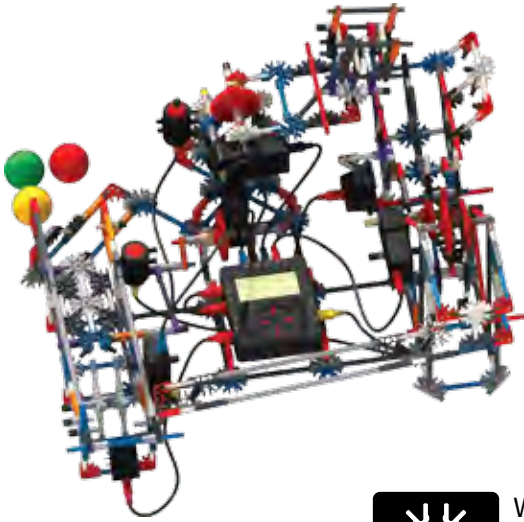
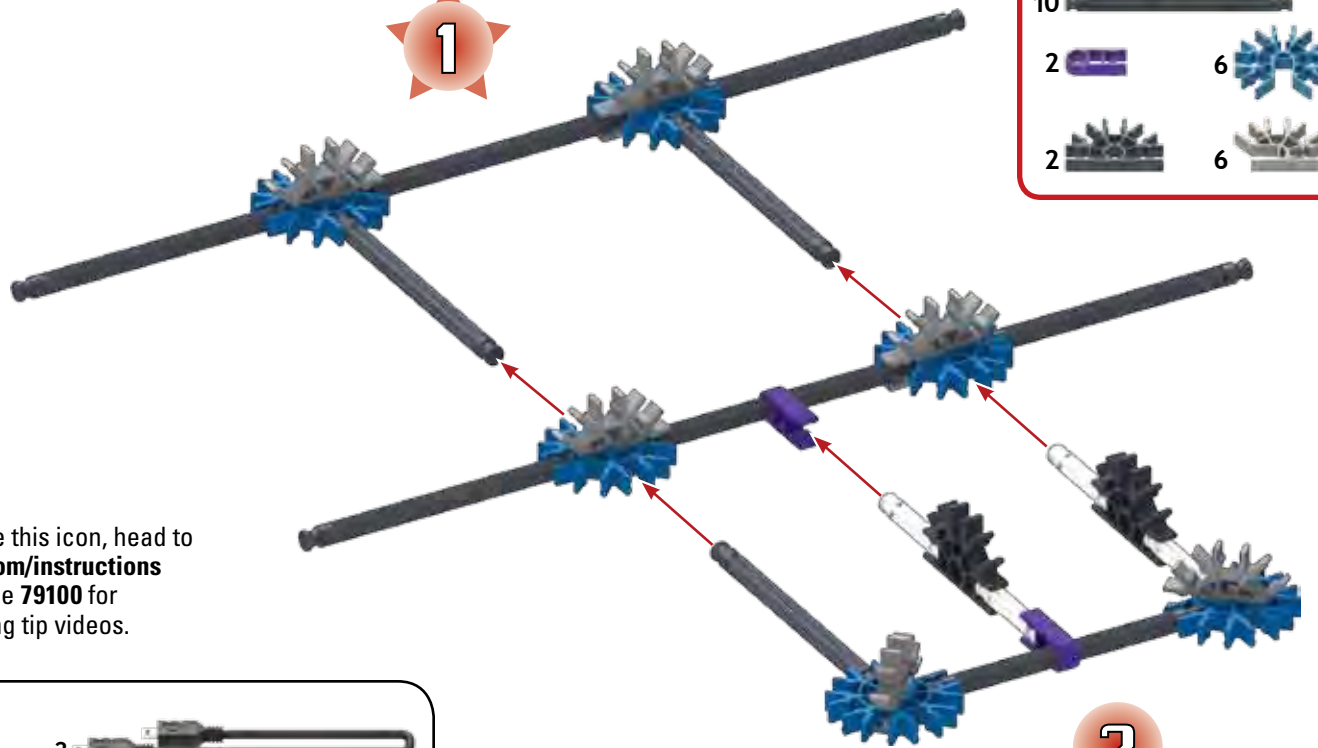


BALL FACTORY



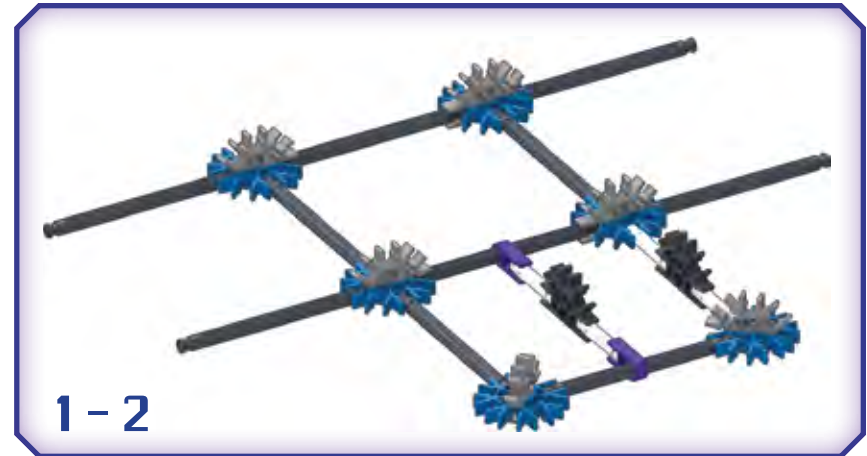
When you see this icon, head to www.knex.com/instructions and enter code **79100** for helpful building tip videos.

1



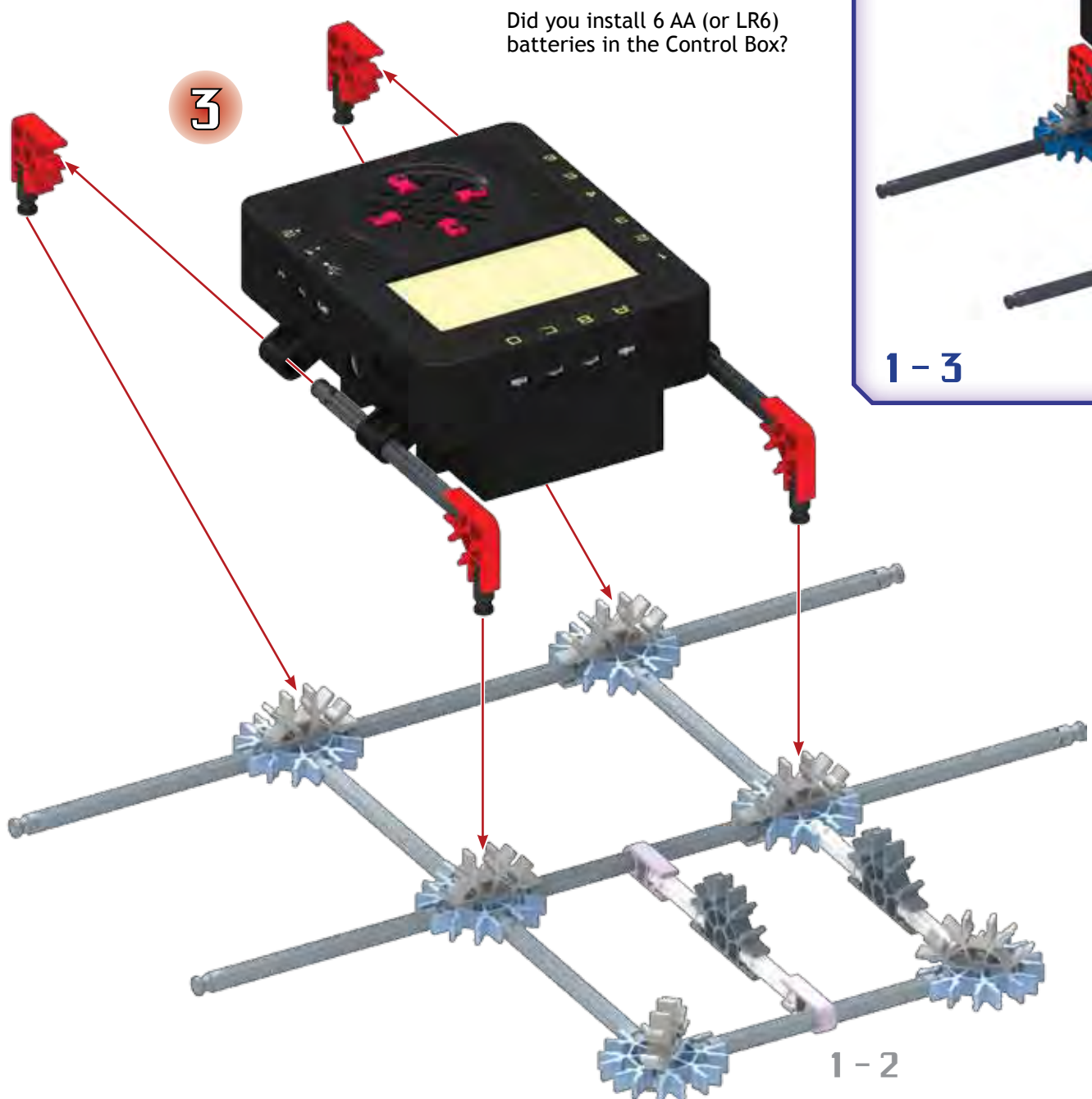
- | | | | |
|----|--|---|--|
| 4 | | | |
| 10 | | | |
| 2 | | 6 | |
| 2 | | 6 | |

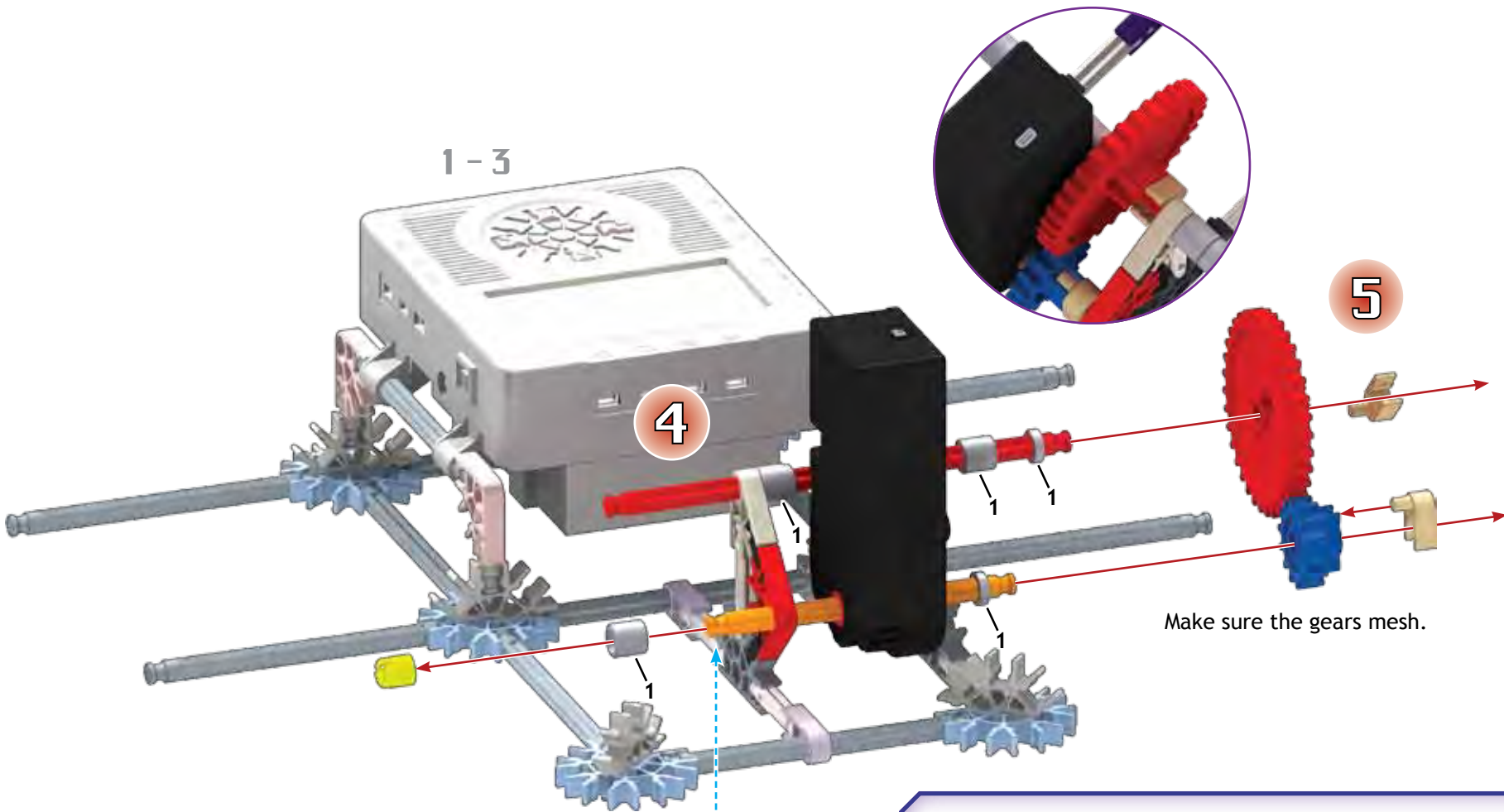
2



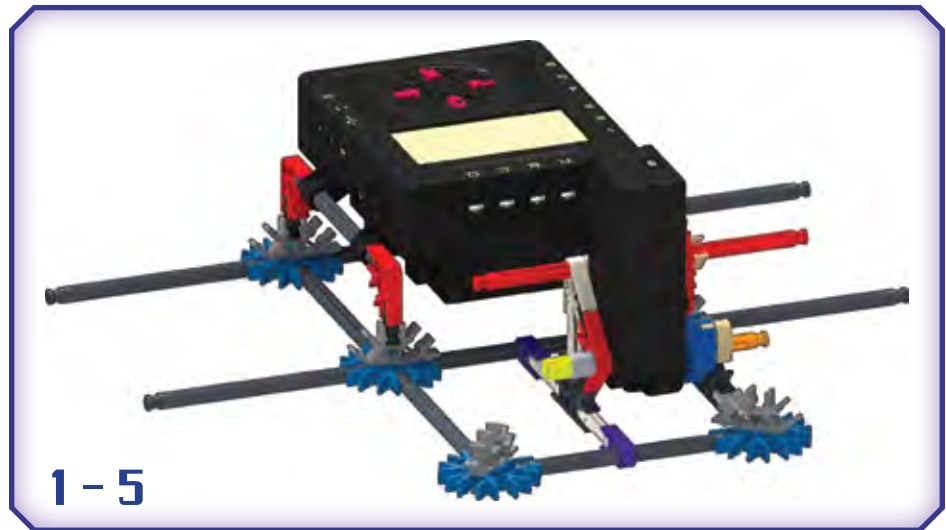
1		1		1		6		2	
21		42		47		10		1	
								2	
103								4	
92		20		4				1	
45									
33								1	
10									
4								1	
2								1	
12		16		13		9		29	
42		38		16		19		51	
4		1		3				1	
1		1		1		1			

1 BALL FACTORY



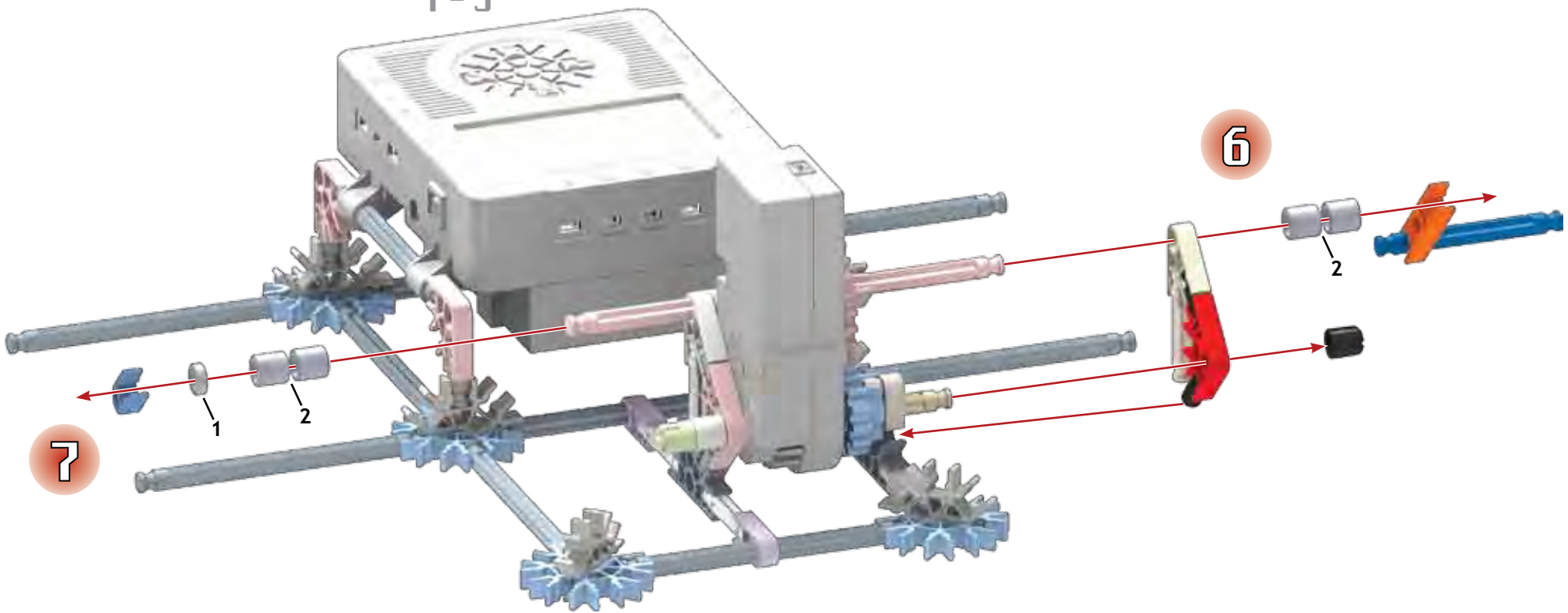


- | | | | |
|---|---|---|---|
| 2 | 2 | 3 | 2 |
| 1 | 1 | | |
| 1 | 1 | | |
| 1 | 1 | 1 | 1 |
| 1 | 1 | | |
| 1 | 1 | | |
| 1 | | 1 | 1 |



3 BALL FACTORY

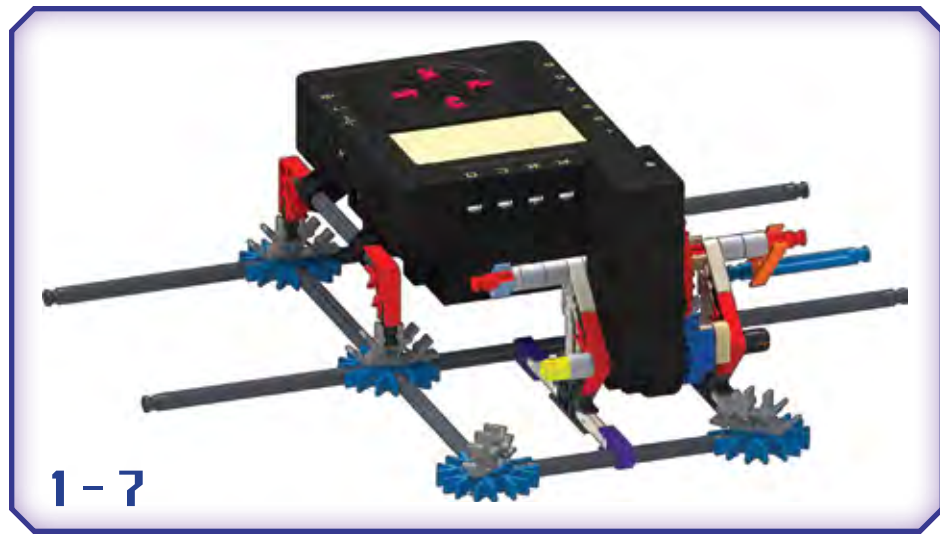
1-5



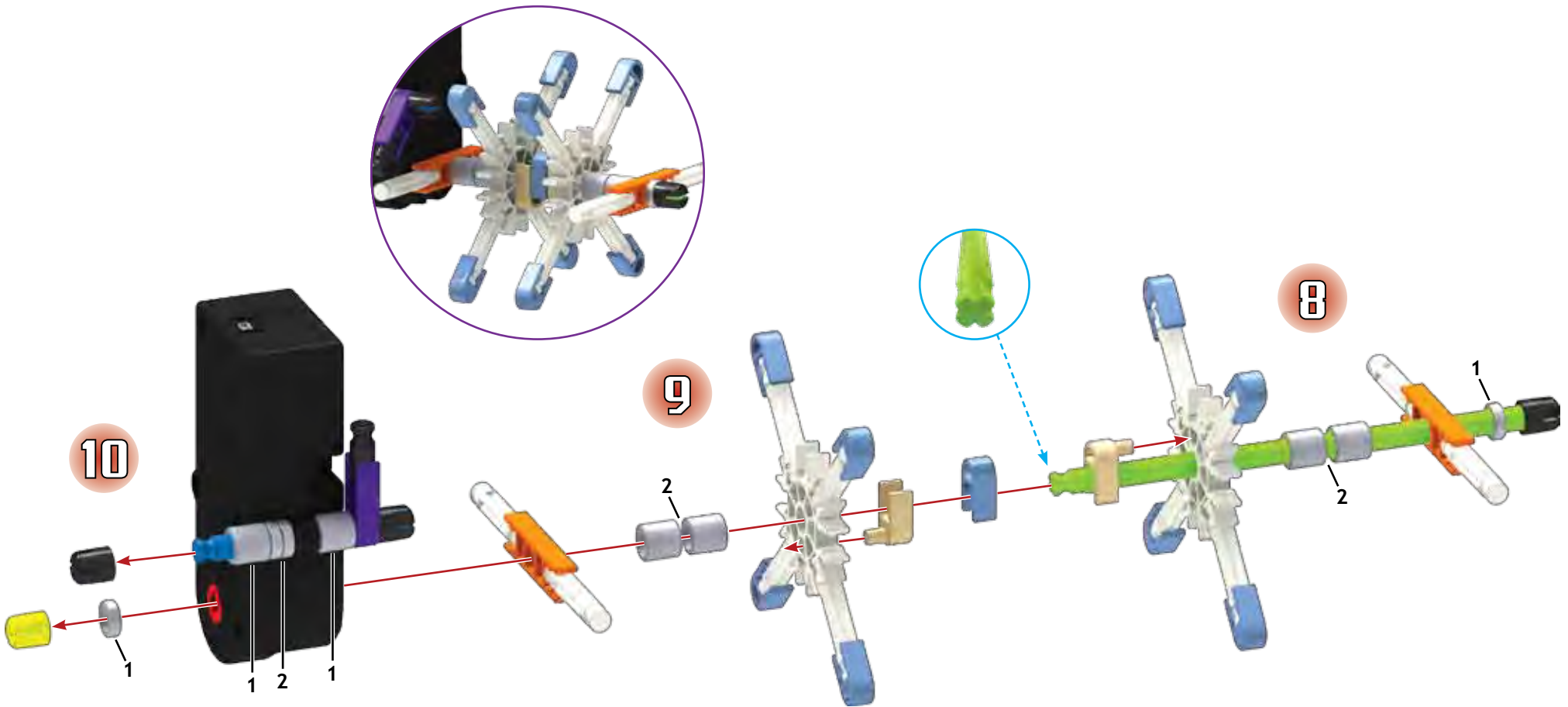
7

6

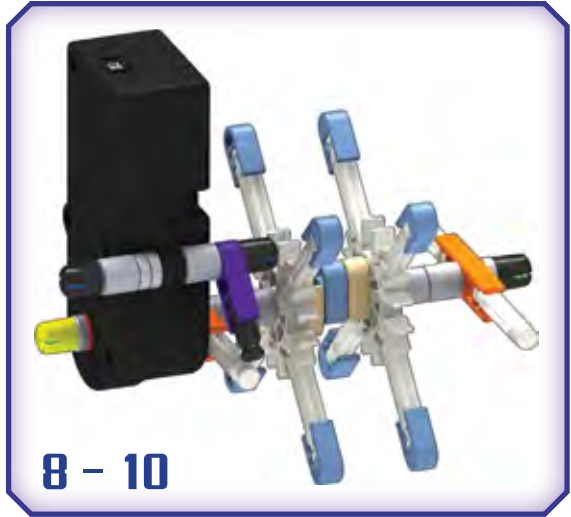
- | | | | | | |
|---|--|---|--|---|--|
| 1 | | 1 | | 1 | |
| 2 | | 4 | | 1 | |
| 1 | | | | 1 | |
| 1 | | | | 1 | |
| 1 | | | | 1 | |

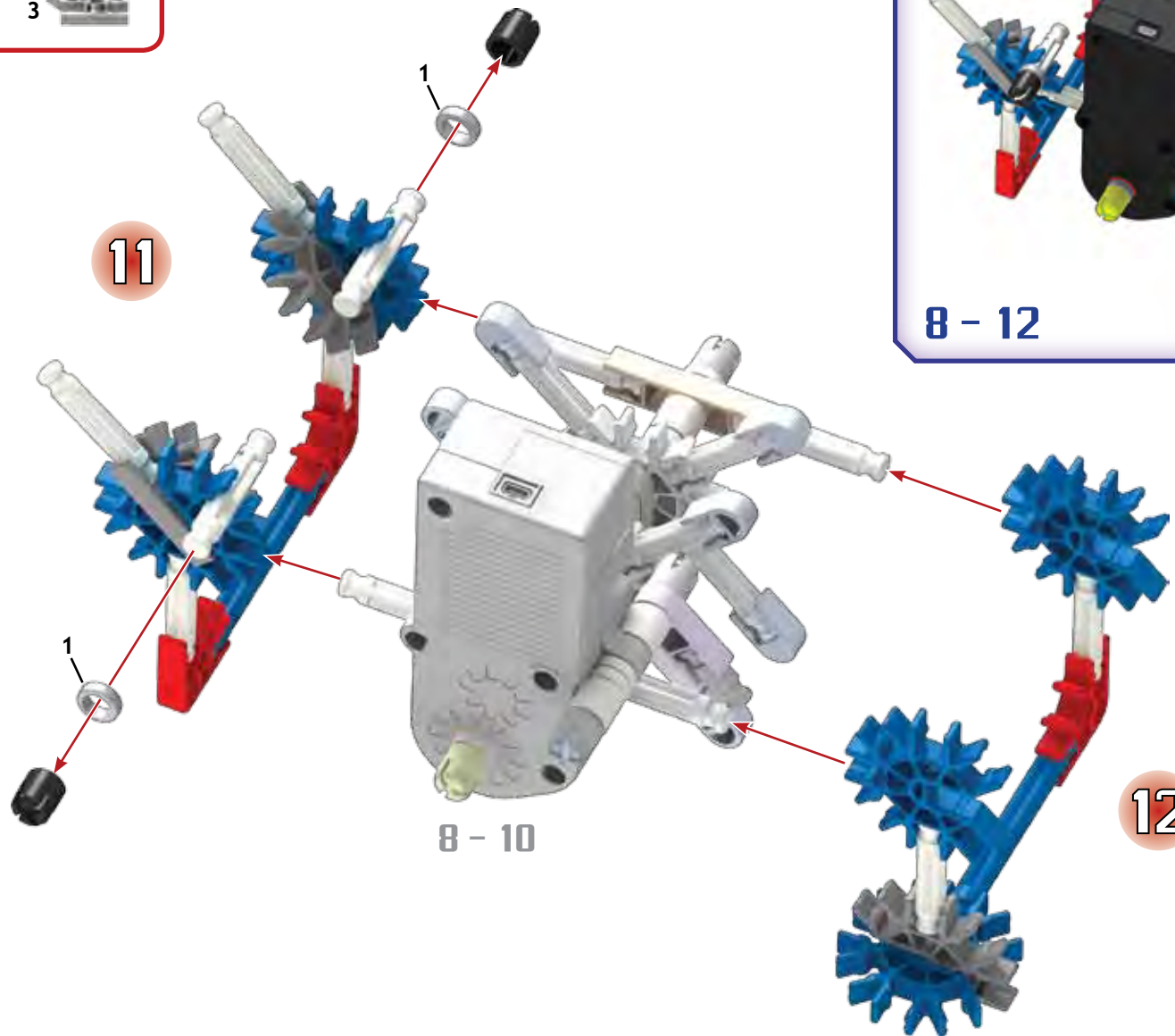
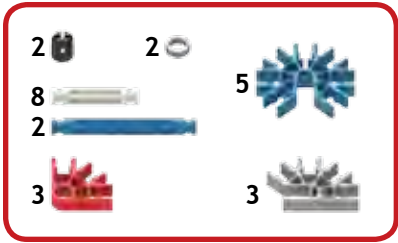


