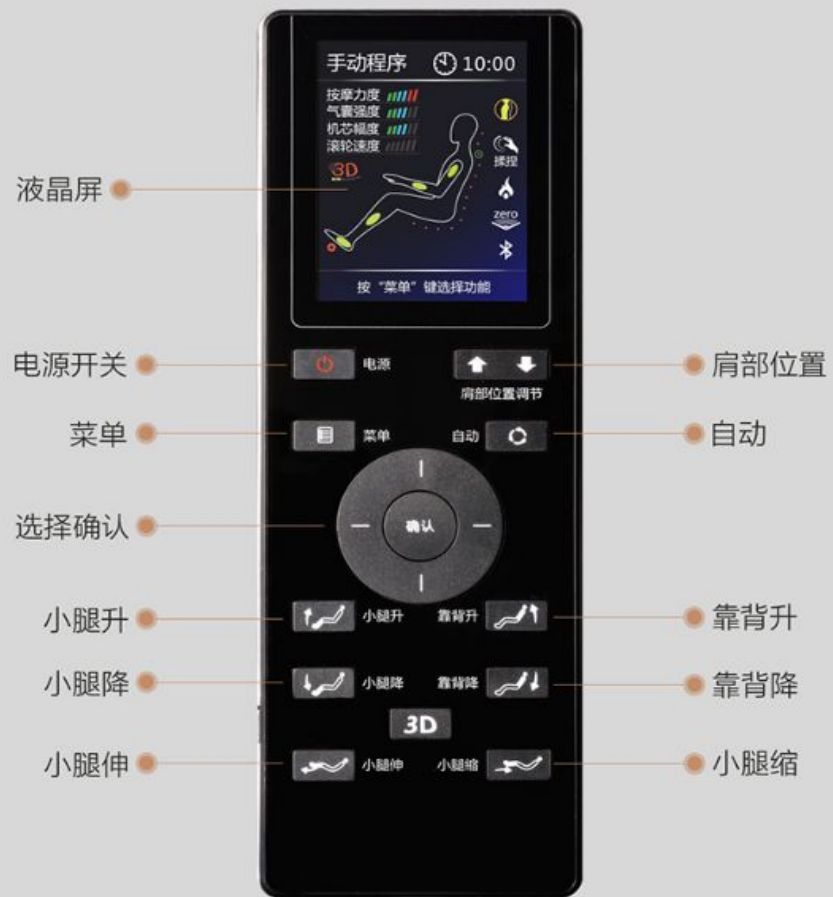


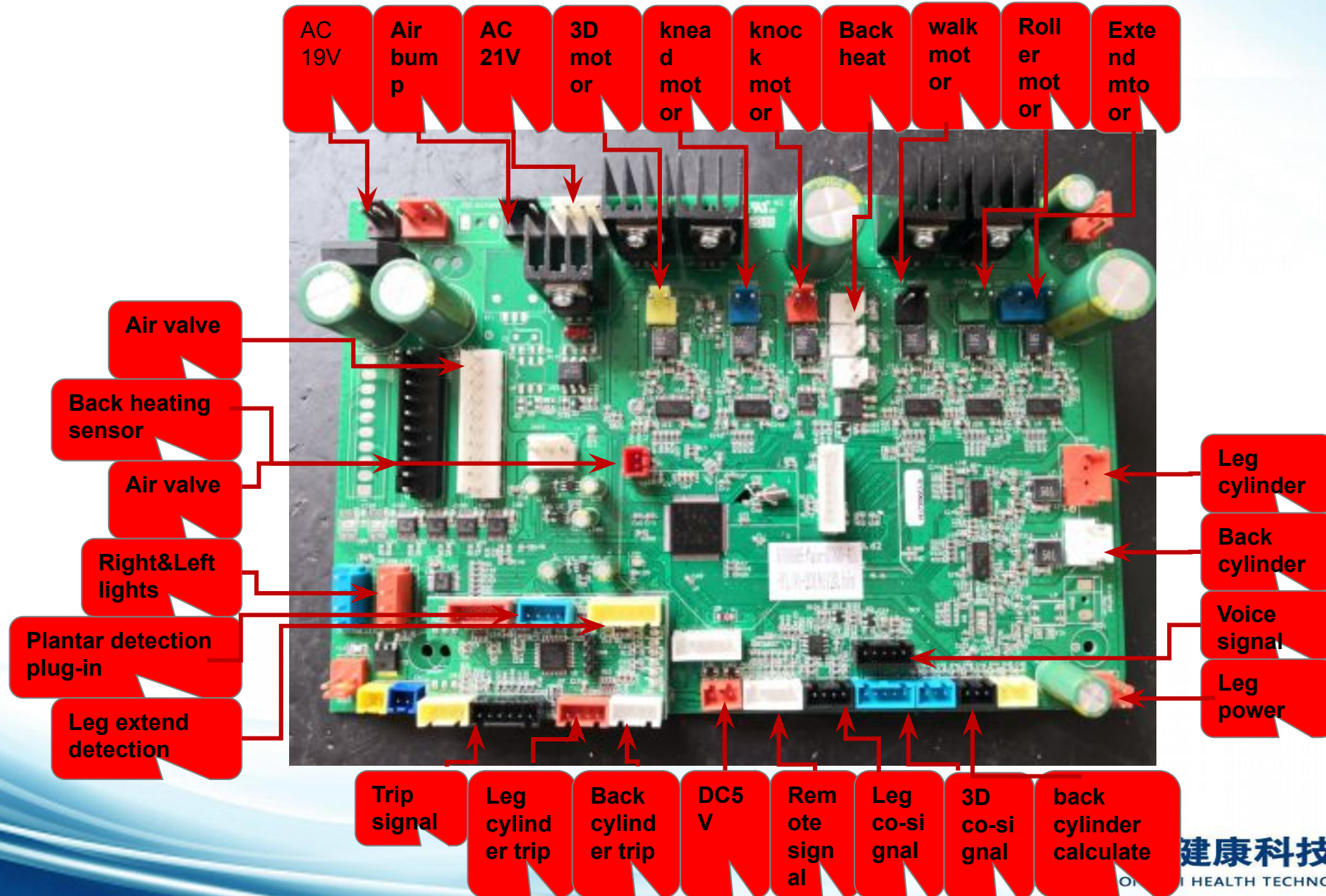
# Encore (RT5865)



