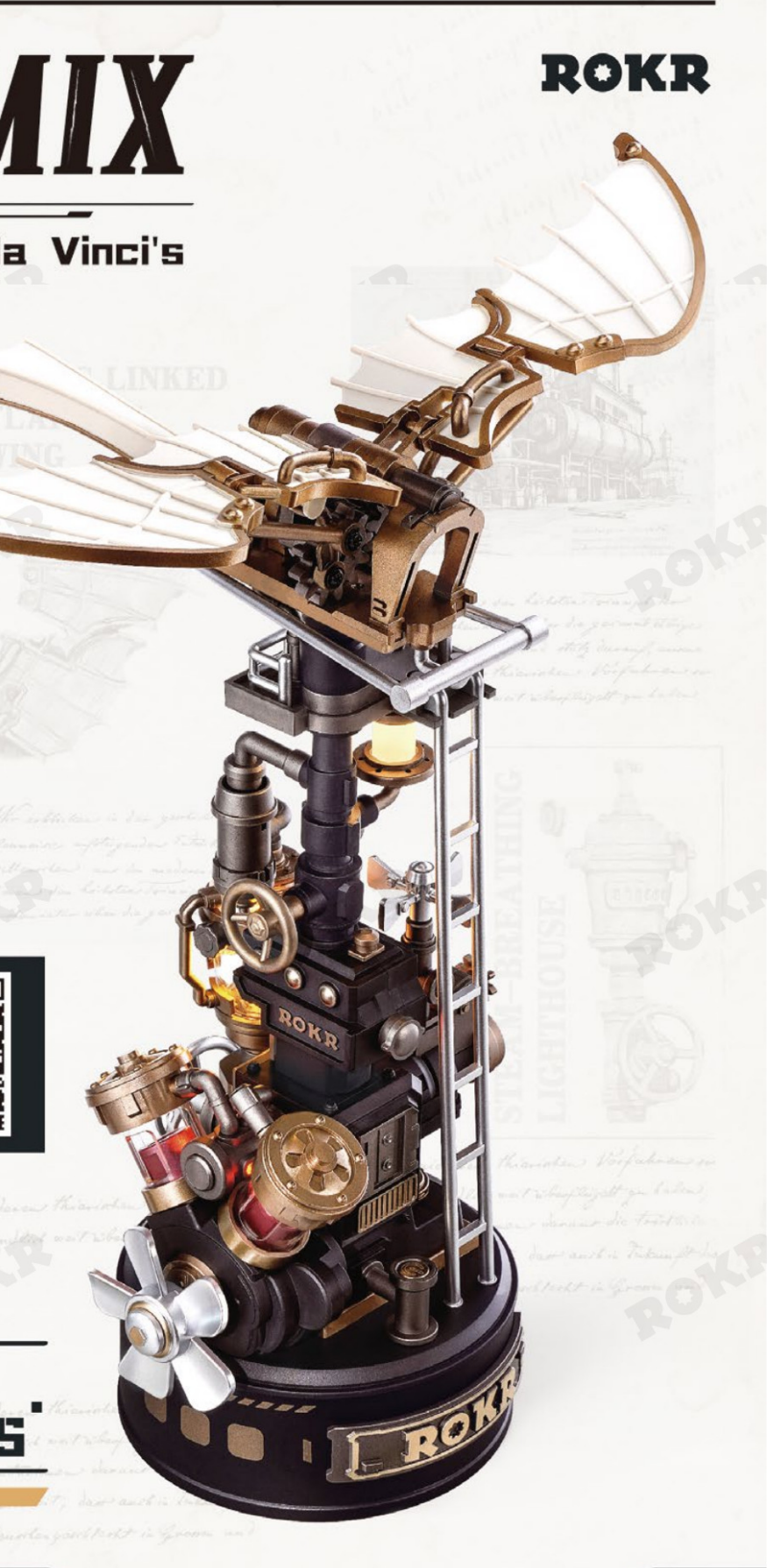
MECHMIX

ROKR

CGL02 Leonardo Da Vinci's Ornithopter



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ASSEMBLY INSTRUCTIONS

LEONARDO DA VINCI'S ORNITHOPTER

WARNING:

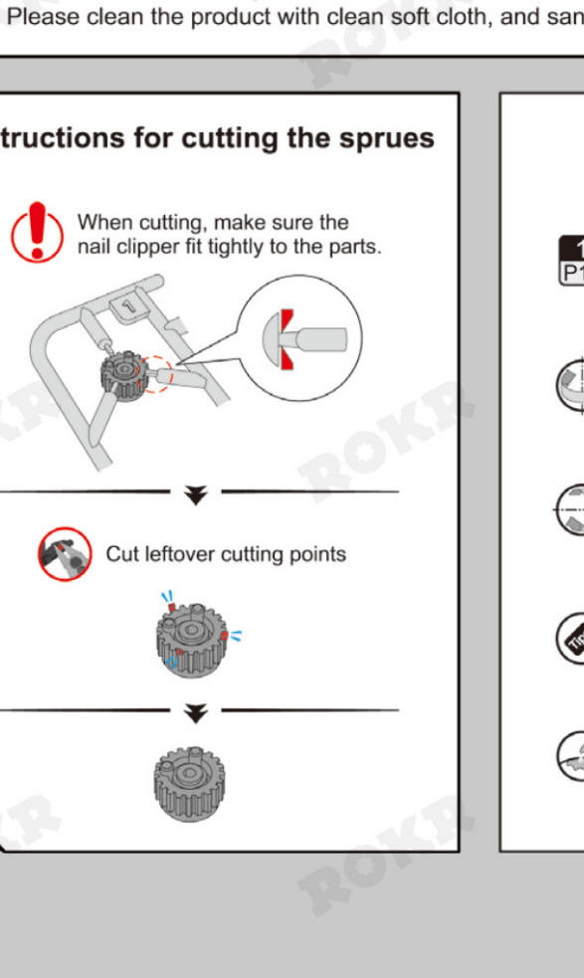
01. This product is powered by USB connection and does not contain Type-C power cord, which must be provided by yourself (Input: 5V ⎓ 1A).
02. Not suitable for children under 3 years old.
03. The product shall only be used with a transformer for product or a power supply for it.
04. The product shall be used with the power supply supplied, if the transformer is supplied with the product.
05. The transformer or power supply is not a toy or model.
06. Misuse of transformer can cause electrical shock.
07. The power supply used with the electric toy shall be regularly examined for damage to the supply cord, plug, enclosure or other parts, and in the event of damage, it shall not be used until the damage has been repaired.
08. Do not connect the wire to output socket.
09. The product is not to be connected to more than the recommended number of power supplies.
10. If the product contains motor, motor may be a hot component. Do not touch it to avoid burns while operating.
11. This product is only to be connected to equipment bearing either of the following symbols: ⧈ or ◈.
12. This product does not need liquid cleaning, and please clean the product with clean soft cloth.
13. This product contains functional edges and points that are sharp and hazardous. To prevent puncture injuries, adult supervision is required.
14. The instruction must be retained since it contains important information.

NOTICE:

01. Children should be accompanied by adults while assembling.
02. Please keep the product away from flammable substances and humid environments to prevent damage.
03. The product contains small parts and electronic components. Adults should guide and supervise children in the correct use of the product to prevent ingestion or choking.
04. Please read the instructions carefully before assembly to confirm that the parts are not damaged or missing.
05. Take off the pieces from the board according to each step before assembling and place them properly in case of missing.
06. Please install the electronic components correctly and test whether the circuit is normal after completion.
07. Please don't clean this product with chemical cleaners: alcohol, ammonia water, glass cleaner, etc.
08. Please clean the product with clean soft cloth, and sand the board burr lightly with sandpaper.

Instructions for cutting the sprues

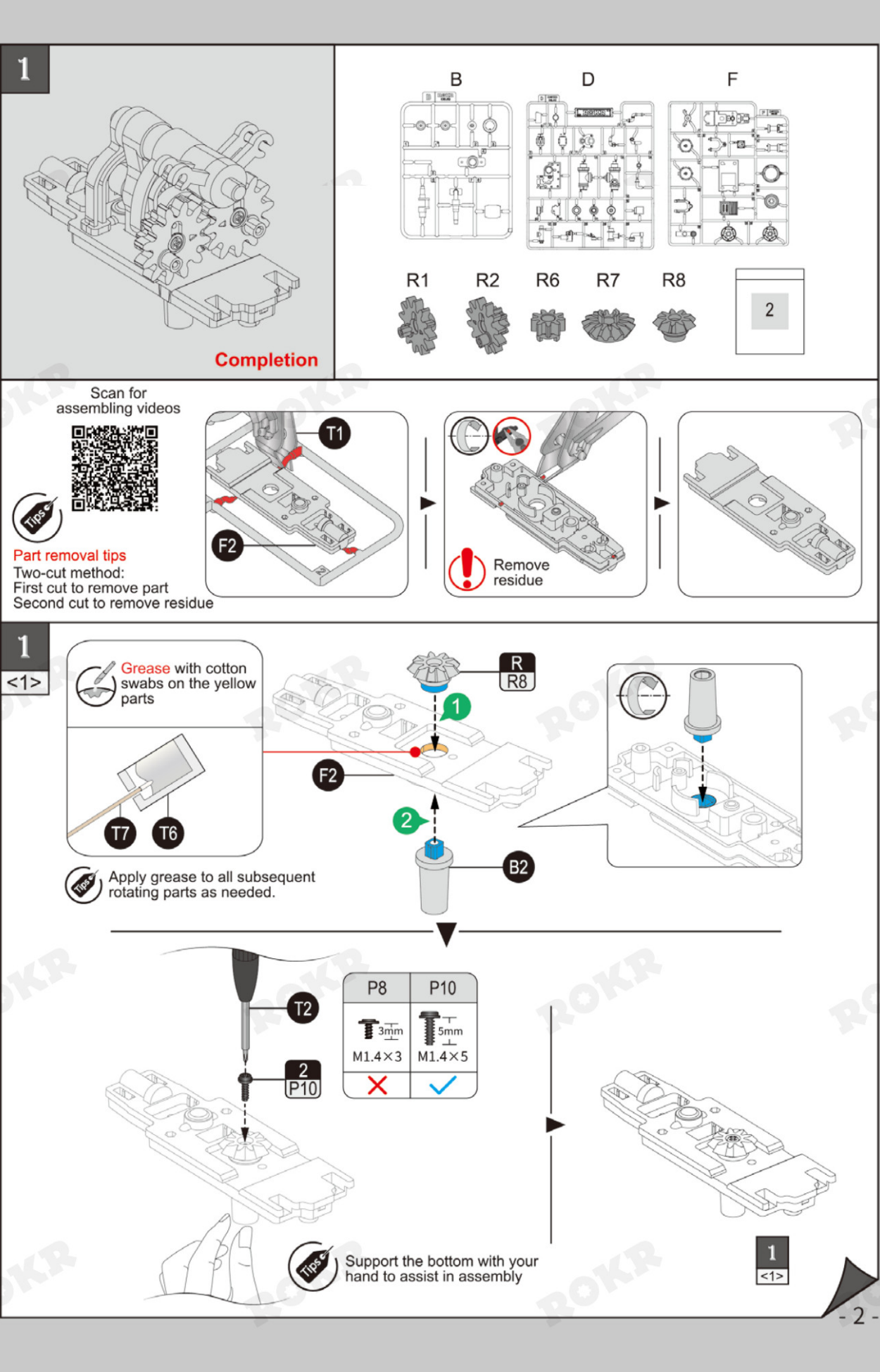
When cutting, make sure the nail clipper fit tightly to the parts.



Cut leftover cutting points

Icon Illustration

- 1 P18 Part P18 in Bag No. 1
- Special attention in assembly
- Perspective changed
- Cut leftover cutting points
- Flip to assemble
- Step 1
- Assembly tips
- Step 2
- Grease with cotton swabs
- Ensure that the gears connect smoothly


1
B
D
F
R1
R2
R6
R7
R8
2
T1
F2
1
<1>
T7
T6
R
R8
F2
B2
T2
P8
P10
3mm
5mm
M1.4×3
M1.4×5
2
P10
1
<1>

Completion

Scan for assembling videos

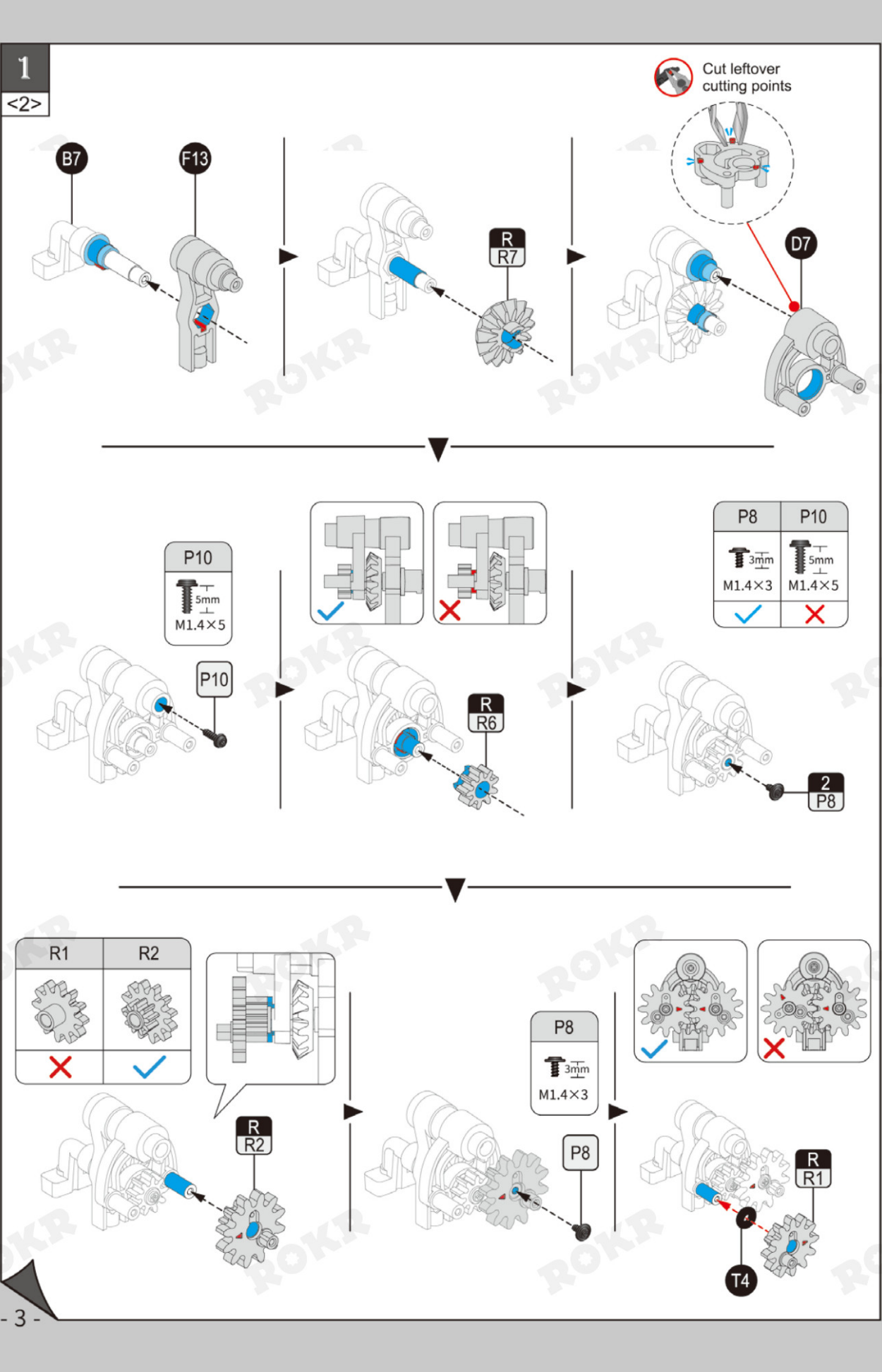
Part removal tips
Two-cut method:
First cut to remove part
Second cut to remove residue

