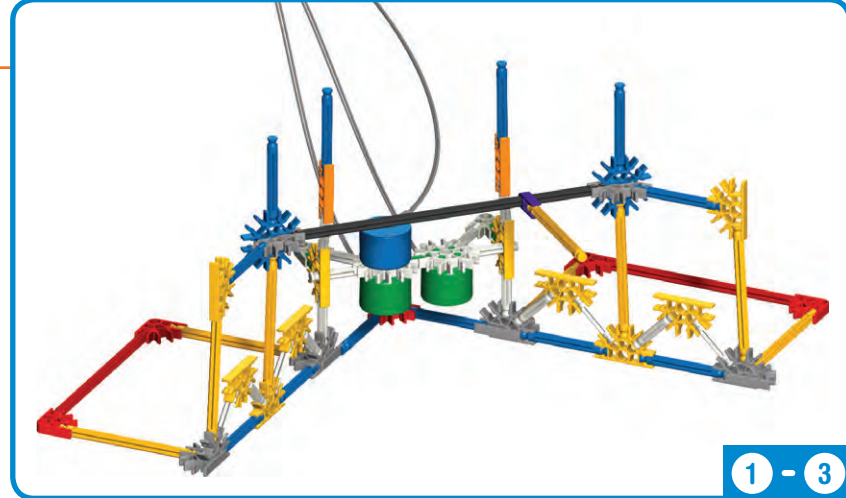
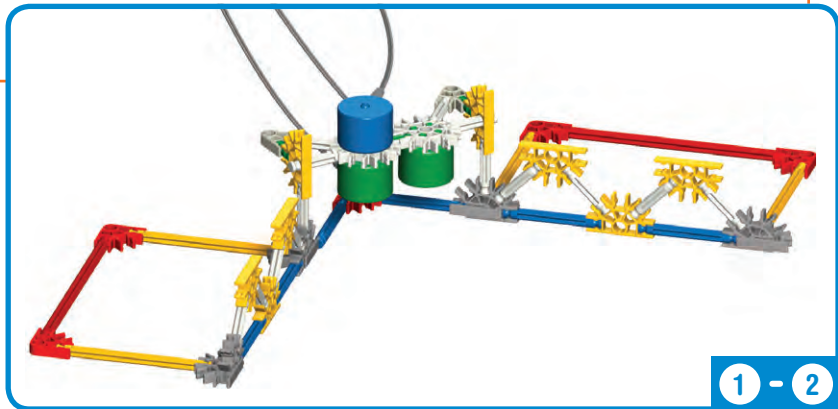
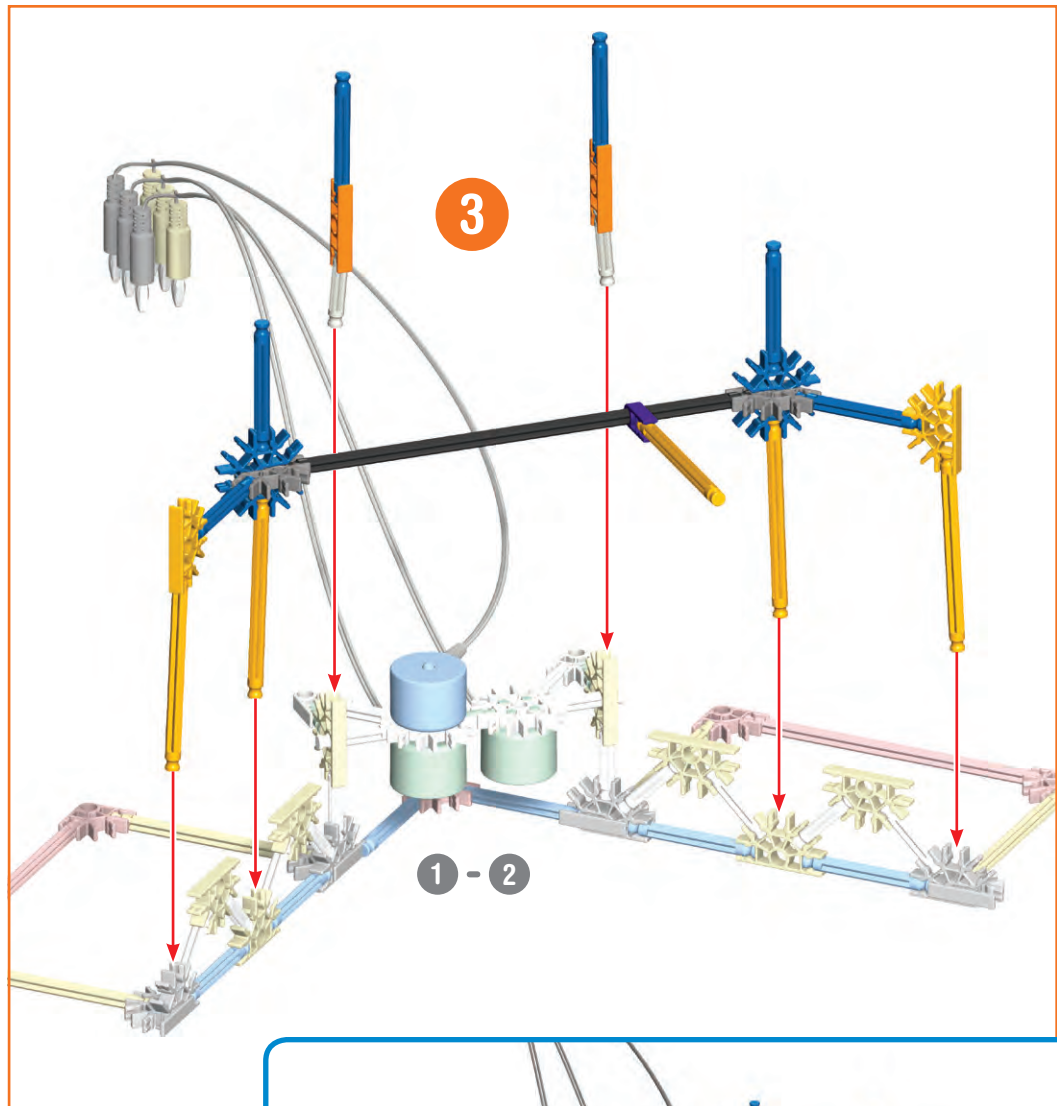
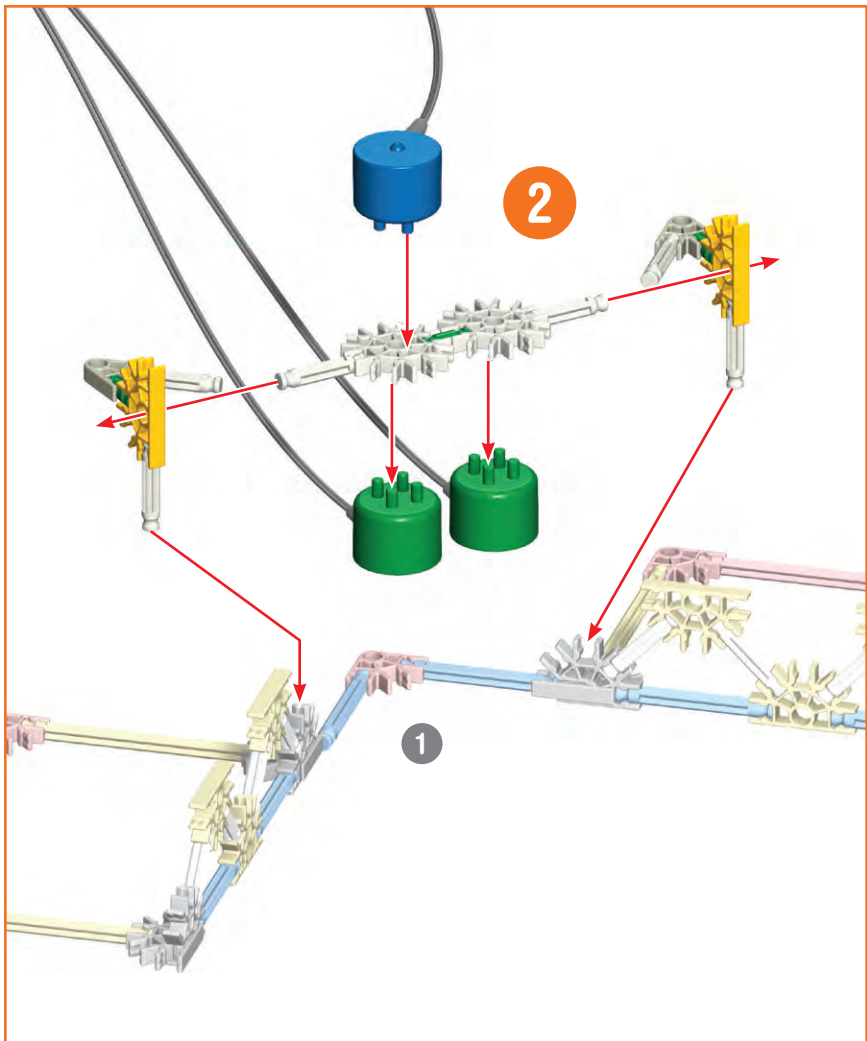


