

Metal Machinery

Assembly Model



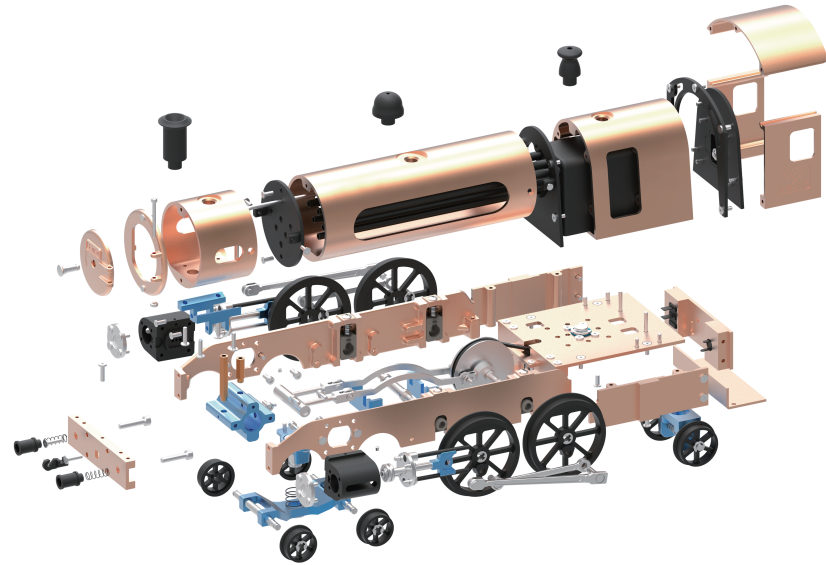
Steam train
DM21



Assembly Difficulty ★★★★★

Structural features:

1. Four bar linkage transmission system
2. Linkage suspension system
3. Differential drive transmission valve
4. Early steam train mechanical structure



I - Make · Real Model · Real World

General information about product

I. Product Data

Product name: Steam train

Product model: DM21

Main materials: Anodic aluminum oxide + stainless steel

Charging voltage: DC5V

Battery capacity: 500mAh

Product standards: GB/T9254–2008

GB/T17626.2–2006

II. Product description

- ◆ Teaching Craftsman series of products are metal structure assembly models. Its primary material is aluminum alloy with anodized surface, and the product structure is a real industrial structure;
- ◆ Assemble parts using various tools with the installation procedures and methods substantially compliant with practical industrial requirements;
- ◆ This series of products are principally designed to improve users' hands-on ability and concentration, and to develop habits of "preciseness and stress on discipline";
- ◆ Learn about various industrial machines, and study various industrial structures to improve user's capability of research and innovation.

III. Assembly Requirements

- ◆ Be sure to read the Basics of Standard Parts Assembly carefully to master basic standard parts assembly procedure and the usage of tools before assembly;
- ◆ The table shall be kept tidy and clean during assembly to prevent parts being lost or incorrectly assembled. Assemble parts in a rigorous and orderly fashion, view the diagrams carefully, and avoid incorrect assembly;
- ◆ Pay attention to the prompt text in instruction manual, carefully view the part installation orientation, and avoid incorrect comprehension. Pay attention to the requirements on testing;
- ◆ Lubricating oil shall be applied to friction areas to the greatest extent to prevent jamming during operation. Fastening screws must be thoroughly mounted to prevent looseness of parts;
- ◆ If you have any doubt when adjusting any assembly clearance or tightness after the completion of assembly, please refer to our website or WeChat public account;
- ◆ Users are encouraged to optimize the parts using material removing tools like files and sand paper with adult care where the personal safety is guaranteed;

- ◆ Users are encouraged to perform part modification or overall modification of model without potential safety hazard so as to develop modification capability as soon as possible;
- ◆ The user may disassemble this model and put it in the package again according to the parts list attached hereto;
- ◆ If any part is lost, please inquire of or purchase it from us (Teching official online store);
- ◆ The model structure is subject to continual improvement. If the real object differs from the instruction manual, please refer to our latest assembly information.
- ◆ Once the product fails to function due to battery failure, lubricating oil shortage or dust accumulation in product gaps because it is left unused for long, it's advisable to change the battery or disassemble and clean its parts.

Precautions

I. Safety Instruction

- ◆ Please read this manual carefully so that you are in a position to use this product correctly and safely;
- ◆ This series of products are industrial-level metal models, so its assembly and use requires certain safety awareness; improvement of safety awareness is also a function of the model;
- ◆ This model is suitable for users aged 14 and over. Please read this manual carefully for relevant safety information;
- ◆ Strictly prohibit children or pets swallowing or biting this product or its spare parts, since this may cause injury/damage;
- ◆ Use assembly tools rationally, assemble the parts in strict conformity with the instruction manual, and avoid forcible handling to avoid scratches; keep sharp points of tools or parts away from the eyes to avoid contusions;

- ◆ This model is made up of metallic parts mainly, and has a certain level of hardness and a certain weight; please place it properly to avoid bodily injuries; Protect the products and accessories against intense shock and vibration so as to avoid personal injury and product damage;
- ◆ During mechanical movement, do not put a finger or any other part of the body within the movement range to avoid contusions;
- ◆ Wire connectors must be connected according to the marks specified in the instruction manual to avoid short-circuit or failure arising from wrong connection;
- ◆ Charge, discharge and place the battery as required; it is advised to replace the battery when it has not been used for 3 months or more;
- ◆ Do not prevent any part from running forcibly in any form; to do this, turn off the power directly;
- ◆ To refit this model, please pay attention to the relevant part parameters, and avoid using any high-power electric part or device that may result in an accident.
- ◆ Please use parts of this product properly as per instruction manual. Don't use them for other purposes.

II. Battery and charging precautions

- ◆ This product is delivered with dedicated charging cable. Users shall use their own power adapters; output DC voltage: 5V; output DC current $\geq 1000\text{mA}$;
- ◆ Please make sure the contact is dry and free of dirt before charging. Please don't charge the battery if the product is not in use or is in repair;
- ◆ Don't put the battery in fire or have it exposed to sunlight, fire or similar excessively hot environment, since this may lead to leakage, excessively high temperature, bursting or ignition of battery;
- ◆ If improper change of battery may cause explosion, the battery must be replaced with one of identical or equivalent type;

- ◆ Never disassemble, squeeze, heat and set fire to the lithium battery delivered with this product, and never touch and pry the battery using any sharp object or screwdriver, etc., since this may cause the battery to ignite or burn;
- ◆ In the case of excessively high temperature, discoloration, bulging, leakage and other anomalies during the use, charging or keeping of battery, please take it out of service and change it with a new one to avoid safety problem;
- ◆ Since the battery temperature rises when it's being charged, please don't have the battery to come into contact with inflammables (e.g. bedside, clothing and books, etc.) since this may result in a fire;
- ◆ Please don't charge the battery in a moist space with high temperature; the temperature is recommended to be 0~35° C, and the humidity shall not exceed 65%; the design max. ambient temperature for using the product is 45° C;
- ◆ To alleviate the risk of electric shock, children are not allowed to use the product without the help of their parents or other custodians.

III. Product Declaration

- ◆ Please carefully read and observe various instructions and warnings in this manual before using this product. Our company shall not be held responsible for any consequence of failure to properly use this product or observe related operating instructions;
- ◆ This product is suitable for users aged 14 and over. Our company shall not be held responsible for any safety problem arising from the use of this product by too young users or users who are not familiar with relevant safety requirements;
- ◆ As a model in industrial structure, this product is designed exclusively for learning and experience. Do not use this product for other purposes; otherwise, we will assume no responsibility for any consequence thereof;

- ◆ We have been improving the design and operation features of our product, so separate notice will not be given for slight difference between instruction manual and actual product. Hence, any claim for compensation filed based on the data, pictures or text of this instruction manual will be rejected;
- ◆ For constant improvement and sustainable development, our company reserves the right to modify and improve any product detail given in this manual without prior notice;
- ◆ The pictures in instruction manual guide users for operation, and are thus for indication only; the real product shall prevail;
- ◆ Our company and its suppliers shall not be held responsible for any special, incidental, collateral or indirect loss in any case to the greatest extent the law permits, regardless of its cause;
- ◆ Please keep this manual properly since it contains important information.

Contents



Assembly instructions for two-wheeled steam train

P3

P3. Boiler assembly

P4. Water tank assembly

P6. Main body

P11. Chassis body

P24. Assembly of front bumper assembly

P25. Assembly of rear wheel shock absorber assembly

P26. Assembly of cab chassis

P28. Assembly of front wheel shock absorber assembly

P30. Assembly of front wheel shock absorber assembly and chassis body

P30. Assembly of cab chassis and chassis body

P31. Assembly of chassis body and main body

P40. Rail assembly (giveaway)

P45. Mechanical failure analysis and troubleshooting



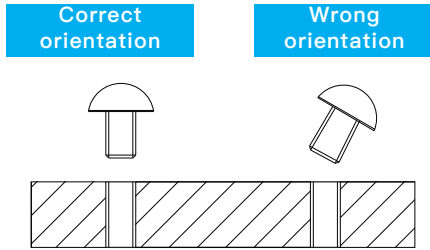
Parts list of steam train

P51

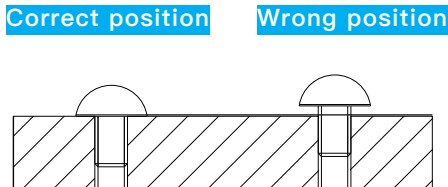
Basic knowledge on standard parts assembly

1.Installation of screws

(1) Installation of screws

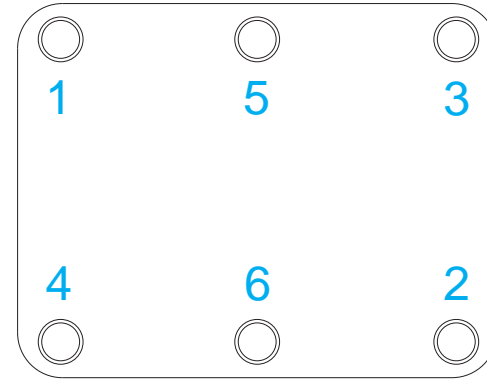


(2)Degree of screw tightening

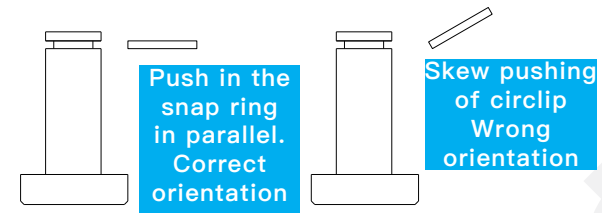


(3)Screw installation order

Mount the screws diagonally
in order of number

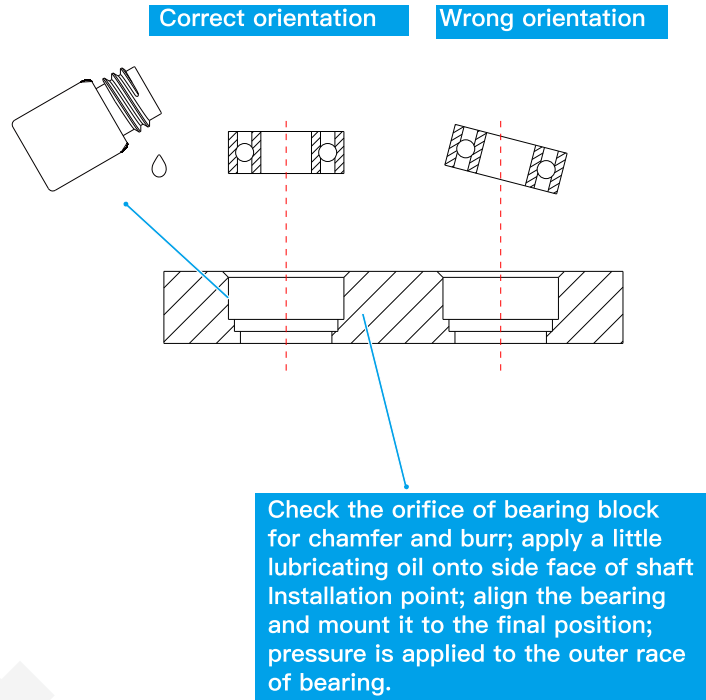


2.Installation of snap ring

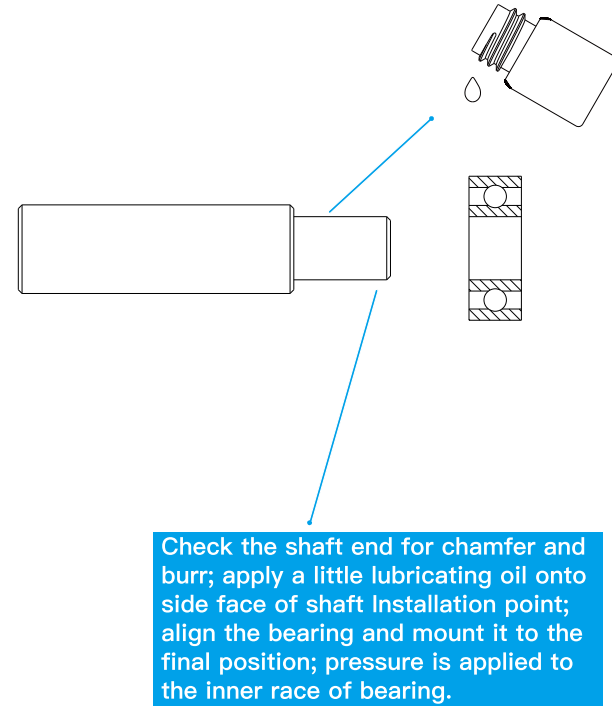


3. Installation of Bearing

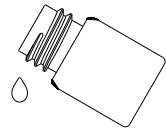
(1) Install the bearing into the bearing seat hole



(2) Install the bearing onto the shaft



Important note: before assembly, find the bottled lubricating oil, be sure to put enough oil in all the places that need to be lubricated, otherwise the machine is easy to get stuck

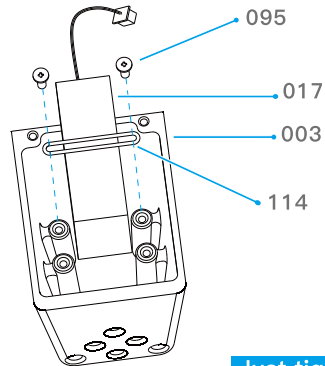


Position indicator for lubricating oil

P Assembly of two-wheeled steam train

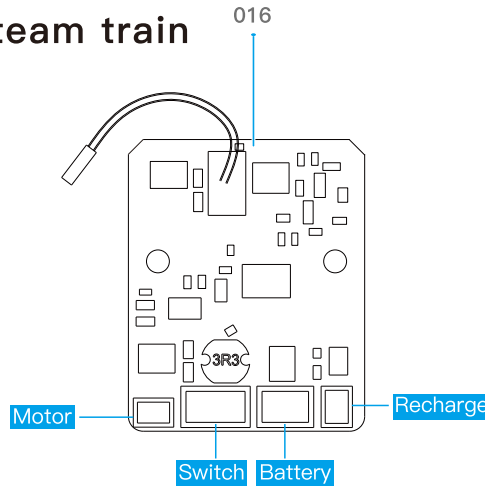
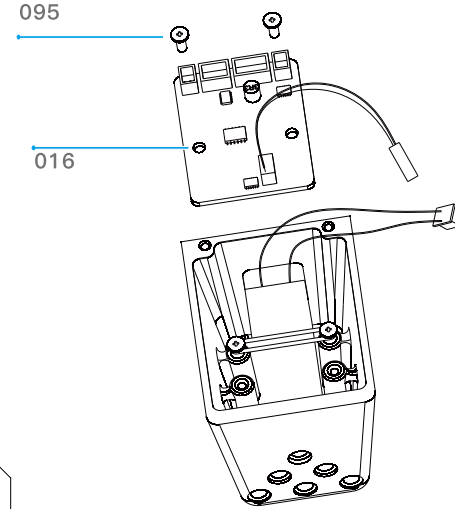
1.Boiler assembly

1.1Assembly of battery

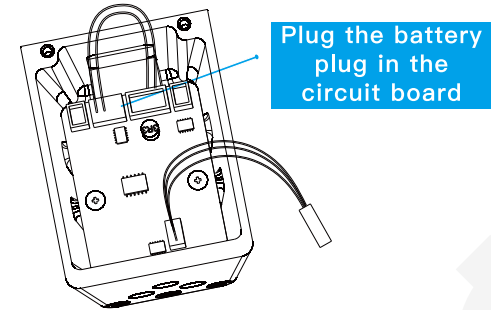


Just tighten 095 to half the full engagement depth and then install 114

1.2 Assembly of circuit board

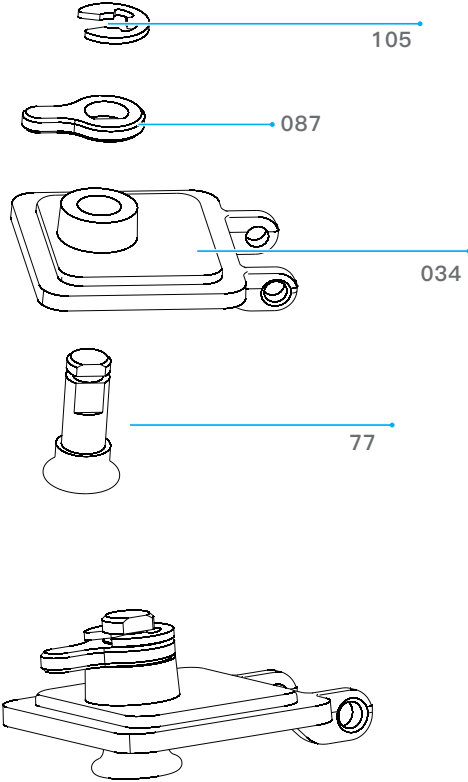


Circuit board identification diagram



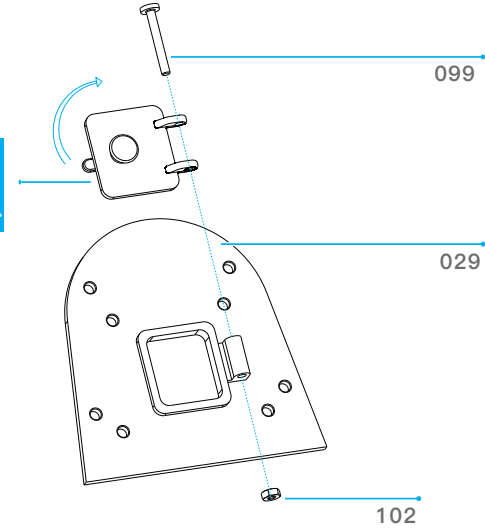
2. Water tank assembly

2.1 Coal bin door cover assembly

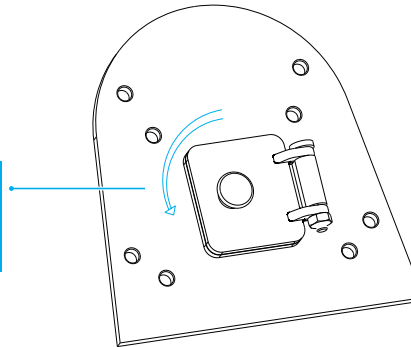


2.2 Coal water tank closing plate assembly

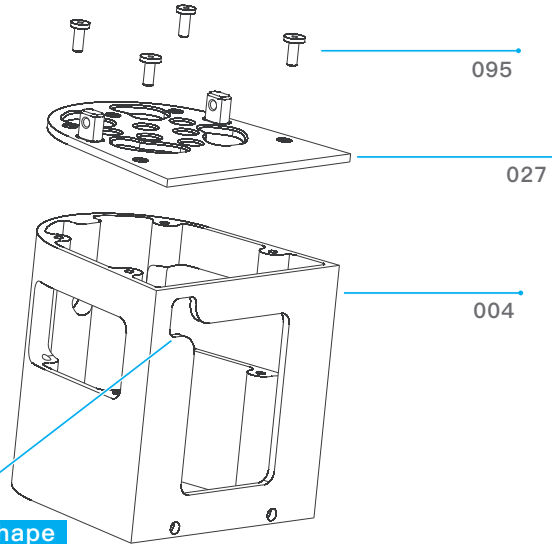
087 Turn to the 12 o'clock direction as indicated by the arrow.



087 Turn to the 9 o'clock direction is closed as indicated by the arrow.

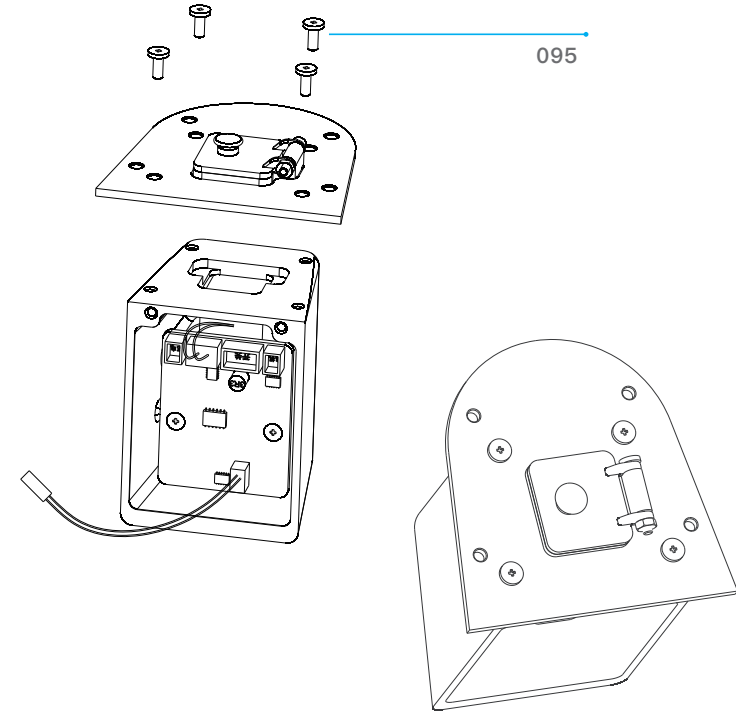


2.3 Assembly of flue rear cover and water tank

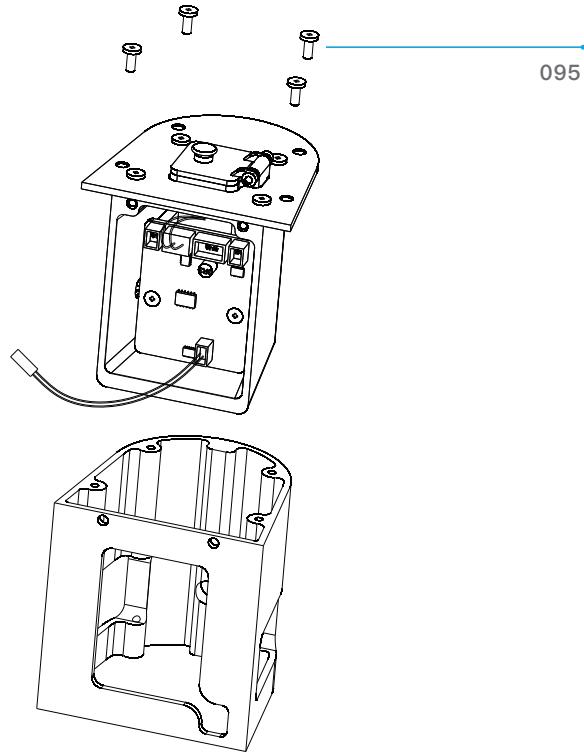


Note: The part shape and direction of 004 is as shown in the figure.

