



# **User Manual**

# Powered Wheelchair (Mobility Robot) M4U

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Please read the manual carefully before using the product and keep it in a safe place.

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# **Brief introduction**

The M4U is an innovative machine that provides a smarter, more intelligent and more convenient way to travel for people with mobility difficulties. Compared to the traditional electric powered wheelchair, the M4U combines the ability to lift the seat height and the seat adjustment, as well as many other practical designs.

The lifting seat height function of the M4U mobility scooter enables users to easily adjust the seat height according to their personal needs

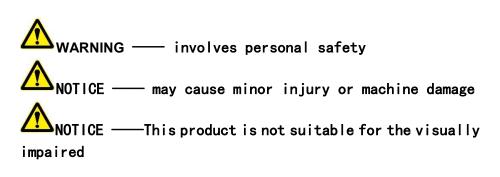
users to easily adjust the seat height according to their personal needs to adapt to different scenarios and use needs. The seat adjustment function further provides users with personalized adjustment of the seat Angle and position to ensure ride comfort and support.

As an intelligent mobility scooter representing our company's research and development achievements and innovative spirit, the M4U aims to help people with mobility difficulties to achieve a more independent and convenient travel experience.

The intended use of M4U is to provide convenient and comfortable travel solutions for those with mobility difficulties. Whether it is individuals with slightly inconvenient mobility due to slight illness, or users with limited mobility due to age, disease and other factors, the M4U can help them easily cope with short distance travel challenges, with the function of lifting seat height and seat adjustment, as well as a number of other practical designs.

## 1 Icons and use instructions

## 1.1 Marking instruction



#### 1. 2 Notice Before Use

Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

This intelligent mobility scooter has a number of functions, requiring the user to be conscious and have a normal thinking ability.

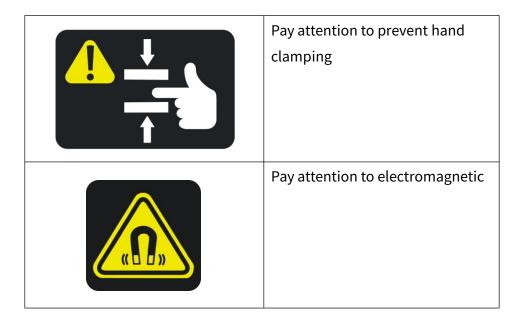
Users should read this description before using, and the elderly should clearly understand the use of smart mobility scooter under the

guidance of their families.

A warning that wheelchairs should only be operated after operator training and adjustments specific to the operator are completed and confirmed as safe.

The smart mobility scooter is not suitable for people with mental disabilities.

# 1.3 Tag instructions



| It is forbidden to store articles |
|-----------------------------------|
| Unlock and lock the mechanical    |
| brakes ( see details              |
| 3.10Mechanical brake )            |
|                                   |
|                                   |

# 2 About the equipment

# 2. 1 Packing list

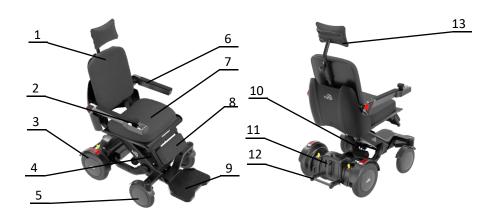
| M4U/M4U-H intelligent mobility scooter | battery                  |
|--|--------------------------|
| instructions                           | charger (1.5M)           |
| remote key                             | hexagon spanner          |
| Safety belt                            | Safety belt instructions |
| Air pump                               |                          |

# 2. 2 Optional accessories

| Mobile   | The M4-H/M | shoulder | Ventilation | Inflatable |
|----------|------------|----------|-------------|------------|
| phone    | 4 backrest | bag      | cushion     | cushion    |
| support  | section    |          |             |            |
| 1        |            |          |             |            |
| Umbrella |            |          |             |            |
| tooling  |            |          |             |            |

**WARNING**—Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

#### 2. 3 Product Structure



1: Backrest 2: Joystick controller 3: rear wheel 4: front push rod 5: front wheel (universal wheel) 6: Armrest 7: seat cushion 8: leg support 9: pedal 10: rear pushrod 11: battery12: anti-tipping wheel 13: head rest

# 2. 4 Product Parameter

| qualification  |                 |                 |  |
|----------------|-----------------|-----------------|--|
| Model          | M4U             | M4U-H           |  |
| Standard state | Height: 935mm   | Height: 1266 mm |  |
| size           | Width: 615 mm   | Width: 615 mm   |  |
| Size           | Length: 1055 mm | Length: 1055 mm |  |
|                | Height: 570 mm  | Height: 580 mm  |  |
| Folding size   | Width: 615 mm   | Width: 615 mm   |  |
|                | Length: 860 mm  | Length: 900 mm  |  |
| Total weight   | 50.7kg          | 51.5            |  |
| Pedal assembly | 445*615*200     | 445*015*200     |  |
| size (in mm)   | 445*615*280     | 445*615*280     |  |
| Pedal          |                 |                 |  |
| component      | 7.5kg           | 7.5kg           |  |
| weight         |                 |                 |  |
| Seat           |                 |                 |  |
| component      | 740*570*320     | 826*570*340     |  |
| size           | 140 310 320     |                 |  |
| (unit:mm)      |                 |                 |  |
| Weight of seat | 15.2kg          | 16kg            |  |
| components     | 13.2Kg          | 16kg            |  |
| Chassis        | 745*580*350     | 745*580*350     |  |
| component      | 140 000 000     | 143 360 330     |  |

| size              |                       |                     |  |
|-------------------|-----------------------|---------------------|--|
| (unit:mm)         |                       |                     |  |
| Chassis           |                       |                     |  |
| component         | 25kg                  | 25kg                |  |
| weight            |                       |                     |  |
| Battery module    |                       |                     |  |
| size              | 245*130*130           | 245*130*130         |  |
| (unit:mm)         |                       |                     |  |
| Battery           |                       |                     |  |
| component         | 3kg                   | 3kg                 |  |
| weight            |                       |                     |  |
| Rated load        | 115kg                 | 115kg               |  |
| The highest       | 6Km / h               | 6Km / h             |  |
| speed             | ORTH / II             | Granty II           |  |
| Full battery life | 15km                  | 15km                |  |
|                   | Machine folding (seat | Machine folding     |  |
| Folding form      | cushion needs to be   | (seat cushion needs |  |
|                   | removed)              | to be removed)      |  |
|                   | Rear wheel 10 Inch,   | Rear wheel 10 Inch, |  |
| Tire size         | front wheel 8 Inch    | front wheel 8 Inch  |  |
|                   | (2.5Mpa)              | (2.5Mpa)            |  |
| Maximum           |                       |                     |  |
| advance to        | 4cm                   | 4cm                 |  |
| cross the         |                       |                     |  |