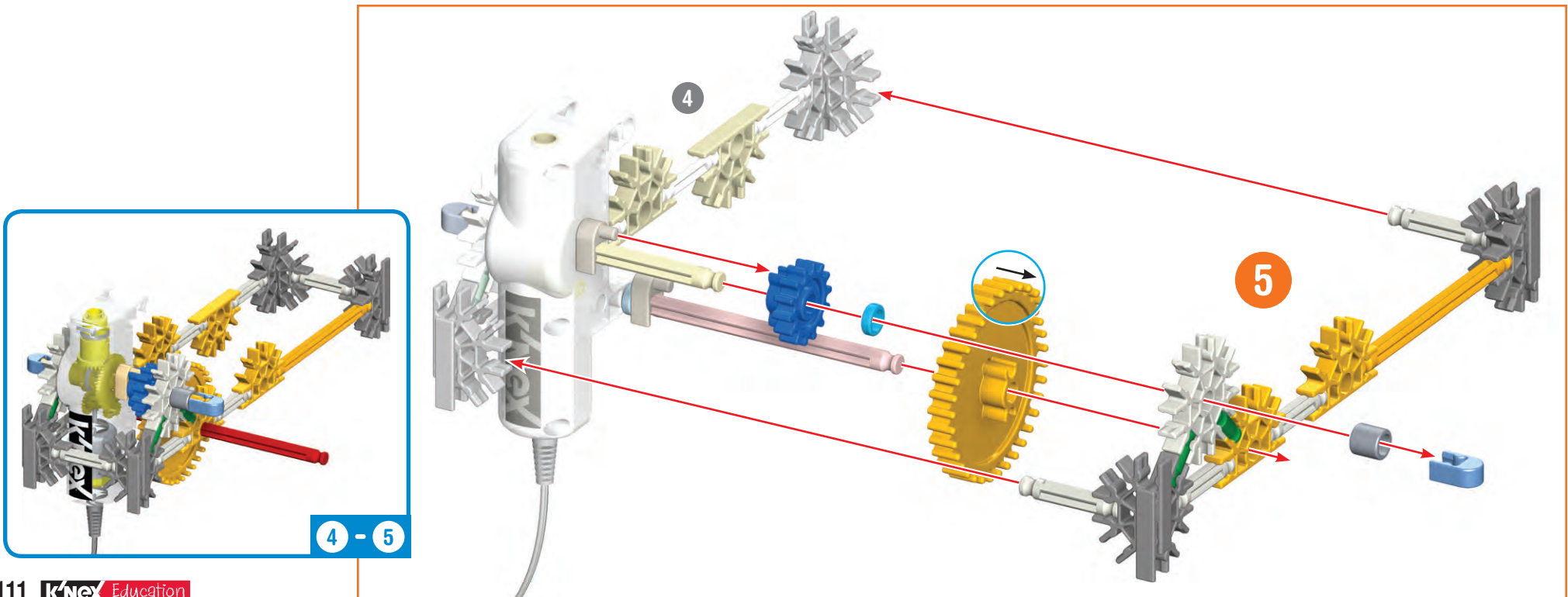
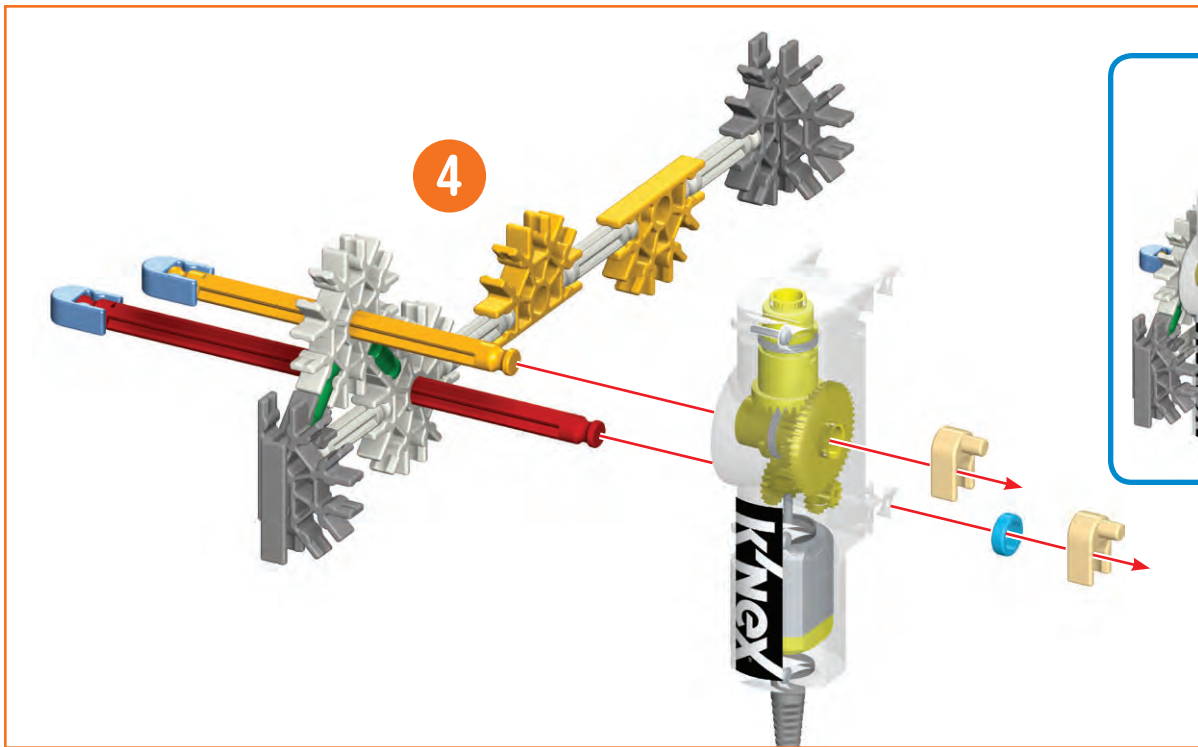
Programmable Safe - CONTROL BOX

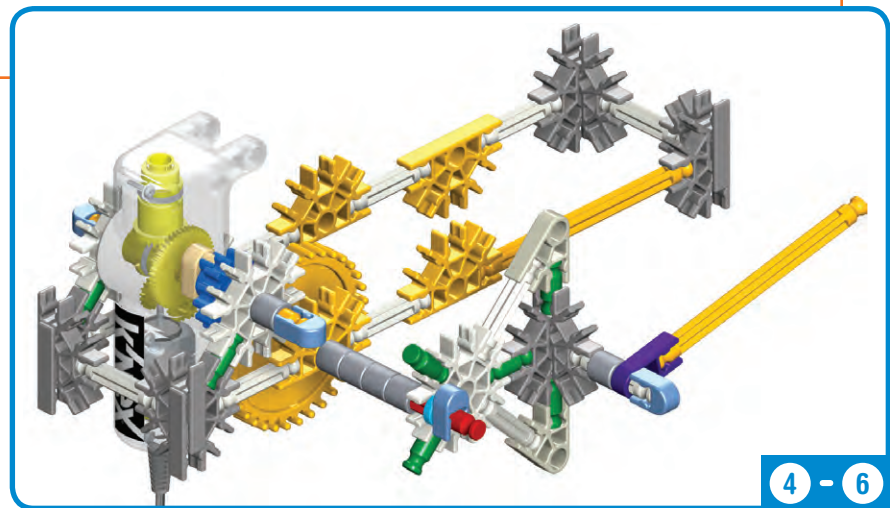
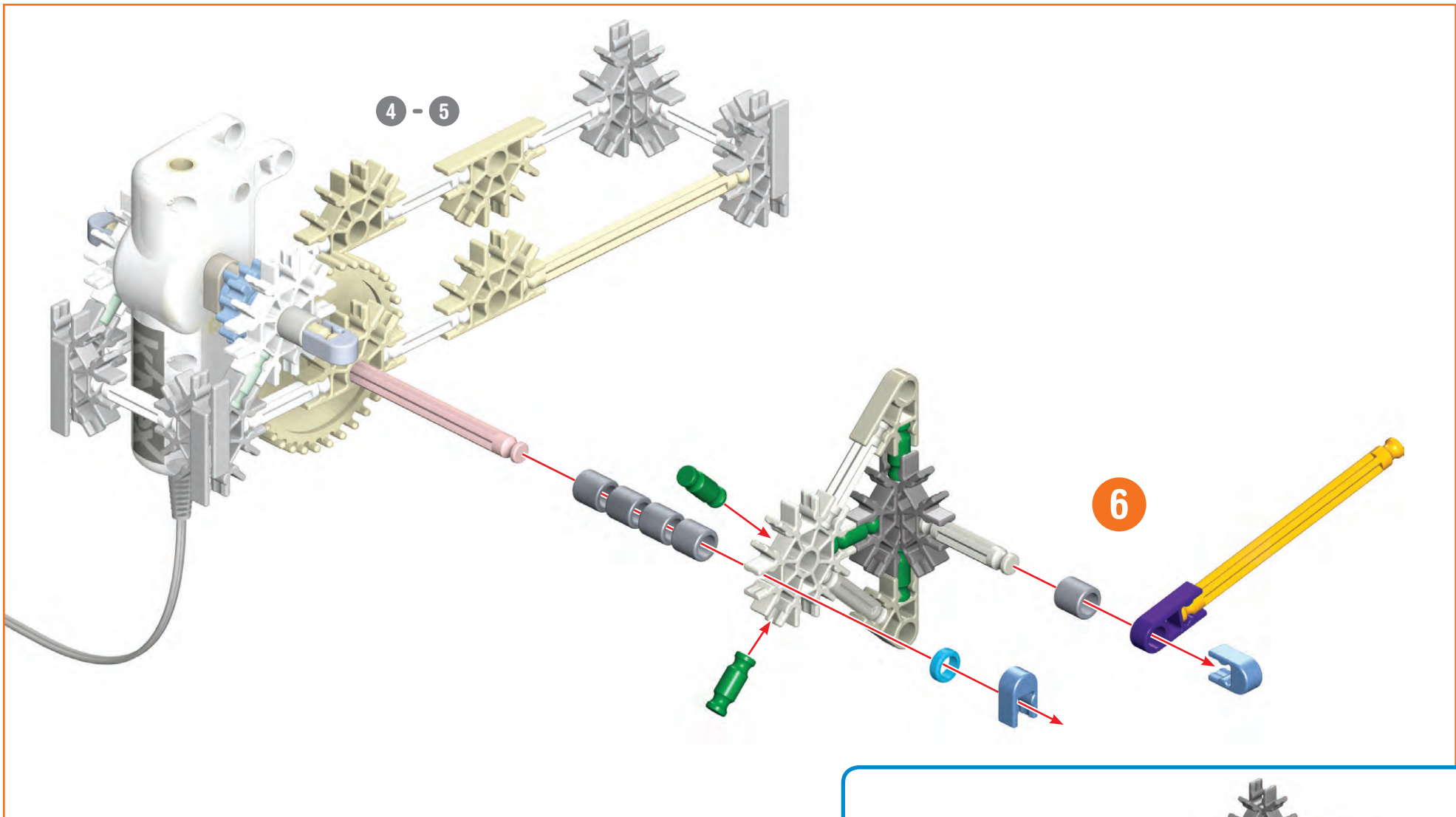