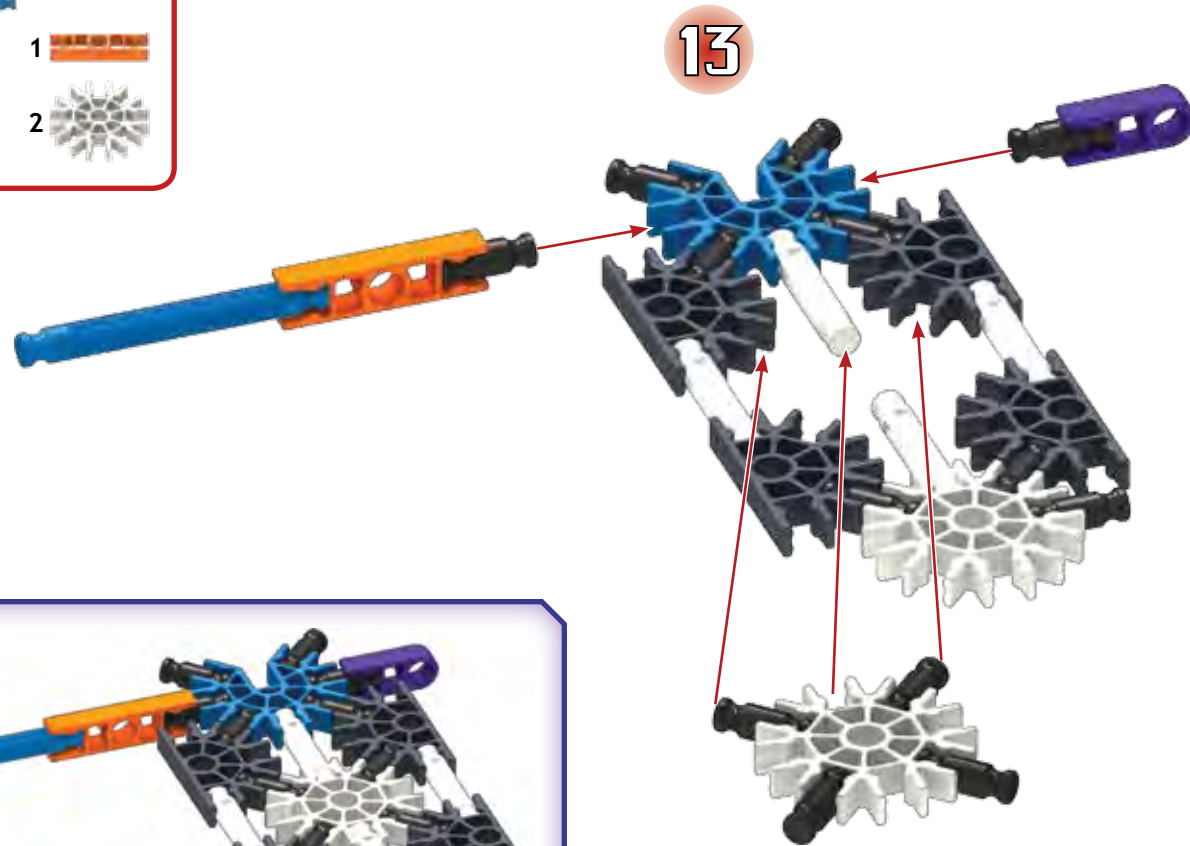
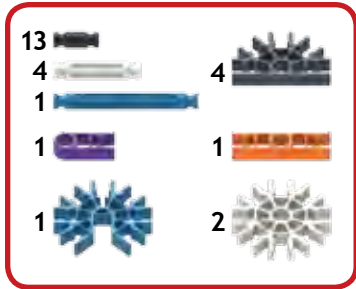
1-7



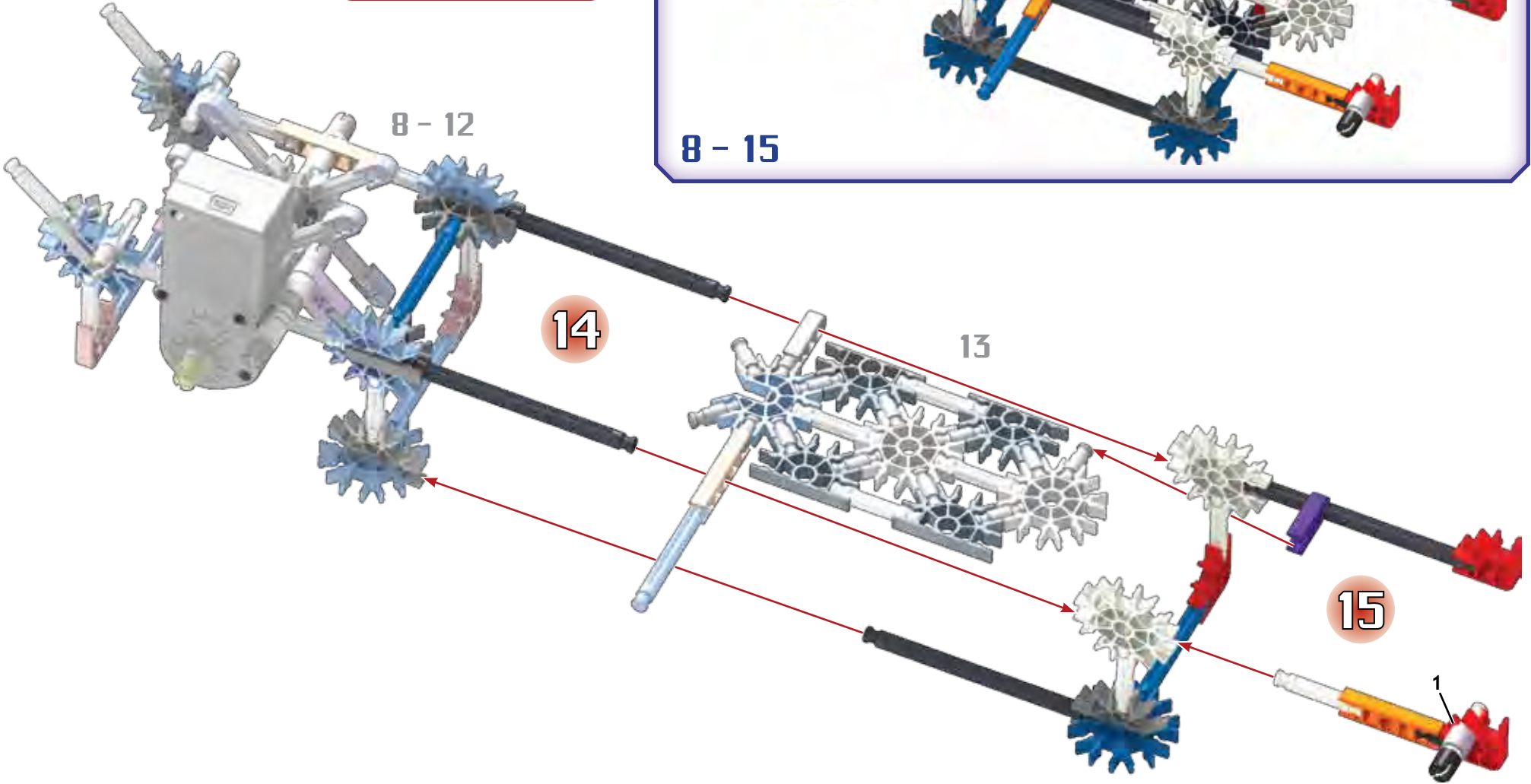
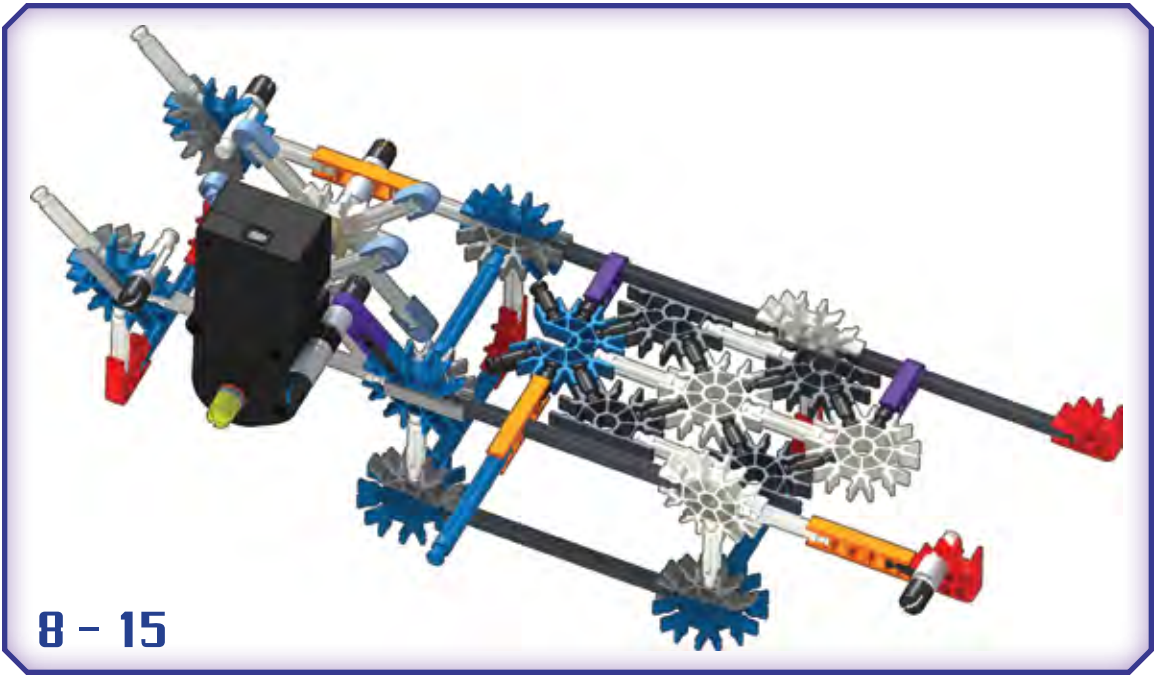
- | | | |
|----|---|---|
| 3 | 4 | 9 |
| 1 | 6 | 2 |
| 12 | 2 | 2 |
| 1 | 2 | 2 |
| 1 | 1 | 1 |
| 1 | 1 | 1 |



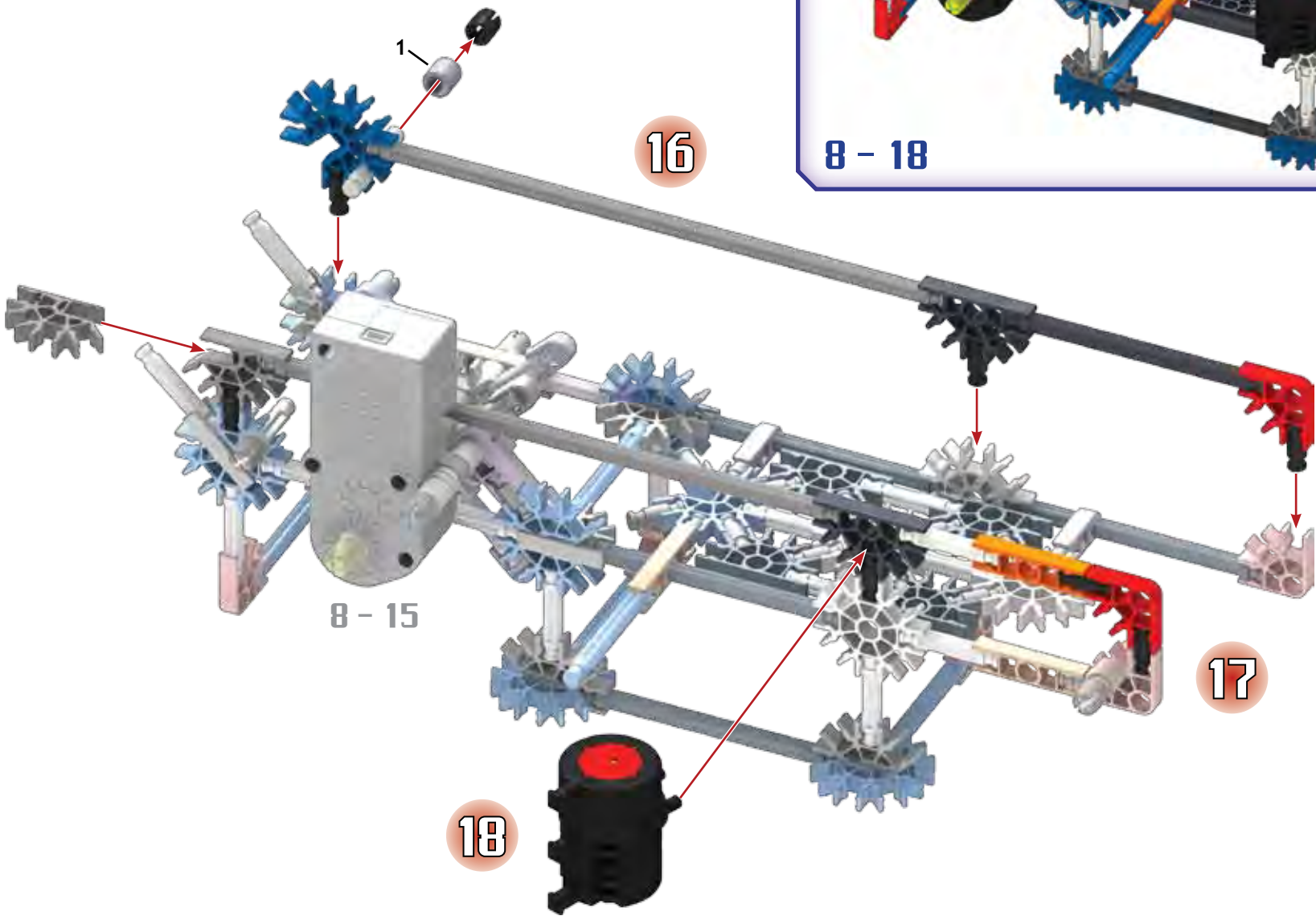


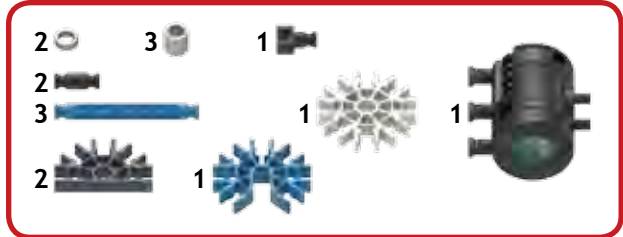
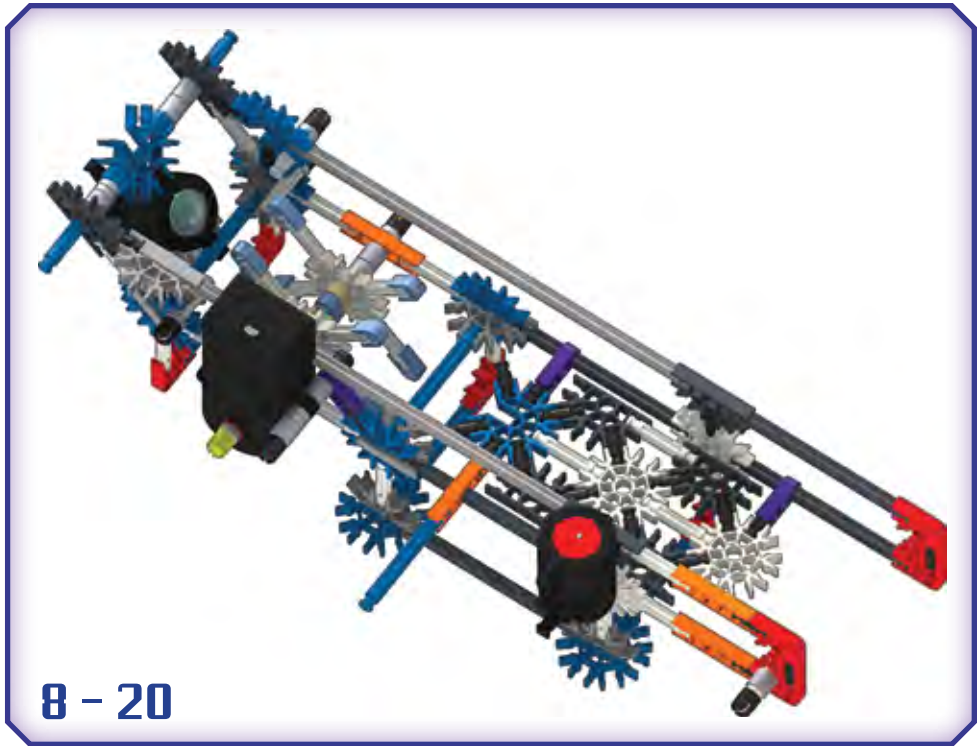
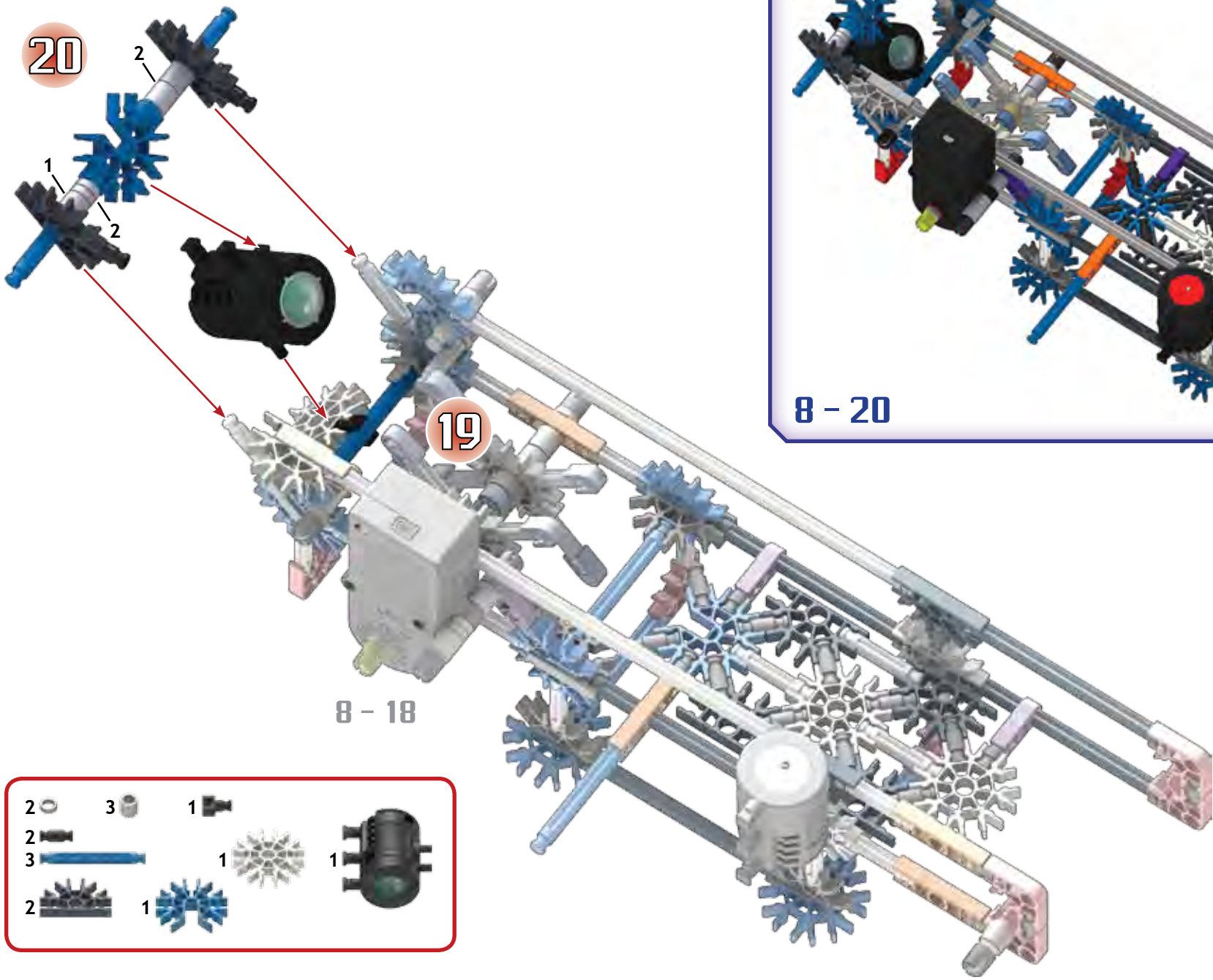


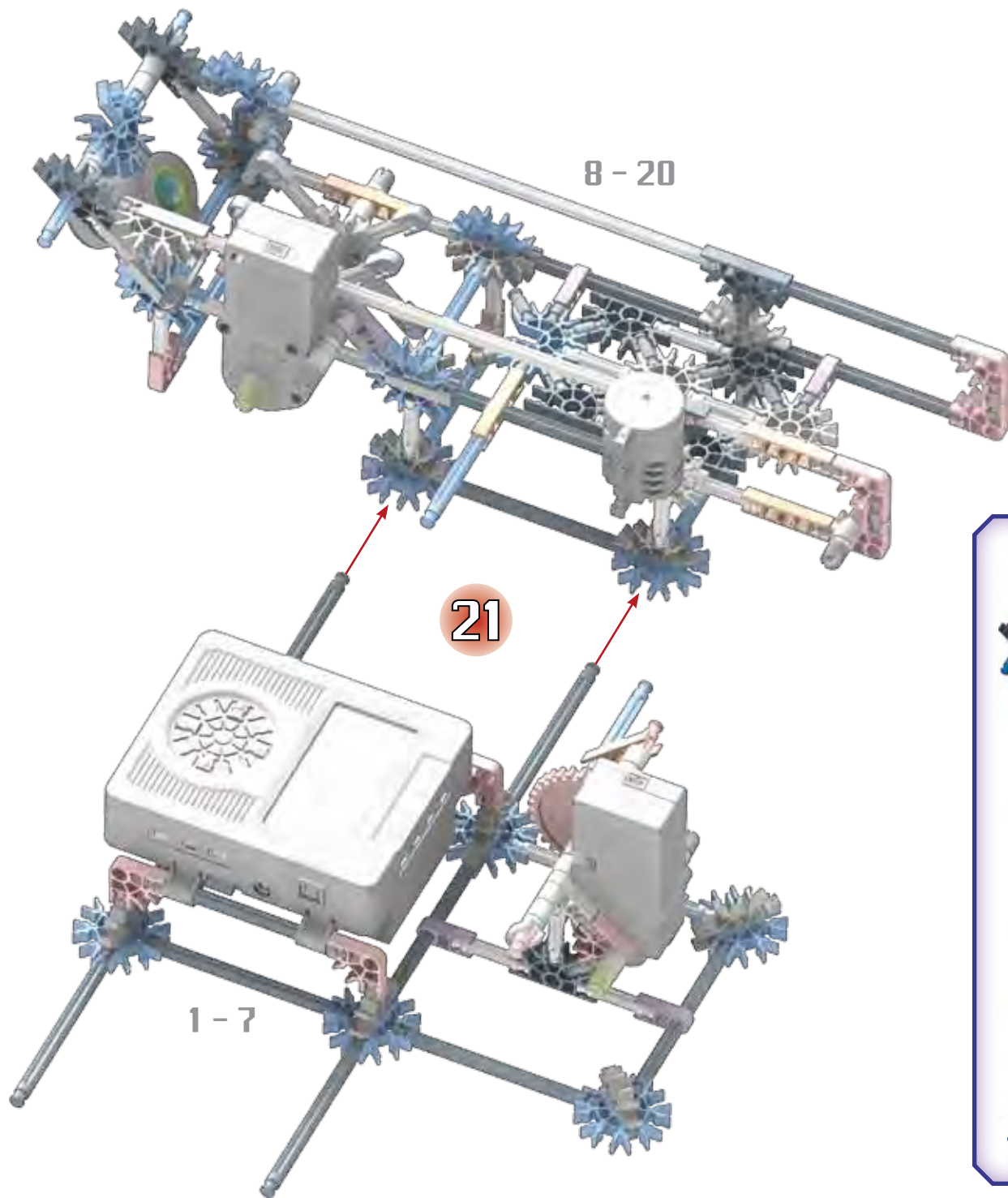
- | | | |
|---|---|---|
| 1 | 1 | 3 |
| 1 | | |
| 4 | | 3 |
| 2 | | |
| 4 | | |
| 1 | | 1 |
| 1 | | 2 |