2.4 Assembly of boiler assembly and coal water tank closing plate assembly

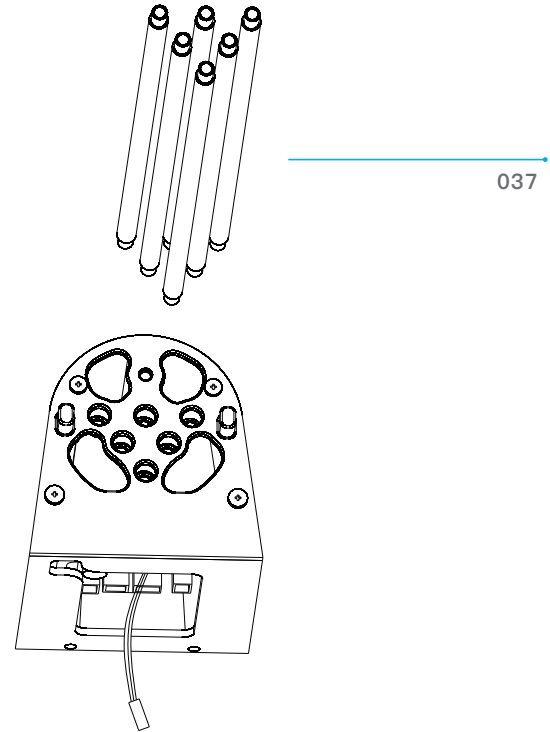


2.5 Assembly of water tank assembly

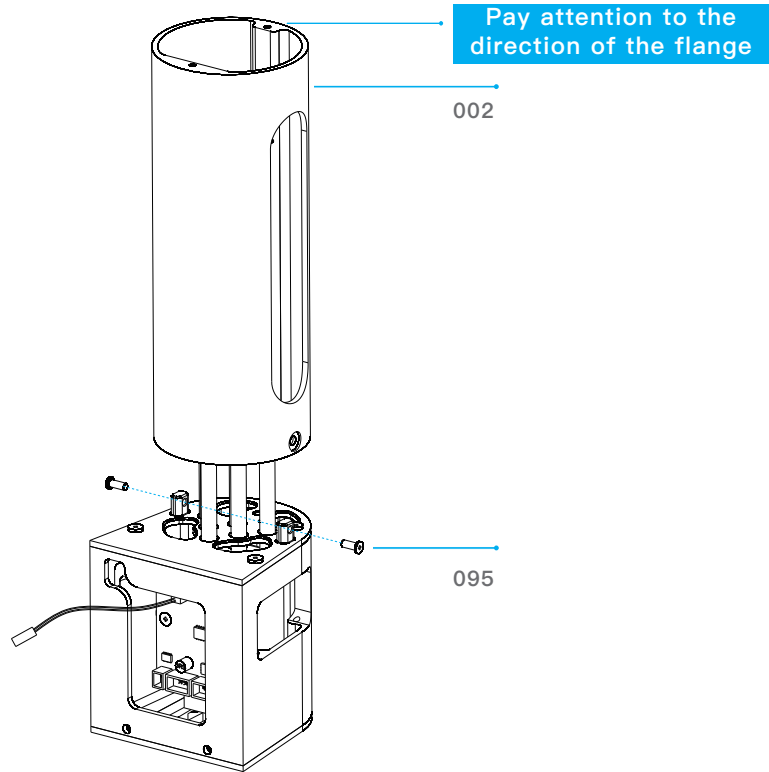


3.Main body

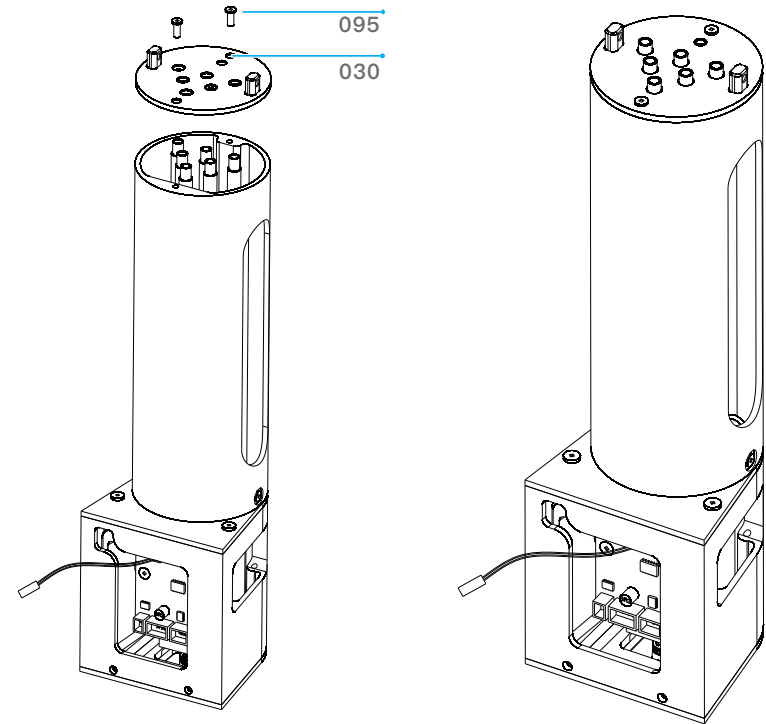
3.1 Installation of small flue



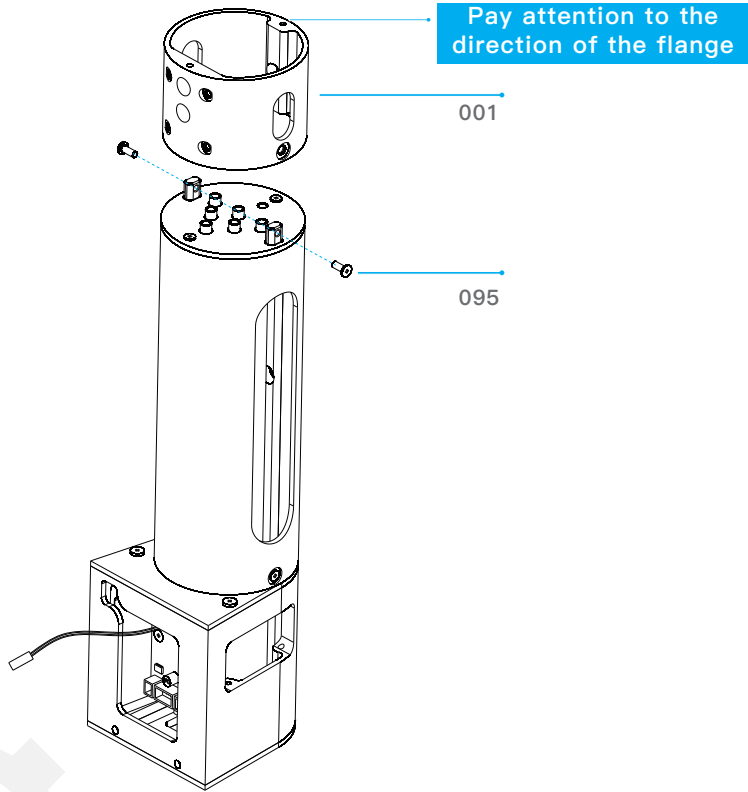
3.2 Assembly of big flue



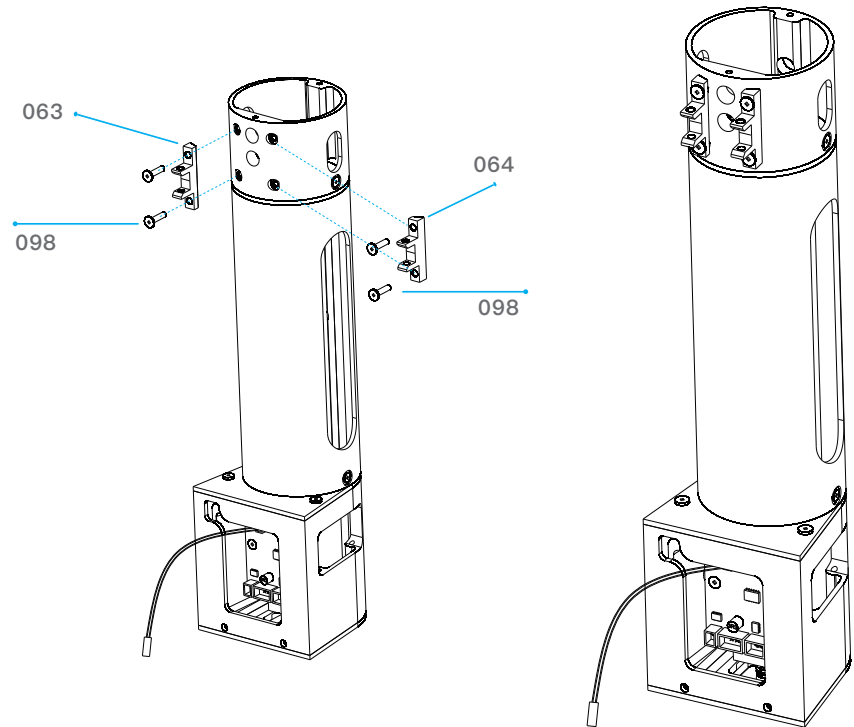
3.3 Assembly of flue middle cover



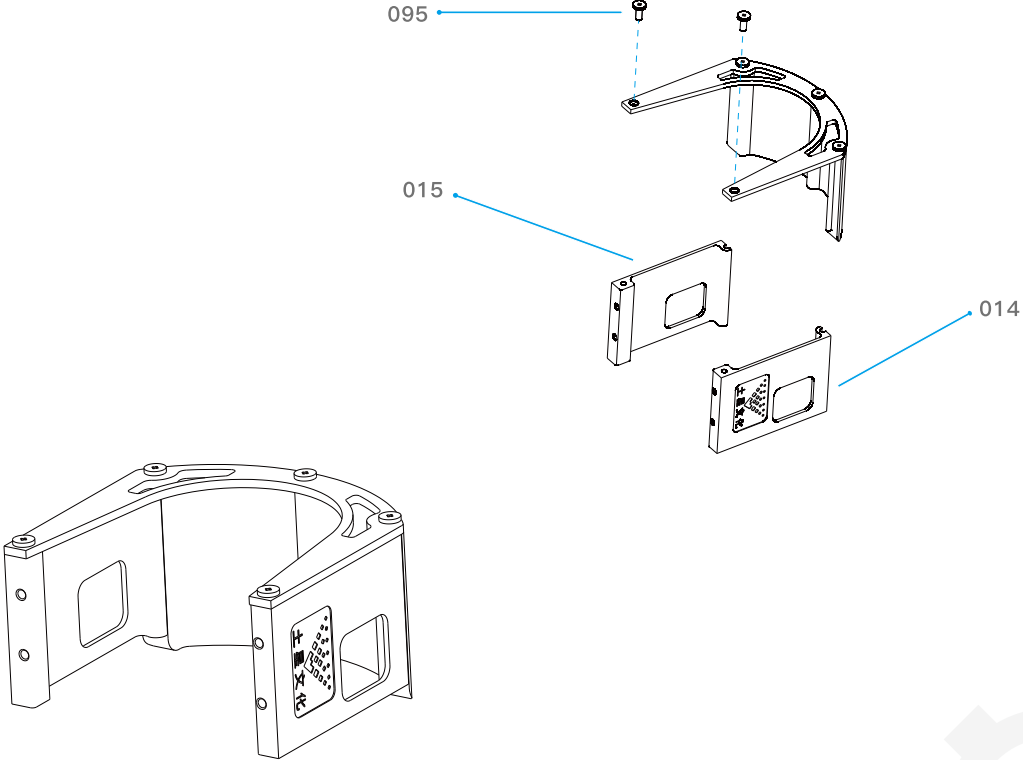
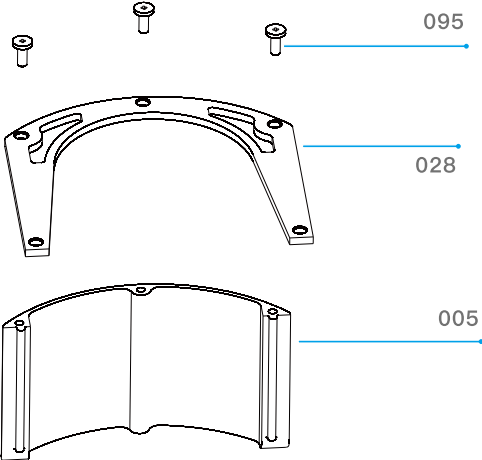
3.4 Assembly of front flue



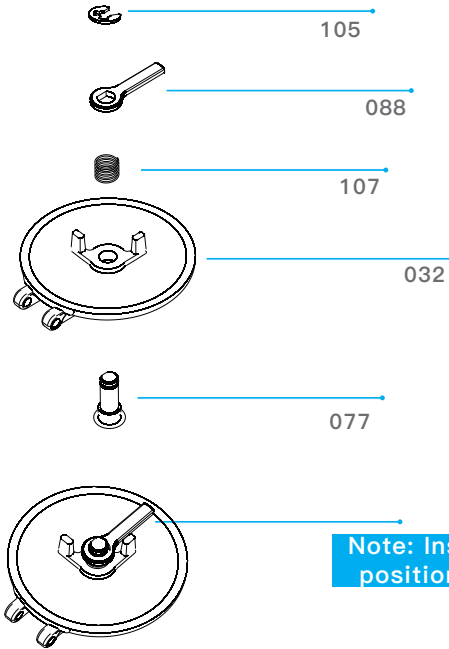
3.5 Installation of left and right flue brackets



3.6 Assemble the driving cab

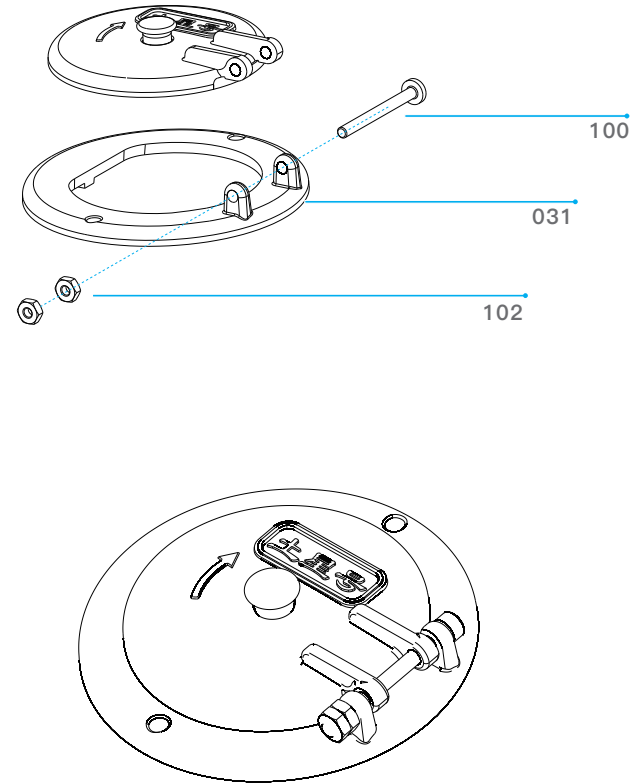


3.7 Assembly of flue front cover assembly



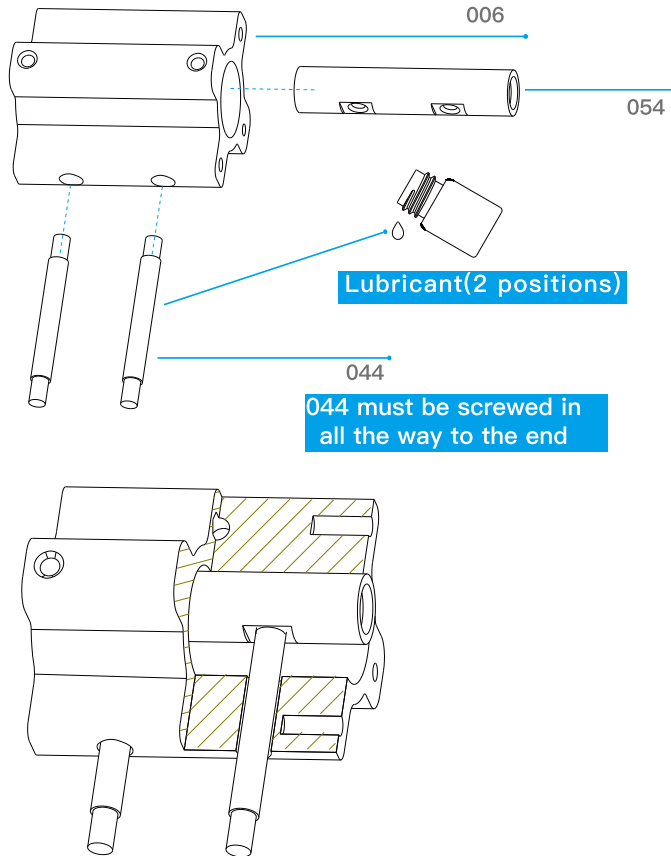
Note: Installation position of 088

3.8 Assembly of flue front cover plate assembly

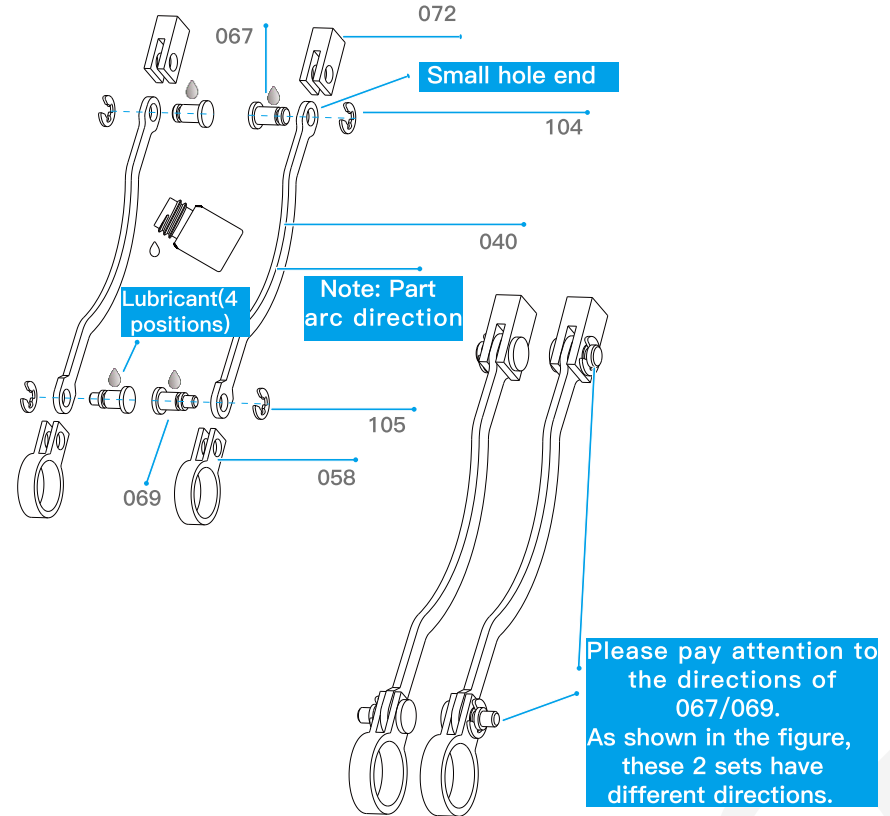


4. Chassis body

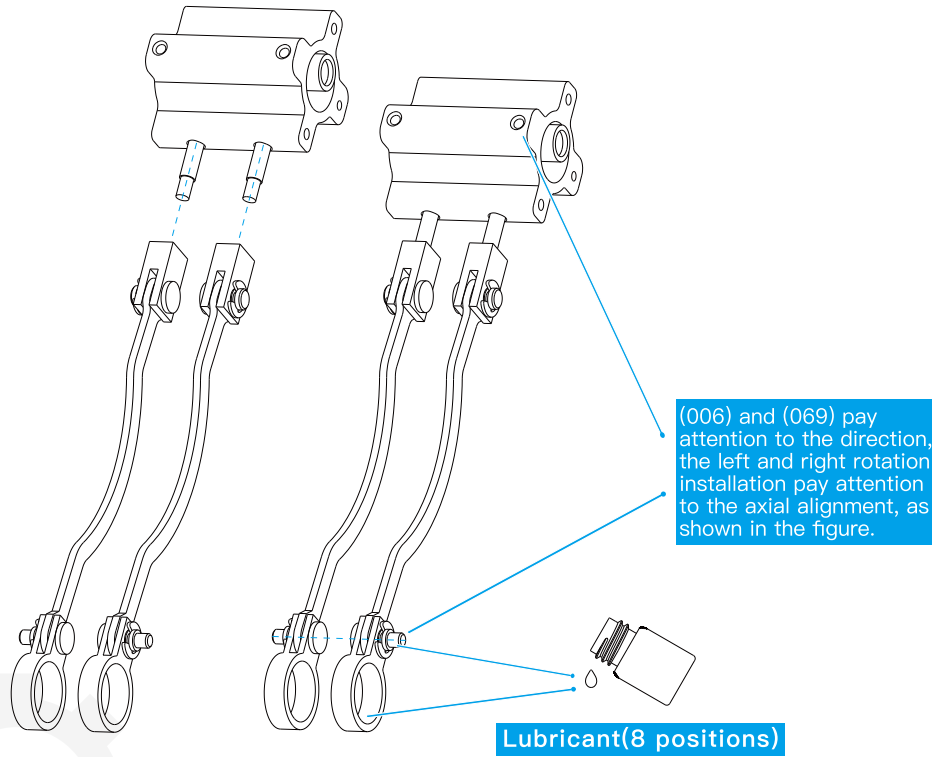
4.1 Assembly of ventilating valve assembly