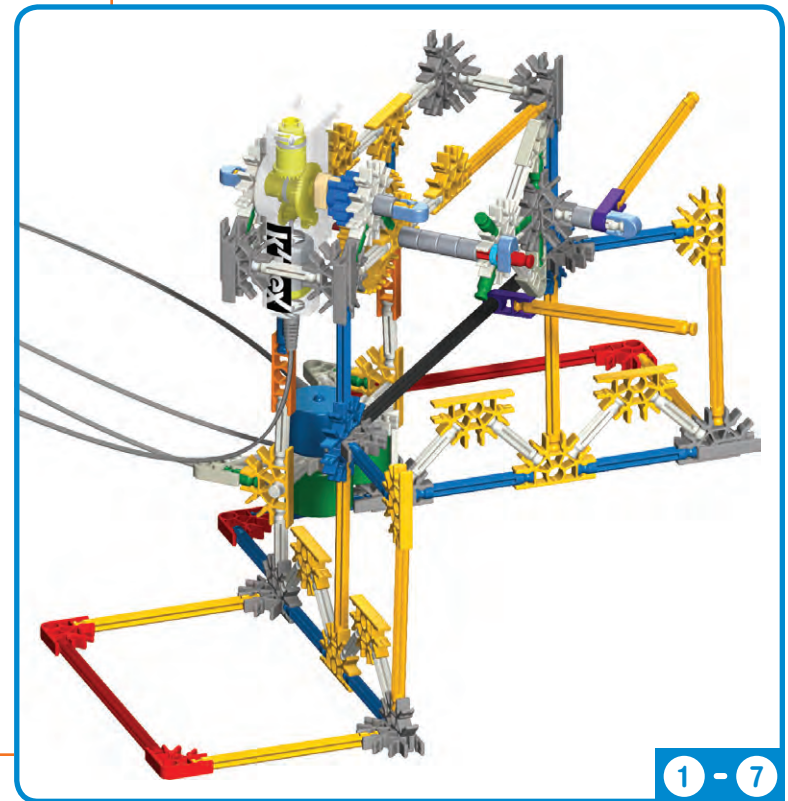
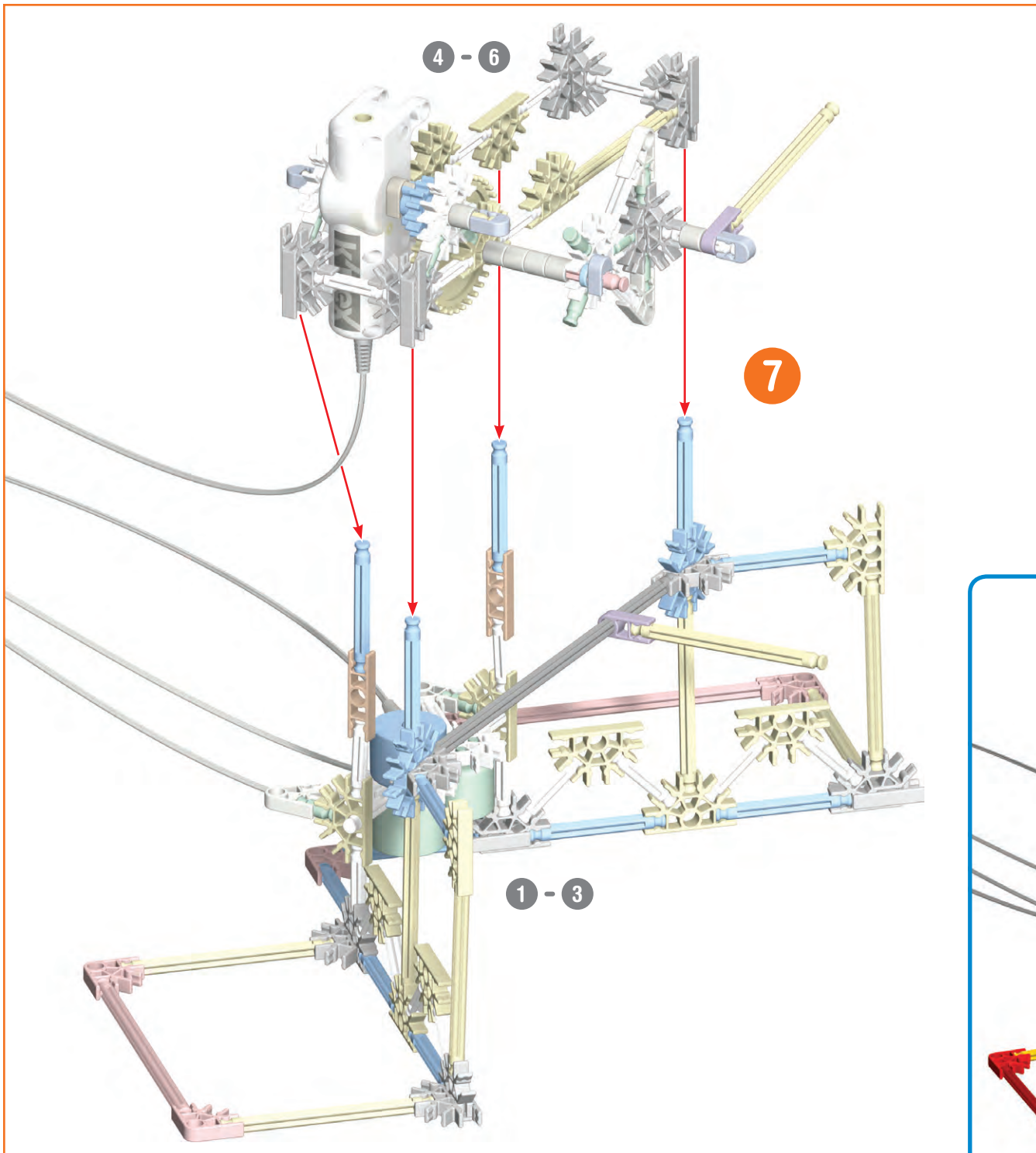
Hockey Game

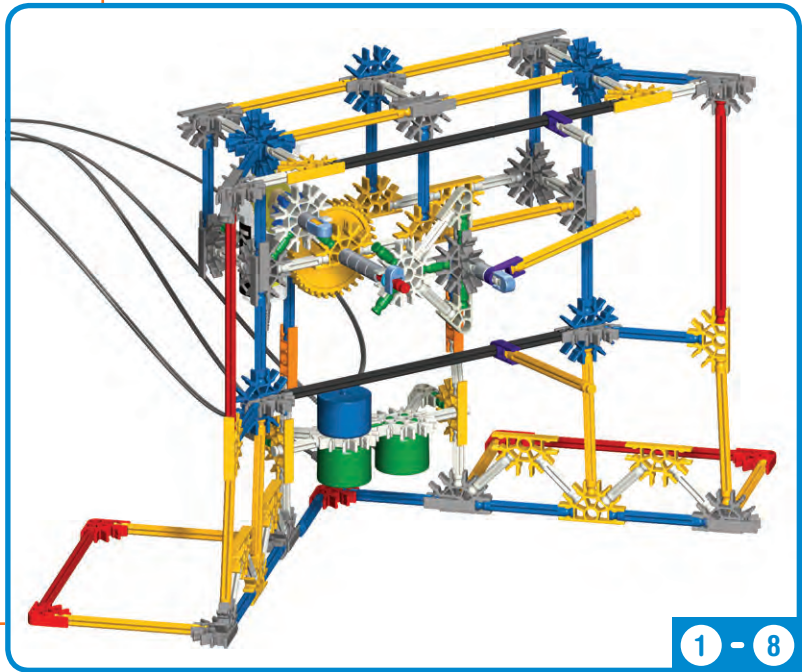
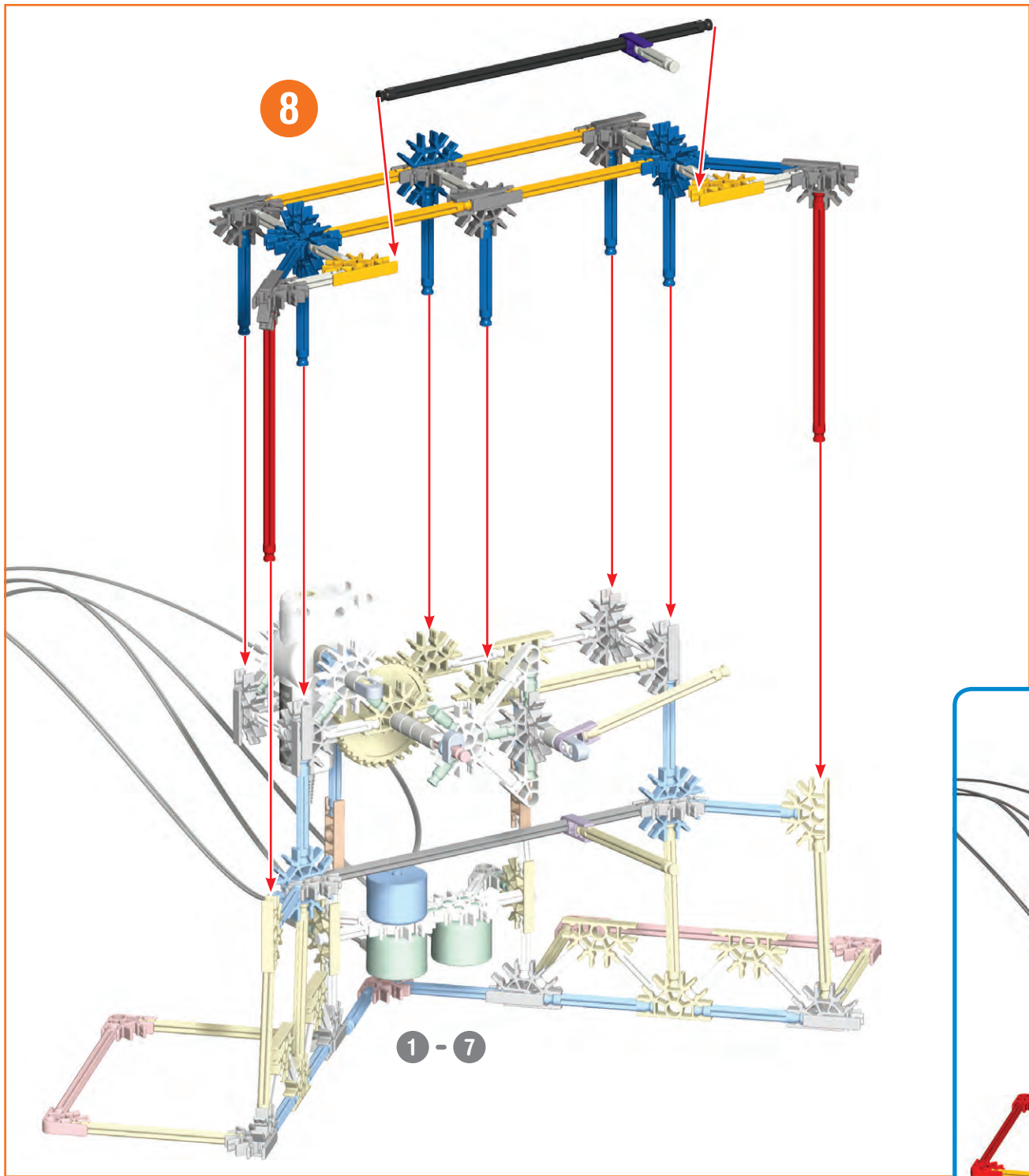


