

**(GLC231)**

**Summit Flex**

**Theramedic Flex**

**Analysis of common failures**

**ROTAI**  
荣泰

# Massage chair

舒适睡眠姿态 享受舒展放松按摩



长按 电源开关

短按 切换自动程序

小幅度正旋 靠背慢慢升

大幅度正旋 靠背升至零重力

小幅度反旋 靠背慢慢降

大幅度反旋 靠背降至复位



**上海荣泰健康科技股份有限公司**  
SHANGHAI RONGTAI HEALTH TECHNOLOGY CORPORATION LIMITED

## Massage chair parameters

### 产品尺寸参数



产品型号 荣泰 S60

|        |                     |
|--------|---------------------|
| 产品型号   | 荣泰 S60              |
| 产品名称   | 元气瑜伽按摩椅             |
| 额定电压   | 220V~               |
| 额定功率   | 120W                |
| 直立尺寸   | 1160 x 745 x 1555mm |
| 平躺尺寸   | 1820 X 745 X 845mm  |
| 背部按摩行程 | 130cm               |
| 包装尺寸   | 1590 x 830 x 875mm  |

# Armrest disassembly

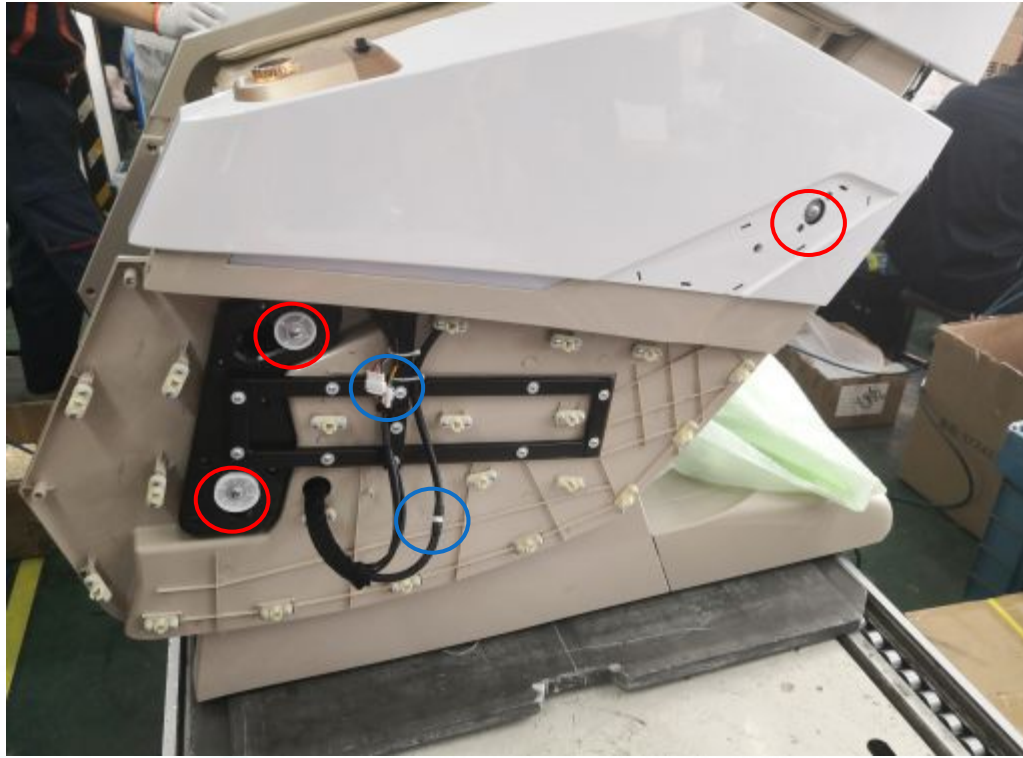


1. Remove the 2 outer cover screws on the side of the armrest and pull out the outer cover of the armrest



2. Cut out the decorative strip

# Handrail disassembly step instruction diagram

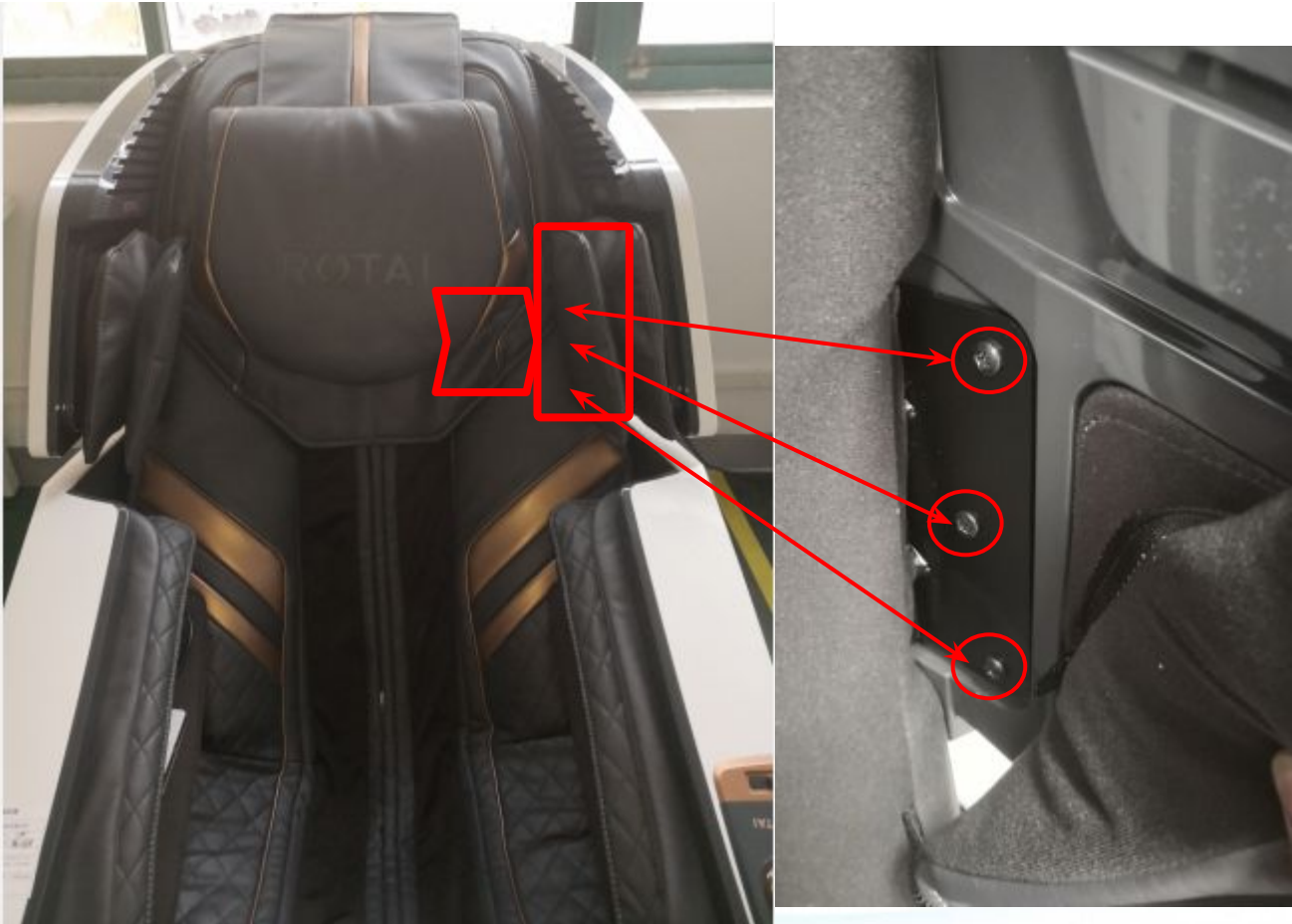