| barrier height |                                  |                                  |
|----------------|----------------------------------|----------------------------------|
| Maximum        |                                  |                                  |
| backward       | 4cm                              | 4cm                              |
| barrier height |                                  |                                  |
| Full load      |                                  |                                  |
| maximum        | 6°                               | 6°                               |
| uphill angle   |                                  |                                  |
| minimum        | 835mm                            | 835mm                            |
| turning radius | 83511111                         | 835mm                            |
| Battery type   | Lithium battery                  | Lithium battery                  |
|                | 25.55V 15.6Ah                    | 25.55V 15.6Ah                    |
| Battery        | Nominal voltage25.55V,           | Nominal                          |
| parameters     | final voltage:19.25V             | voltage25.55V                    |
|                | mat vottage.13.23v               | final voltage:19.25V             |
|                | Charger input:                   | Charger input:                   |
|                | 100-240VAC,50/60Hz,              | 100-240VAC,50/60Hz,              |
| Charging       | 2.5A Max;                        | 2.5A Max;                        |
| parameters     | Charger output:                  | Charger output:                  |
|                | 29.4V <del>===</del> ,4.0A,117.6 | 29.4V <del>===</del> ,4.0A,117.6 |
|                | W                                | W                                |
| Device storage |                                  |                                  |
| / operation    | 0°C to + 35°C / + 5°C            | 0°C to + 35°C / + 5°C            |
| temperature    | to + 40°C                        | to + 40°C                        |
| range          |                                  |                                  |

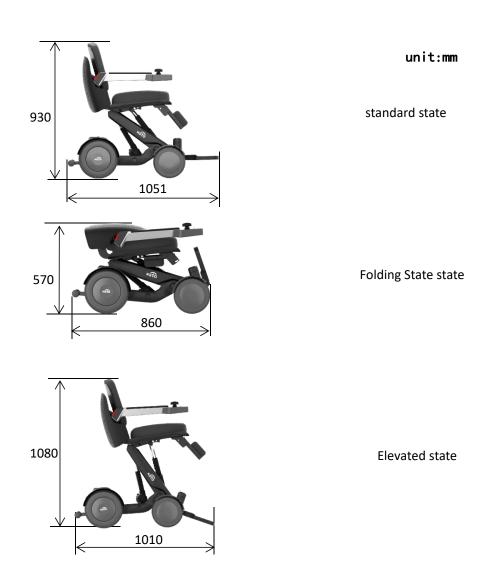
| Battery storage |                      |                      |
|-----------------|----------------------|----------------------|
| / operating     | 0°C to + 45°C / 0°C  | 0°C to + 45°C / 0°C  |
| temperature     | to + 45°C            | to + 45°C            |
| range           |                      |                      |
| Noise size      | <70dB                | <70dB                |
| Serial number   | See the nameplate of | See the nameplate of |
| tag             | the fuselage         | the fuselage         |
| classification  | IPX4                 | IPX4                 |
| of waterproof   | IPX4                 | IPX4                 |

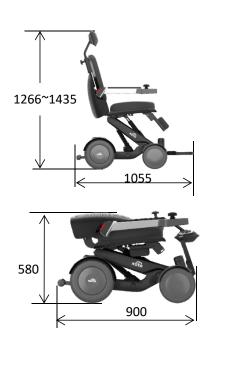
Essential function: walking motor control function (including forward, back, steering), motor brake function, electric push rod lifting function, joystick reset parking function, joystick controller power ON/OFF function.

Note: This product is an indoor intelligent mobility scooter.

NOTICE —— If the load exceeds the rated load, the load should be reduced, otherwise there may be a danger of equipment damage or machine tipping.

# 2. 5 Overall size of equipment







standard state

Folding State state



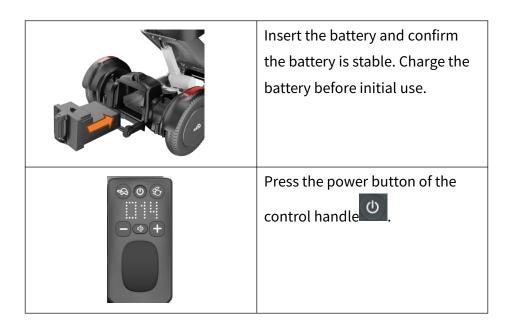
Elevated state



#### 2. 6 Initialization

When the M4U smart mobility scooter is delivered, the main engine and the battery are stored separately.

When the seat assembly is stored separately from the chassis assembly and pedal assembly, please assemble the three parts first, see 4.2Assembly Method for details.



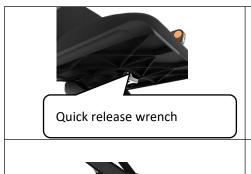


At the same time, press and hold the plus and minus buttons and . After about 3 seconds, start the one-key expansion function, the screen shows "U", and the smart scooter

will rise to the standard state.

# 3 Method of operation

#### 3. 1 Check before use



Check the wrench at the bottom of the seat and lock it if not locked. (See 4Assembly and disassembly for how to use the wrench)

Check the wear of the front and rear wheels. If there is abnormal vibration and the local damage is serious, do not continue to use. If the above adverse phenomenon occurs,

|  | please contact the                    |
|--|---------------------------------------|
|  | manufacturer.                         |
|  | Check whether the battery is          |
|  | damaged, whether the battery          |
|  | is wet, whether it is installed       |
|  | correctly, and stop use if            |
|  | damaged or wet. If not installed      |
|  | correctly, it shall be used after     |
|  | correct installation. ( see           |
|  | details 6Battery instructions)        |
|  | Check whether the pedal is            |
|  | installed firmly. If it is not firmly |
|  | installed, it should be installed     |
|  | firmly for use. ( see                 |
|  | 4Assembly and disassembly             |
|  | for details)                          |
|  | Check if the mechanical brake         |
|  | is in a locked state. If not,         |
|  | adjust to the locked state to use     |
|  | the mobility scooter. (See            |
|  | 3.10Mechanical brake for              |
|  | details)                              |

### 3. 2 Ride and leave

### 3. 2. 1 Seating from the front





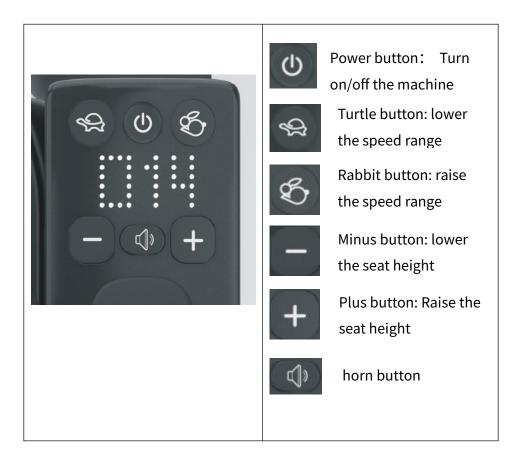
Do not directly step on the pedal to sit in or leave. The machine will be turned up.