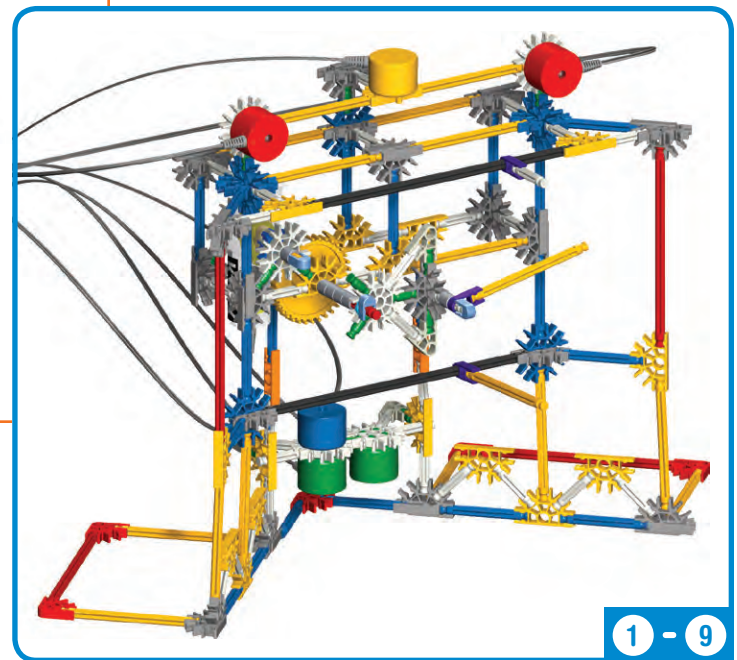
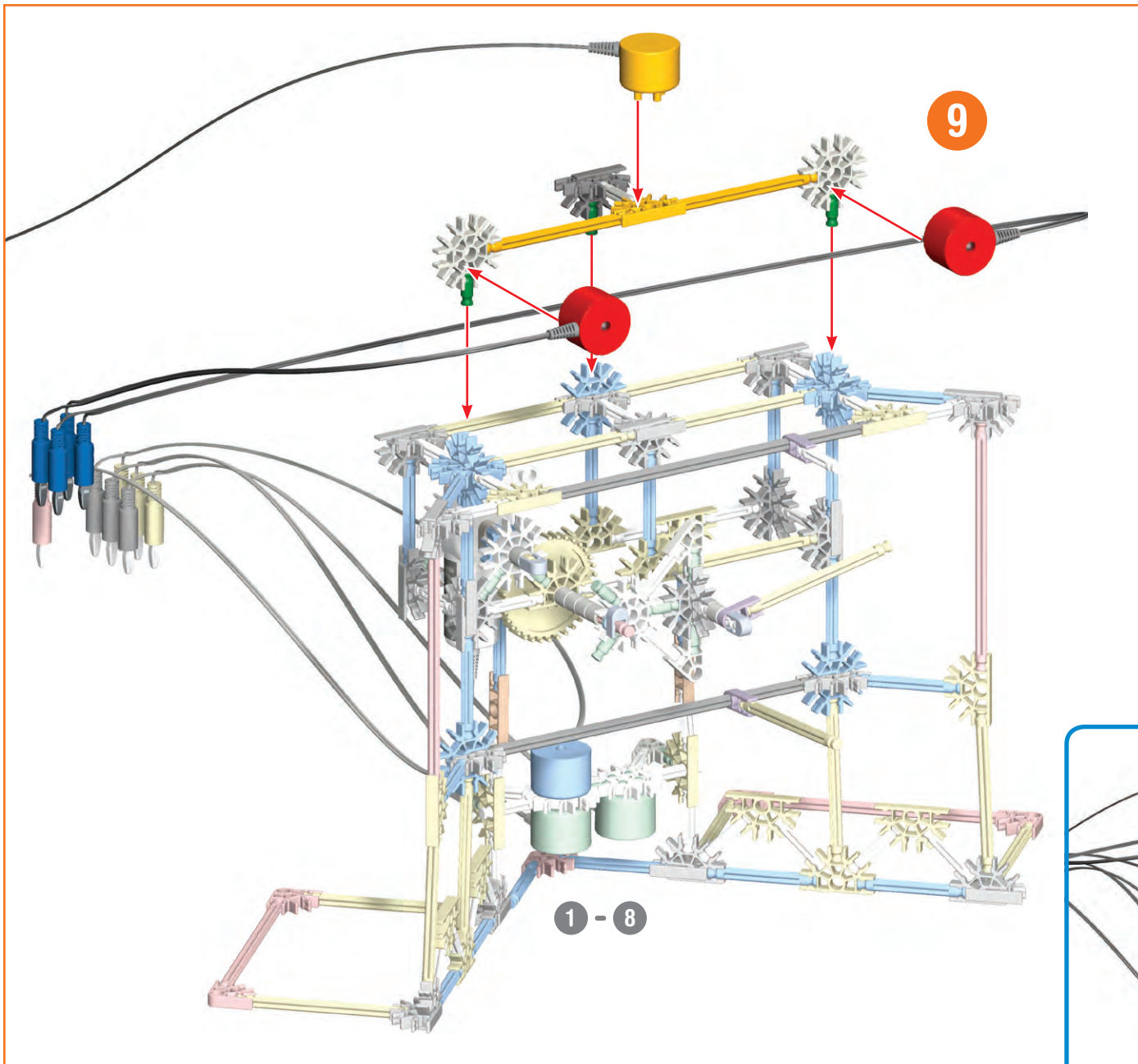