3. Remove the 3 fixing screws, unplug the plug-in unit and the trachea



4. Pull out to remove the armrest

## Instruction diagram of shoulder disassembly steps



1. Open the shoulder airbag holster and remove the 3 fixing screws



2. Remove the 4 fixing screws of the rear cover



3. Remove the 3 fixing screws on the shoulder and take off the shoulder assembly.

# Steps for disassembly and assembly of the left armrest button switch



1. Pry open the USB charging cover and remove the 2 screws of the button cover

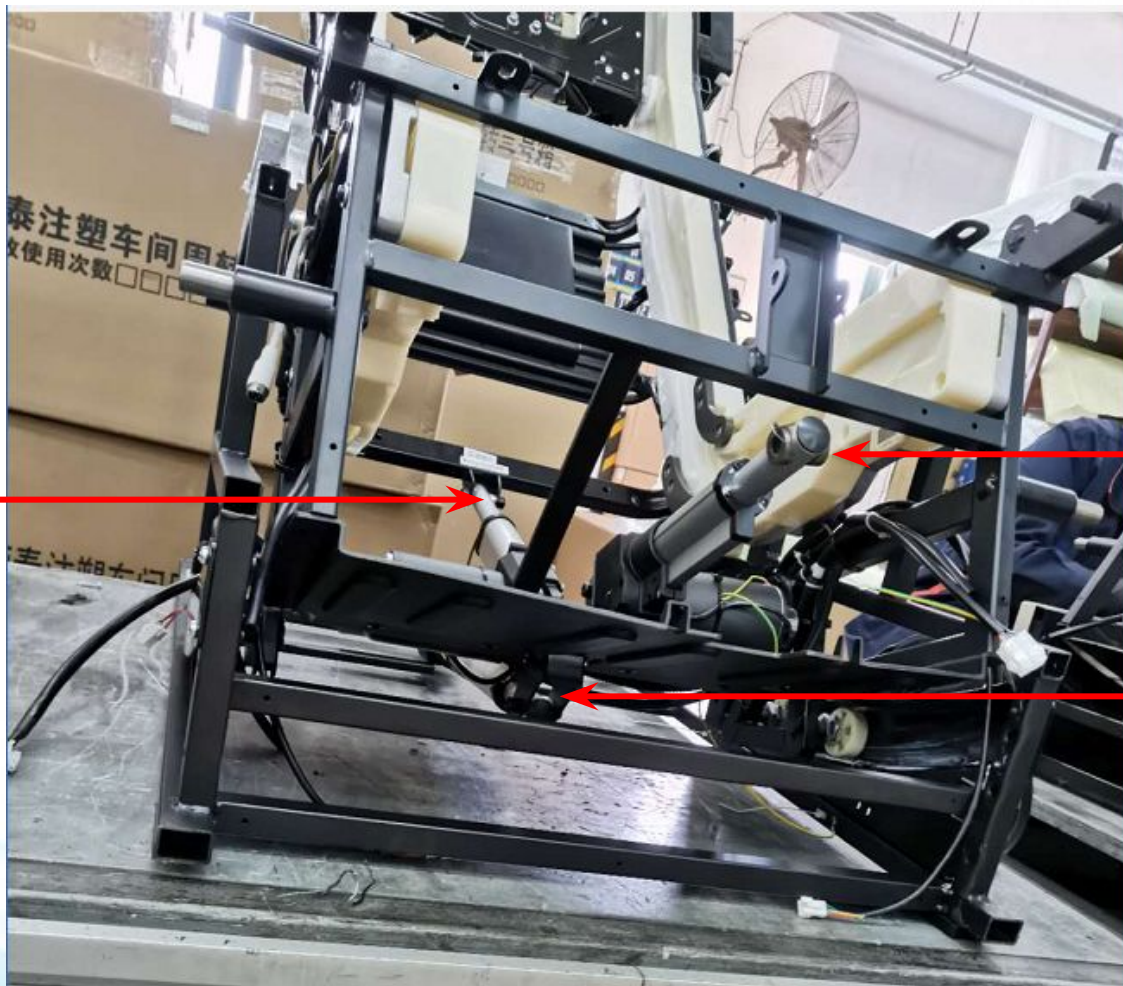


2. Remove the fixing screws to replace the button switch board

# Electric cylinder plug-in instruction diagram

Backrest electric  
cylinder plug-in  
**white**  
**DC24V/76mm**  
**with Hall**

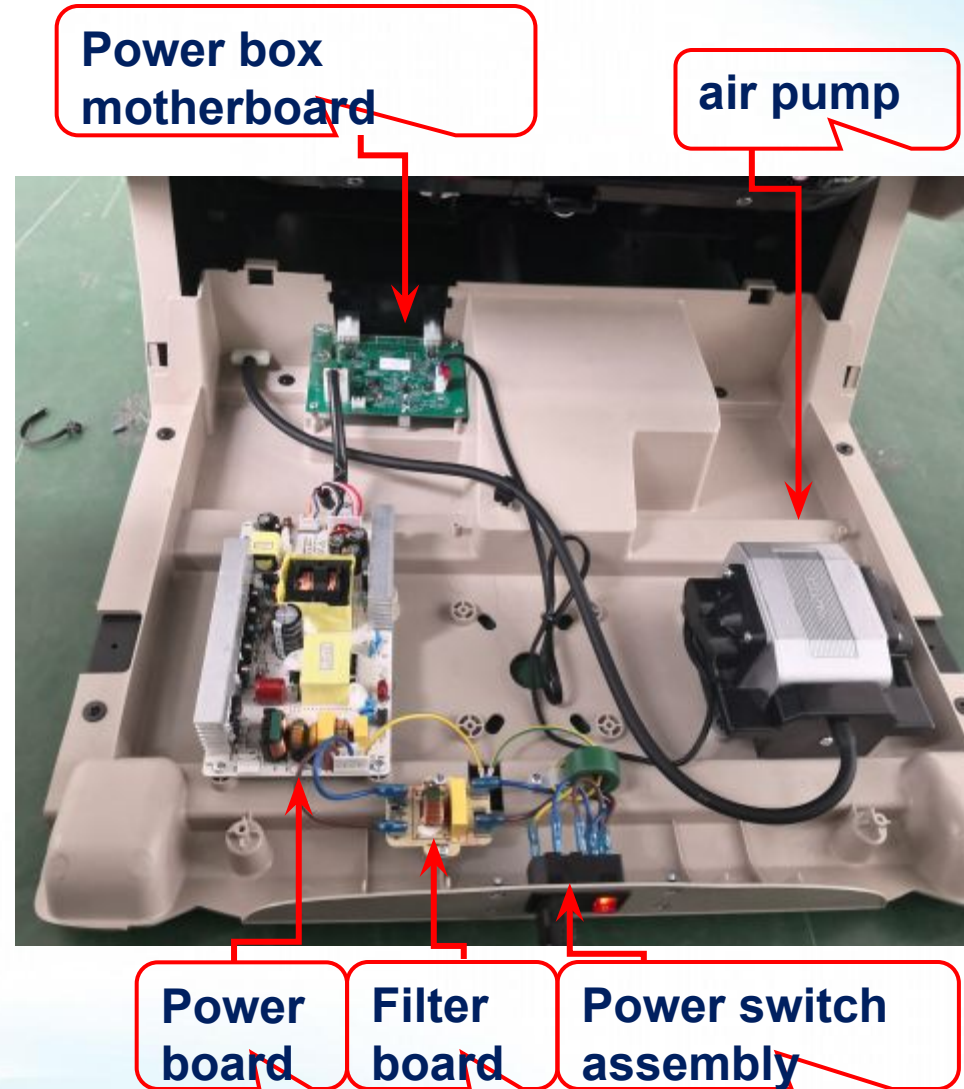
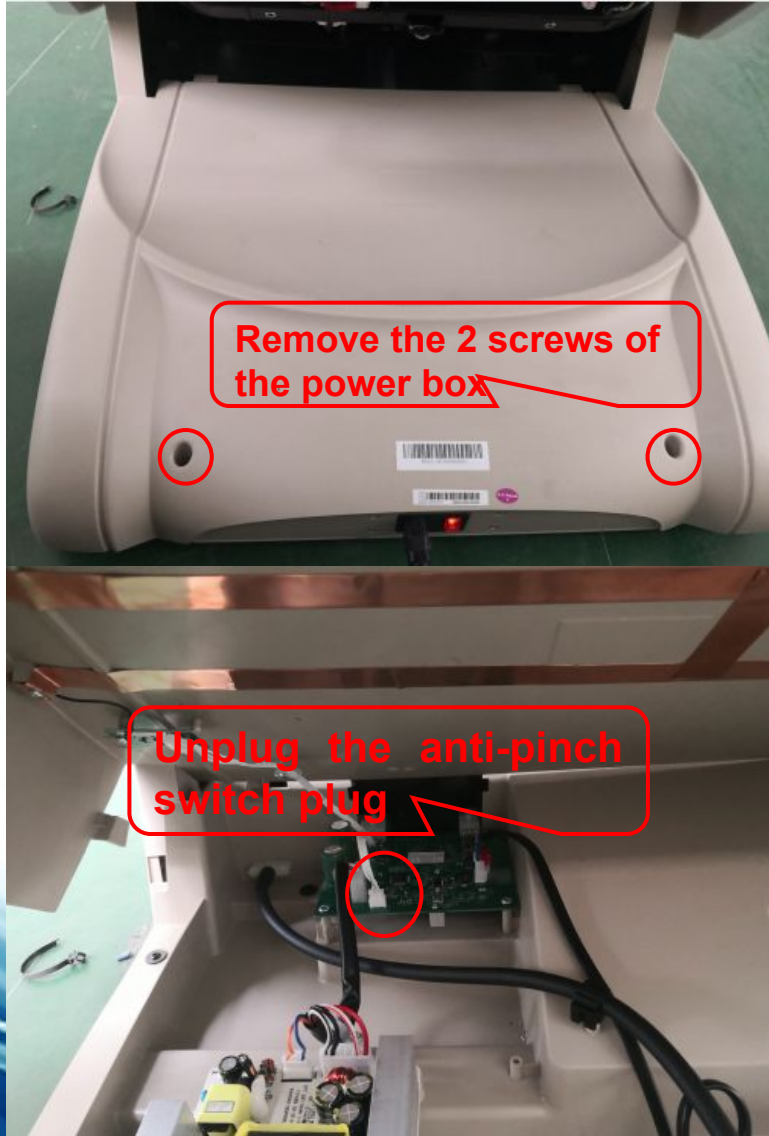
Remove the upper  
and lower baffles,  
and then remove the  
fixing screws at the  
front and rear of the  
electric cylinder and  
pull out the  
corresponding  
plug-in to remove it.