## 手控器

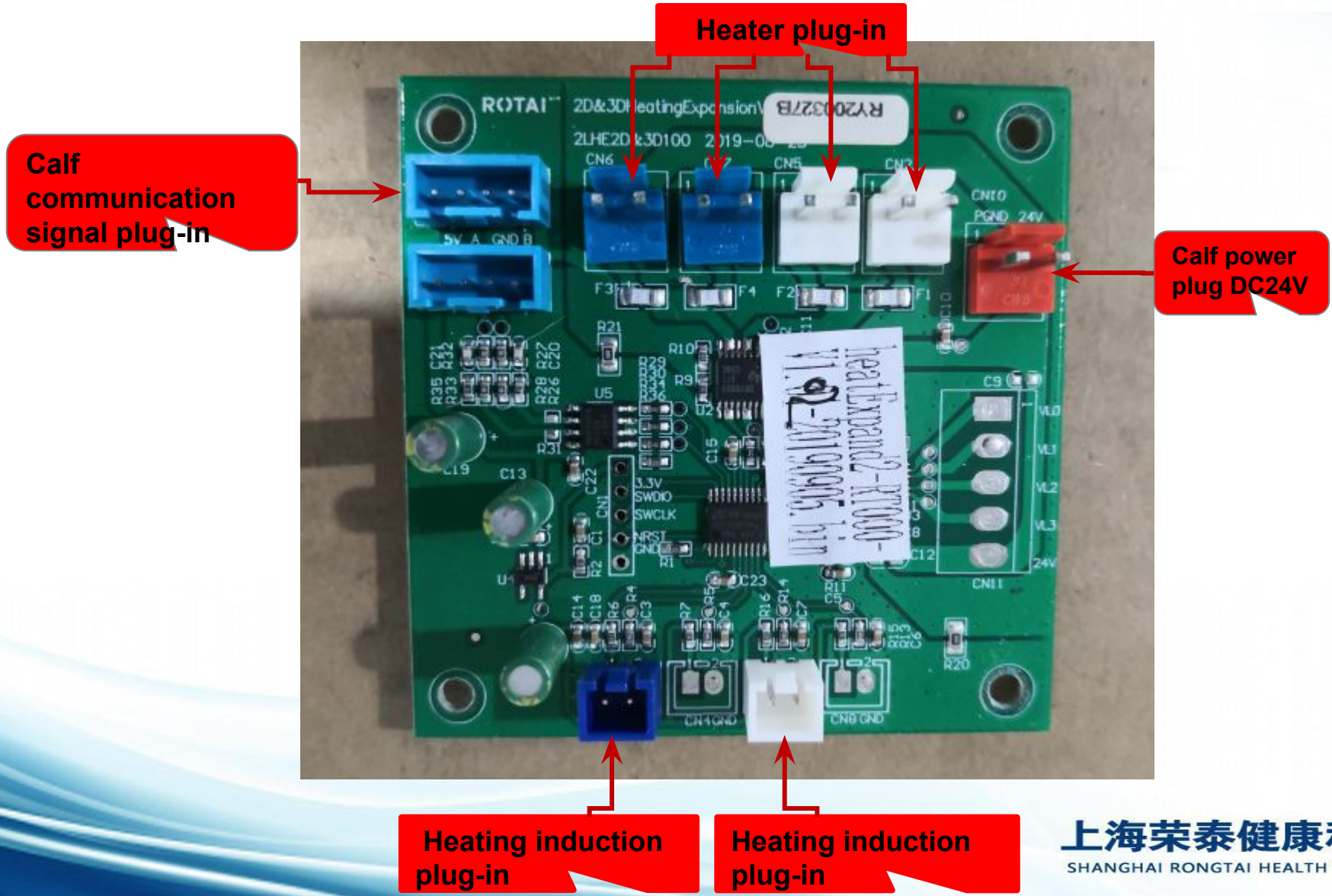


# Motherboard plug-in diagram





# Schematic diagram of calf heating plate plug-in



Calf communication signal plug-in

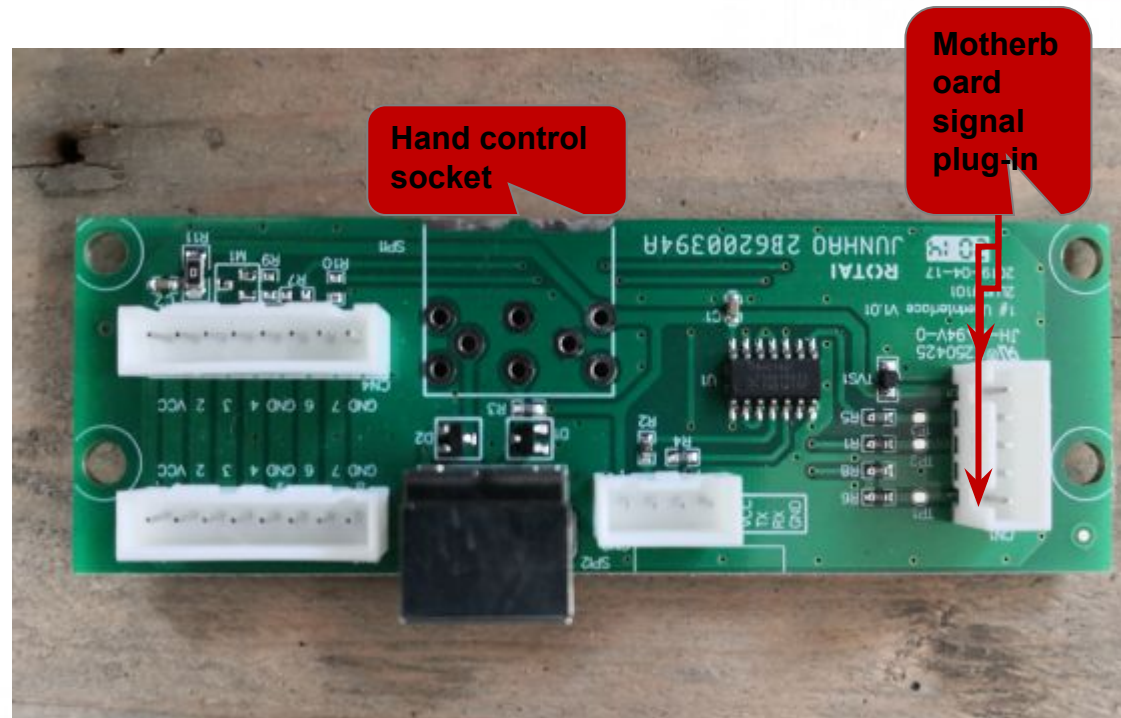
Heater plug-in

Calf power plug DC24V

Heating induction plug-in

Heating induction plug-in

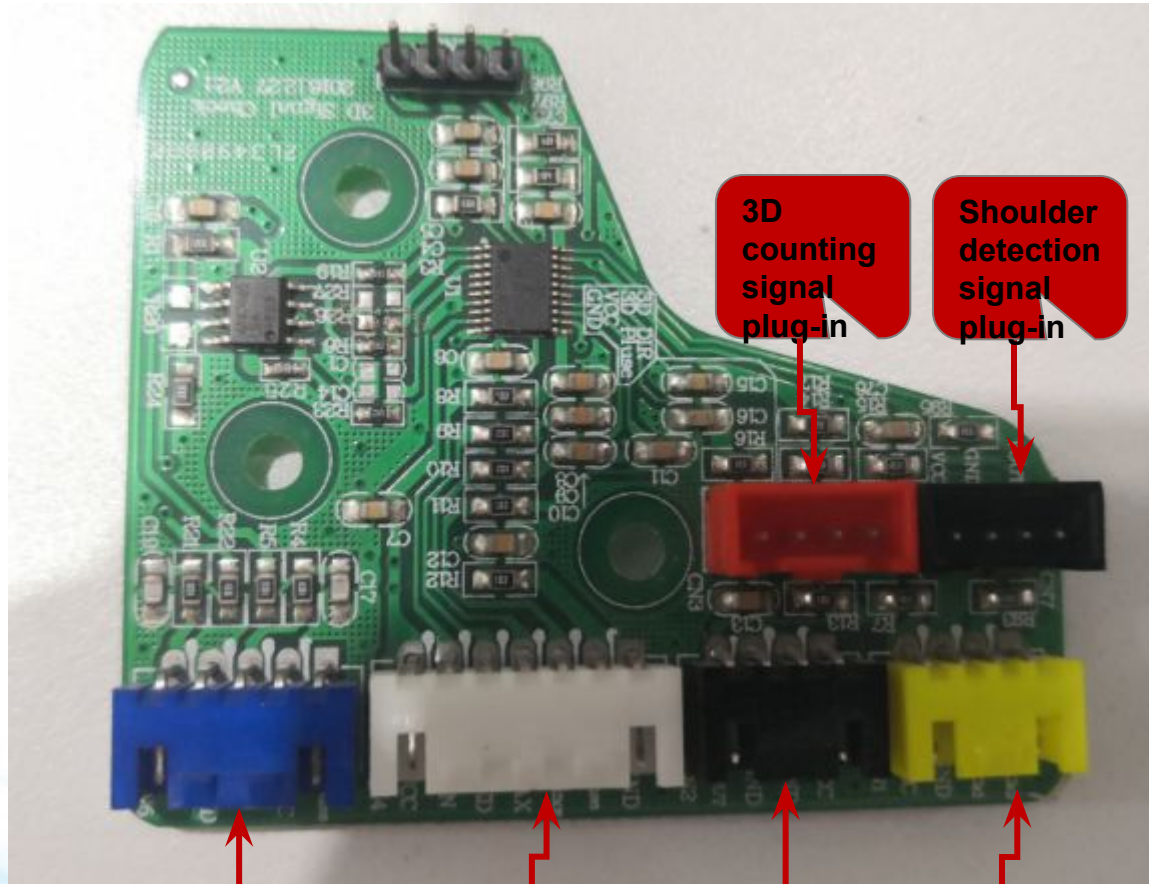
# Schematic diagram of user interface board plug-in



user interface board



# Schematic diagram of 3D adapter board plug-in



**If the 3D adapter plate of the massage chair is broken, the mech will not move, and the manual setting will not respond.**

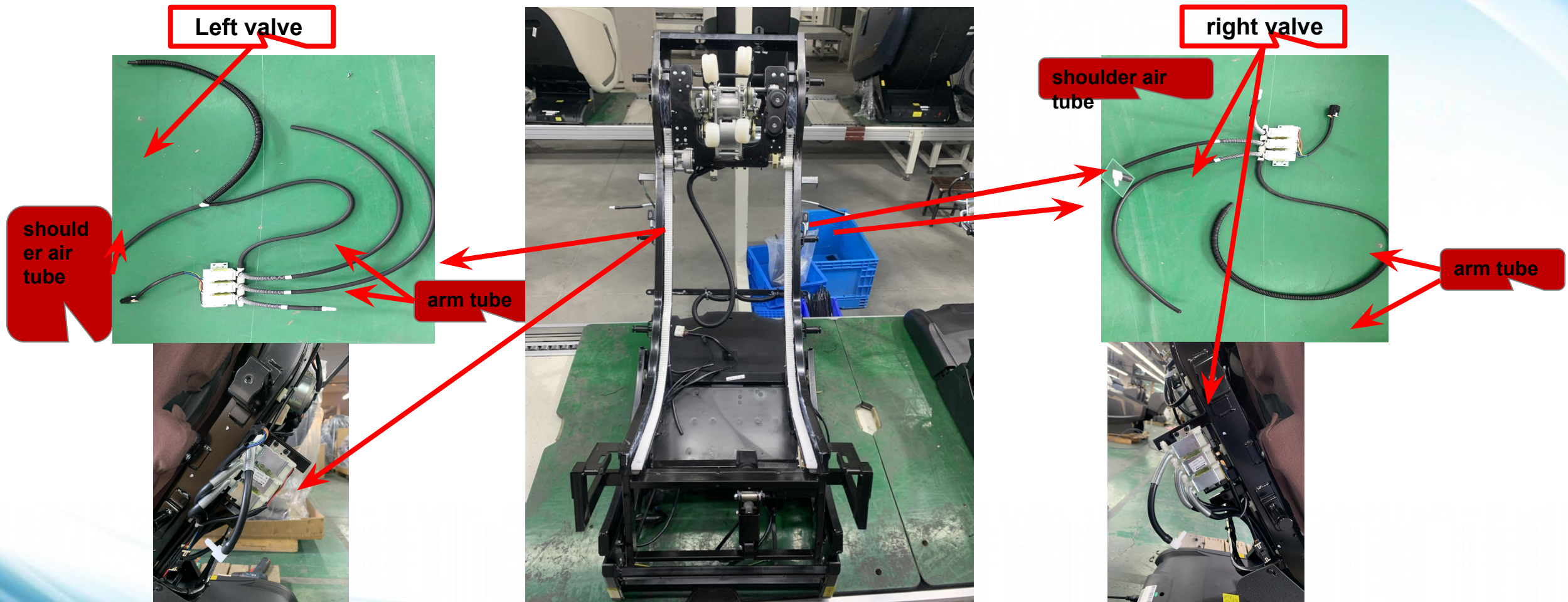
3D communication signal plug-in

Wide, medium and narrow signal plug-in

Shoulder detection signal plug-in

3D stroke signal plug-in

# Schematic diagram of the back valve





# ROTAI Schematic diagram of disassembly&assembly of calf

荣泰

Pic.1



Pic.2



Pic.3



Pic.4



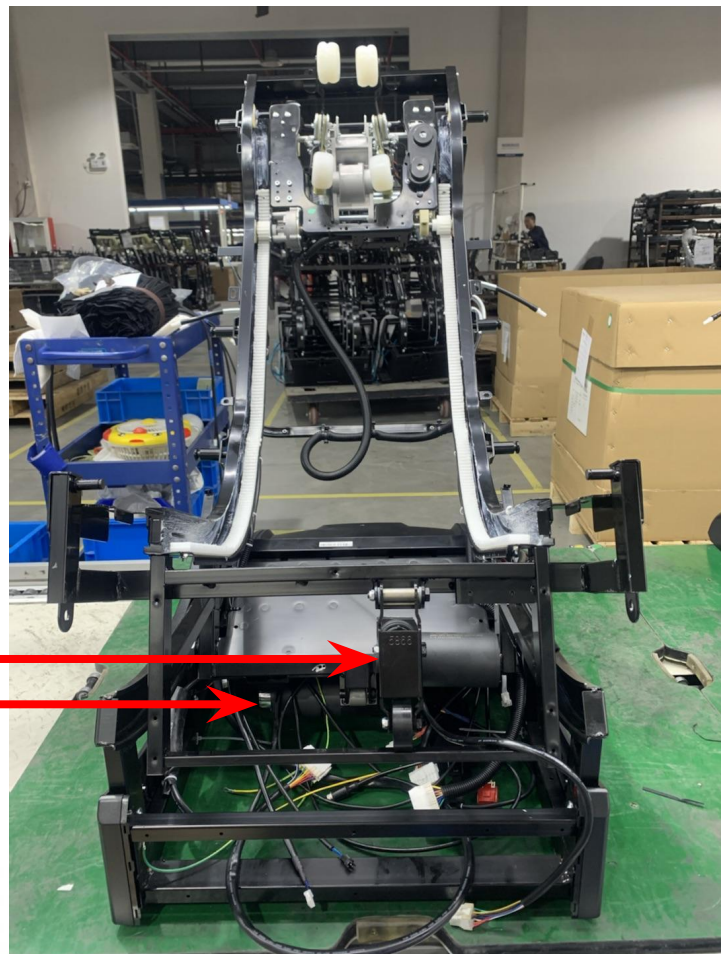
Main Pic



1. Unzip the calf connection zipper, Figure 1, remove the calf block card. Figure 2, unplug the trachea and calf communication harness, Figure 3, and Figure 4, remove the calf assembly.

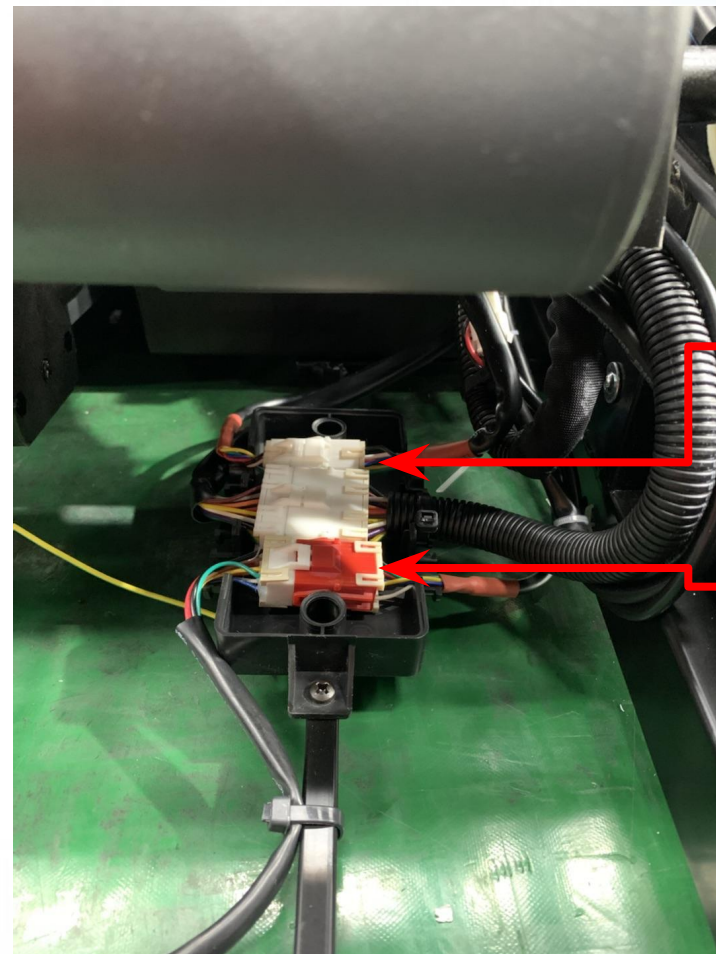


# Installation of backrest/calf electric cylinder



**CALF cylinder**  
DC24V/70mm

**Backrest cylinder**  
DC24V/220mm

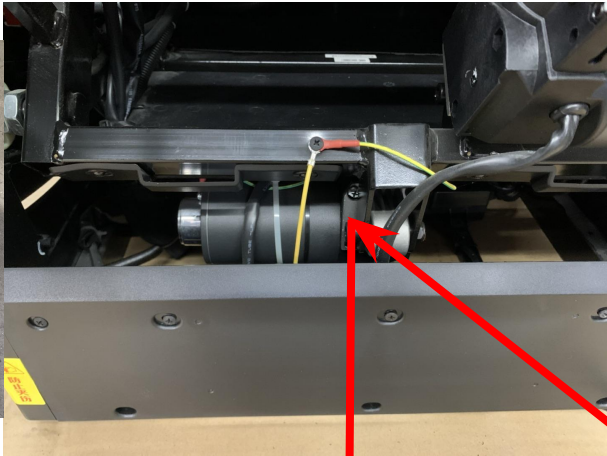


**Backrest electric cylinder plug-in (white)**

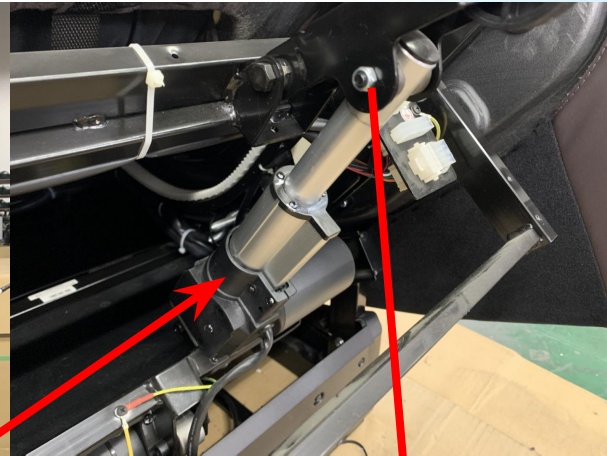
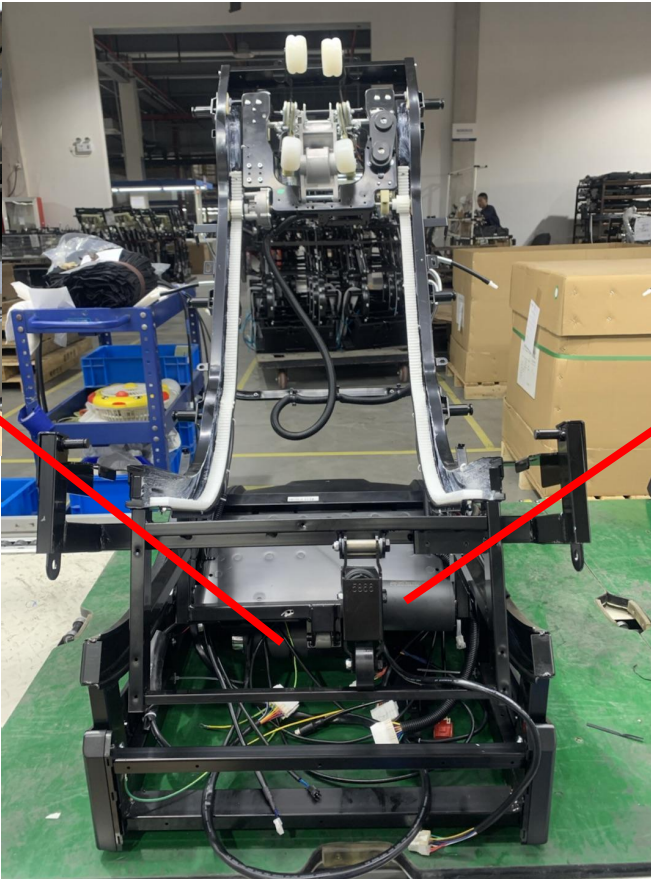
**Calf electric cylinder plug-in (Red)**