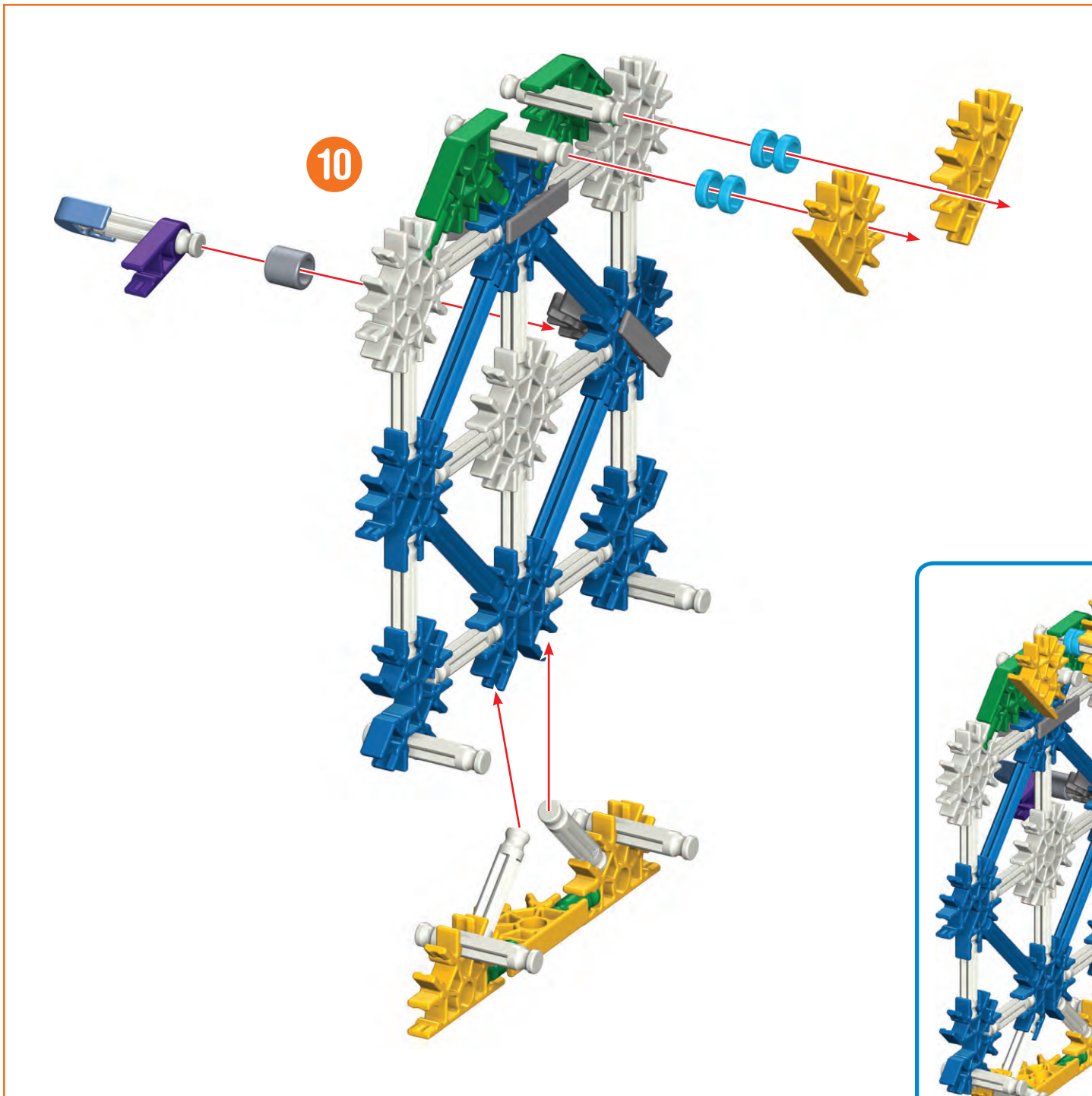


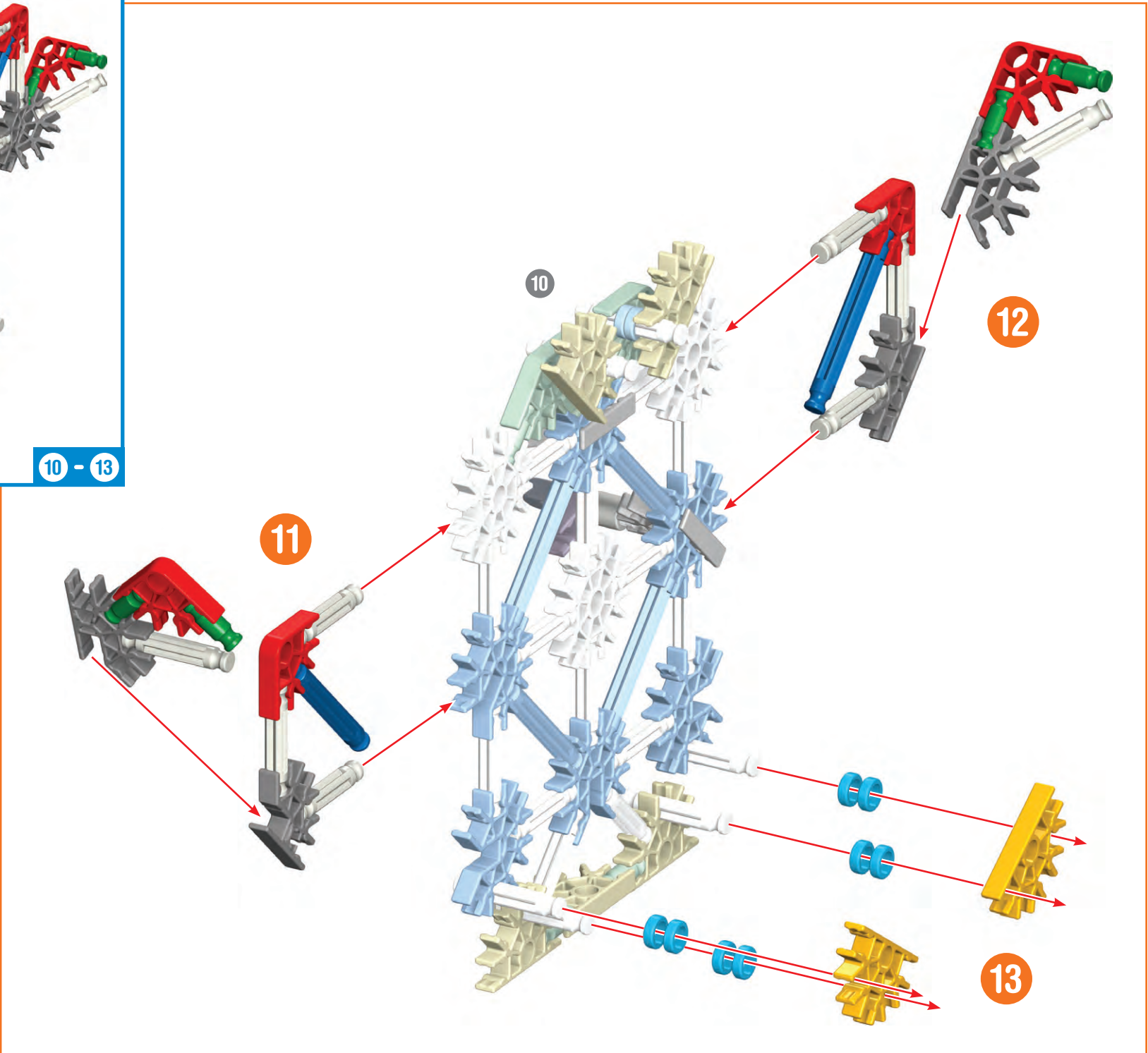


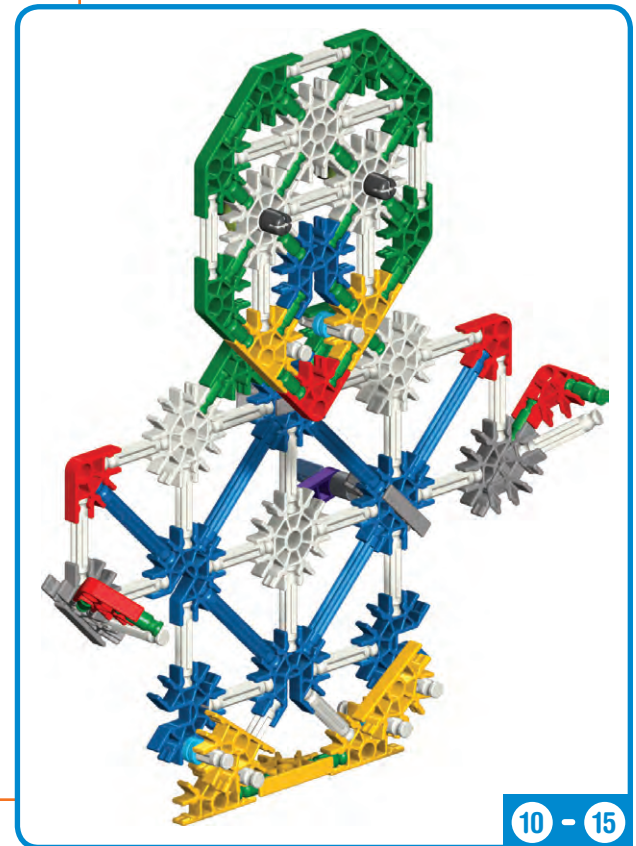
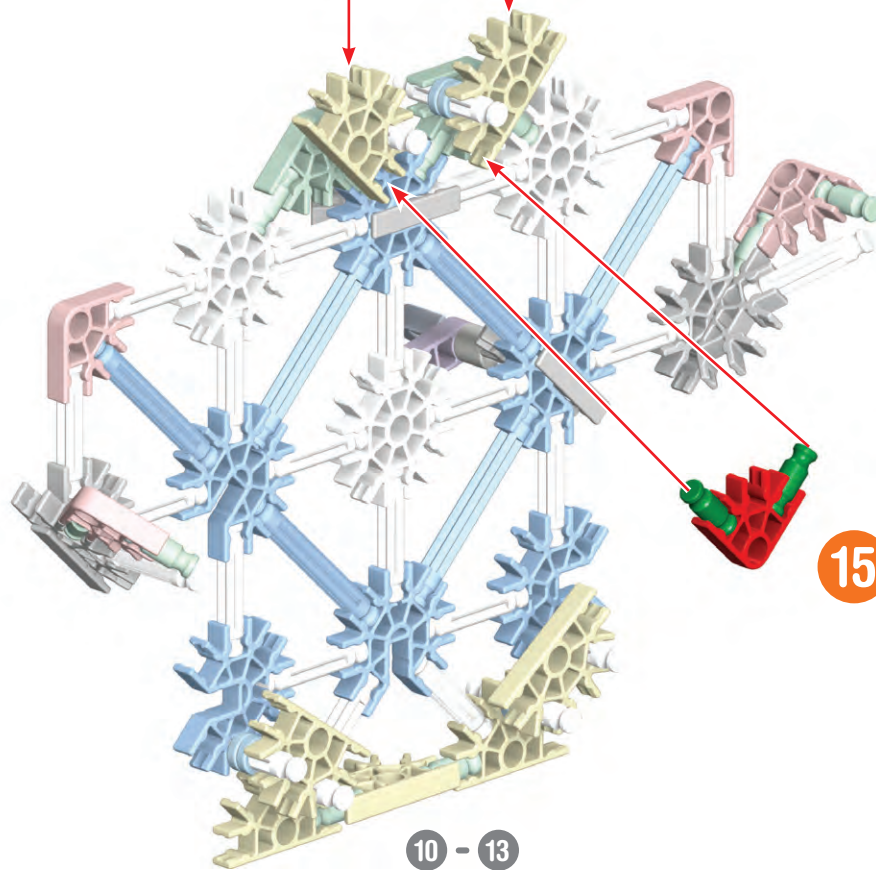
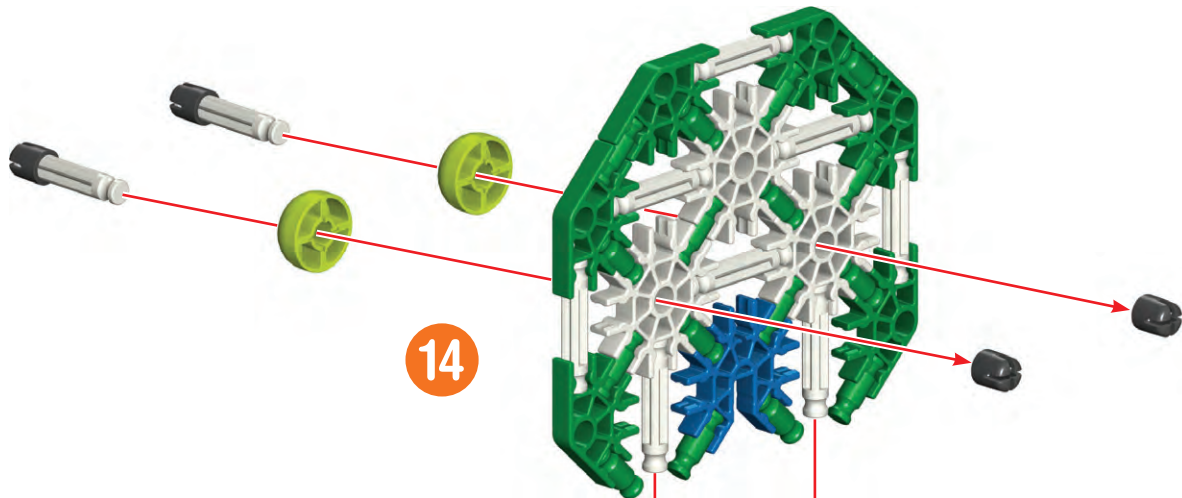