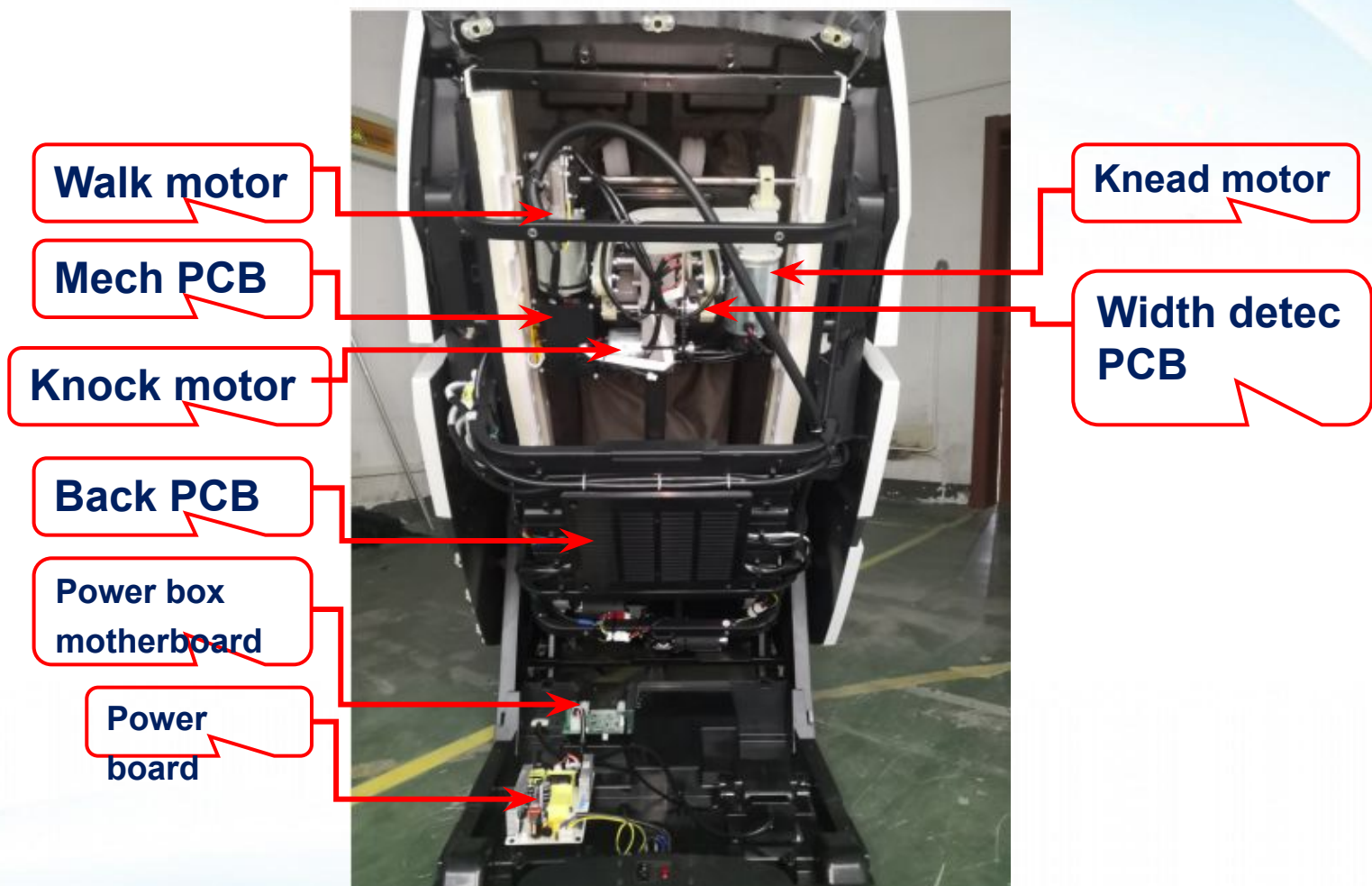
Calf electric  
cylinder plug-in  
**Red**  
**DC24V/106mm**  
**with Hall**

Front sliding electric  
cylinder plug-in **Yellow**  
**DC24V/76mm with Hall**

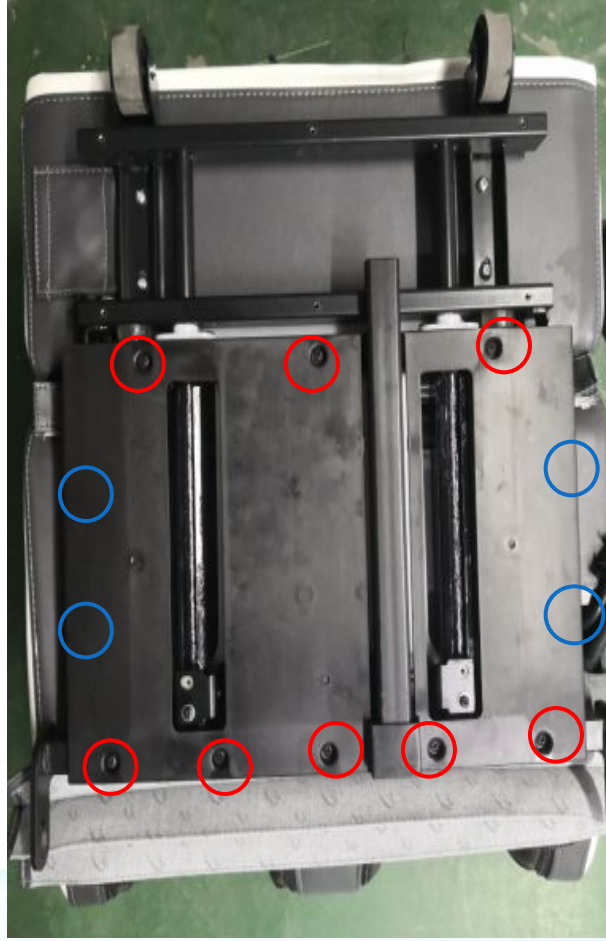
# Power box disassembly instruction



# Mechanism disassembly



# Legrest PCB disassembly

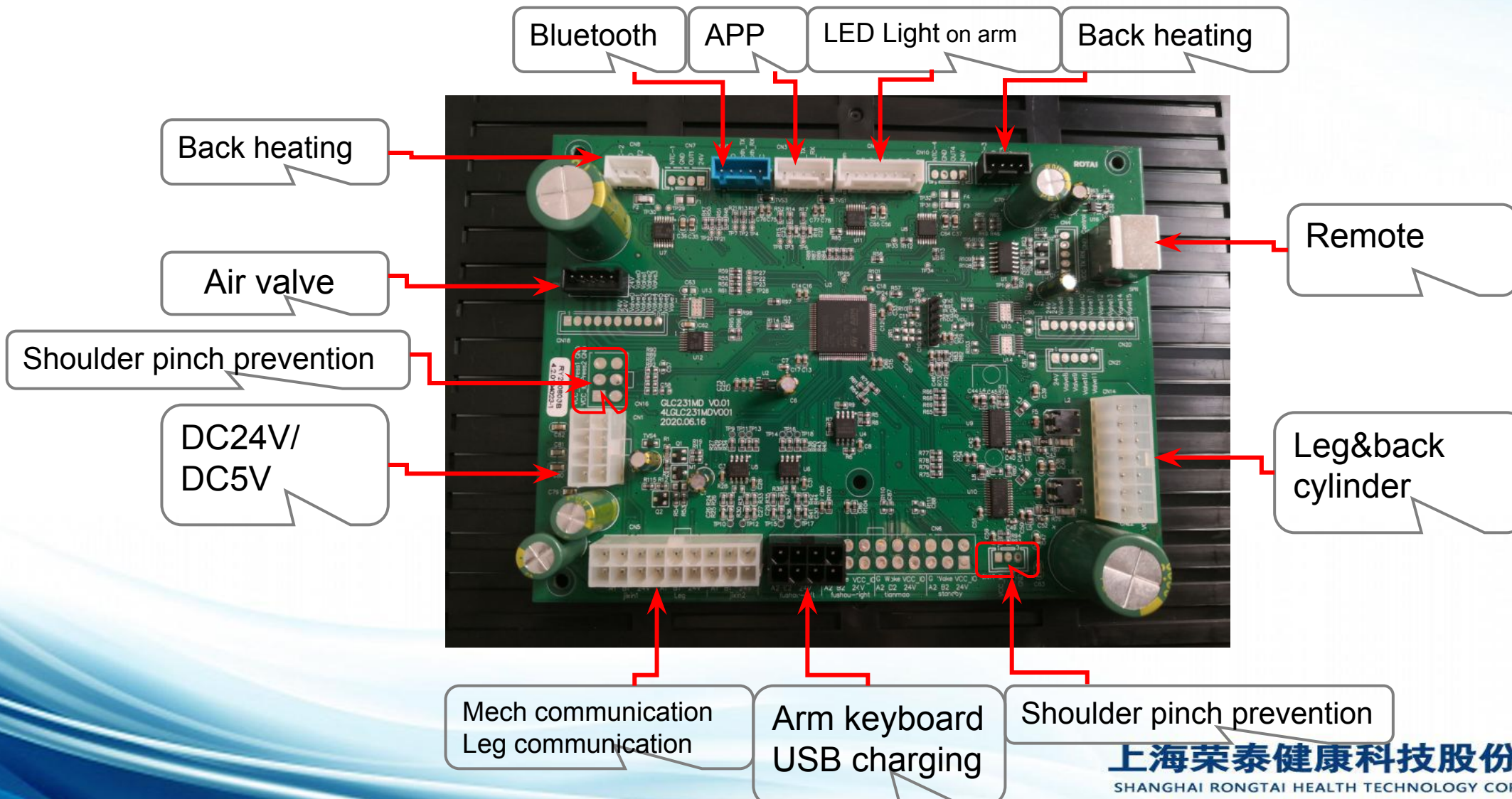


1. Remove the fixing screws of the upper and lower cover of the lower leg, and fix the upper leg of the telescopic frame with 4 screws