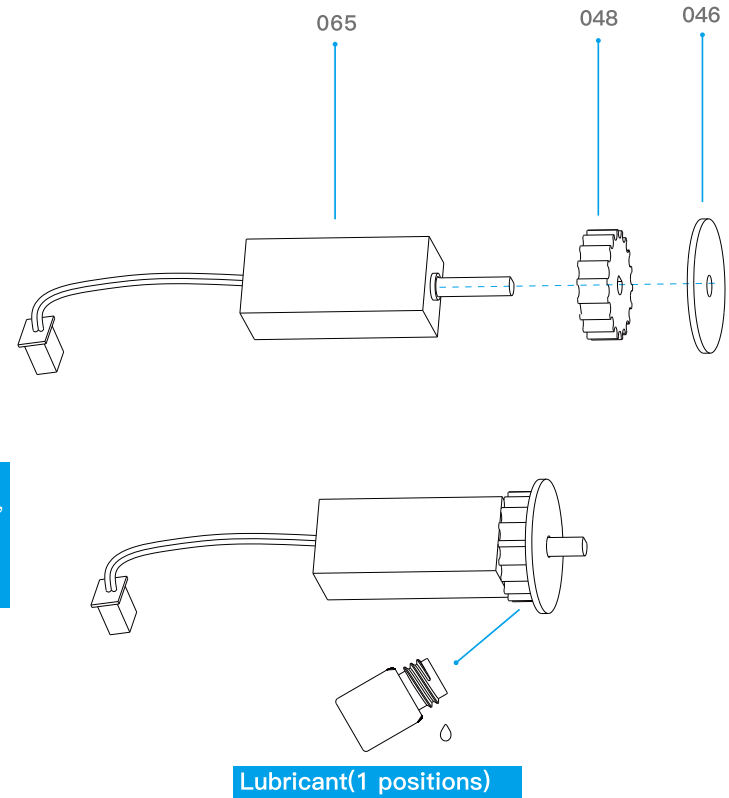
4.2 Reversing connecting rod assembly



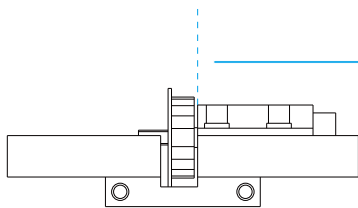
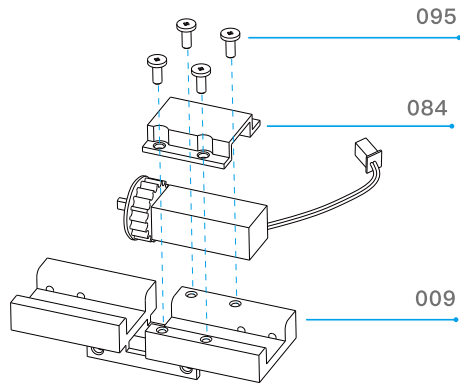
4.3 Assembly of ventilating valve assembly and reversing connecting rod assembly



4.4 Synchronizing wheel combination

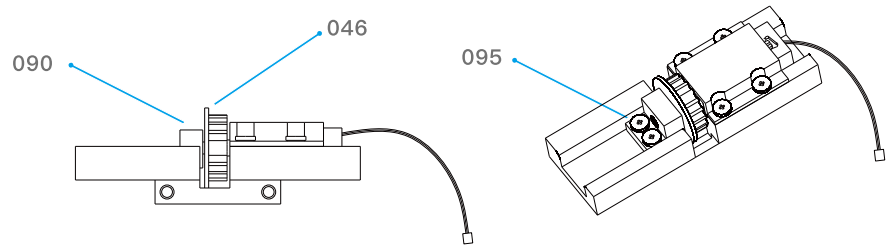
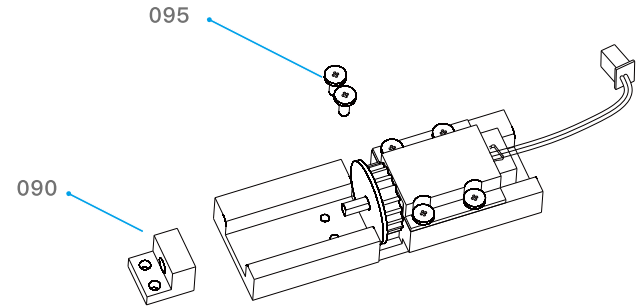


4.5 Assembly of motor assembly



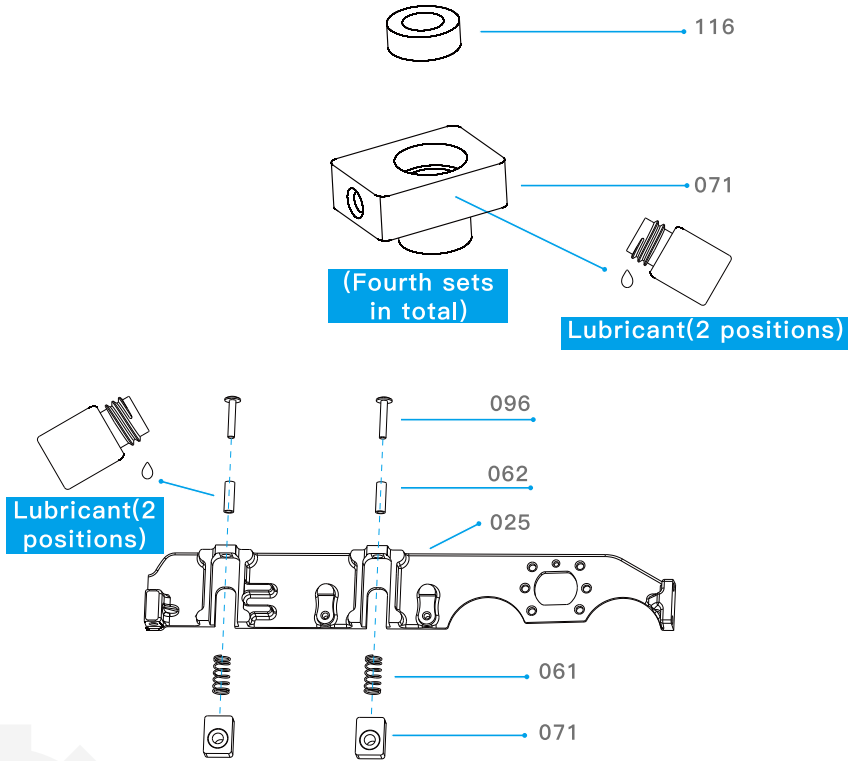
Note: The motor (065) should be aligned with the shape of the rear cross beam (009), as shown in the figure

4.6 Assembly of motor assembly

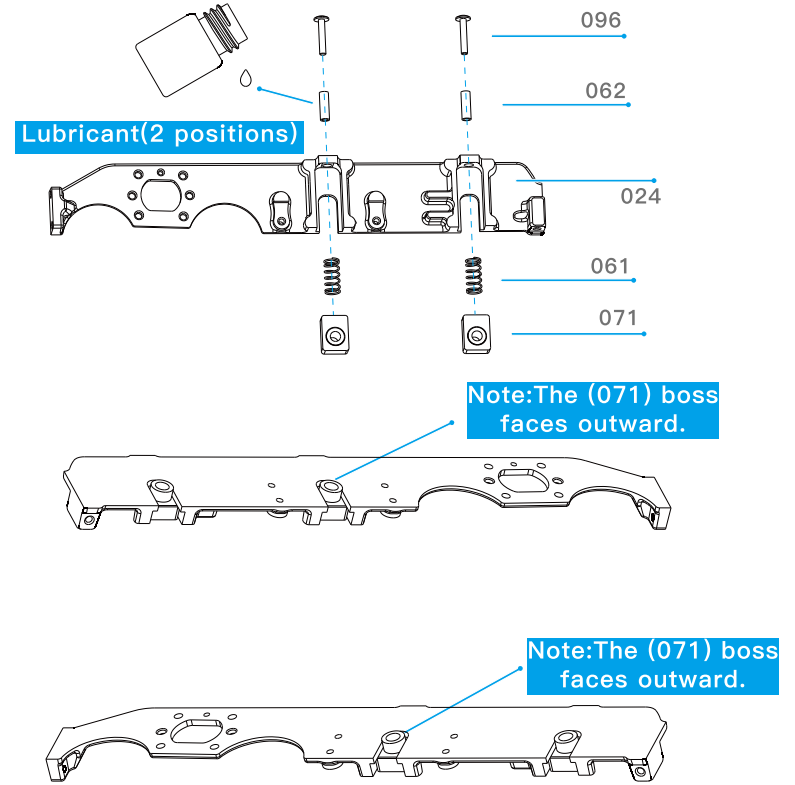


During installation, a gap must be reserved between 090 and 046

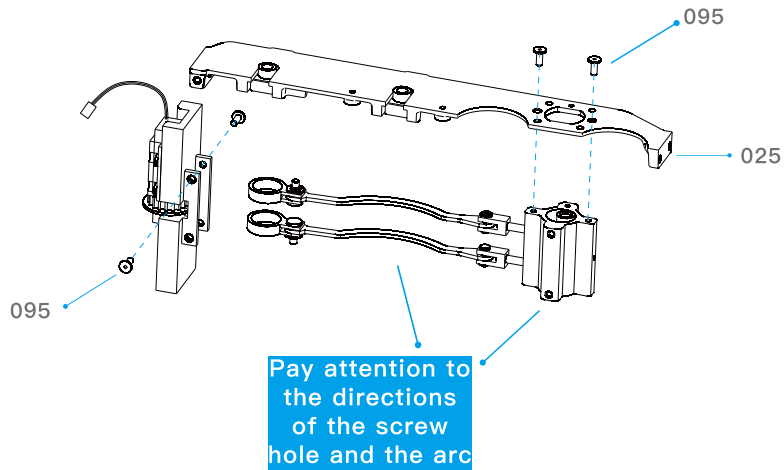
4.7 Assembly of left longitudinal beam assembly



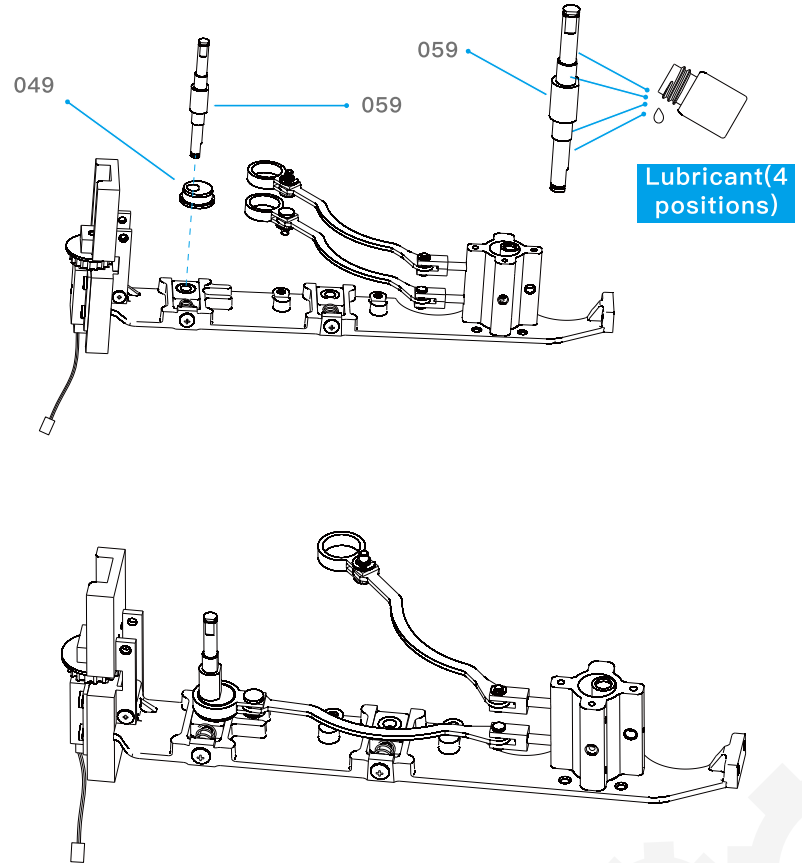
4.8 Assembly of right longitudinal beam assembly



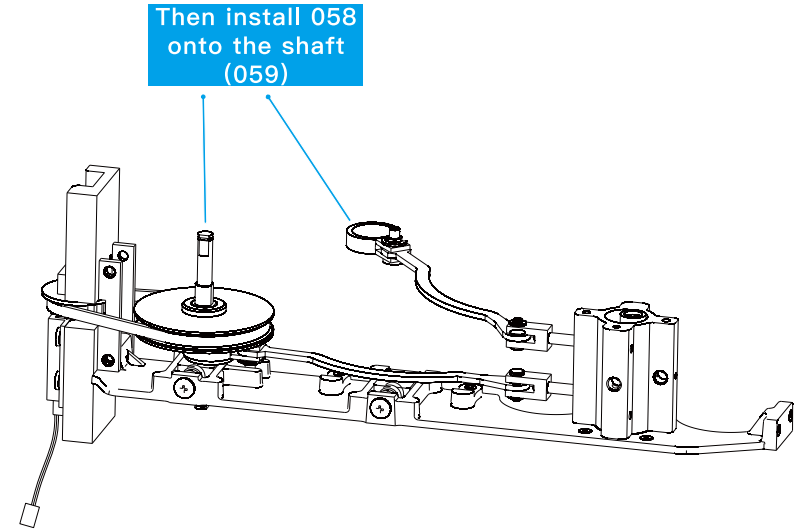
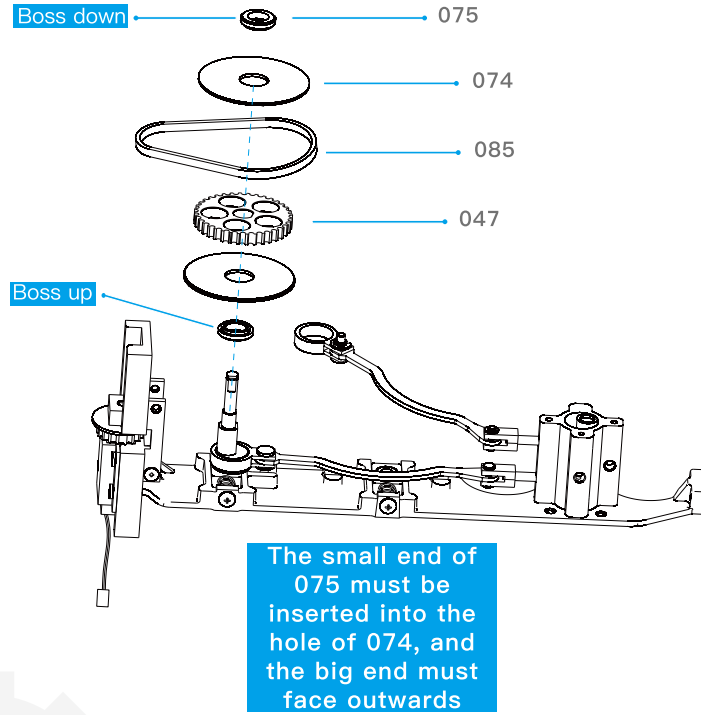
4.9 Assemble the right longitudinal beam and the rear cross beam



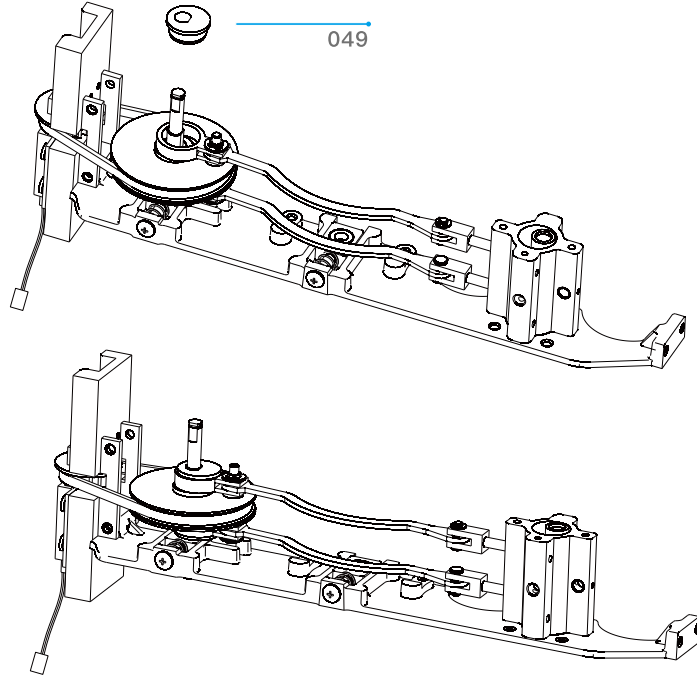
4.10 Assembly of main shaft of driving wheel



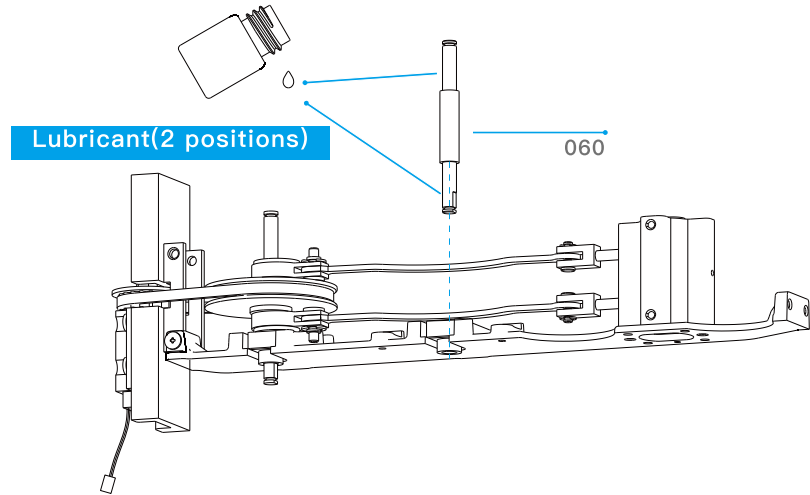
4.11 Assembly of cam synchronizing wheel



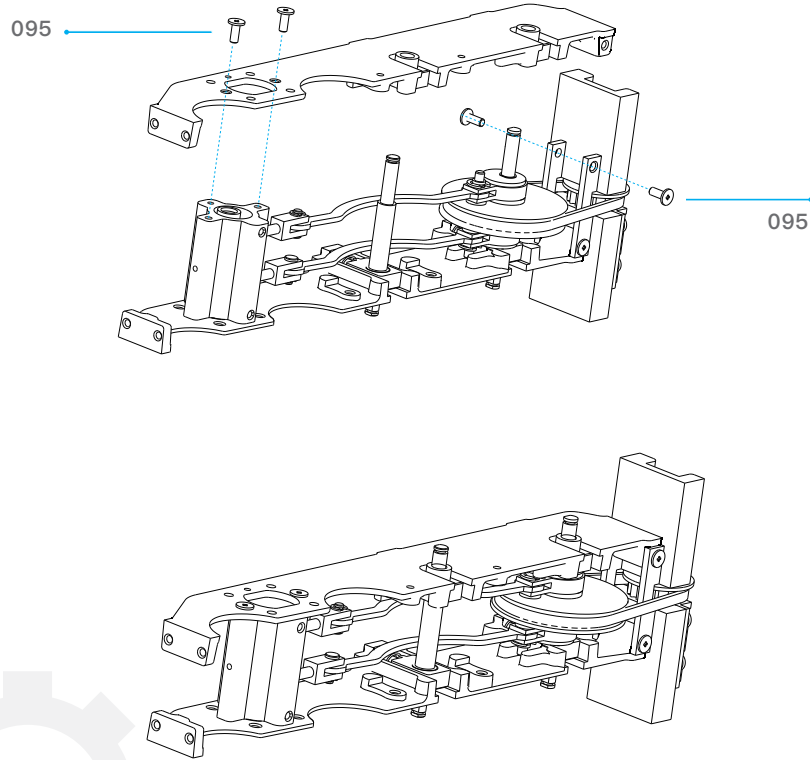
4.12 Assemble the eccentric wheel



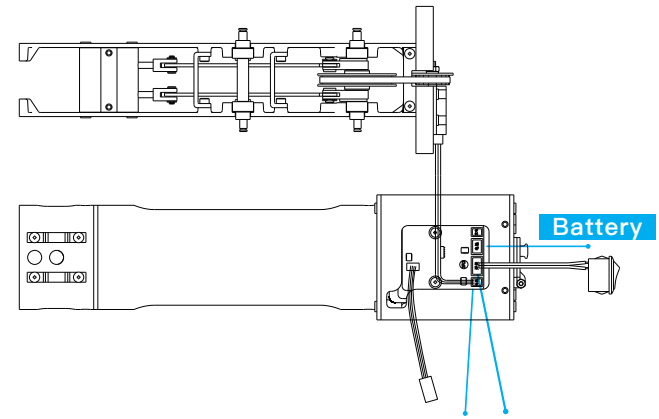
4.13 Assembly of driving connecting rod



4.14 Assembly of left longitudinal beam assembly

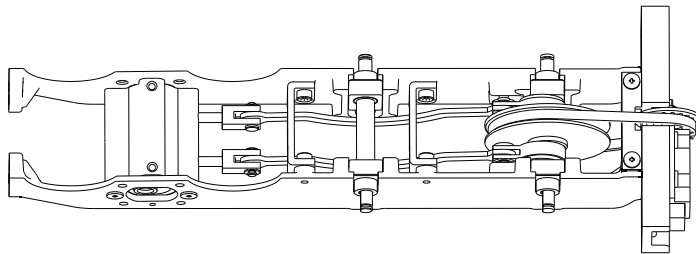
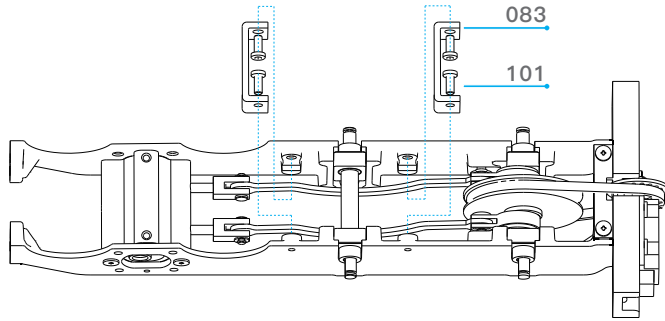


4.15 Testing of ventilating valve

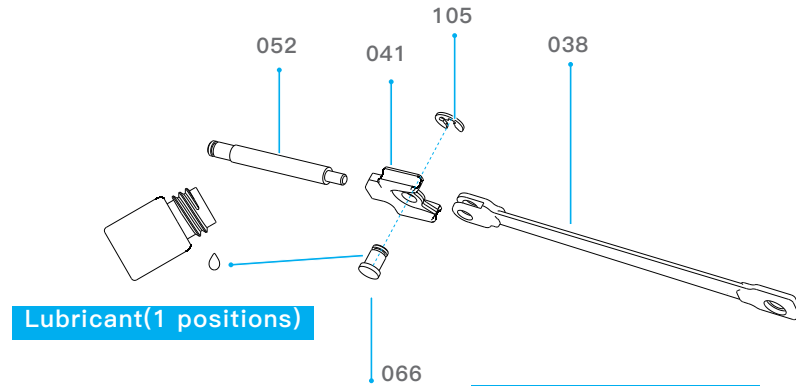


After connecting the motor and the switch plug, check for driving normally.