# 3. 2. 2 Side seating

| Rotate the handrail upward until the position is as shown on the left.  |
|---|
| Back to the seat, as shown on the left, sit on the seat cushion.  |
| Adjust the sitting position as shown on the left panel. And lower the handrail. Then adjust the seat height to a comfortable position appropriately. (See 3.7 Lift and fold for how to adjust the seat) |

# 3. 3 Operation declaration

### 3. 3. 1 Key function introduction



# 3. 3. 2 Display Instruction

| Represents the percentage of the battery.  As shown in the figure, it represents 88% remaining.  When the power is below 20%, the red light flashes on the left and right sides of the power indicator. Please charge as soon as possible. |
|--|
| The numbers 1-5 represent the speed gear.  The figure represents the current speed gear is 1.  There are 5 gears, 1 gear is low speed, 5 gear is fast speed. Each gear can be controlled stepless through the joystick.                    |
| It represents the state of one-click expansion, and the machine performs the expansion operation.  |

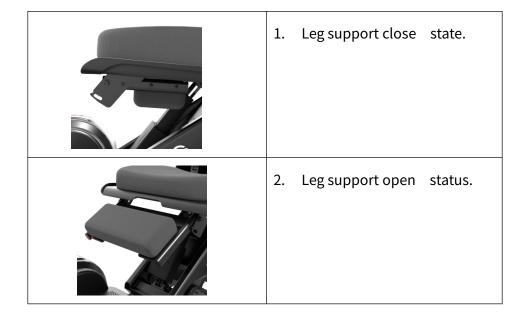


Represents the state of one-click folding, and the machine performs the folding operation.

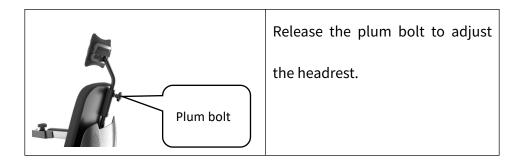
# 3.4 Leg support

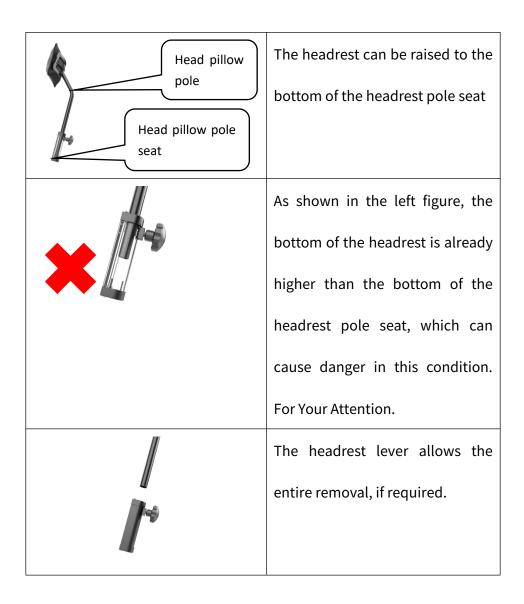


Press the illustrated button that showed in the left picture, the plunger on both sides will contract. The leg supports can be converted to two states.



# 3. 5 Head pillow adjustment





## 3. 6 Drive

## 3. 6. 1 Applicable road conditions

The M4U smart mobility scooter is suitable for driving on the following terrain:

| Indoor<br>pavement | Including ceramic tile surface, wood board surface, underground garage, etc.               |
|--------------------|--|
| Urban road         | Including parking oil road, cement road, sidewalk, paving brick road, park lawn and so on. |

## Not suitable for the following road driving on:

| Pebble     | Smart mobility scooters may not be turned     |
|------------|---|
| pavement   | around and should be avoided.                 |
|            |   |
| Sand,      | Smart mobility scooters may slip or sink, and |
| gravel and | should be avoided.                            |
| muddy      |   |
| roads      |   |
| * Stairs   | Smart mobility scooter may be stuck in the    |
| and steps  | steps, or even roll over, should be avoided!  |

\* The intelligent scooter can advance smoothly through the 4cm high single step, backward through the 4cm high single step, and should be careful when passing the steps.

#### 3. 6. 2 Advance



Bring the smart scooter forward by pushing the joystick on the handle.

The rocker has the characteristics of self-reset. After letting go, the rocker automatically returns positive, and the intelligent scooter stops. The rocker can control the speed stepless, the greater the offset, the greater the speed.

#### 3. 6. 3 Draw back



By pulling the joystick on the handle, the smart scooter will step back and stop the smart scooter after letting go.
The rocker has stepless control, the greater the offset, the greater the speed.

#### 3. 6. 4 Turn direction



By moving the joystick on the control handle left and right to make the smart scooter rotate left or right in place, and the smart scooter stop after letting go.

Steering can be used in combination with forward and backward, that is, when forward or backward, push the joystick to the left and right sides, can make the intelligent scooter turn left or right when forward or backward.

#### 3. 6. 5 Speed Adjustment



The driving speed of the intelligent mobility scooter is 5 gears, and the speed is increased from 1 to 5 gears, and the gear is switched through the turtle and rabbit button on the

rabbit button handle.



Speed regulation has different degrees of influence on the speed of forward, backward and steering, but it is not effective on the adaptive speed and the seat lifting speed.





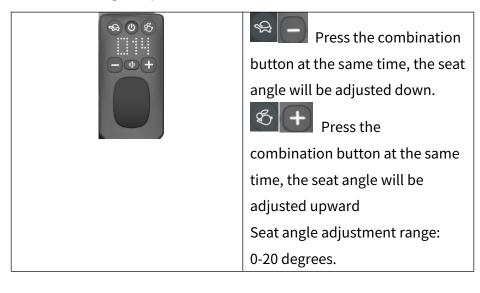
N mode: standard mode, suitable for novice operation, the maximum speed of 5 gears is 4 km/h; N mode, acceleration and deceleration is relatively gentle, of the difference of the instantaneous change of seat angle exceeds the protection value, the intelligent mobility

scooter will automatically reduce the speed gear.

S mode: sports mode, suitable for skilled operation, fast acceleration and deceleration; 5 gear maximum speed is 6 km/h. In the S mode, the acceleration and deceleration are faster.

When pressing and for about 3 seconds, N or S mode is switched.

#### 3. 6. 6 Seat Angle adjustment



NOTICE—When normal driving, the seat Angle can not be adjusted up too large.

### 3. 6. 7 Up slope

WARNING— When driving up and down, the seat should handle the standard height position, up and down the Angle below 6. And the uphill and downhill speed can only use N mode, and 1 gear speed for uphill and downhill. Otherwise, there may be a danger of the machine tipping over.

The M4U intelligent mobility scooter has the slope self-adaptive function.



When the intelligent scooter is uphill, it will automatically adjust the rear push rod, so that the angle of the seat relative to the level remains unchanged. The adjustment process may be accompanied by a deceleration, which is a normal phenomenon. If the slope is too large, over 15 degrees, the machine will stop and alarm.

#### 3. 6. 8 Down hill

WARNING— When driving up and down, the seat should handle the standard height position, up and down the Angle below 6. And the uphill and downhill speed can only use N mode, and 1 gear speed for uphill and downhill. Otherwise, there may be a danger of the machine tipping over.