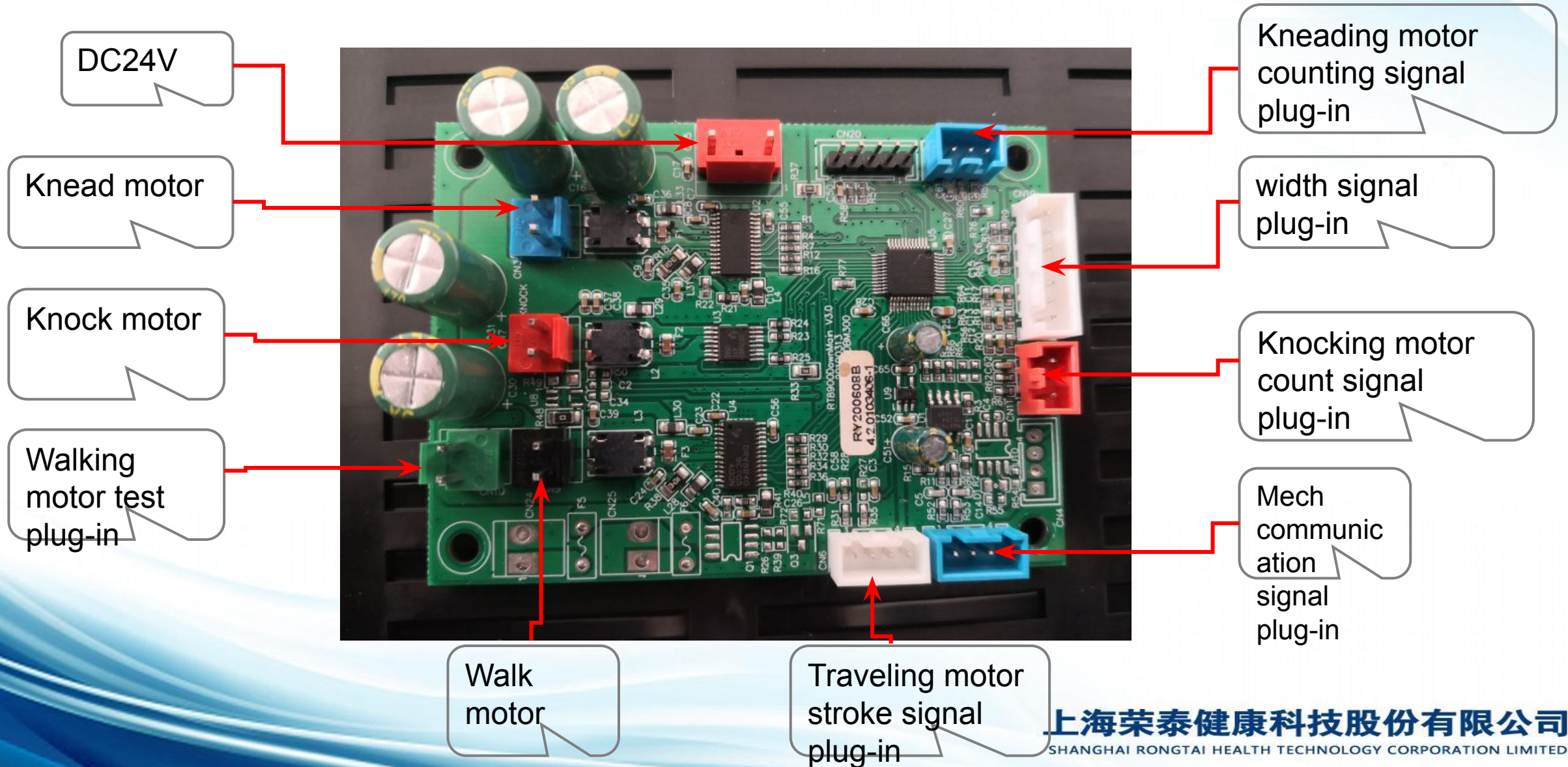
2. Remove the 2 screws to fix the calf cover