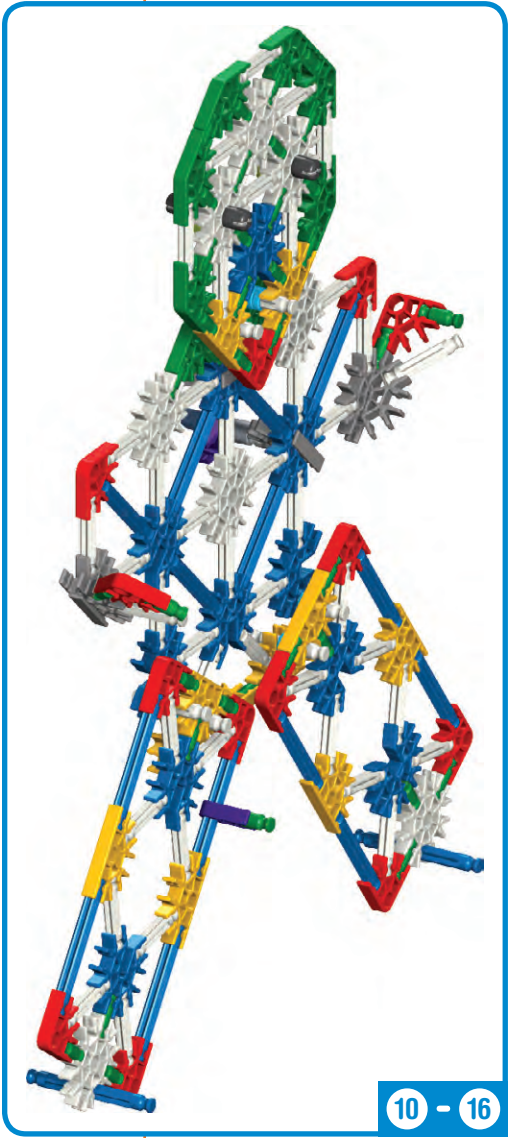
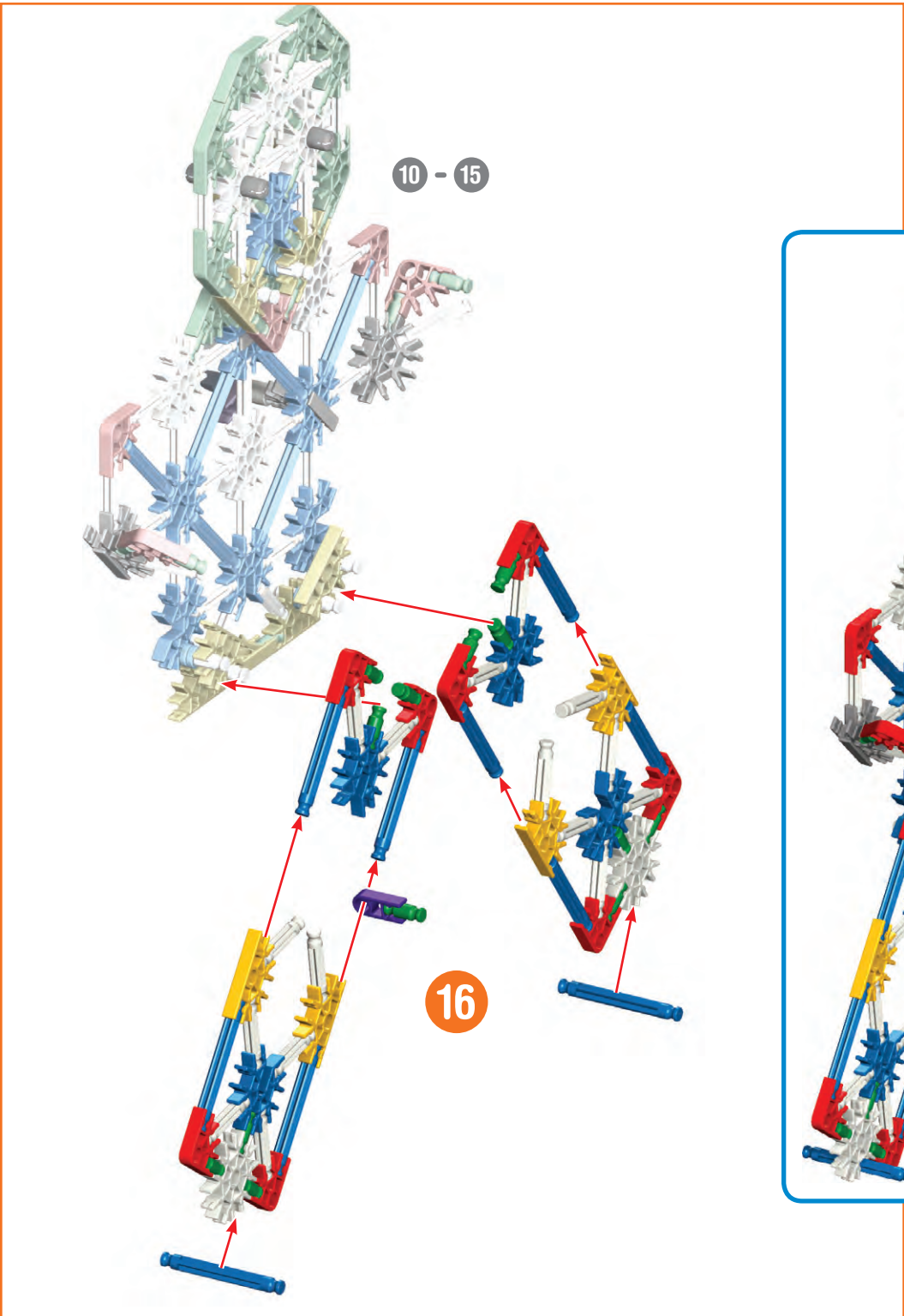


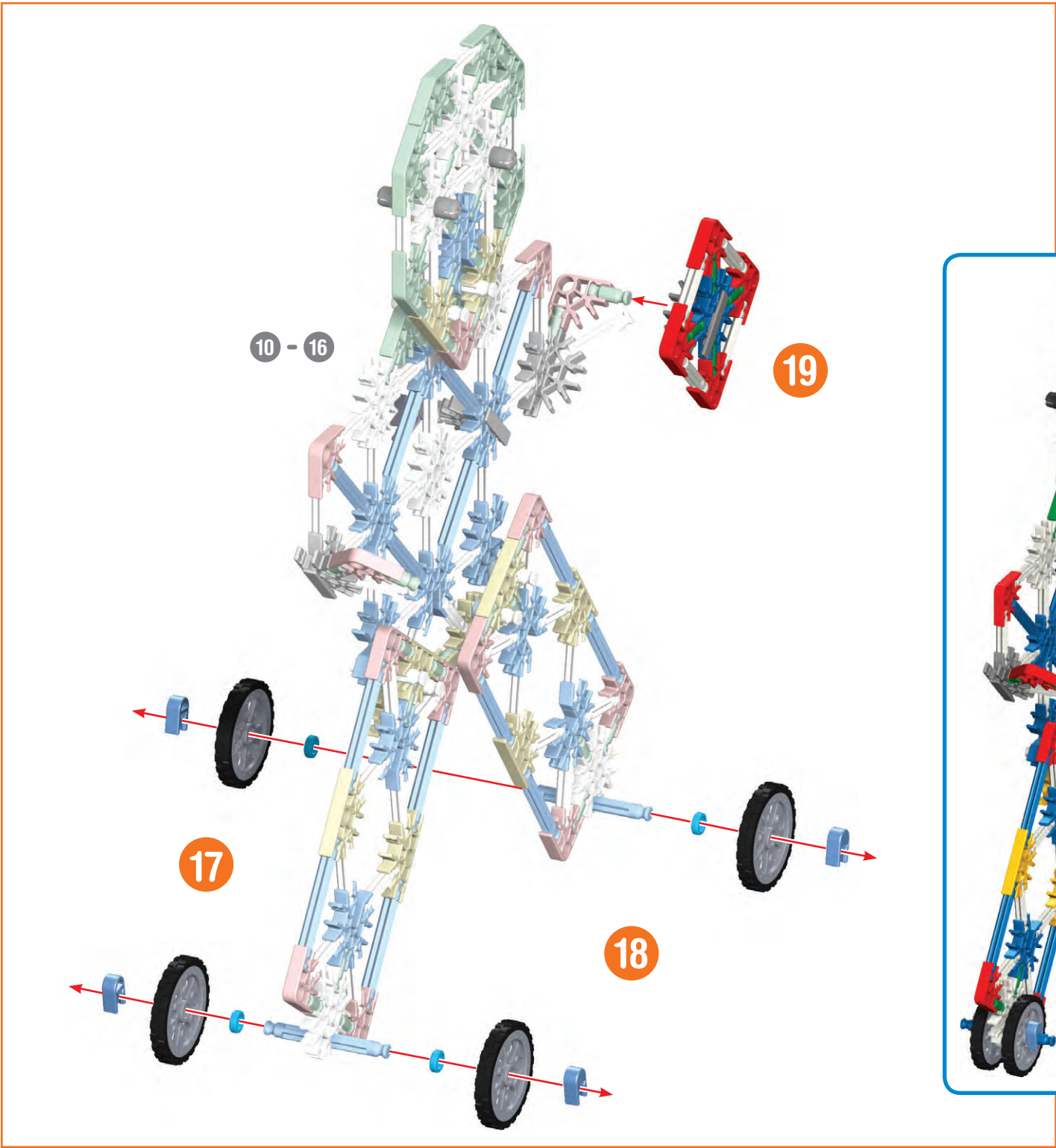




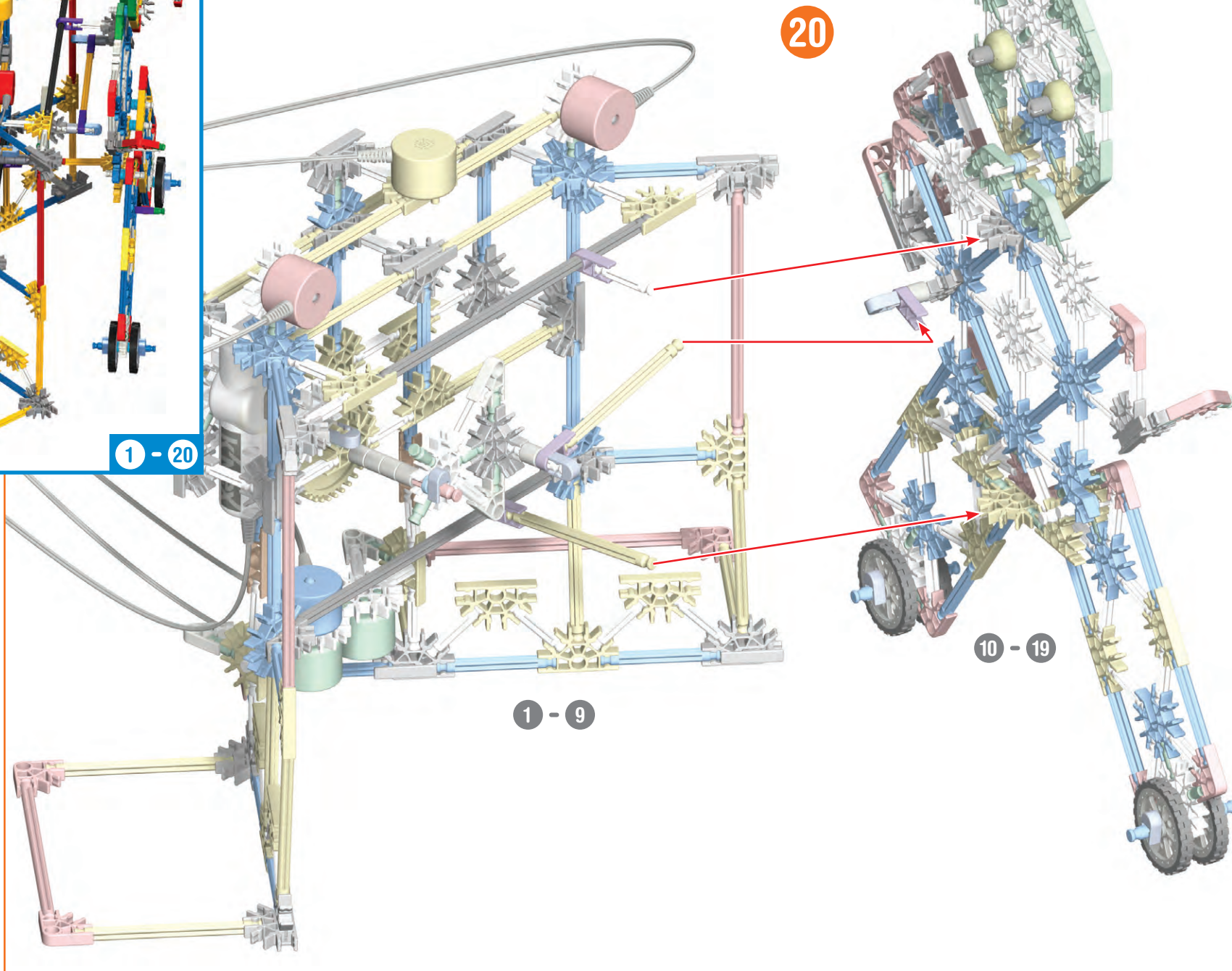
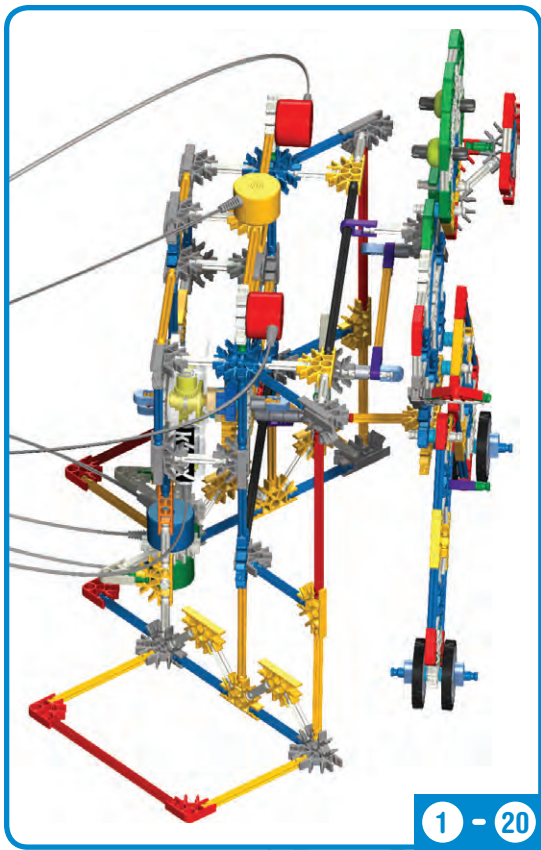