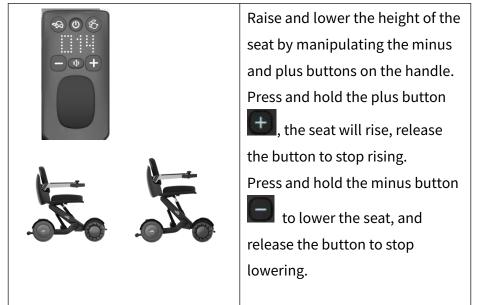
When the intelligent scooter goes downhill, it will automatically adjust the rear push rod, so that the Angle of the seat relative to the level remains unchanged. The adjustment process may be accompanied by a deceleration, which is a normal phenomenon. If the slope is too large, over 15 degrees, the machine will stop the alarm.

#### 3.7 Lift and fold

WARNING — — After raising and lowering the seat position, please adjust to the standard state. If you want to drive in the elevated or lowered seat position, you can only use N mode, 1 gear speed.

#### 3. 7. 1 Lift function

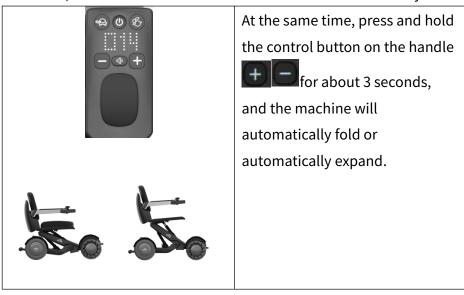
The seat of the M4U smart mobility scooter has a lifting function, aiming to raise the seat for users with inconvenient of standing to take and put items at high places.

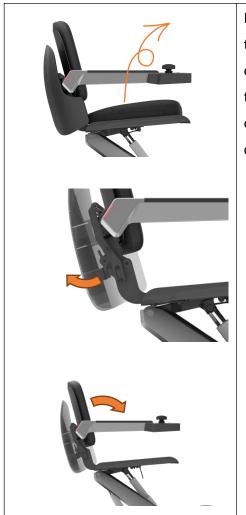


If the M4 mobility robot is in non-standard boot (except folding state), after turn on power, may report E9 fault, clear the failure by pressing +or - keys to adjust the seat height; or push the joystick left and right to return the machine to its normal state., seat will automatically adjust balance, waiting for the balance before riding.

# 3. 7. 2 Folding function

The M4U smart mobility scooter can be folded and expanded with one-click, and the back of the chair needs to be folded manually.



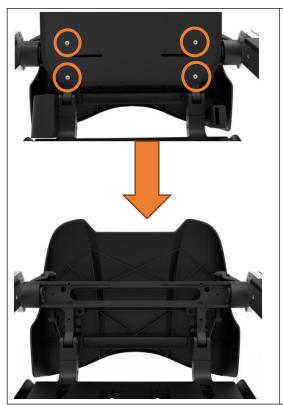


If you want to fold the back of the chair, you should remove the cushion first, and then pull open the buckle under the back of the chair to fold the back of the chair.

NOTICE—When using the one-click folding and one-click expansion function, the user needs to leave the seat and is not allowed to place heavy objects on the seat.

# 3. 8 Adjust the handrail height

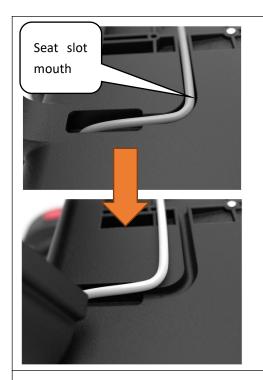




Remove the screws of the backrest support plate in the left picture, remove the backrest support plate, and see the back frame.



Remove the clip screws for the cable here.



Move the cable on the seat plate out of the groove first.



Folding chair back, Standard is the lowest armrest position.



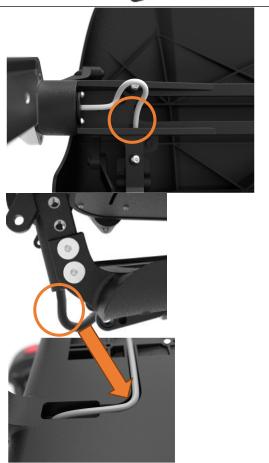
Remove the screws indicated by the arrow in the left picture first,both side of handle's need to be removed.



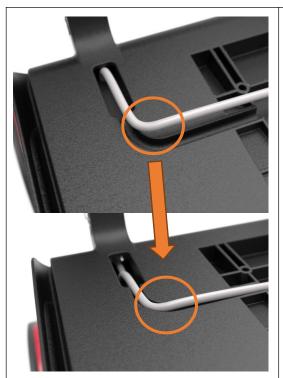
Remove the screws on the left figure



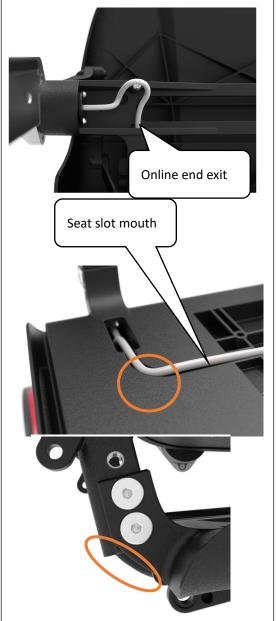
Adjust to the required height and align with the hole position. Reinstall the screws that previously removed.



Expand the back of the chair, find the position of the coil in the left picture, operate with both hands, push it down with one hand and pull down until the cable length can be placed in the slot of the seat plate. The same works on the other side.



Place the cable in the seat plate slot as shown.

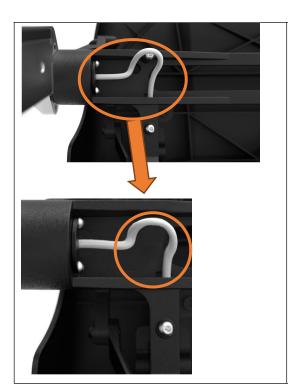


Maintain the line seat plate in the groove, pull upward at the online end exit

position that marked in the left figure, observe and press the line in the groove of the seat plate, pull the excess line length below the exit in the left figure out of the exit. In the process of pulling, press the line in the groove of the seat plate to avoid breaking the line in the groove of the seat plate. To make it as the two circle position in the left figure. The same applies to the other side of the machine.



Fold down the backrest, return the screw on the left picture. When installing, ensure that the wires are close to the lower parts, as shown in the left figure, the screws should slightly squeeze the wire



Expand the back and plug the line into the back frame.



Install the clip screws for the wire here.



Expand the seatrest, and reinstall the original back pad and put back the cushion.

# 3. 9 protection mechanism

The machine has the relevant protection mechanism, and the alarm code will be displayed on the control handle.