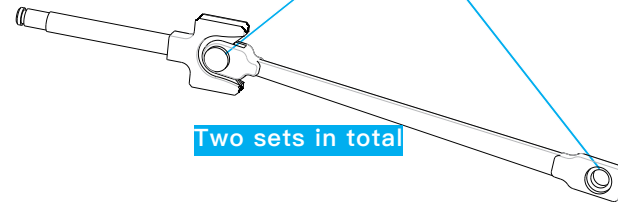
4.16 Assembly of middle support beam



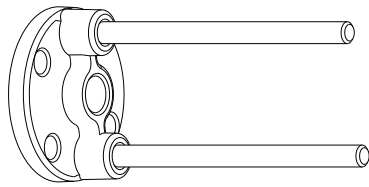
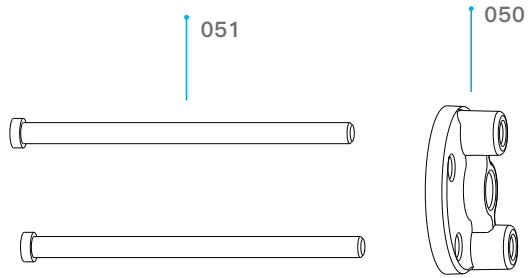
4.17 Assembly of middle driving connecting rod



The boss of 066 and the counterbore of 038 are on the same side

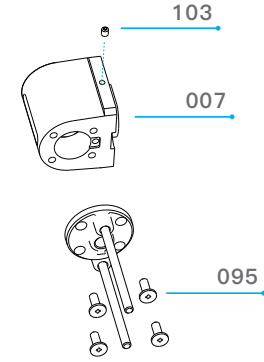


4.18 Assembly of piston rod guide shaft

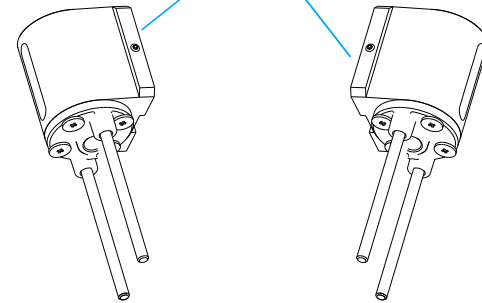


Two sets in total

4.19 Assembly of cylinder

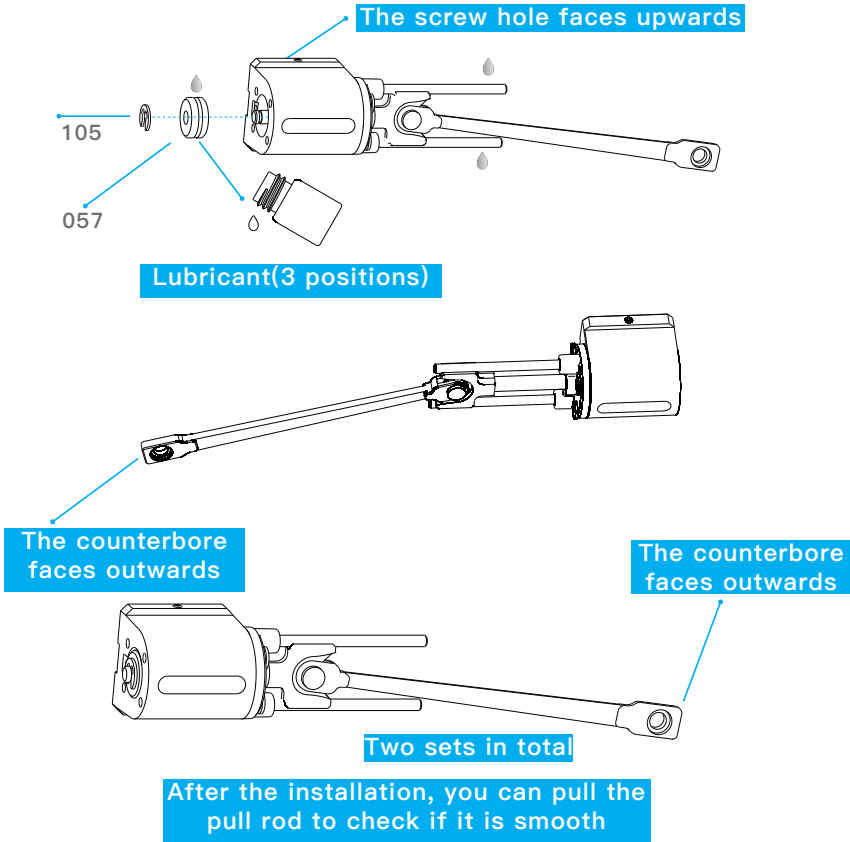


Two sets of toothed holes face the same direction

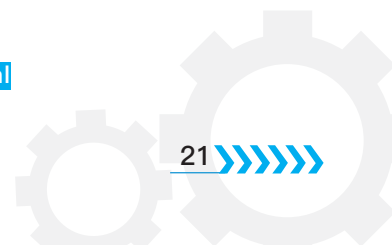
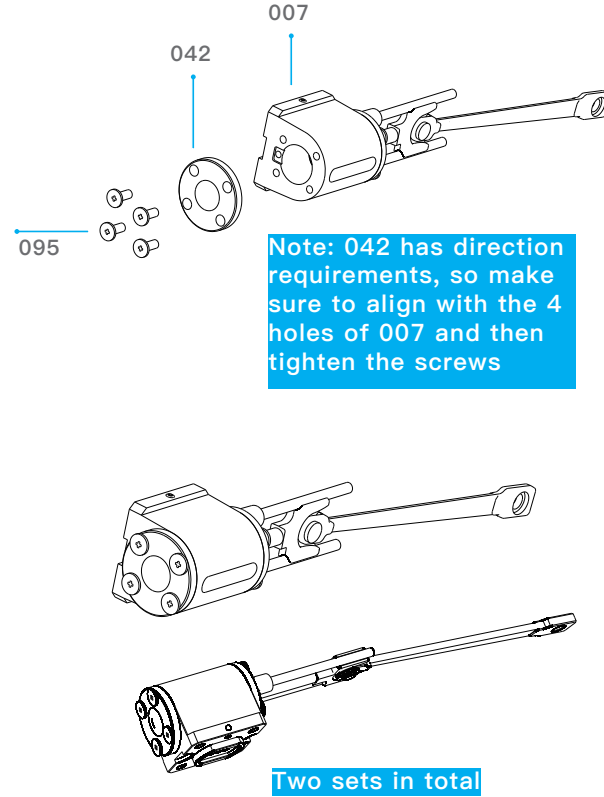


Two sets in total

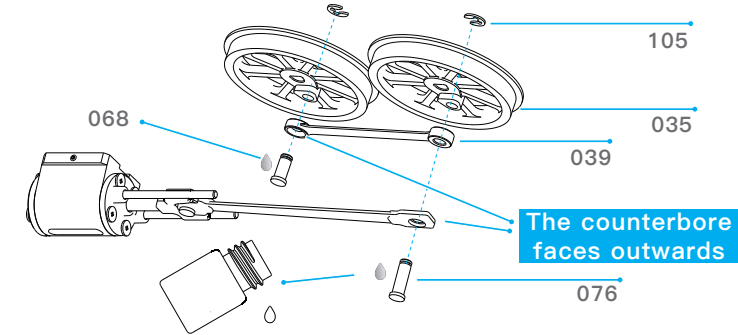
4.20 Assembly of piston



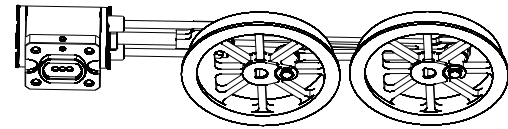
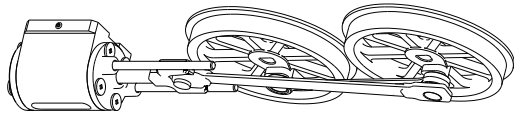
4.21 Assembly of cylinder front cover



4.22 Assembly of driving wheel

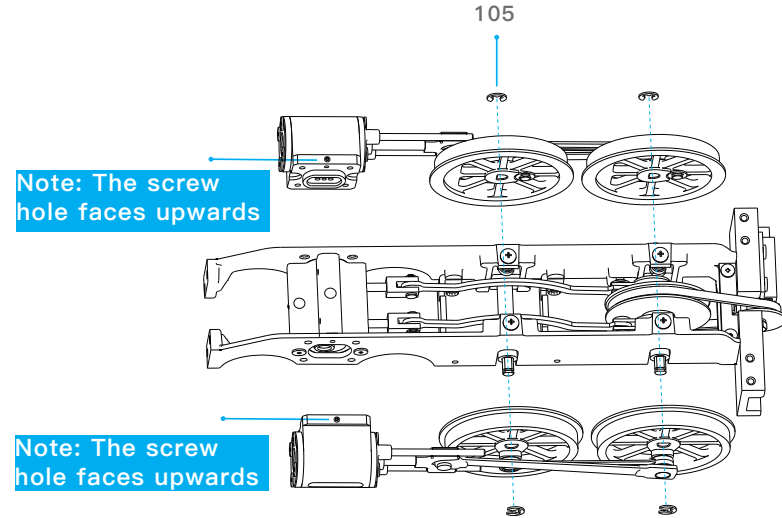


Lubricant(2 positions)

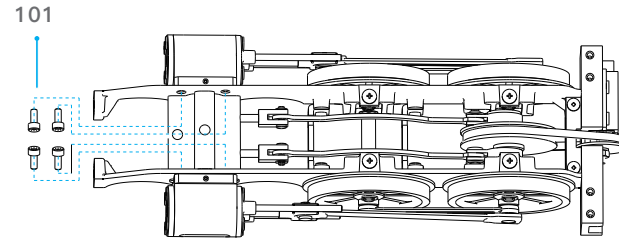


Two sets in total

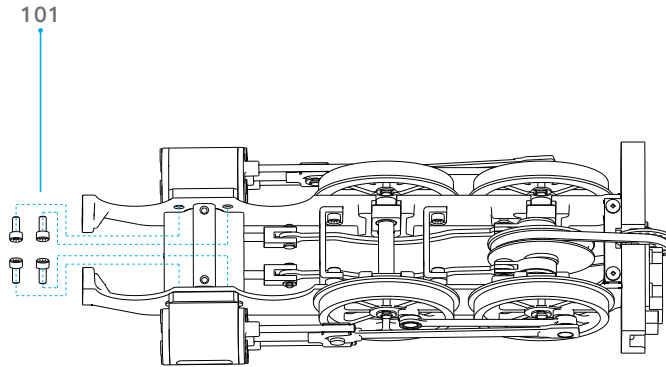
4.23 Assembly of piston rod assembly



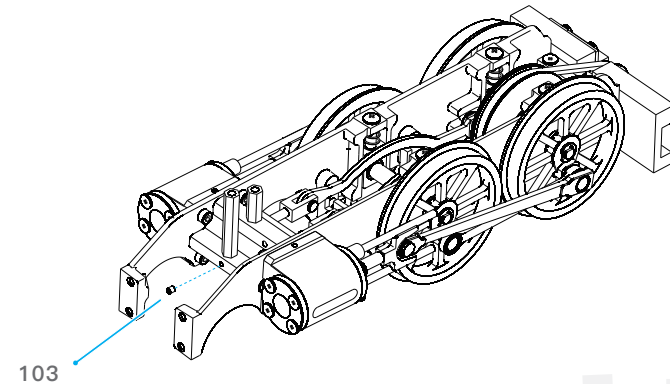
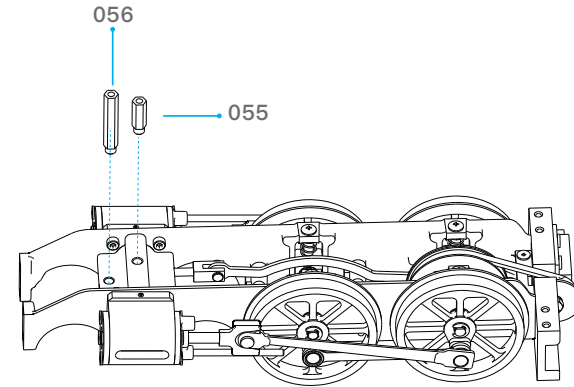
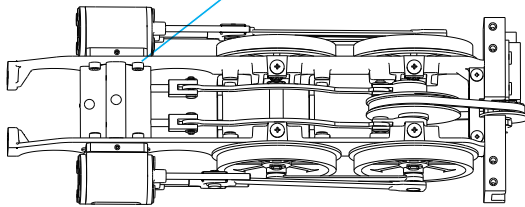
Note: The screw hole faces upwards



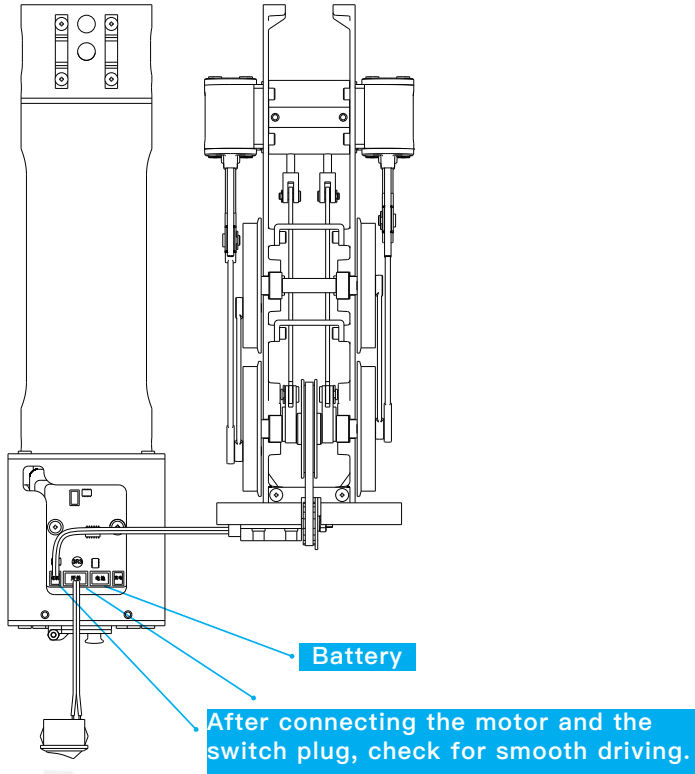
4.24 Assembly of gas valve



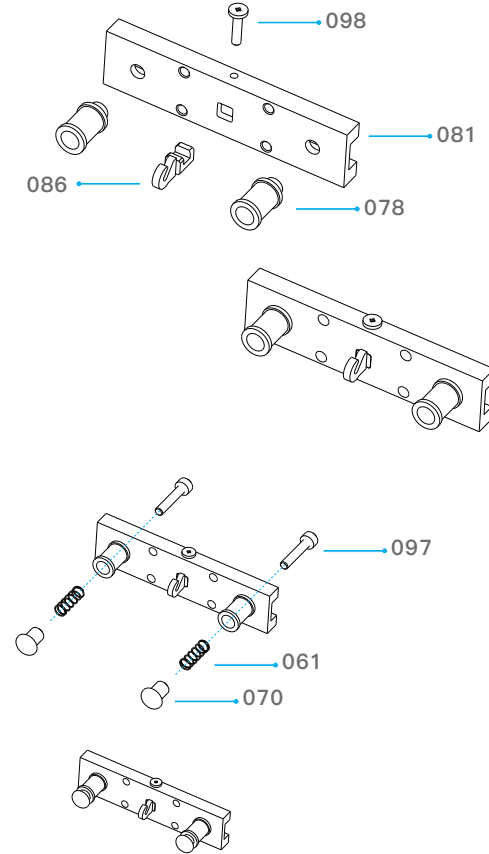
The 4 screws on the bottom side also need to be tightened



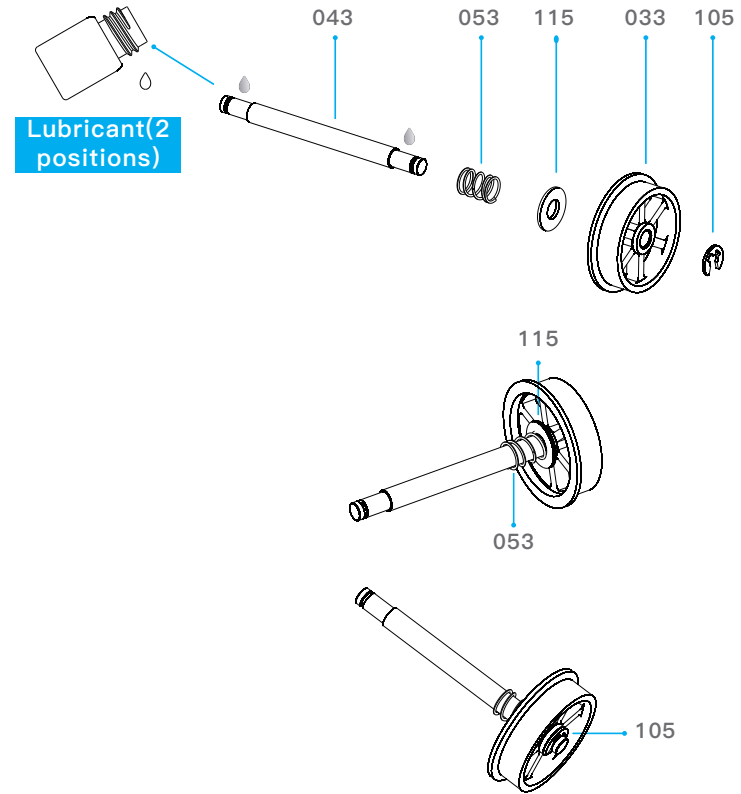
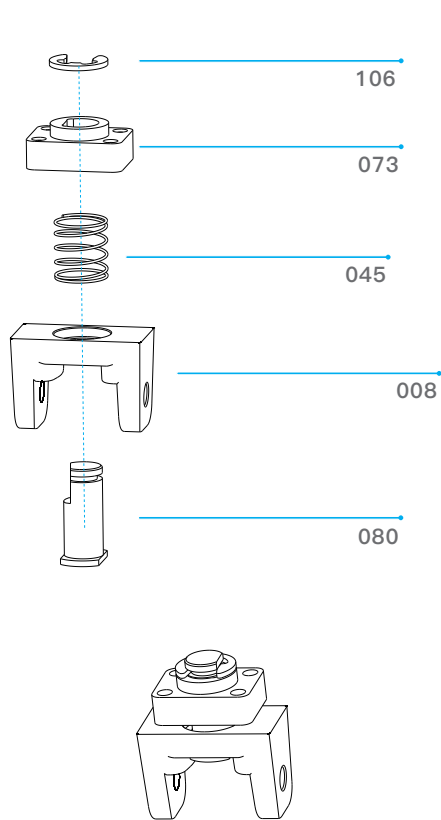
4.25 Testing of piston rod assembly



