

Contents :

TSIMBV10 Ninebot  
Mini Service  
manual V01

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Scope

This specification  
applies to authorized  
service centers across  
the world.

Updated  
Version:

V012015-10-19

# Ninebot Mini Service Manual



## 1. Work Plan

### 1.1 Conditions

1.1.1 Should obtain a training certificate and be eligible

for service and maintenance.

1.1.2 Environmental requirements: The staff should have the

tools and anti-static gloves before starting the repair and

maintenance.

Interior protection: Set up the working area as electrostatic protection for the device to prevent electrostatic leakage, dissipation, and, humidifier, shielding and grounding.

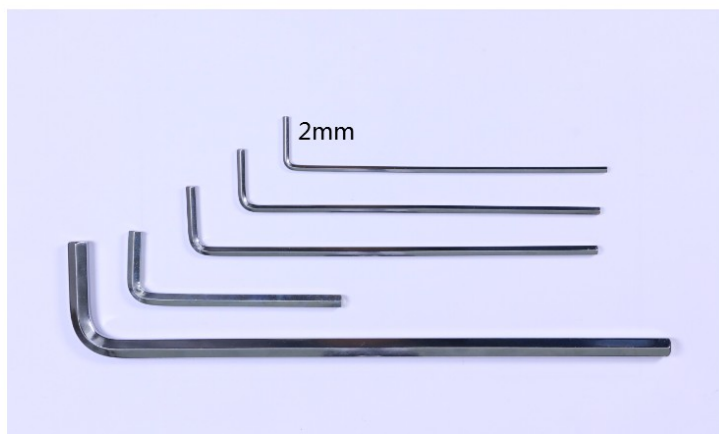
## 1.2 Work Plan

Following tools are required for maintenance:

1.2.1 Tool name: Allen wrench\_2mm:

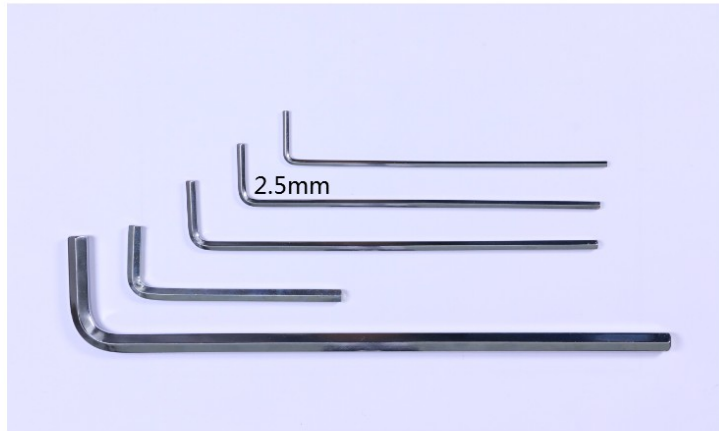
Eight screws of whole unit can be dismantling by

the following tool.



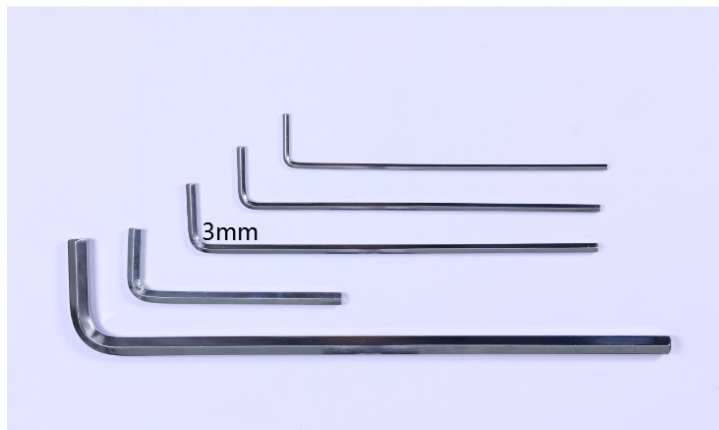
1.2.2 Tool name: Allen wrench\_2.5mm:

Tools purposes: For dismantling the whole vehicle in a screw shrapnel stopper, the front and rear lights have a total of eight screws, wheels decorative cover eight screws, foot mat eight screws, compact plastic bowls eight screws, the cabin six screws, foam pads and leg pad mount at six screws, PCB two screws.