# Disassembly and installation of backrest/calf cylinder



Pic.1



Pic. 2



1. As shown in Figure 1, unplug the signal cable of the backrest electric cylinder, (white plug-in), disassemble the screw, and take out the electric cylinder
2. As shown in Figure 2, unplug the signal wire of the calf electric cylinder, (red plug-in), disassemble the screw, and take out the electric cylinder



# Movement schematic diagram

Disassemble the 4 fixing screws and remove the fixing iron plate



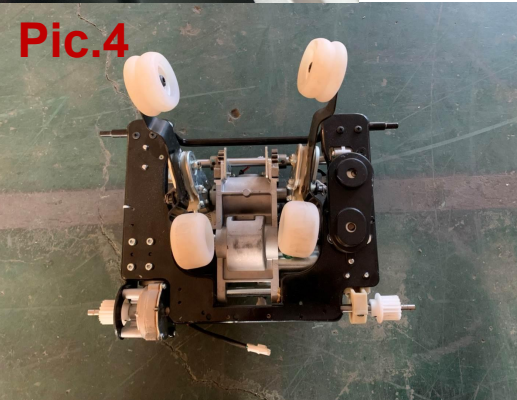
Pic.1

Remove the travel limit plate (do not unplug the signal)



Pic.3

Just remove the movement components

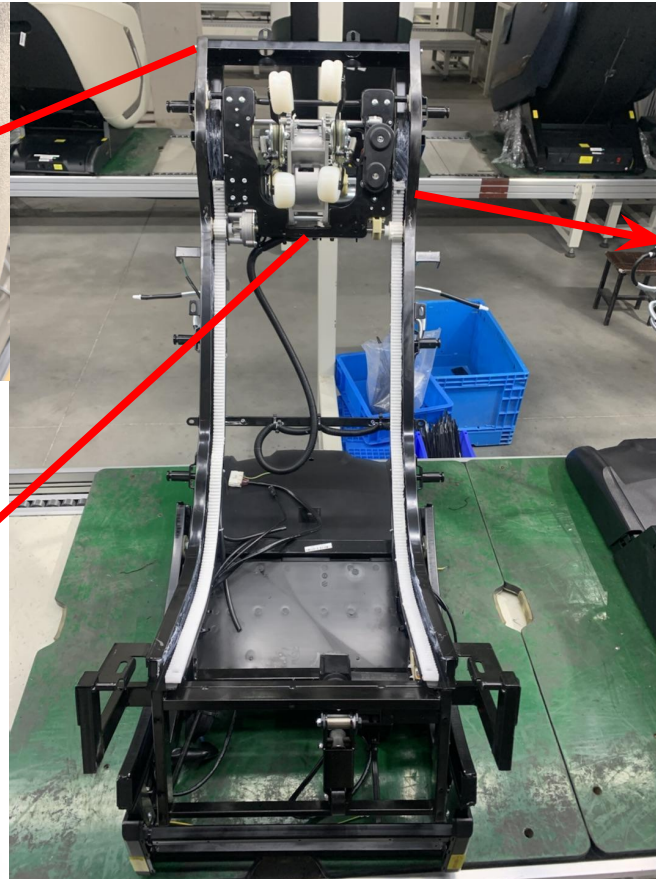


Pic.4

Yellow 3D motor, red percussion motor, blue kneading motor, black walking motor



Pic.2



1. Disassemble the 4 fixing screws, remove the backrest fixing iron plate Figure 1, remove the upper stroke limit plate (do not unplug the signal wire) Figure 3
2. Manual mode, acupressure at a fixed point, move the upper movement upwards until the movement goes out of the track, unplug the 3D motor plug-in in Figure 2, knock on the motor plug-in, knead the motor plug-in, walking the motor plug-in, and remove the movement assembly Picture four



**When the 3D movement massage chair is working, there must be a signal detection process before the automatic mode can operate normally.**

**Such as movement-up and down stroke signal, walking motor count signal, 3D stroke signal, 3D count signal, wide, medium and narrow signal.**

**The reset signal of the backrest electric cylinder, the calf electric cylinder, and the forward electric cylinder.  
Calf extension signal.**

**If one or two of these signals are missing, it will appear in automatic mode that the movement will stop at a certain position after a few minutes of operation.**

- **3D movement massage chair failure judgment method**

**1. Most of the faults in the detection signal of the 3D massage chair movement can be operated through the hand control panel.**

**Observe the wide, medium and narrow signals, 3D detection signals, stroke signals and various prompts are reflected on the hand control board and the movement to analyze and judge the fault point.**



# Hand control operation

## 控制器介绍

舒适按摩，一手掌控



Turn on the hand controller and press the menu button to select various functions.

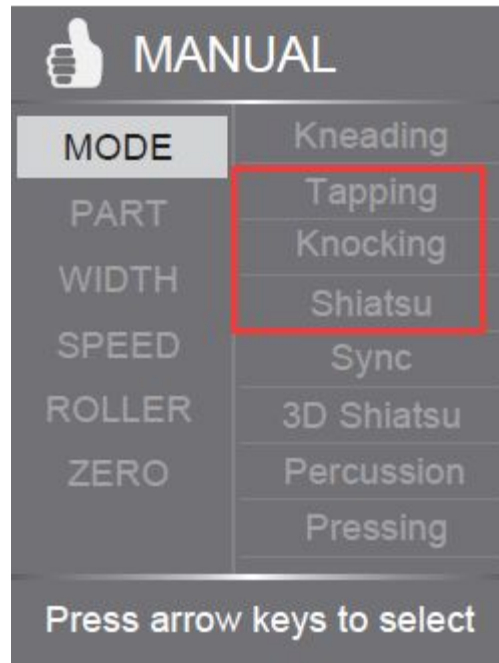
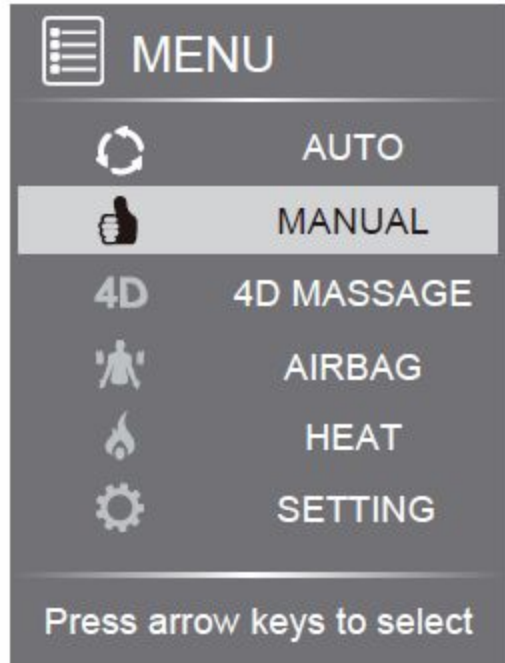


Automatic program



Manual program

# Wide, medium and narrow operation steps



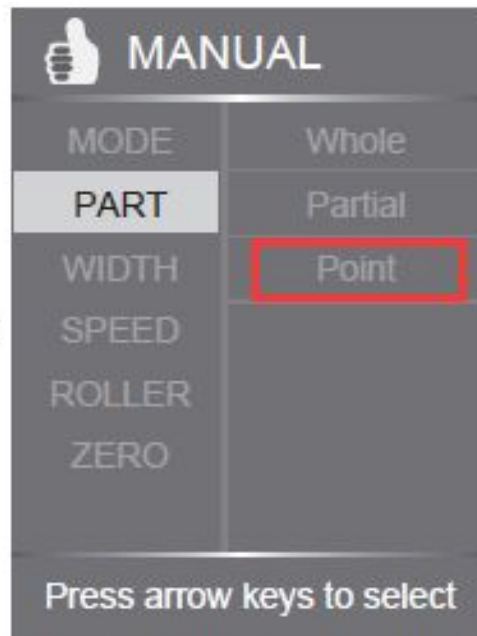
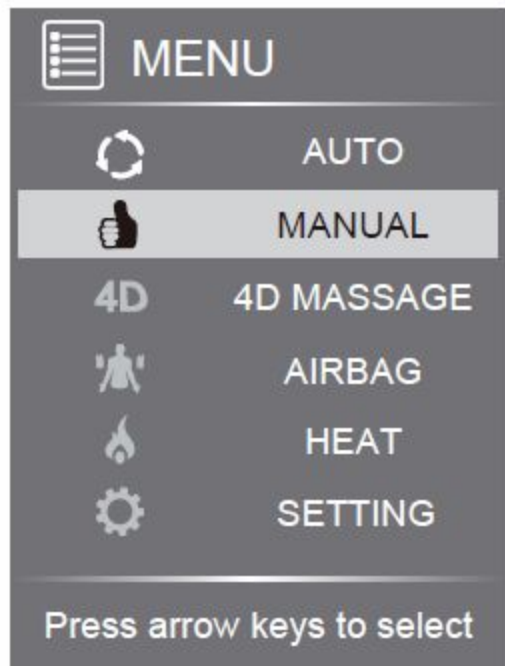
Menu, select manual program

You can choose any mode of tapping, knocking and shiatsu

Adjustment range, (wide, medium and narrow)



# Fixed-point operation steps

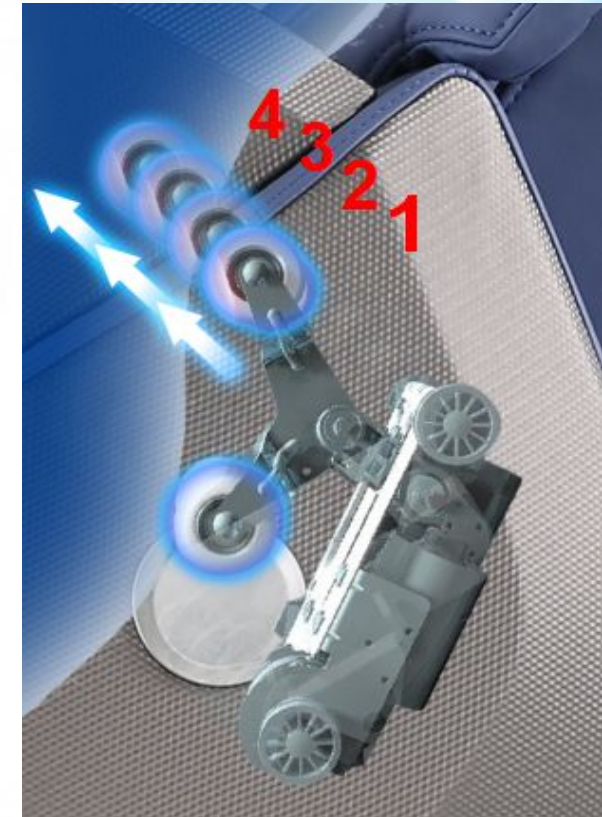
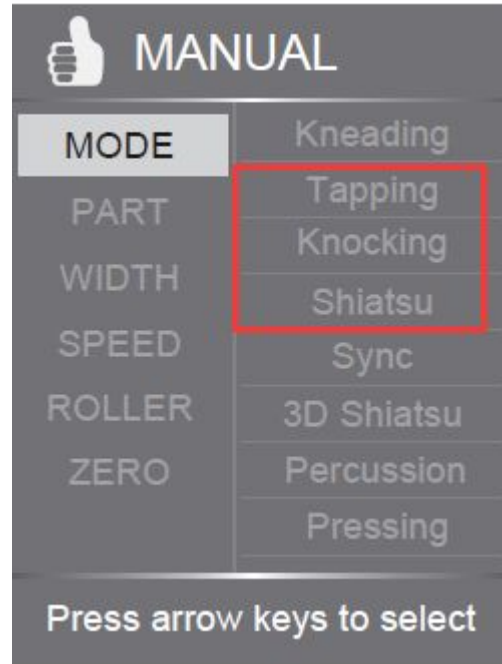
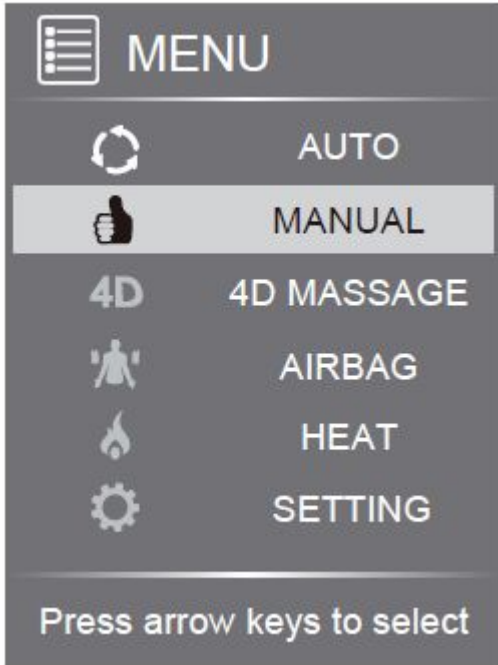


Select shoulder up/down to check if **Green point** is at same location as mechanism.