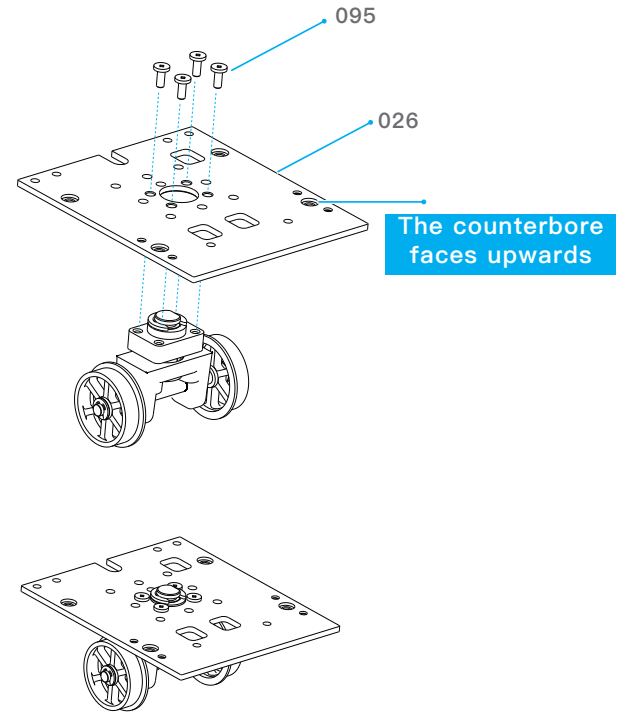
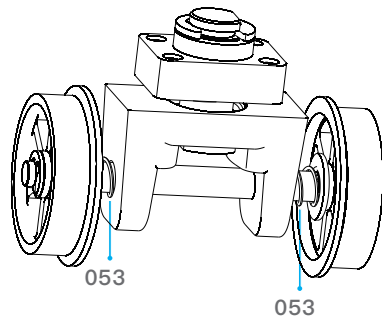
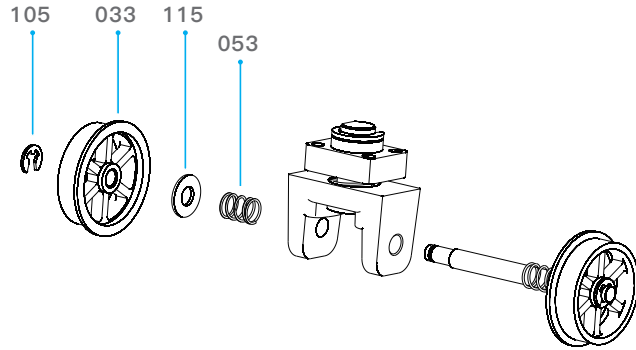
5. Assembly of front bumper assembly

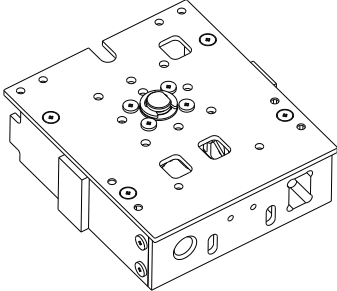
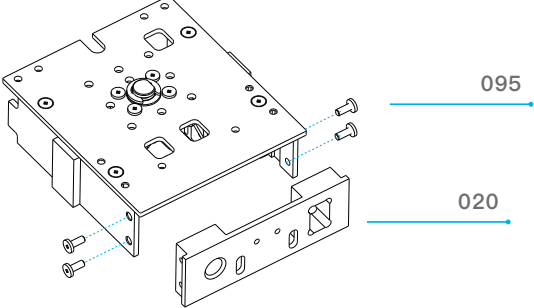
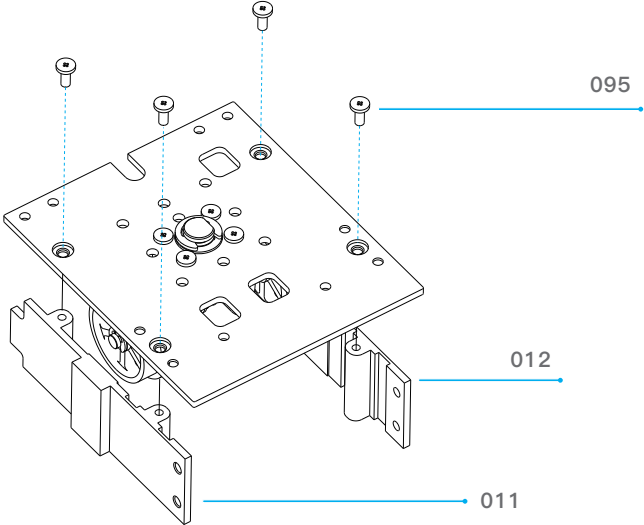


6. Assembly of rear wheel shock absorber assembly

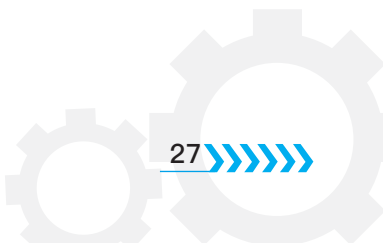
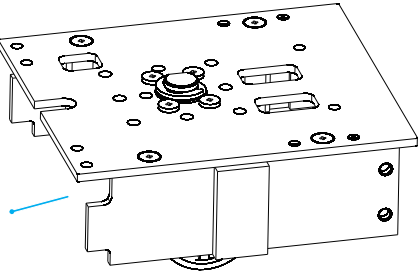


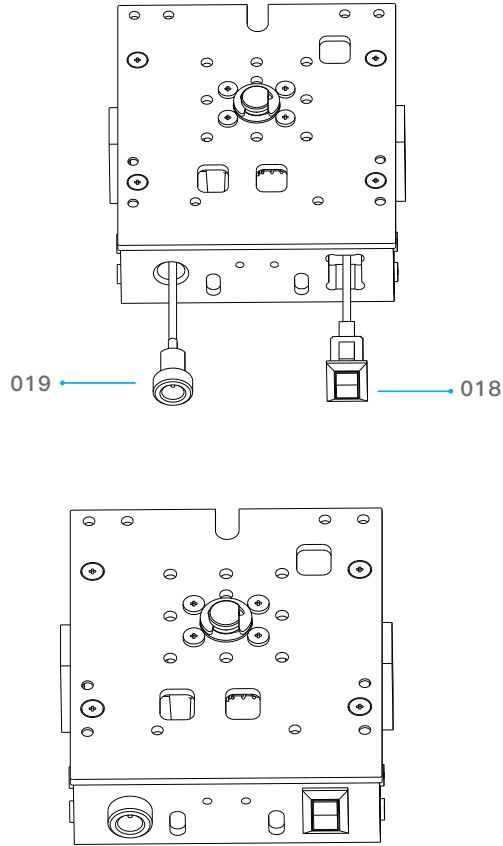
7.Assembly of cab chassis



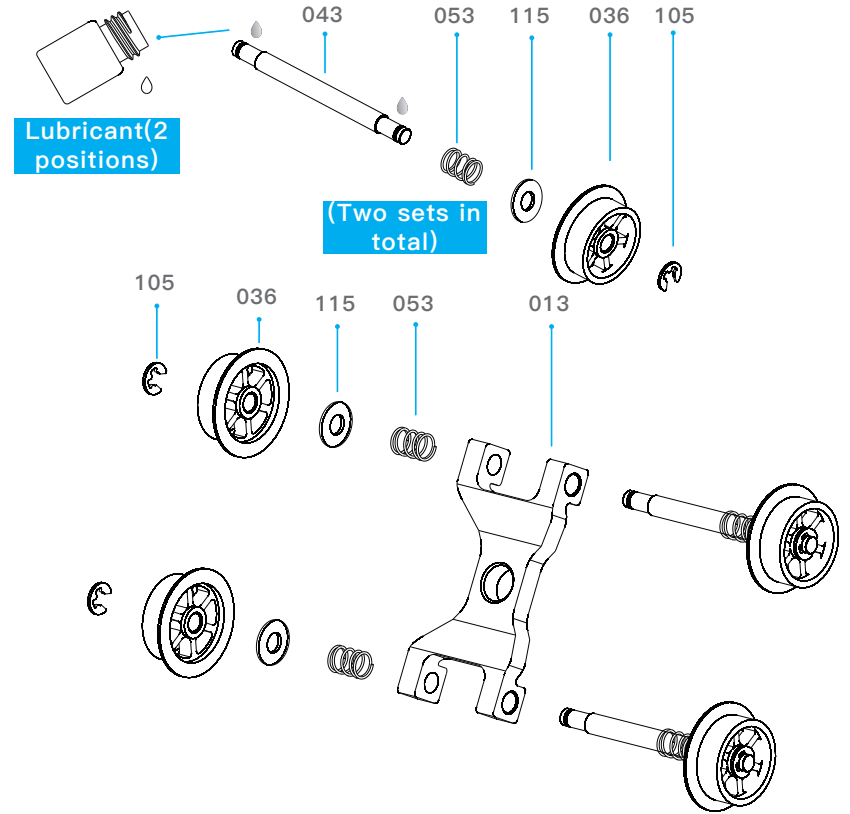


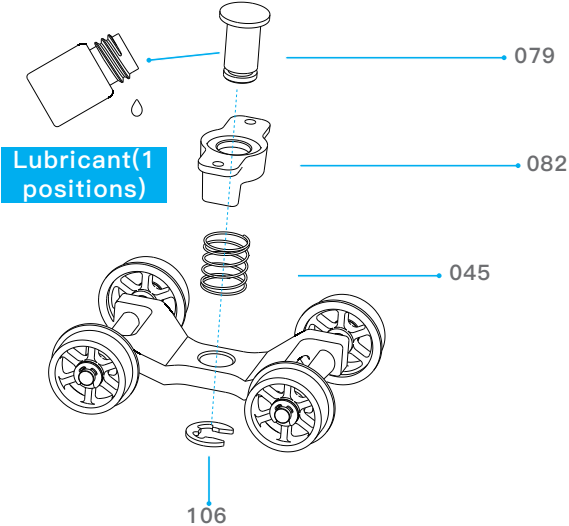
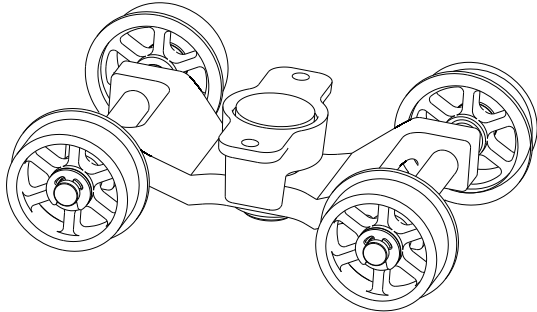
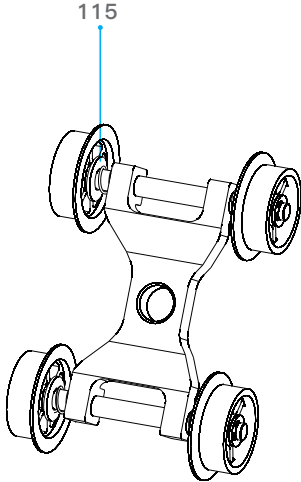
The side with the wide notch faces upwards



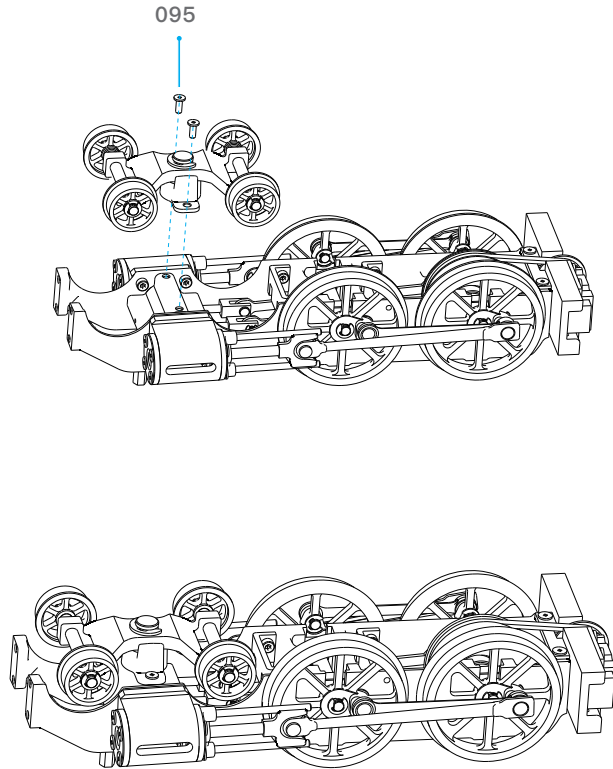


8. Assembly of front wheel shock absorber assembly

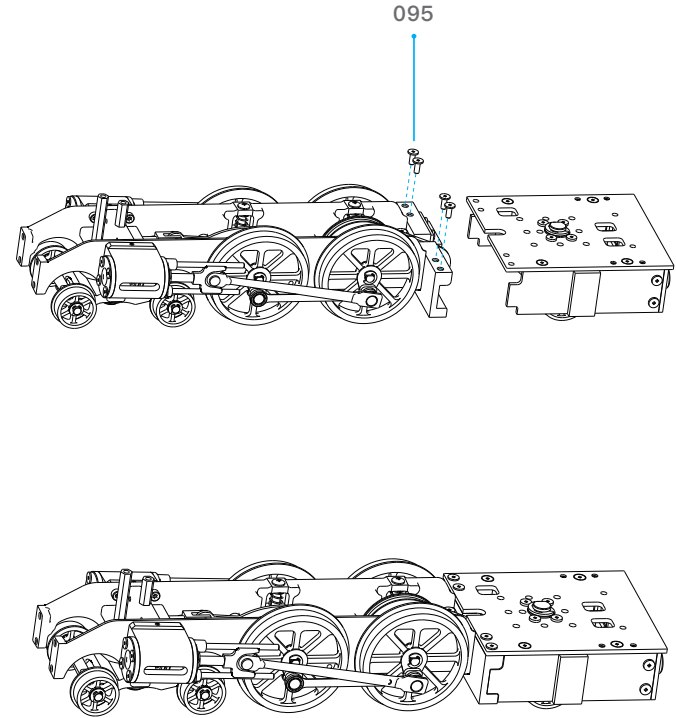




9. Assembly of front wheel shock absorber assembly and chassis body

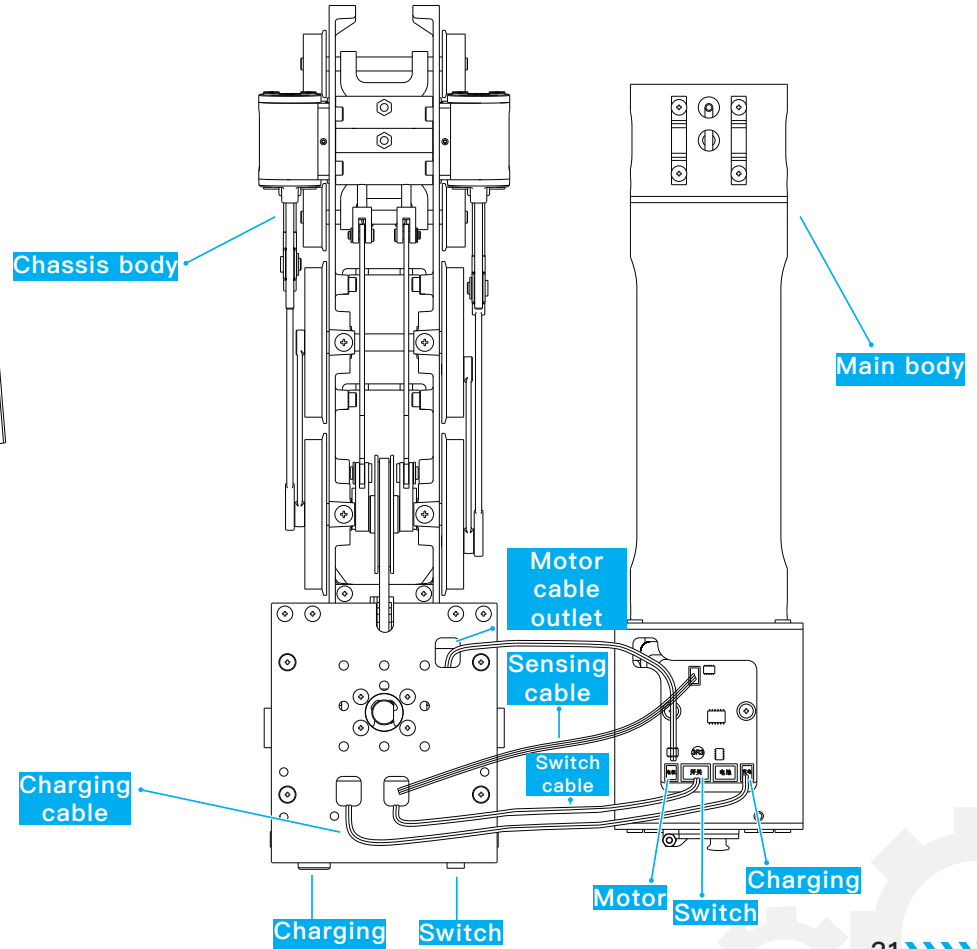
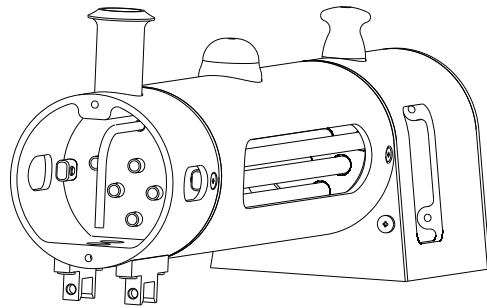
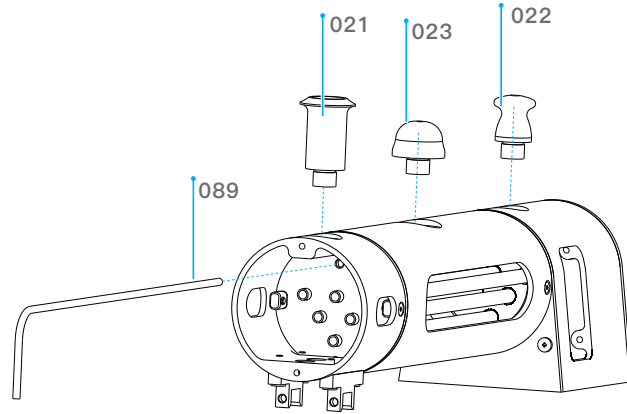


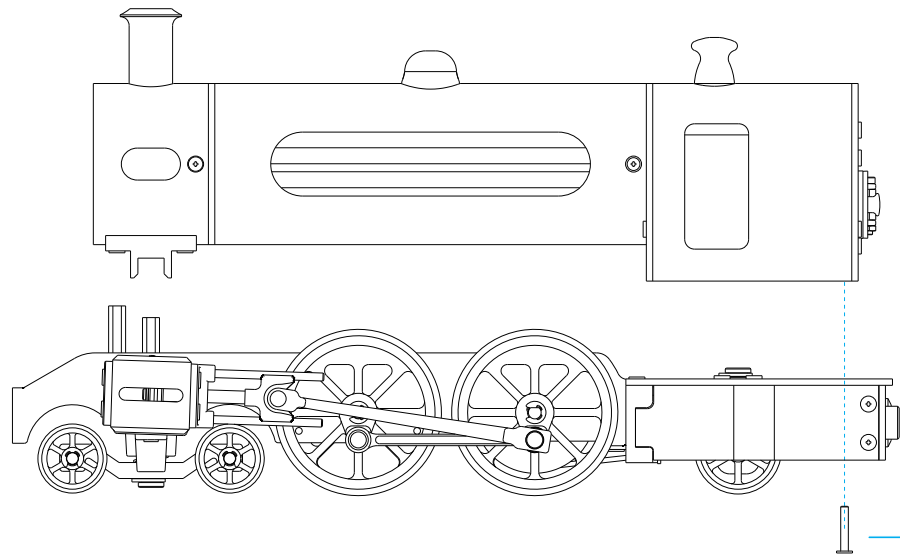
10. Assembly of cab chassis and chassis body



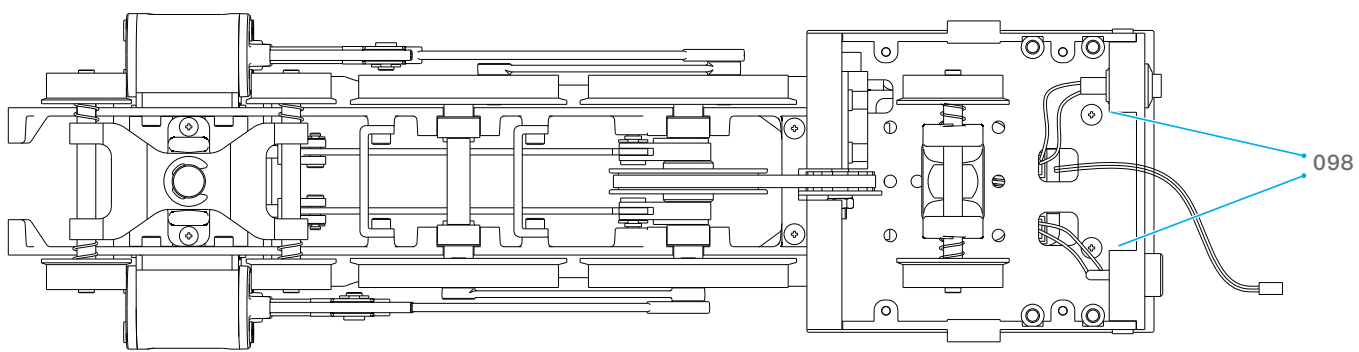
Note: All sockets of the circuit board must be connected correspondingly.