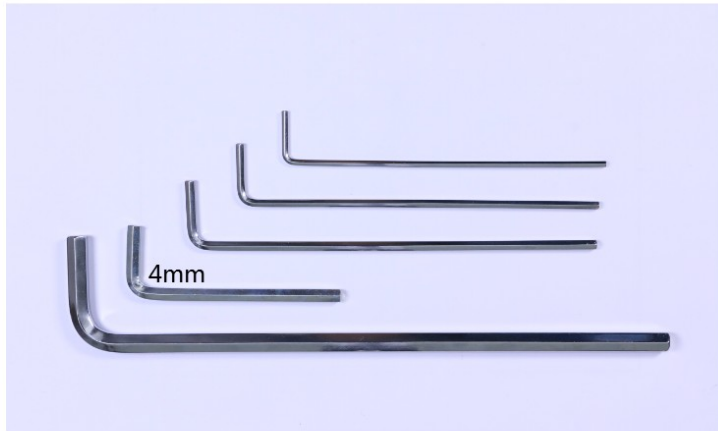
1.2.3 Tool name: Allen wrench\_3mm:

Tools purposes: for dismantling the battery 4 screws, fender eight screws, two screws of PCB, steering assembly 4 screws.



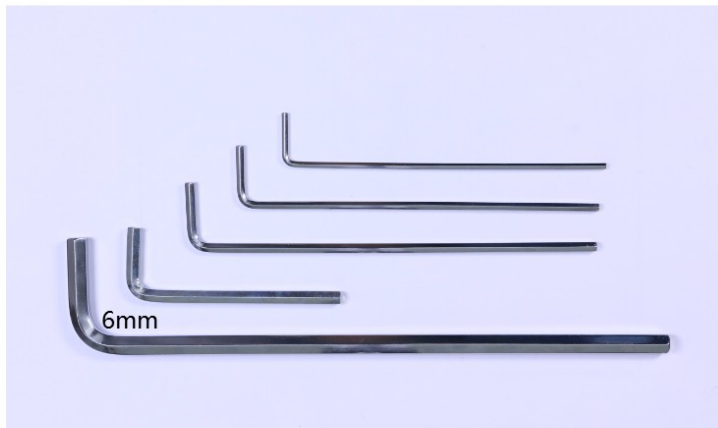
1.2.4 Tool name: Allen wrench\_4mm:

Tools purposes: for removal knee handle bar two screws.



1.2.5 Tool name: Allen wrench\_6mm:

Tool Purpose: Removal of motor and wheel 8 screws.



1.2.6Screwdriver \_PH2\*150mm

Tool Purpose: linear Hall plate 2 screws, the controller 4 screws



## 2. Disassembling

Note: Please shutdown before disassembling, press the power button after removing the battery, to prevent the damage to equipment

### 2.1 Disassembling the knee bar:

Follow the pictures and remove the steering cover first and then remove knee bar assembly with hand.



Loosen the quick release and then remove the knee bar assembly



## 2.2 Disassembling the knee control steering assembly:

Use Allen wrench\_4mm to remove the two M5\*16 screws, the knee control steering can be disassembled.



## 2.3 Removal of foam knee pads:

Use Allen wrench\_2.5mm to remove the M4\*8 six screws for disassembling the left and right foam pads of knee bar.



## 2.4 Battery Removal:

Use Allen wrench\_3mm to remove four M4\*16 screws, Lift out the battery vertically.



## 2.5 Discharging

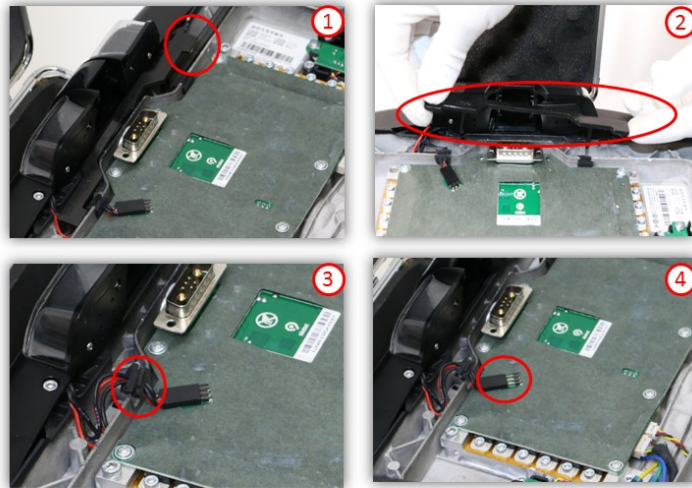
Discharge the electricity by pressing power button.





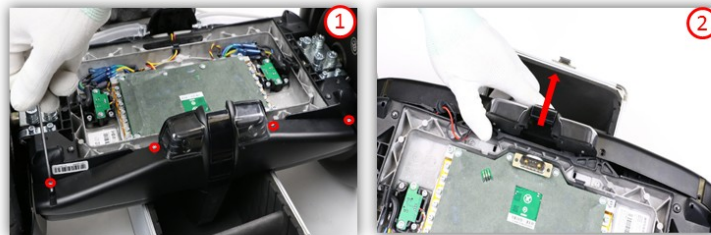
## 2.6 Remove the pressure wire & Wire straps:

Remove the wire harness strap · plug off the pressure wire from the controller board.