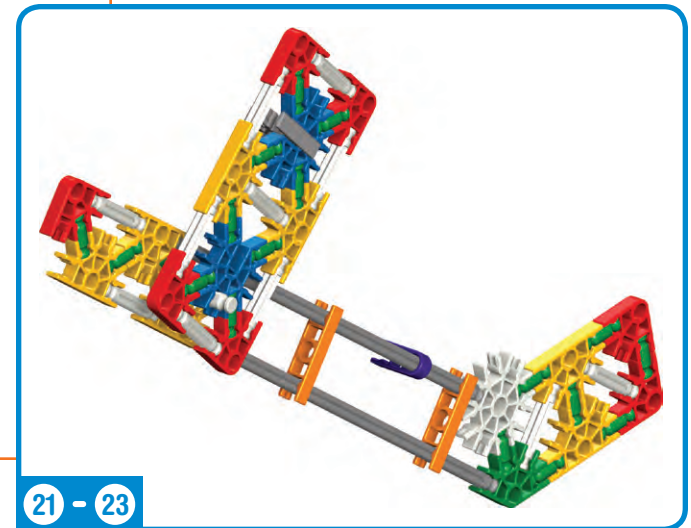
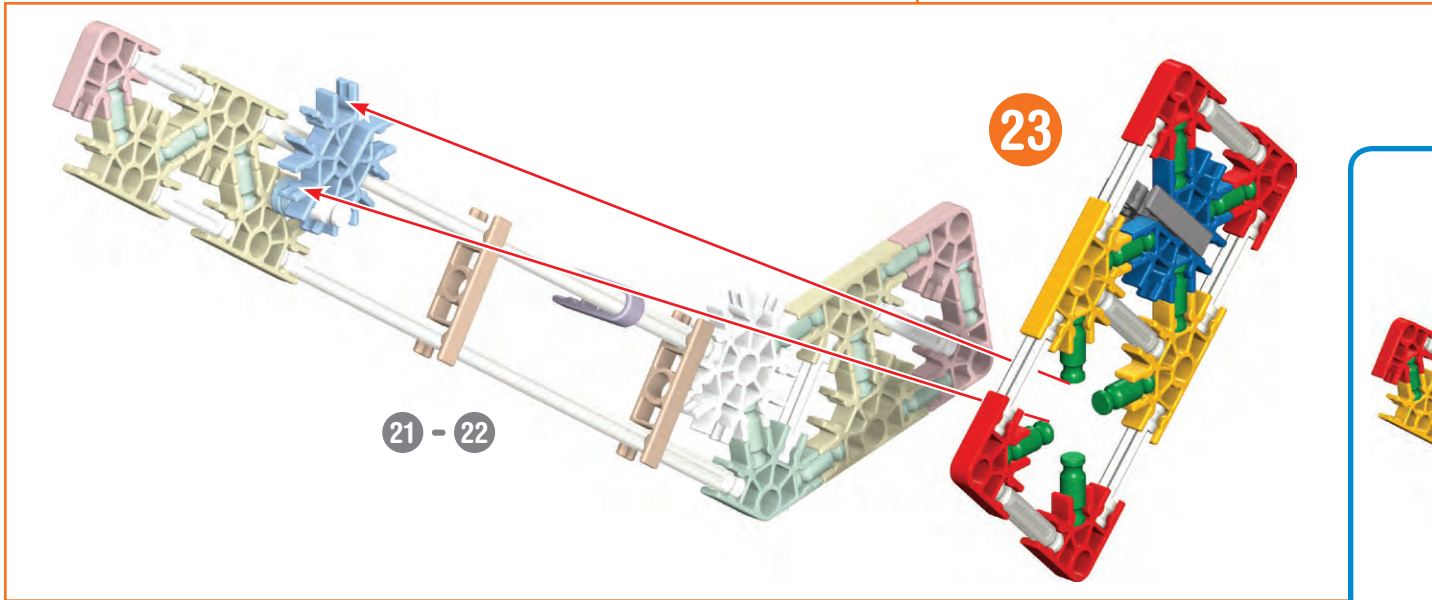
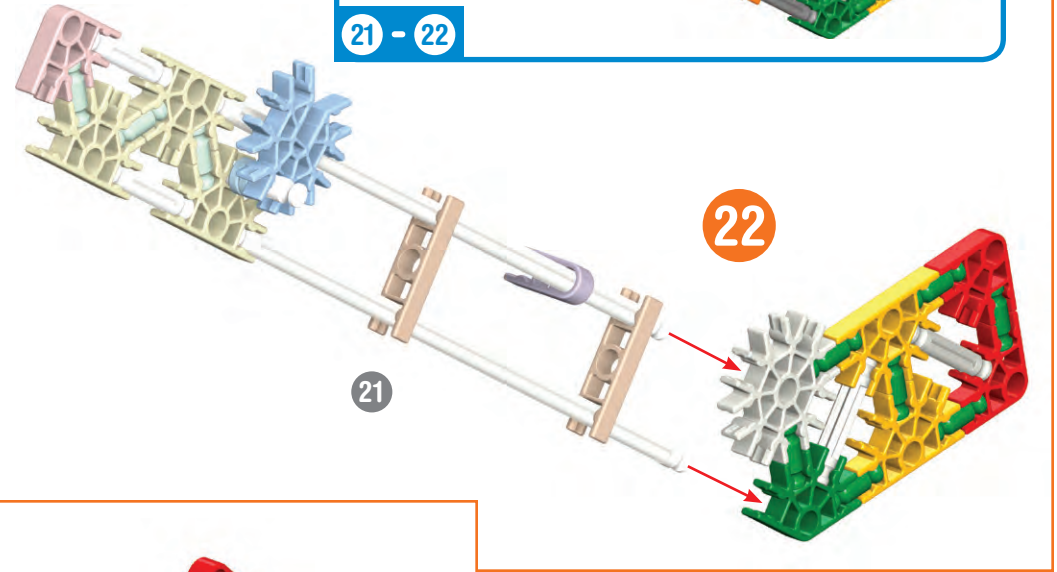
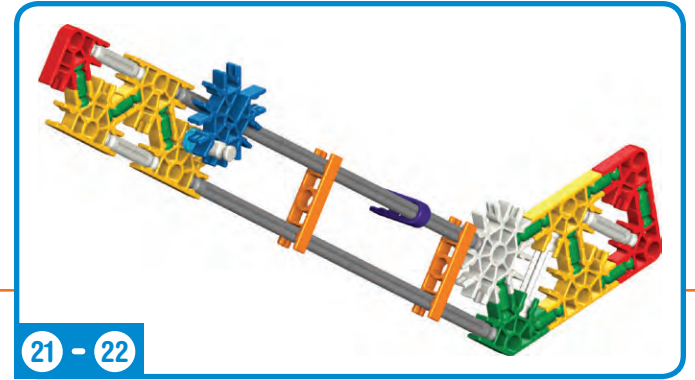
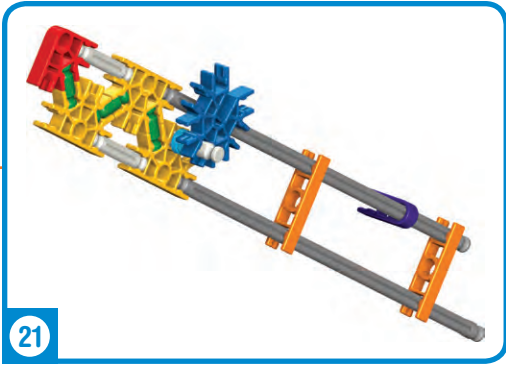
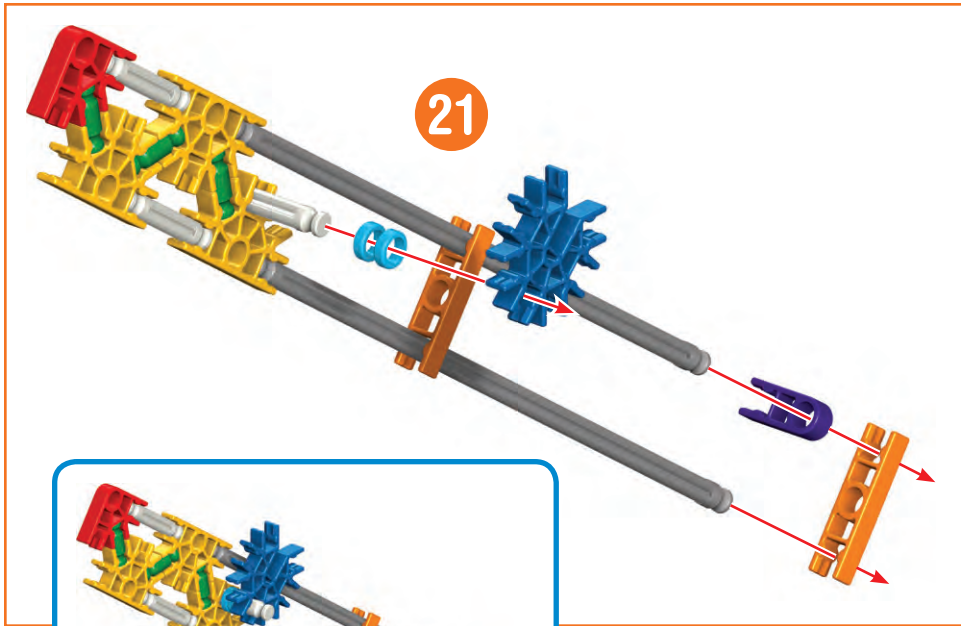