3. Legrest CPB

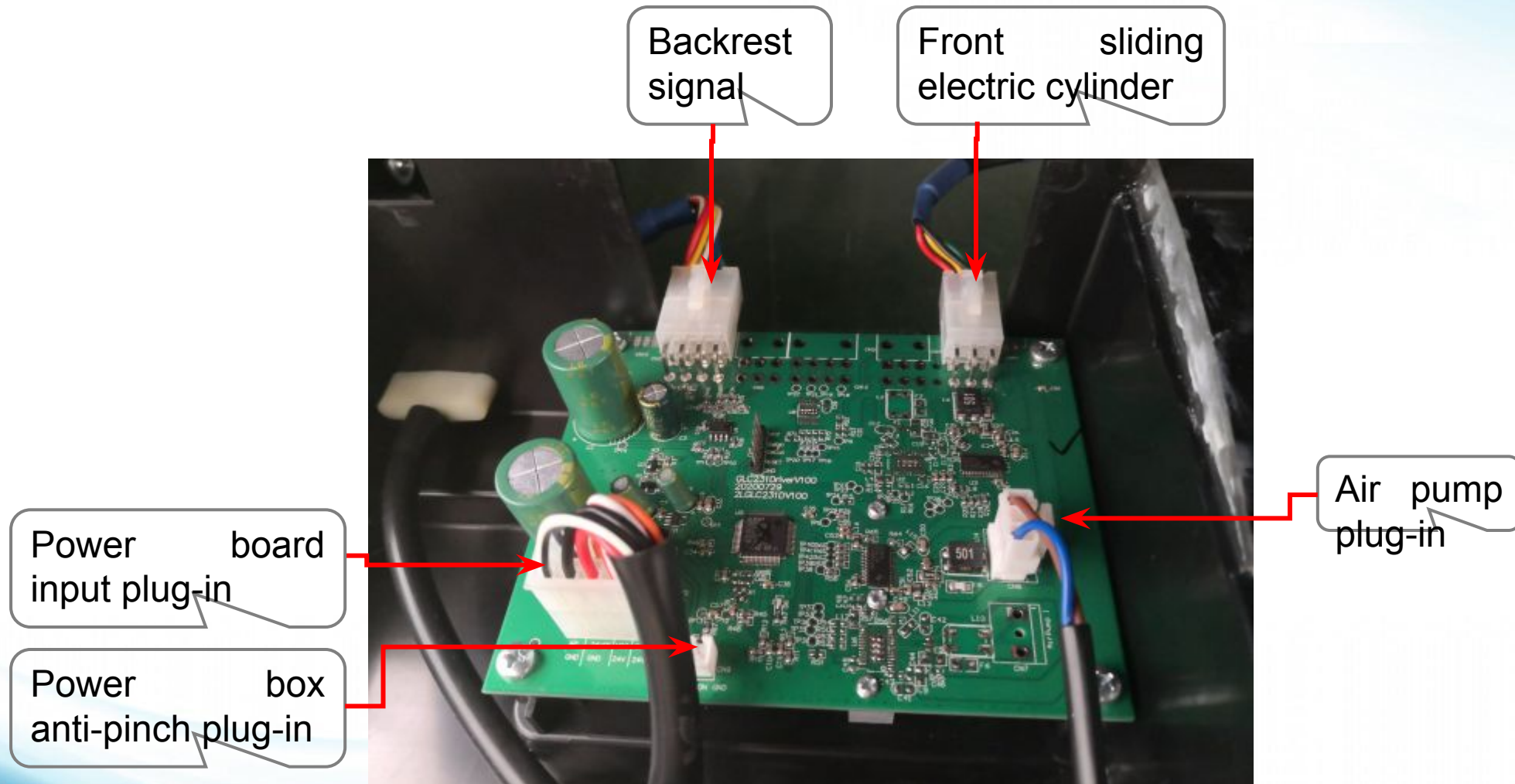
# Back PCB



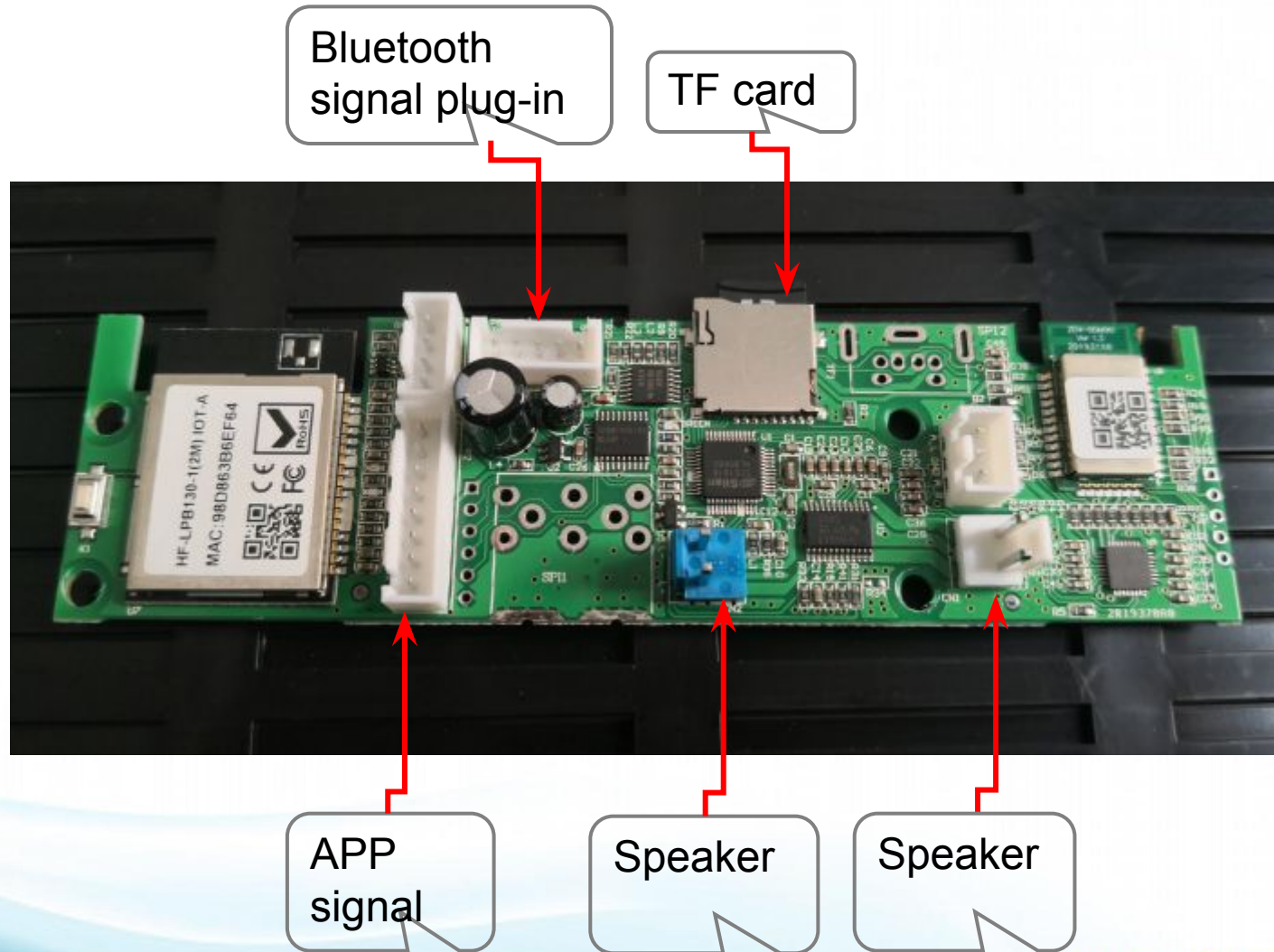
# Mech PCB



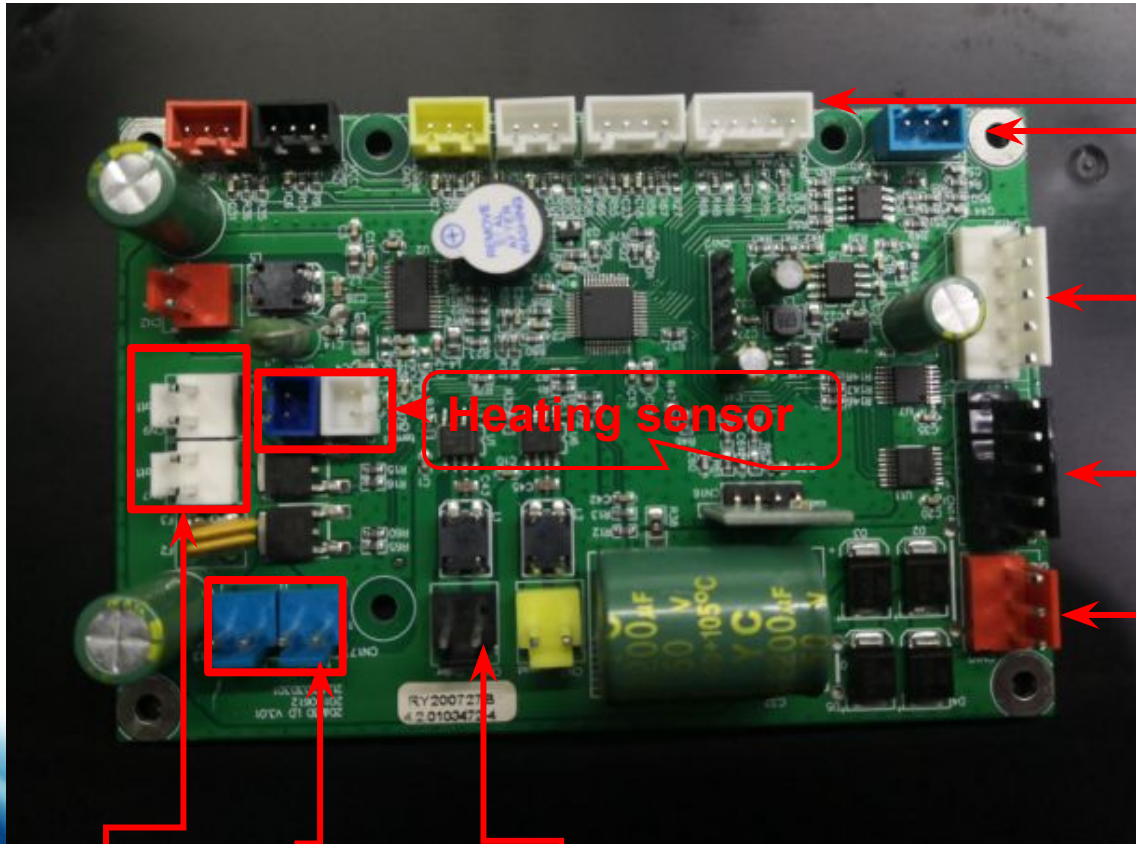
# Power box motherboard



# Bluetooth board/ User connecting board



# Legrest PCB



Calf roller  
signal

Calf  
communication  
signal

Air valve

Air valve

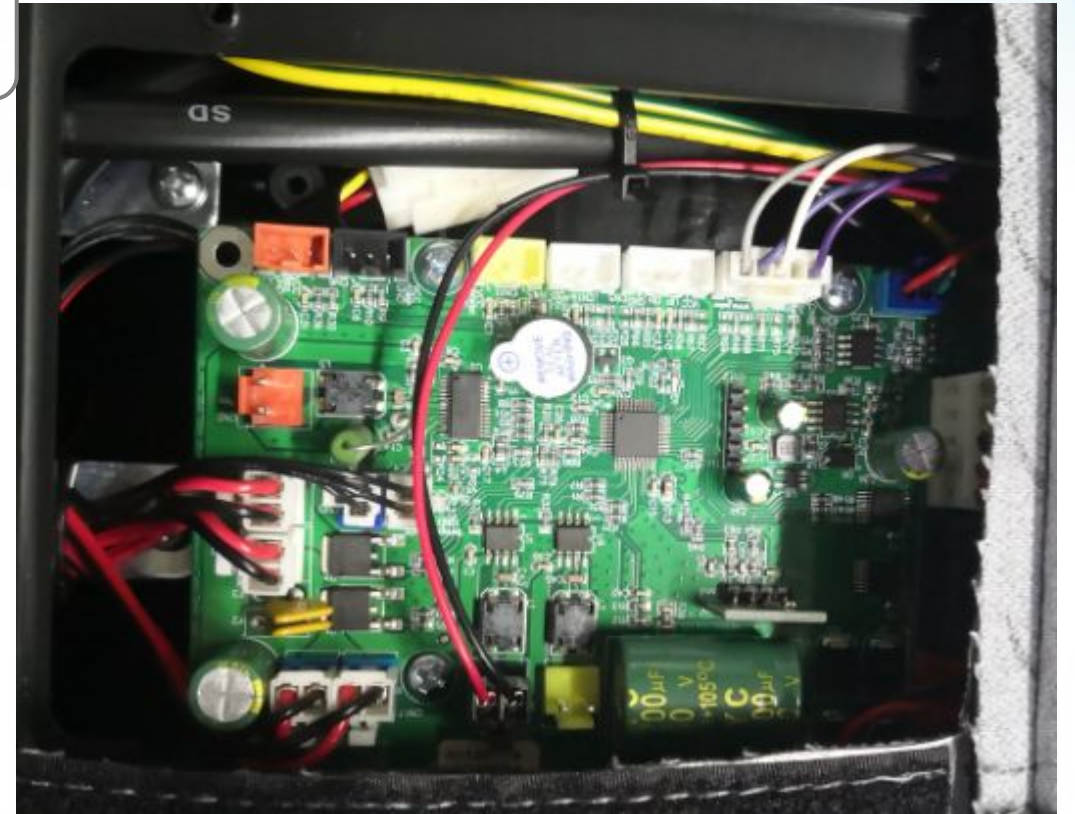
Power

Heating sensor

Heating

Heating

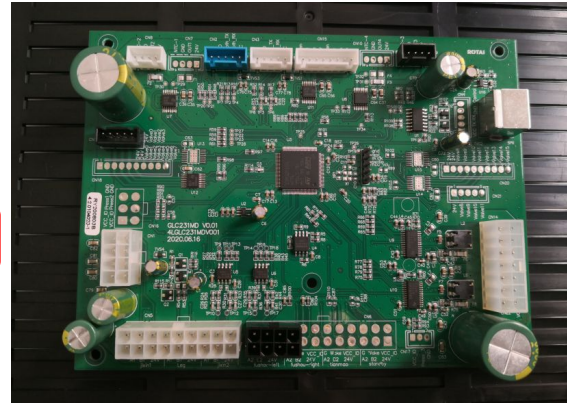
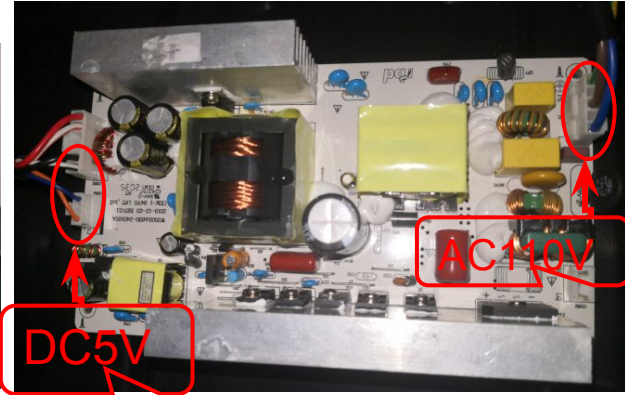
Roller motor



## **III. Product troubleshooting and maintenance**

- 1. The hand controller can't turn on the chair**
- 2. The kneading motor does not work**
- 3. The knocking motor does not work**
- 4. The walking motor does not work**
- 5. Fuse short circuit**
- 6. The electric cylinder of the calf and backrest does not work**
- 7. The front sliding electric cylinder does not work**
- 8. The airbag does not work locally or in a certain part**
- 9. The whole chair does not inflate**
- 10. The USB interface cannot be charged**
- 11. The calf roller does not work**