11. Assembly of chassis body and main body





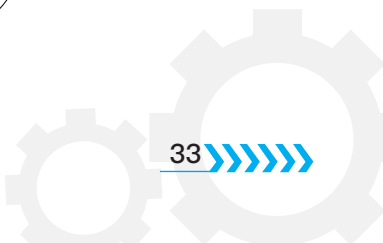
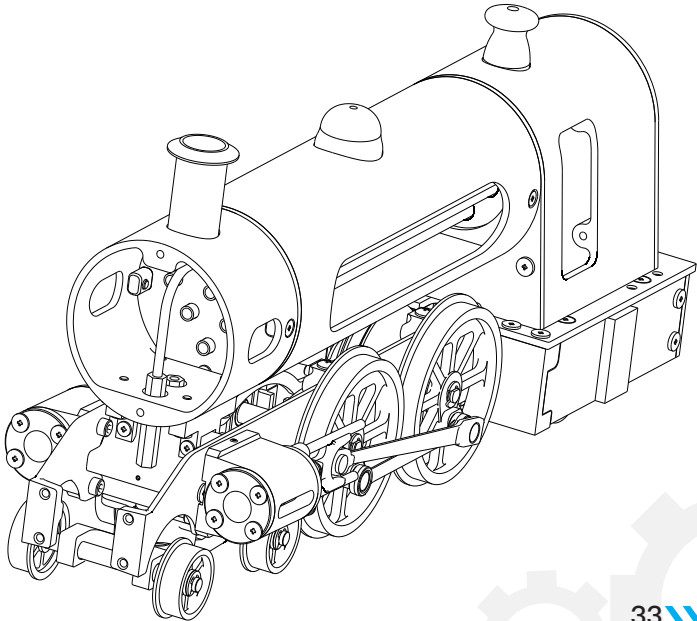
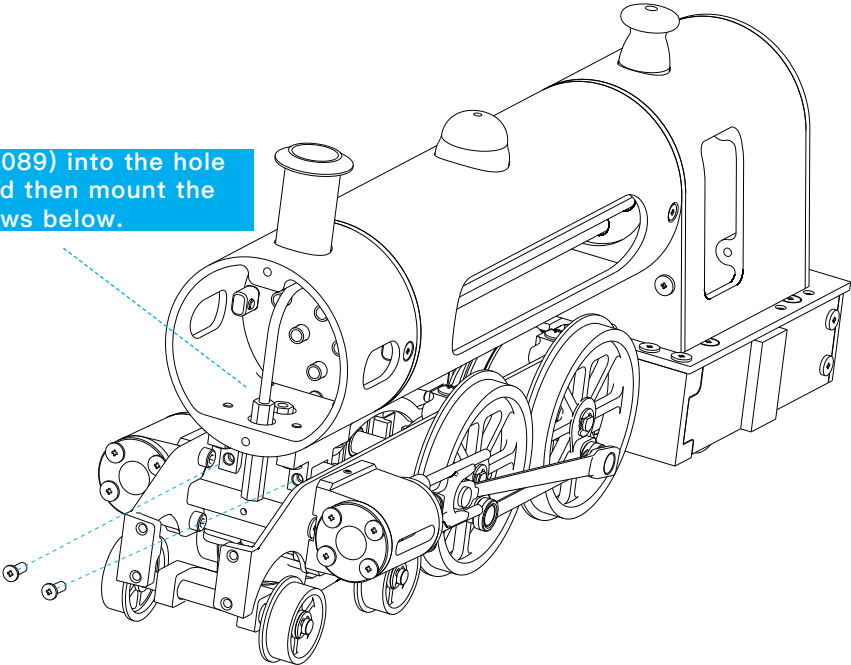
098



098

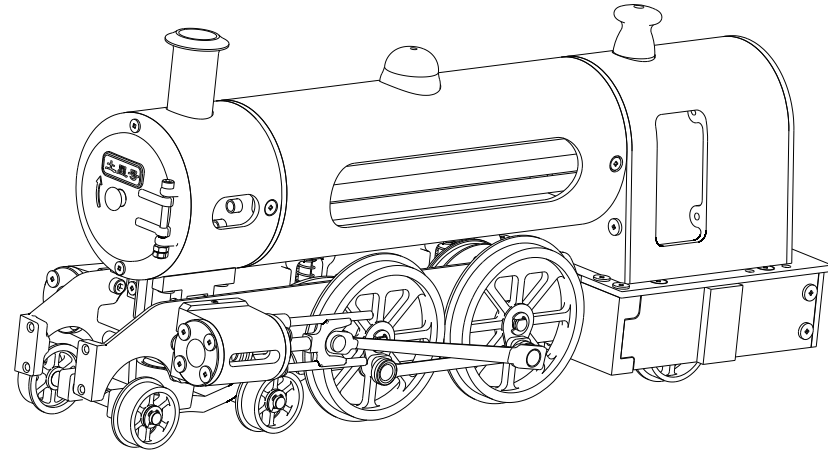
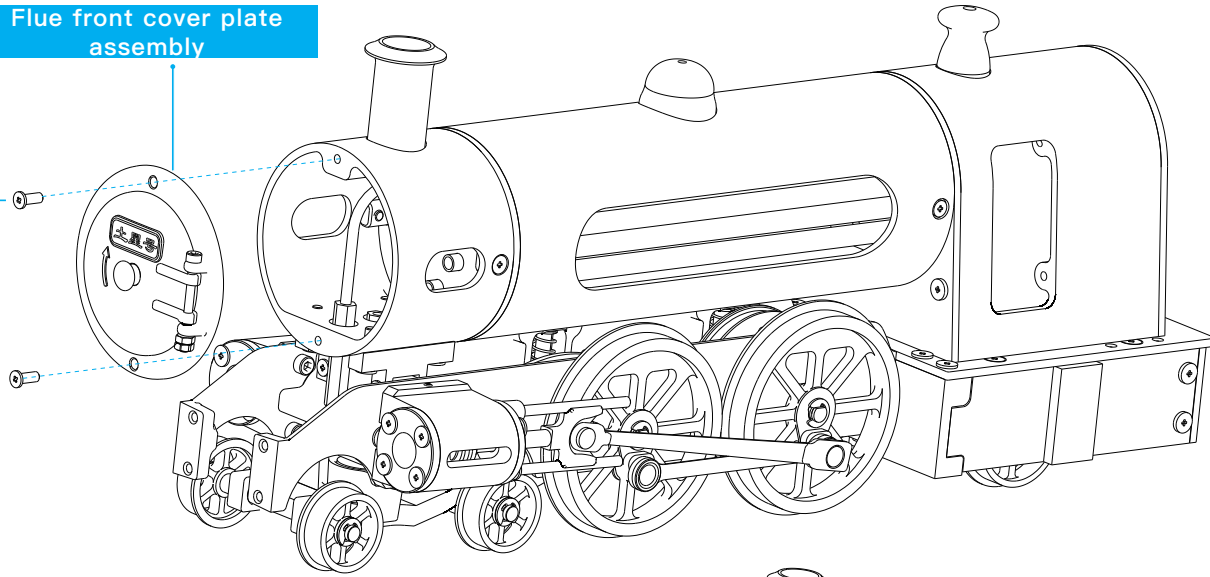
Note: Insert (089) into the hole in (056), and then mount the screws below.

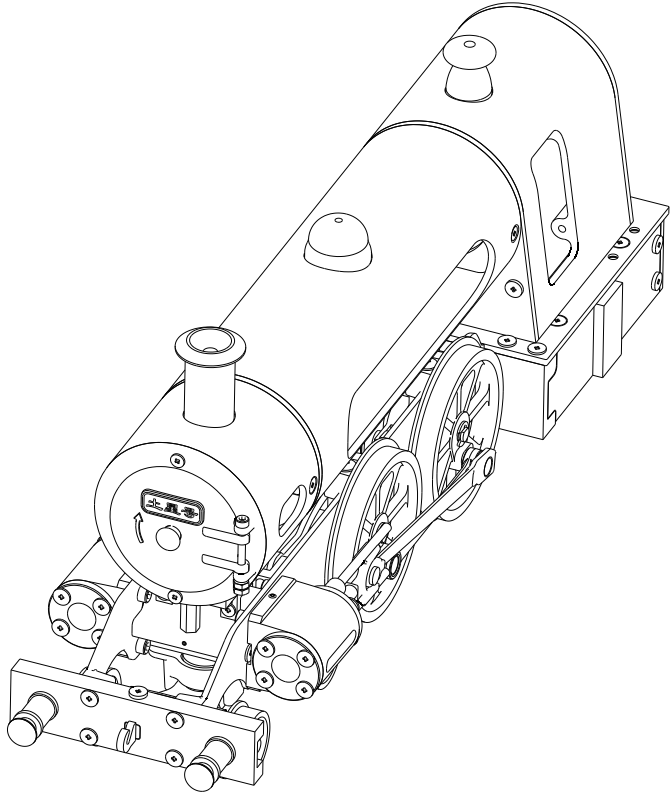
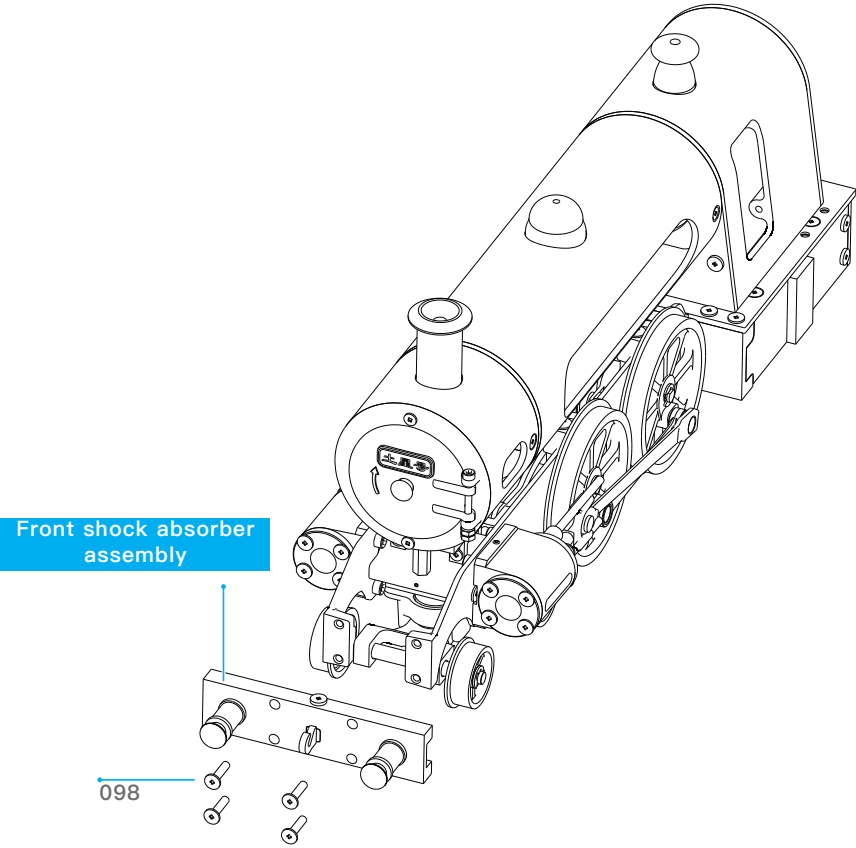
095

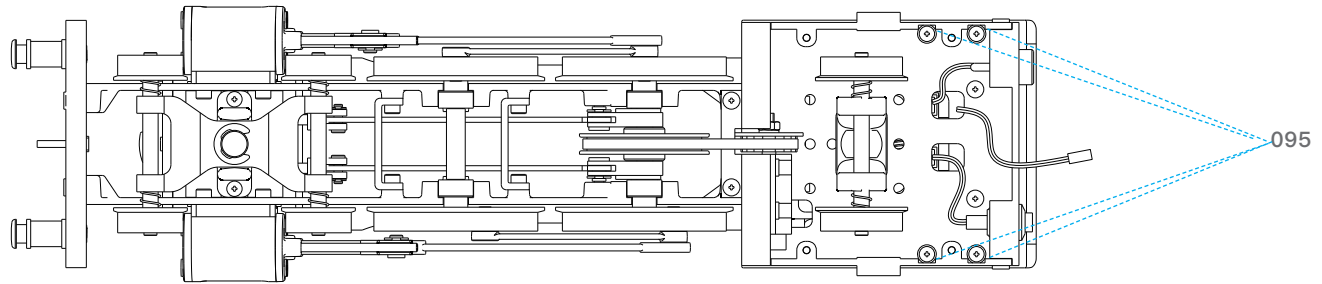
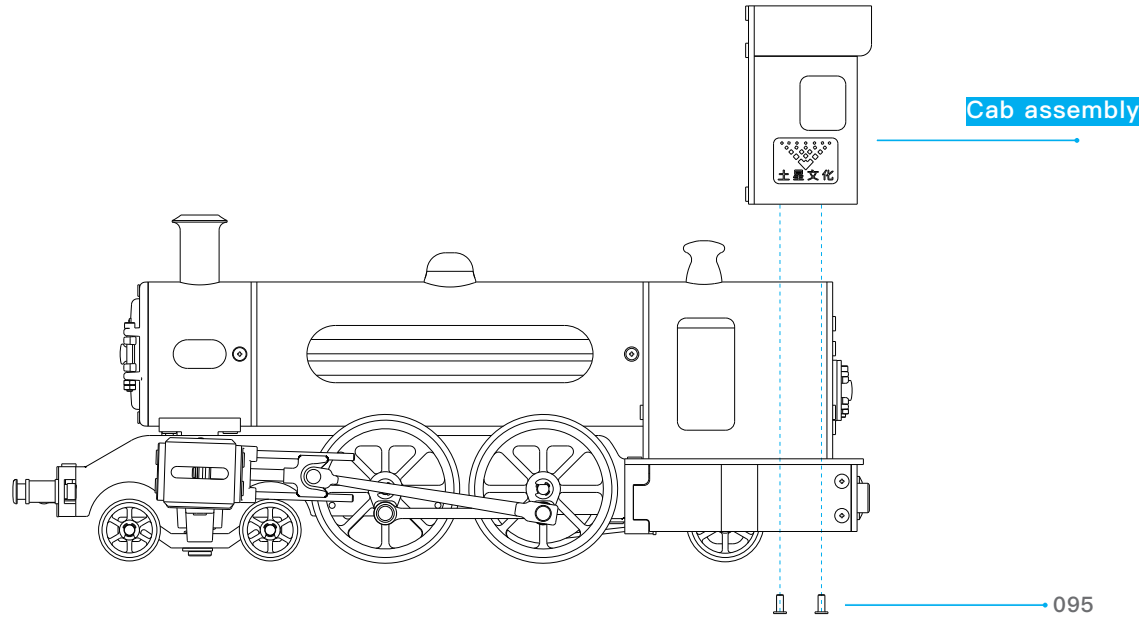


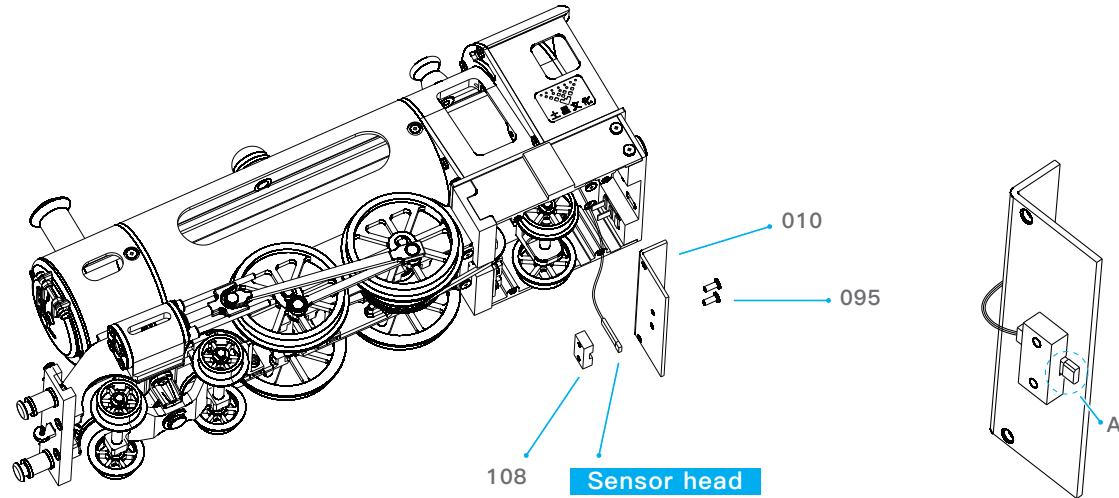
Flue front cover plate
assembly

095

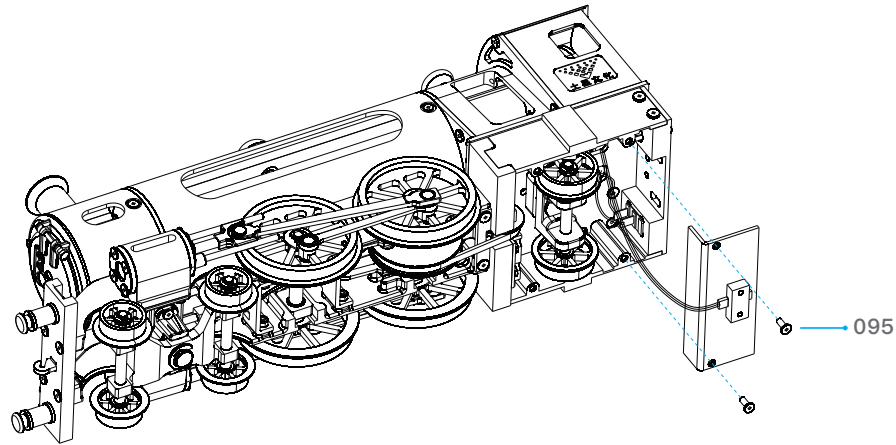
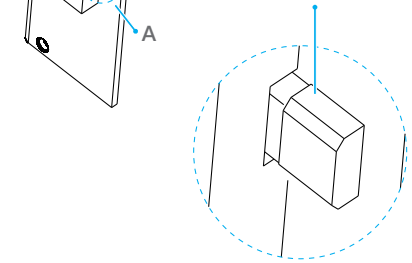


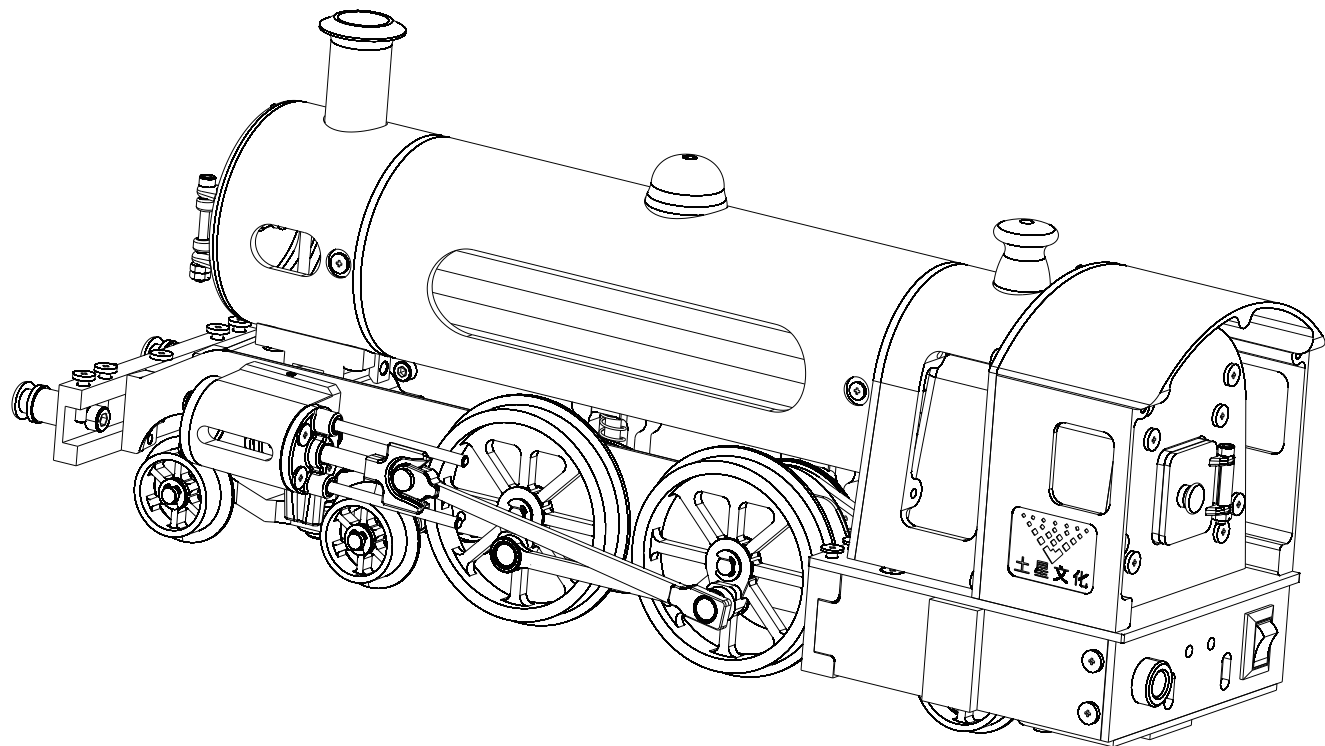






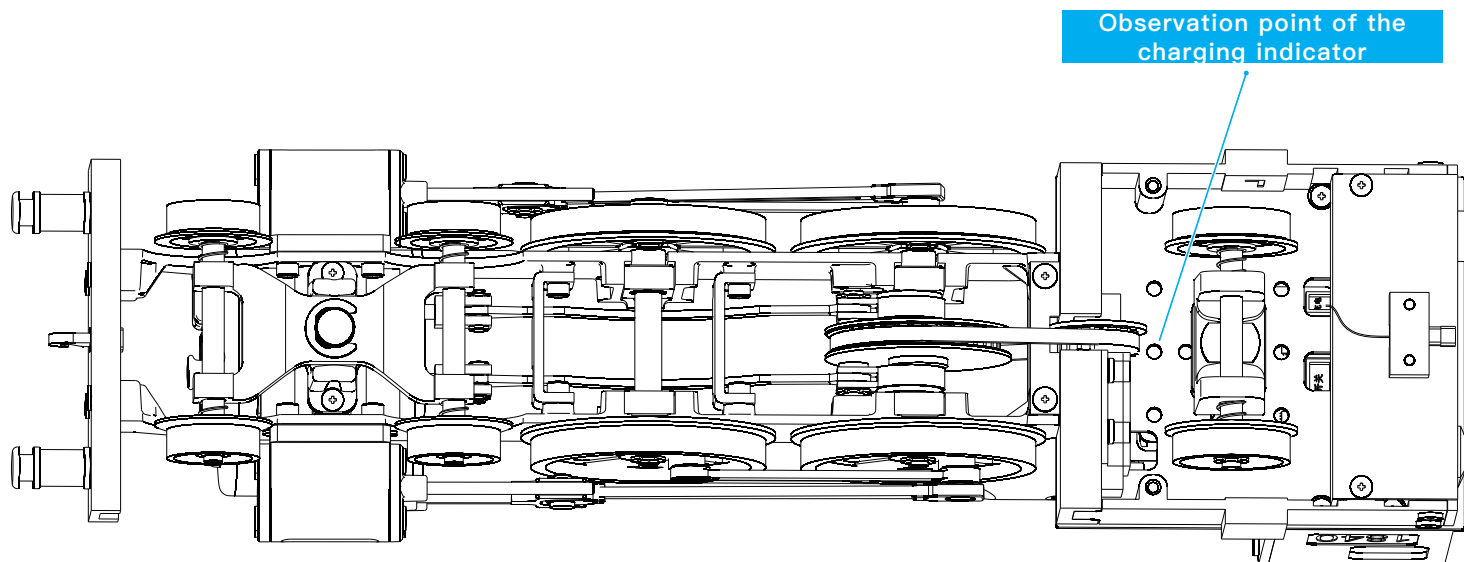
Be careful not to press the sensor head. Only need to tighten the screws slightly. The sensor head should stick out as much as possible, and the surfaces with chamfer angles on both sides of the sensor head should face outward.