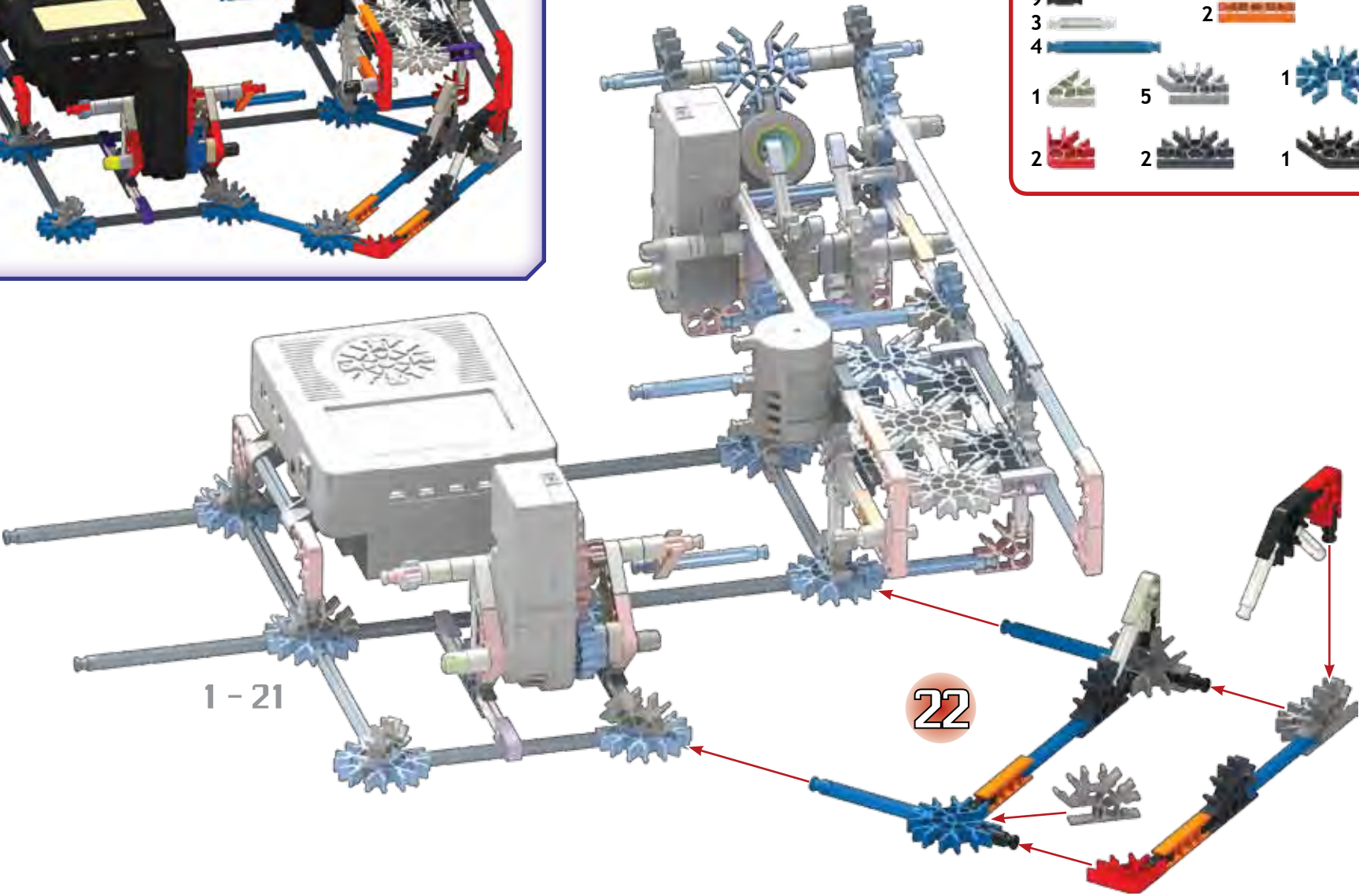
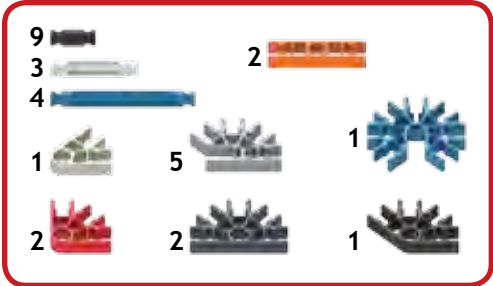
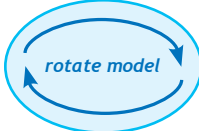
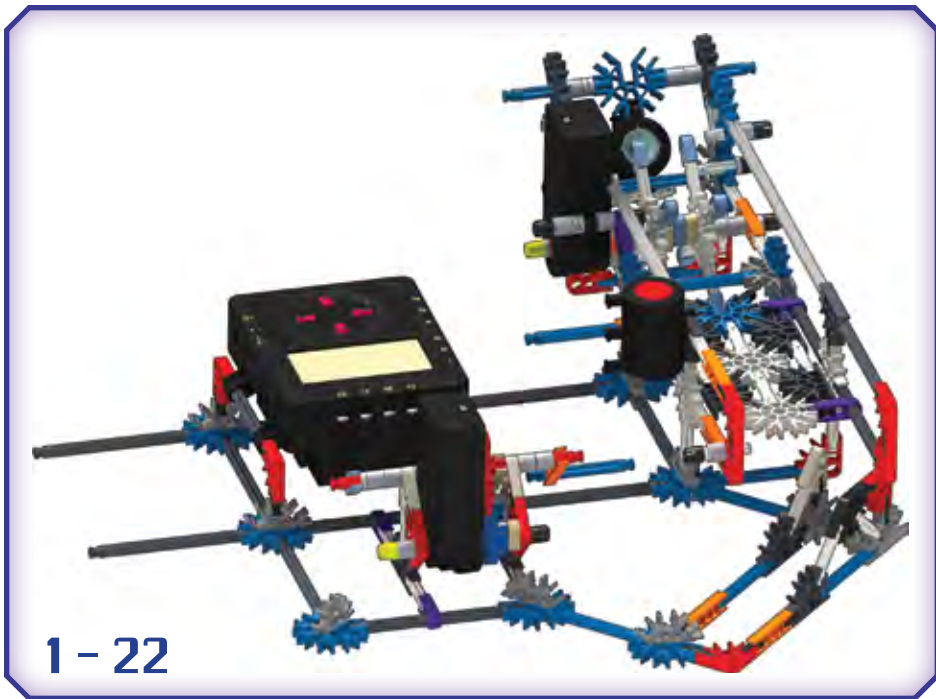


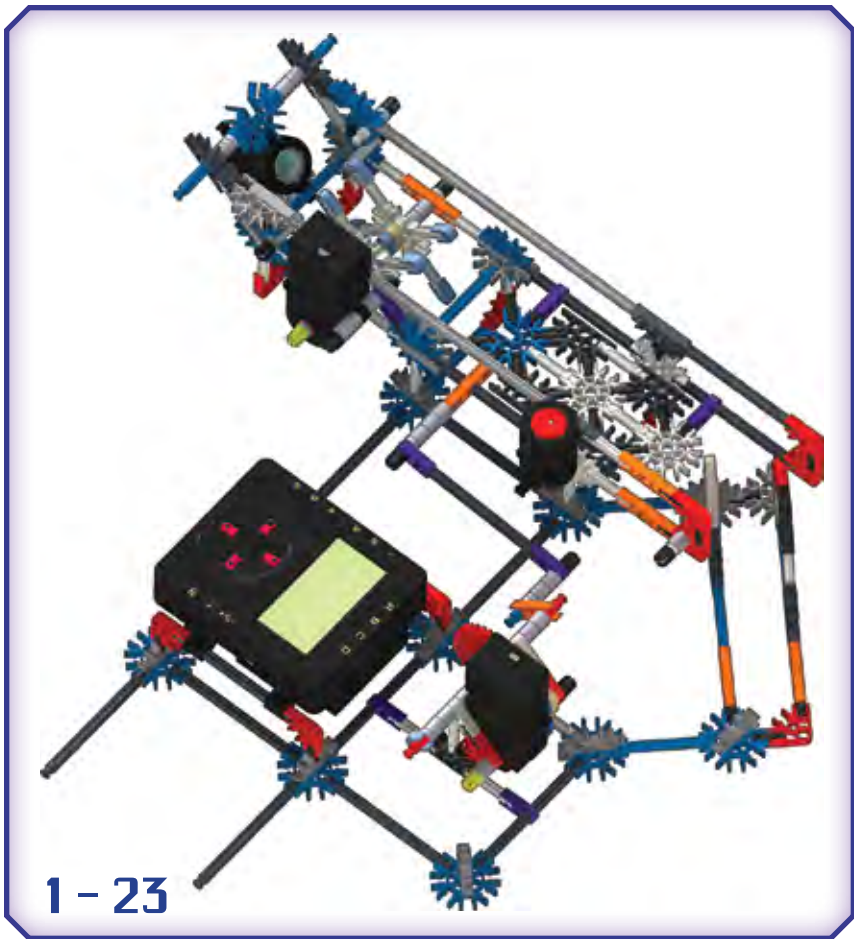
- 7
- 2
- 1
- 2
- 1
- 1
- 1
- 2
- 1
- 2
- 2
- 1



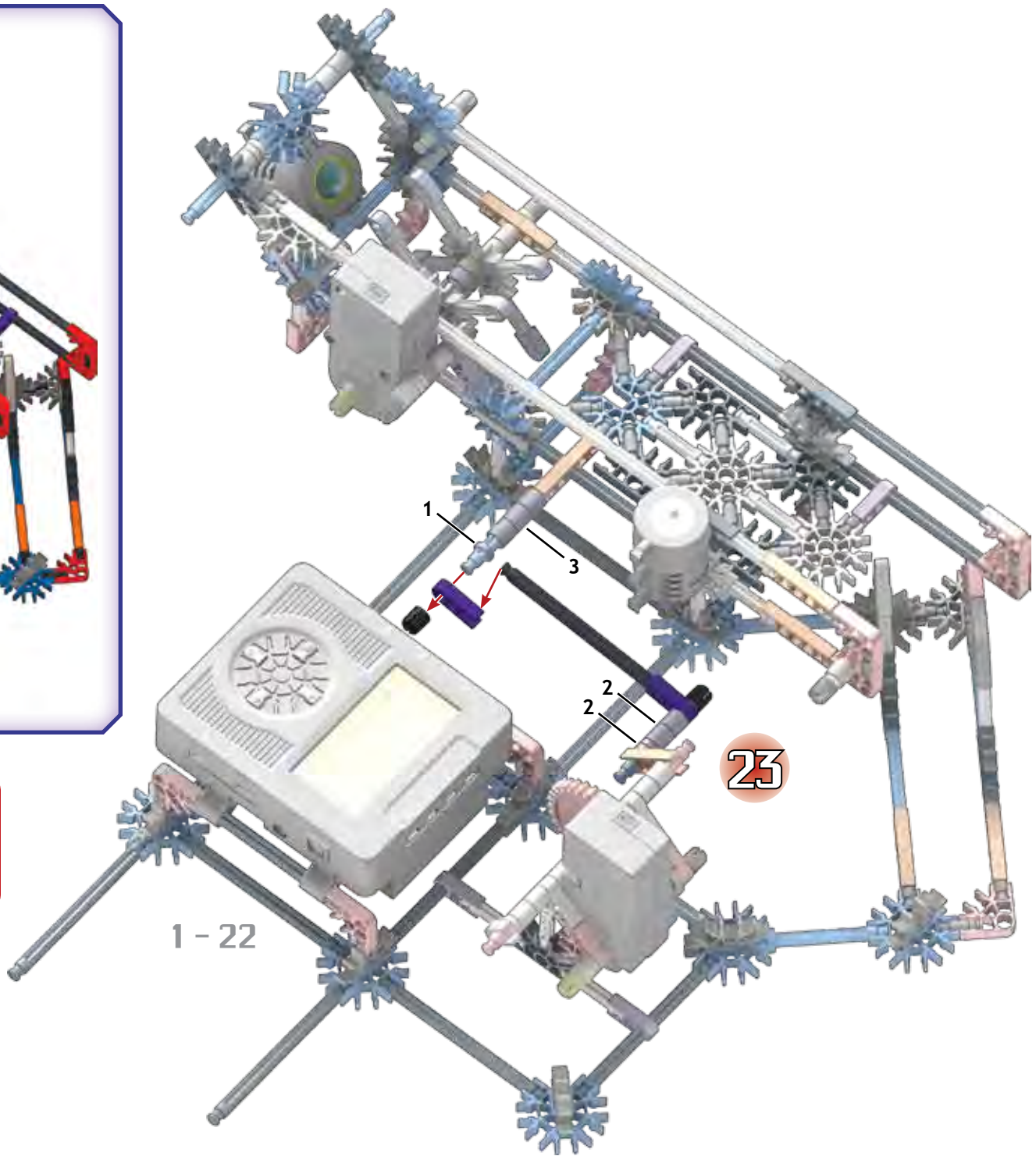


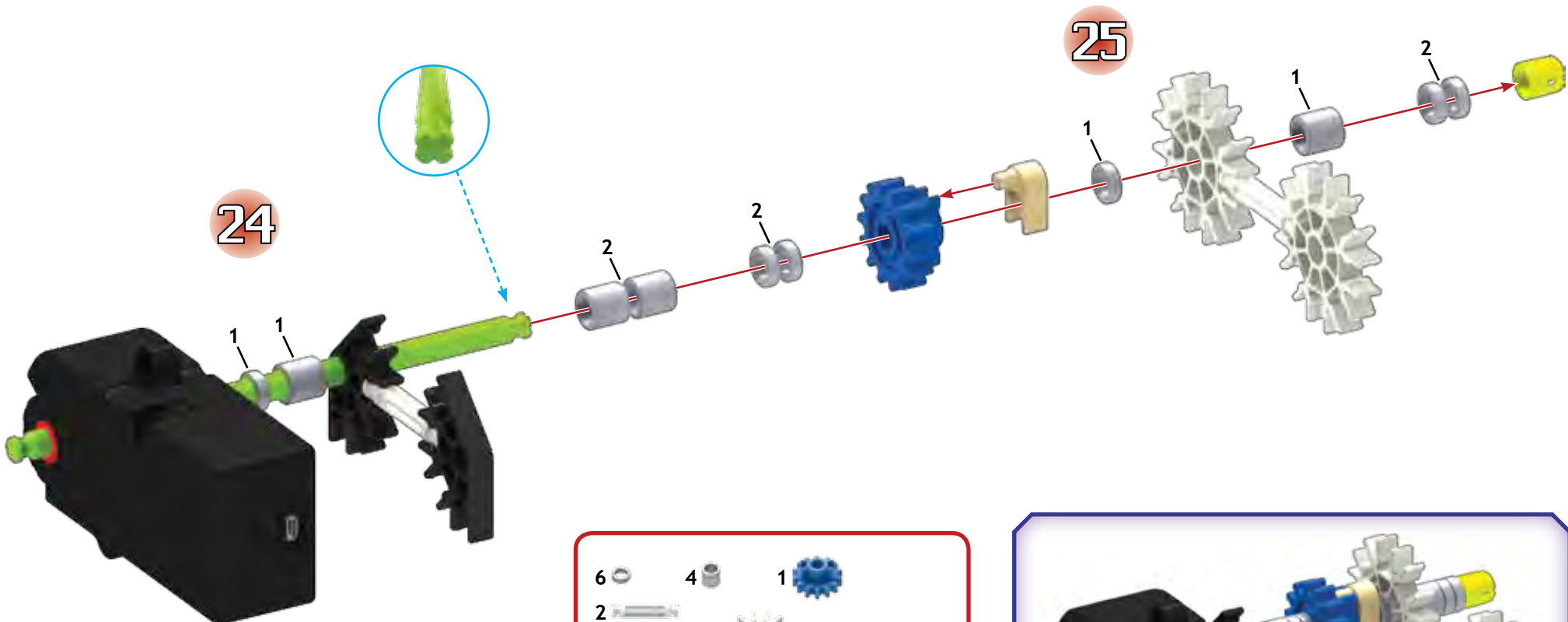




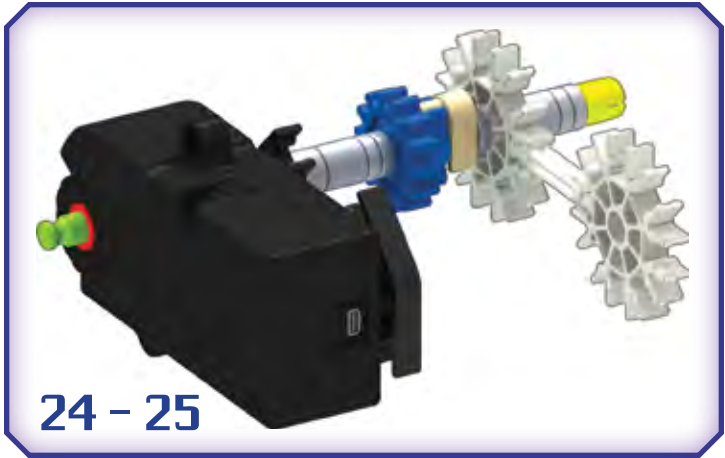


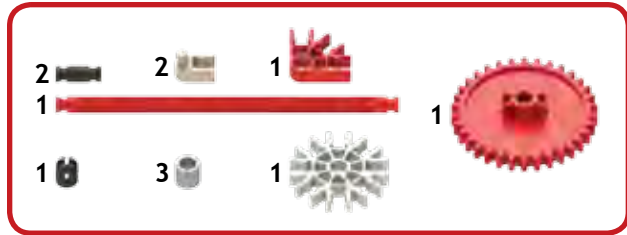
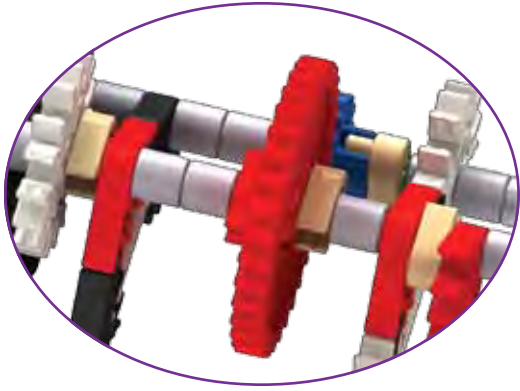
- | | | | |
|---|---|---|---|
| 3 | ○ | 5 | ● |
| 1 | — | | |
| 2 | ● | 2 | ■ |



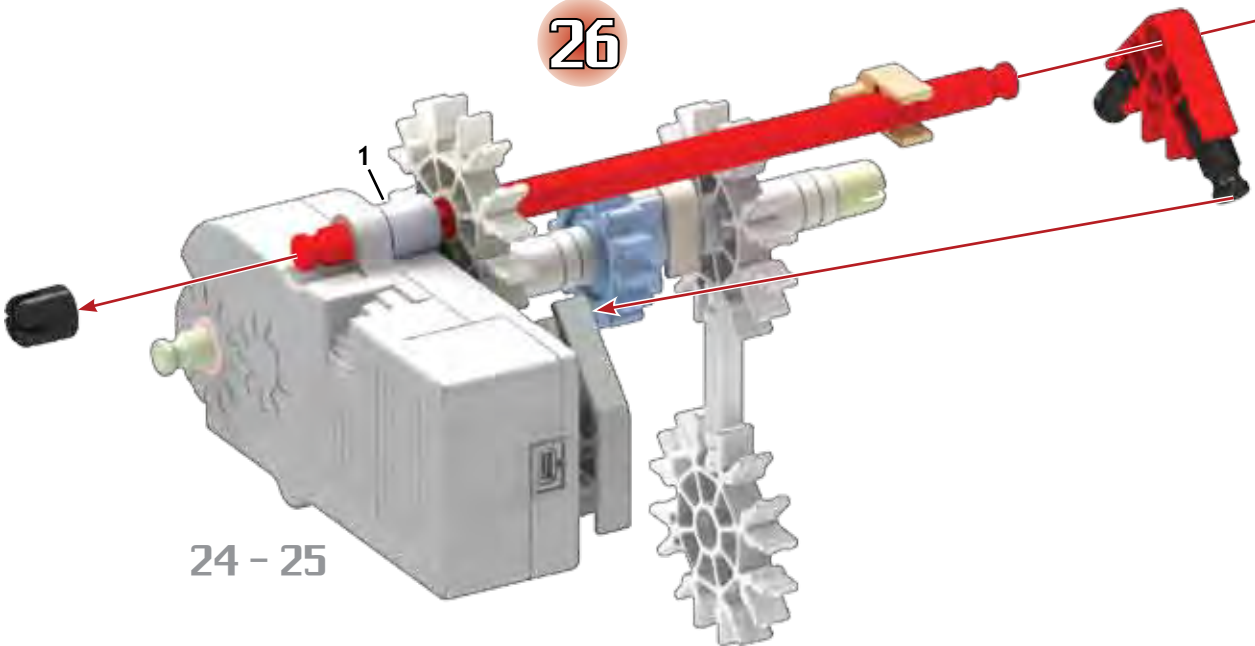


- | | | |
|---|---|---|
| 6 | 4 | 1 |
| 2 | 2 | 1 |
| 1 | 2 | 2 |
| 1 | 1 | |
| 1 | | |



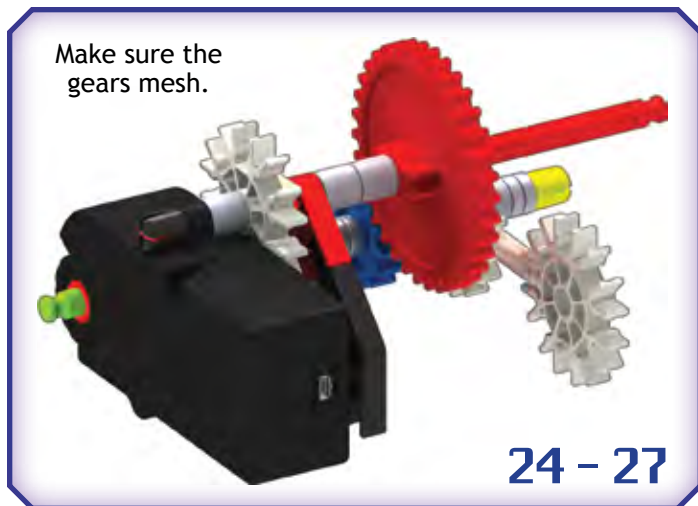
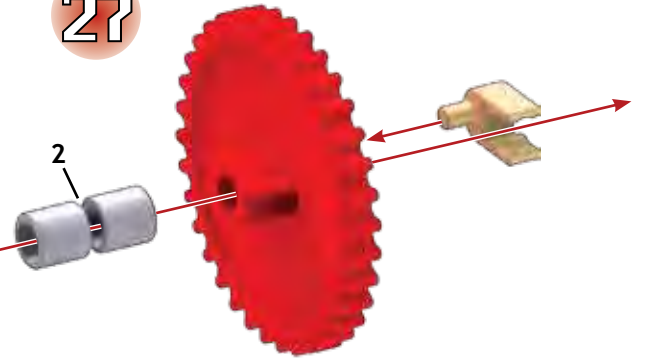


26

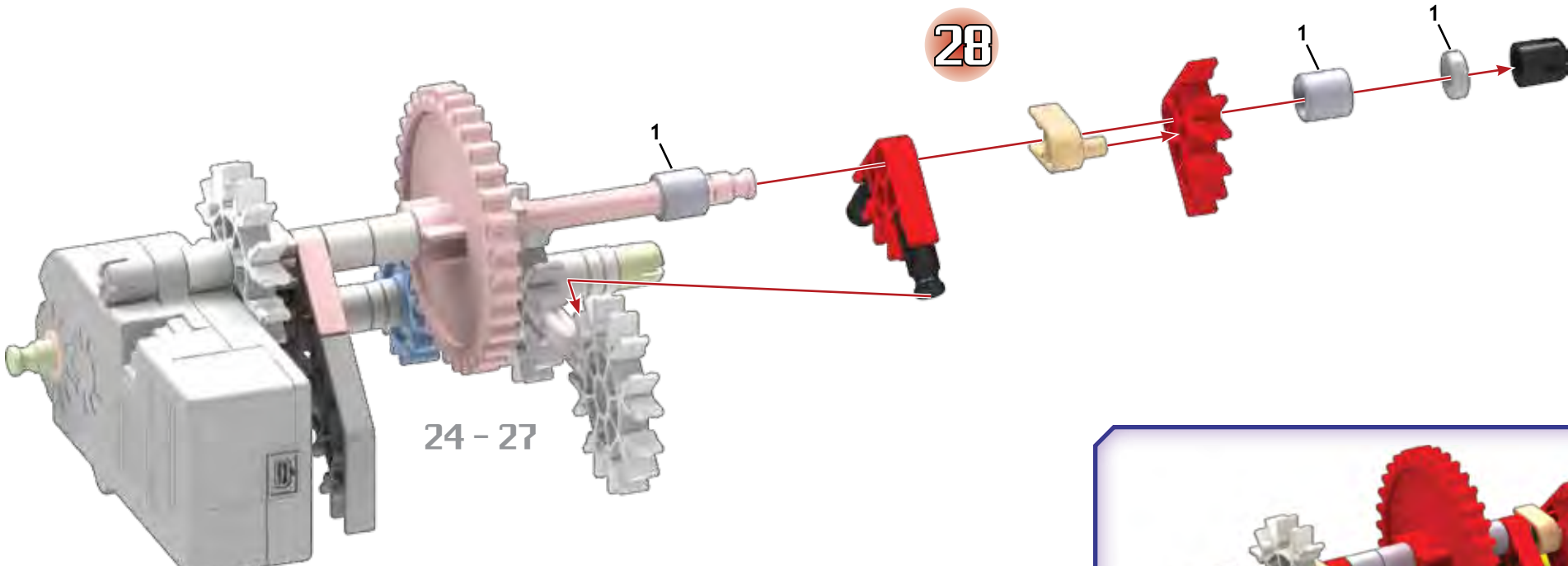


24 - 25

27



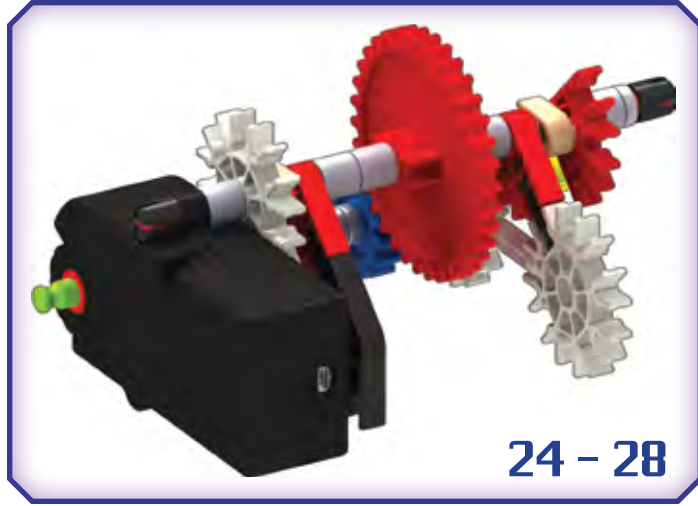
24 - 27



24 - 27

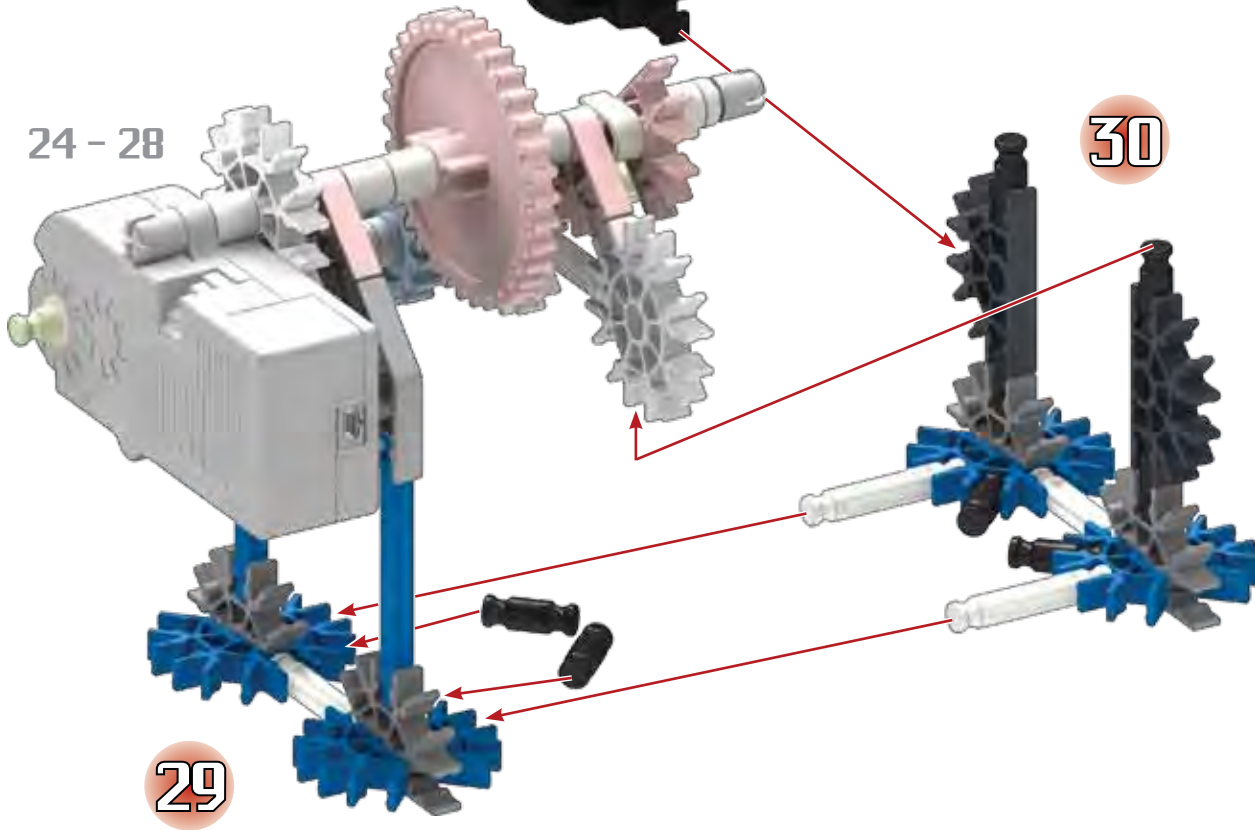
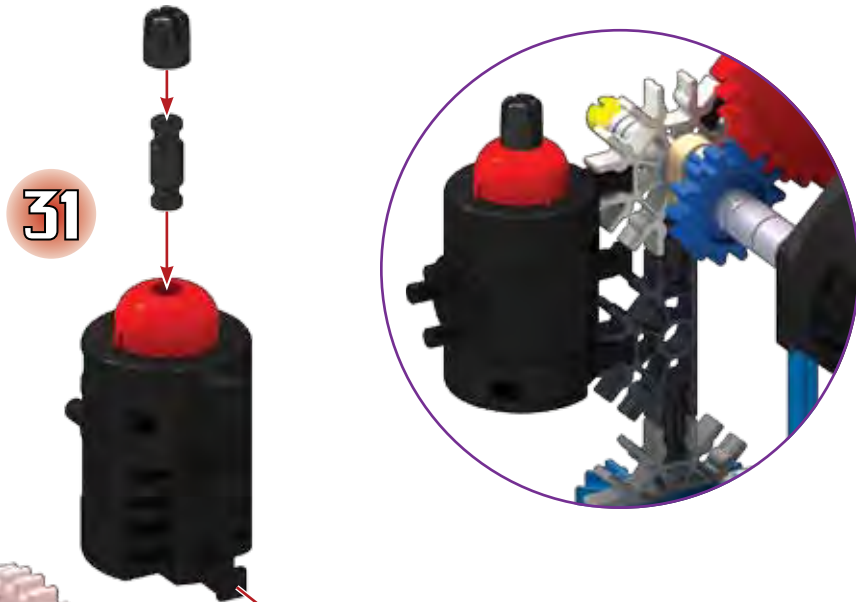
28