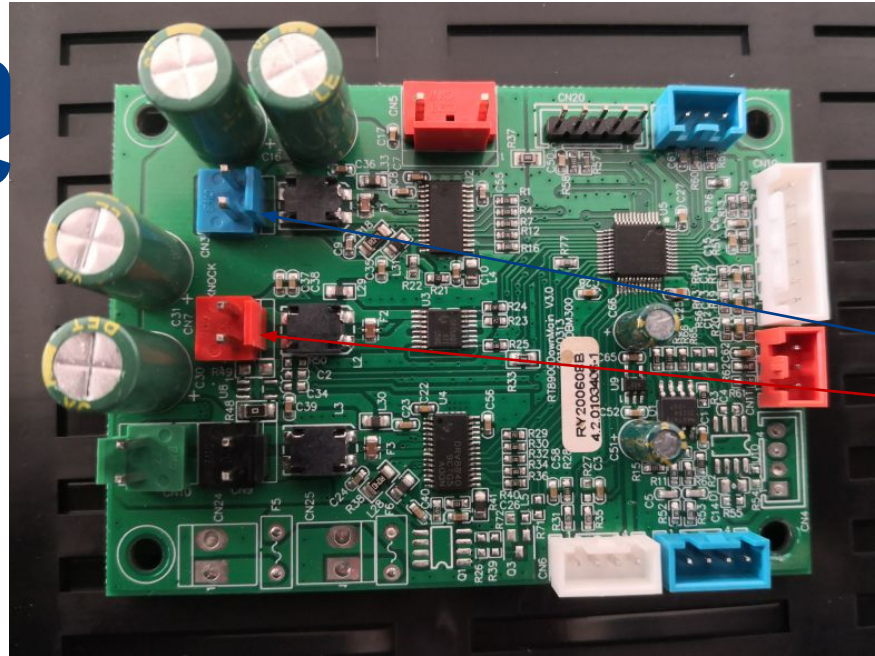
## 1.hand controller can't turn on the chair



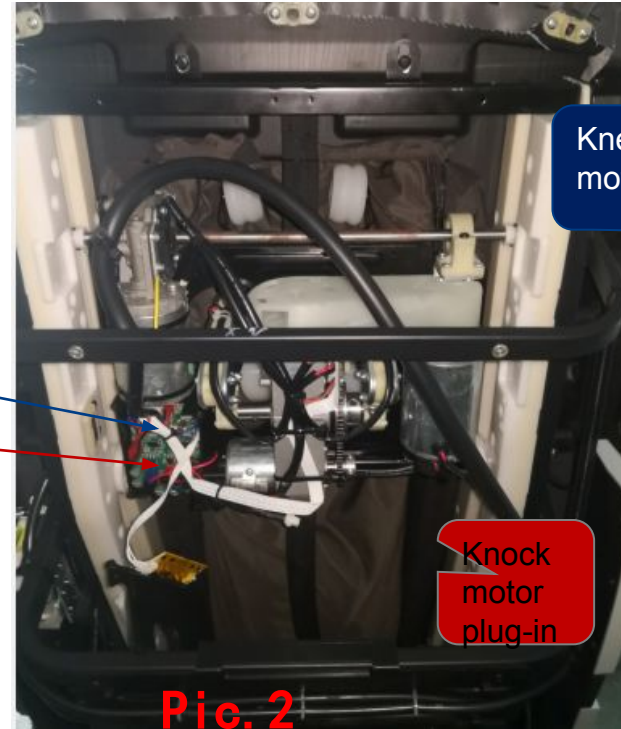
| Possible Reasons: |                              | Troubleshooting method |  |
|-------------------|------------------------------|------------------------|--|
| 1                 | Remote or harness broken     | 1                      | Make sure the power Indicators Light is on, check if problem solved with another remote                      |
| 2                 | Power PCB broken             | 2                      | Check if there is DC5V output from the joint in Pic.2  |
| 3                 | Main PCB broken              | 3                      | Check if light on main PCB is on, if no light on, then main PCB is broken                                    |
| 4                 | Remote shield harness broken | 4                      | If main PCB is well, check the Remote Shield Harness(The one from bluetooth PCB to remote) with a multimeter |

PS: If there is no DC5V output from power PCB, then check if there is AC110V input on Pic.2: If AC110V exists, then power PCB is broken; If AC110V does not exist, then check if connection of Filter PCB& harness.

## 2 Kneading motor does not work



Pic.1



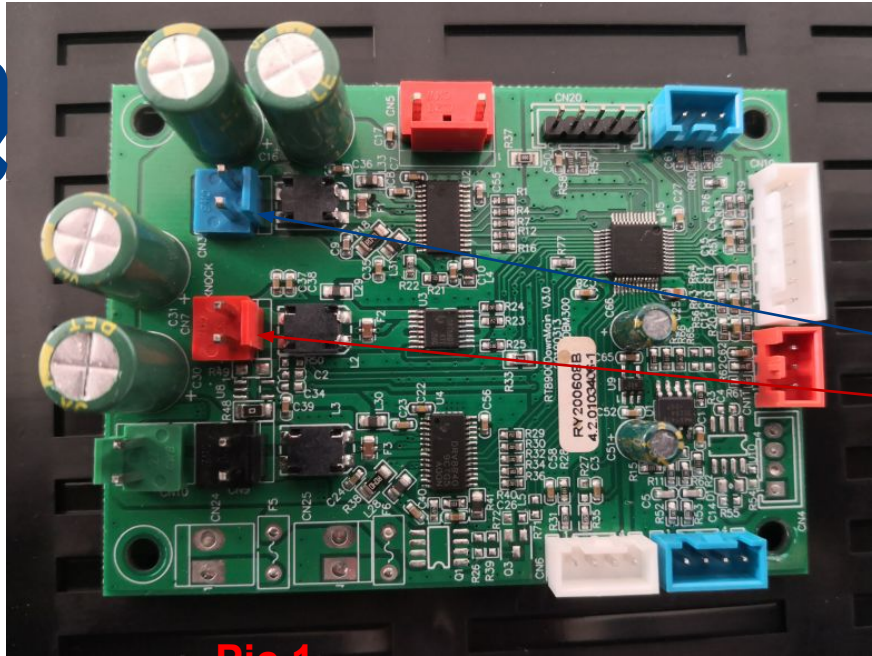
Pic.2

| Possible Reasons: |                       | Troubleshooting method |  |
|-------------------|-----------------------|------------------------|--|
| 1                 | Kneading motor broken | 1                      | Select Sync message in manual mode, then swap the Kneading motor to Knocking motor on Mech PCB to see if kneading motor works: If kneading motor works, then the harness or motherboard is broken; If not working, then motor is broken, need to change the motor. As Pic.2. |
| 2                 | Motherboard Broken    | 2                      | Return the motors to its original joint, then swap the kneading motor to knocking motor on Motherboard to see if kneading works: If kneading works, then motherboard is broken, need to change the motherboard. It can be checked with a multimeter as Pic.1.                |

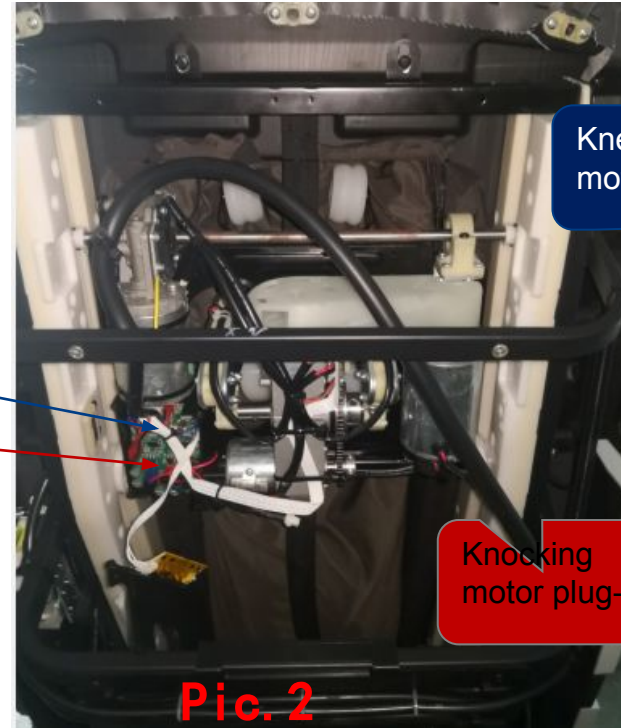
### 3 Knocking motor does not work

Kneading motor

Knock motor



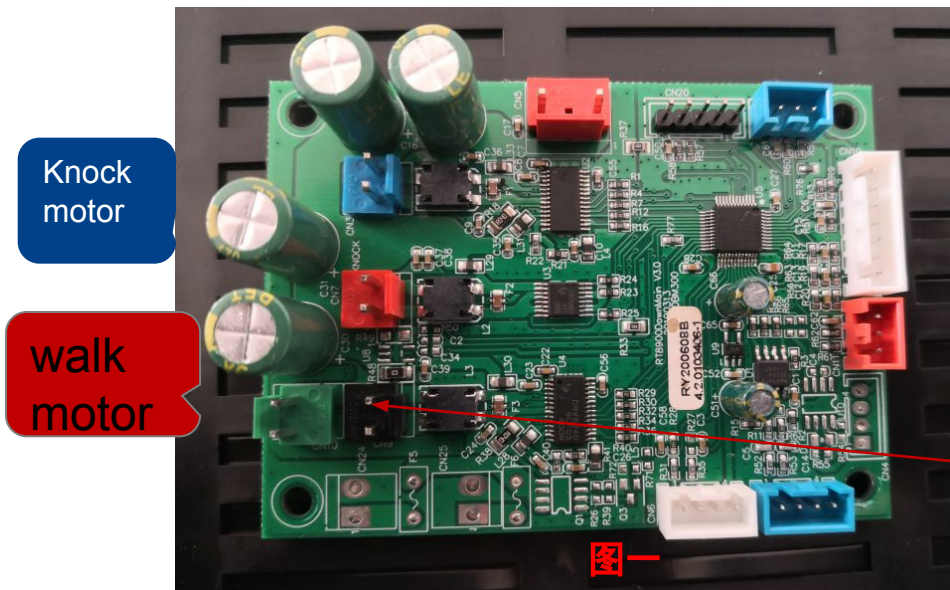
**Pic.1**



**Pic.2**

| Possible Reasons: |                       | Troubleshooting method   |
|-------------------|-----------------------|--|
| 1                 | Knocking motor broken | 1 Select Sync message in manual mode, then swap the Knocking motor to Kneading motor on Mech PCB to see if knocking motor works: If knocking motor works, then the harness or motherboard is broken; If not working, then motor is broken, need to change the motor. As Pic.2. |
| 2                 | Motherboard Broken    | 2 Return the motors to its original joint, then swap the knocking motor to kneading motor on Motherboard to see if knocking works: If knocking works, then motherboard is broken, need to change the motherboard. It can be checked with a multimeter as Pic.1.                |