Menu, select manual program

Select the part, and then select the fixed point to confirm

# 3D operation steps



Menu, select manual program

You can choose any mode of tapping, knocking and shiatsu

select 3D button on remote

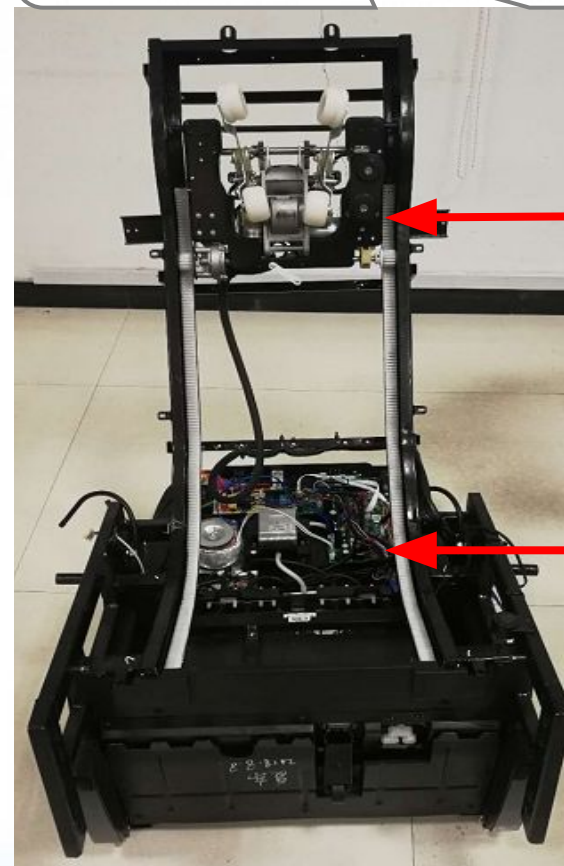
The movement's crank arm will extend upwards in 4 gears, retract to the starting point at the fifth bottom, and cyclically expand and contract.



# Exterior



Remove the appearance components

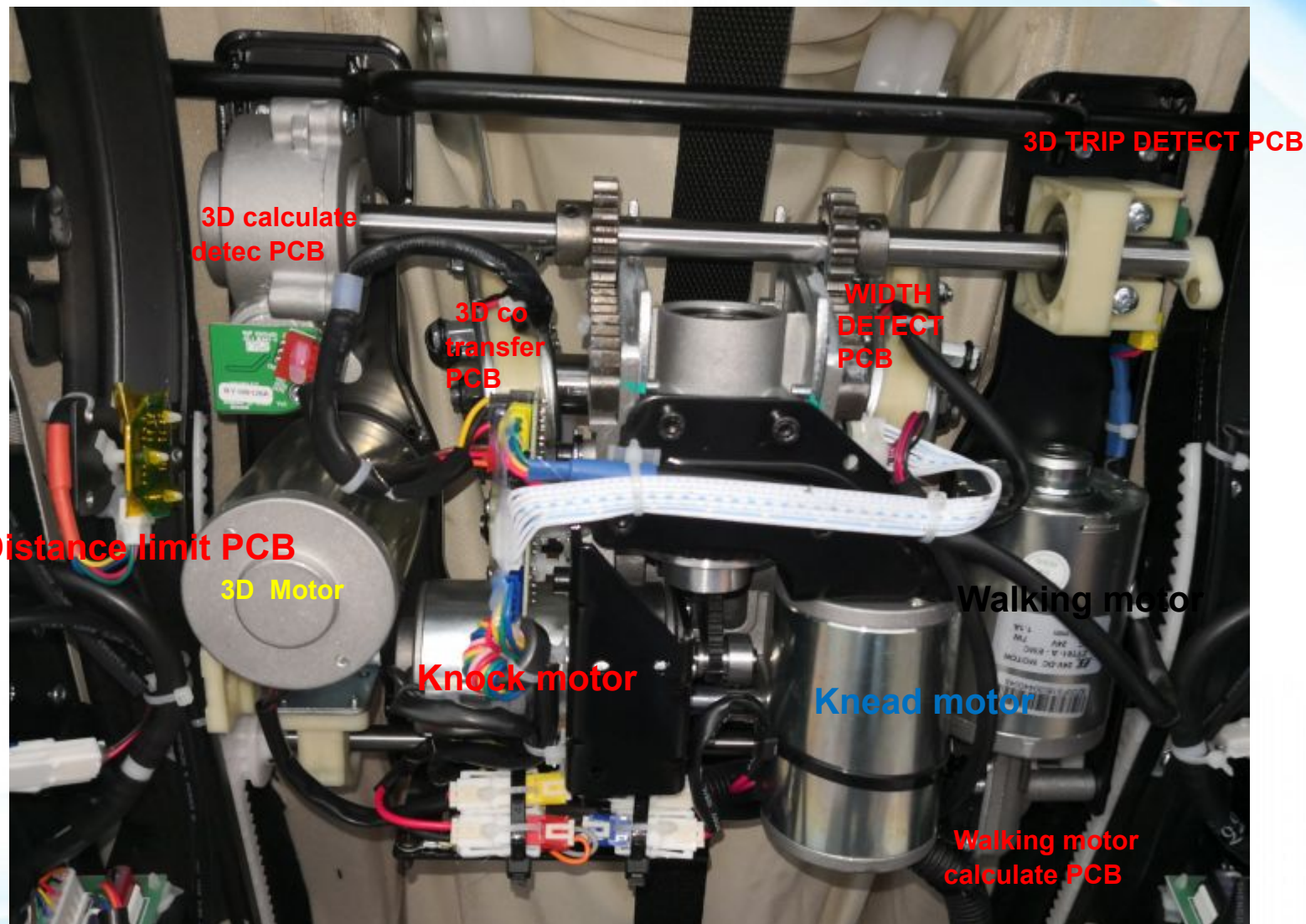
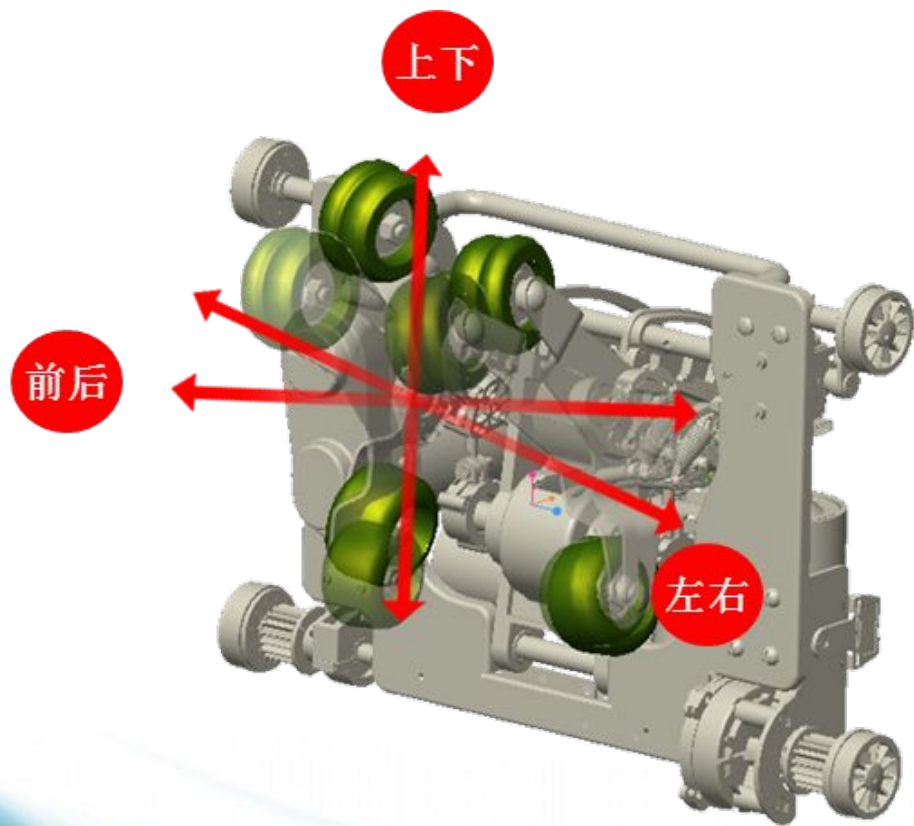


3D mech

Electric control cabinet



# 3D mech structure

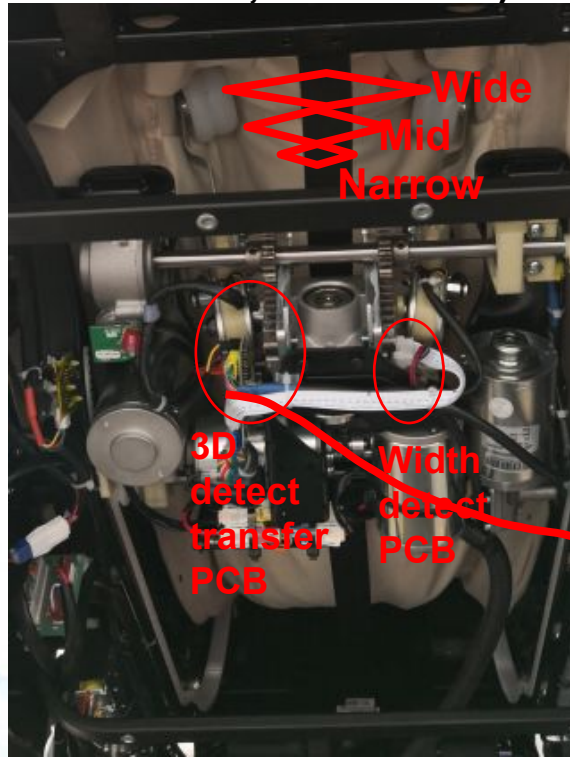




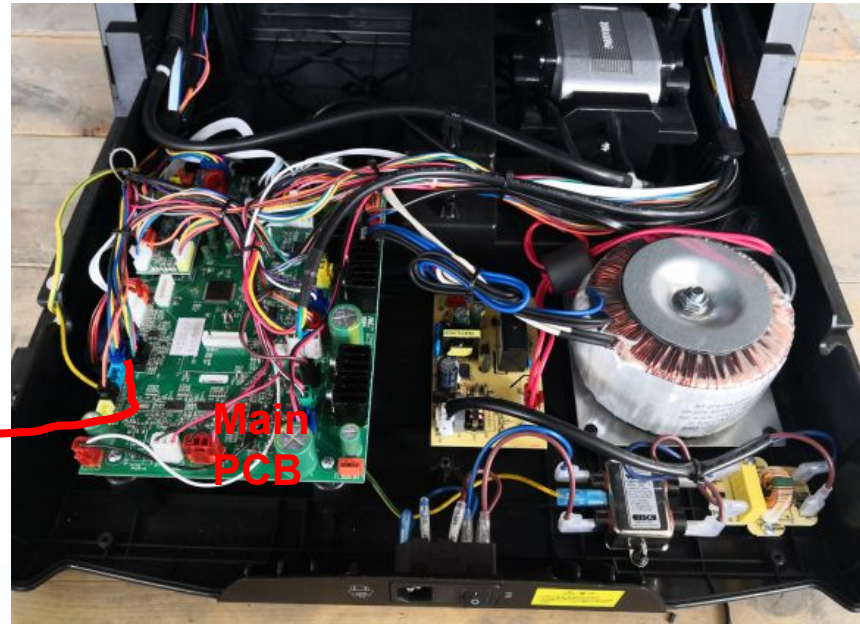
# ROTAI

荣泰 Select manual modes---①Select knocking, tapping or shiatsu, adjust the width. See if the width change displays on remote screen and the roller indeed act accordingly.②Select Point under manual, Shoulder UP/DOWN to move the mech, see if it is at same location on remote as the roller actually at.③Select 3D button on remote, see if there are 4 levels for roller to push forward.

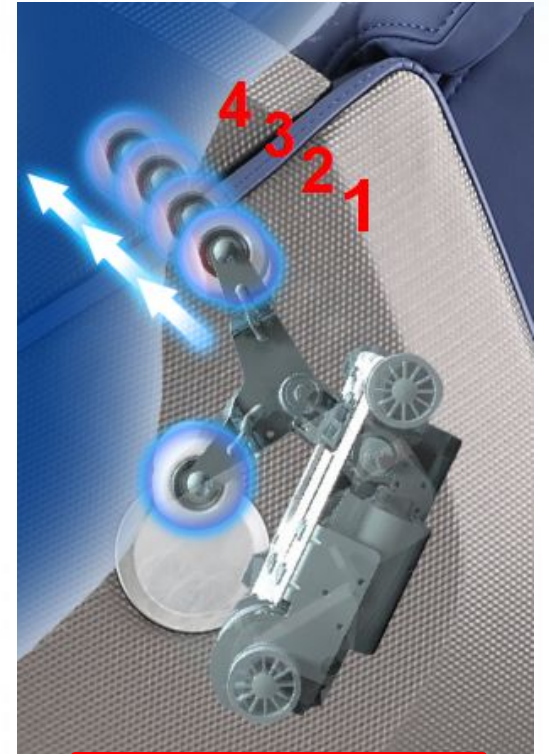
If there is no above issues(location on display is different against real mech, cannot select knocking/shiatsu individually, mech is always kneading only, cannot adjust 3D level), then the problem may be on (3D communicate harness, 3D detect transfer PCB, main PCB..)