Remove residue

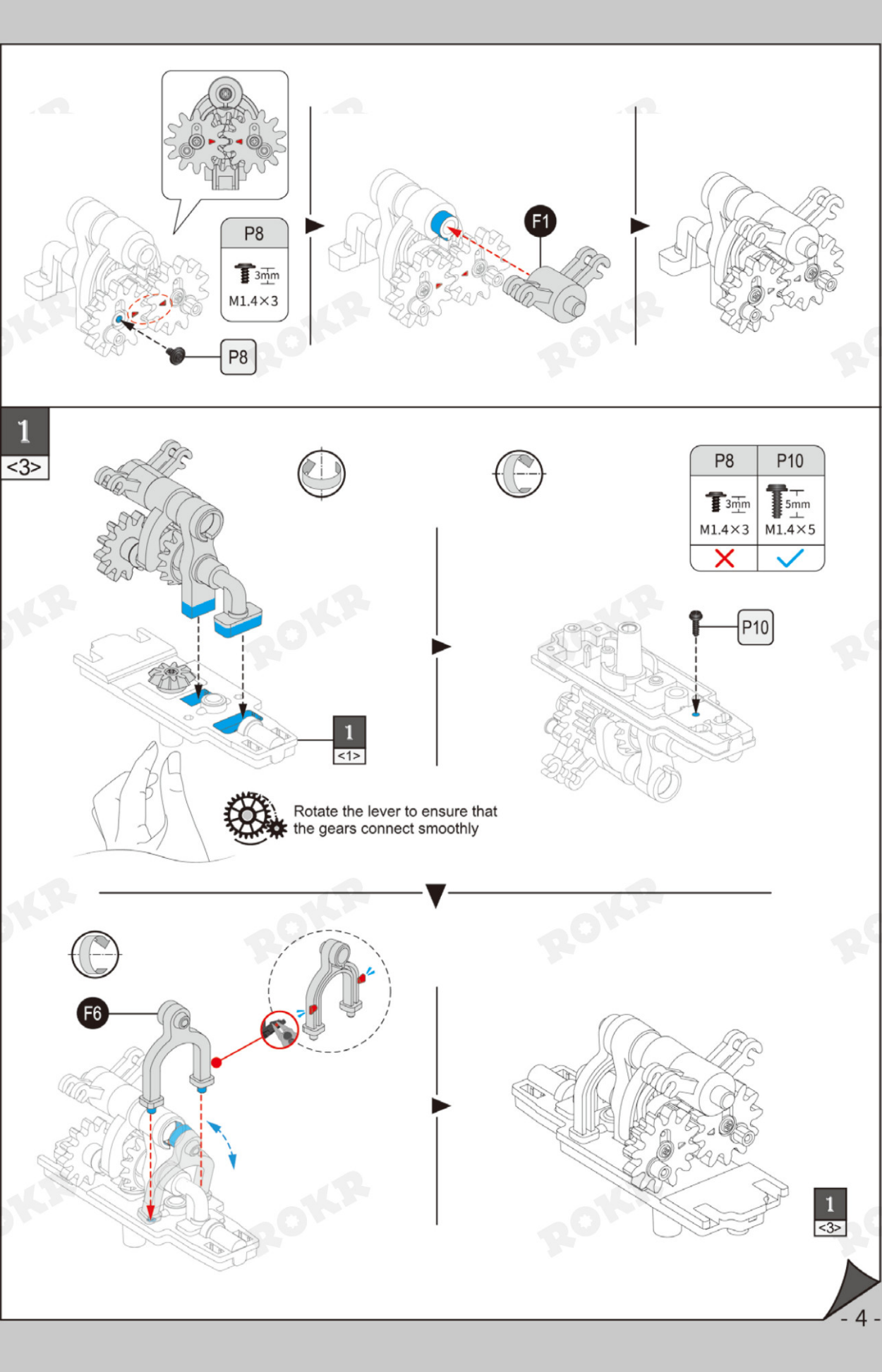
Grease with cotton swabs on the yellow parts

Apply grease to all subsequent rotating parts as needed.

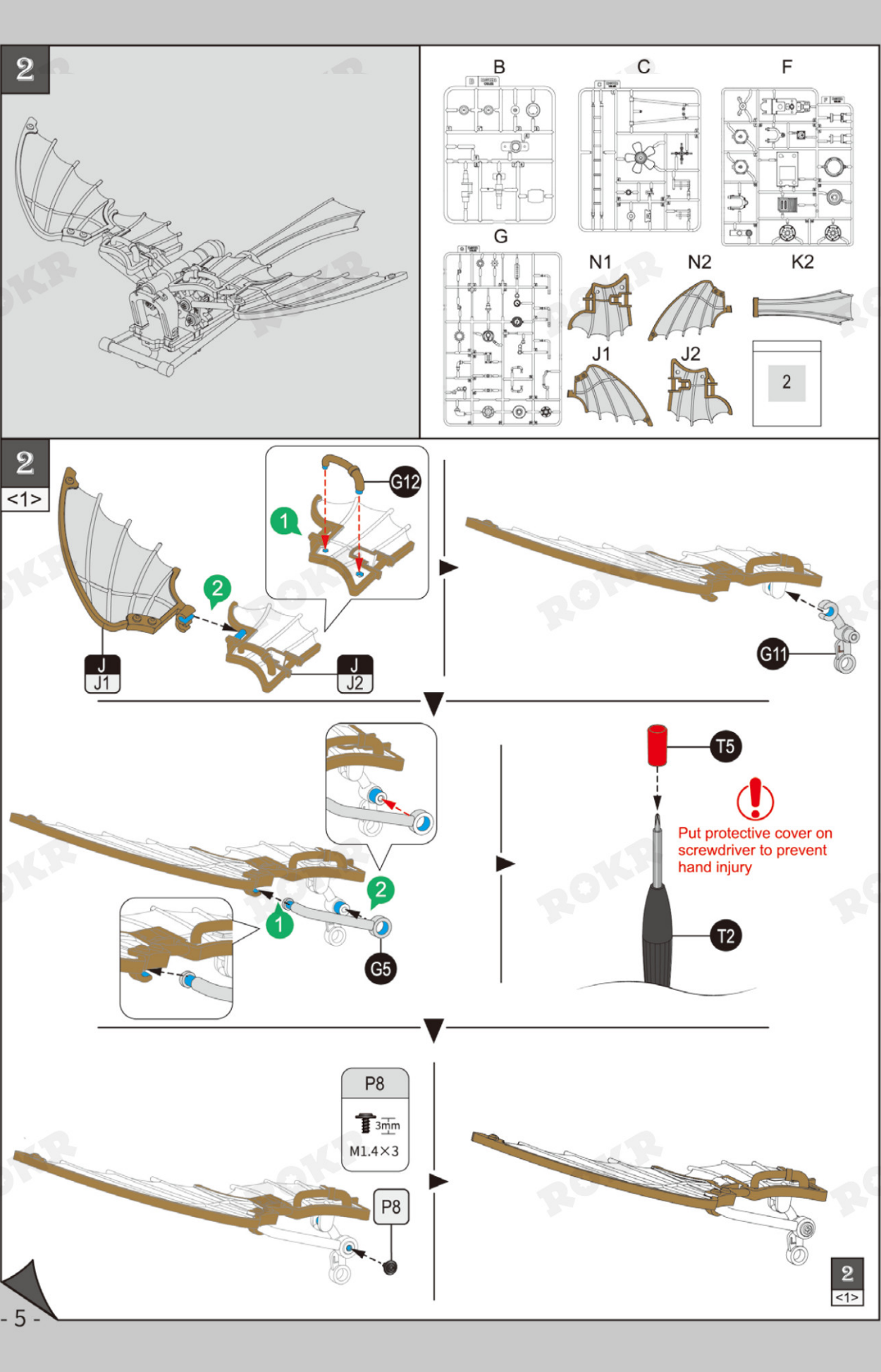
Support the bottom with your hand to assist in assembly


1
<2>
B7
F13
R
R7
D7
P10
5mm
M1.4×5
P10
R
R6
P8
P10
3mm
5mm
M1.4×3
M1.4×5
2
P8
R1
R2
R
R2
P8
3mm
M1.4×3
P8
R
R1
T4