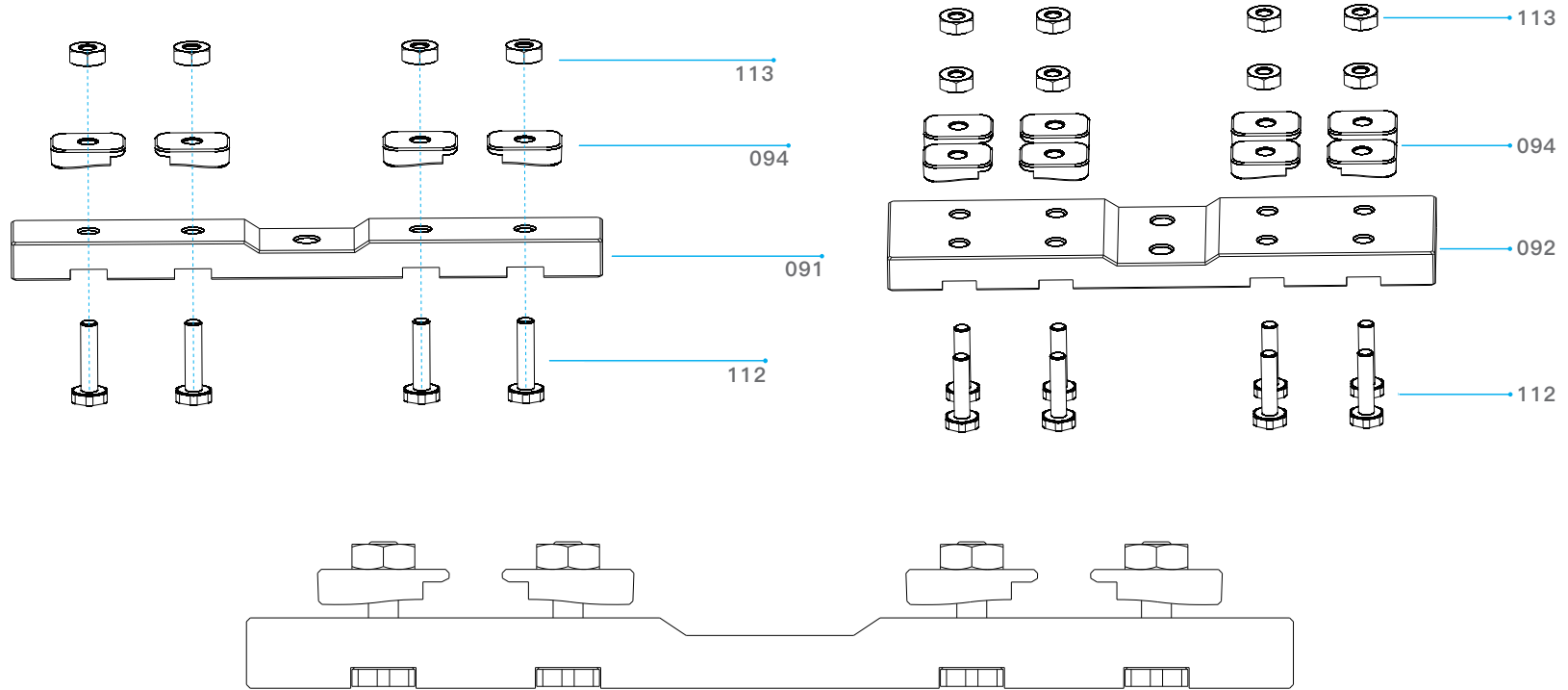
(Assembly of two-wheeled steam train completed)

Charging precautions:

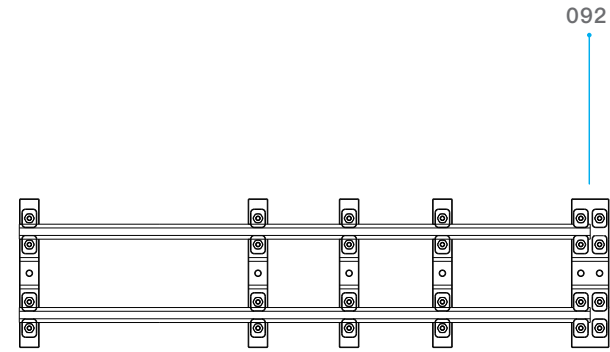


- 1 > This product is equipped with a dedicated charging cable. User-supplied power adapter, its output DC voltage needs 5V, and its output DC current is not less than 1000mA. Do not use an adapter higher than 6V to charge the product;
- 2 > For other precautions, please refer to the second item in the "Notes" section of this manual;
- 3>Normal charging state:
 - ◇ the red lamp is ON during charging;
 - ◇ the blue lamp is ON when fully charged;
 - ◇ the max. charging time is 2h.

12. Rail assembly (giveaway)

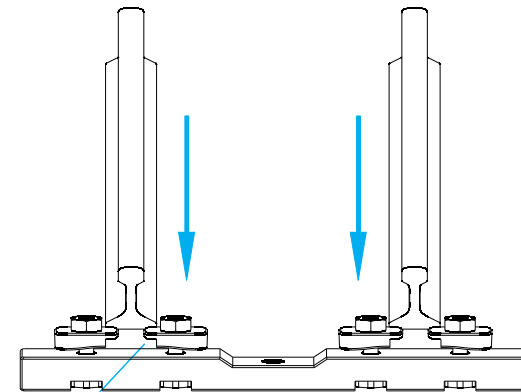
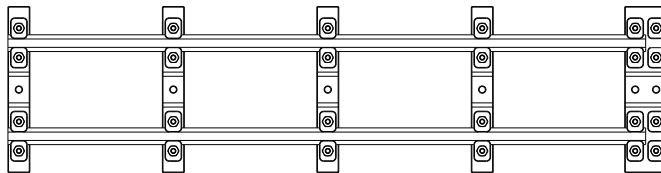


First assemble all the large and small sleepers and just tighten the screws to half the full engagement depth.

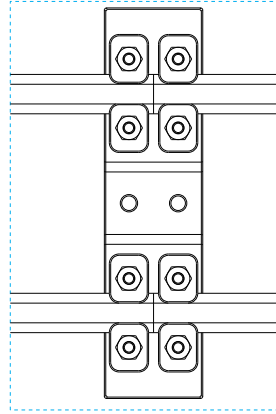


Assembly instructions:

1. First put the linear rail into four sets of small sleepers and a set of large sleepers. Must hang the hanging platforms of all the pressure blocks on the linear rails.
2. Then tighten the screws at both ends to ensure that the linear rails are flush with the small sleepers.
3. Evenly arrange the three small sleepers in the middle and then tighten the screws.

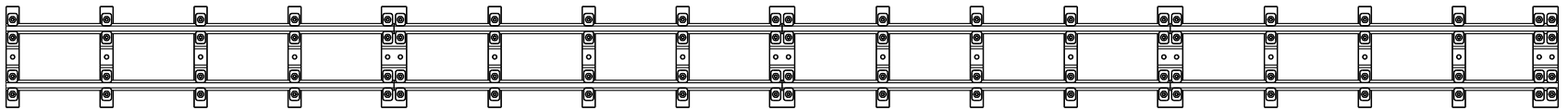


Hanging platform of pressure block



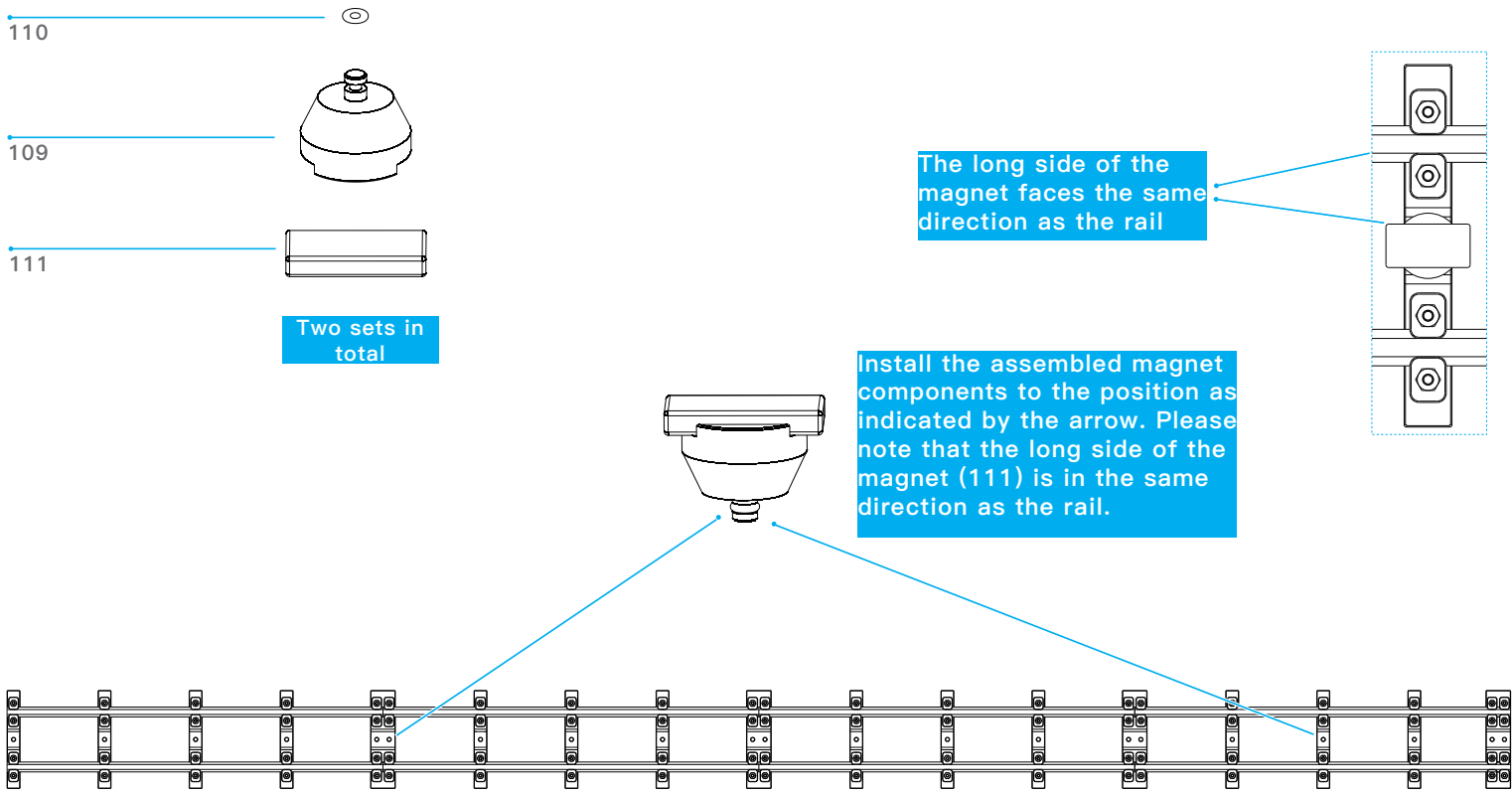
When installing two linear rails to be butted, make sure to pay attention to the connection smoothness of these two linear rails. You can feel it by hand or check it with an object with a straight edge.

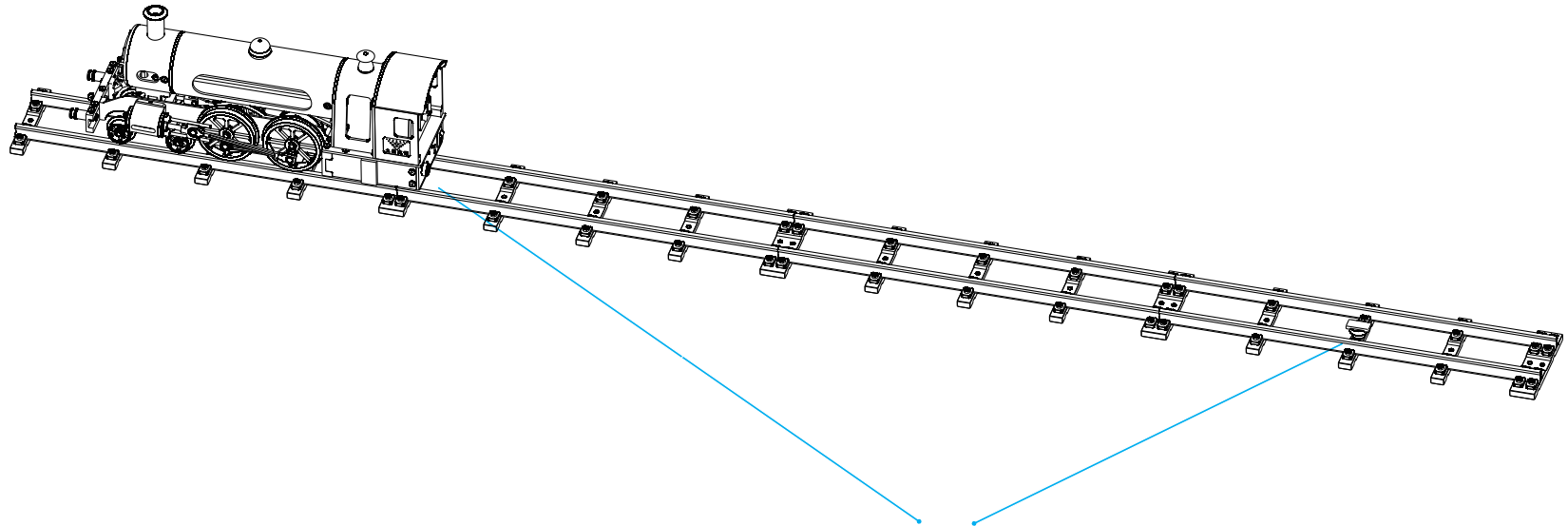
For each set of linear rails, tighten the screws at both ends, and then arrange the middle three sets of small sleepers properly to tighten the screws.



092

Rail components completed



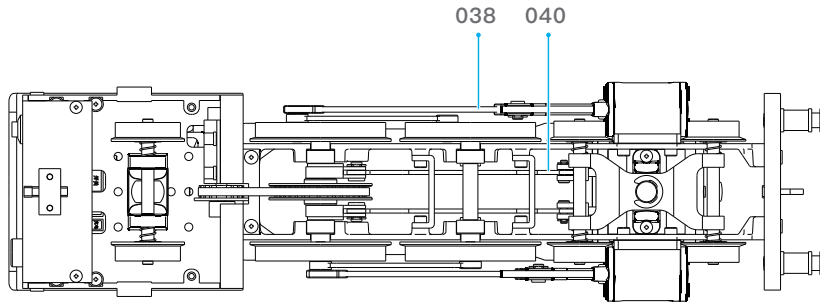


Must pay attention to the directions of the magnet (111) and the locomotive1

Assembly completed

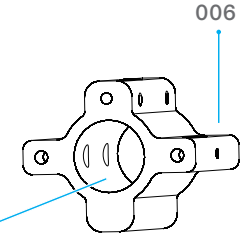
Troubleshooting

Motion is exceptional after assembly. First check whether the relevant moving parts are coated with lubricating oil as shown in the figure, and then check the assembly sequence one by one according to the instructions; if no problems are found, please follow the steps below to find the problem and solve the problem.

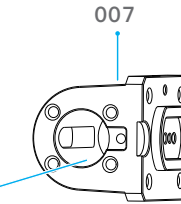


- 1> Check whether the part installed in the correct direction.
- 2> Check whether the screws are too tight or too loose.
- 3> Check if similar parts are installed in reverse.
- 4> Check if the 040 reversing link is installed horizontally. If not, adjust it.
- 5> Check 038 whether the active link is deformed or bent, if bent, please straighten.

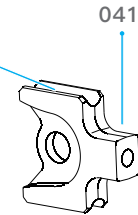
6> Check if the hole and orifice of the ventilating valve (006) have any burrs. If any, scrape off the burrs with a knife and clean them off.



7> Check if the cylinder (007) has any burrs inside. If any, make sure to scrape off the burrs with a knife and clean them off.



8> Check if there are any burrs in the grooves on both sides of the connector for the connecting rod (041). If any, scrape off the burrs with a knife and clean them off.



二 > Electronic troubleshooting

1 Charging failure

① Charger does not match

Solution:

Charge the product with a standard USB charger. The charger requires an output of 5V 1A (inclusive) or more. Use the USB head of TECHING's dedicated charging cable to plug into the USB port of the phone charger. Plug the round plug into the charging port of the product and charge it. As shown in Figure 1-1.

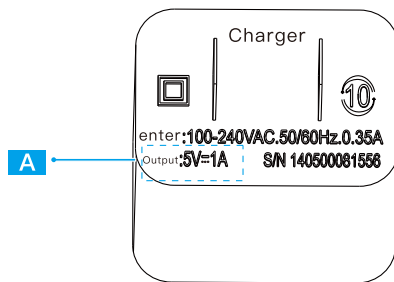


Figure1-1

Output: 5V=1A

A

② Whether the Charging cable round plug is inserted in the end.

Solutions:

Check if the round plug of Teching's special charging cable and the charging plug of the product (No. 019) are inserted into the end; as shown in Figure 1-2

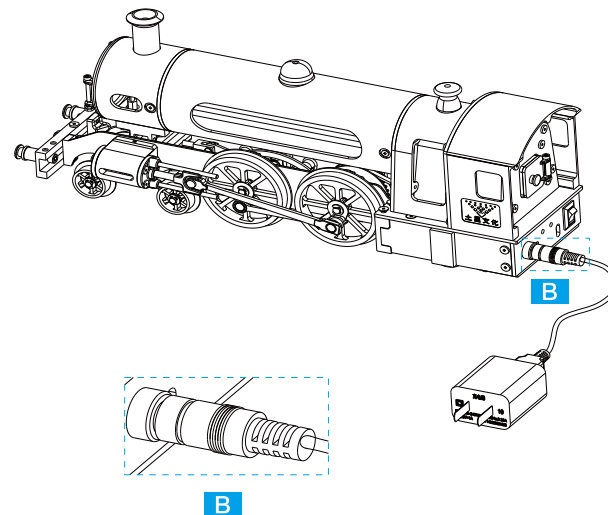
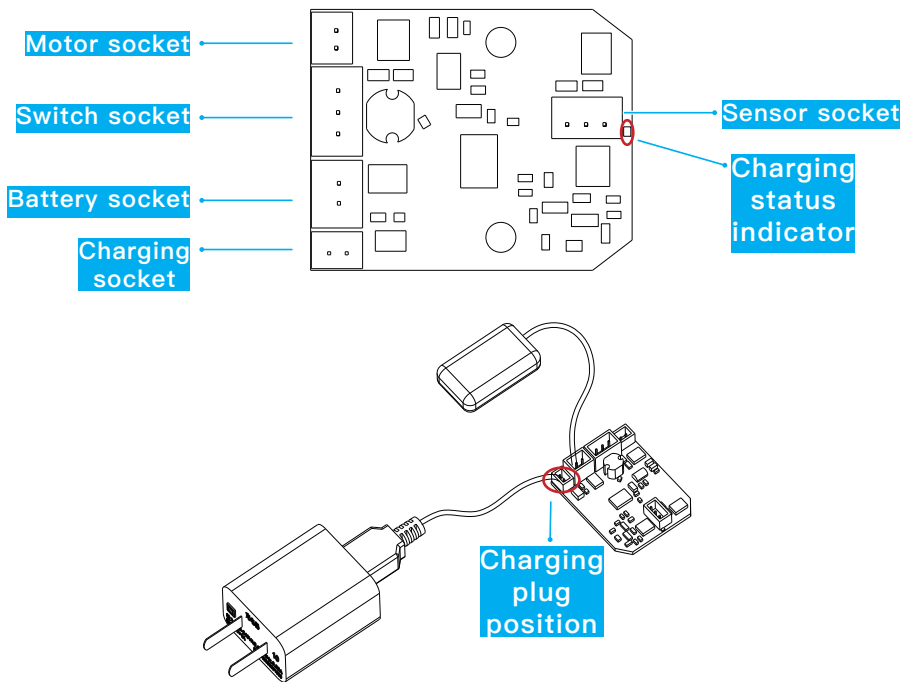


Figure1-2

- ③The white plug of the charging plug (No. 019) is not in the correct position.