Roller works as wide, mid, narrow



3D communicate harness



4 levels of 3D

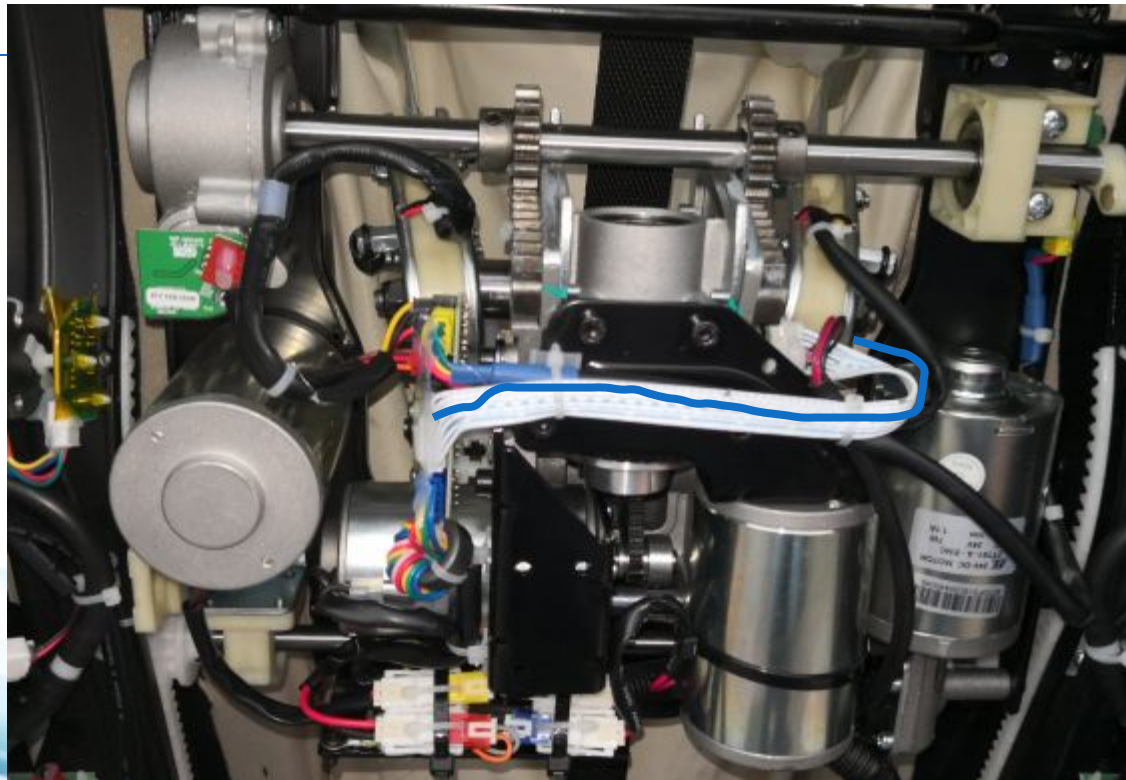


**2. how to confirm whether the width signal works fine?**

select (manual mode) TAPPING and select width adjustment, check if any width change happen from the massage arms, usually 2 kinds of status like

2.1 NO width signal, or the tapping massage is changed to kneading massage actually, the causing problem is from the width PCB board or the signal harness, see photo as below;

2.2 the TAPPING is selected while others like kneading massage instead, this causing problem is that NO width signal is detected (then check the check if the signal cable from the 3D board to width PCB board is disconnected well), OR the magnet sensor is disconnected



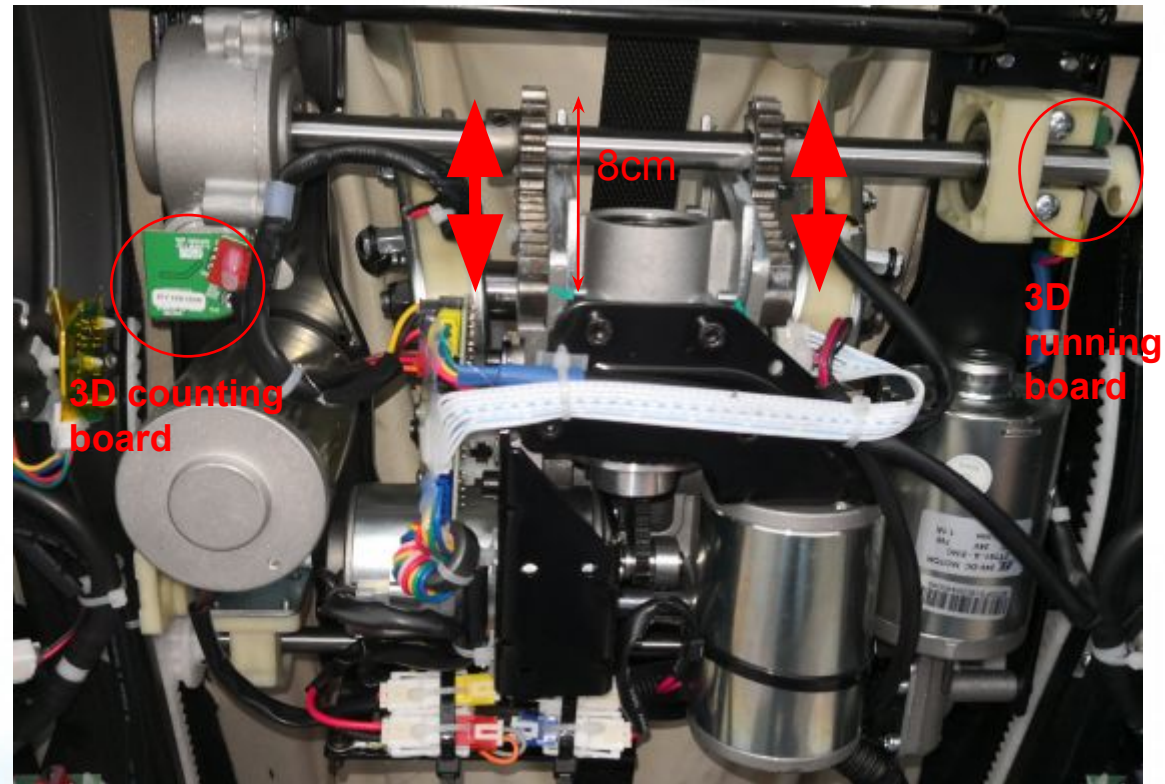
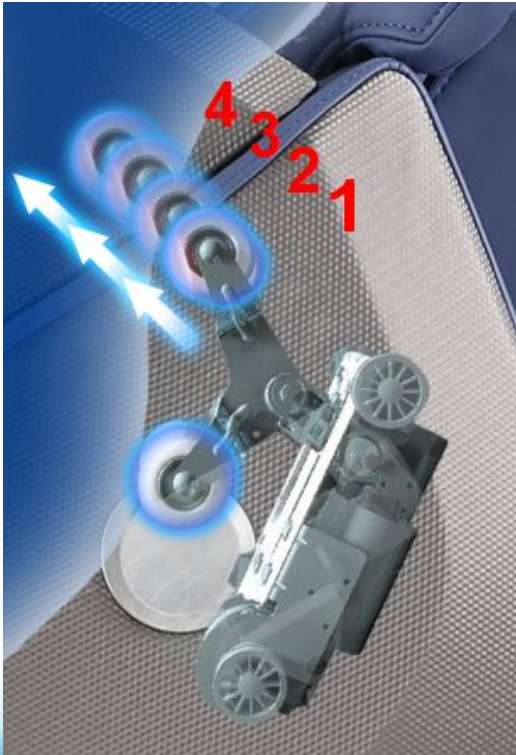
magnet sensor for  
width detecting

width detecting  
board

width signal  
harness

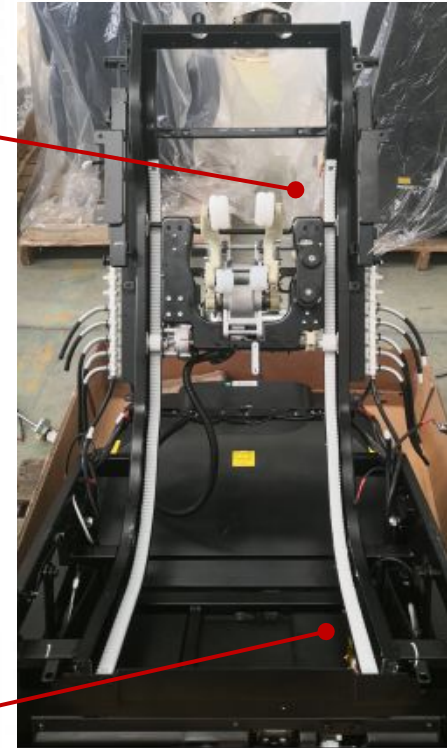
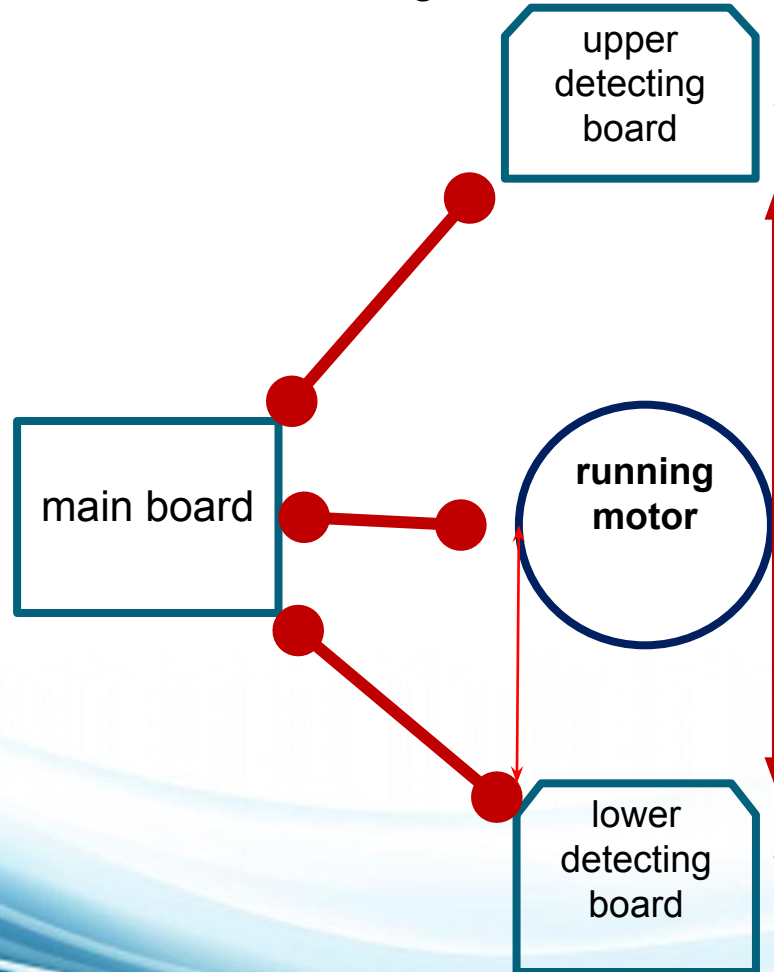


3. 3D running motor NO working-  
select (manual mode) kneading mode, find and press the 3D button on the remote control, check if the 3D motor can move back and forth
- 3.1- NO moving, check the 3D running motor or its connecting cable
- 3.2- Moving but NOT back and forth, check the 3D counting board and its cables.



# 1. walking(running) motor relevant problem&solution

## 1.1 diagram relevant the walking motor



125cm



## 2、NO moving up&down reason

1. power on chair and find manul mode, select “sync” and “point” and make the back massage mech move to the middle of the chair backrest. Then press the right corner (shoulder adjust) buttons on the remote control, one for up moving, and one for moving down” on the RC panel then listen the peeping sounds (two kinds ) from the remote control.

- 1.1 if a “slow” peeping for up while “quick” peeing for down, then replace the low detecting board or its cable;
- 1.2 if a “quick” peeping for up while “slow” peeing for down, replace the up detecting board or its cable;
- 1.3 if both quick peeping sounds, check if the running cable is loose, or damaged main board;
- 1.4 if sounds normaly, check the running motor and/or its cable like damaged motor.