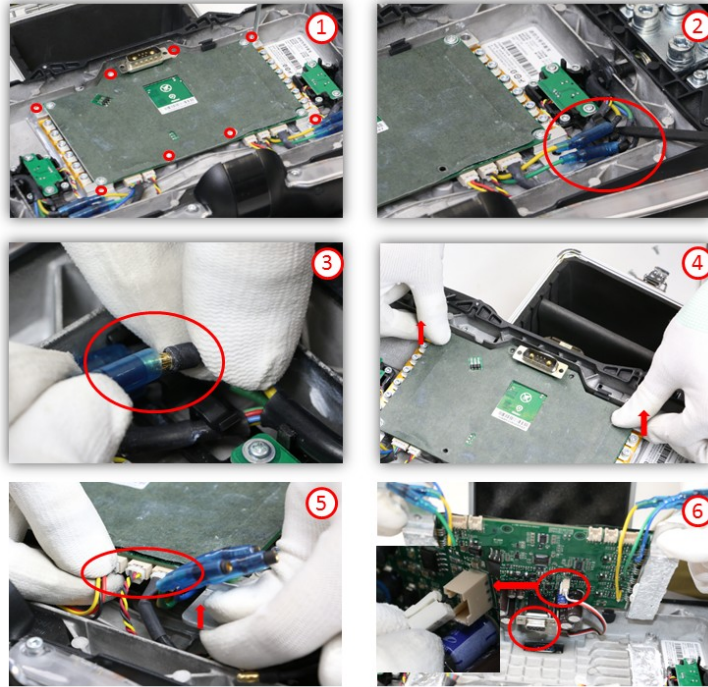
## 2.7 Front decorative lamp strip:

Use Allen wrench\_2.5mm dismount the four M3\* screws to dismantle the strip. Pull the strip horizontally.



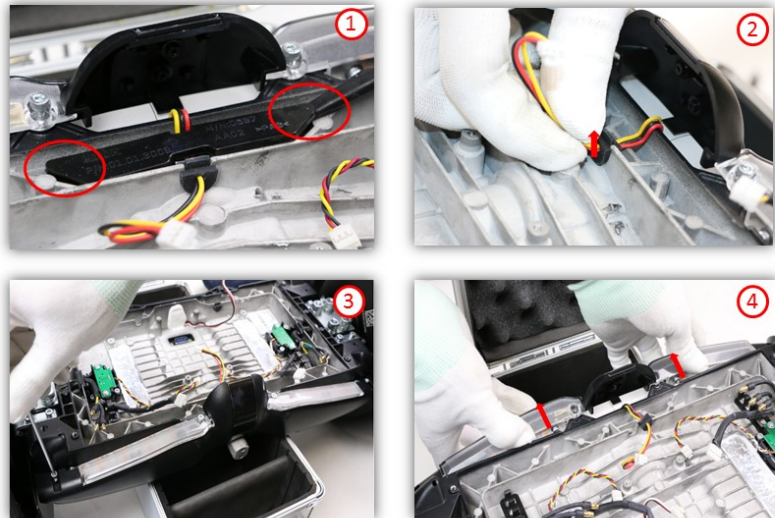
## 2.8 Removal of control board:

Dismantle four M4\*12 screws with a hex wrench \_3mm, dismantle two M4 \* 8 screws hex wrench \_2.5mm, Use screwdriver (2 \* 150mm) to disassemble four M3 \* 8 screws, Disconnect the three phase wires of both motors (L & R) and the motor decoder. After disconnecting all the wires, lift up the control board slightly.  
(note the wires of gravity sensor)



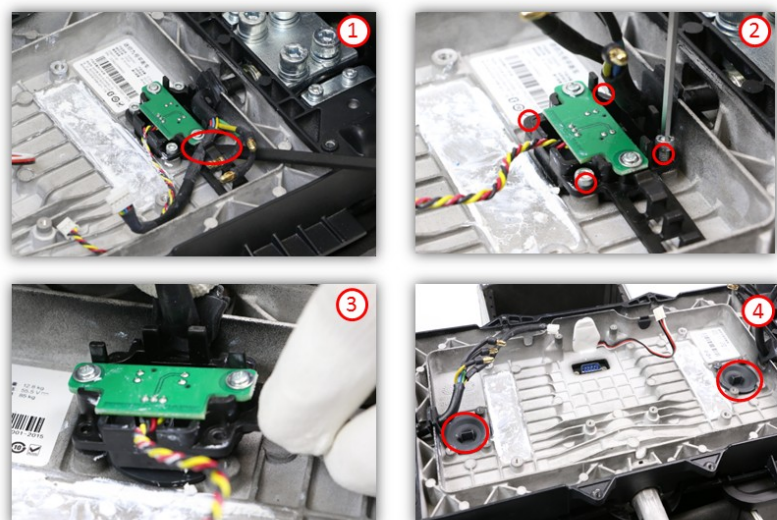
## 2.9 Removal of rear light strip:

Use Allen wrench \_2.5mm dismount the four M3\* screws to dismantle the strip. Pull the strip horizontally. Pull out the wire harness strip as shown in figure.