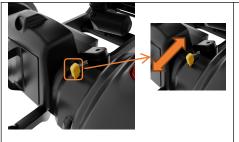
- (1) E0: the power-on rocker does not appear at the origin or the line is broken. The rocker needs to be reset before operation; or replace the faulty rocker.
- (2) E1: Unable to communicate with the drive. When the fault occurs, the machine will stop and prohibit the related operation.
- (3) E2: If the connection line between the Angle module circuit and the driver is loose, or the circuit board of the Angle module itself fails, it will also alarm.
- (4) E3: Left wheel hub error. Check the wiring of the left motor, or replace the left motor.
- (5) E4: Right hub error. Check the wiring of the right motor, or replace the right motor.
- (6) E5: the wrong front push rod. Check the wiring of the front electric pusher, or replace the front electric pusher.
- (7) E6: the wrong rear push rod. Check the wiring of the rear push rod, or replace the rear push rod.
- (8) E7: abnormal mechanical brake. If the brake lever is not in the locked position, the alarm prompt for E7 will be displayed after boot. The rear pull lever is required before starting driving to re-lock the rear wheel. The alarm is eliminated when the brake lever is locked.

- (9) E8: Temperature abnormal alarm. Stop the operation and wait for a period of time. After the temperature returns to normal, the fault will automatically clear.
- (10) E9: The seat angle is too steep. When the Angle of the seat is tilted too much (above the amount of 15), the alarm will be prompted. At the same time, the push rod of the seat will be automatically adjusted. The adjustment process may be accompanied by a decrease of speed. When the Angle of the seat returns to the normal value, the code will disappear.
- (11) Emergency shutdown: When any dangerous situation occurs, please press the power key of the handle to shut down, the machine will power off and stop, and the left and right motor brakes will automatically lock. When reopening the machine, press the power button of the handle to start up, and you need to push the rocker to unlock the brake. Every time you turn down and boot again, you need to push the joystick or press adjustment level function.

# 3. 10 Mechanical brake

The M4U smart mobility scooter is driven to let go and stop, and when there is no power or no power on, the rear wheels are in a locked state. In case of a failure, the free-wheel mode can be activated

If you need to implement the smart scooter, you can loosen the mechanical brake of the rear wheel, and you can implement the smart scooter when the battery is dead.



Unlock the rear wheel by pushing the lever next to the rear wheel

\* After the implementation, it is necessary to pull the lever and lock the rear wheel to prevent the sliding.

\* Before starting to drive, you need to pull the lever back and re-lock the rear wheel. If the brake lever is not in the locked position, the E7 alarm will be displayed after starting. When the brake lever is locked, the alarm is eliminated.

\*If any automatic brake is disengaged, and electrical power is restored, it shall not be possible to drive the wheelchair unless a visual and/or audible alarm is activated.

# 3. 11 Unlock the control key

# 3. 11. 1 The appearance of the remote control key

The appearance of M4U remote control key is shown in the appearance of M4U remote control key. There are three button on the key: unlock button, boot button and lock button.



Figure 1: Remote control key appearance

# 3. 11. 2 Operation of remote control lock

# (1)Starting up

Before the operation, the handle is shown in the following figure, before the handle is started, the screen does not display anything.

When start up the machine, press the boot button, the operation handle will, display the boot welcome animation, as shown below.



#### Boot up welcome animation

The boot animation will slide from right to left to display the four English letters of XSTO. After the boot animation, it will display the current speed gear, as shown in the following speed gear.



**Speed gear** 

Then it will show the power of the machine, as shown by below picture, indicating that the startup is successful, and the machine can be operated through the handle.



**Machine power** 

## (2) lock stock and barrel

When the machine is in the handle control mode or Bluetooth control mode, press the remote control lock button on the control key to lock the machine. The machine will not be able to control

through the handle or Bluetooth. The handle display as shown in the following figure.



lock stock and barrel

# (3) Unlocking

After locking the machine, it can be unlocked by pressing the remote unlock button on the control key. The handle displays the unlock icon, and then displays the power of the machine. If the locking device is in Bluetooth control mode, the machine will become the handle control mode; The speed gear after unlocking is the speed gear before locking.



Deblocking

## 3. 11. 3 Replace the battery on the control key of battery

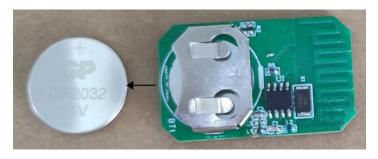
(1) Open the remote lock lid and use a slightly pointed tool to pry the lid open.



(2) Remove the white rubber sheel, and note that the rubber sheel is embedded in the groove inside. Then remove the circuit board.

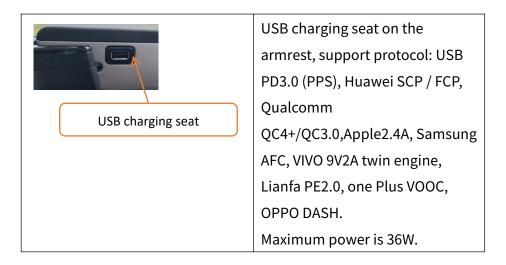


(3) Take out the button battery, replace the button battery, model: CR2032.



(4) Install the lid from (3) - (2) - (1) according to the replacement operation.

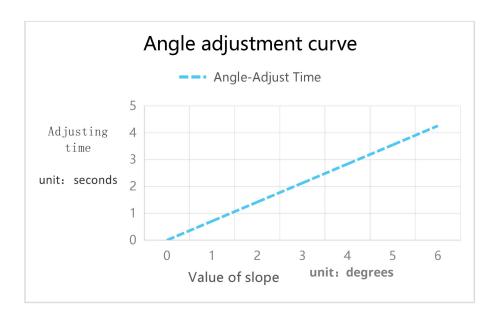
# 3. 12 Handrest USB charging seat description



# 3. 13 Uphill and downhill regulation and speed protection instructions

# 3. 13. 1 Description of the uphill and downhill regulation function

The M4U intelligent mobility scooter has the function of automatic adjustment of uphill and downhill Angle, and the corresponding curve of the adjustment function is as follows.



#### 3. 13. 2 Speed protection instructions

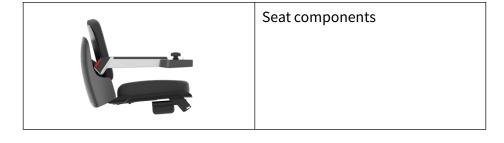
M4U intelligent mobility scooter has a speed protection mechanism, when the body Angle tilt, the speed protection will automatically drop, to ensure the safety of the passengers. After the Angle is adjusted, the passenger can re-adjust the speed through the speed adjustment button.

# 4 Assembly and disassembly

# 4. 1 Component introduction

The M4U smart mobility scooter can be quickly disassembled into three major components to facilitate handling and transportation.

| Chassis components |
|--------------------|
| Pedal components   |



# 4. 2 Assembly Method

When assembling M4U smart scooter, the pedal should be installed firstly and then the seat.

# 4. 2. 1 Assembly pedal

| Lift the front end of the chassis assembly.  |
|--|
| Insert the U-shaped opening of<br>the pedal assembly into the<br>connecting rod below the chassis<br>assembly. |



Lower the chassis assembly, and the pedal assembly and the chassis components will be automatically locked together.

## 4. 2. 2 Assembly seat



Open the quick wrench for the seat connector above the chassis assembly.