# ROTAI

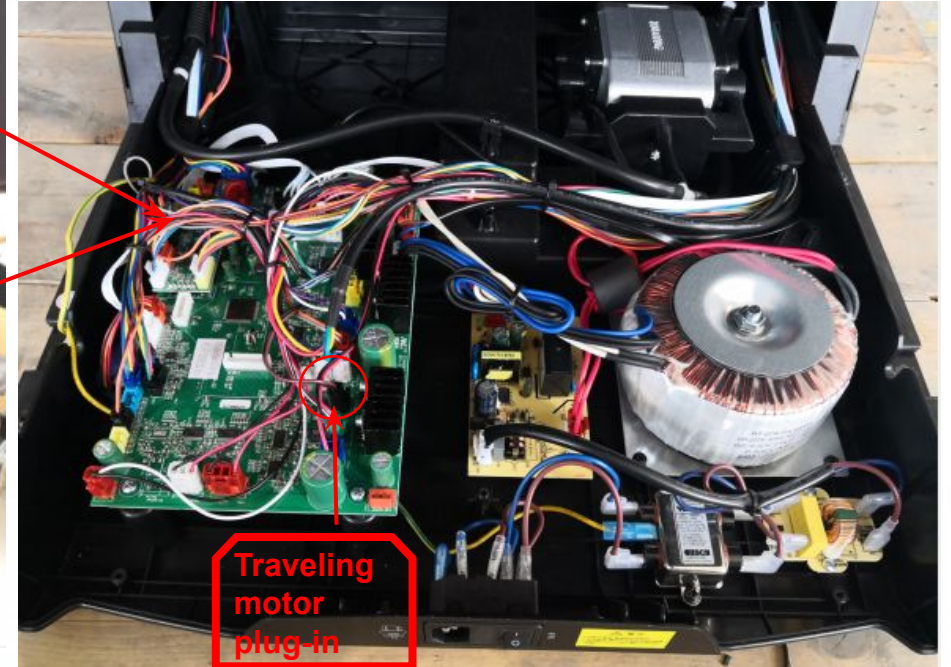
荣泰

Travel motor does not work - neither manual nor automatic functions travel. fault analysis (Such faults are the motor itself and the travel detection circuit of the traveling motor or the main board) For example, the movement does not stop at the top or bottom/First select any manual program, then select the fixed-point function, adjust the up and down keys on the shoulder, and listen to whether the beep of the manual controller is single or double. The frequency is uniform, and the single sound indicates that the signal is normal. The fault point is on the main board or the motor. The resistance of the motor and the voltage of the main board can be measured with a multimeter. Double tone indicates that the sensing signal is detected. The problem is whether the motherboard or the signal line is on or off. If there is a single sound on one side and a double sound on the other, there is a problem with the dual sound detection signal, detection board, signal line or main board. The traveling motor can be replaced. Use the motor power supply with good function to supply the traveling motor. Observe whether the motor acts. It indicates that the motor is normal. The problem in the main board and motor connecting line, which can be judged by multimeter

Up travel detection plate



Down travel detection plate



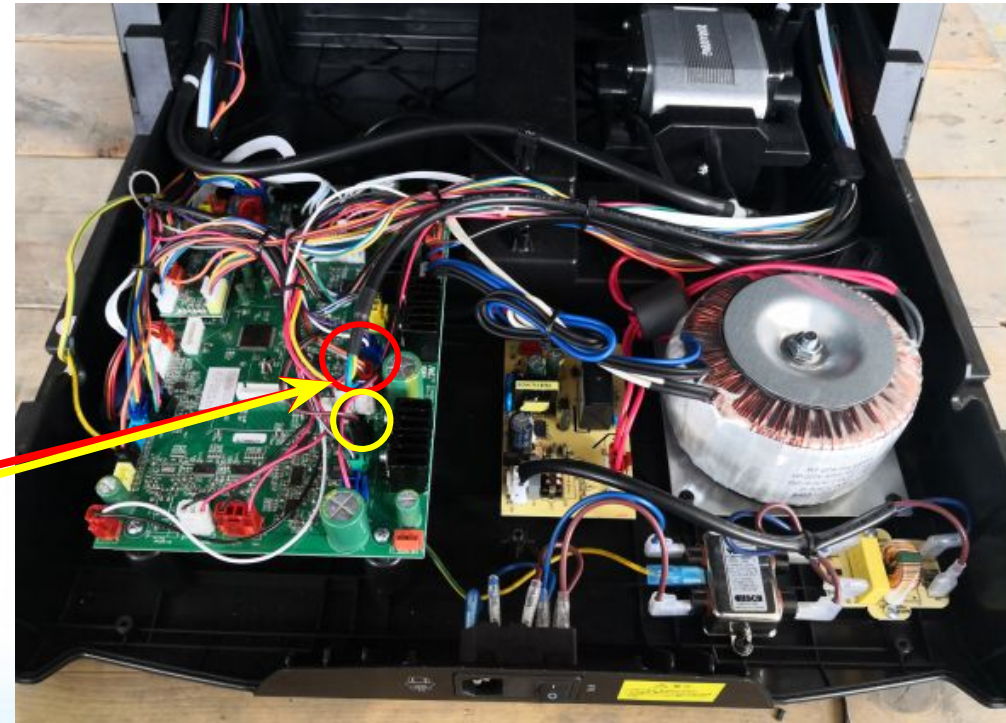
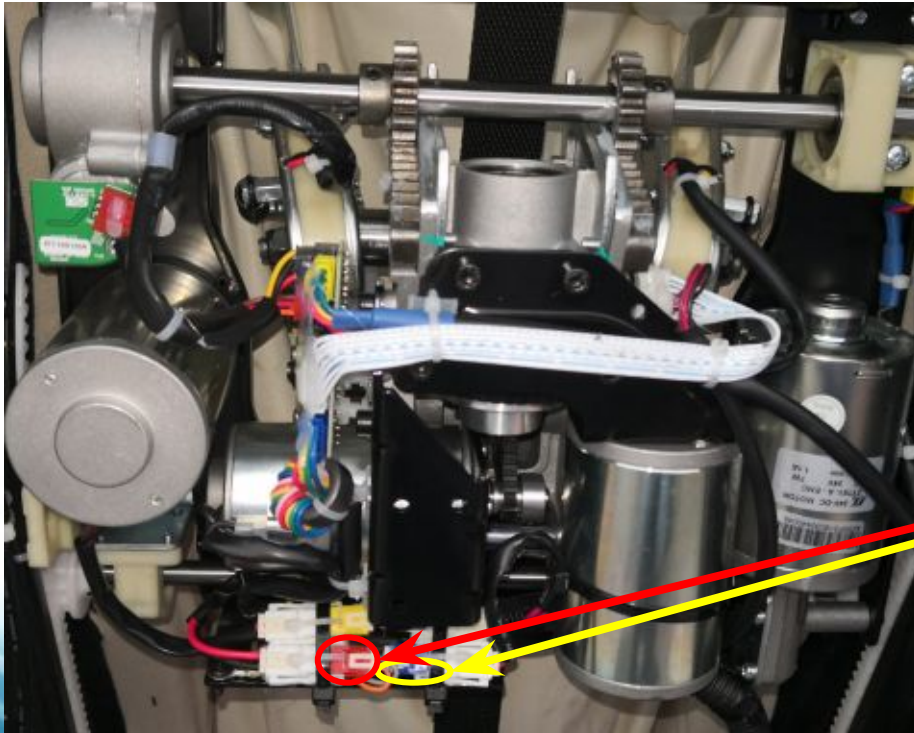
Traveling motor plug-in

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- **2、** After the manual fixed-point function checks that the travel signal is normal, it can be judged by borrowing the motor power supply with good function. Borrow the knocking motor power supply on the main board (pull out the red "knocking motor" plug-in and plug the black "walking motor" plug-in into the red socket) Observe whether the traveling motor acts. Yes - the mainboard is broken. Replace the mainboard. None - the motor or connecting wire is broken, which can be judged by multimeter.

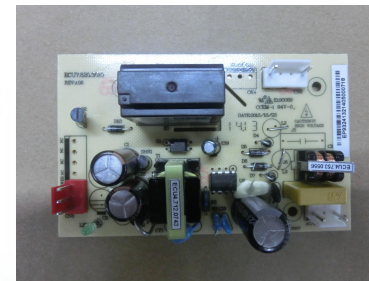
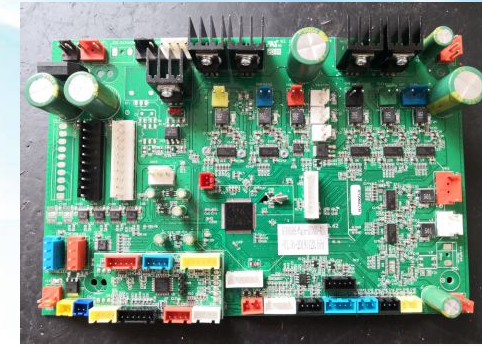
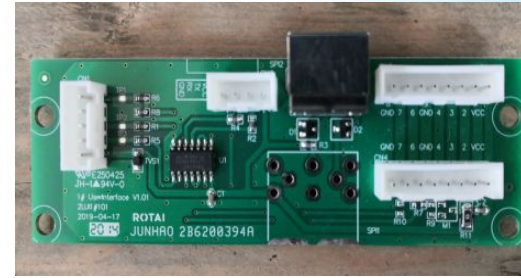




## No response of manual controller - cause analysis---

When the power switch light is on, the manual controller cannot be started. First, power off and enter the engineering mode to judge whether the 5V power supply is normal.

1. When the screen is on, it indicates that the 5V power supply is normal, which is the fault of the manual controller or the disconnection of the communication line. The multimeter can be used to judge or replace the manual controller.
2. If the screen is not on, it means that the 5V power supply is abnormal. Open the power box to see whether the green indicator on the 5V power supply board is on → mainboard indicator → user adapter board indicator. Which level does not light up may be due to poor performance or disconnection of relevant connecting wires (5V power board, mainboard, user interface board and manual controller), which can be checked and judged by multimeter.
3. All indicator lights are not on. Use a multimeter to measure 5V power supply AC220V input and AC220V input and output terminal voltage of the filter board.

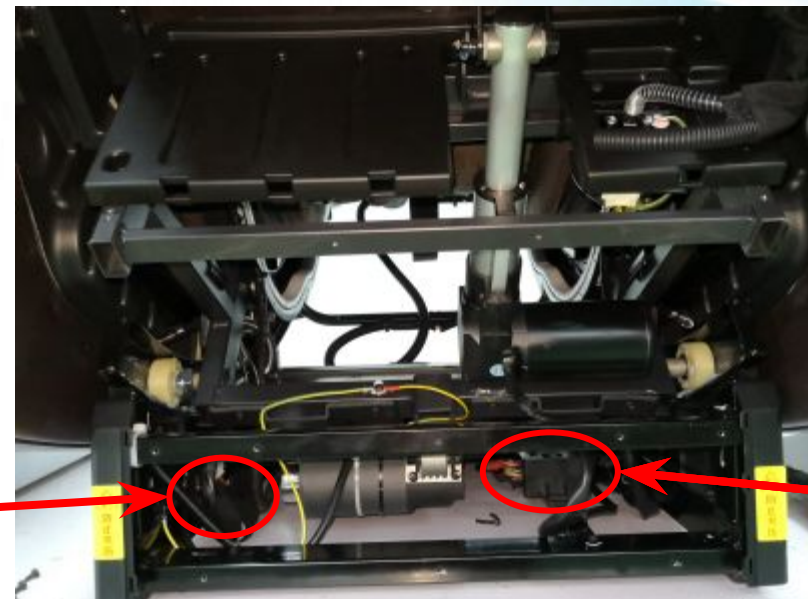




**Failure analysis of electric cylinder not working, only rising but not falling or only falling but not rising -First, start the machine with the manual controller and operate the electric cylinder with normal function. Use the exchange method to determine whether the electric cylinder is broken or the main board or connecting wire(for example, if the calf electric cylinder does not work, but the backrest electric cylinder works normally, you can pull out the red plug-in of the calf electric cylinder and insert it into the white plug-in of the backrest electric cylinder. Press the button of the backrest electric cylinder through the manual controller to observe whether the calf electric cylinder works normally. Normal operation indicates that the electric cylinder is good, which can be judged by the multimeter if the main board or connecting wire is bad. If it does not work, it means that the electric cylinder is broken , replace it).**

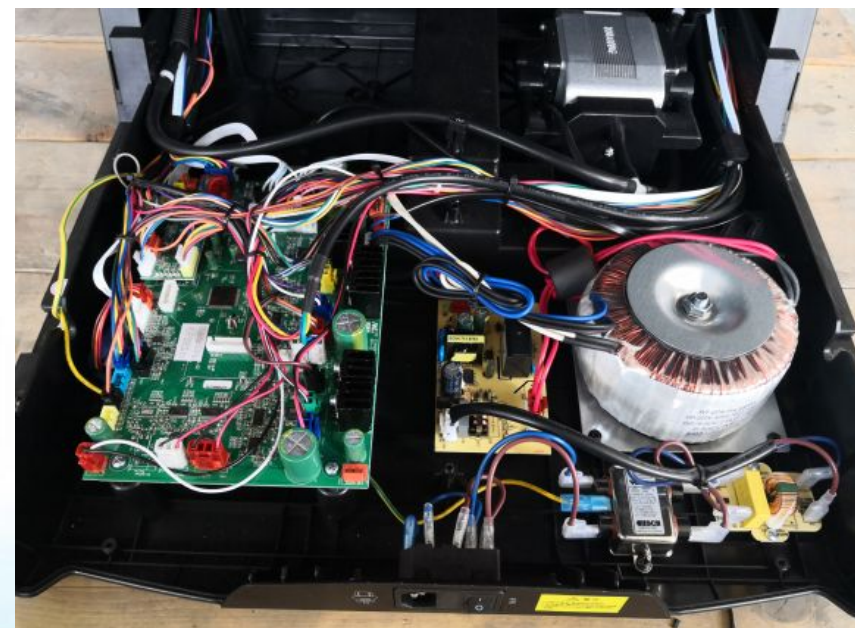
**Backrest electric cylinder with Hall  
DC24V/220mm**

**Backrest electric cylinder white plug-in**



**Calf electric cylinder  
DC24V/80mm**

**Calf electric cylinder red plug-in**





**ROTAI**

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## No pressure - no pressure fault