- | | | | | | |
|---|--|---|--|---|--|
| 2 | | 1 | | 2 | |
| 1 | | 1 | | 2 | |

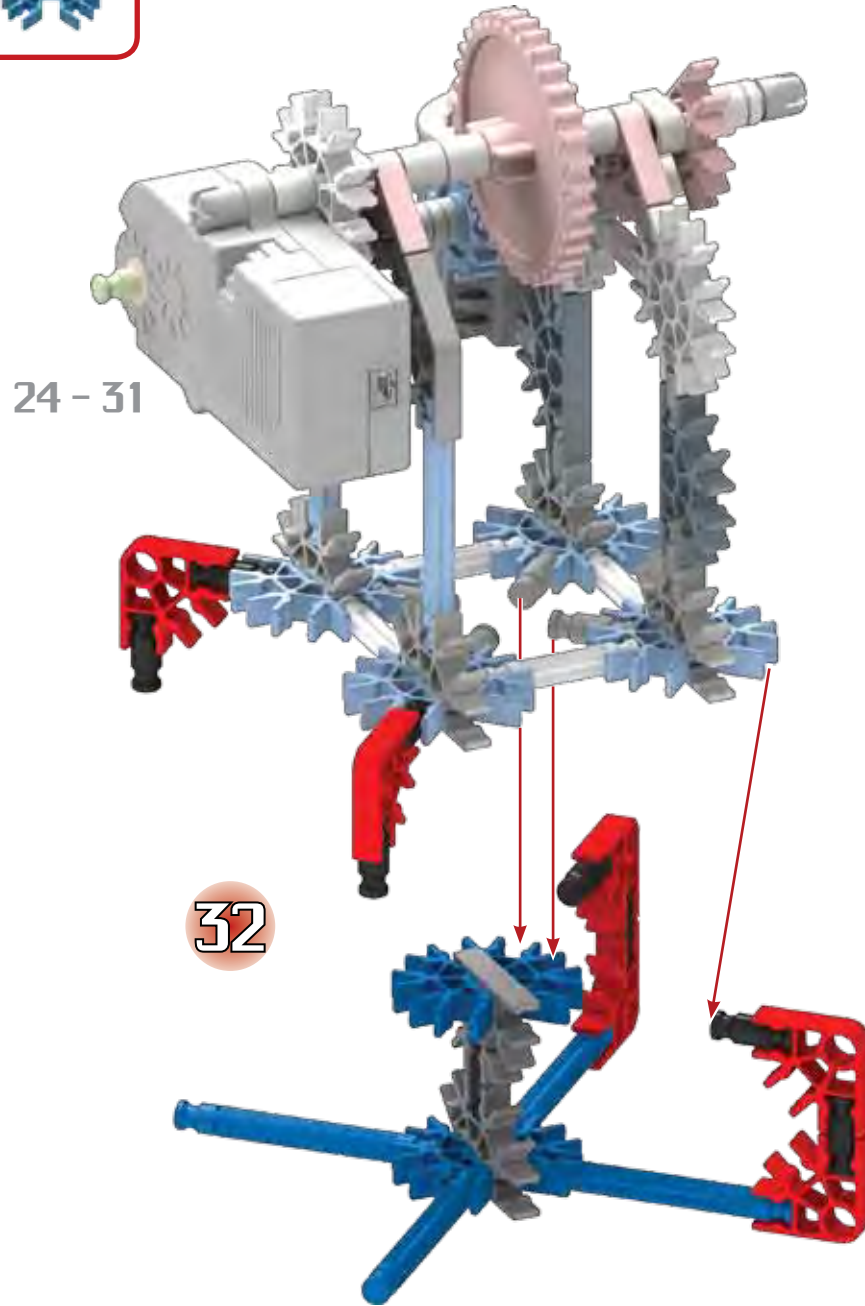


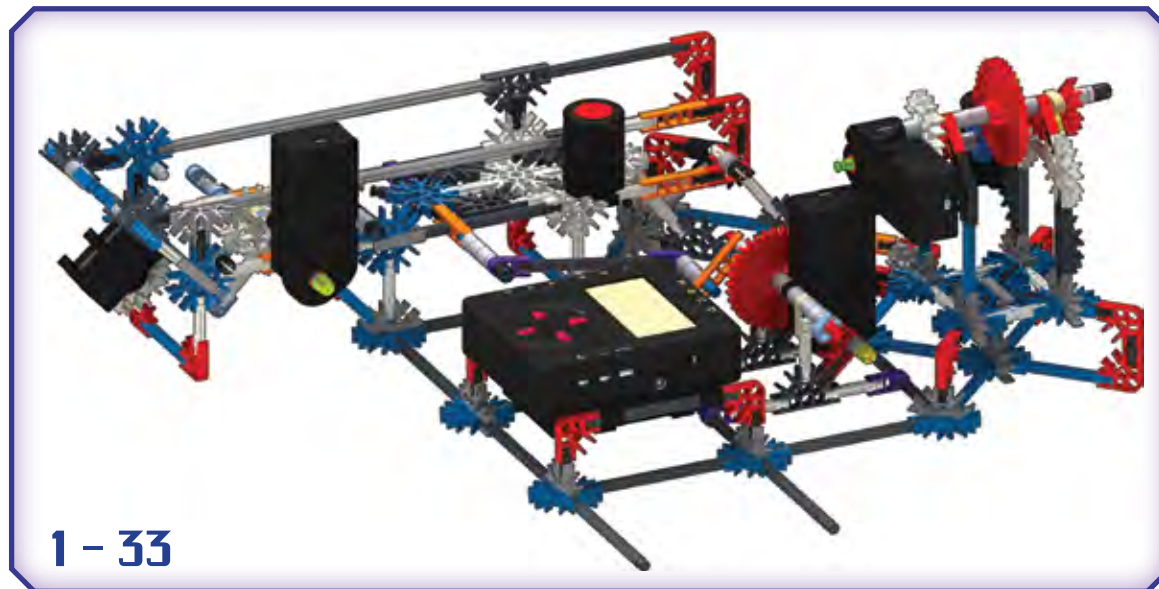
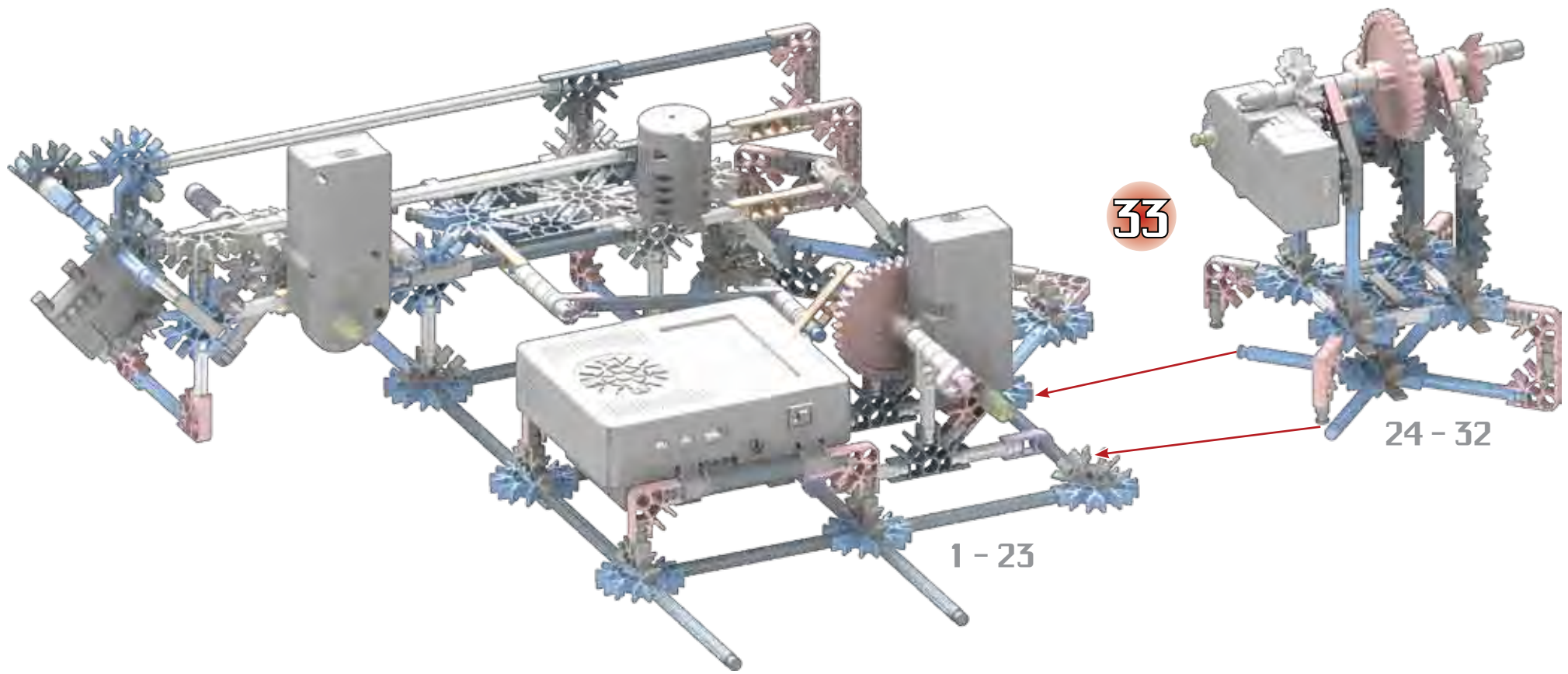
24 - 28

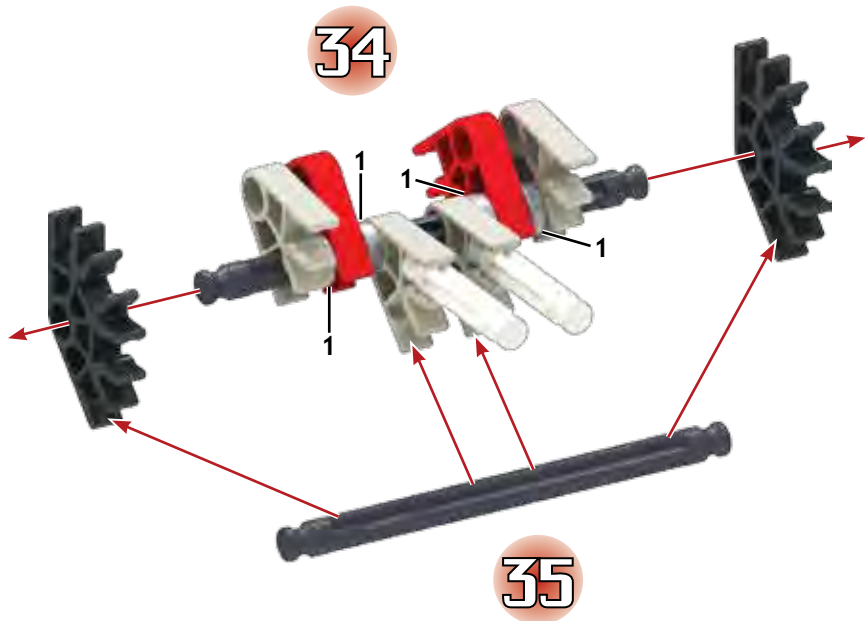
- | | | | |
|---|--|---|--|
| 1 | | 4 | |
| 9 | | 2 | |
| 4 | | 1 | |
| 2 | | | |
| 4 | | | |



- | | | | |
|---|---|---|---|
| 9 |  | 6 |  |
| 4 |  | | |
| 2 |  | 2 |  |





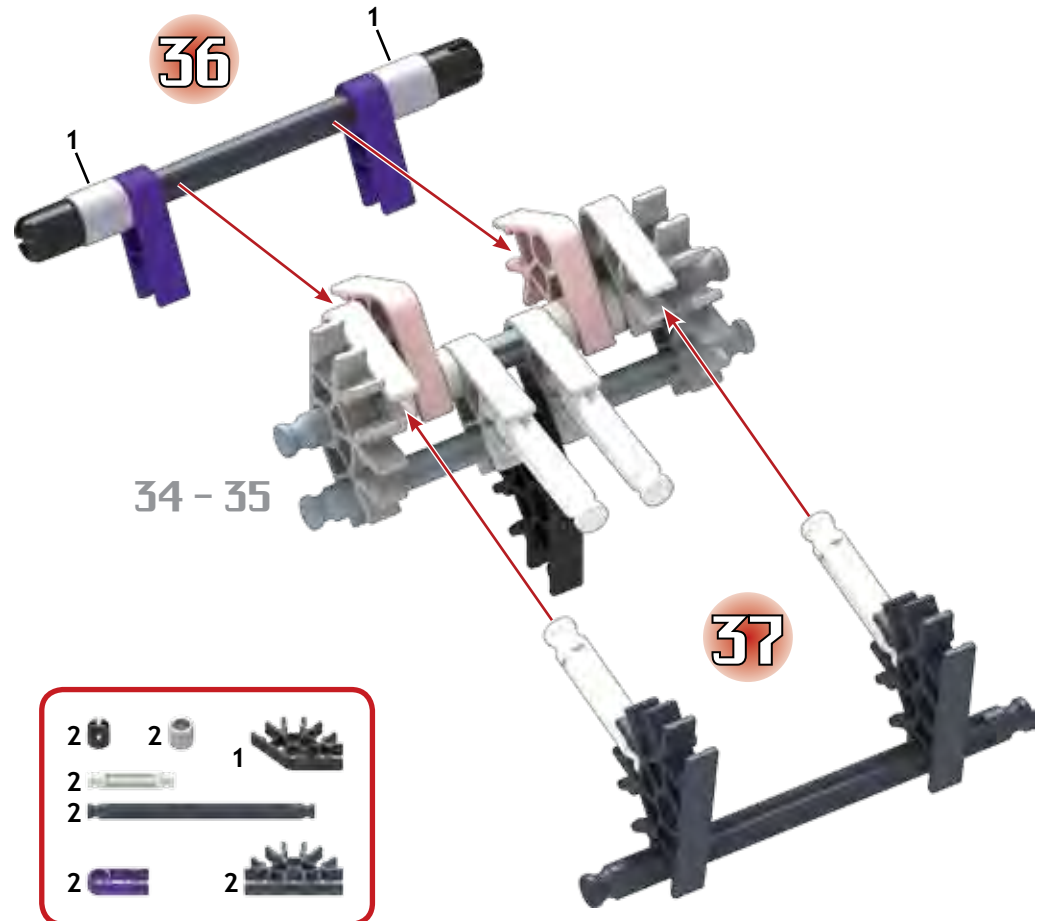


35

- | | | | |
|---|--|---|--|
| 2 | | 2 | |
| 2 | | 2 | |
| 4 | | 2 | |
| 4 | | 2 | |



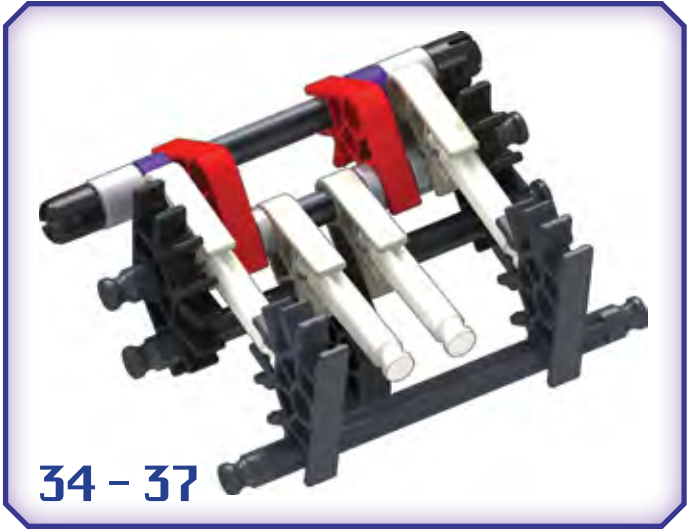
34 - 35



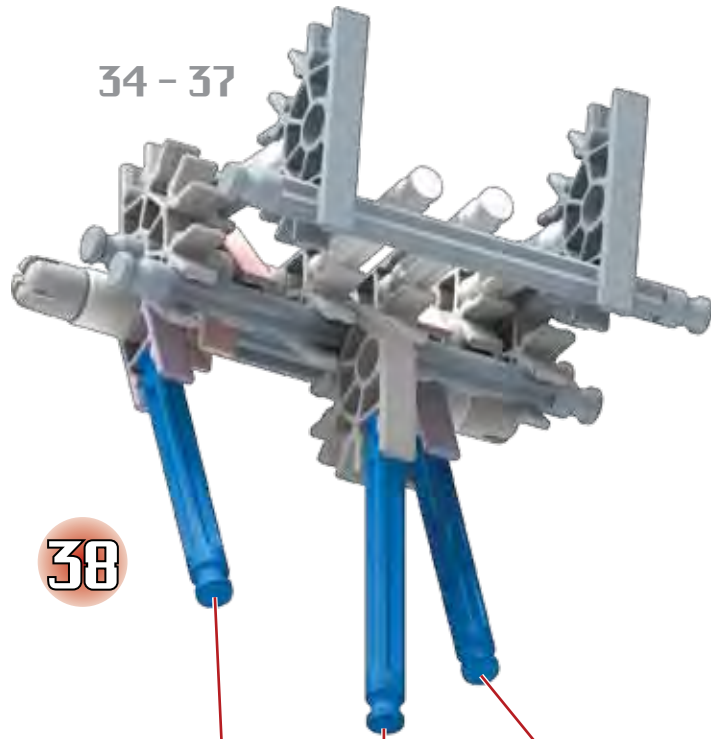
34 - 35

37

- | | | | | | |
|---|--|---|--|---|--|
| 2 | | 2 | | 1 | |
| 2 | | 2 | | | |
| 2 | | 2 | | | |

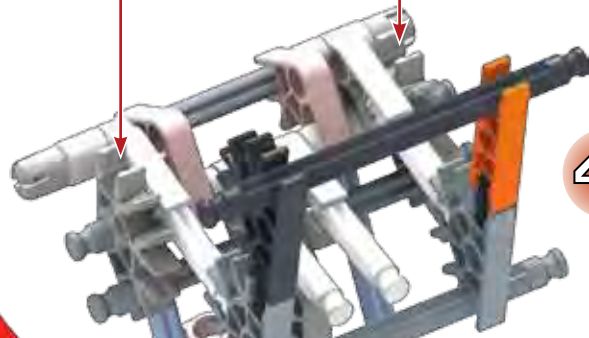


34 - 37

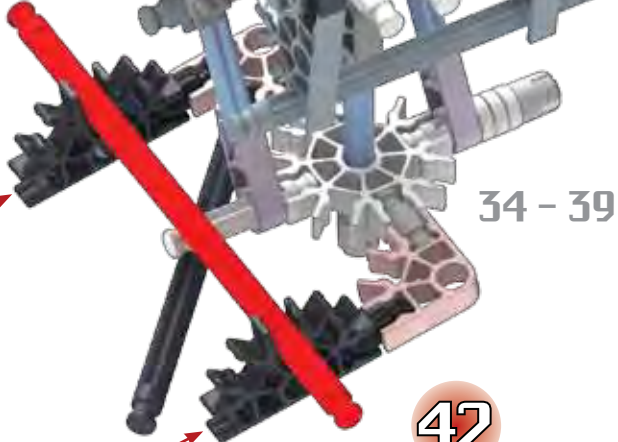




40

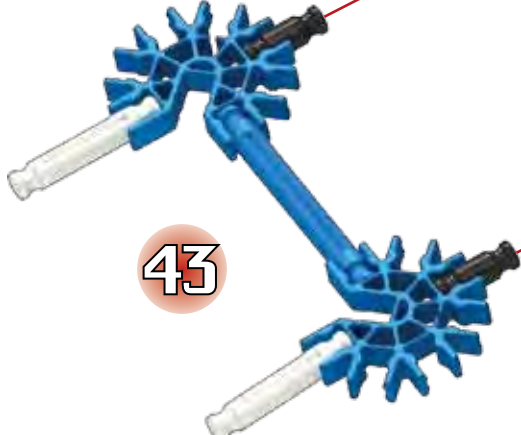


41

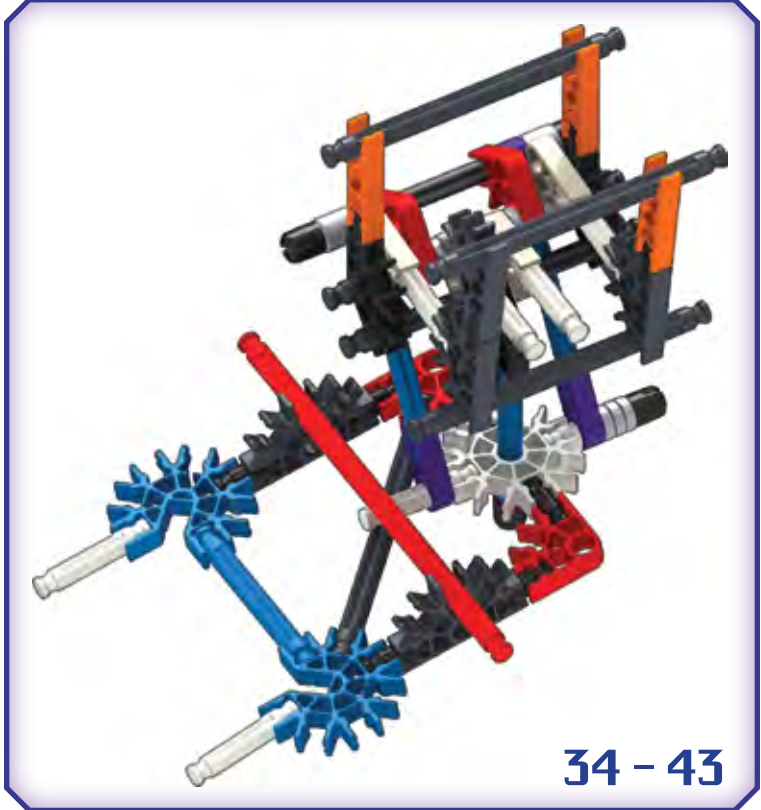
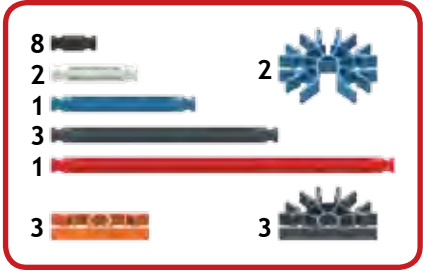