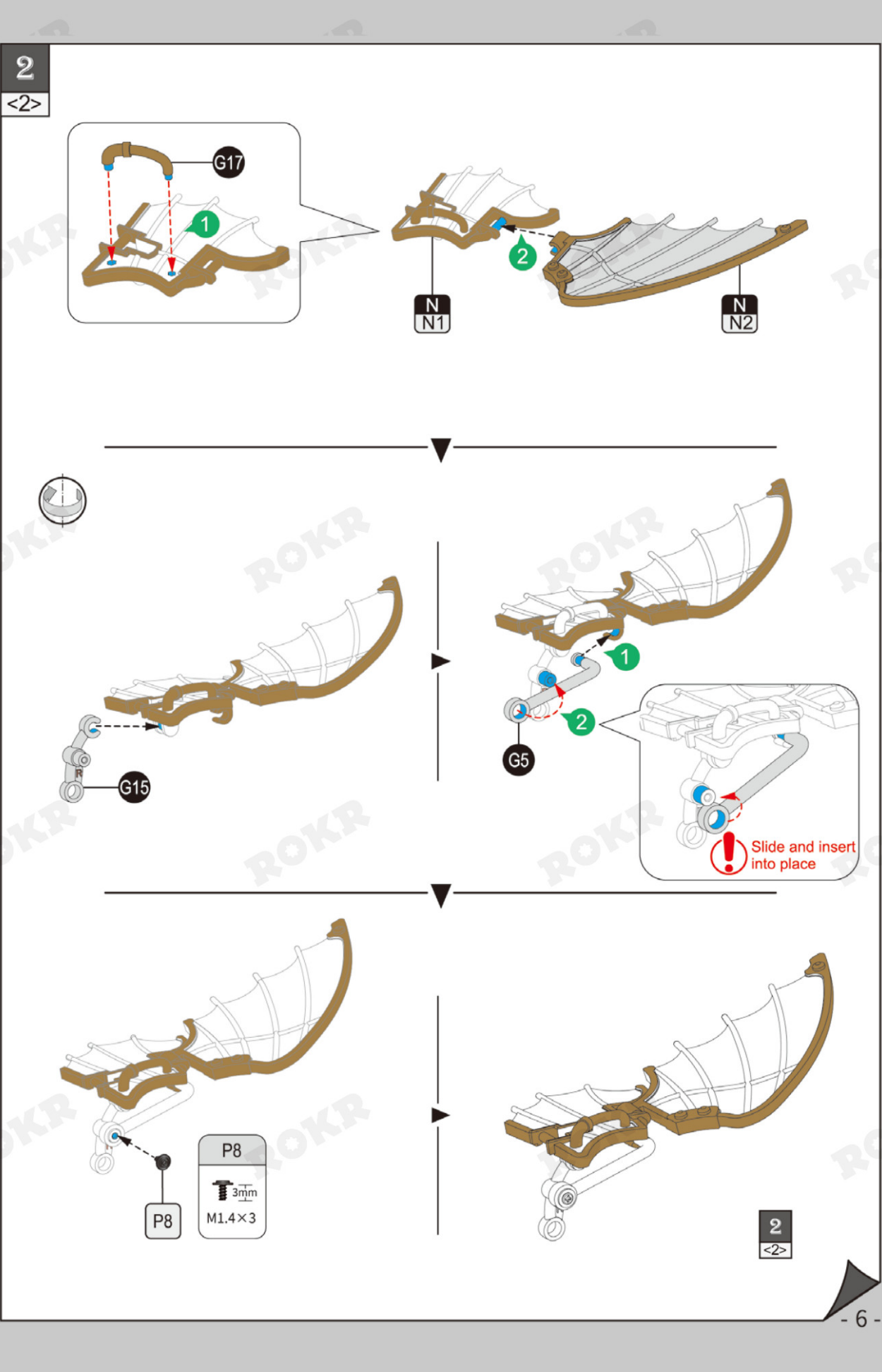
Cut leftover cutting points


P8
3mm
M1.4×3
P8
F1
1
<3>
P8
P10
3mm
5mm
M1.4×3
M1.4×5
P10
1
<1>
F6
1
<3>

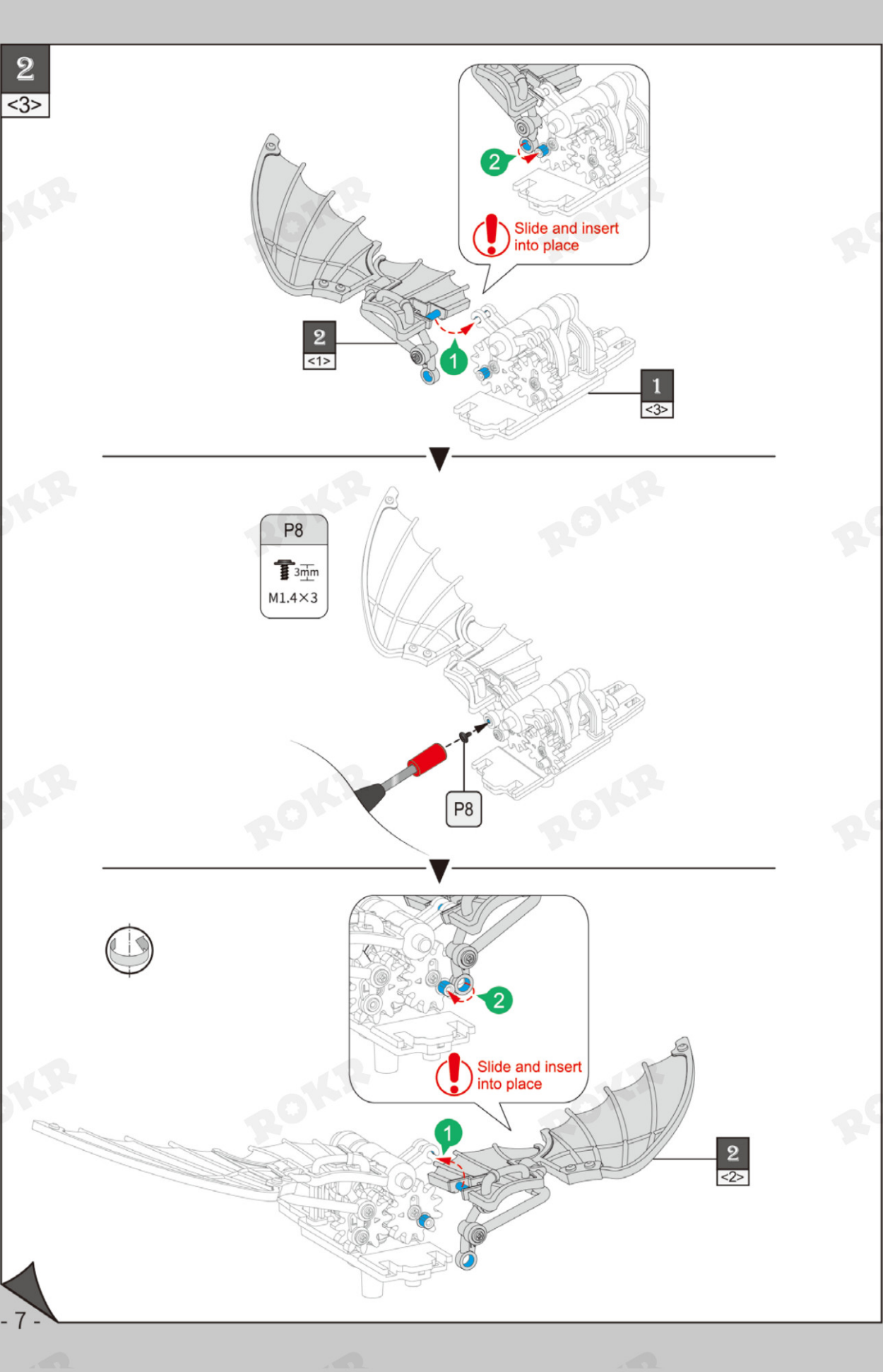
Rotate the lever to ensure that the gears connect smoothly