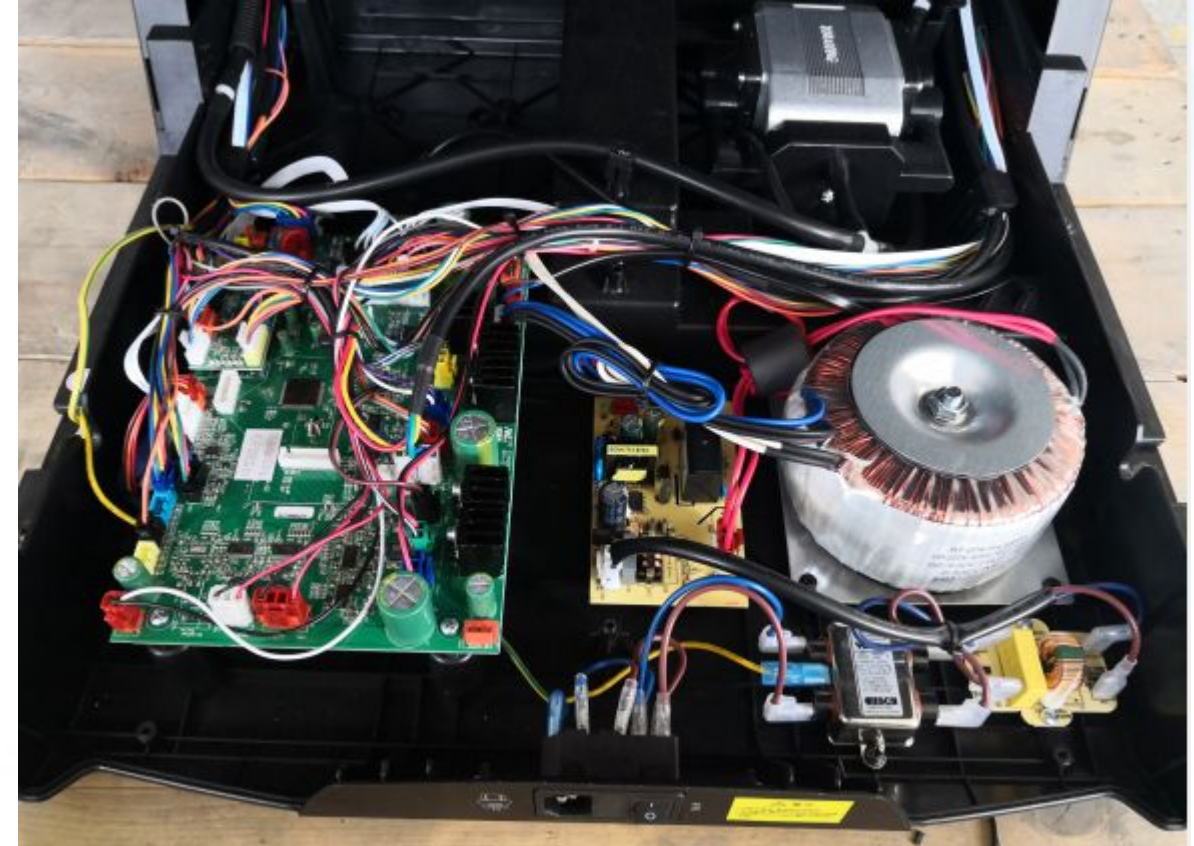
**analysis of the whole body**—There is no air pressure in the whole machine. The general fault point is on the air source circuit, such as the main board or ac19v air valve power supply. Open the whole body airbag in the manual mode of the manual controller and observe whether the air pump vibrates.

1. When there is no vibration, check whether the main board air pump socket ac21v has output. If there is output, the air pump is broken, and if there is no output, the main board is broken.

2. If the air pump vibrates, check whether ac19v of transformer has output. Yes, the main board is broken, and no, the transformer is broken.

AC19V

air pump



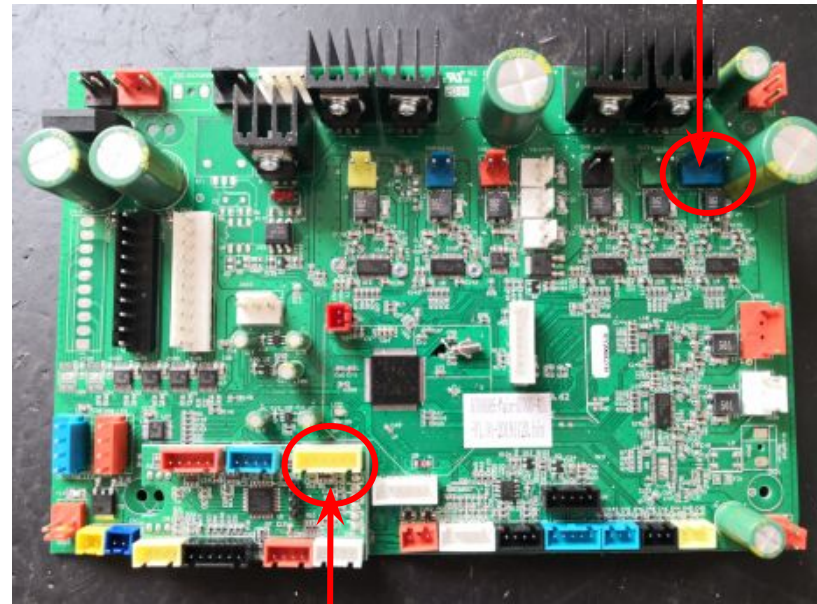
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**ROTAI**  
荣泰  
**calf no**  
**telescope—fault**  
**analysis**(without

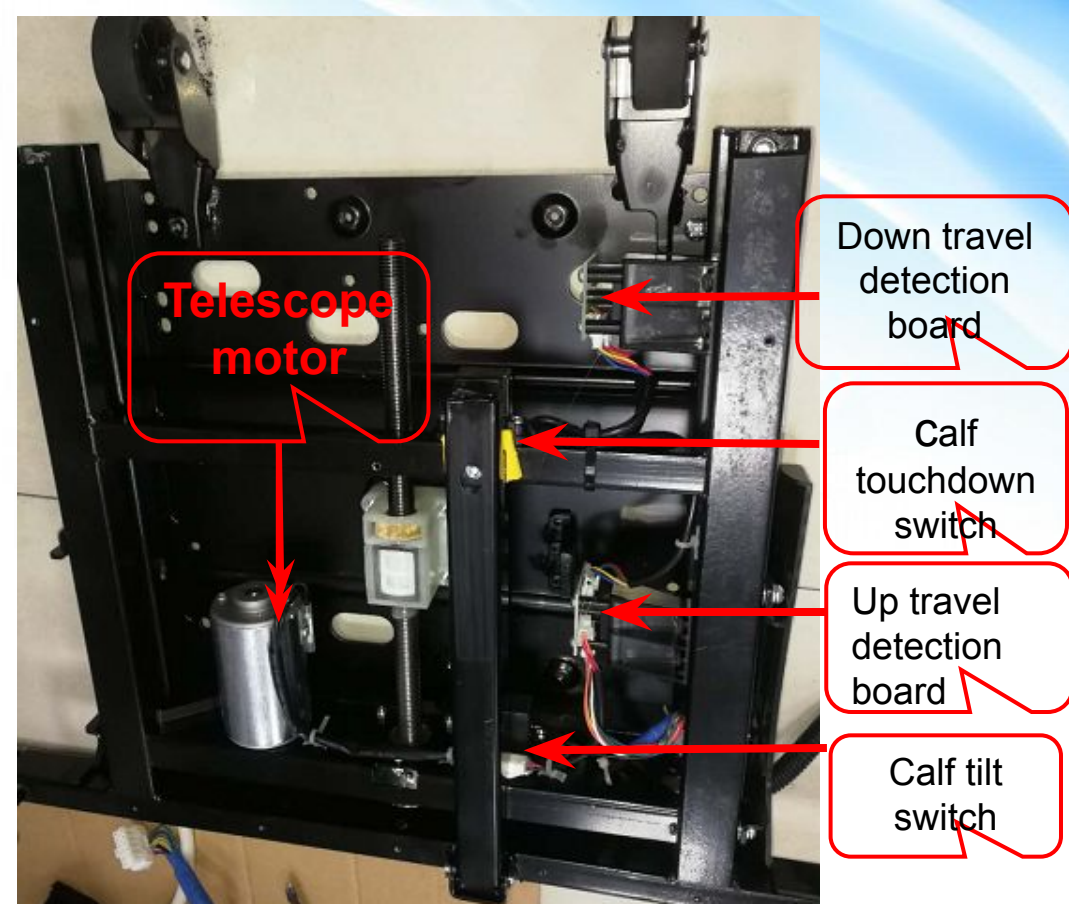
telescopic function, turn on the controller first and press the calf telescopic key. If you press the up and down keys, the buzzer is single tone, it means that the travel detection signal is normal, and the fault point is on the calf mainboard or telescopic motor, use a multimeter to measure and judge the resistance of the motor or the calf mainboard DC24V voltage.



Telescope travel signal plug-in

Telescope motor plug-in

If the buzzer sounds double when you press the telescopic up and down keys, it means that the travel detection signal is abnormal, the connecting wire is loose and broken, or the calf main board is broken.)



Telescope motor

Down travel detection board

Calf touchdown switch

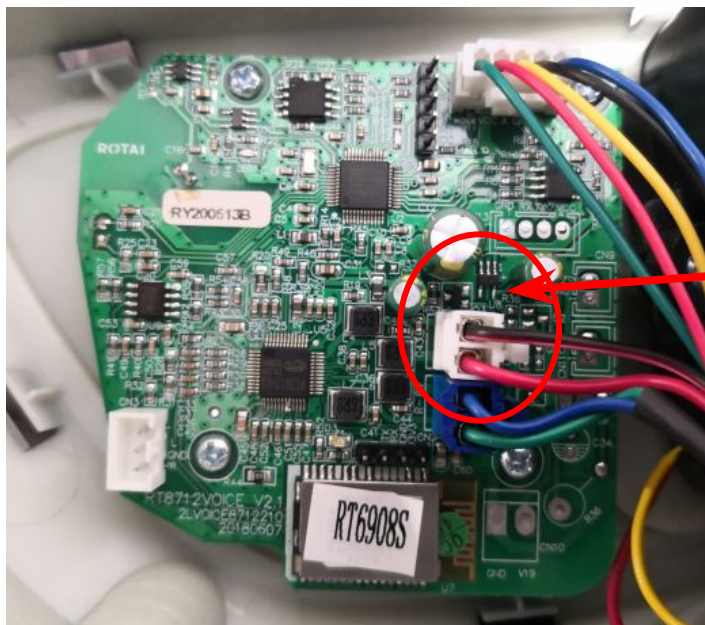
Up travel detection board

Calf tilt switch



## ROTAI No music- 荣泰

**1、** When the manual control board is turned on and the machine is working, the mobile phone scans the machine with Bluetooth, and Bluetooth is paired. If you can't connect or pair (change the mobile phone), the Bluetooth board or motherboard is broken. Replace the Bluetooth board or mainboard.



**2、** The phone is paired successfully and there is still no music. Check whether there is poor contact or open circuit between the left and right audio signal wires and speakers (use a multimeter to detect and judge, and the speaker resistance is 5-8  $\Omega$ ). If the resistance value is normal, the Bluetooth board is broken. Replace the user transfer board.

There is no resistance value. Remove the shoulder assembly and measure the speaker plug with a multimeter. The resistance value is 5-8  $\Omega$ ,. If not, the speaker is broken or the connecting line is broken, replace or re weld. If there is resistance value, the audio signal line is broken or the plug-in is loose, replace or re plug it.



## Disassembly steps of armrest



Open the left and right shoulder zippers and remove the armrest fixing screws



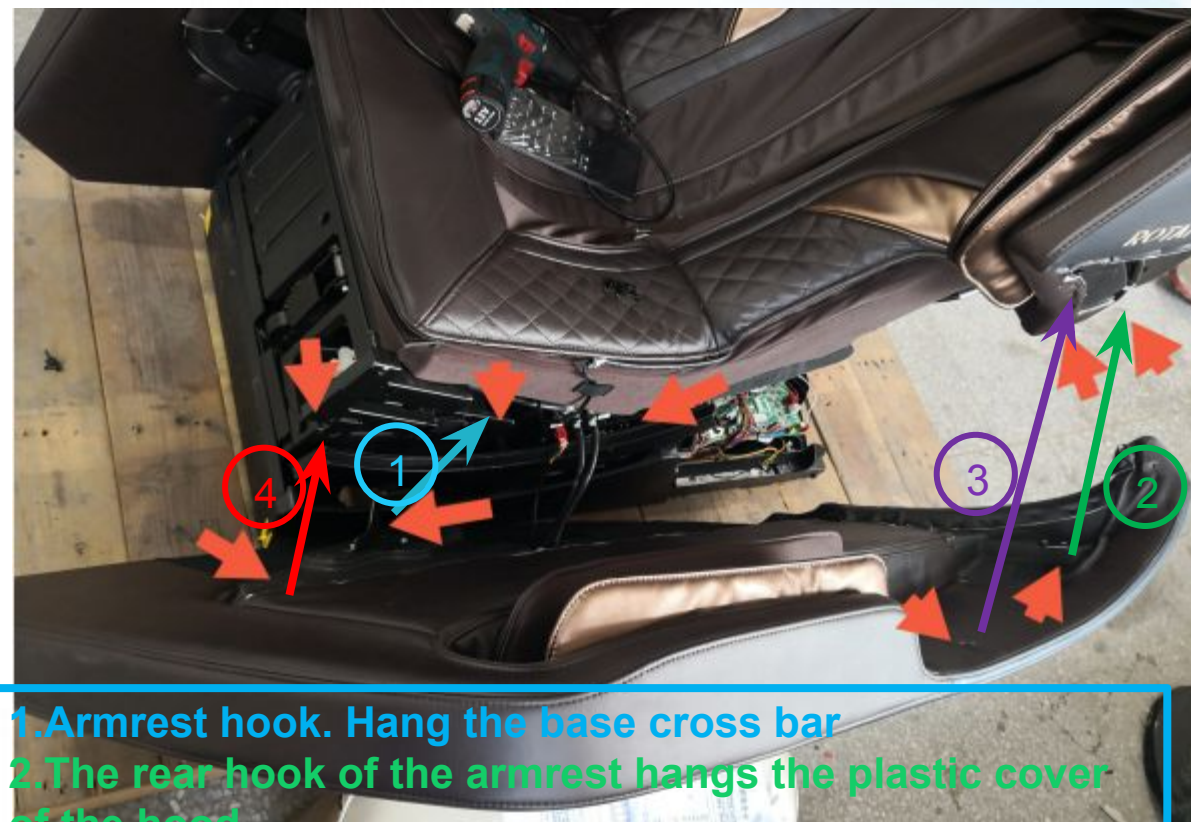
Remove the legs, remove one fixing screw under the left and right armrest, and lift them up gently to remove the armrest