34 - 39

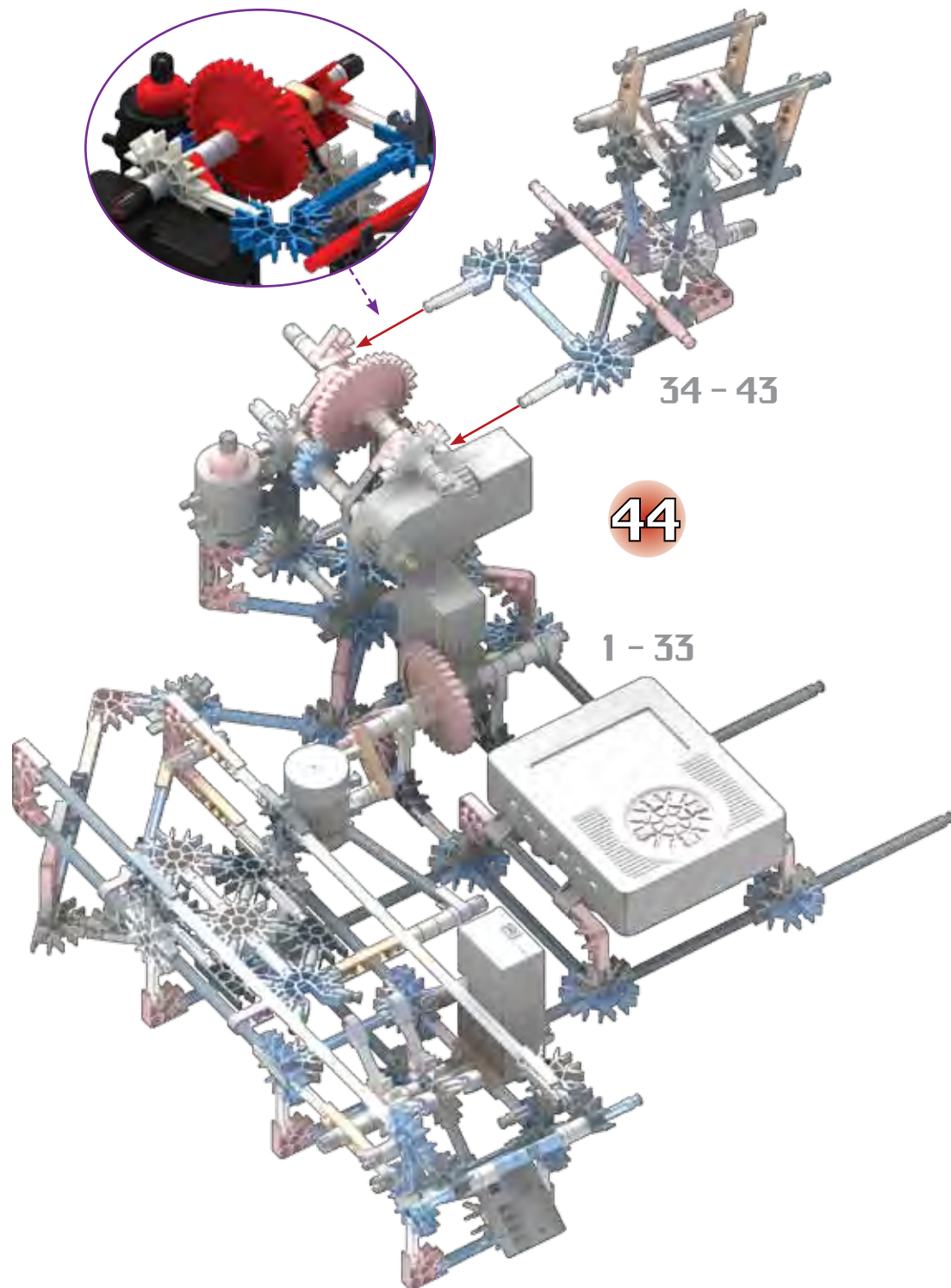
42

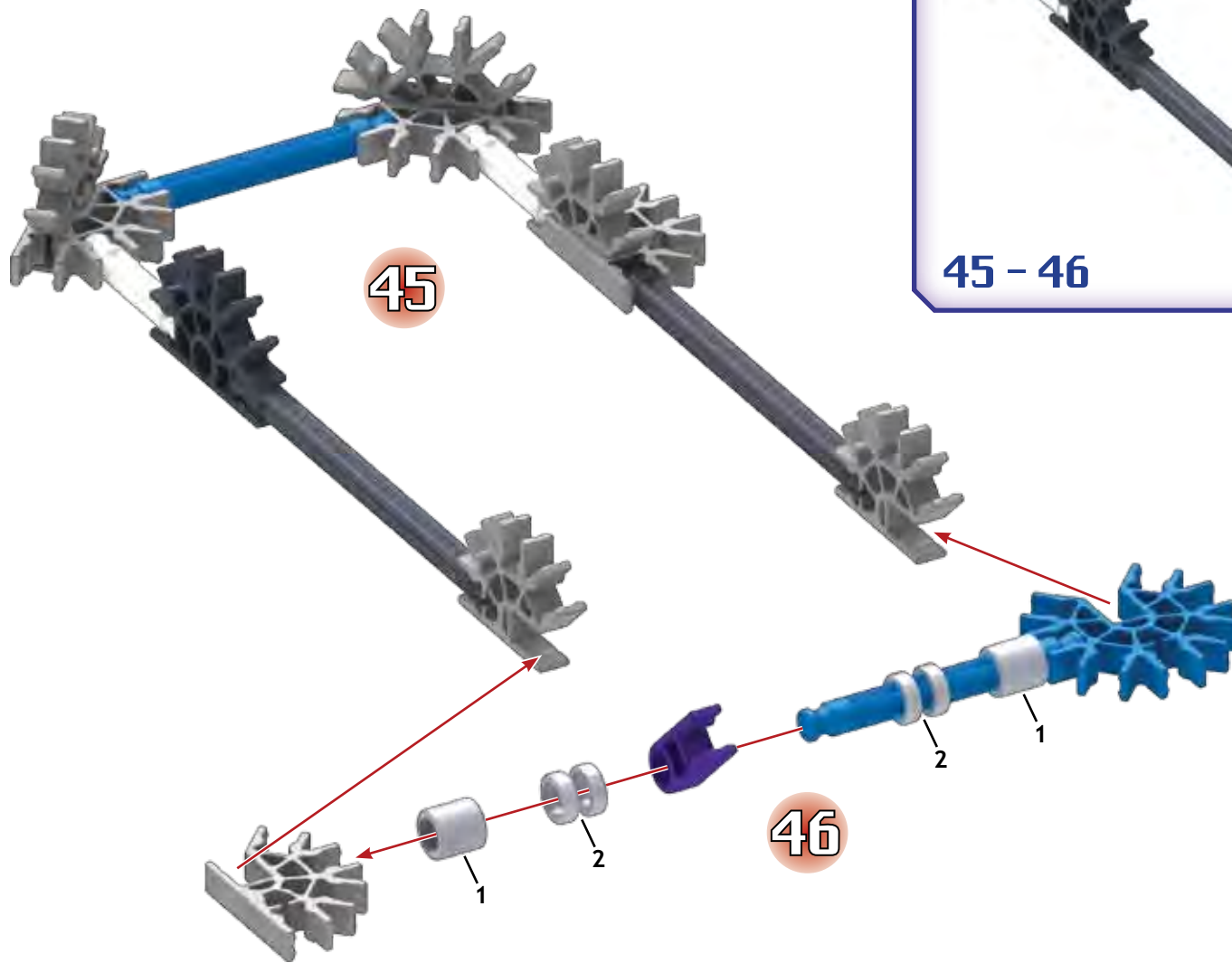


43

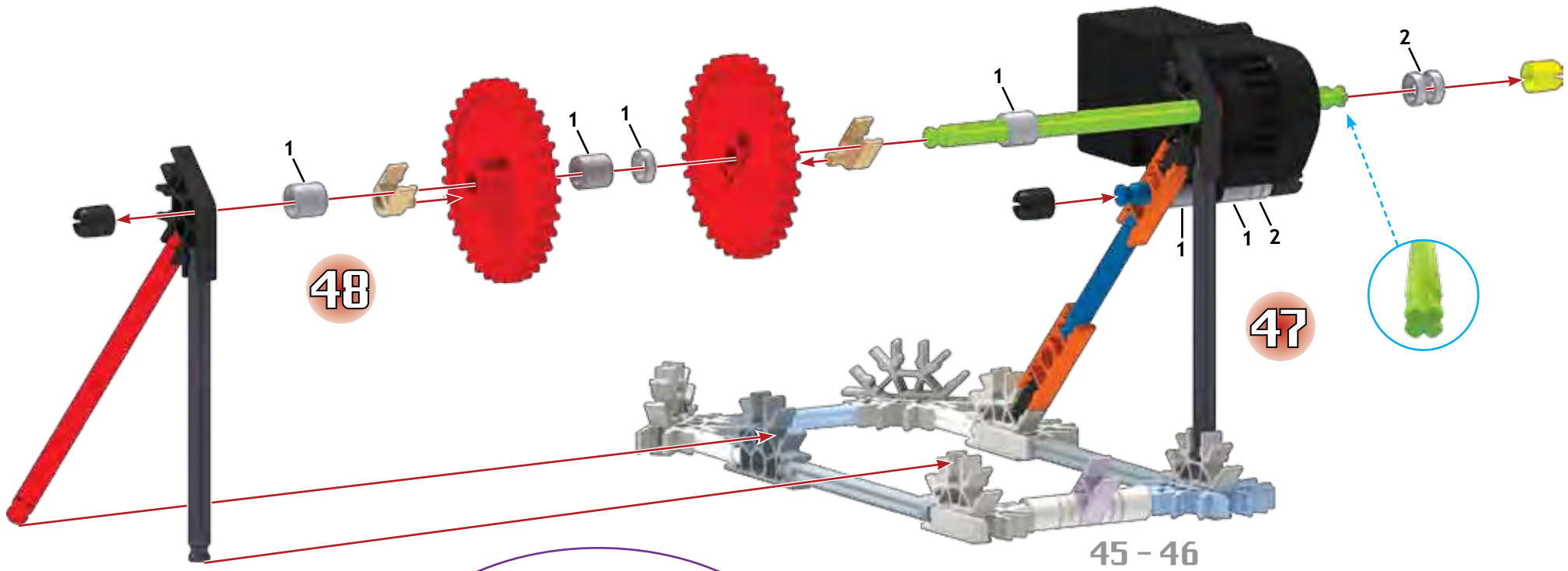


34 - 43





- | | | | | | |
|---|--|---|--|---|--|
| 4 | | 2 | | 1 | |
| 2 | | | | | |
| 2 | | | | | |
| 2 | | | | | |
| 9 | | | | | |
| | | | | 1 | |
| 1 | | | | | |

















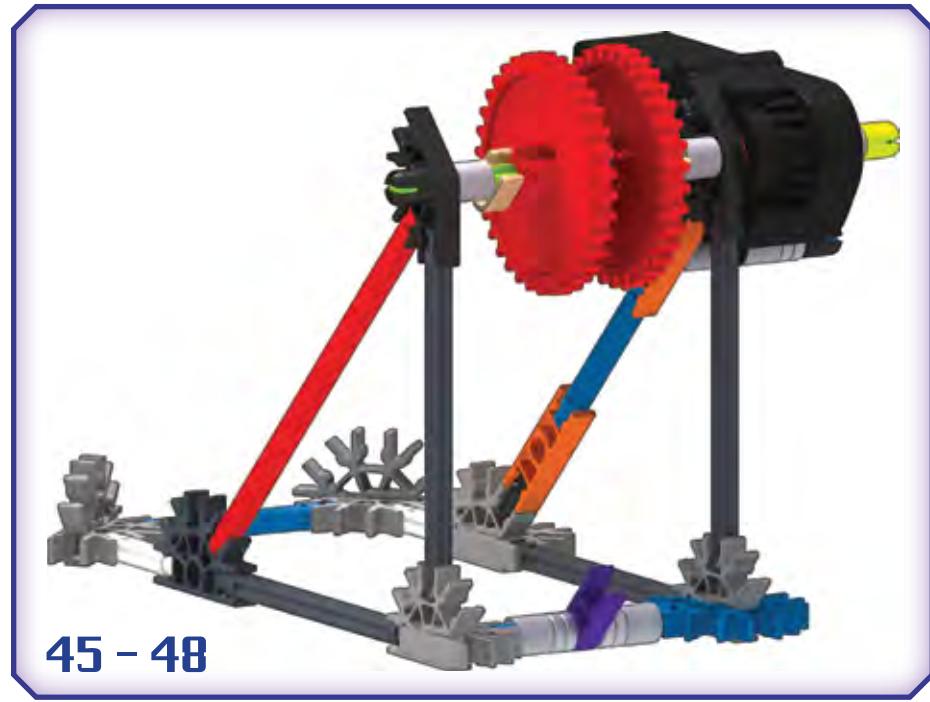
48

47

45 - 46

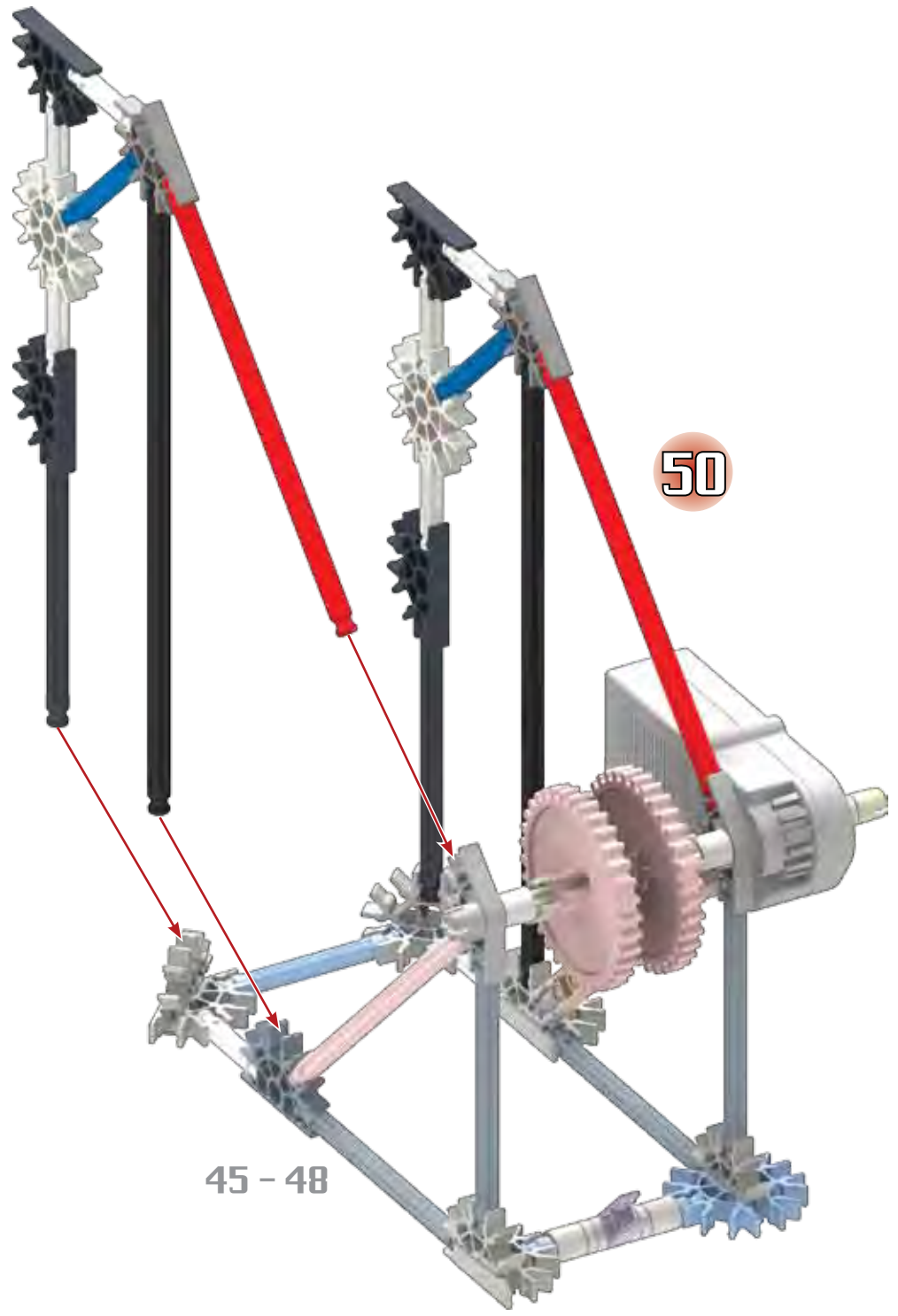


- 3  5  5 
- 2  2 
- 2  2 
- 1 
- 2  2  2 
- 1  1 
- 1 

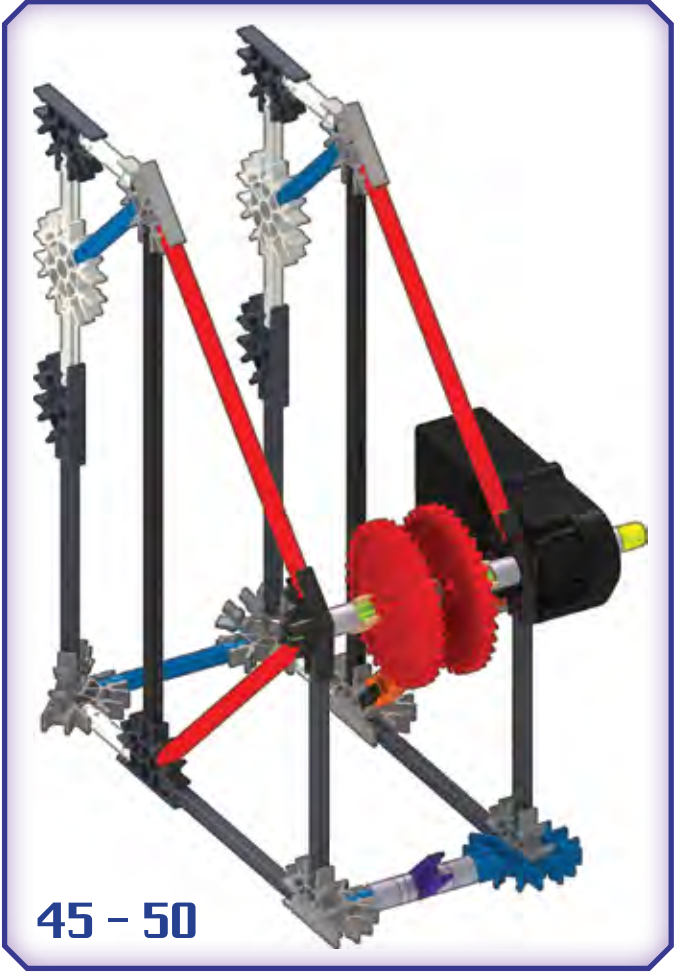


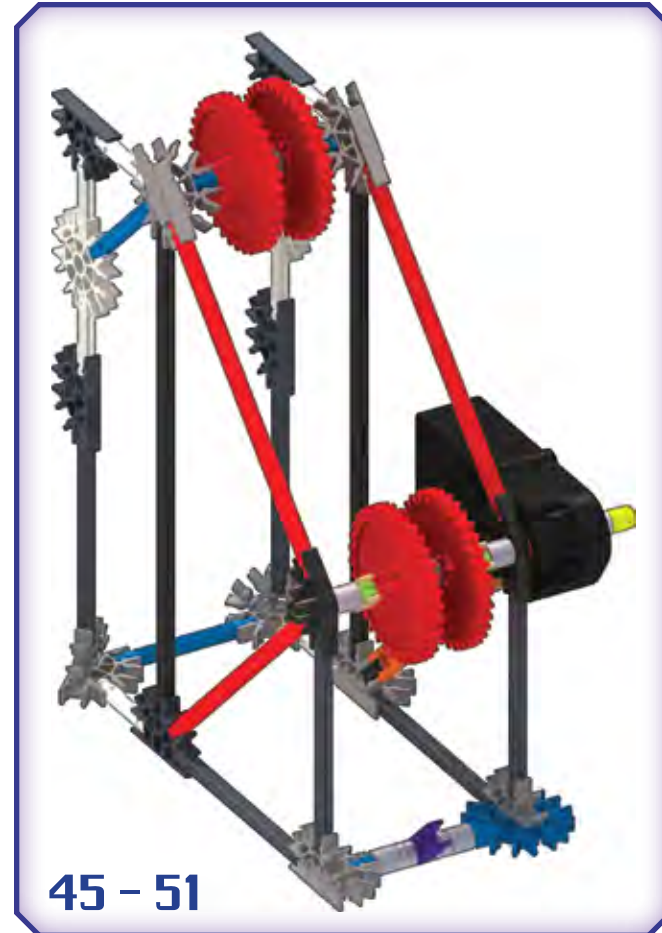
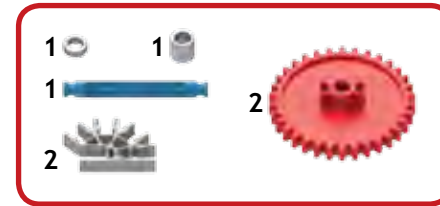
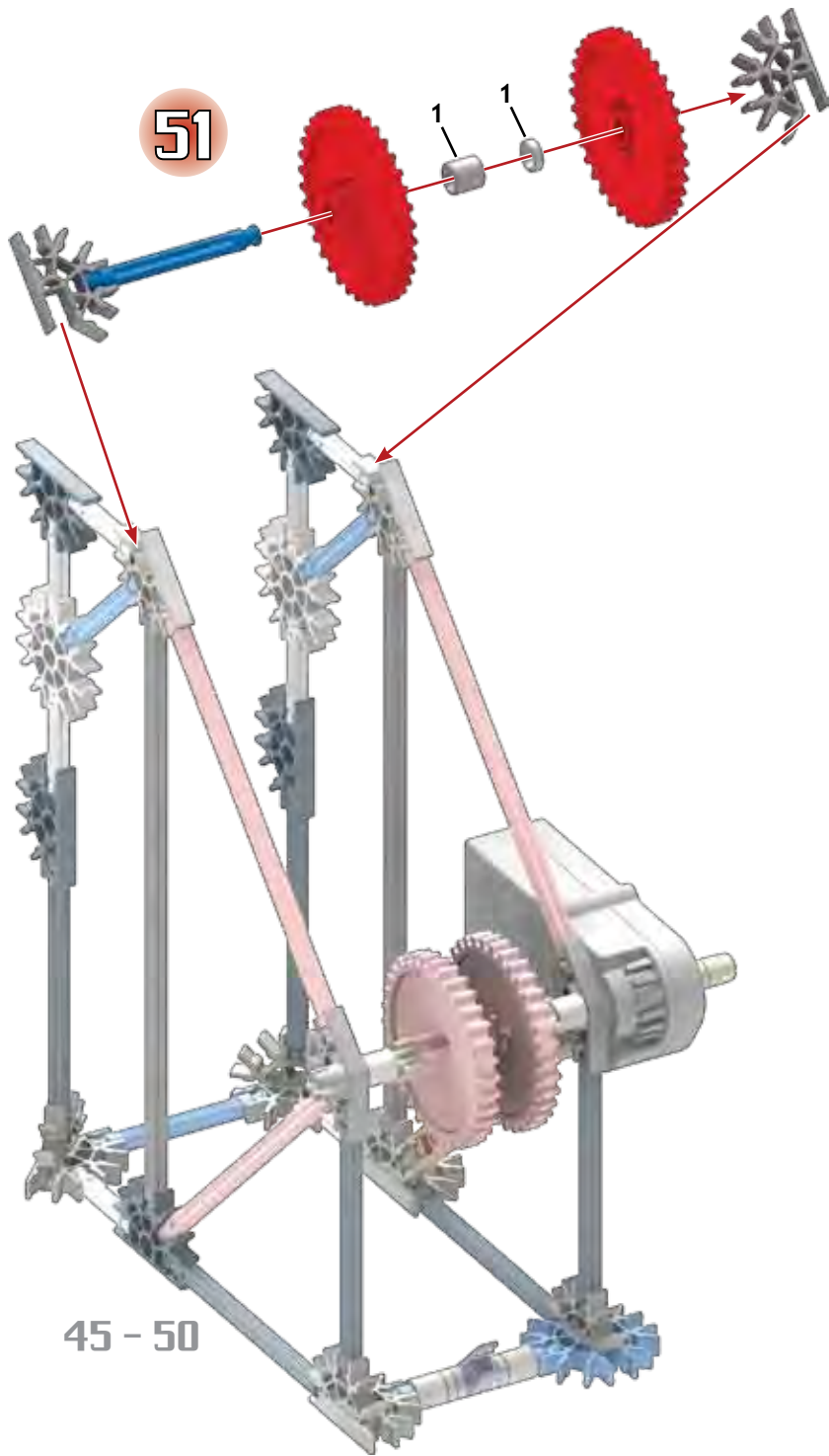
45 - 48