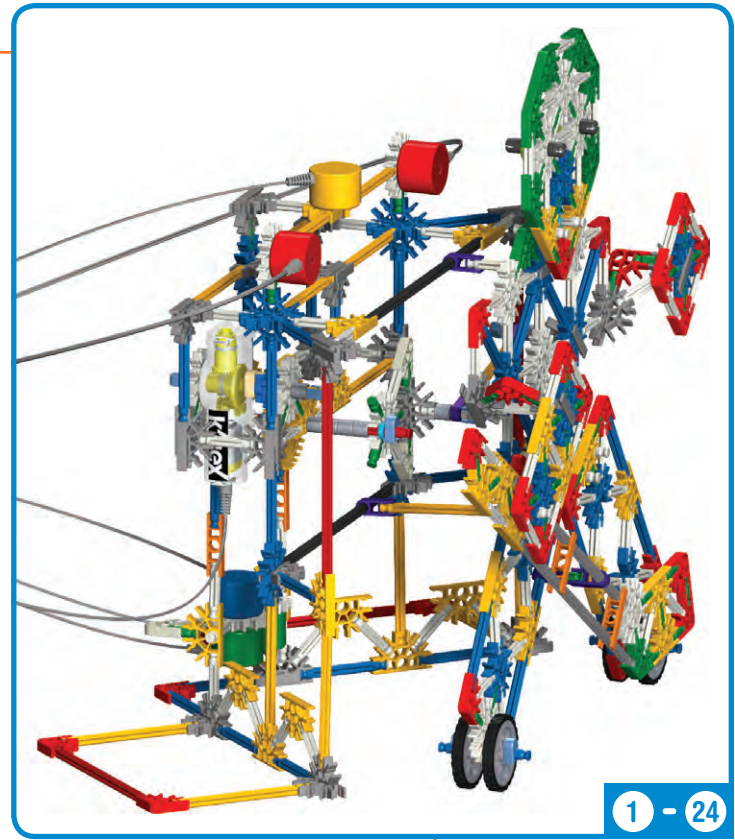
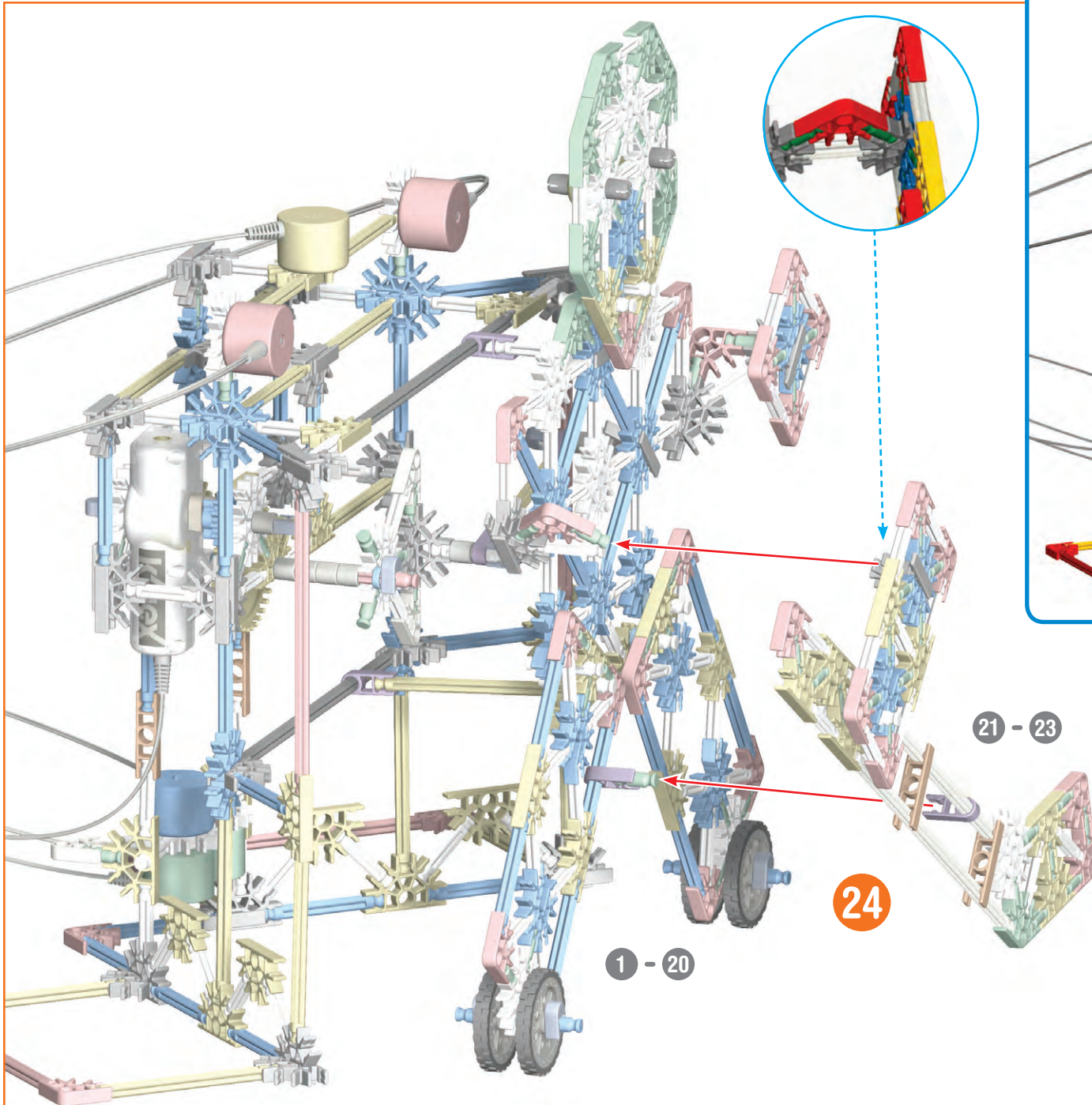


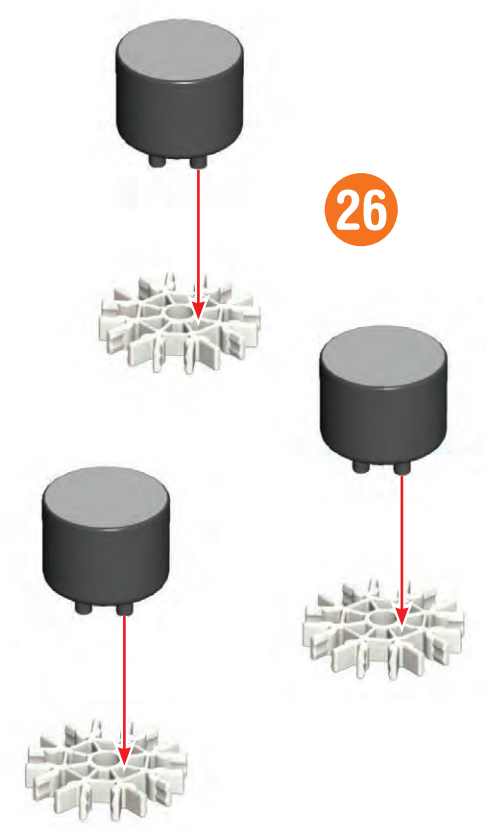
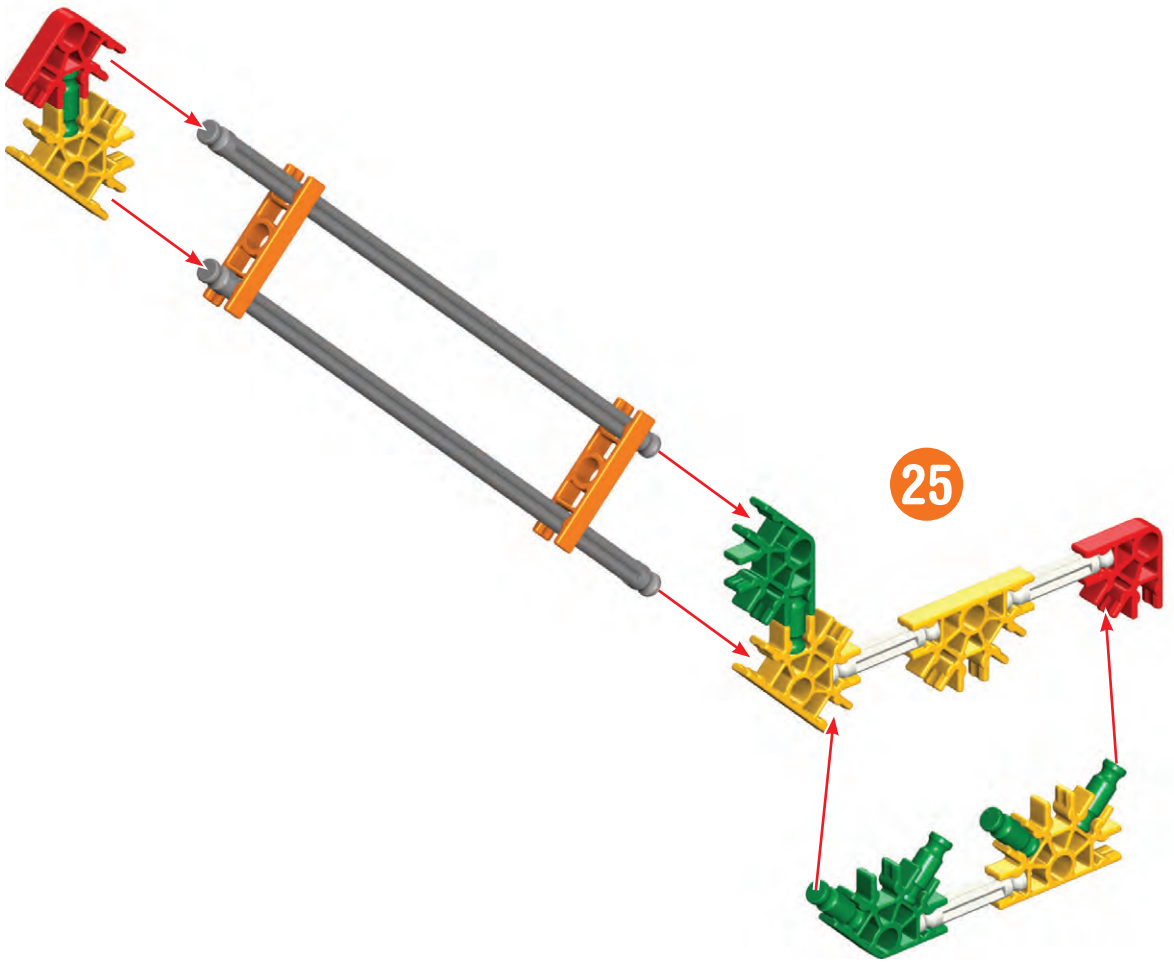


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Hockey Game – CONTROL BOX