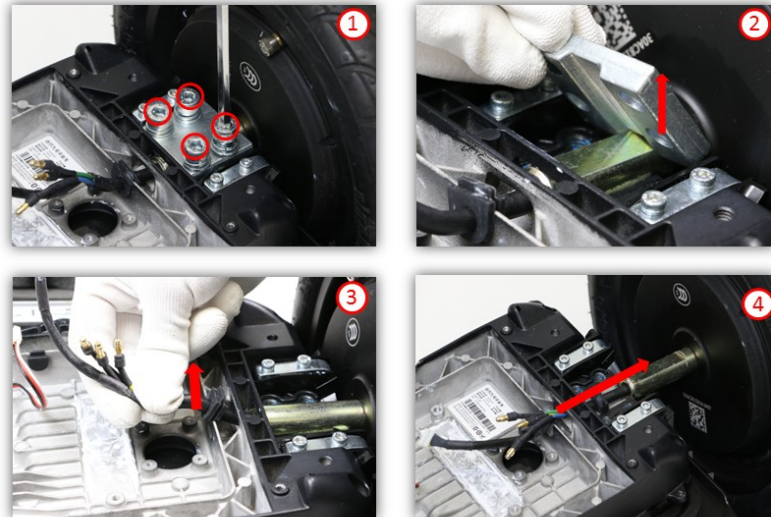
## 2.10 Removal of Foot sensors assembly (L & R):

Dismantle eight M4\*8screws with a hex wrench \_2.5mm to disassemble the left and right foot sensors assembly. Remove the two compact bowls right below the foot sensors clamps.



## 2.11 Disassembling the Wheel hub Motor:

Dismantle eight M8\*25 screws with allen wrench \_6mm to disassemble the left and right wheel hub motor.



## 2.12 Disassembling decorative blade

Use straight screwdriver to remove the four decorative blade.



### 2.13 Disassembling decorative cover

Use hex wrench \_2.5mm dismount the eight screws (M3\*8)to disassemble the left and right decorative cover.



### 2.14 Removal of Fenders

Dismantle eight M4\*12screws with a hex wrench \_3mm to disassemble the left and right fender.



## 2.15 Remove waterproof soft rubber:

Remove the waterproof soft rubber.



## 2.16 Disassembling the Foot mat assembly:

Dismantle eight M3\*6screws with a hex wrench \_2.5mm to disassemble the foot mat assembly.



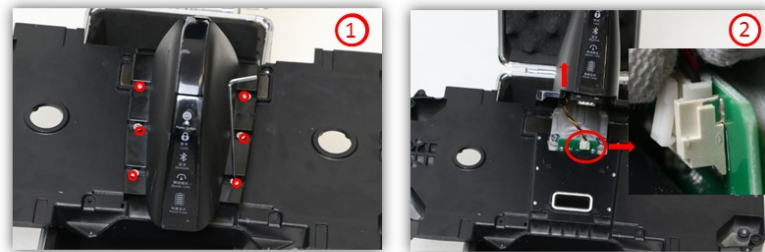
## 2.17 Removal of foot mats and pedal frame:

Foot mats and pedal frame separation. (NOTE: Do not tear mats)



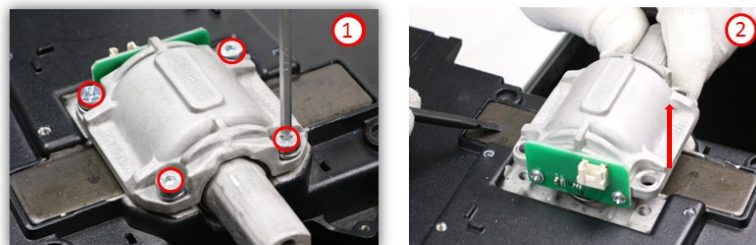
## 2.18 Removal of Cabin:

Dismantle six M4\*8 screws with a hex wrench \_2.5mm to disassemble the display cabin. (NOTE: take off the hall sensor cable before lifting the cabin ).



## 2.19 Disassembling the steering assembly:

Dismantle four M5\*12 screws with a hex wrench \_2.5mm to disassemble the steering assembly.