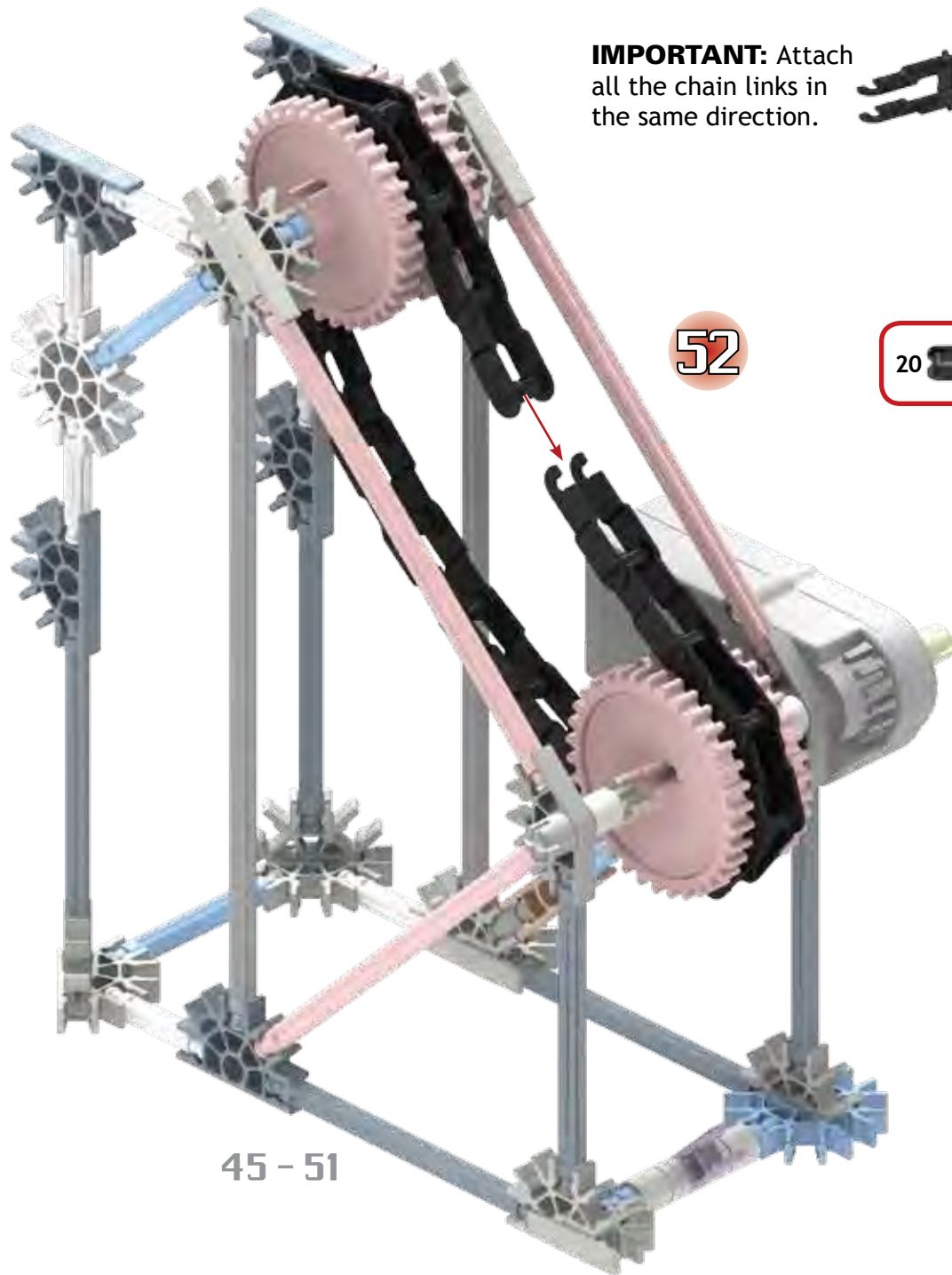
49



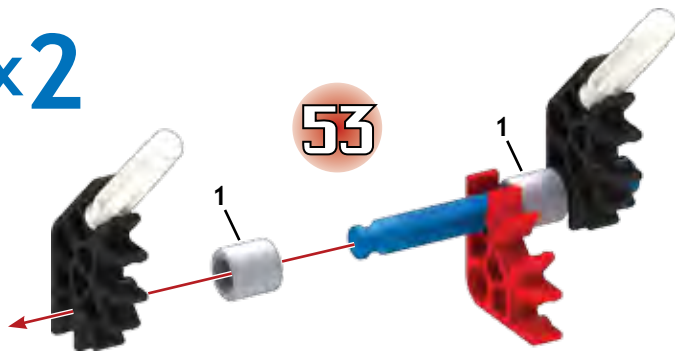
- 6
- 2
- 2
- 2
- 2
- 4
- 2
- 2







x2



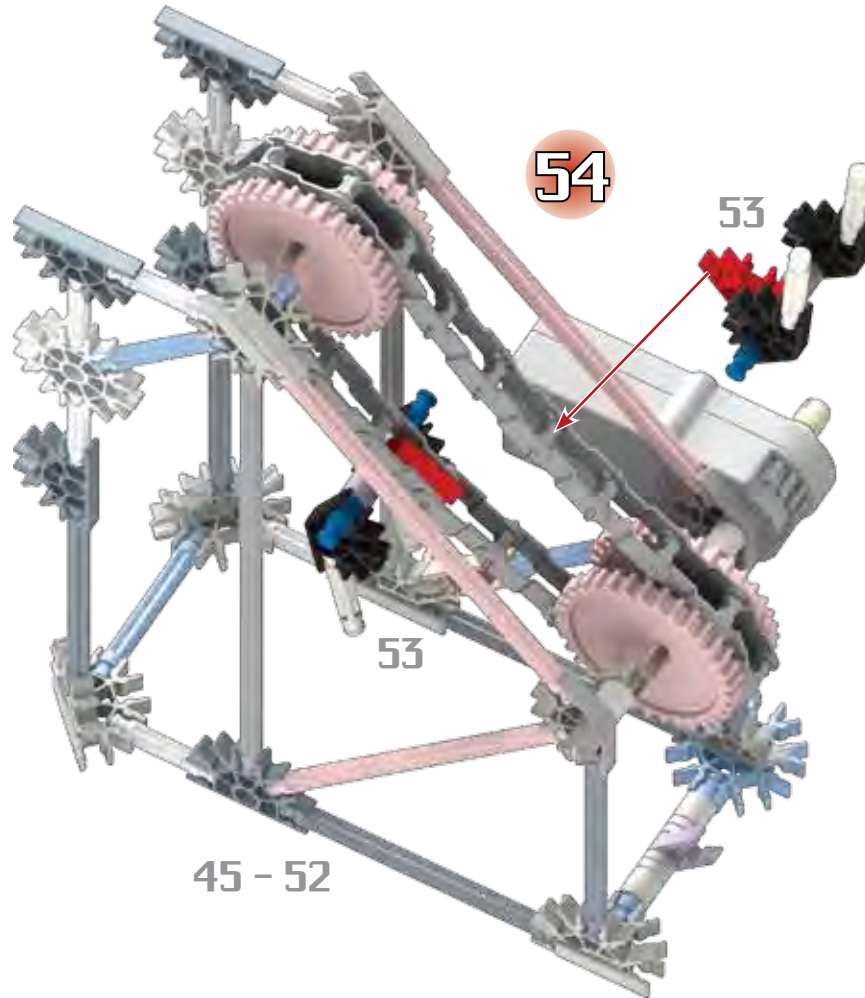
53



x2



53



54

53

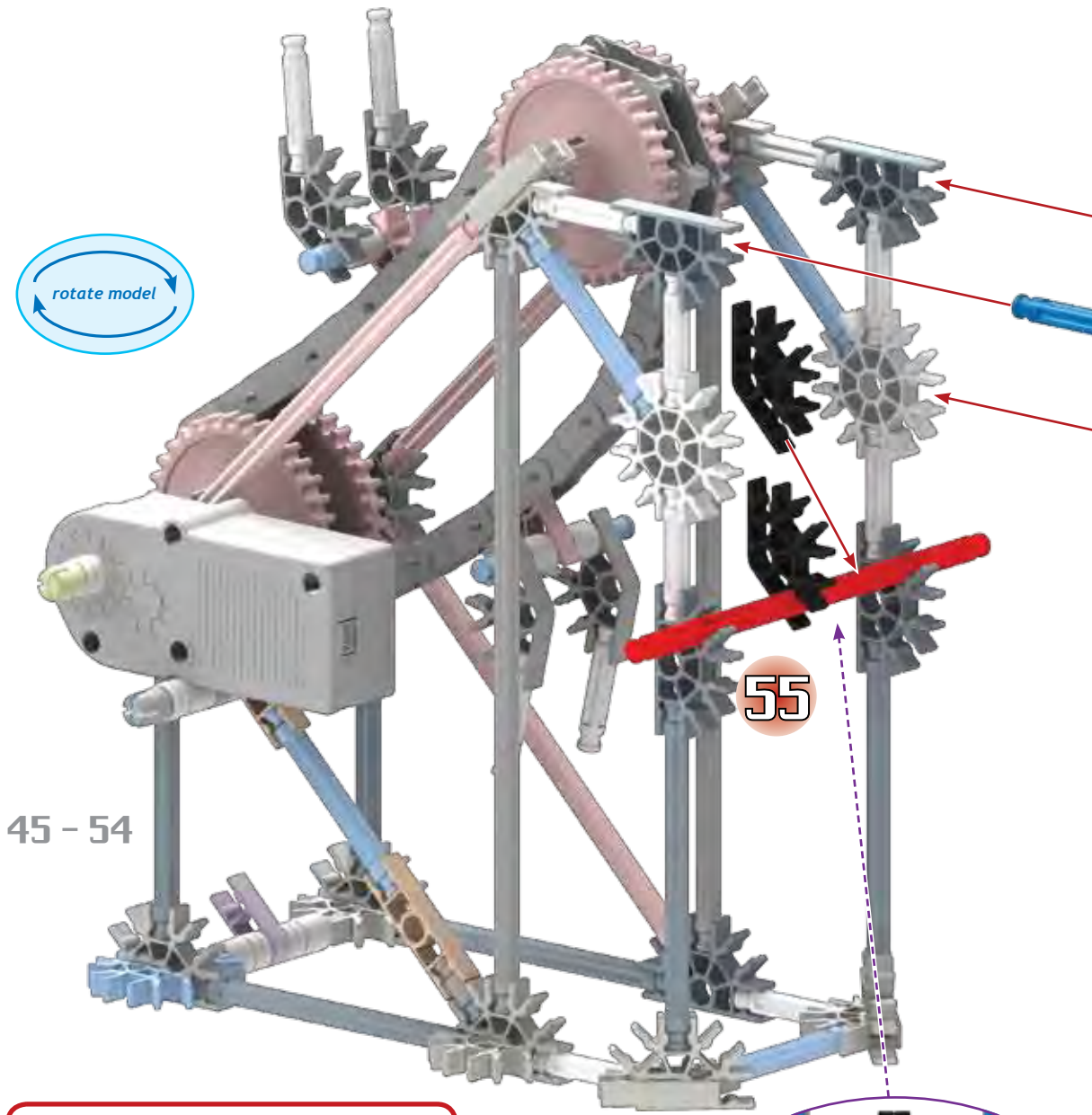
53

45 - 52

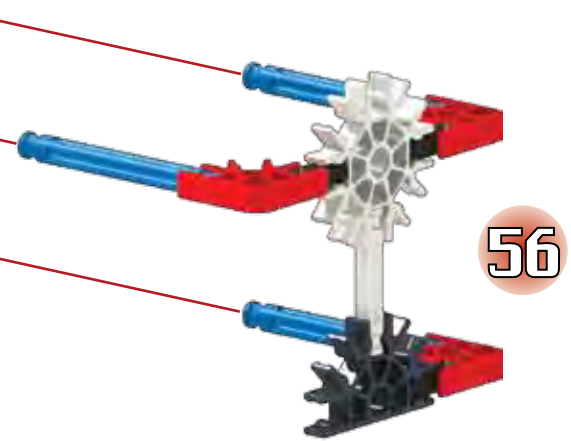


45 - 54

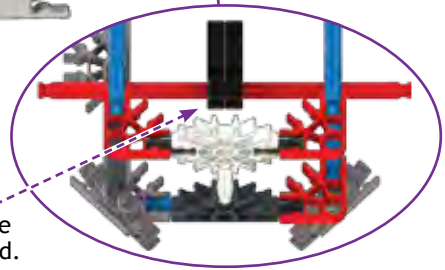
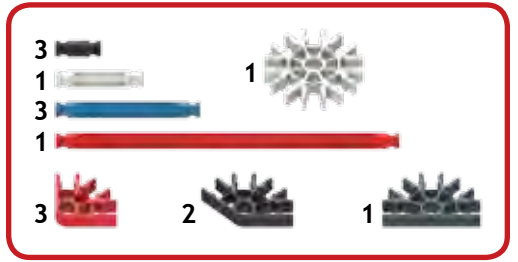
rotate model



45 - 54



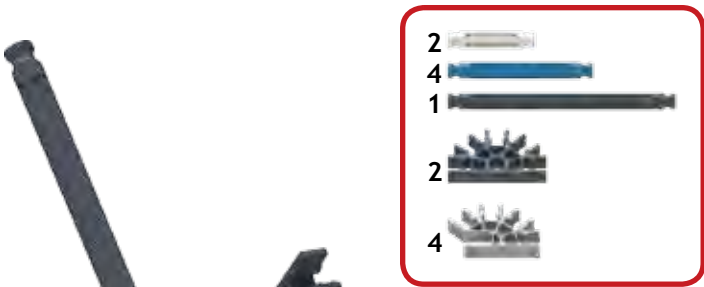
56



Position these connectors in the middle of the rod.



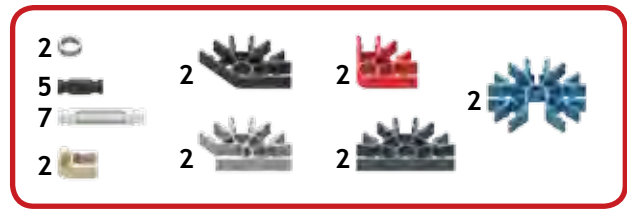
45 - 56



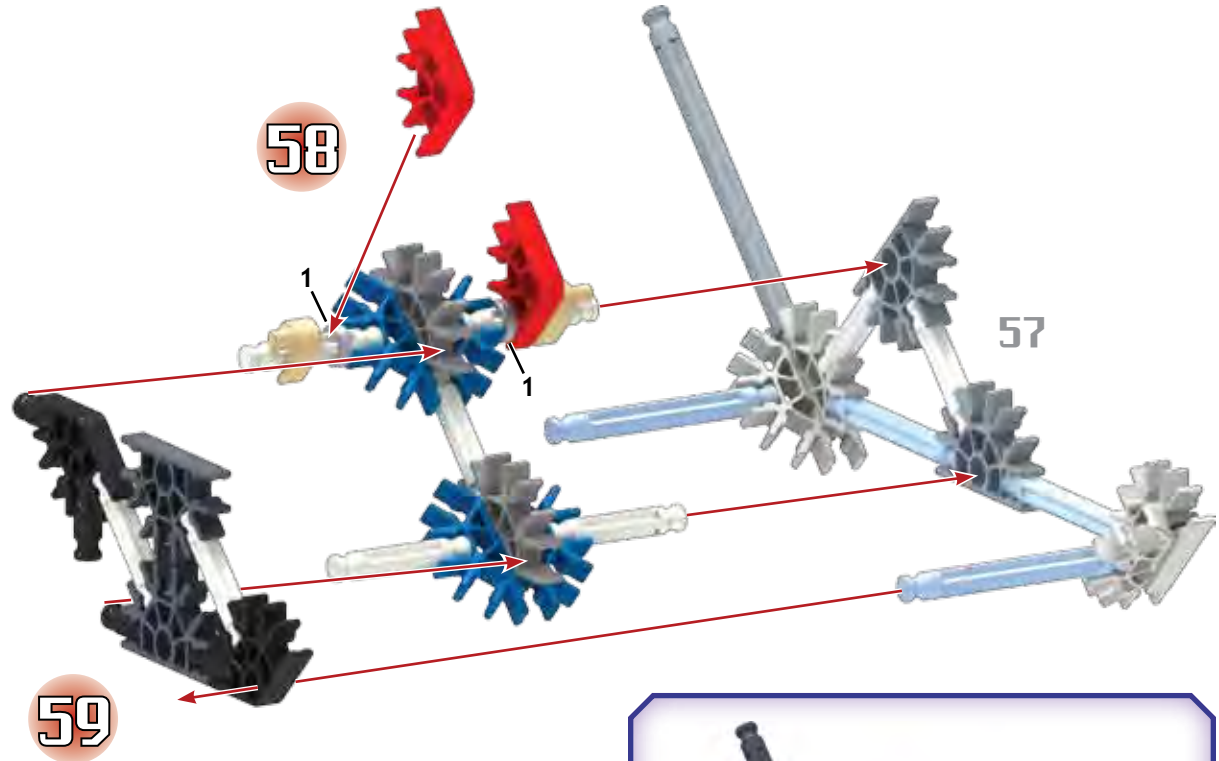
57



57



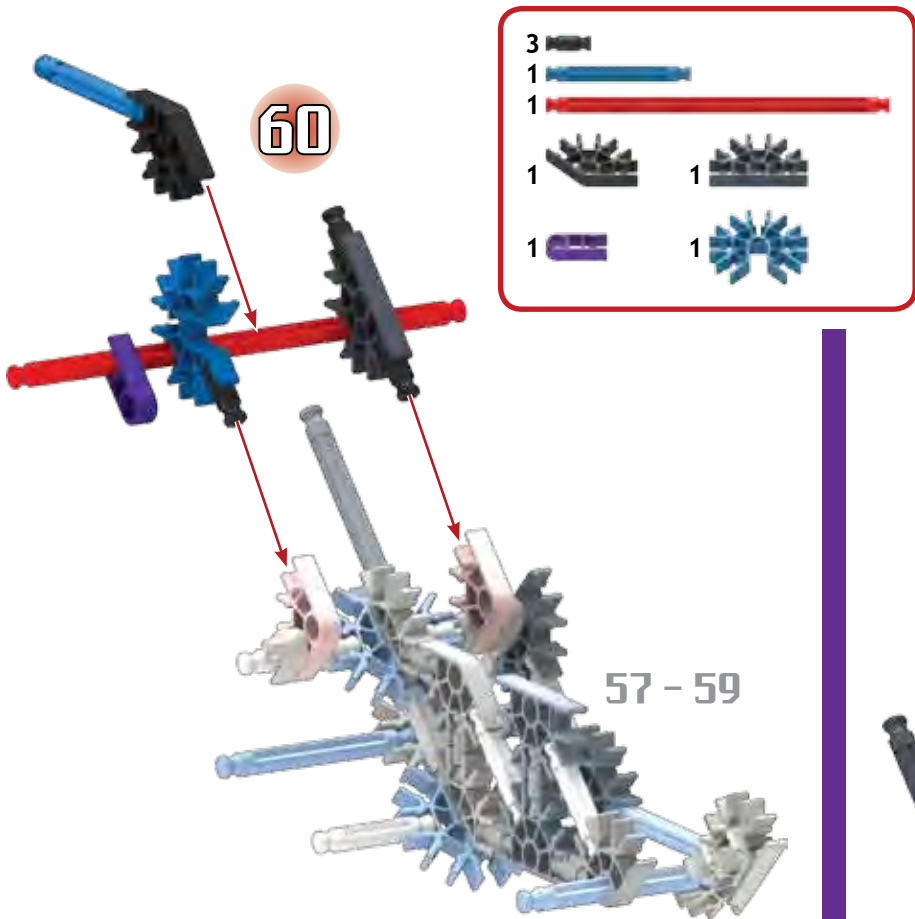
58



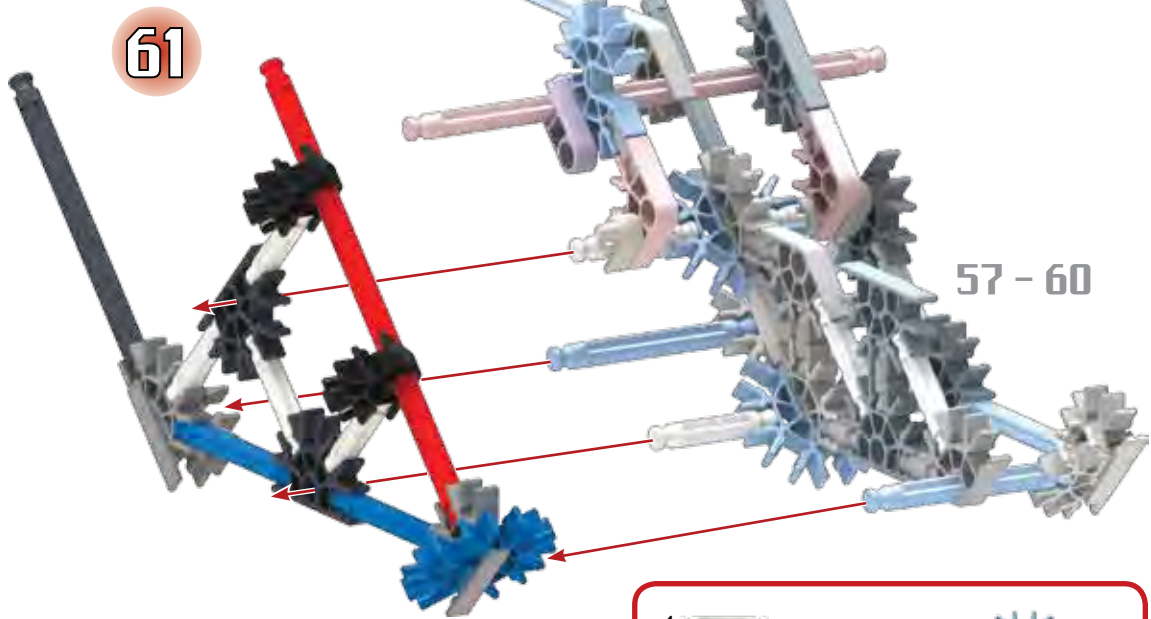
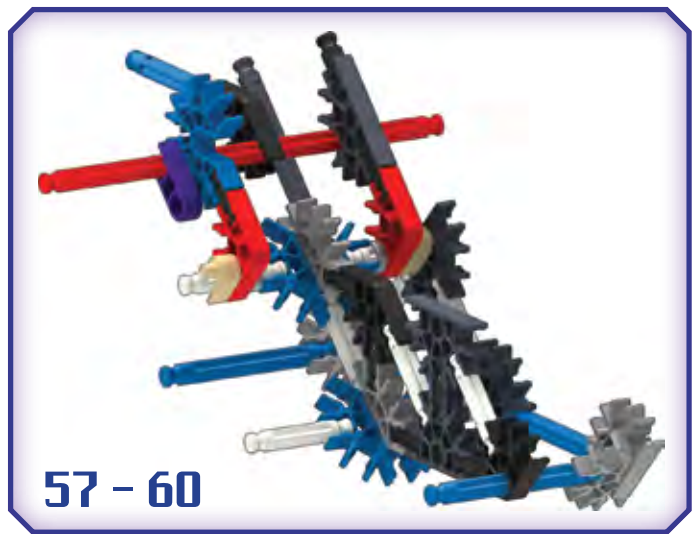
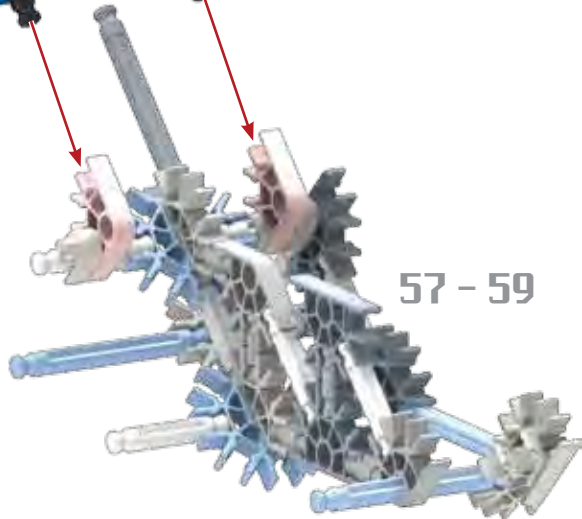
59