## 4. walking motor does not work



walk  
motor  
plug-in

Limit  
PCB



### 原因分析:

1. 行走电机坏
2. 连接线束断
3. 行程检测板坏
4. 机芯主板坏

### 排除方法:

1. 选择手动功能揉敲同步手法, 再选择定点功能, 按上下行程键, 手控器有无双声滴滴声, 上有下无则下行程检测板坏(更换)或行程信号线束断或接触不良。下有上无则上行程检测板坏(更换)或行程信号线束是断或是接触不良。**图二**
2. 手动定点上下都能有滴滴慢单声声, 说明行程检测信号正常, 然后将机芯上电机插件(黑色与敲击电机插件(红色)对接, 观察电机是否行走, 不行走, 为电机坏更换电机**图二**
3. 将机芯电机插件回位, 将主板上行走电机插件插到敲击电行走电机有无工作有为主板坏, 更换主板, 无为线束坏, 可用万用表检查, 更换线束。

## 5、烧保险丝

# 三、产品故障排查及维修



### 原因分析:

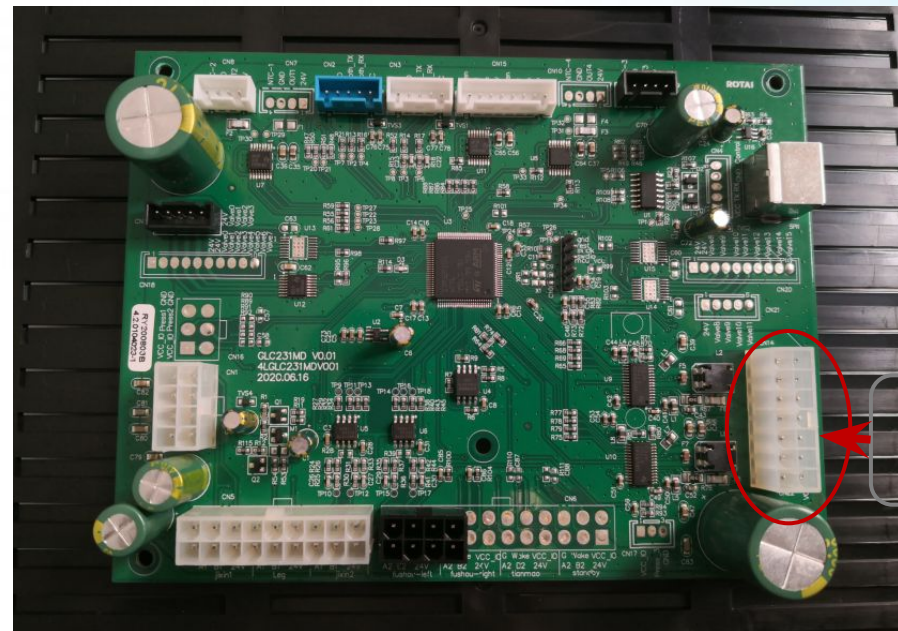
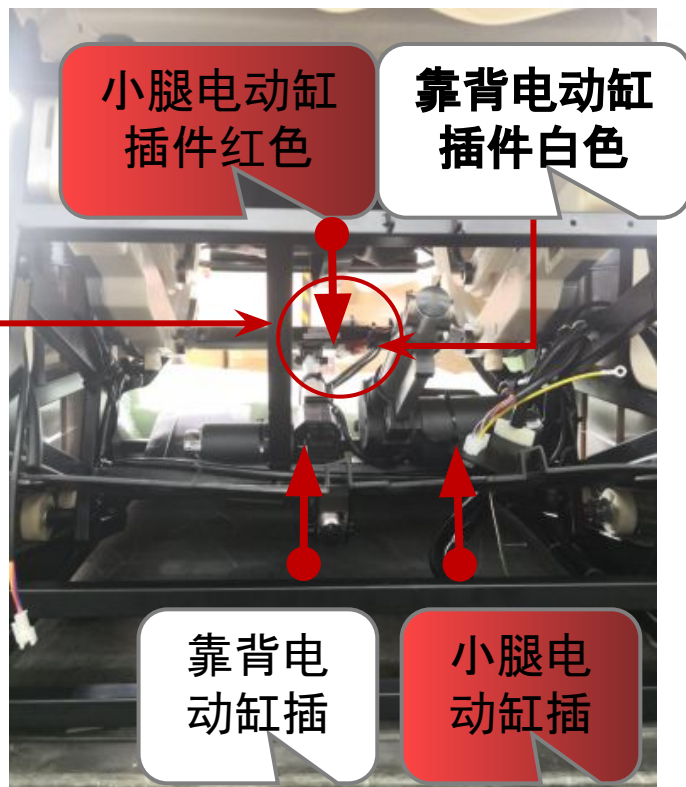
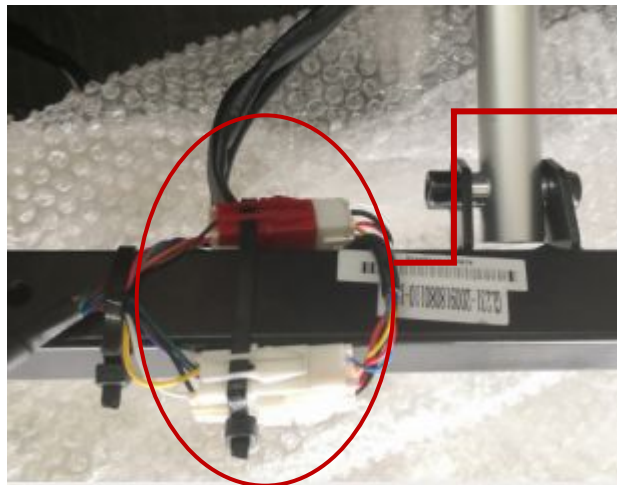
1. 保险丝坏
2. 滤波板短路
3. 开关电源板短路
4. 主板元器件短路
5. 某个负载短路

### 排查方法:

1. 如果因为电压波动导致保险烧坏, 更换同型号保险丝(5A). 如图
2. 如果换了保险丝还是烧那就把图中红色标记插件拔掉再通电, 如果还烧保险就更换滤波板如图, 如果不烧保险丝关电插件复原, 在拔掉图中黄色图标插件, 再通电烧保险那就是开关电源板短路, 更换开关电源板。
3. 如果不烧再关电把插件复位, 把图中绿色图标插件拔掉再通电, 如果烧保险说明是电源箱主板不良, 更换主板。如果不烧保险那就是机芯主板上短路, 把主板负载的插件拔掉, 再一个个插上, 插到哪个插件烧保险, 就说明这个插件负载短路, 更换这个插件的负载即可。

### 三、产品故障排查及维修

#### 6、小腿、靠背电动缸不工作



#### 原因分析:

1. 电动缸坏
2. 主板坏
3. 电动缸连接线断

#### 排查方法:

1. 靠背、小腿两电动缸插件及工作原理是一样，可以借用工作正常电动缸对换接口，对换后还是不能工作，为电动缸坏。
2. 对换后能工作，问题在主板或连接主板的连接线，可用万用表判断。

## 7、前滑电动缸不工作



## 三、产品故障排查及维修



### 原因分析：

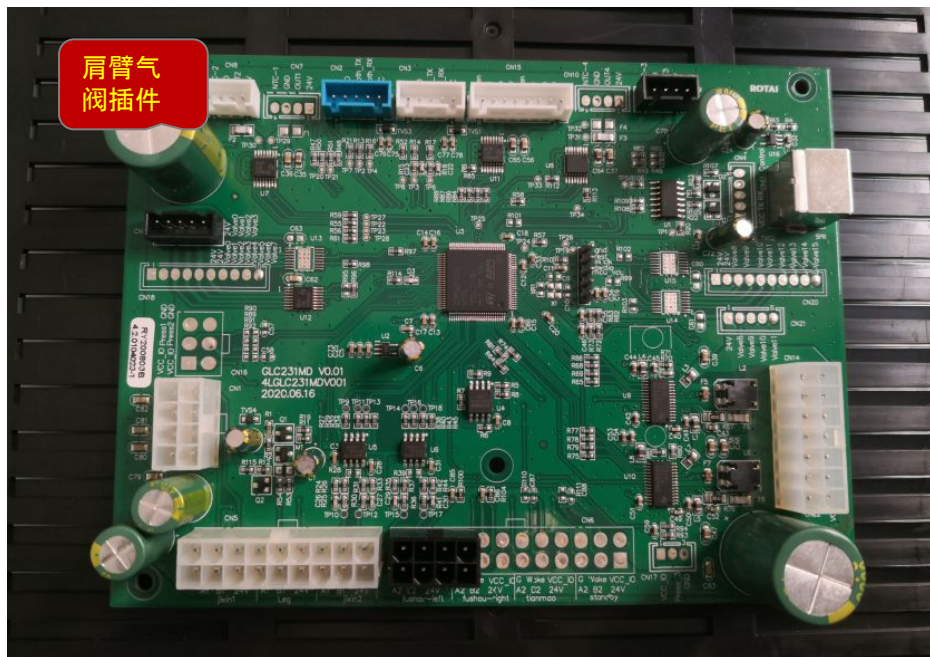
1. 电动缸坏
2. 主板坏
3. 电动缸连接线断

### 排查方法：

1. 前滑、小腿两电动缸插件及工作原理是一样，可以借用工作正常电动缸对换接口，对换后还是不能工作，为电动缸坏。
2. 对换后能工作，问题在主板或连接主板的连接线，可用万用表判断。