2
B
C
F
G
N1
N2
K2
J1
J2
2
2
<1>
G12
J
J1
J
J2
G11
G5
T5
T2
P8
3mm
M1.4×3
P8
2
<1>

Put protective cover on screwdriver to prevent hand injury

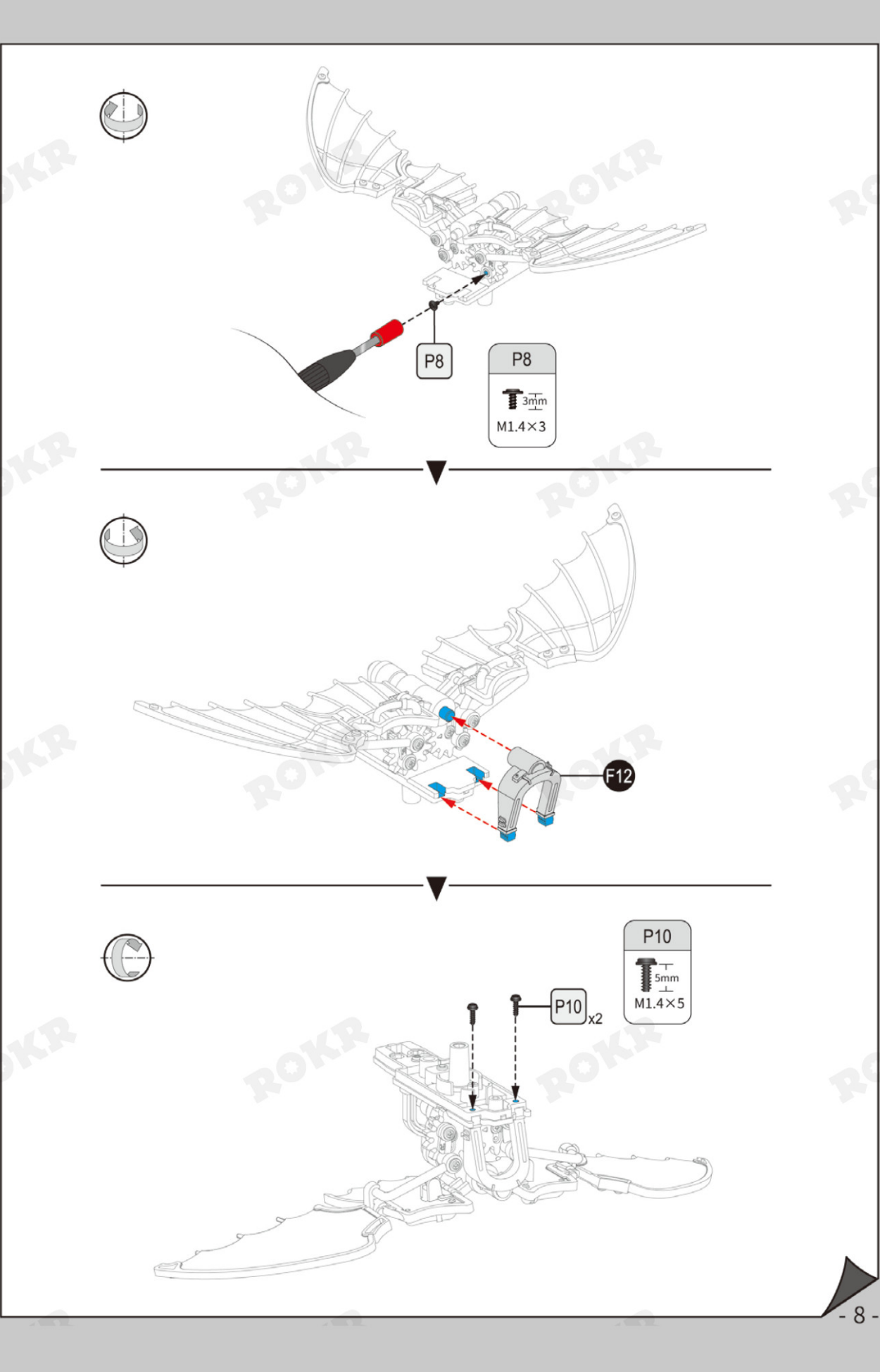

2
<2>
G17
N
N1
N
N2
G15
G5
P8
3mm
M1.4×3
P8
2
<2>

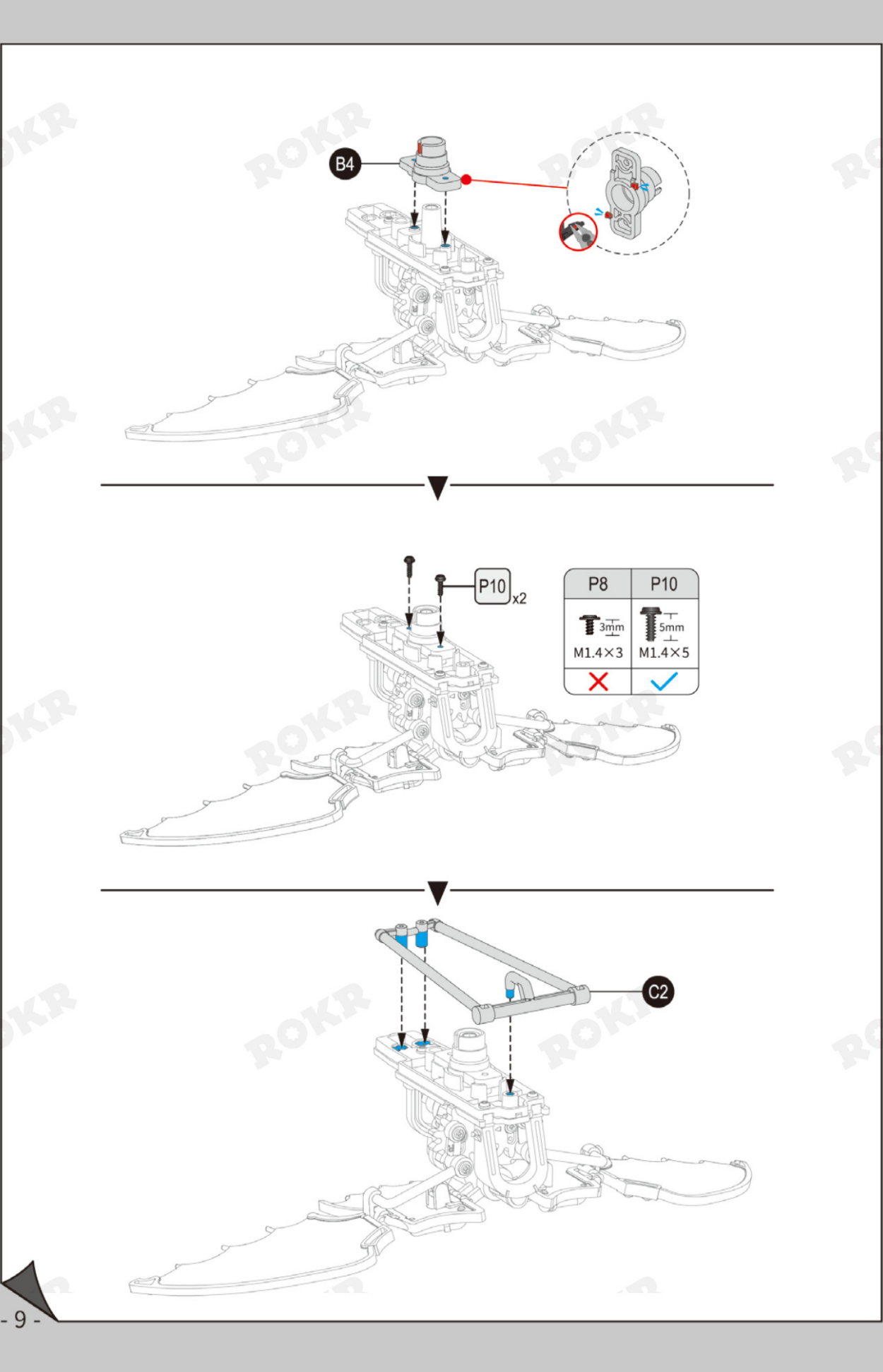
Slide and insert into place

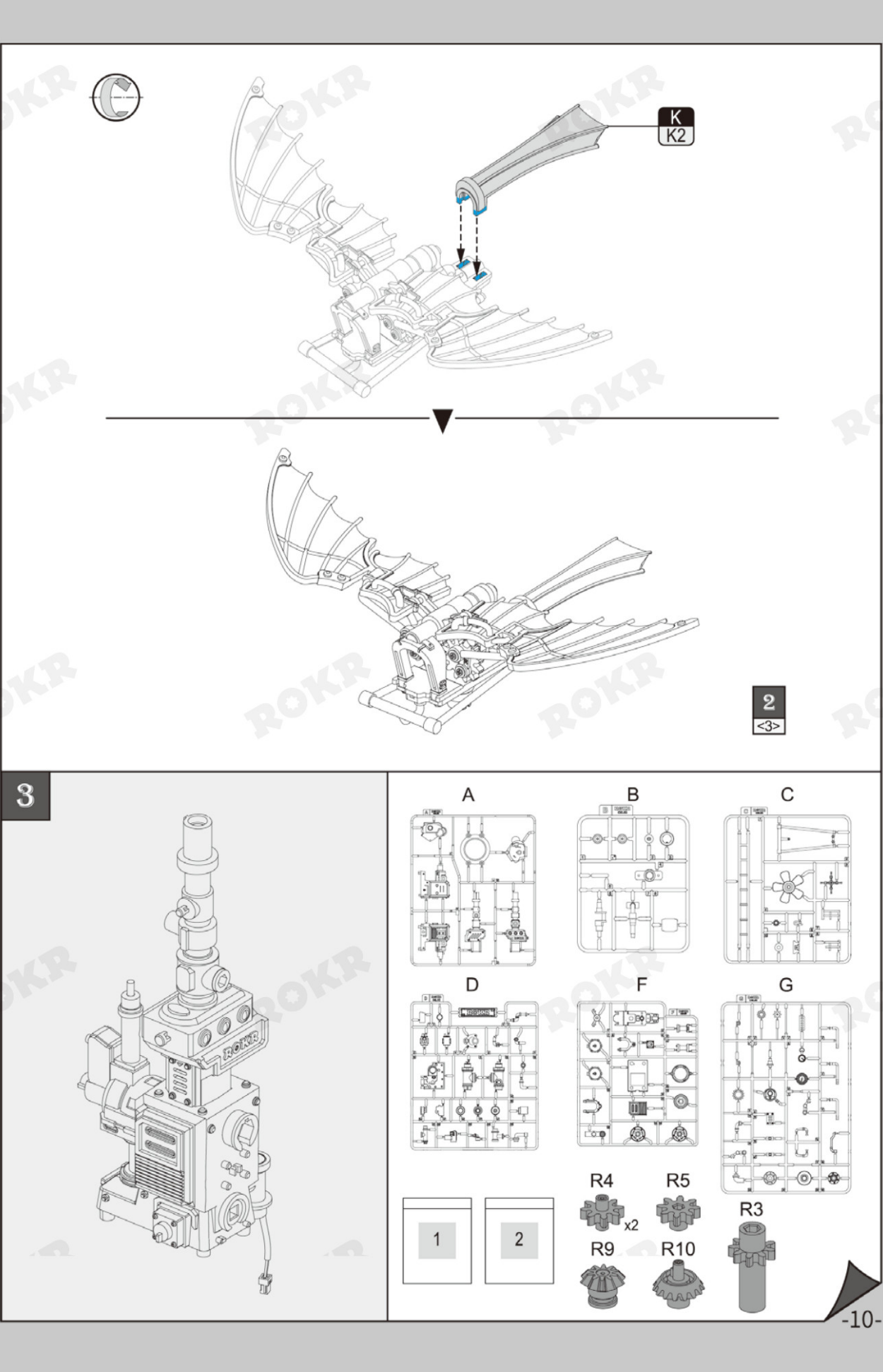

2
<3>
2
<1>
1
<3>
P8
3mm
M1.4×3
P8
2
<2>

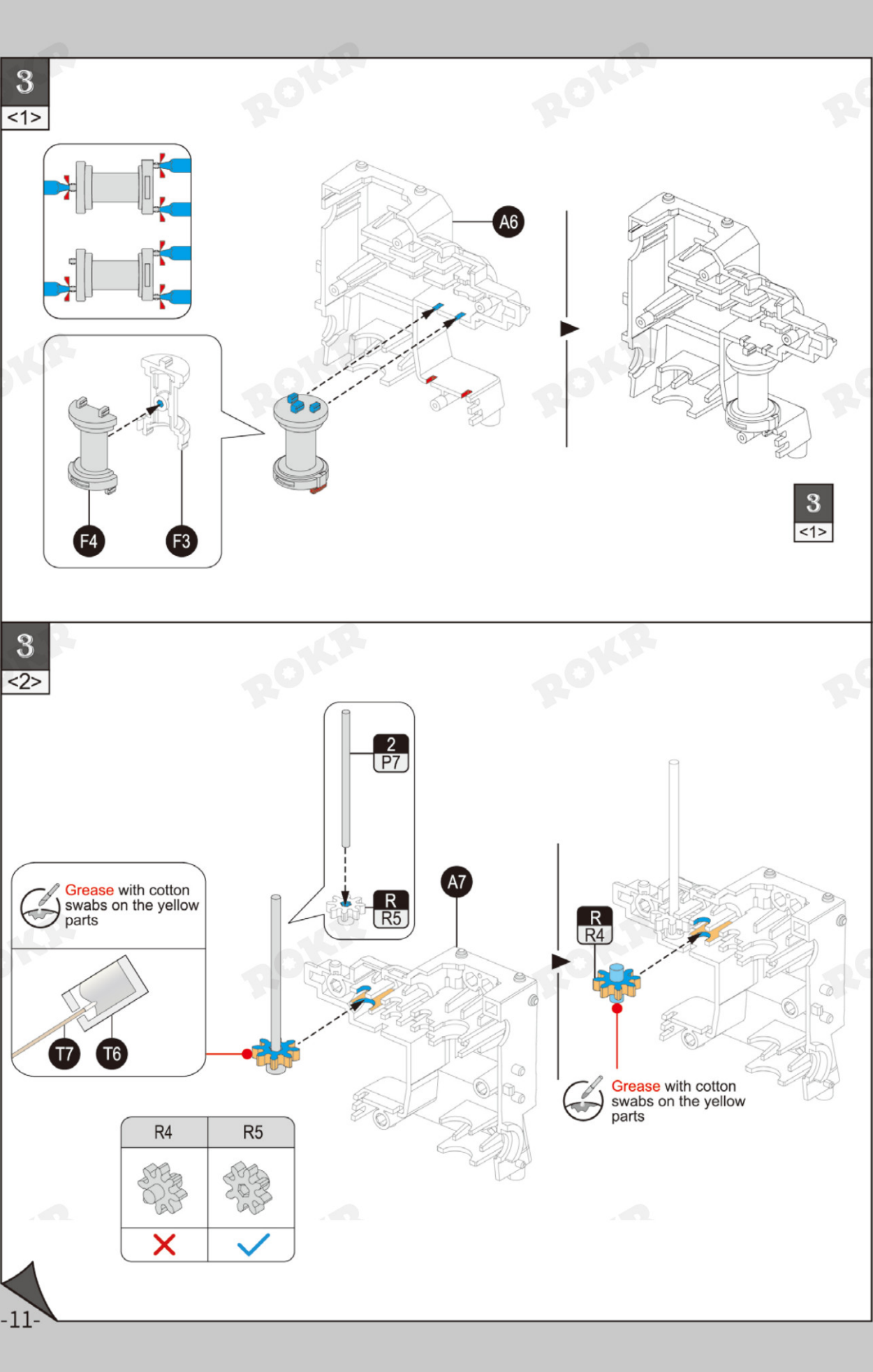
Slide and insert into place

Slide and insert into place


P8
P8
3mm
M1.4×3
F12
P10
5mm
M1.4×5
P10
x2

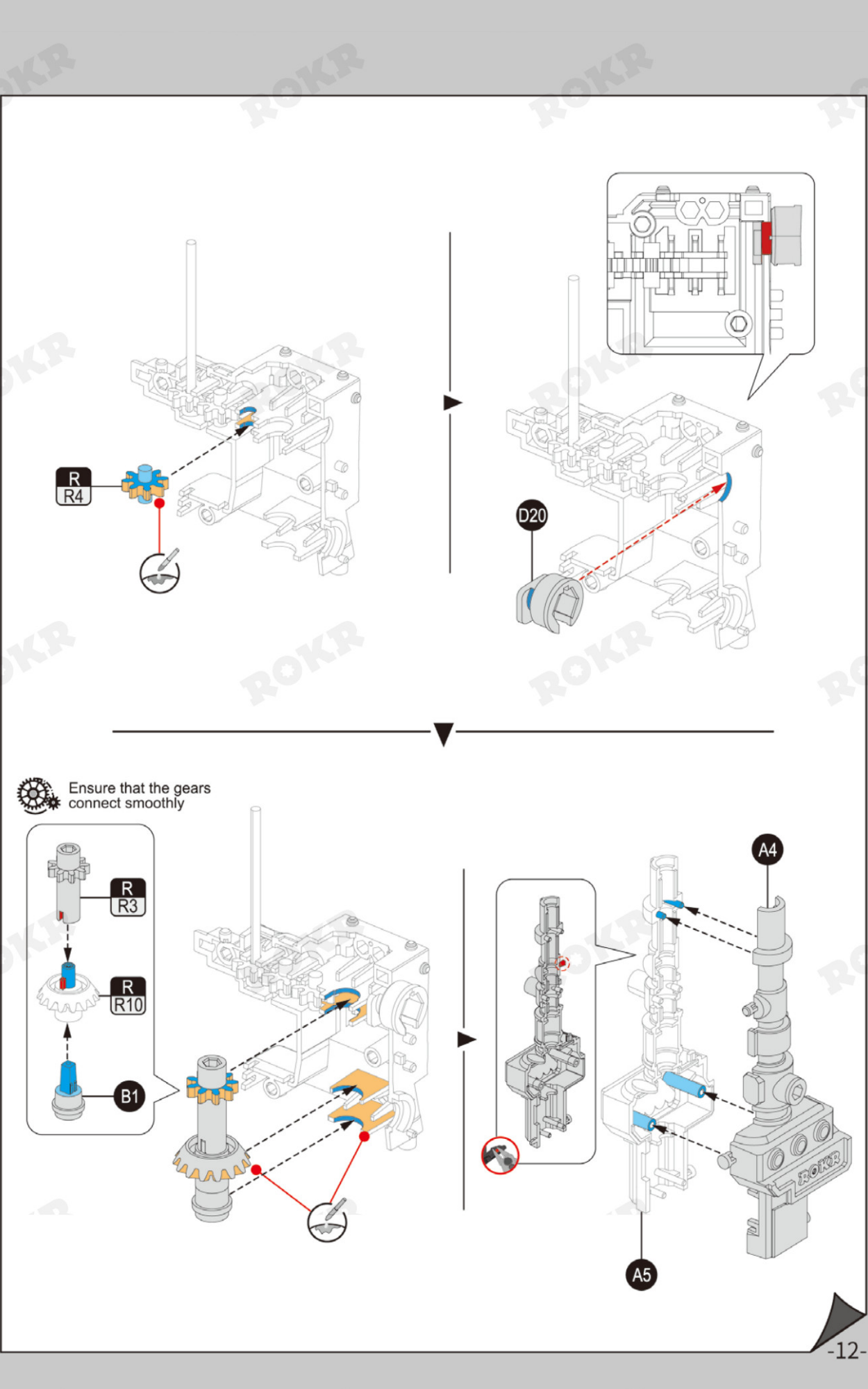

B4
P10
x2
P8
P10
3mm
5mm
M1.4×3
M1.4×5
C2


K
K2
2
<3>
3
A
B
C
D
F
G
R4
x2
R5
R9
R10
R3
1
2

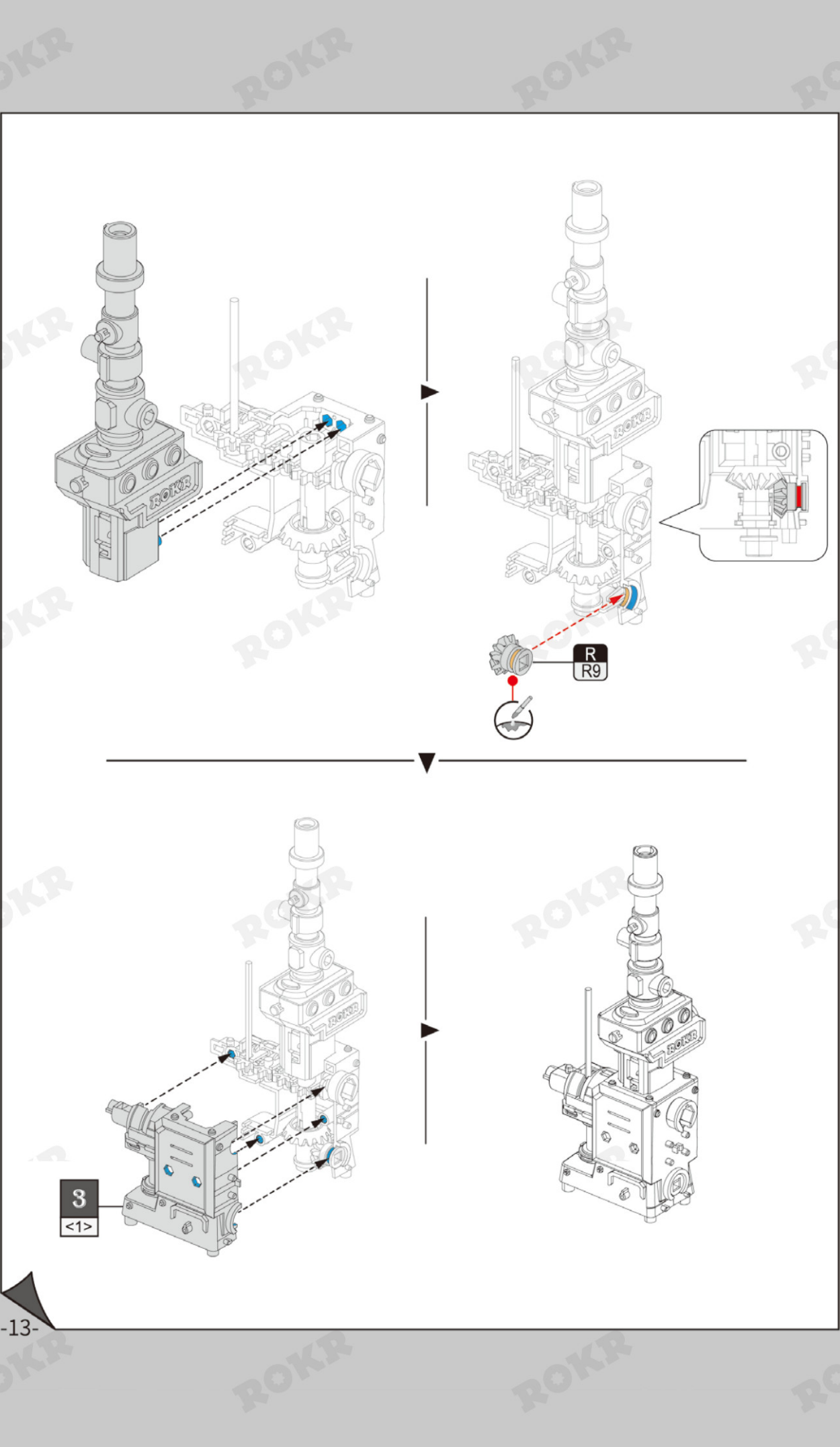

3
<1>
A6
F4
F3
3
<1>
3
<2>
T7
T6
2
P7
R
R5
A7
R
R4
R4
R5

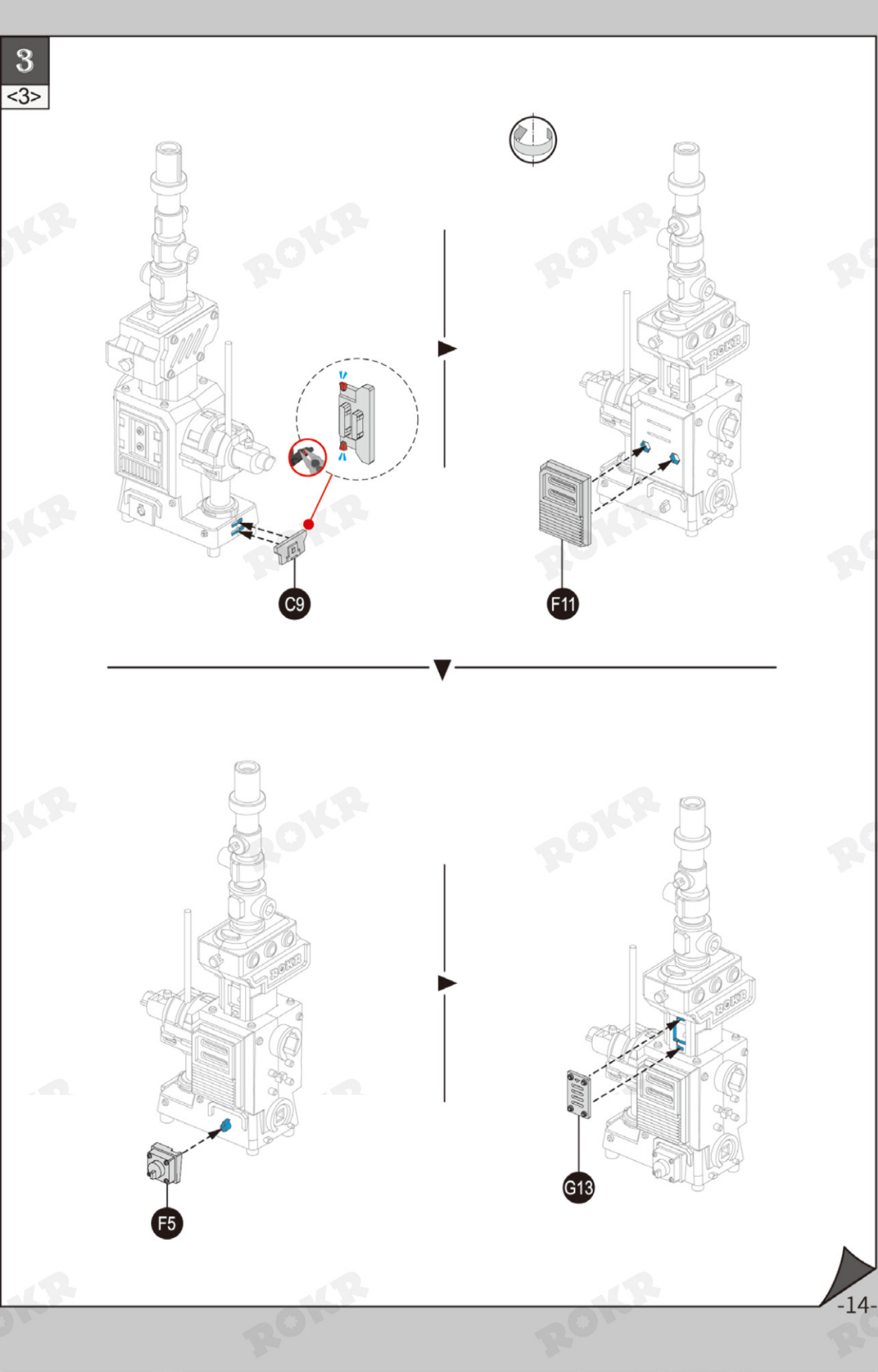
Grease with cotton swabs on the yellow parts