## Disassembly steps of armrest



Insert the gas pipe and color lamp plug-in according to the number



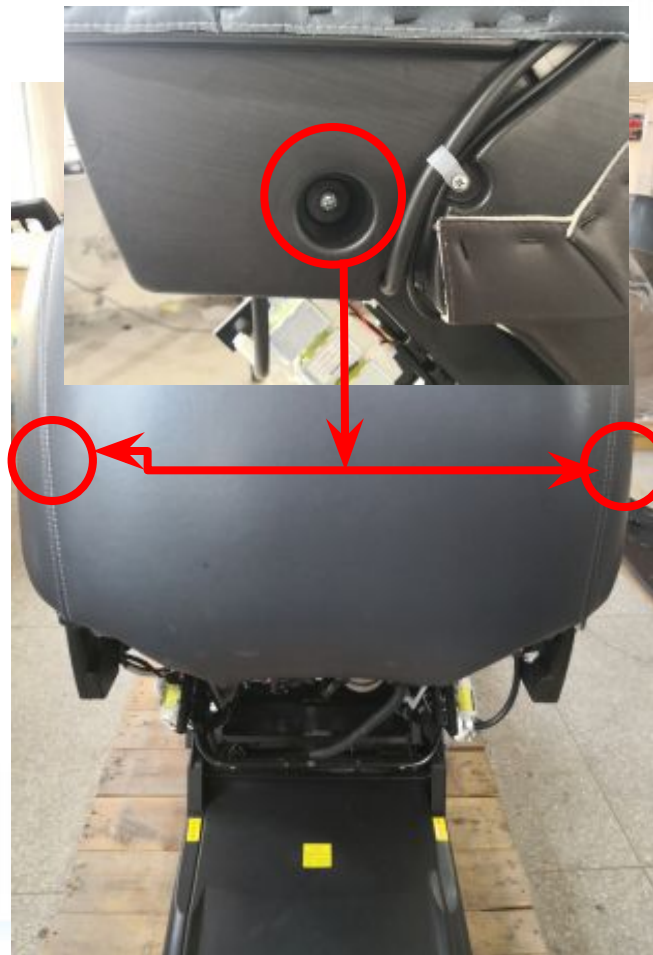
1. Armrest hook. Hang the base cross bar
2. The rear hook of the armrest hangs the plastic cover of the hood
3. Install the upper fixing screw of the armrest at the shoulder gasbag
4. Install the fixing screws under the armrest



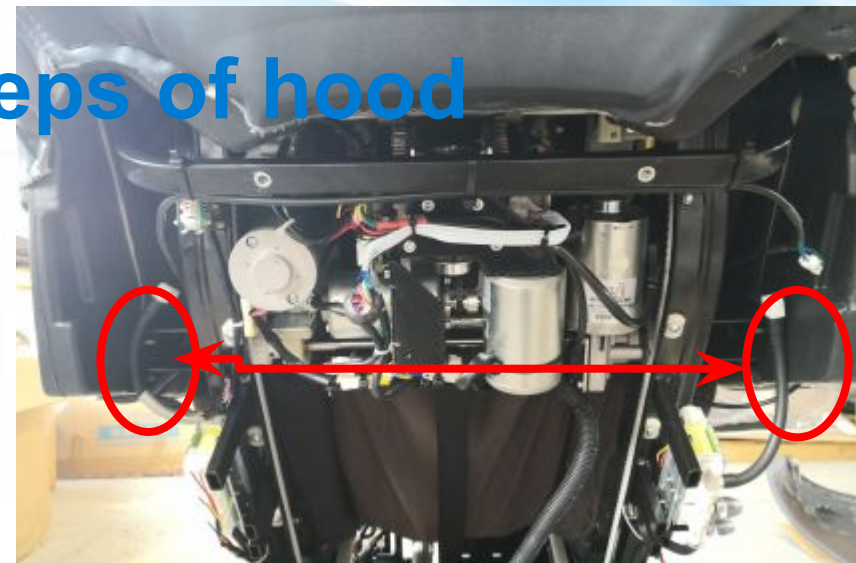
# Disassembly and assembly steps of hood



Remove 4 screws from the back cover



Remove one screw on the left and right outside the hood



Pull out the hood gas pipe and horn insert, and lift it up slightly to remove the hood assembly.

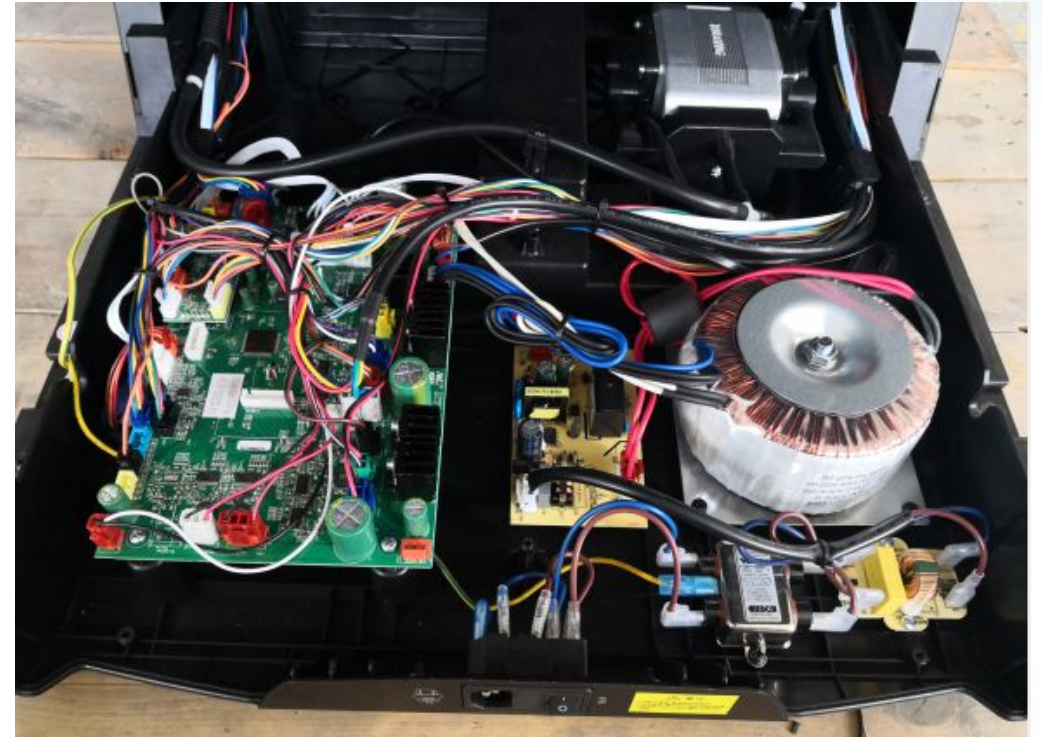




## How to open power box



Remove the 3 fixing screws of the power box cover



Replaceable main board, transformer, power supply board, air pump, filter board, filter



## Audio board disassembly steps



Open the outer cover directly by hand or slotted screwdriver

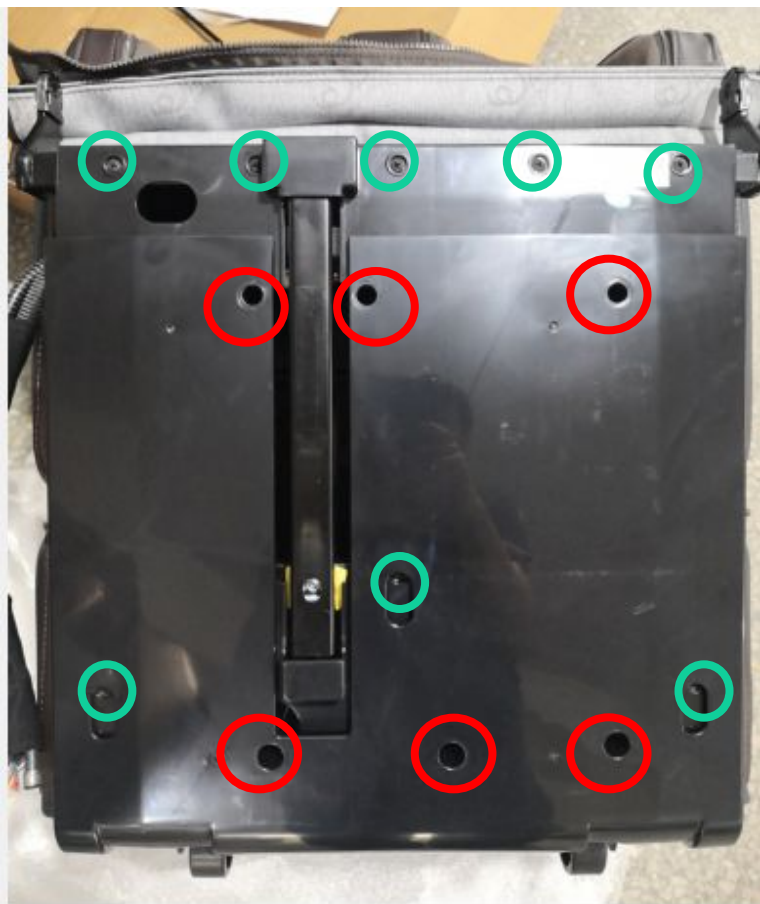


Disassemble the 3 fixing screws of the inner cover



Audio board(Voice PCB)

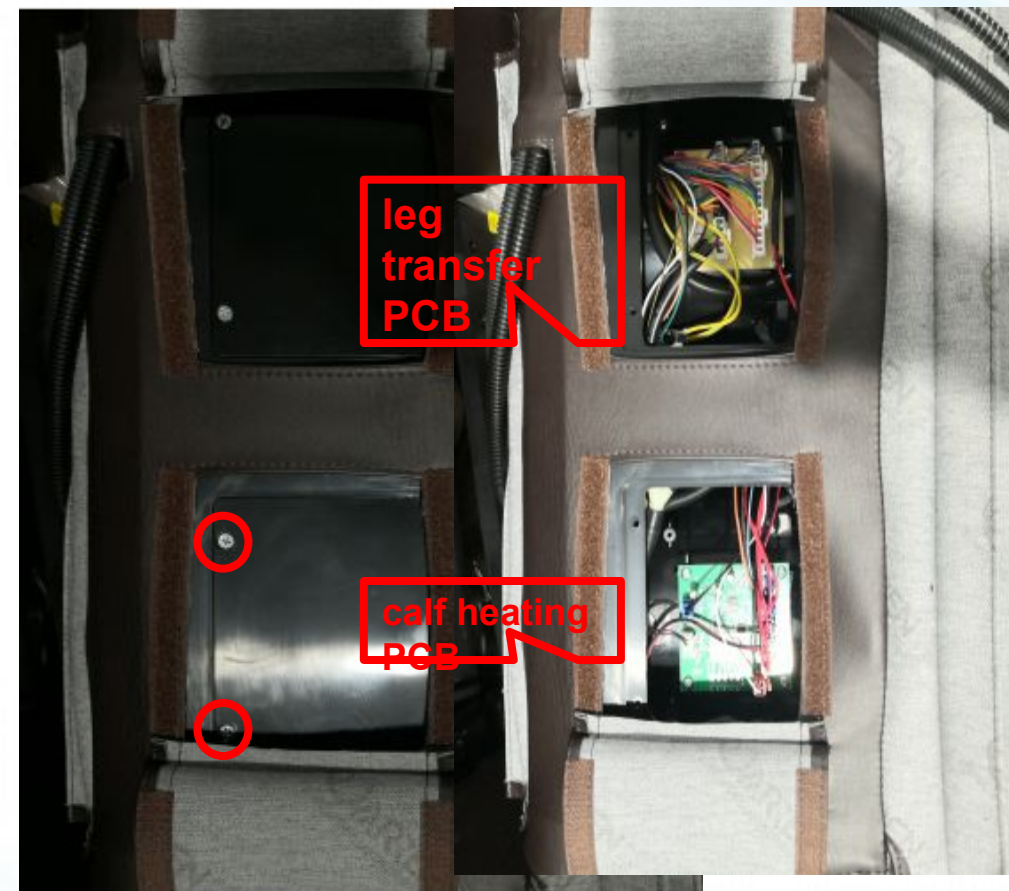
# Disassembly and assembly steps of calf heating PCB



Remove the fixing screws of the power back cover



Remove the upper calf fixing screws



Open the Velcro and remove the fixing screws.