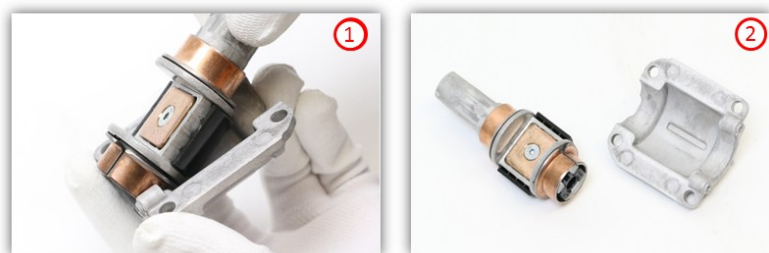
## 2.20 Removal of hall sensor:

Dismantle four M3\*5screws with a screwdriver PH2\*150mm to disassemble the hall sensors.



## 2.21 Dismantling the shaft:

Remove the shaft pressing member as shown in figure.



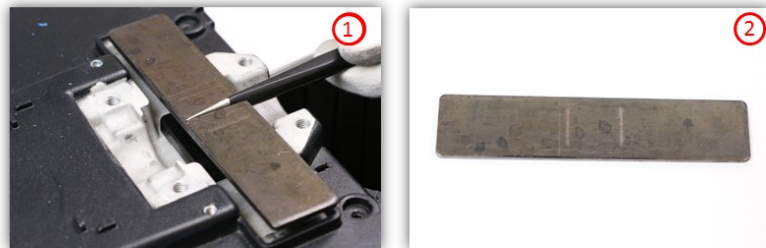
## 2.22 Removing the sliding flange bearings and shaft:

Separation of flange plain bearings and shaft semi-finished products is shown in the below figure.



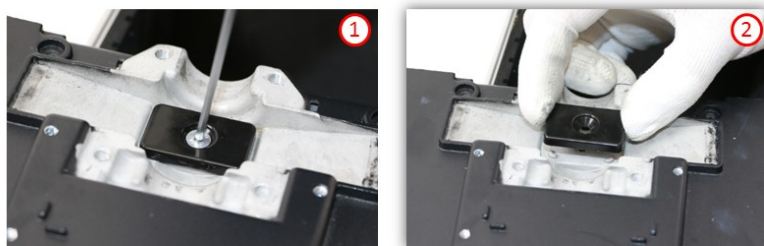
## 2.23 Remove the Spring steel plate

Removal of the Spring steel plate is shown in the figure below.



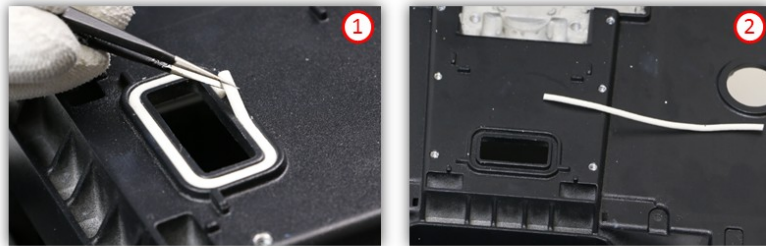
## 2.24 Removal of elastic stopper:

Dismantle M4\*8 screws with a hex wrench 2.5mm to disassemble the elastic stopper as shown in the figure.



## 2.25 Removal of Rubber 'O' ring:

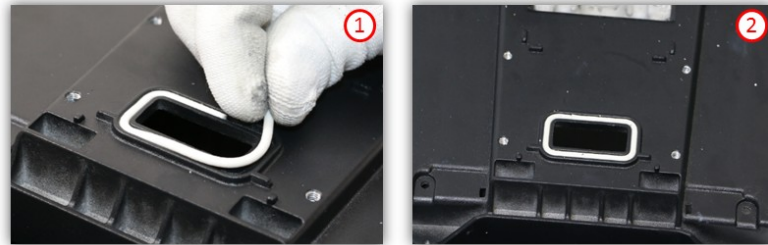
Removal process is given below.



## 3.Product Assembling

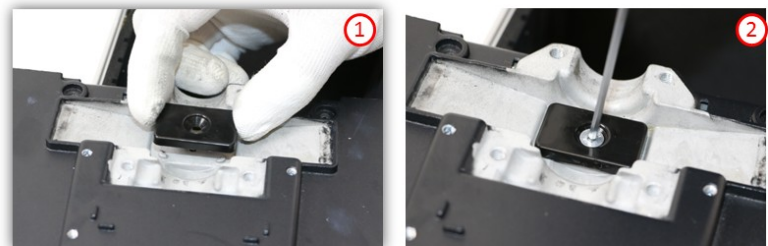
### 3.1 Mounting the "O" Ring:

The "O" Ring should be installed inside the corresponding slot of mainframe.



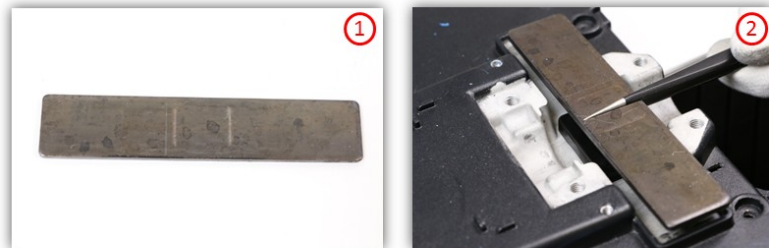
### 3.2 Installation of elastic stopper:

Install the stopper in corresponding place, tightened the screw.