Solutions:

Remove the bottom case of the circuit board, insert the charging plug in the correct position, and then charge the product. Observe the charging light on the circuit board (No. 015). The red light is on when charging, and the blue light remains bright when fully charged. As shown in Figure 1-3



2 The motor does not turn

- ①The battery is dead

Solution:

Use TECHING dedicated charging cable to charge the product. The red light is on when charging, and the blue light is on when fully charged. After fully charging, turn it on again to see if the motor can run normally. Figure 2-1

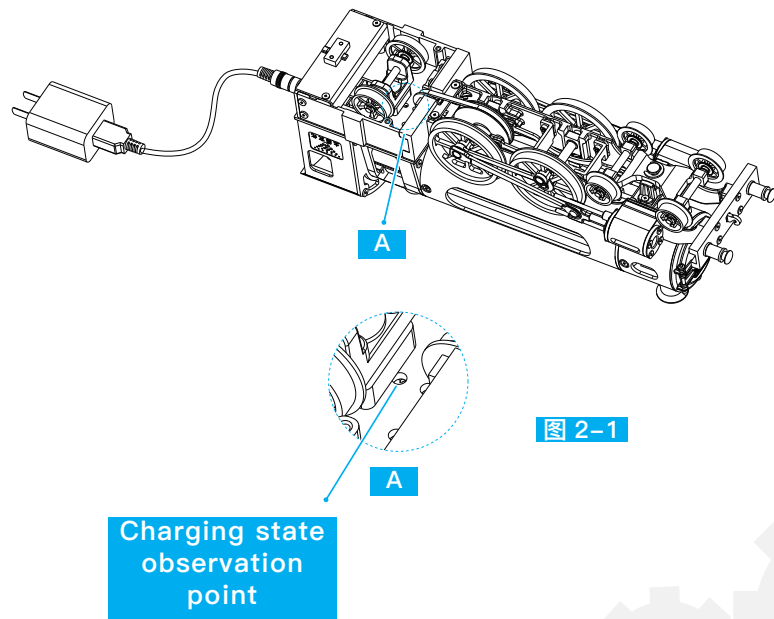
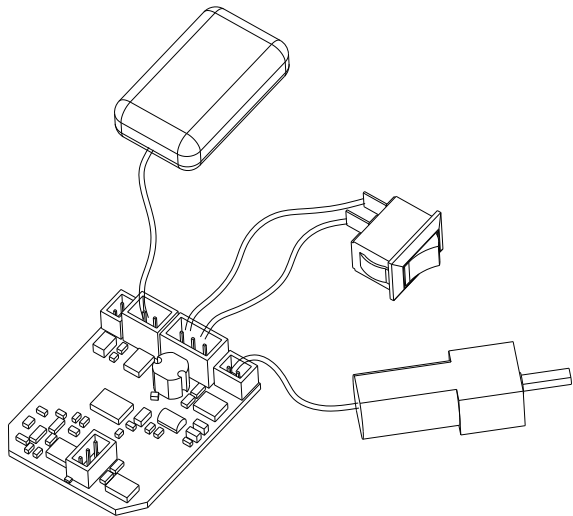


图 2-1

②Mechanical causes the motor does not turn

Solution:

Remove the motor from the mount and test if the motor can run smoothly. As shown in Figure 2-2



Note: If it can run smoothly, check the mechanical part of the cause according to the mechanical troubleshooting method.

②Motor (serial number 065) plug position is not correct.

Solutions:

Please check the motor(serial number 065) position is correct or not (refer to page 3 of the manual for details); as shown in figure 2-3

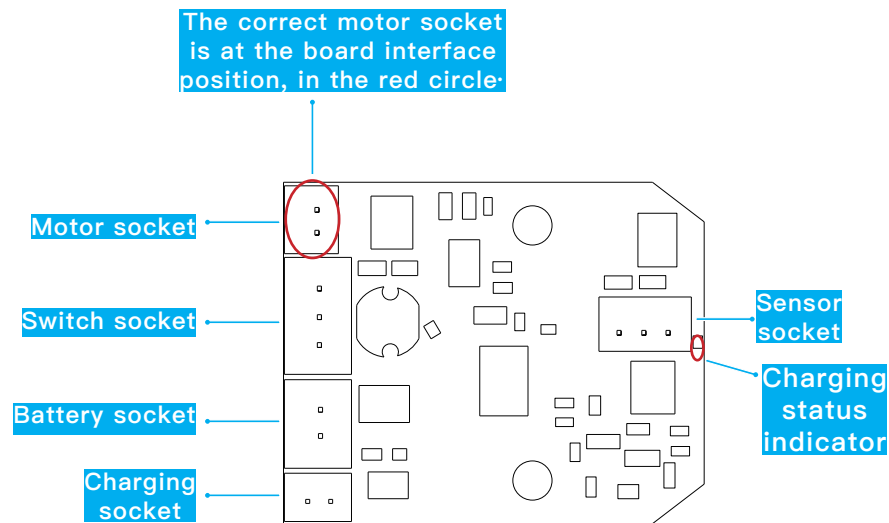


Figure 2-3

3 When the train runs back and forth, it will rush out of the track.

① The sensor head does not detect the magnet

Solution:

Please check whether the installation position of the sensor head is aligned with the magnet on the track, and the surface of the sensor head should face the magnet. The distance between the two sensors should be controlled at about 5mm; Figure 3-1

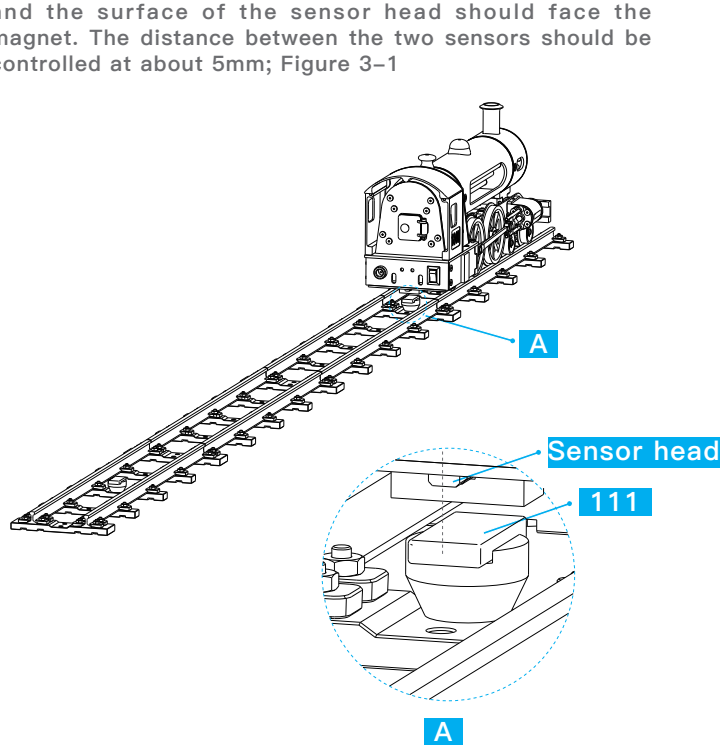
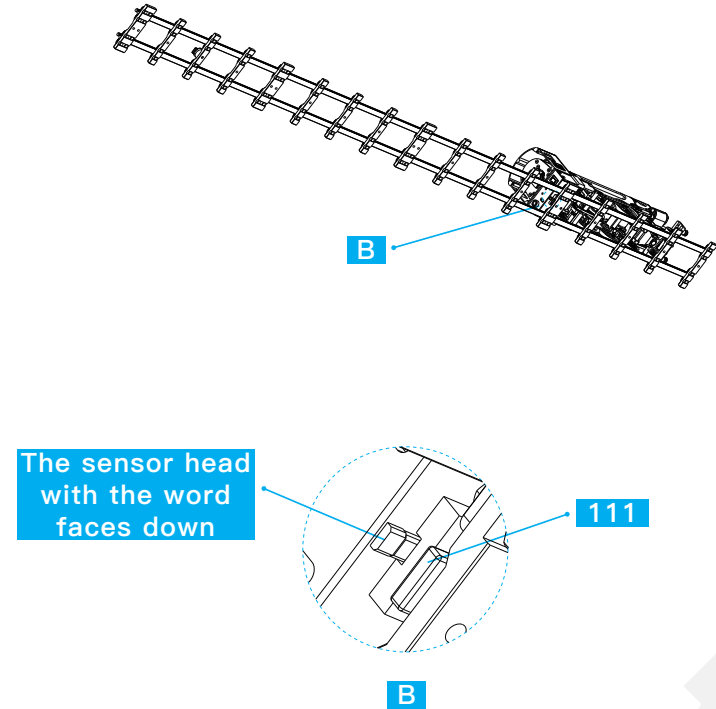


Figure 3-1



② The sensor head is not plugged in

Solutions:

Check if the plug and socket of the sensor head are plugged in; Figure 3-2

4 other

If the above solutions can not solve the problem, please consult Our after-sales support or return to factory for repair.

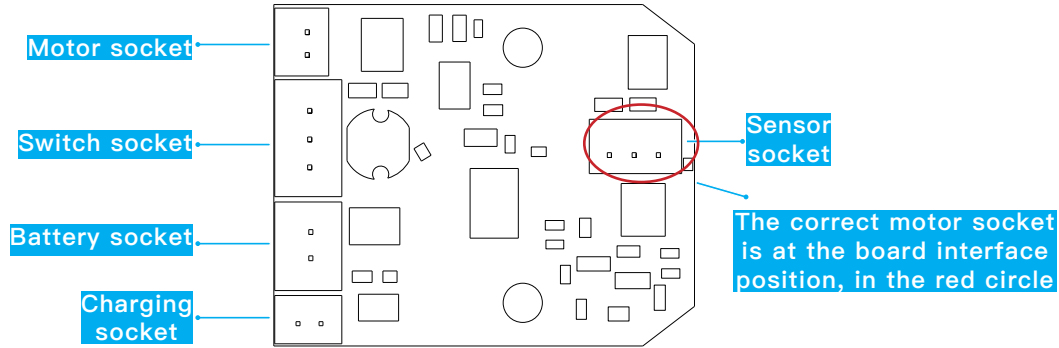

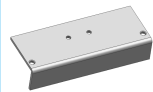















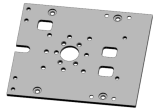


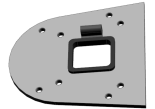






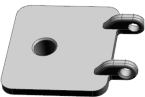






Figure 3-2









No.	Product picture	Product name	Qty.
001		Front flue	1
002		Big flue	1
003		Boiler	1
004		Water tank	1
005		Roof	1
006		Ventilating valve	1
007		Cylinder	2
008		Rear shaft hub bracket	1









No.	Product picture	Product name	Qty.
009		Rear beam	1
010		Bottom cover plate	1
011		Left bottom plate	1
012		Right bottom plate	1
013		Front 4-wheel beam	1
014		Left cab plate	1
015		Right cab plate	1
016		Circuit board	1

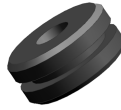







No.	Product picture	Product name	Qty.
017		Battery pack	1
018		Power switch	1
019		Round charging plug	1
020		Rear bottom plate	1
021		Chimney	1
022		Safety valve	1
023		Adjusting valve	1
024		Left longitudinal beam	1


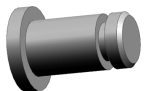

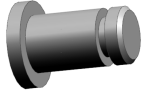
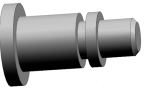
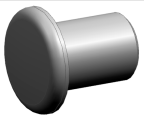

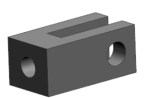
No.	Product picture	Product name	Qty.
025		Right longitudinal beam	1
026		Cab bottom plate	1
027		Flue rear cover	1
028		Front roof plate	1
029		Coal water tank closing plate	1
030		Flue middle cover	1
031		Flue front cover plate	1
032		Flue front cover	1






No.	Product picture	Product name	Qty.
033		Rear wheel	2
034		Coal bin door cover	1
035		Driving wheel	4
036		Front wheel	4
037		Small flue	6
038		Driving connecting rod	2
039		Driven connecting rod	2
040		Reversing connecting rod	2









No.	Product picture	Product name	Qty.
041		Connecting rod connector	2
042		Cylinder front cover	2
043		Main shaft of front and rear wheels	3
044		Rod of reversing block	2
045		Damping spring of front and rear wheels	2
046		Clip of motor synchronizing wheel	1
047		Cam synchronizing wheel	1
048		Motor synchronizing wheel	1


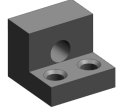






No.	Product picture	Product name	Qty.
049		Eccentric gear	2
050		Rear cover of cylinder	2
051		Piston rod guide shaft	4
052		Piston rod	2
053		Left and right springs of front and rear wheels	6
054		Reversing block	1
055		Short nozzle	1
056		Long nozzle	1

No.	Product picture	Product name	Qty.
057		Piston	2
058		Cover of eccentric gear	2
059		Main shaft of driving wheel	1
060		Driven wheel shaft	1
061		Damping spring of main shaft fixing block	6
062		Limit sleeve	4
063		Left flue bracket	1
064		Right flue bracket	1

No.	Product picture	Product name	Qty.
065		Starting motor –M3 thread with D shaft, 100 rpm	1
066		Front connecting shaft of driving rod	2
067		Ventilation adjusting shaft	2
068		Connecting shaft of driven rod	2
069		Rear connecting shaft of reversing connecting rod	2
070		Front end of shock absorber	2
071		Main shaft fixing block	4
072		Lever base	2





No.	Product picture	Product name	Qty.
073		Rear wheel bracket	1
074		Clip of synchronizing wheel	2
075		Limiting shaft of synchronizing wheel	2
076		Rear connecting shaft of driving rod	2
077		Handle	2
078		Rear end of shock absorber	2
079		Shaft of front wheel bracket	1
080		Shaft of rear wheel bracket	1

No.	Product picture	Product name	Qty.
081		Front beam	1
082		Fixing plate of 4 front wheels	1
083		Middle support beam	2
084		Motor fixing block	1
085		Timing belt model 156-3M	1
086		Hook	1
087		Latch of coal bin	1
088		Front latch of flue	1

No.	Product picture	Product name	Qty.
089		Steam tube	1
090		Limit block of synchronizing gear of motor	1
091		Small sleeper	13
092		Big sleeper	4
093		Straight rail	8
094		Pressing block	84
095		Flat head D4.5X M2.5X6	87
096		Mushroom head screw M2.5X14	4

No.	Product picture	Product name	Qty.
097		CM2.5X16	2
098		Flat head M2.5X10	11
099		Inner hexagon M2X16	1
100		Inner hexagon M2X22	1
101		Inner hexagon M2.5X6	12
102		M2 nut	3
103		M2X3 cup point set nut	3
104		M2 snap ring	2

No.	Product picture	Product name	Qty.
105		M3 snap ring	25
106		M6 snap ring	2
107		Locking spring of the front cover of smoke pipe	1
108		Pressure block of sensor head	1
109		Install the seat	2
110		O-ring inner diameter: 1.5X; wire diameter: 1.0	10
111		Magnet 19X9.4X3.0	2
112		Outer hexagon M2.5X10	84

No.	Product picture	Product name	Qty.
113		M2.5 nut	84
114		Battery O Inside diameter of O-ring14X2mm	1
115		Φ4.5 gasket Φ4.5*Φ10*0.8	8
116		φ7Xφ4X2.5 bearing	4

Warranty instruction

I. Warranty Instruction

Please carefully read the following warranty terms when purchasing this product so as to assure effective warranty for the product:

1. Since this product is for assembly experience, "7-day no-hassle return/change policy" is not available if no quality defect is found after unpacking. "7-day no-hassle return policy" is available if the package is not removed;
2. When this product is purchased, your dealer will assist you to write down your complete real information on the warranty card, when you should ask the dealer for effective invoice or purchase voucher; then, the invoice and voucher shall be properly kept;
3. Users who apply for warranty have to show their purchase invoices or effective "three guarantees" certificate. For users who lost their effective voices or "three guarantees" certificate and fail to provide their copies, the warranty period is one year from the 60th day after the manufacturing of machine;
4. The warranty object is the parts that are found with defects after purchase and before use. We provide paid services for parts damaged by improper use by users;
5. We reserve the right to interpret and modify the terms & conditions of after-sales service.

II. Items of After-sales Service and Warranty

1. The warranty period for motor, battery and circuit board is three months from the day on which they are received and accepted; the warranty period for other parts is one year from the day on which they are received and accepted;
2. The user who finds some part missed when purchasing a new machine could request the manufacturer to supply the missed part within 30 days after the purchase date on warranty card; the user has to purchase that

part at Teching's official website after the said 30 days;

3. If the assembled product fails to run or run properly, the user could either consult the manufacturer for possible causes, or send the product back to the manufacturer for free testing or debugging;
4. We and our authorized agencies provide free technical advice or instruction for users who encounter any product problem;
5. All parts and accessories replaced within the scope of the warranty belong to our company. Users have to provide defective parts so that we can exchange them with new ones.

III. Items outside Scope of Warranty

1. Beyond the "three guarantees" period;
2. Damage is caused by failure to use, maintain and keep the product as per instruction manual;
3. Products that are not sold by us or our authorized sales outlets;
4. Those who hold no valid invoice or "three guarantees" certificate, or those who modify the after-sales service card without permission (except the case where the product is confirmed to be within the "three guarantees" period);
5. The product model or serial number on after-sales service card fail to match the commodity;
6. Damage caused by force majeure (e.g. flood, fire, earthquake, lightning strike, etc.);
7. Natural wear during the use of product, e.g. the problems arising from product gaps expansion, lubricating oil shortage, and battery aging, etc.;
8. For the faults (e.g. moisture invasion, dampness, breakage, external force extrusion, deformation and improper use, etc.) caused by other factors than product quality;
9. Dealers shall make agreement on warranty coverage; the situations outside this warranty agreement are not covered by the warranty.

Sales Service

1. Scan the Teching Assistant QR code for technical consultation;
2. Relevant technical information is available at Teching's official account;
3. You can call our hotline directly and consult our technician;
4. Technical consultation can be sent to us by mail;
5. Technical advice can be obtained from nearby authorized agencies;
6. You are encouraged to bring forward your comments and suggestions on our products and your expectations for new products in various manners.



Sales service card

Account name: _____ Tel: _____

Product name: _____ Product No.: _____

Serial number of product: _____

Problem description: _____

Service content:

- Part replenishment Testing service
 Part replacement Return and change of goods needed

Sales unit: _____

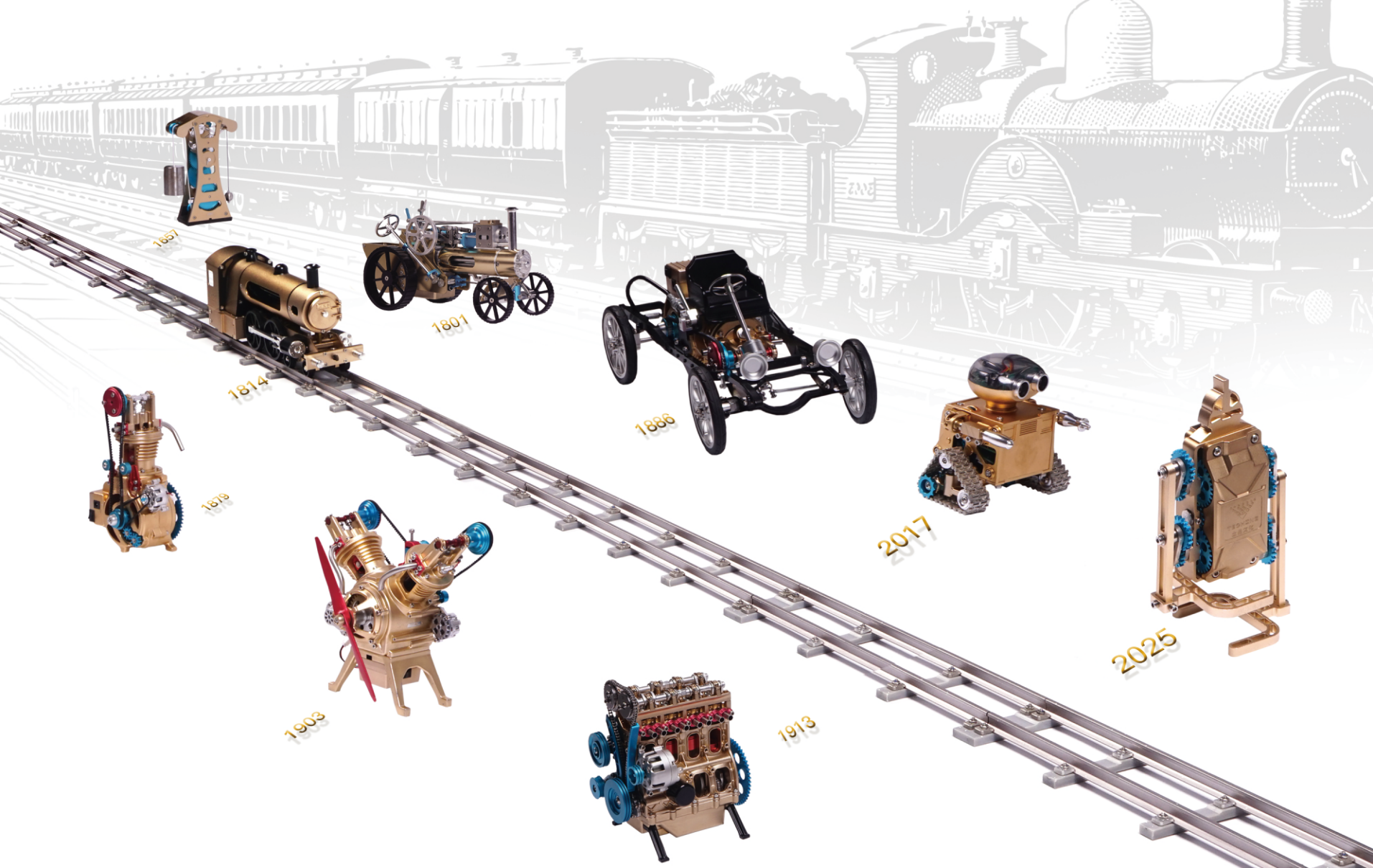
Place of sale: _____

Operator: _____ After-sales completion time: _____

Company:
Guangzhou Teching Cultural Development Co., Ltd.

Address:
Baosheng Building, Hongming Road,
Huangpu District, Guangzhou City, China
After-sales email: sales@techingedu.com.cn
Hotline: 0086-13924277386 4001-020-019

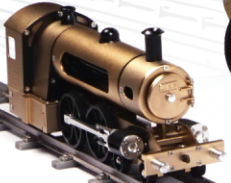




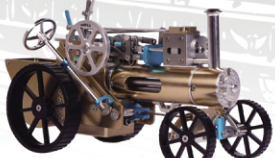
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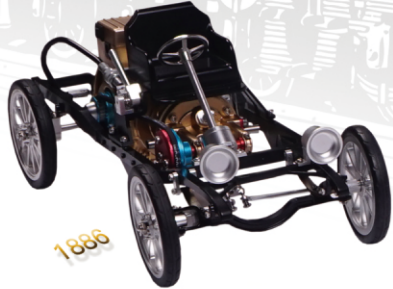
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2017



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Educational • Original design • Patented



Company: Guangzhou Teching Cultural
Development Co.Ltd

Address: Bao sheng Building, Hong ming Road,
Huangpu District, Guangzhou City, China.

Service Tel: 0086-13924277386 4001-020-019

After-sales email: sales@techingedu.com.cn

<http://www.techingedu.com>



Official Website