Remove the seat assembly and light it to the seat connection position to push the seat assembly into the connection position.

Pay attention to the electrical connection parts before connecting the seat with the chassis assembly.

| After confirming the correct push, press the quick remove wrench of the connecting position and check that the seat is not loose. |
|---|
| Turn over the back of the chair, which will automatically lock up.  * Check the back and armrest for security.                    |

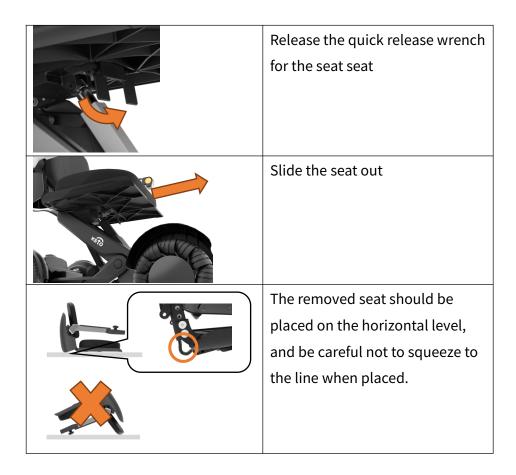
\*After fixed the seat, the rear armrest can turn up, see details in 3.2.2 Side seat

## 4. 3 Removal method

When removing the M4U smart mobility scooter, the seat should be removed first, and then the pedal.

If you need to fold the smart scooter and divide it into three components, the smart scooter should be folded with one click, see details 3.7.2 Folding function

#### 4. 3. 1 Remove the seat



# 4. 3. 2 Remove the pedal

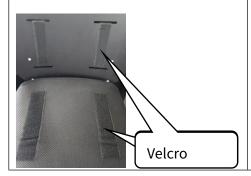
| Pull the quick wrench in front of the chassis and lift the chassis. |
|---|
| Pull out of the pedal assembly.                                     |

#### 4. 3. 3 Backrest removal and installation



#### dismantle:

The backrest is installed on the machine with Velcro, grab any edge of the backrest and pull the seat to the direction as the picture in the left



#### install:

The Velcro tape fixed on the machine and the Velcro tape on the backrest are aligned with each other and can be affixed.

## 4. 3. 4 Mount cushion removal and installation



#### dismantle:

The seat cushion is installed on the machine with Velcro. On the machine, grasp the front edge of the seat cushion and pull the backrest to the direction as the picture in the left.



#### install:

The Velcro fixed on the machine and the seat cushion Velcro are aligned and affixed.

# 5 Storage and transportation

# 5. 1 Storage

When the M4U smart mobility scooter needs storage for a long time, remove the battery.

Store in an indoor environment of 0°C to 35°C, and avoid the following environment:

Insolate, humid environment

High temperature, low temperature environment

Environment with more dust

# 5. 2 Transportation

Before carrying the M4U smart scooter, turn off or remove the battery.

It is recommended to disassemble the host into three components for handling, see 4.3Removal method for details

# 5. 2. 1 Handling the whole machine



Short distance handling, two people can respectively grasp the two sides of the seat, the whole machine is lifted and moved to the target position.

# 5. 2. 2 Handling chassis



Hold the crossbeam behind the chassis assembly and lift the chassis assembly.

#### 5. 2. 3 Move the seat



Standing on both sides of the seat, both hands grasp the seat by the two concave position as left picture, then you can pick up the seat.

# 5. 2. 4 Move the pedal



Hold the left position of the pedal assembly and lift the pedal assembly

# **6 Battery instructions**

# 6. 1 Battery Precautions

Instructions on the battery pack, storage, maintenance, and precautions.

#### (1)Keep in storage

- \* When the battery pack needs to be stored for a long time, please charge the battery pack to about 50%, remove it from the machine and place it in a dry and ventilated place and away from the strong magnetic environment. Charge with the charger every 3 months.
- \* Battery pack and charger should be stored in clean, dry and ventilated places, and should avoid contact with oil, detergent, thinner and other corrosive substances, and stay away from fire source and heat source.
- \* The recommended charging temperature range is 0-40 degrees Celsius, which can reduce battery performance and life in environments beyond this range.

#### (2)Transport

The battery pack and charger shall be packaged for transportation, preventing violent vibration, shock or extrusion against the sun and rain.

#### (3)Preventive maintenance

a) When the battery pack is stored, it should be stored in 40% 60%

## charge state.

- B) When the battery pack is not used for a long time, it is recommended to fully charge and discharge once every three months, and then charge the battery pack to about 50% of the power, and use the specified charger.
- C) During maintenance, do not re-load the battery in the battery pack, otherwise the battery performance will decrease.
- D) Do not replace any battery in the battery pack without authorization. It is strictly prohibited to dissect the battery.

#### e) fault treatment

| fault phenomenon       | failure cause           | debugging               |
|------------------------|-------------------------|-------------------------|
| The battery pack has   | The battery pack        | Connect the output      |
| no output              | output CABLE is not     | cable of battery pack   |
|                        | connected;              | according to the        |
|                        | The battery pack is     | specification; check    |
|                        | out of power .          | whether the fuse of     |
|                        |                         | the discharge fuse      |
|                        |                         | seat inside the battery |
|                        |                         | is normal.              |
|                        |                         | Charge the battery      |
|                        |                         | pack.                   |
| The charger power      | The charger plug is     | Enter the charger and   |
| indicator light is not | not inserted correctly. | plug into the mains     |
| on                     |                         | socket according to     |

|                   |                        | the manual             |
|-------------------|------------------------|------------------------|
| The battery pack  | The charger output     | Check whether the      |
| cannot be charged | plug is loose;         | charger output plug is |
|                   | The battery pack is    | attached to the        |
|                   | already fully charged. | battery pack; the fuse |
|                   |                        | of the battery         |
|                   |                        | charging seat is       |
|                   |                        | normal.                |
|                   |                        | The battery pack can   |
|                   |                        | be used normally.      |

#### f) Battery warranty time

The warranty time is 12 months from the date of delivery. Cycle life: 500 charge and discharge cycles, with 80% capacity.

# g) Battery scrap treatment

If the battery capacity is less than 50%, the battery scrap treatment should comply with the laws and regulations of the local.

# (4) Use the battery precautions

- \*Do not put the battery pack into the water, fruit juice, or other liquid, do not wet the battery pack!
- \*Do not charge the battery pack under fire source or extremely hot conditions! Do not use or store the battery pack near the heat source (such as fire or heater), flammable and explosive items! If the battery

leaks or smells, remove it close to the open flame. The first time you use the battery, you need to fully charge the battery before you use it!