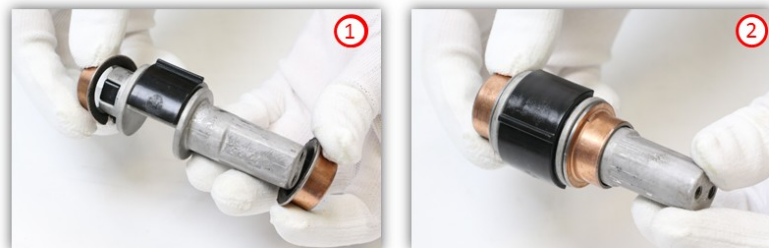
### 3.3 Mounting the spring steel plate:

The spring steel plate placed in the corresponding slot (Note: The no oil side should face down towards mainframe).



### 3.4 Mounting the sliding flange bearings and shaft:

The flange bearing is mounted to the shaft. (Note: The sliding flange bearing direction)



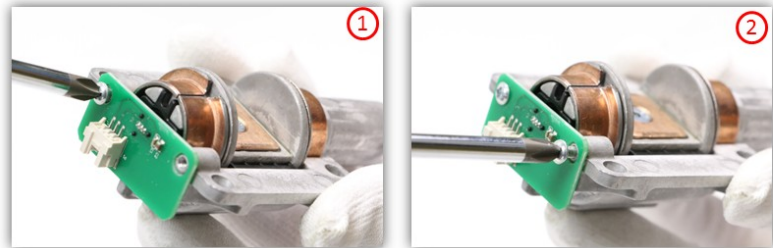
### 3.5 Mounting the shaft:

Mount the shaft in the clamping chamber.(NOTE: The black partial cover should be stuck inside the chamber).



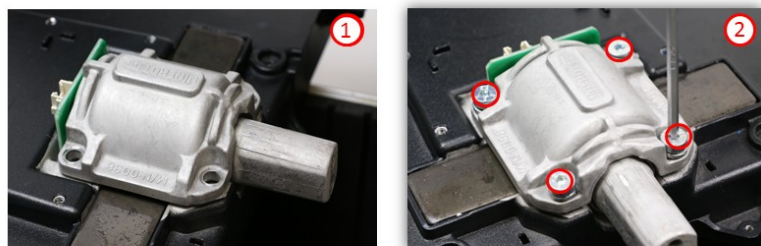
### 3.6 Installing the Hall sensor:

Tightened the both screws after mounting the hall sensor(NOTE: pay attention to the direction of the PCB)



### 3.7Assembling of the steering assembly:

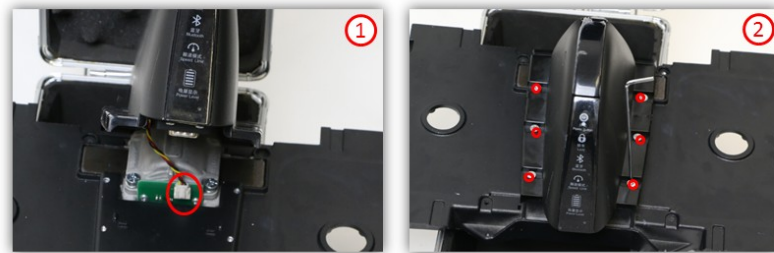
After assembling the steering assembly into the corresponding to the position, tightened the four screws.





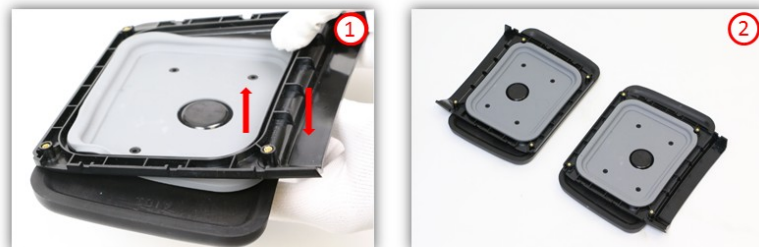
### 3.8 Mounting the Display Cabin:

The cable should be inserted in the Hall sensor and the cabin should be in right direction. (Note: cable connected)



### 3.9 Assembling of foot mats and frame:

The foot mats and pedals frame assembled. (Note: Pay attention to the left and right foot mats, left foot and left foot on the pedal bracket pad, right foot pedal bracket and the right foot pad)



### 3.10 Installation of Foot mat assembly:

The foot pedal assembly should be placed right direction. Tightened the screws properly (NOTE: Distinguish about Left & Right)