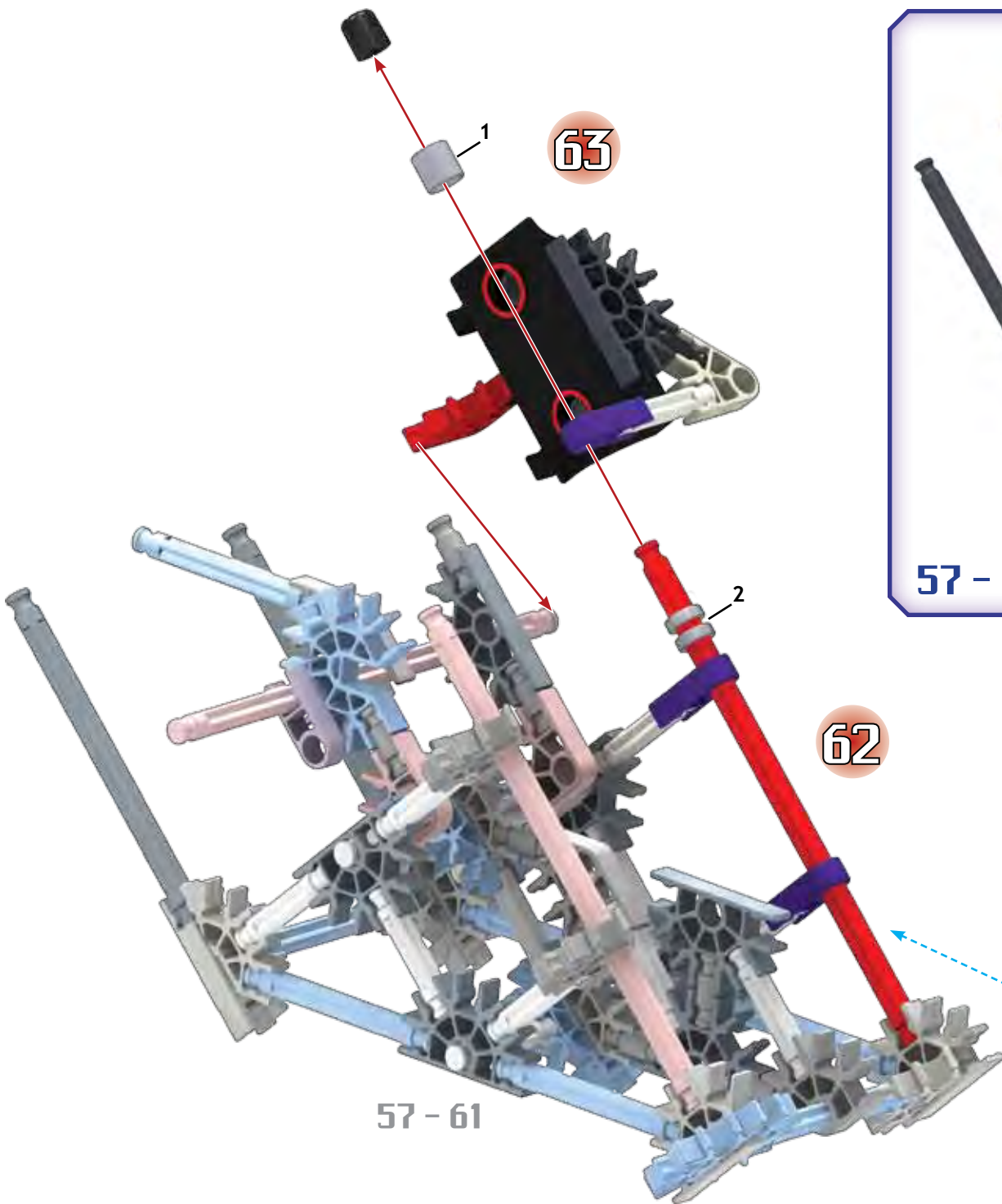
57 - 59



- 3
- 1
- 1
- 1
- 1
- 1



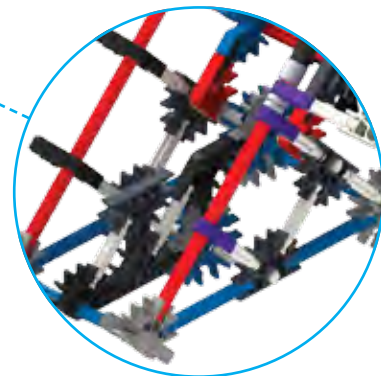
- 4
- 2
- 1
- 1
- 2
- 2
- 3
- 1



57 - 61

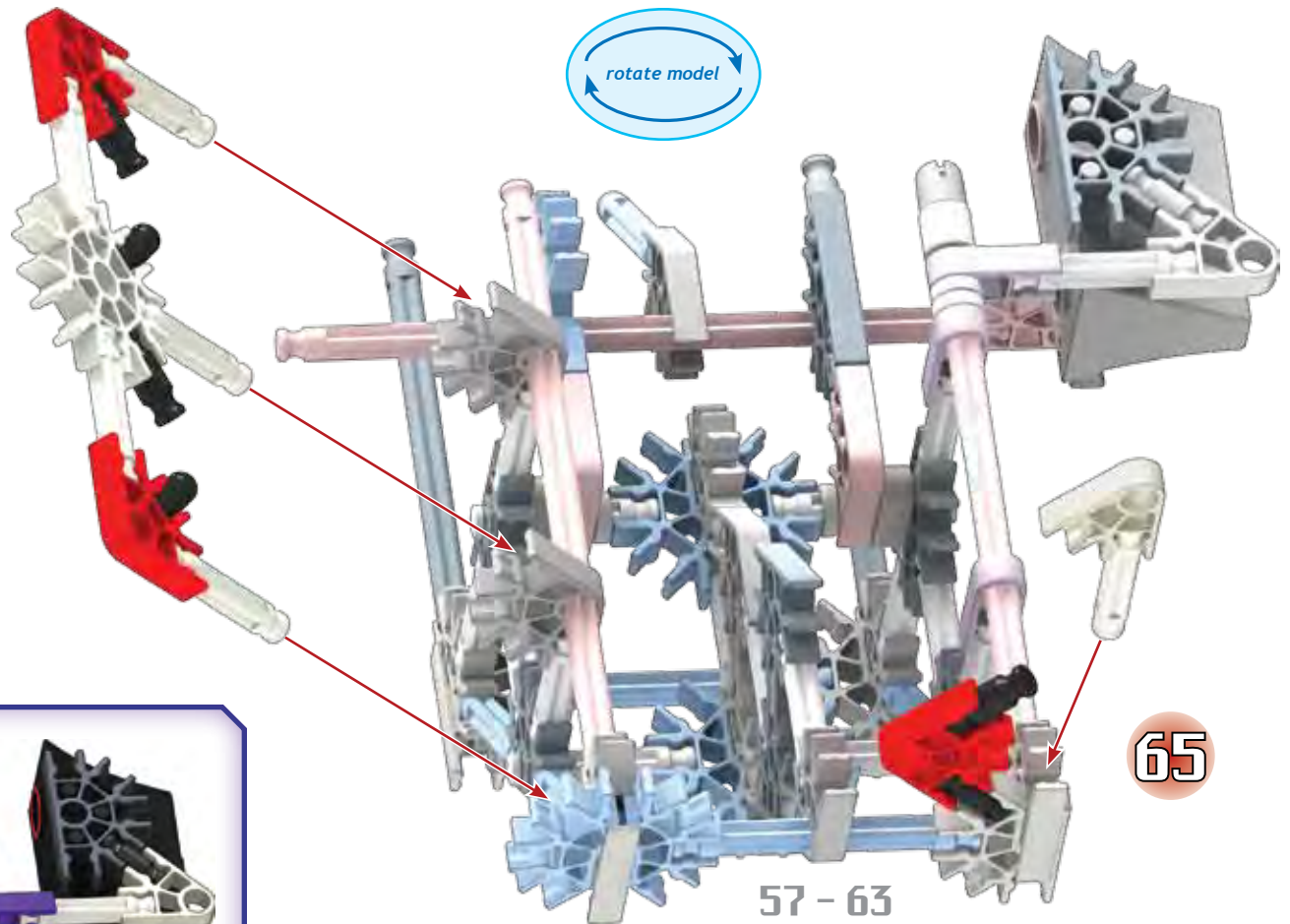


57 - 63



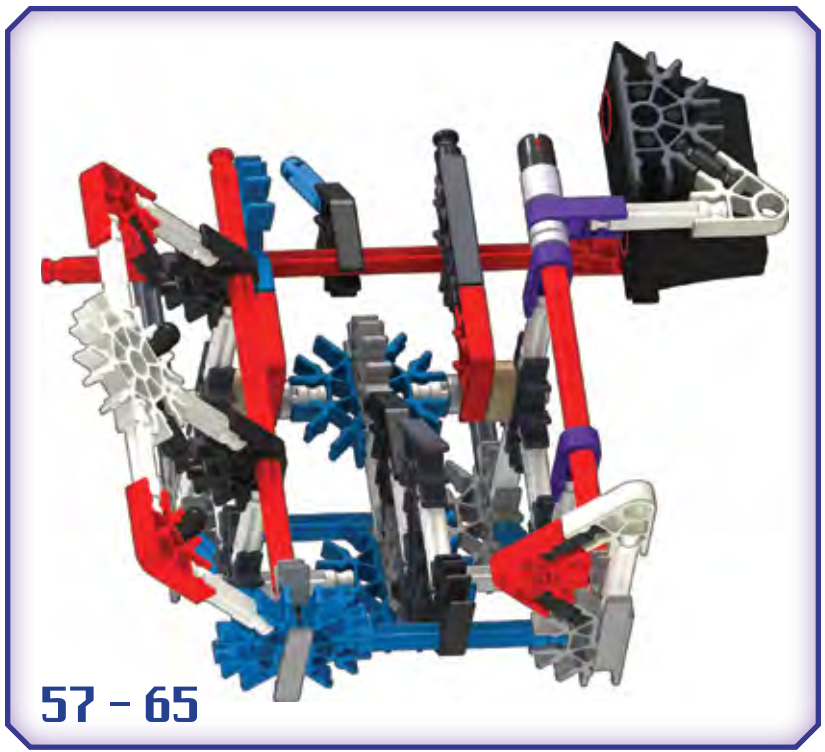
64

rotate model



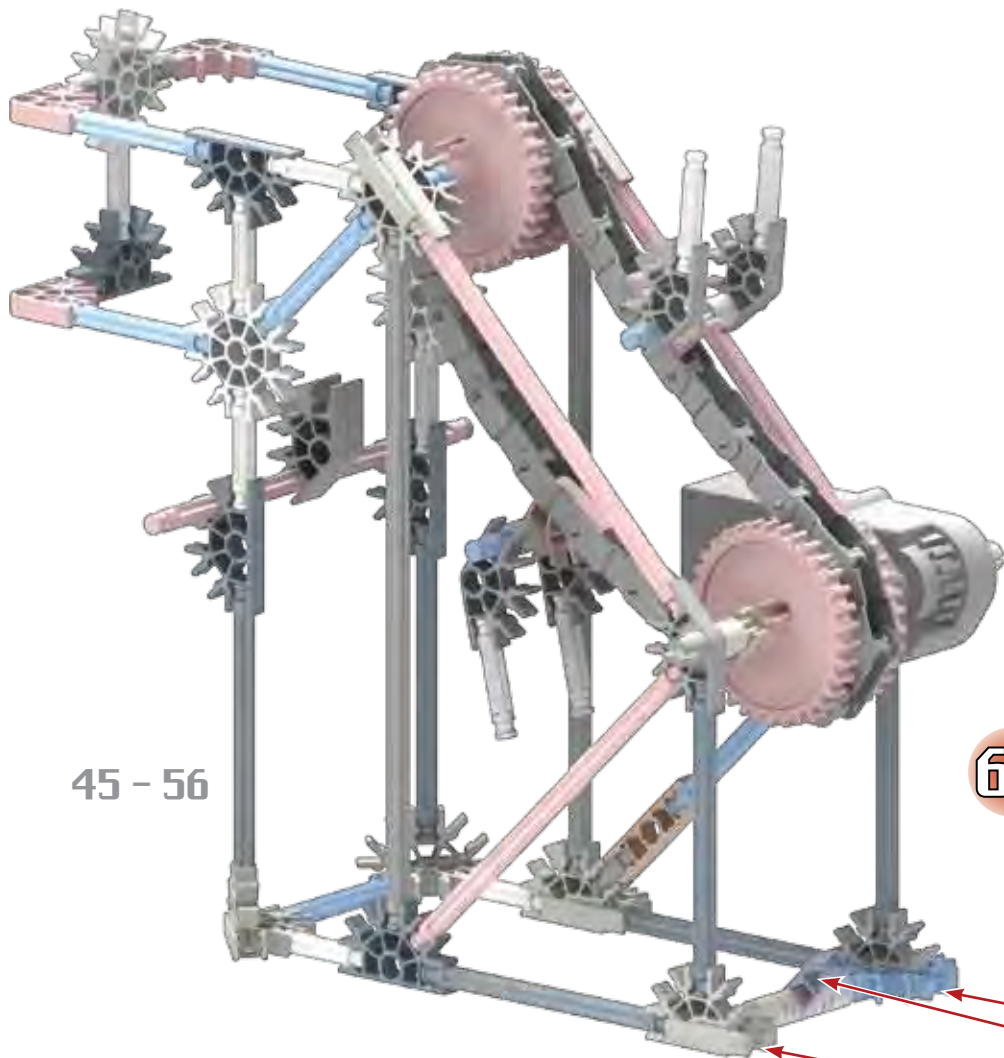
65

57 - 63

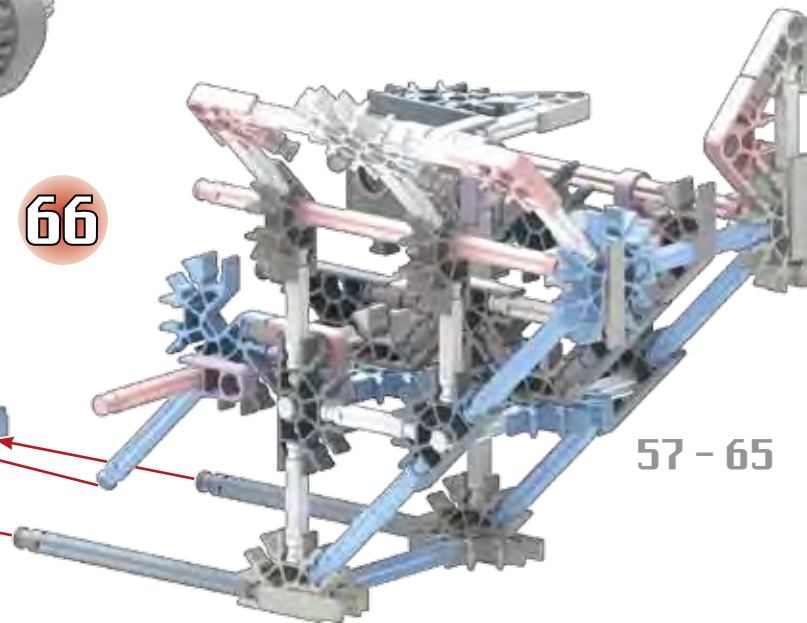


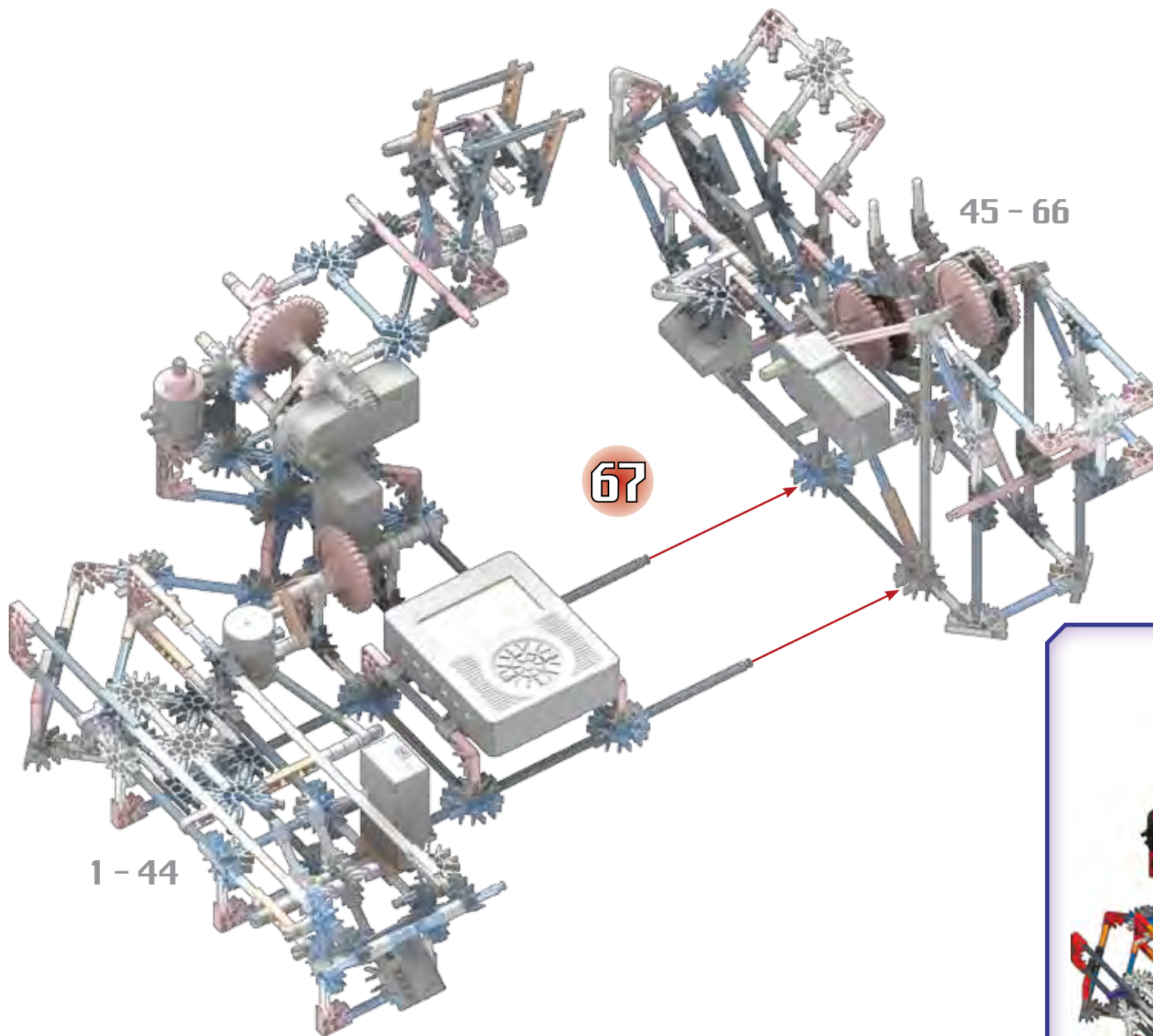
57 - 65

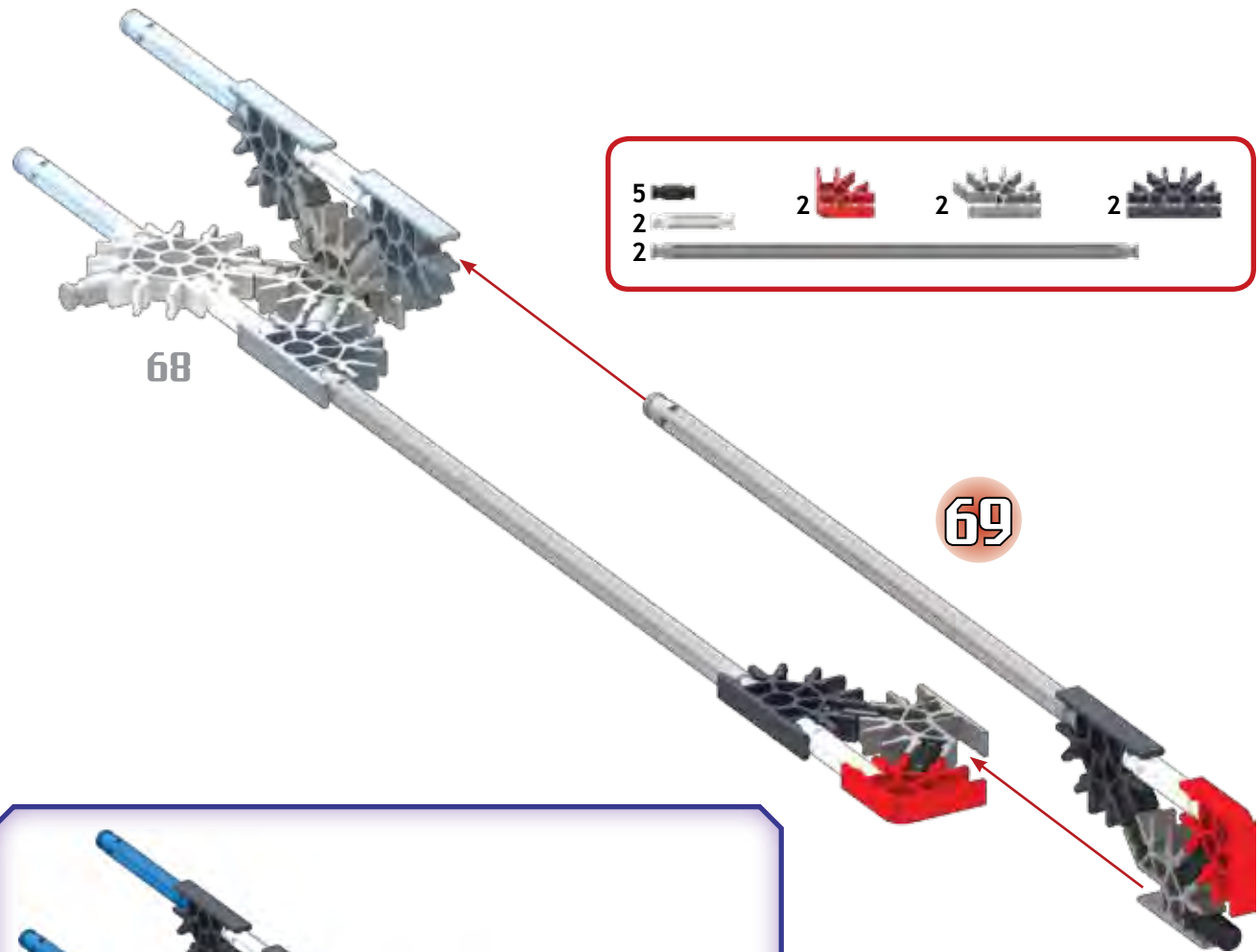
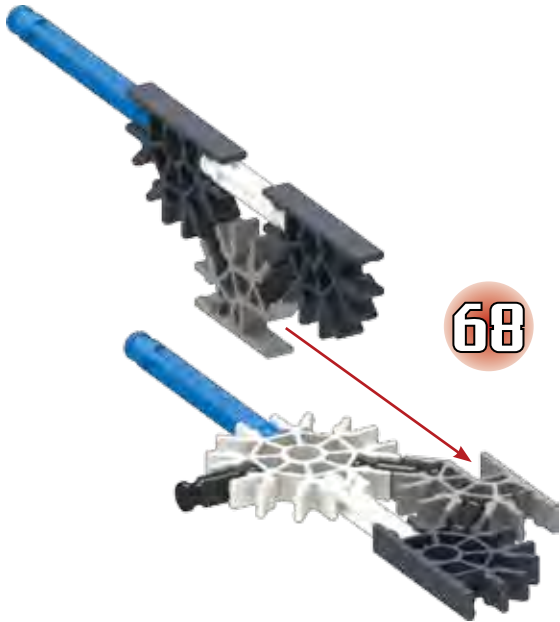
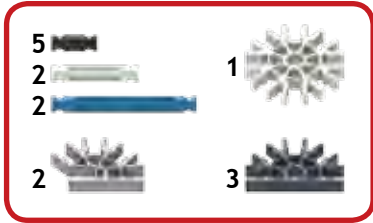
- | | | |
|---|---|---|
| 6 | 1 | 1 |
| 6 | 3 | 1 |

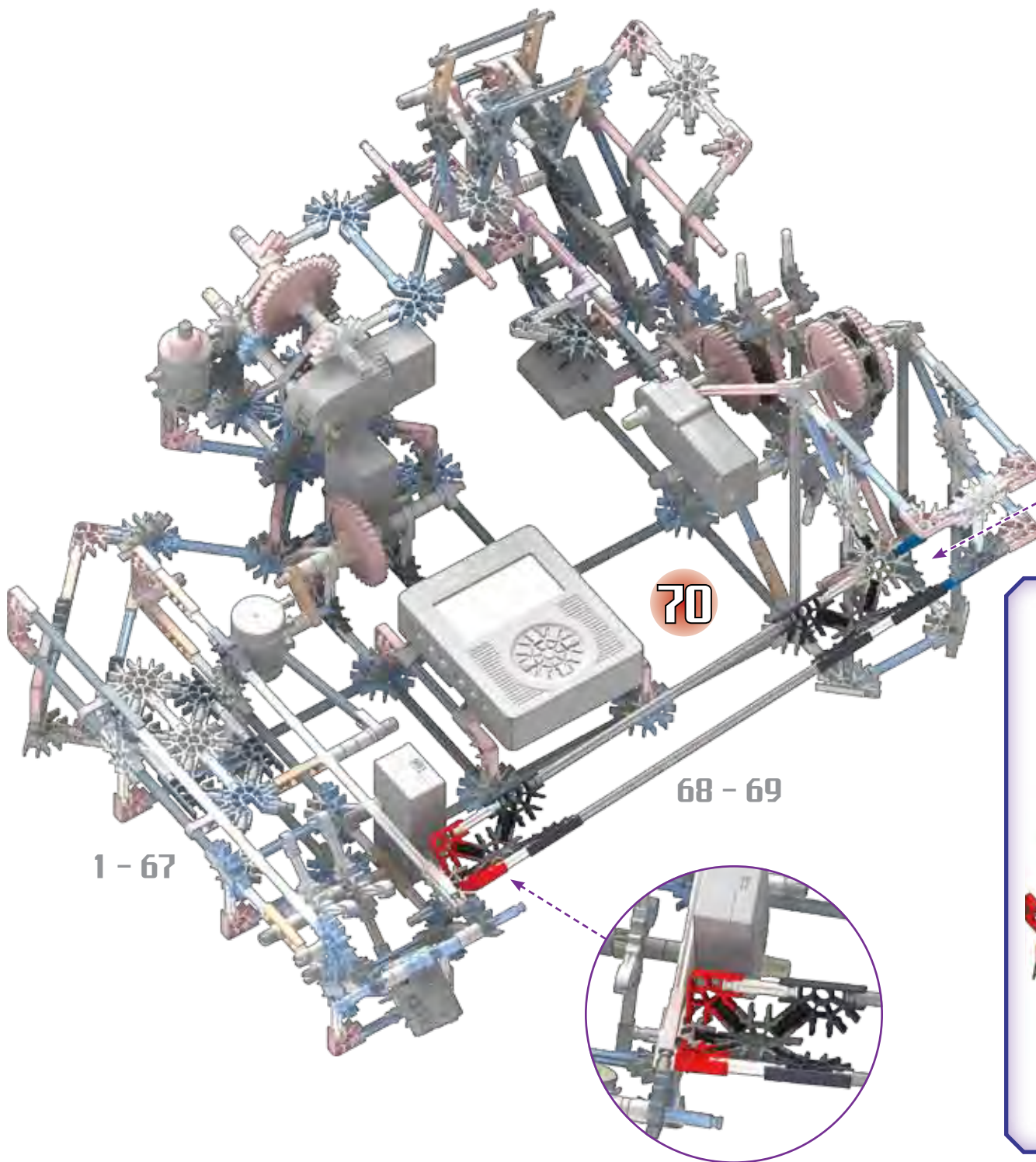


66

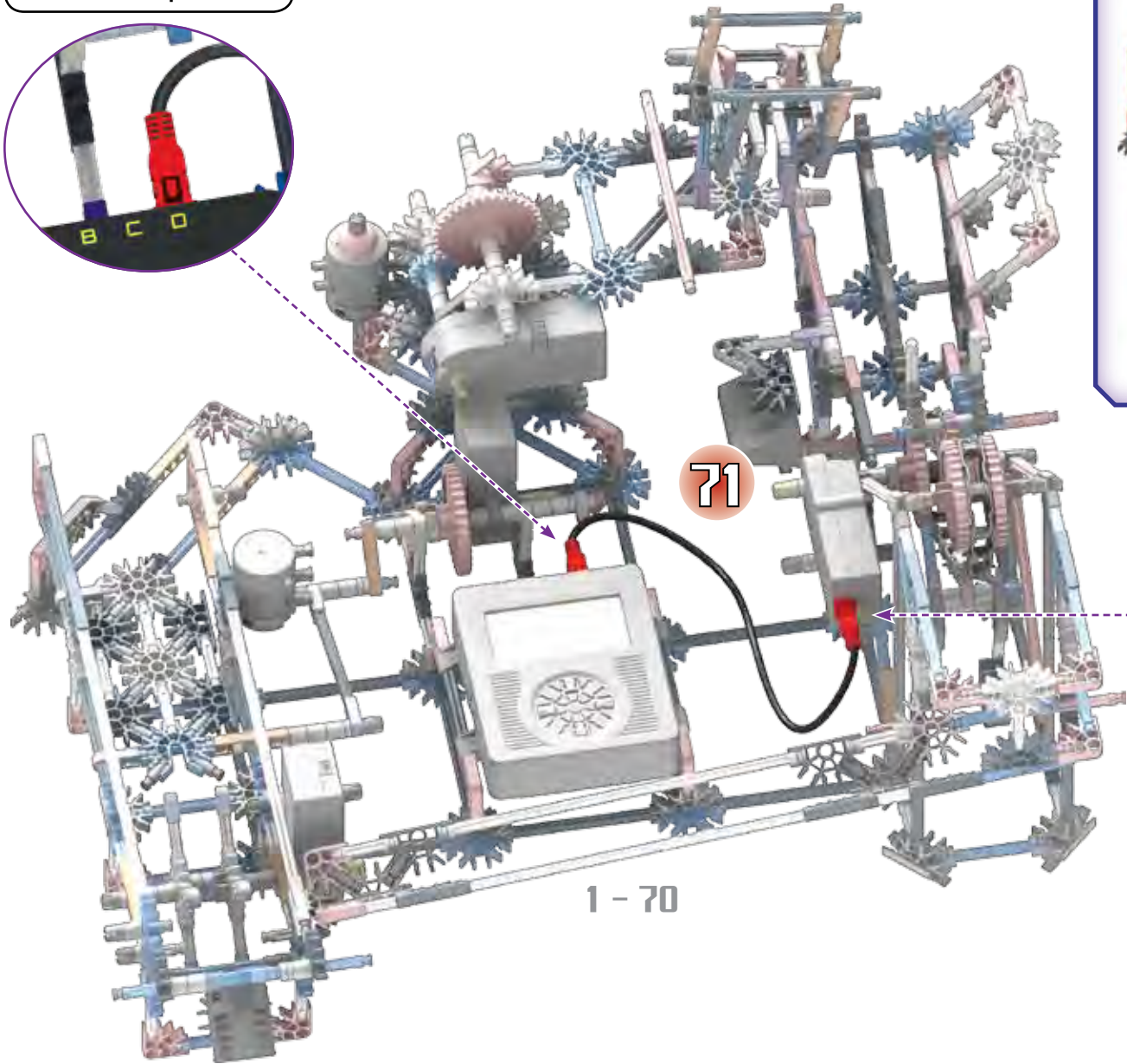








Connect Motor to
Motor Output D



1 - 70

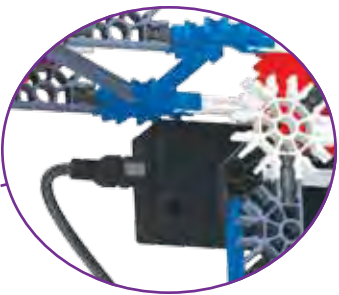
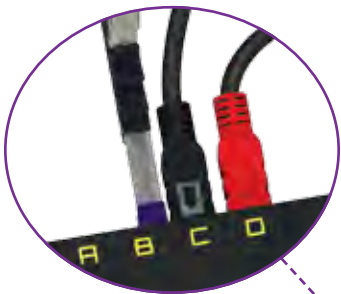


1 - 71

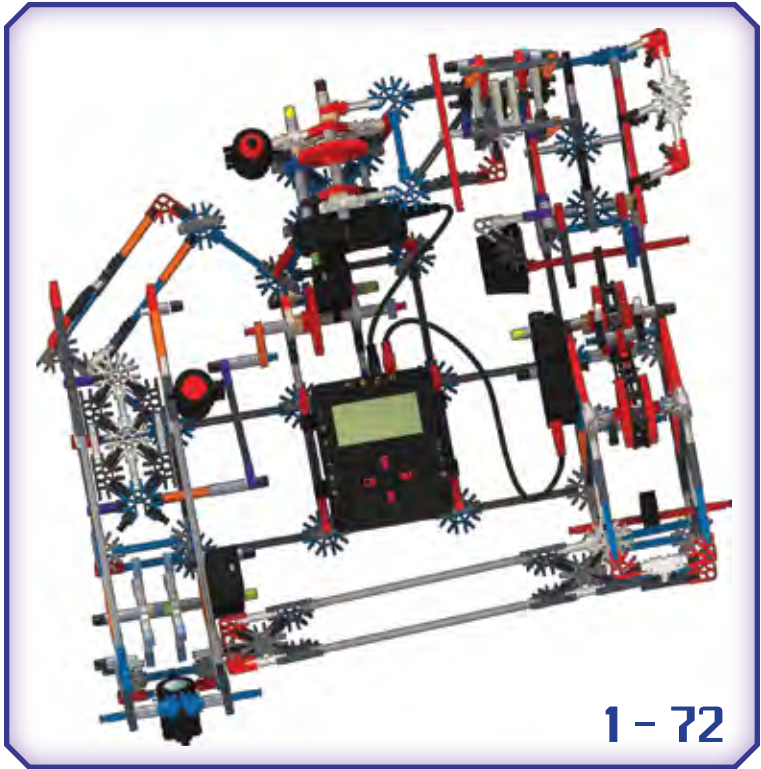
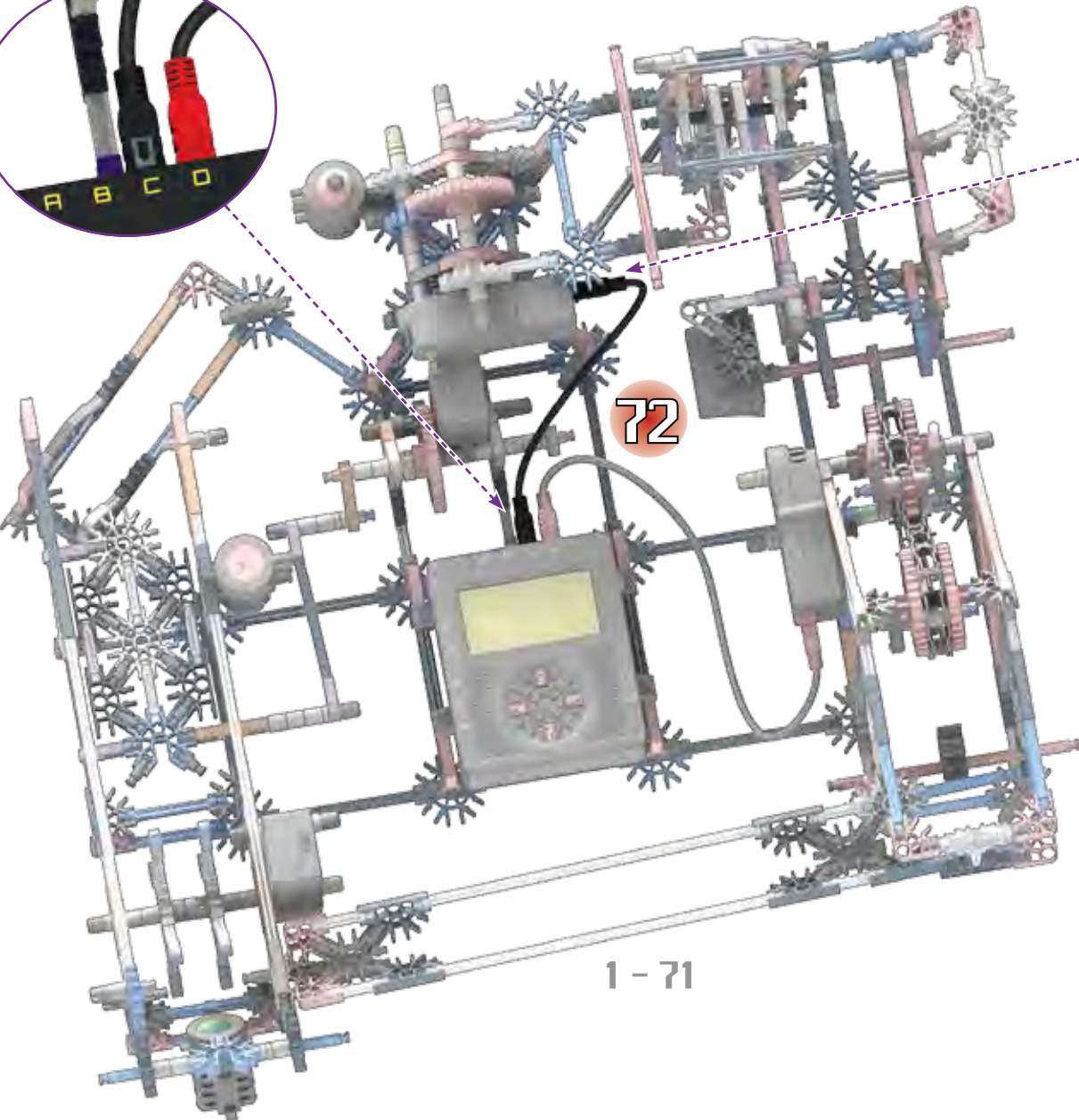


The plugs on the connection cables are directional and can only be inserted one way. **FORCING** plugs into connections the wrong way will damage the plug and component, voiding any warranties!