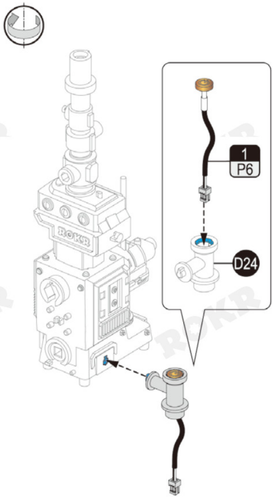
Grease with cotton swabs on the yellow parts

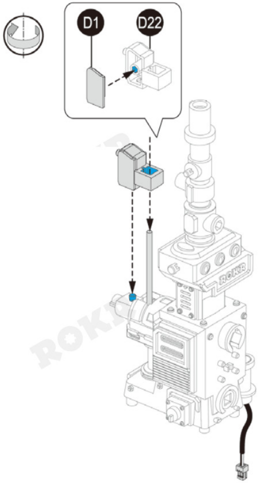

R
R4
D20
R
R3
R
R10
B1
A4
A5

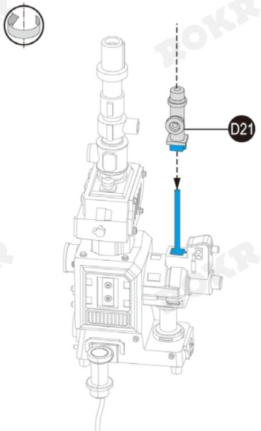
Ensure that the gears connect smoothly

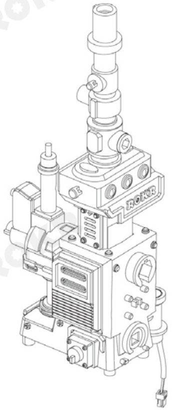



3
<3>
C9
F11
F5
G13



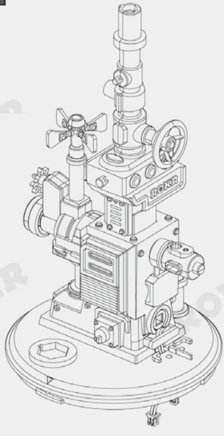


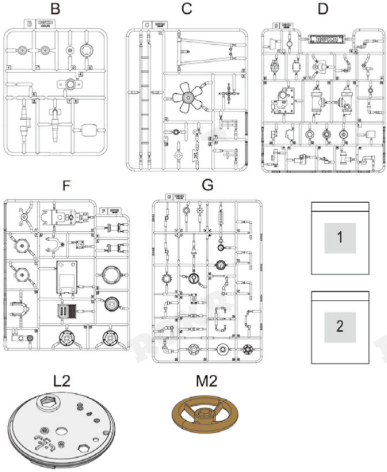




ROKR

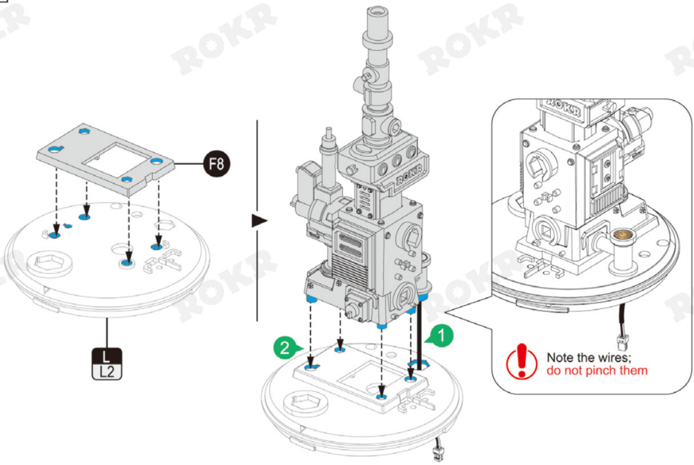
4




B
C
D
F
G
1
2
L2
M2

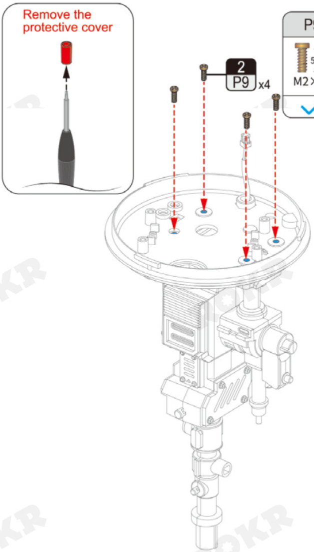
4

<1>

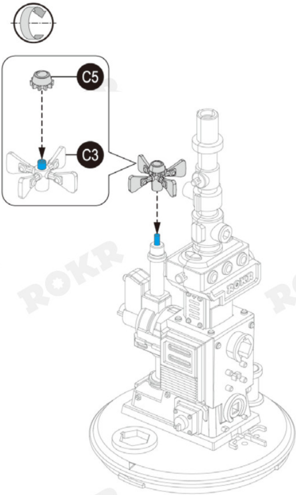


Note the wires;
do not pinch them

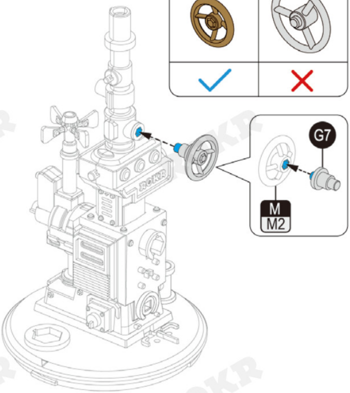
ROKR

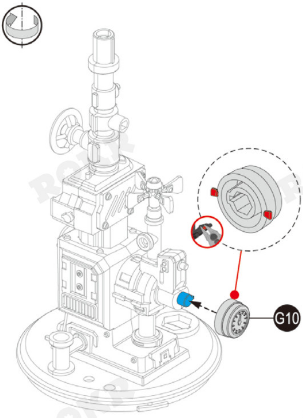

Remove the protective cover
2
P9
x4

P9	P10
5mm M2×5	5mm M1.4×5
✓	✗

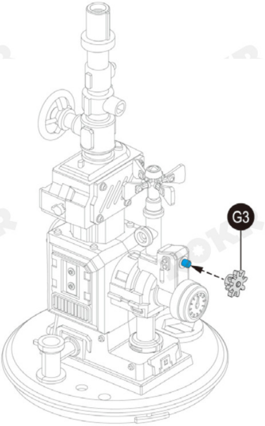


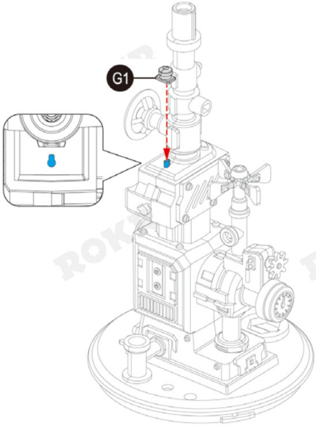
M2	K1
✓	✗

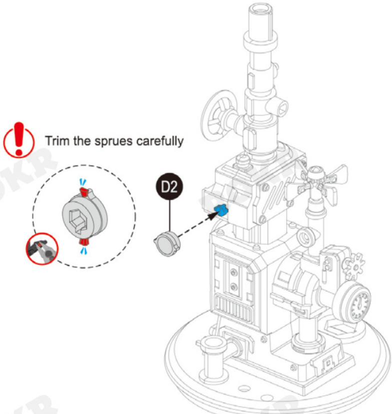


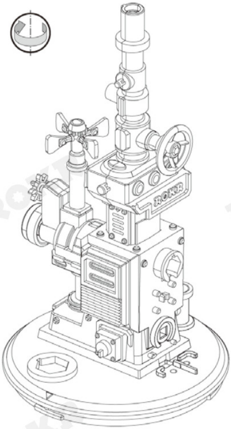


ROKR






Trim the sprues carefully



ROKR

4
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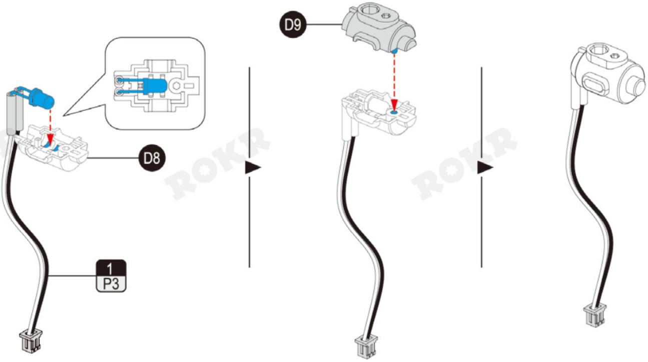

4
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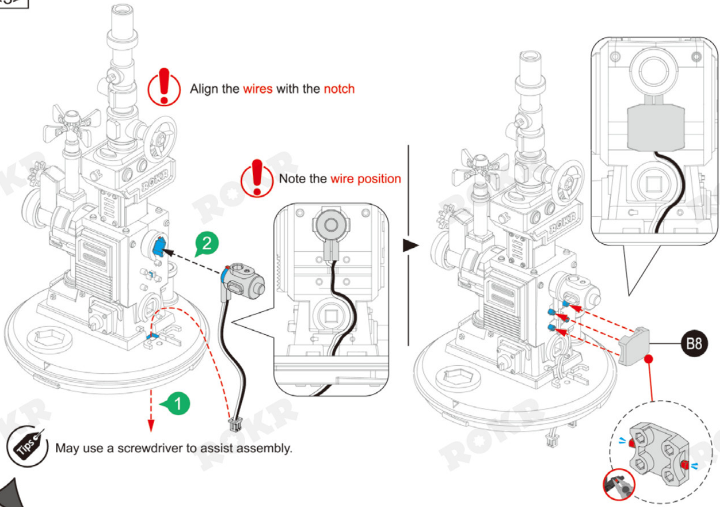
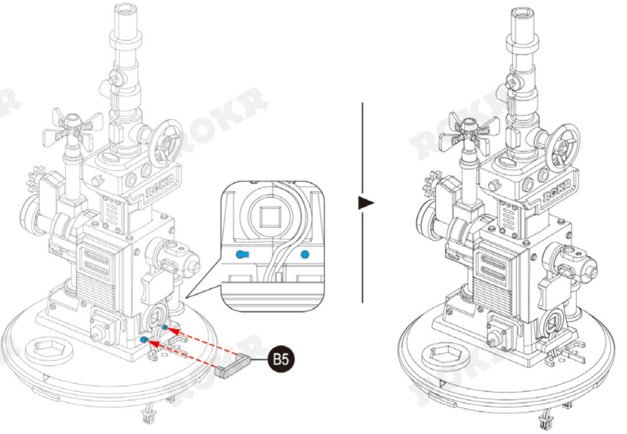

Align the wires with the notch

Note the wire position

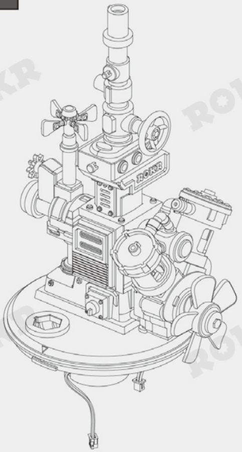
May use a screwdriver to assist assembly.

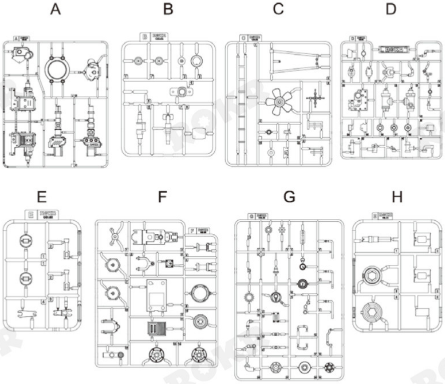
ROKR

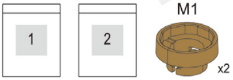


4
<3>

5







ROKR

5
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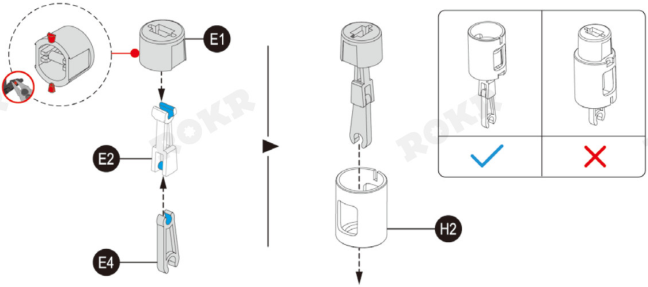
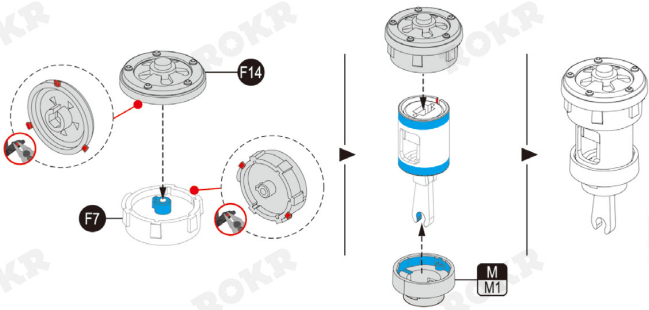
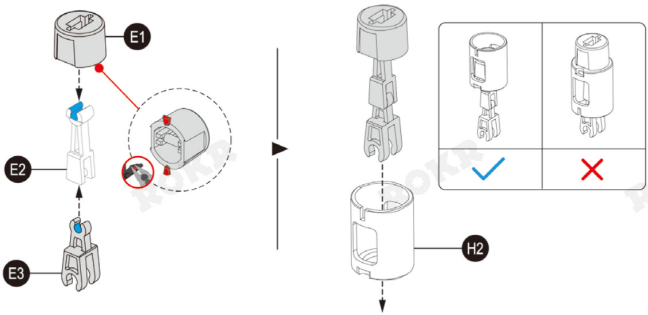
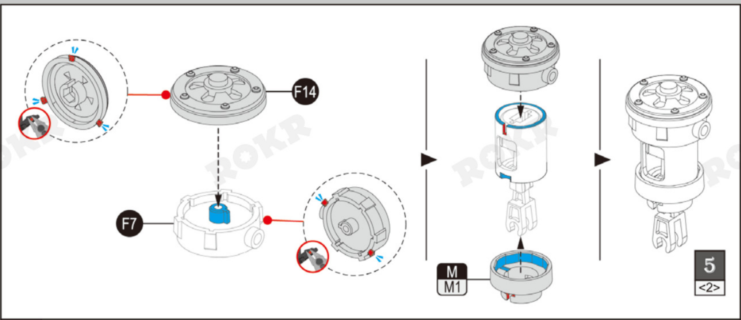