- \*Do not connect the positive and negative poles backwards!
- \*Do not put the battery pack into the fire or heat the battery pack!
- \*Do not short-circuit the positive or negative electrodes of the battery pack with wires or other metal objects!
- \*Do not puncture the battery pack shell with nails or other sharp objects, do not hammer or pedal the battery pack!
- \*Do not break down the battery pack and the battery in any way!
- \*Do not place battery packs in a microwave oven or pressure vessel!
- \*Do not use the batteries for other devices!
- \*Do not use the battery in series and parallel!
- \*Do not charge in the high temperature exposure of the outdoor, rainy day, wet environment!
- \*Do not charge the battery in the corridor, evacuation channel, safe entrance and exit, indoor residential!
- \*The battery shall be charged, used and stored in places away from static electricity.
- \*The battery should be charged during the day under supervised.
  When the person leaves, please unplug the charging plug. Charging overnight is prohibited.
- \*Note that the charging should be stopped if the charging is insufficient for a long time.
- \*The battery pack shall not be used if it smells, heat, deformation, discoloration or any other abnormal phenomenon; if the battery pack

is in use or charging, it should be immediately removed from the used appliance or charger and stopped!

\*Do not use battery packs in extremely hot environments, such as direct sunlight or hot cars. Otherwise, the battery pack will overheat, which will affect the performance and shorten the service life of the battery pack!

\*Not to be overcharged. The charger indicates that the charger should be removed as soon as possible.

\*If the battery leaks into the eyes after the electrolyte, do not wipe it, should immediately rinse with water and seek medical assistance immediately. If not handled in time, the eyes will be hurt!

\*If the above adverse phenomenon occurs, please contact the manufacturer. Disassembly is prohibited.

\*If the battery is in power supply, indicating a fault, the battery should be isolated to service

## 6. 2 Battery charging

NOTICE—Please keep the socket interface of the charger and battery dry!

NOTICE——Please follow the operator manual to charge!

NOTICE——Completely out of power will cause the battery

### performance to degrade and shorten the battery life!

NOTICE——After each use, please remember to charge!



Use the charger that comes with the machine.Input voltage of the charger: 100-240VAC, 50 / 60Hz.
The output voltage is 29.4V 4A,
(NOTICE: charging output port, 1 and 3 feet connected to the positive, 2 feet connected to the

negative.)





Open the dust cap on the battery charging port.



Plug the output plug of the charger into the charging connector of the battery.

Charge with the machine. When charging, can not drive, the battery pack will automatically disconnect the output, control the handle power off. When charging, the charger is red, and the charger is green when fully charged.

# 6. 3 Battery installation and removal



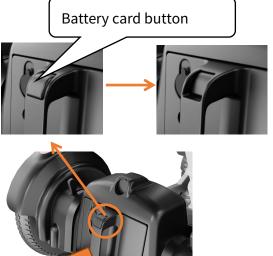
Install



Install the battery pack in the direction as the arrow.
After hearing the "click" sound, the battery is installed in place. After the battery is placed, the battery switch will activate the power supply automatically without additional wiring.



Check whether the installation is in place, hold the grip of the battery to the left direction, not loose, not out. That is, to be installed in place



### dismantle

Press the battery button to the bottom. At the same time, hold the battery grip, pull outward, you can pull out the battery.

### 6. 4 Battery storage

Note that batteries should be removed during —— transportation and storage.

The M4U machine shall be stored in an indoor environment of 0°C ~35°C and kept away from wet (with water), strong magnetic environment.

NOTICE — Please let the machine away from the wet environment, after each use, please remember to charge! Please follow the operator manual to charge! Please keep the socket dry!

NOTICE — Please protect the charging and charging wires from oil, grease, detergent, diluent or anything that may be destructive!

# 7 Tending

# 7. 1 User maintenance and testing

Do the following actions to keep the equipment clean.

- If there is a lot of dust on the outside of smart scooter, wipe it with a wet towel. Be careful when cleaning the smart mobility scooter with water.
- If the dirt is difficult to remove, use a neutral detergent. Avoid using petroleum solvents.
- Do not use the high-pressure washer.

Warning — Please flush the equipment wheels with water, do not flush the equipment or other components. Otherwise, there is a risk of failure due to electric shock, short circuit and corrosion.

Beware — Do not use paint thinner, benzene or other organic solvents for cleaning, do not use a high pressure washer. Otherwise, the machine will have deformation, deterioration and damage.

Beware — Do not insert sharp objects into the speaker hole. Otherwise, it may damage the controller.

Beware—Do not apply commercial lubricating oil or oil rust agent / wax to the moving parts or connections of the equipment. Otherwise, the viscosity of such substances may cause sand or other foreign objects to enter the equipment, resulting in equipment failure.

Beware—Please do not use your wet hands to operate the equipment!

NOTICE——Please keep the equipment away from the wet

#### environment!



NOTICE——When low charge, please charge in time!

NOTICE—Please remove the equipment from oil, grease, detergents, diluents or anything that may be damaging!

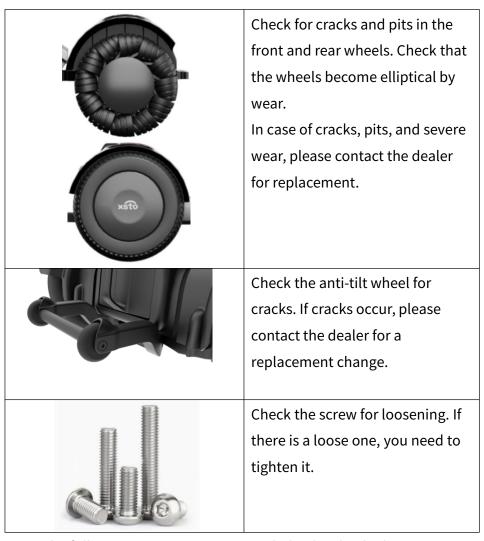
Warning—Except for seat cushion and backrest, if the parts are worn or need to be replaced, contact the dealer or the equipment may be damaged and operable.

Beware—That the wheelchair should be turned off prior to entering or exiting the wheelchair;

Beware—The wheelchairs may risk stopping suddenly at any time during operation;

Beware—The driving performance of a wheelchair may be affected by electromagnetic fields, such as those generated by a generator or high-power source

Beware—The distance you can park on a slope can be much greater than the distance you can park on flat ground



The following items are recommended to be checked once every 6 months

### 7. 2 Warranty

During the warranty period, under normal use conditions, all shell and wheel non-quality problems are not guaranteed, motor, lithium battery warranty for 14 months, mcushion, back cushion, headrest and other cloth support materials for 2 years, controller warranty for one year, machine body warranty for five years.

Injury or damage to the equipment is not covered by the warranty for:

- Damage caused by an overload of work;
- Damage caused by incorrect operation;
- Violent destruction;
- Natural wear and tear of casters, seat belts, etc.;
- Improper or inadequate maintenance;
- Unauthorized changes in structure, and improper use of equipment and accessories;
- Overweight use of machines;
- The battery is not charged properly.

In one of the following circumstances during the warranty period, the material cost and the service fee shall be charged as appropriate.

- Consumers cause damage due to improper use, maintenance or storage;
- Repair or dismantle the equipment without authorization.
- Damage caused by force majeure shall not be included in the

warranty.

For products that are not within the scope of maintenance and exceed the warranty period, we still serve you enthusiastically and only charge the cost of parts.