Connect Motor to
Motor Output C

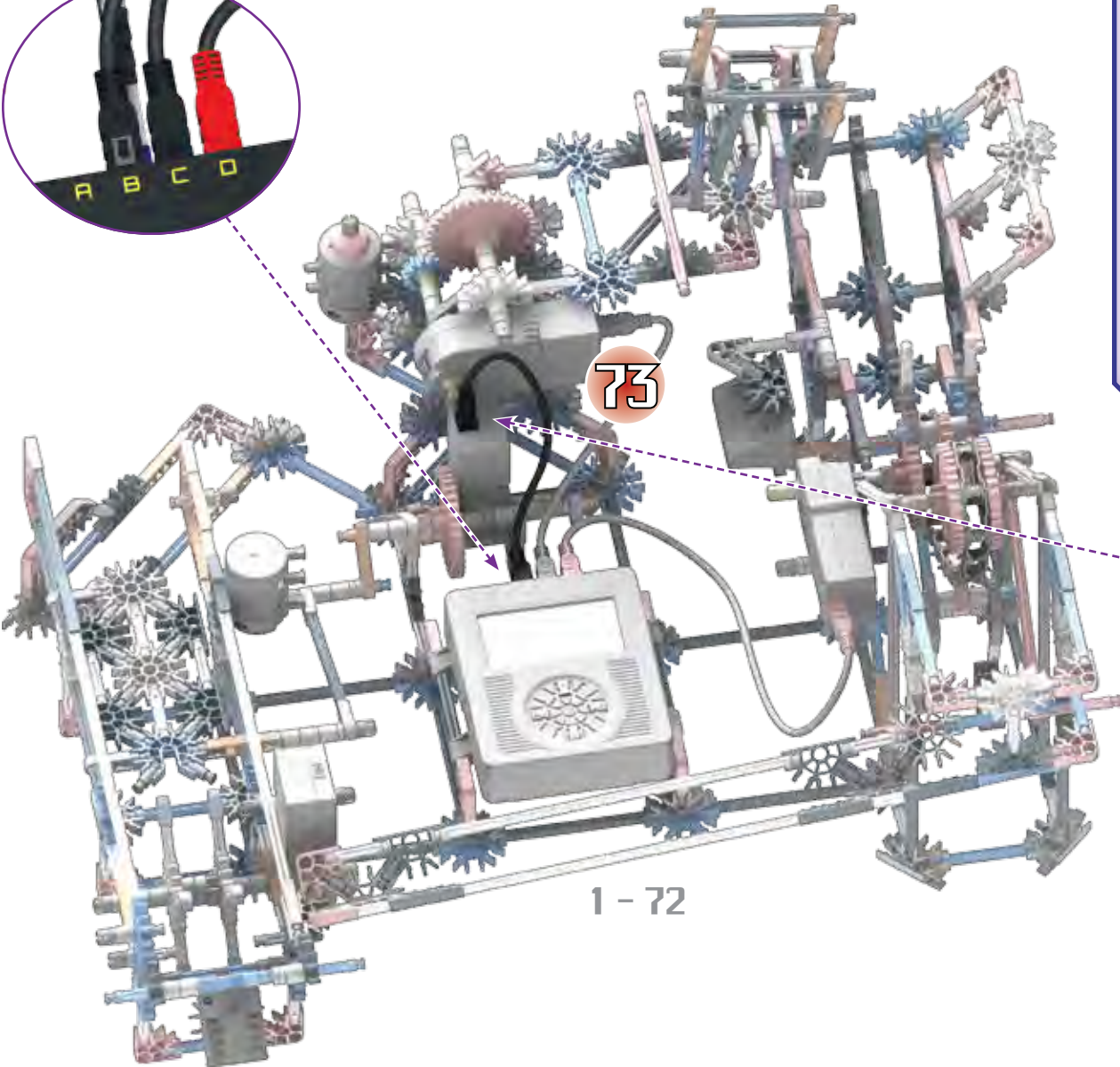


72





Connect Motor to Motor Output B



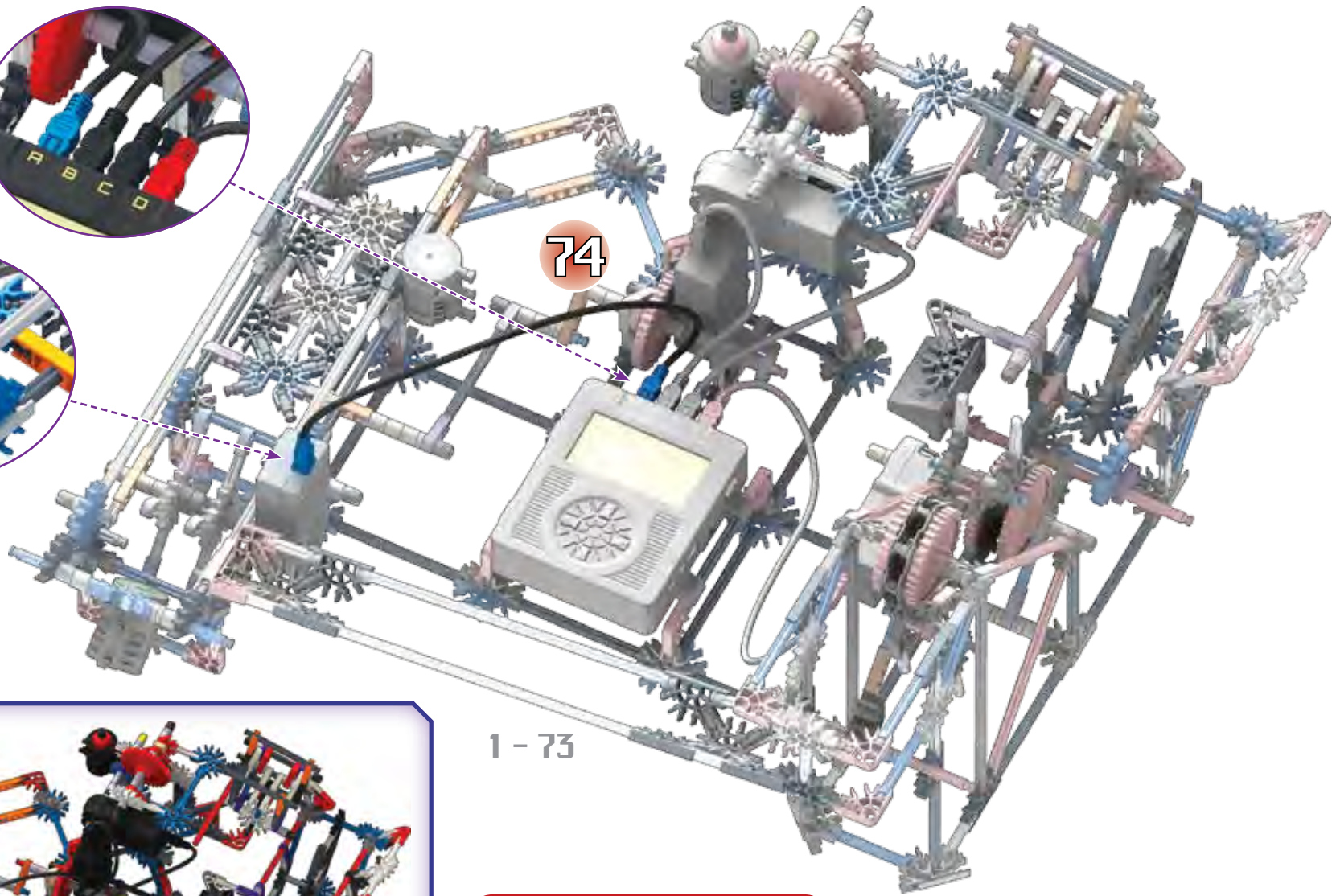
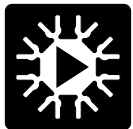
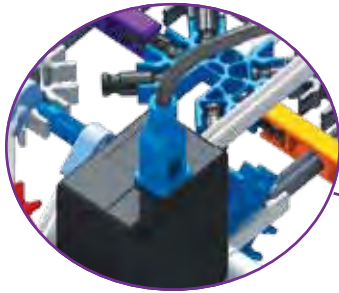
1 - 72



1 - 73



Connect Motor to
Motor Output A

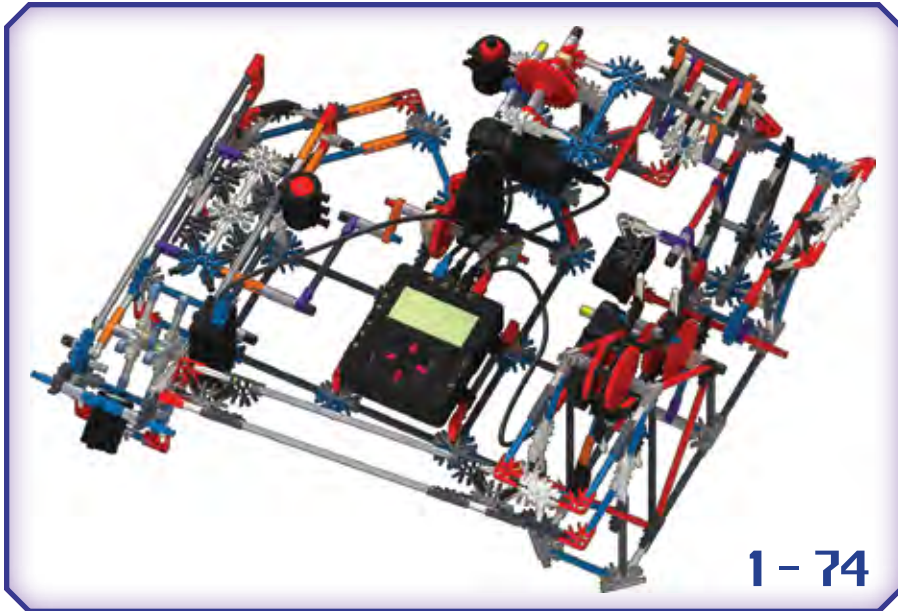


74

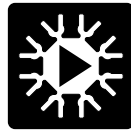
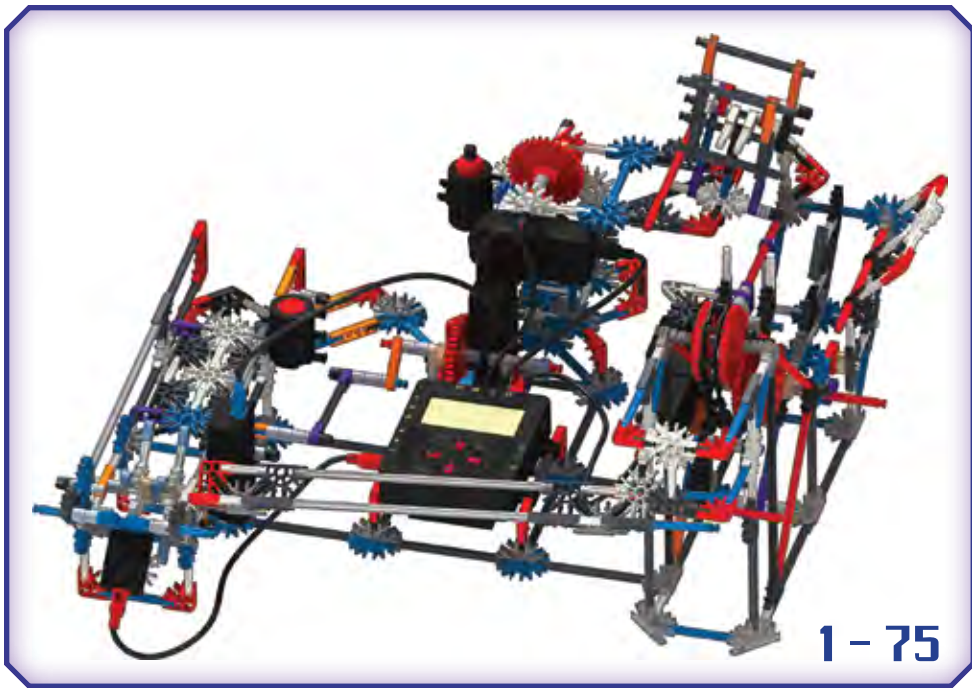
1 - 73



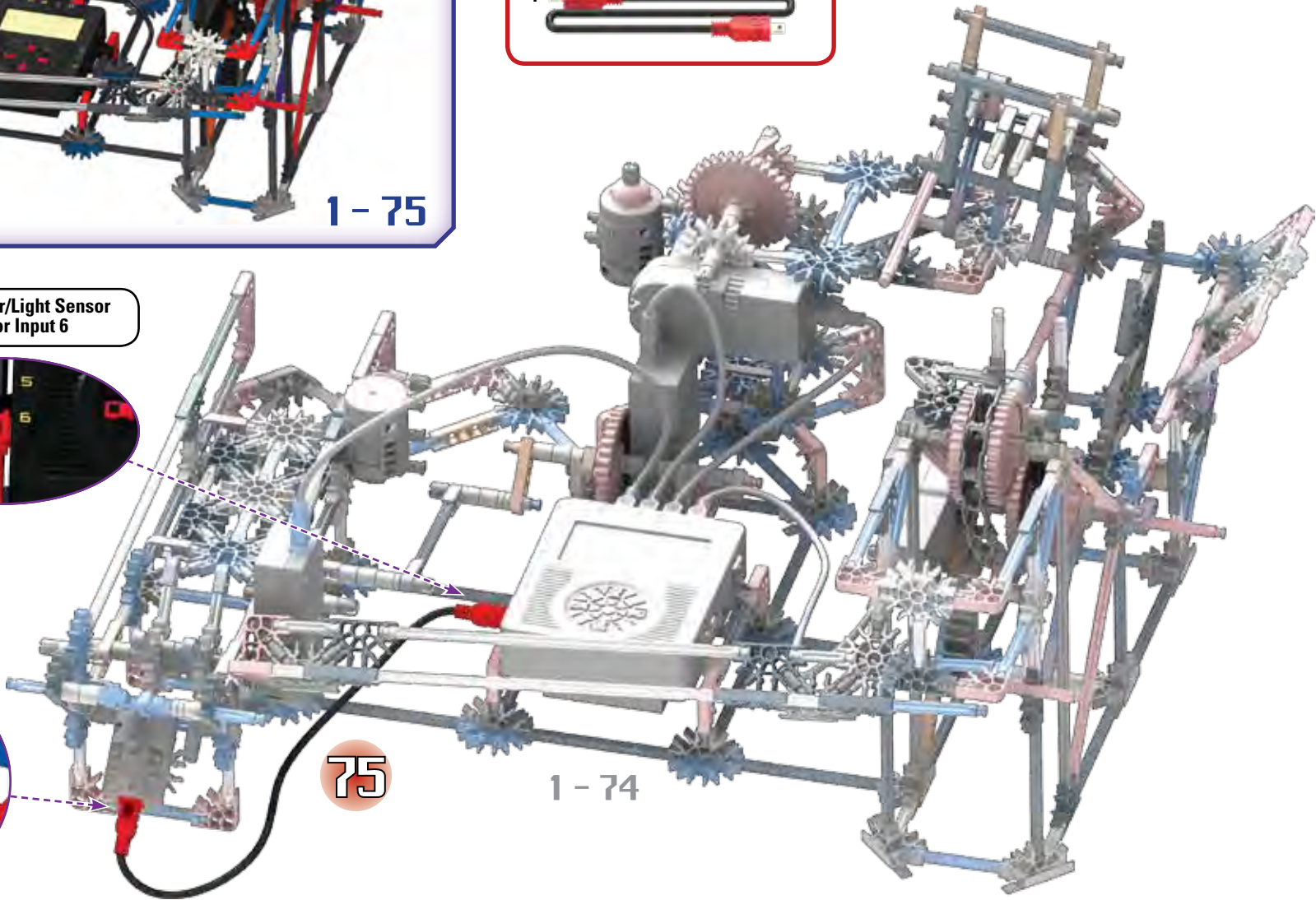
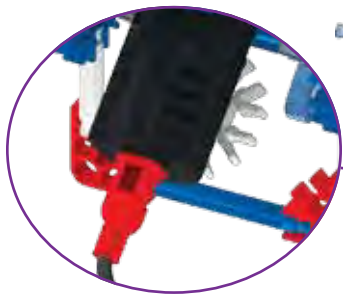
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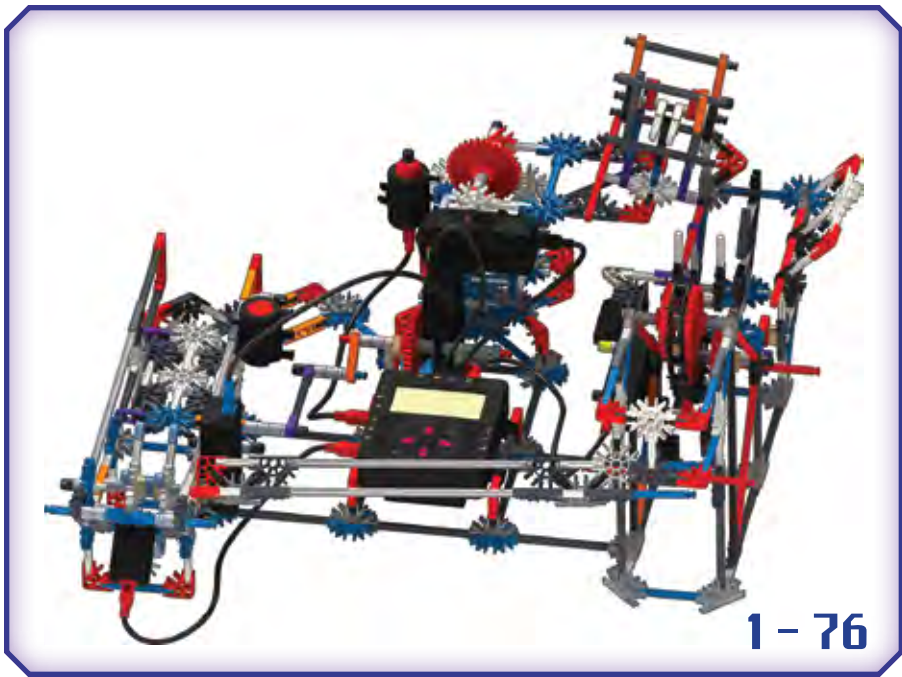


1 - 74

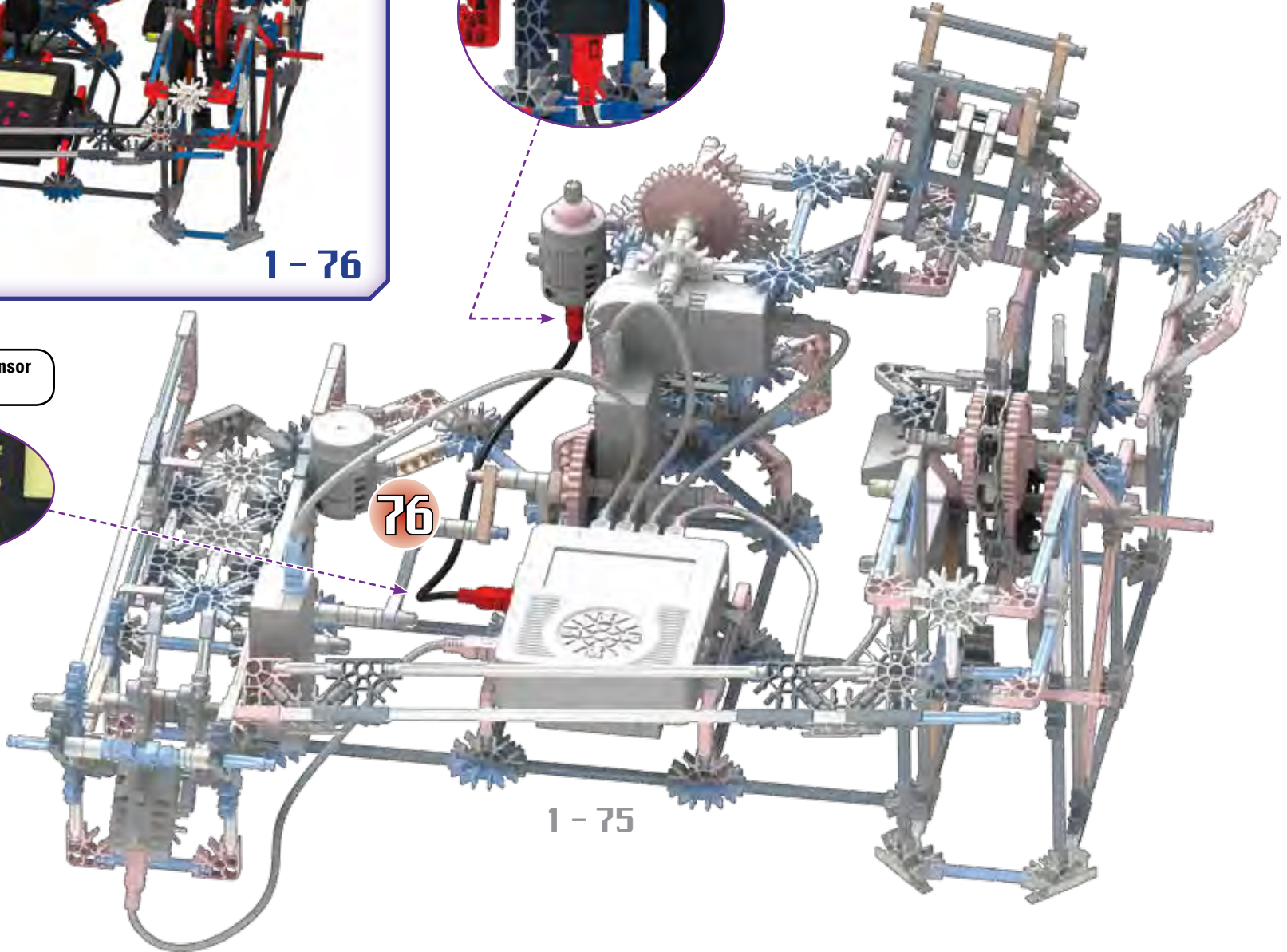


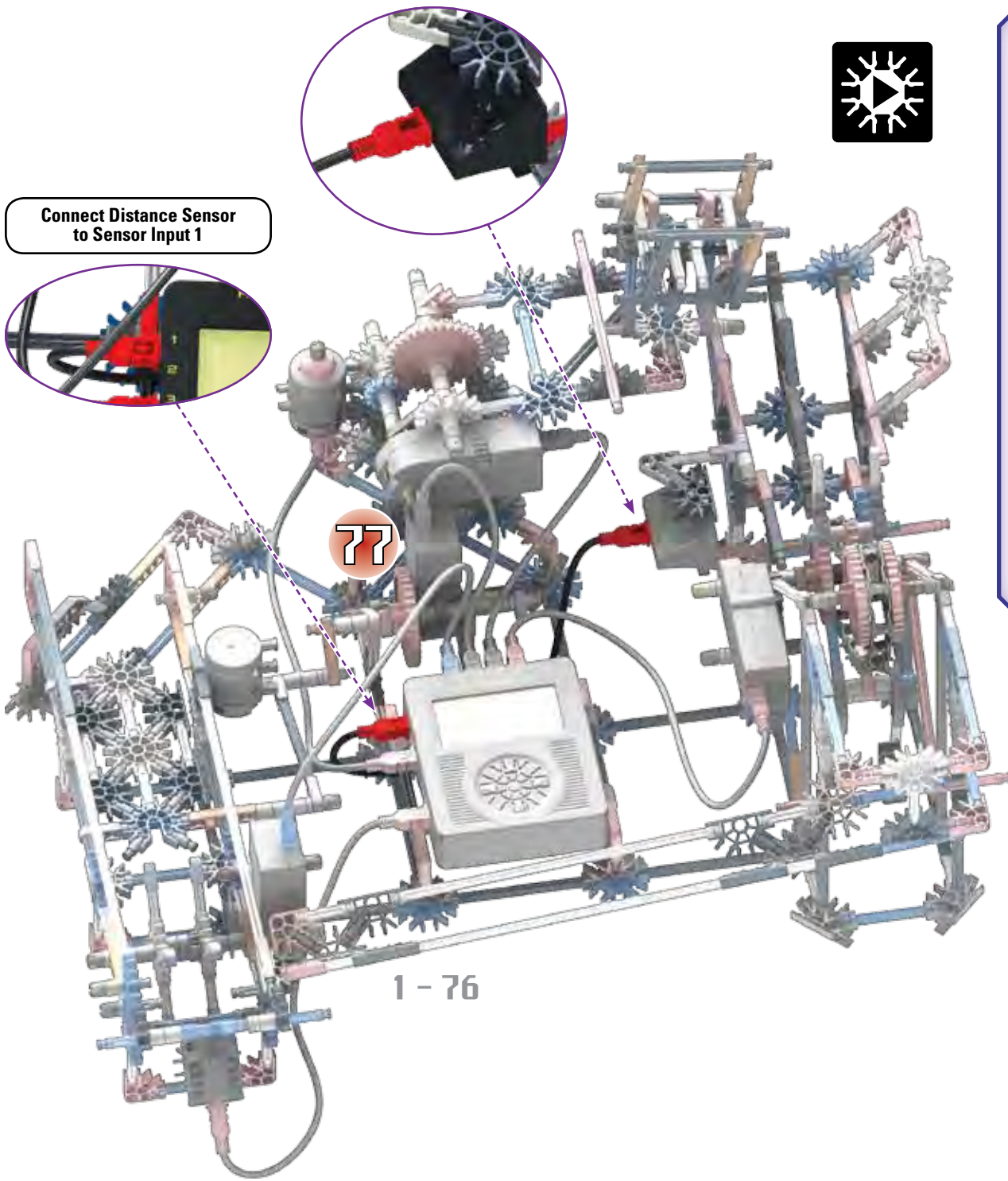
Connect Color/Light Sensor
to Sensor Input 6





Connect Push Button Sensor
to Sensor Input 3





Connect Distance Sensor to Sensor Input 1



??

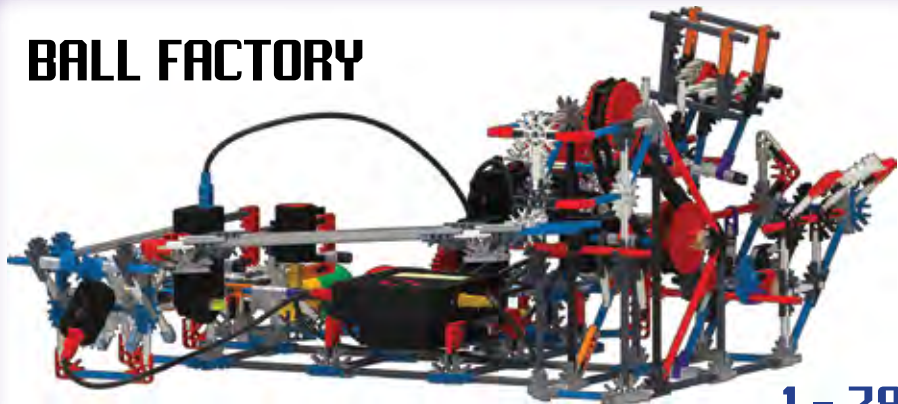
1 - 76



1 - 77



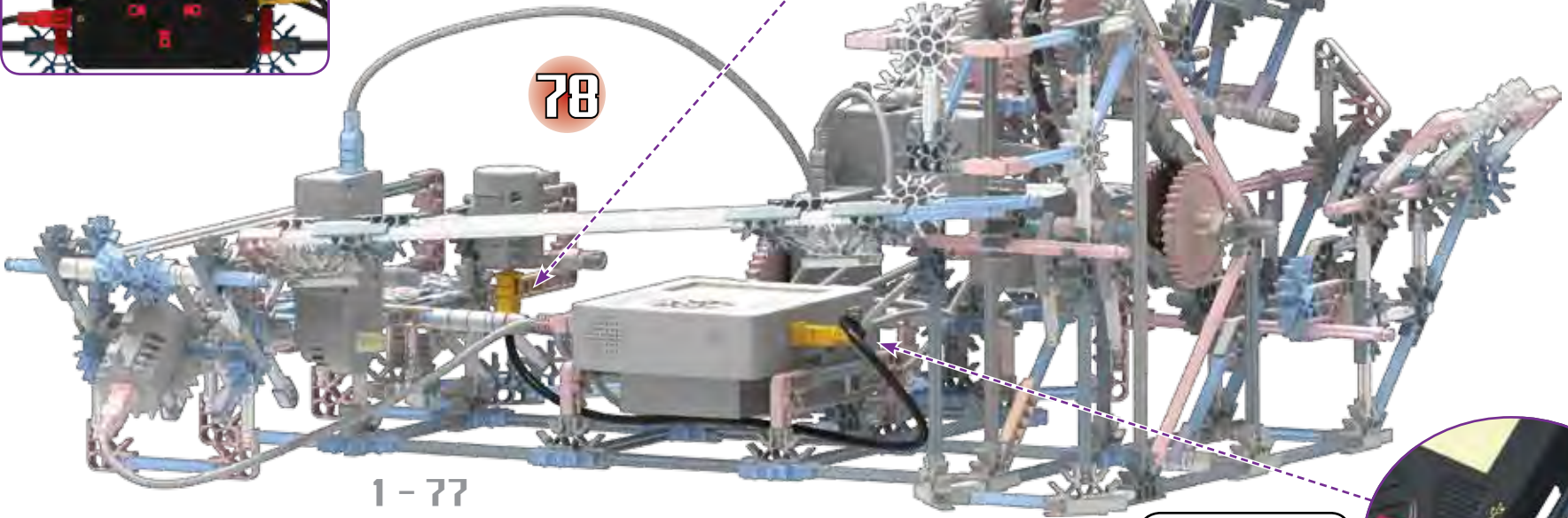
BALL FACTORY



1 - 78



78



1 - 77

Connect LED to LED Output ▲ 1