### 三、产品故障排查及维修

#### 8.气囊局部或者某个部位不充气



图一

原因分析:

1. 气管折住脱落
2. 气阀坏
3. 主板坏

排查方法:

1. 检查不充气的部位的气管有没有折住
2. 如果气管正常, 那就要万用表通断档量气阀的好坏如图一以坐垫侧气囊气阀为例量黑色与红色, 黑色与黄色数值在160-170说明气阀是好的就更换主板, 反之数值不在160-170相差太大说明气阀坏、更换气阀即可。

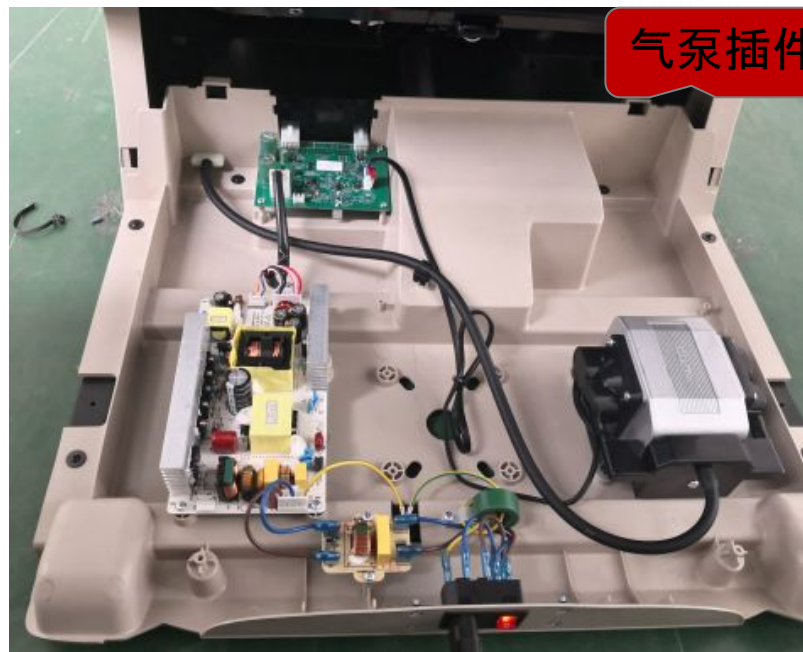


图二



## 9、整机气囊不充气

# 三、产品故障排查及维修



原因分析:

- 1.电源箱主板坏
- 2.气泵坏

排查方法:

- 1.手动打开全身气囊,看电控柜里面气泵是否工作,如果工作就万用表量如图插件看是有AC24v输出 如果没有说明电源箱主板,更换电源箱主板。
- 2.如果气泵不工作,就用万用表量主板气泵插件看有无AC24v输出没有主板坏更换主板,有的话说明气泵坏更换气泵

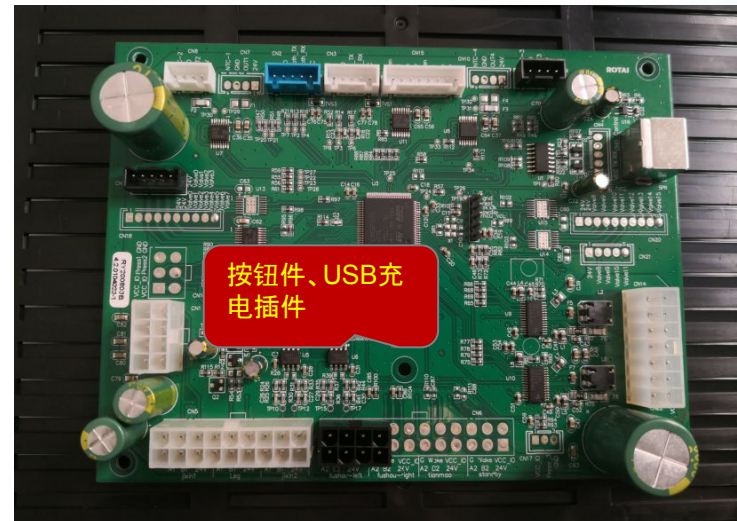
## 三、产品故障排查及维修

### 10、USB接口无法充电



#### 原因分析:

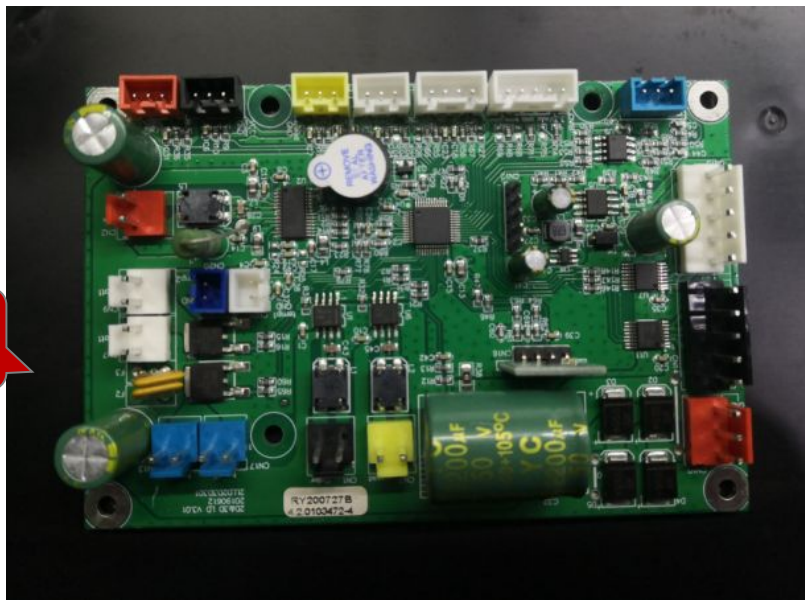
- 1.USB接口板坏
- 2.主板
- 3.连接线



#### 排查方法:

- 1、检查USB板ACC/GND触点有无DC5V电压, 有电压检查接口是否不良或更换USB充电板。
- 2、无电压, 检测主板插件有无DC5V电压, 无为主板坏, 更换主机板。
- 3、主板有DC5V电压, 用万用表检测主板到扶手充电板的连接线的通断, 或者对插件是否接触不良。

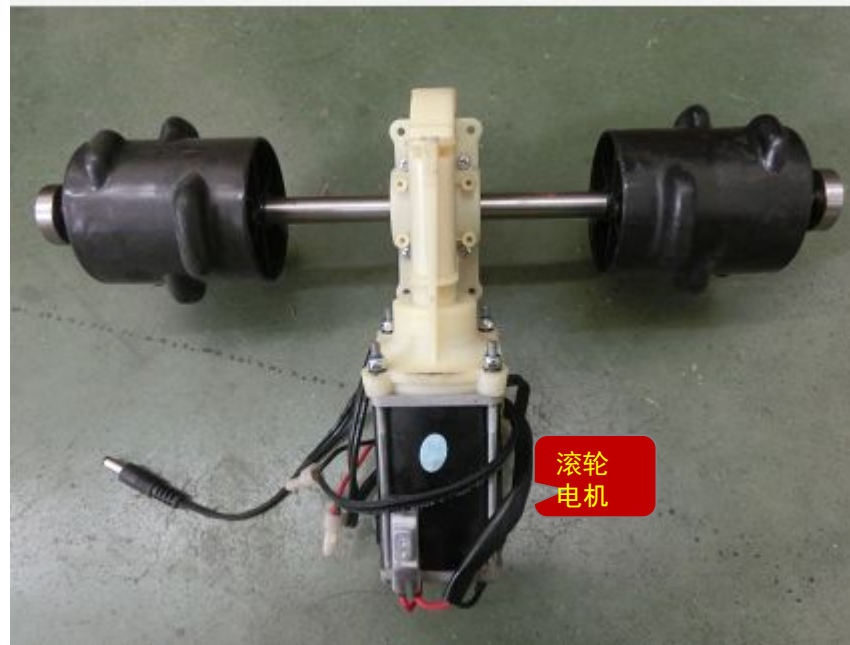
#### 11、小腿滚轮不工作



图一

原因分析:

1. 主板坏
2. 滚轮电机坏
3. 滚轮电机到主板线束断或者接触不良



图二

排查方法:

- 1、开启滚轮手法，万用表测量滚轮电机插件有无DC24V电压，无电压检查为主板坏，更换主板。
- 2、有电压，检测电机阻值，无穷大或无阻值为电机坏，更换电机。
- 3、电机阻值正常，万用表检测电机连接到主板的连接线的通断。



完毕  
谢谢大家！！！！