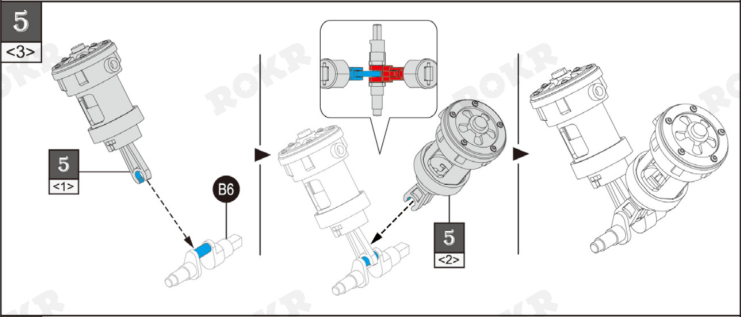


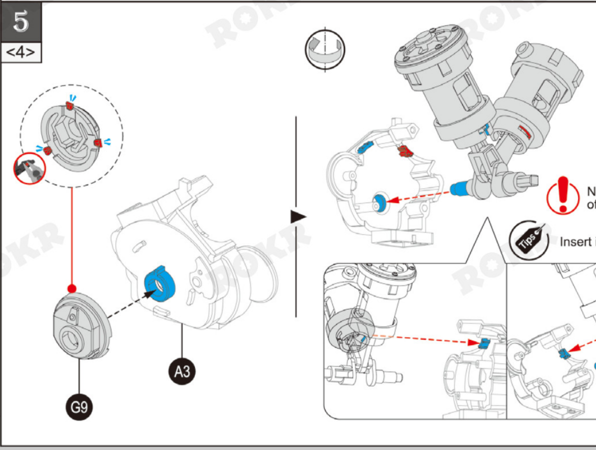
5
<1>

5
<2>




F14
F7
M
M1
5
<2>

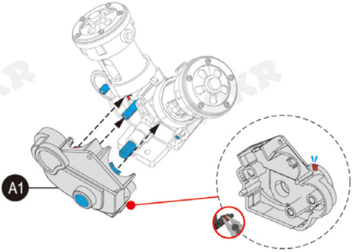


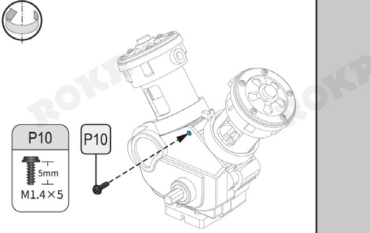


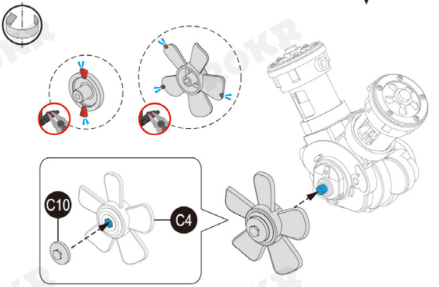
Scan the QR code for assembling videos.

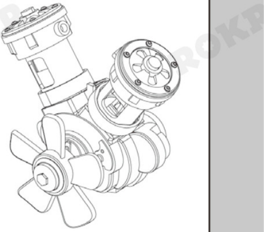
Note the orientation of the round shaft

Insert in place



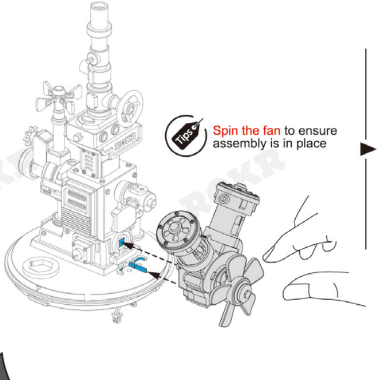

P10
5mm
M1.4×5
P10



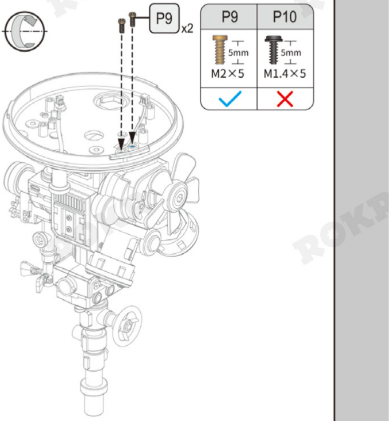


5

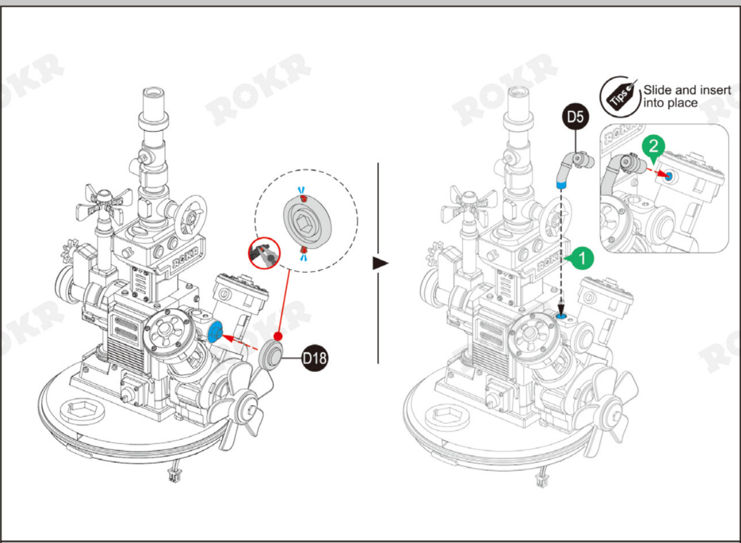
<5>



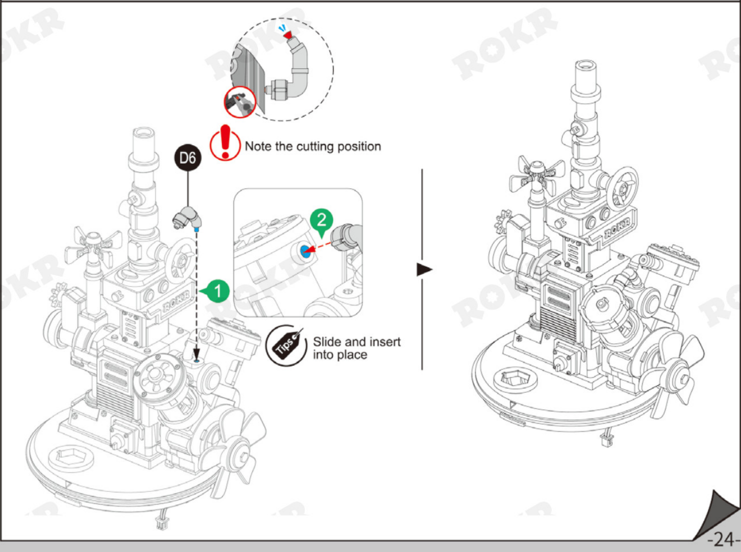
Spin the fan to ensure assembly is in place


P9
x2
P9
5mm
M2×5
✓
P10
5mm
M1.4×5
✗

ROKR



Slide and insert into place

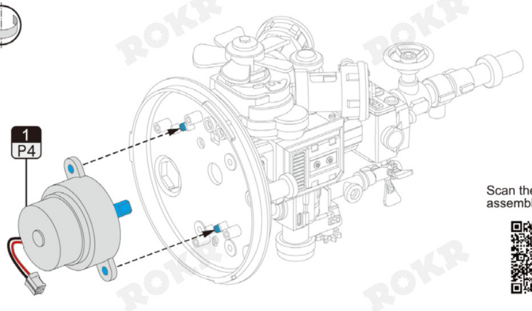


Note the cutting position

Slide and insert into place

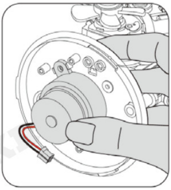
5

<6>

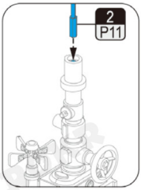


Scan the QR code for assembling videos.

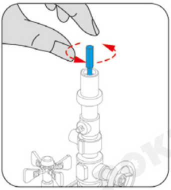
① Align the hole columns and hold the motor with your hand



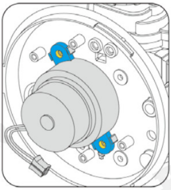
② Insert flexible shaft



③ Rotate the flexible shaft and insert the motor shaft into the notch

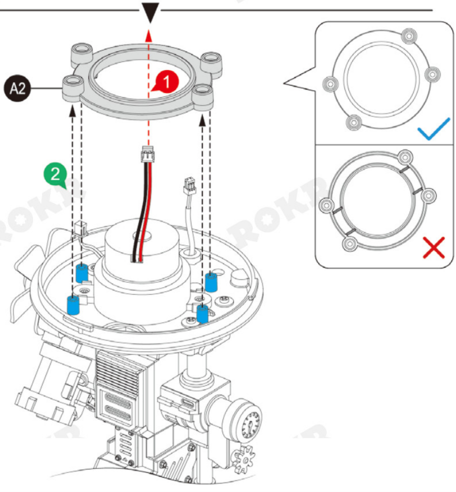


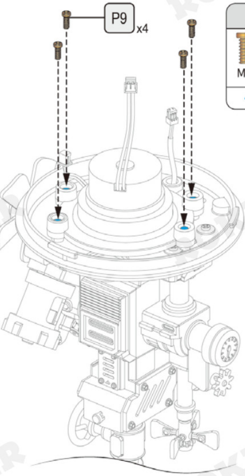
④ The assembly holes on both sides are flush with the assembly columns



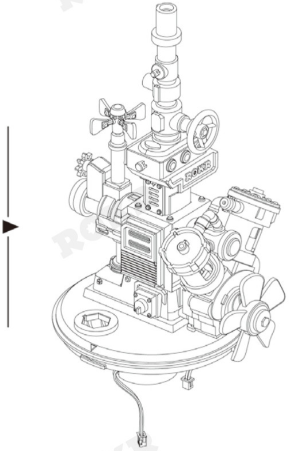
Tips: After aligning the holes with the motor, **remove the flexible shaft**

Note the wires; do not pinch them





P9	P10
5mm M2×5	5mm M1.4×5
✓	✗



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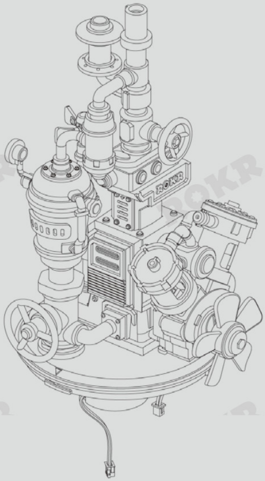
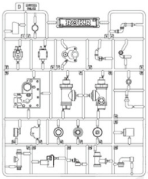


D



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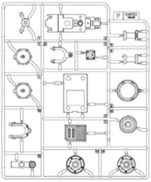
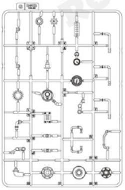
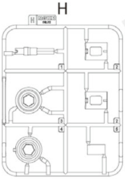


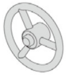
G

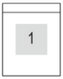


H



K1





ROKR

ROKR

6

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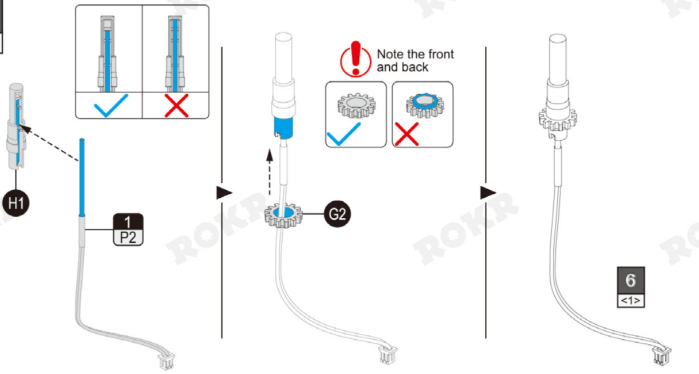
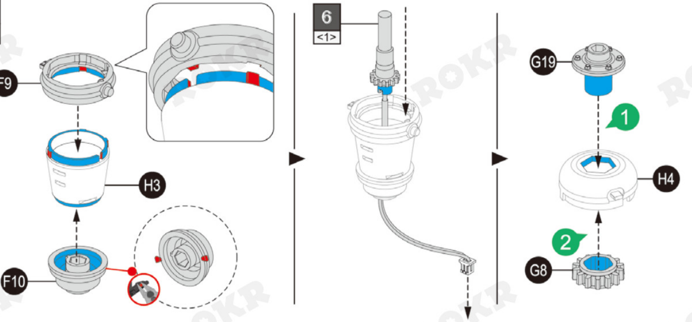


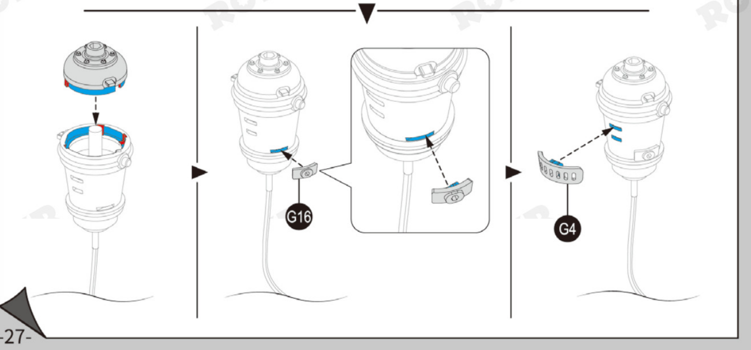
Note the front and back

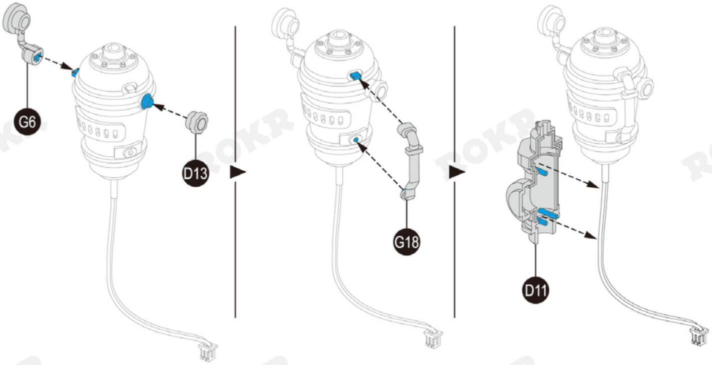
6

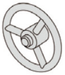
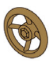
<2>