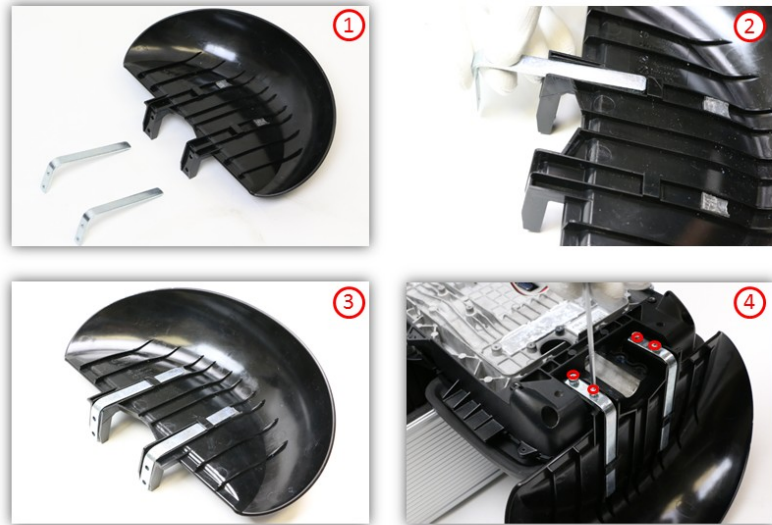
### 3.11 Installation of waterproof rubber:

Install the waterproof rubber at the following position. (NOTE: Do not forget or miss)



### 3.12 Mounting the Fenders:

The fender sketches mounted on the fenders, Tightened screws.



### 3.13 Install the decorative cover

Install the left and right decorative cover with M2.5 hex wrench.

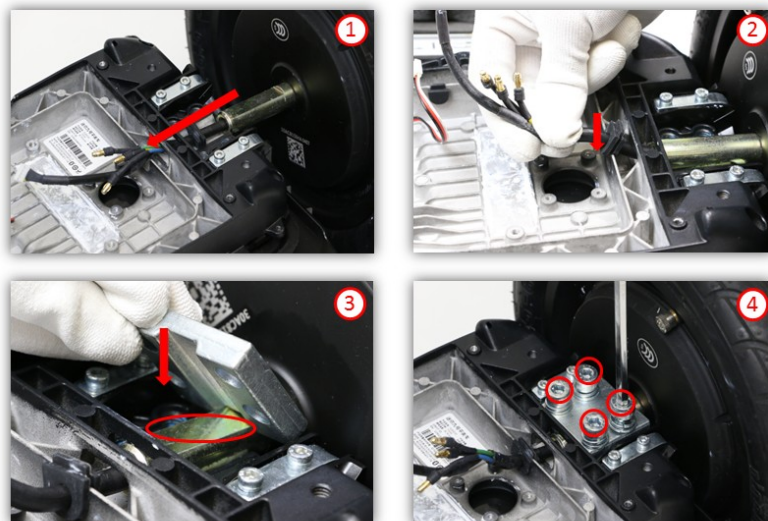


### 3.14 Installation the decorative blade (3 thin and 1 thick)



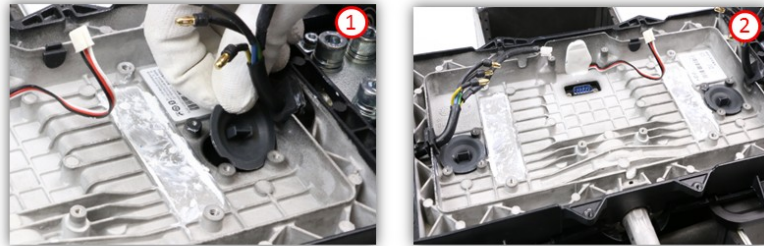
### 3.15 Assembling Wheel hub motor:

The wheel motor assembly is mounted to the corresponding position; pay attention to the wires of motor. (Note: The axle, clamps and the flat side of the motor fitted)



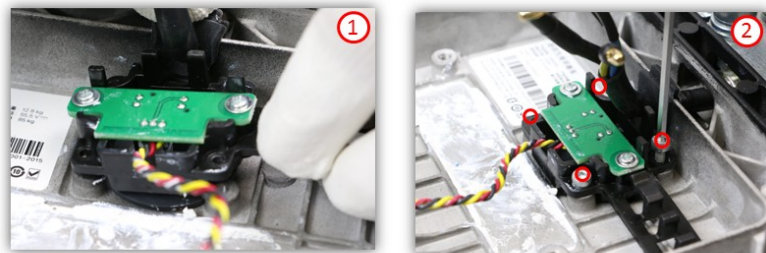
### 3.16 Installation of Compact Bowls:

The compact bowls switch should be placed in right direction. (NOTE: Direction)