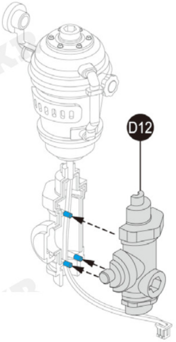


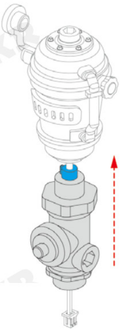
F9
H3
F10
6
<1>
G19
1
H4
2
G8

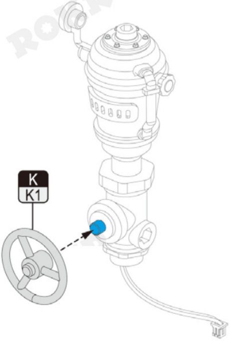


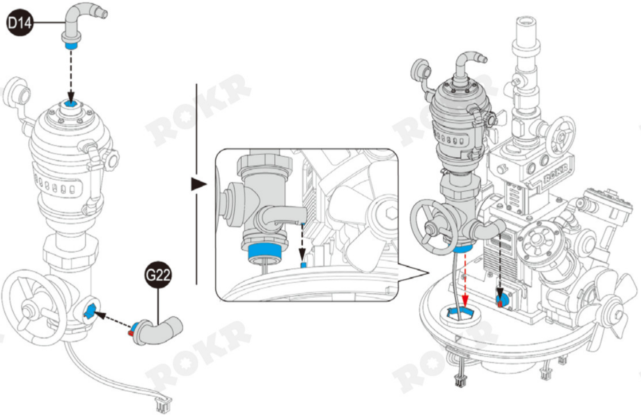

G6
D13
G18
D11

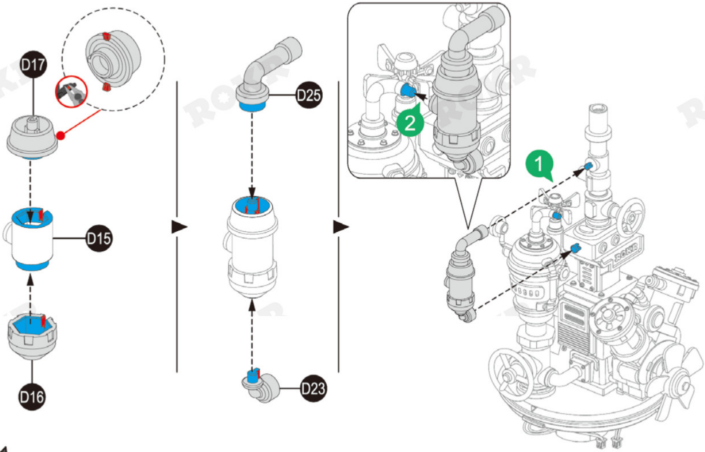
K1	M2
	
✓	✗







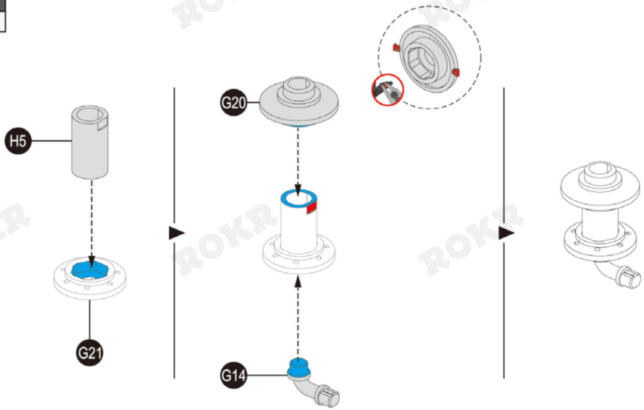


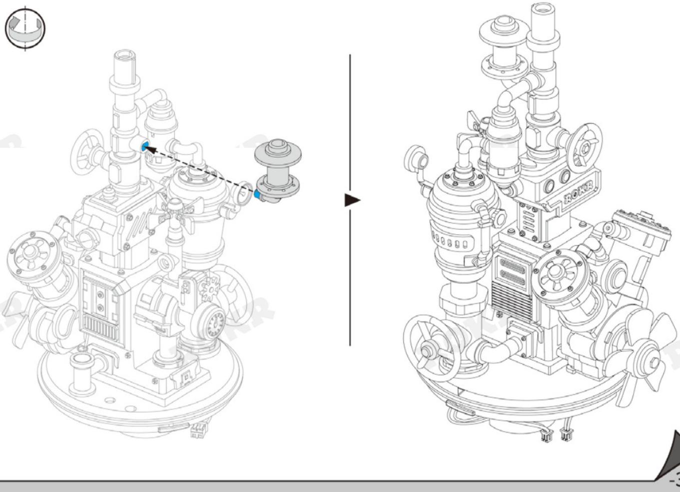

D17
D15
D16
D25
D23
2
1

ROKR

6

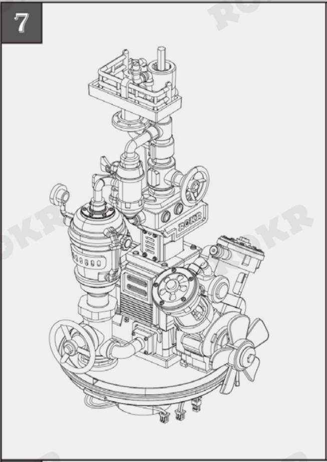
<3>

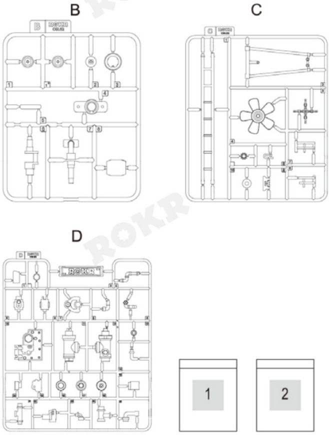

H5
G21
G20
G14



ROKR

7





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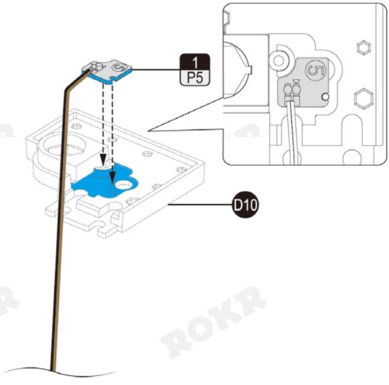
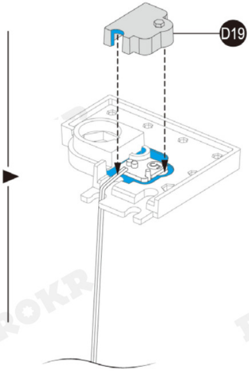
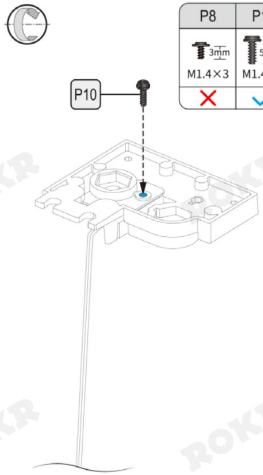
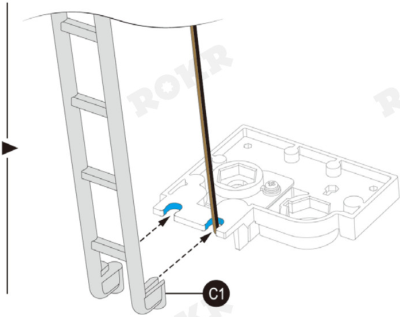
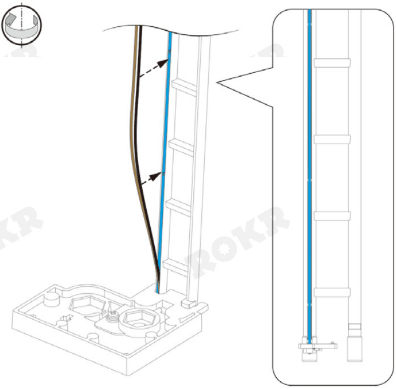


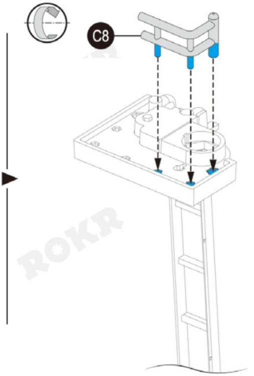




P8	P10
3mm	5mm
M1.4×3	M1.4×5
✗	✓







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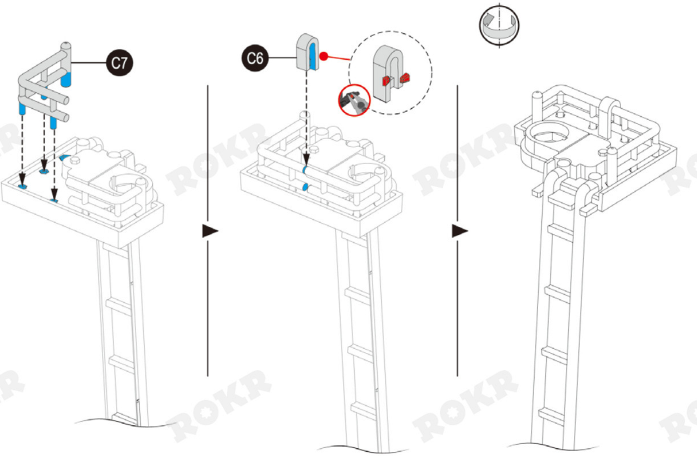

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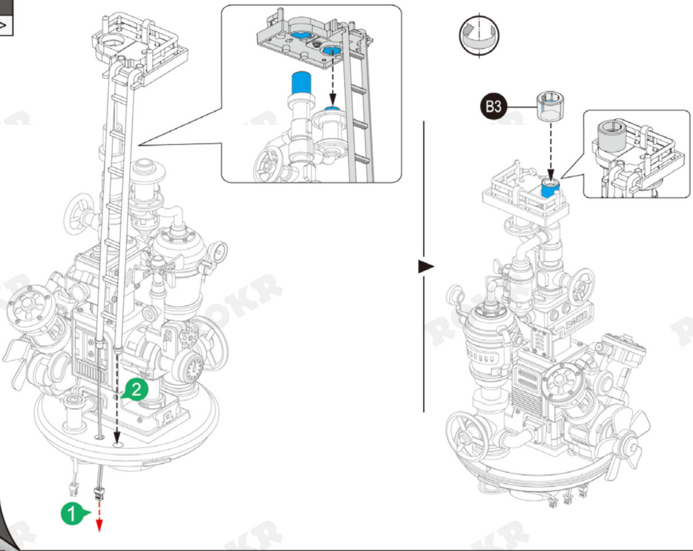

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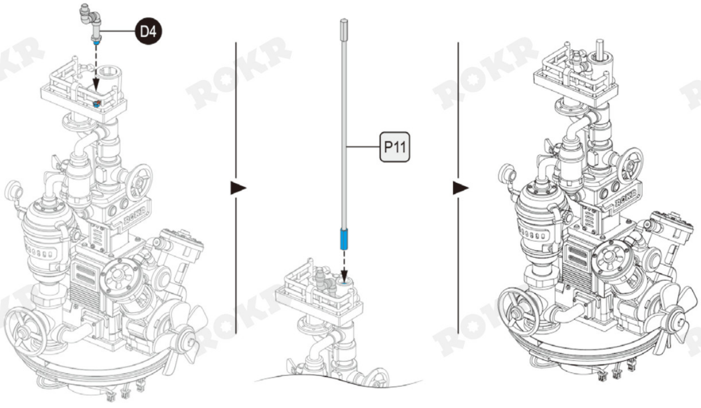

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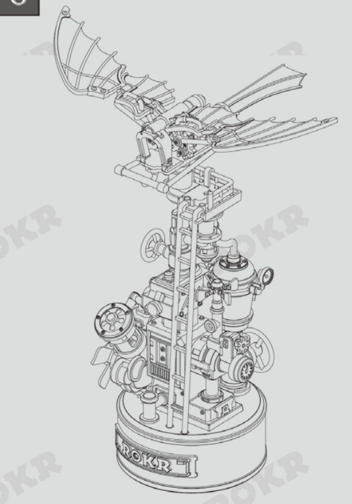
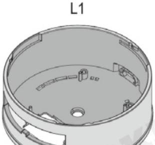
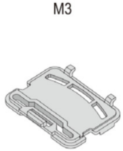
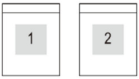




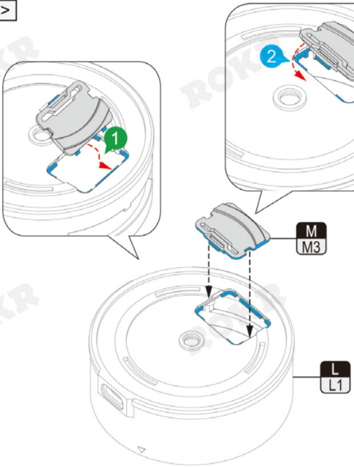


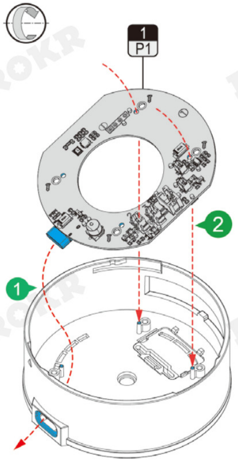


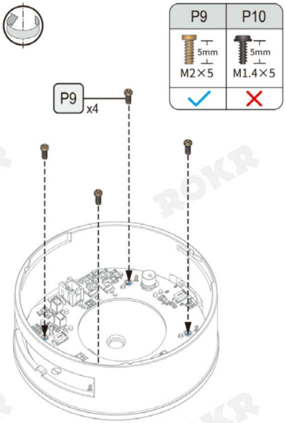
ROKR

8

<1>

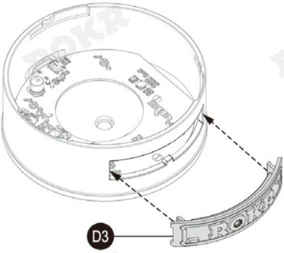






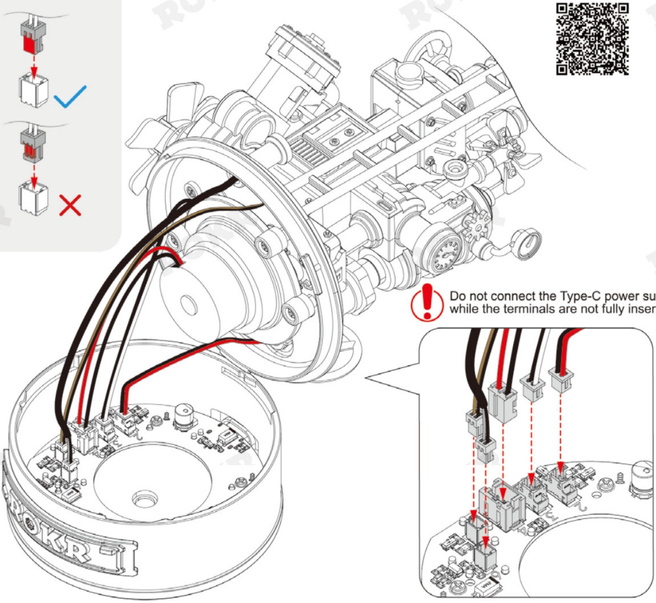
P9
x4
5mm
5mm

P9	P10
M2×5	M1.4×5
✓	✗



ROKR

Note the terminal direction



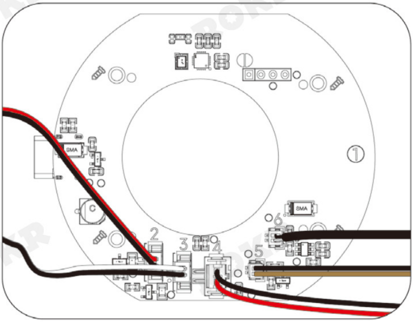
Scan for assembling videos

Do not connect the Type-C power supply while the terminals are not fully inserted.