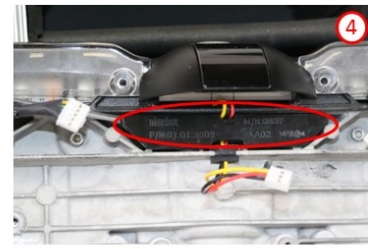
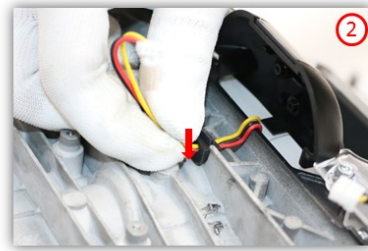
### 3.17 Installation of foot sensors:

The foot sensors should be placed in right direction. (NOTE: Direction)



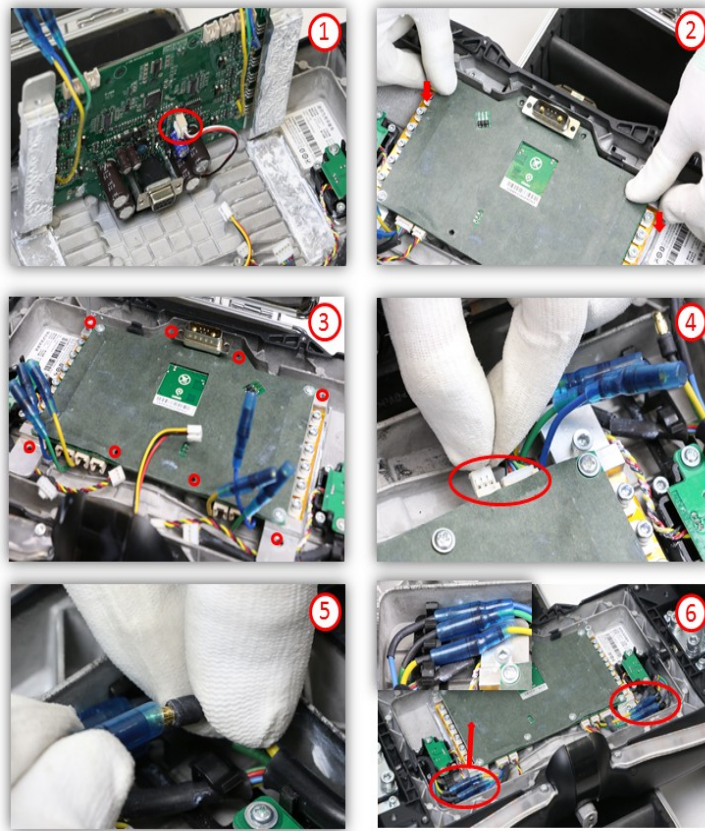
### 3.18 Installation of Rear light decorative strip:

After installing decorative strip assembly, and then put the plastic wire harness.  
(Note: put the wire harness trim)



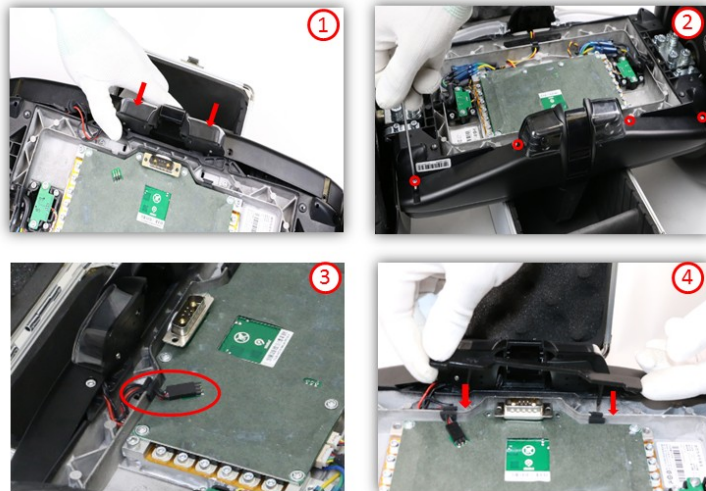
### 3.19 Installation of control board:

The cable of gravity sensor is connected to the controller , place the control board after making sure that all the wires are outside, make sure that the controller is installed in place of the cabin DB9 port connected to the display cabin. Buckle up the motor assembly and lamp cables, connect the three-phase wires and make sure that stuck in the clamps.(Note: the same color wires of the three-phase motor are connected properly)



### 3.20 Installation of the front lamp decorative strip:

Install the front trim assembly, Plug in cables, and then install the front decorative strip. (Note: The cable and fastener)



### 3.21 Assembling Battery

Put the battery horizontally. Place it gently and tightened the four screws.





### 3.22 Installation the foot pad foam assembly

Installation the left and right foot pad foam into the keen control bar and tighten the screws.



### 3.23 Installation the keen control steering and keen control bar

Install the keen control steering into the body and tighten the two screws with M4 hex wrench



Installation the keen control bar with hand and then locked



Installation the steering cover