ROKR

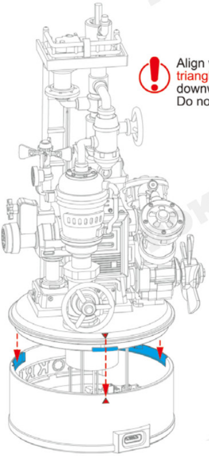
Terminal assembly completion diagram

The color of the wire corresponds accordingly with the illustration

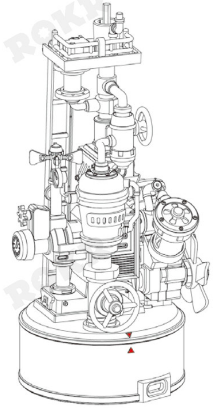

SMA
①
SMA
6
C
2
3
4
5

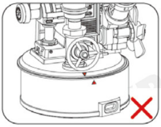
8

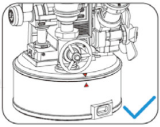
<2>



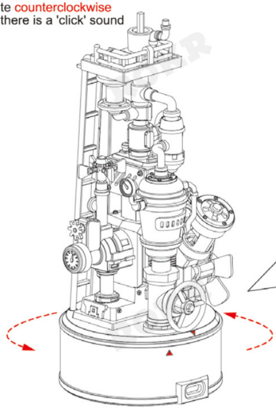
Align with the small triangle and assemble downwards
Do not pinch the wires



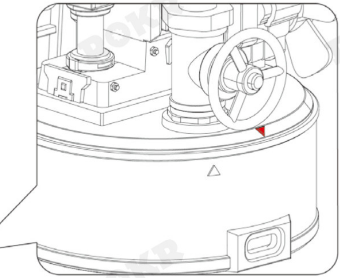




Rotate counterclockwise until there is a 'click' sound

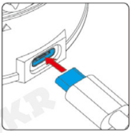


After assembly the small triangle is directly above the Type-C port

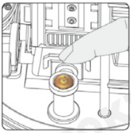


Testing electronic parts

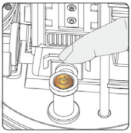
1 Connect to the power supply.



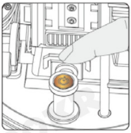
2 Single click: Power on (lights up and motor rotates)



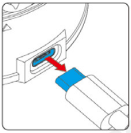
3 Single click: Switch mode (lights up only, no rotation)



4 Single click: Power off

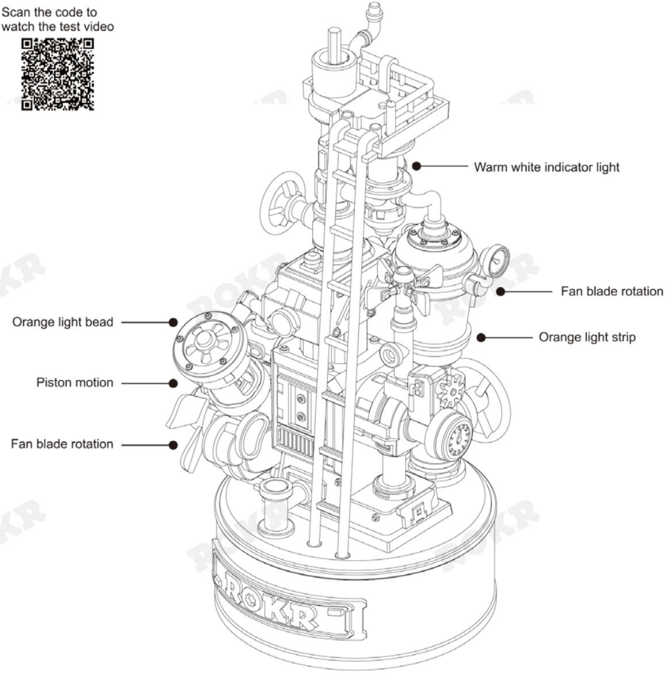


5 Disconnect power supply

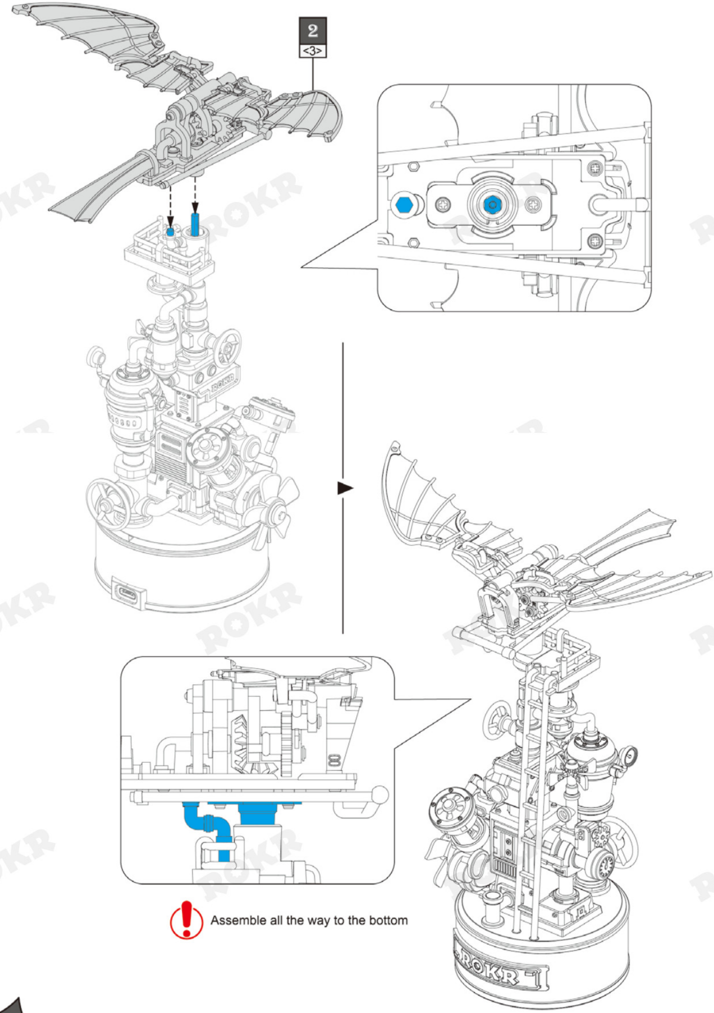


Self-prepare a Type-C cable.
Input power supply: 5V ⎓ 1A
Note: Over-current protection provided, adapters ≥ 1A are acceptable.

Scan the code to watch the test video


Warm white indicator light
Fan blade rotation
Orange light bead
Orange light strip
Piston motion
Fan blade rotation
ROKR

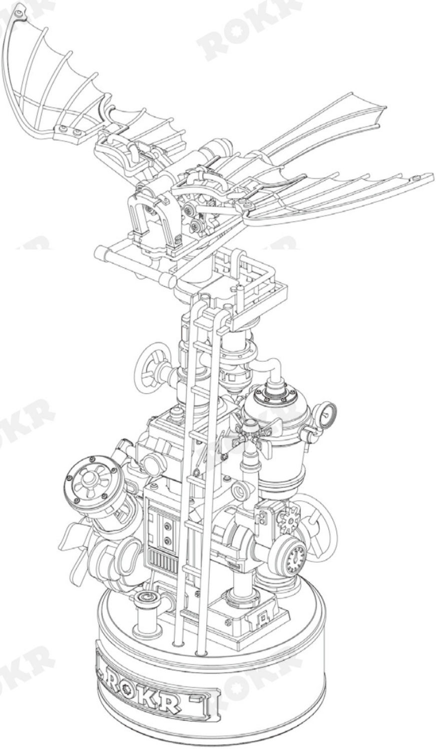
ROKR


2
<3>
ROKR
ROKR

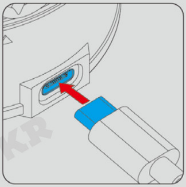
Assemble all the way to the bottom

ROKR

Basic Gameplay (Only 1 Model)

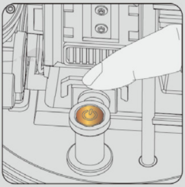


① Connect to the power supply.

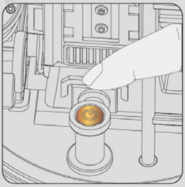


Self-prepare a Type-C cable.
Input power supply: 5V ⎓ 1A
Note: Over-current protection provided, adapters ≥ 1A are acceptable.

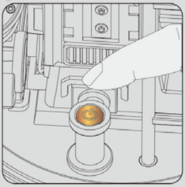
② Single click: Power on
(lights up and motor rotates)



③ Single click: Switch mode
(lights up only, no rotation)



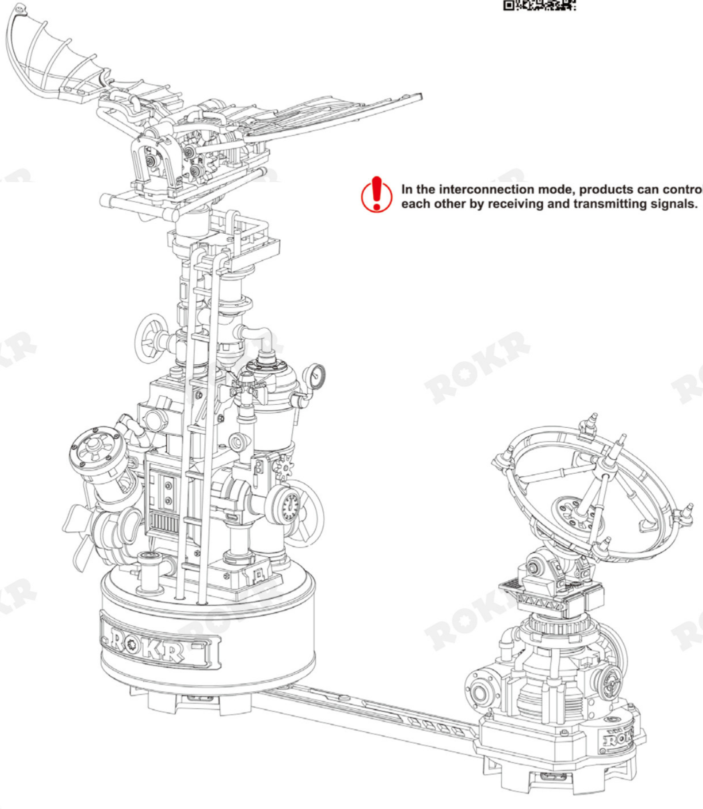
④ Single click: Power off
(automatically shut down after 20 minutes with no operation)



ROKR

Advanced Gameplay (Multiple Models Connection)

Scan for gameplay videos



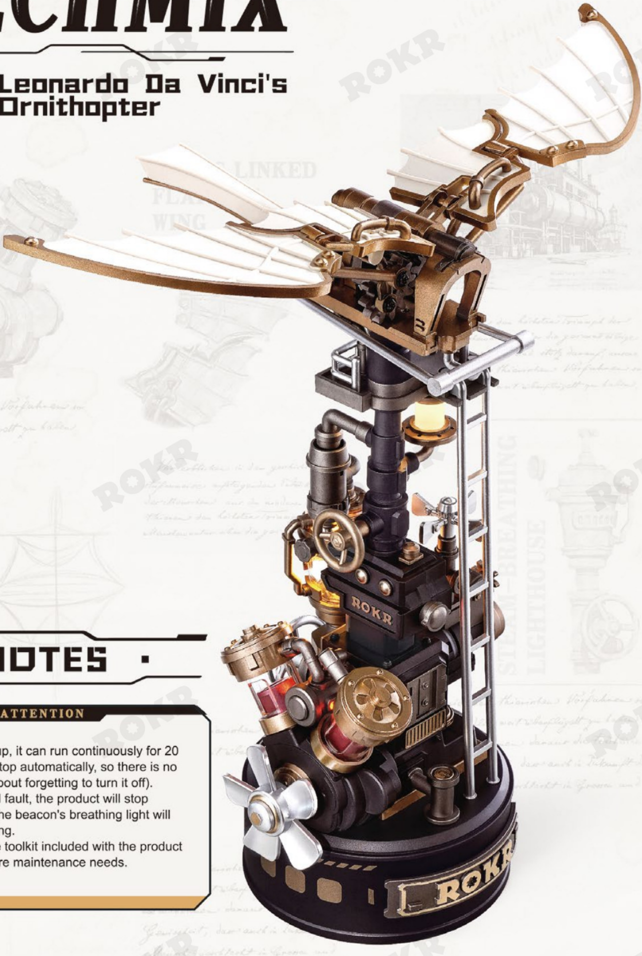
In the interconnection mode, products can control each other by receiving and transmitting signals.

The other model in the picture
need to be purchased separately.

ROKR

MECHMIX

CGL02 Leonardo Da Vinci's Ornithopter



NOTES

ATTENTION

1. After each startup, it can run continuously for 20 minutes (it will stop automatically, so there is no need to worry about forgetting to turn it off).
2. In case of a stall fault, the product will stop operating, and the beacon's breathing light will flash as a warning.
3. Please store the toolkit included with the product properly for future maintenance needs.

ROKR

BIONIC LINKED
FLAPPING
WING

MECHMIX

CGL02 Leonardo Da Vinci's Ornithopter

STEAM-BREATHING
LIGHTHOUSE

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www.robotime.com

ROKR ROKR ROKR ROKR