### 7. 3 Responsibility

The manufacturer shall not be responsible for any damage caused in the following circumstances.

- Improper equipment operation;
- Repair, dismantle or otherwise operate the equipment without authorization;
- Did not operate according to the operation manual;
- Add the configurations other than the special accessories of the machine;
- Remove the configuration of the machine at will;
- Operation under the overload condition;
- Operation in the case of low power supply.
- A warning not to operate the wheelchair if it is behaving abnormally or erratically;
- An instruction stating that if a fault is indicated, the battery should be isolated for transport to service

A notice to the operator that any serious incident that has occurred in relation to the device should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established;

The contents of this specification are subject to change in improving product quality or upgrading related technical parameters without notice. If you need to know the latest product information, please contact the company.

# 7. 4 Cyclic utilization

XSTO products have a long service life. However, if your XSTO product is close to the limit of use, the parts of the machine can be returned to our company or corporate agents for recycling.



# 8 Troubleshooting

### 8. 1 Fault code





With red side light display, representing fault status or alarm.

| representing rault status or atarm. |                        |  |
|-------------------------------------|------------------------|--|
| code                                | Code denotes           |  |
|                                     | information            |  |
| E0                                  | The boot rocker is not |  |
|                                     | at the origin or the   |  |
|                                     | rocker is broken       |  |
| E1                                  | Could not              |  |
|                                     | communicate with the   |  |
|                                     | drive                  |  |
| E2                                  | The Angle module is an |  |
|                                     | offline error          |  |
| E3                                  | The left wheel hub is  |  |
|                                     | wrong                  |  |
| E4                                  | The right wheel hub is |  |
|                                     | wrong                  |  |
| E5                                  | The front push rod is  |  |
|                                     | wrong                  |  |
| E6                                  | The rear push rod is   |  |

|    | wrong                   |
|----|-------------------------|
| E7 | Abnormal mechanical     |
|    | brake                   |
| E8 | Abnormal temperature.   |
| E9 | Seat angle is too steep |
|    | (greater than 15)       |

# 8. 2 Common fault screening

| Question                | Detection and solution methods        |
|-------------------------|---------------------------------------|
| The device could not be | Check whether the battery display     |
| started                 | is normal. If the battery power is    |
|                         | low, please charge it .               |
|                         | If the battery is charged, check      |
|                         | whether the indicator light inside    |
|                         | the control handle is on; if not,     |
|                         | check the communication cable         |
|                         | between the controller and the        |
|                         | controller;                           |
|                         | If other unknown fault, please        |
|                         | contact the supplier for handling.    |
| The battery cannot be   | Check whether the battery and         |
| charged                 | charger interface is loose; for other |
|                         | unknown faults, please contact the    |
|                         | supplier.                             |
| E0 fault code           | When the control handle rocker is     |
|                         | not at the origin position , please   |
|                         | release the rocker again; or if the   |
|                         | rocker fails, please replace the new  |
|                         | control handle. For other unknown     |
|                         | faults, please contact the supplier   |

|               | for handling.                       |
|---------------|-------------------------------------|
| E1 fault code | The communication fault between     |
|               | the handle and the driver, and      |
|               | check whether the cable between     |
|               | the handle and the driver is loose. |
|               | If other unknown fault, please      |
|               | contact the supplier.               |
| E2 fault code | The device obtains the wrong angle  |
|               | of the seat, check whether the      |
|               | connection line between the Angle   |
|               | module and the drive is loose, or   |
|               | the Angle module itself fails. If   |
|               | other unknown fault, please         |
|               | contact the supplier.               |
| E3 fault code | Check whether the cable and         |
|               | connector of the left motor are     |
|               | loose, or the left motor may be     |
|               | damaged to replace the left motor.  |
|               | Please contact the supplier for     |
|               | handling.                           |
| E4 fault code | Check whether the cable and         |
|               | connector of the right motor are    |
|               | loose, or the right motor may be    |
|               | damaged to replace the right        |

|               | motor. Please contact the supplier   |
|---------------|--------------------------------------|
|               | for handling.                        |
| E5 fault code | Check whether the cable and          |
|               | connector of the front electric push |
|               | rod are loose, or the front electric |
|               | push rod may be damaged to           |
|               | replace the front electric push rod. |
|               | Please contact the supplier for      |
|               | handling.                            |
| E6 fault code | Check whether the cable and          |
|               | connector of the rear electric push  |
|               | rod are loose, or whether the rear   |
|               | electric push rod may be damaged.    |
|               | Please contact the supplier for      |
|               | handling.                            |
| E7 fault code | Check whether cable and              |
|               | connector of left and right motor is |
|               | loose; check whether brake lever of  |
|               | left and right motor is locked. If   |
|               | other unknown fault, please          |
|               | contact the supplier.                |
| E8 fault code | If the temperature is abnormal,stop  |
|               | the operation for a period of time,  |
|               | the fault will disappear on its own  |

|                         | after the temperature returns to      |
|-------------------------|---------------------------------------|
|                         | normal. If the malfunction still      |
|                         | occur for a long time, please         |
|                         | contact the supplier.                 |
| E9 fault code           | When the Angle of the seat is tilted  |
|                         | from the ground to the top and the    |
|                         | hill (more than 15), the alarm will   |
|                         | be prompted. At the same time, the    |
|                         | push rod of the seat will be          |
|                         | automatically adjusted. The           |
|                         | adjustment process may be             |
|                         | accompanied by a deceleration.        |
|                         | When the Angle of the seat returns    |
|                         | to the normal value, the code will    |
|                         | disappear, if the alarm still exists. |
|                         | Please contact the supplier for       |
|                         | handling.                             |
| The operation button is | If the buttons on the control panel   |
| functionally abnormal   | is missing or inconsistent with the   |
|                         | description, please contact the       |
|                         | supplier.                             |

| The motor appears abnormal | If the motor has any abnormal        |
|----------------------------|--------------------------------------|
| sound                      | noise during the operation, please   |
|                            | test whether there is any abnormal   |
|                            | noise during the no-load. If the     |
|                            | abnormal noise always exists,        |
|                            | please contact the supplier.         |
| The handle screen shows    | Shut down the machine and            |
| abnormal screen, chaotic   | unplug the battery for 3 seconds; If |
| spots or missing picture   | the problem still exists, check      |
|                            | whether the internal cable of the    |
|                            | control handle is damaged and the    |
|                            | connector is loose; for other        |
|                            | unknown faults, please contact the   |
|                            | supplier for handling.               |

# 9 Mobile phone App function

### 9.1 Download

### 9.1.1 iOS system

Search for "XSTO" in Apple App Store, and click to download "XSTO" App.



Figure 9.1 Apple App Store search

The download of "xsto" App is shown in Figure 9.2.



Figure 9.2 "XSTO" App

## 9.1.2 Android system

Search "xsto" in Huawei App Store, as shown in the 9.3 Huawei App Store search below, click install to download "XSTO" App.



Figure 9.3 Huawei App Store search

Other Android system scan Figure 9.4 Android download QR code for download.



Figure 9.4 Download the QR code for Android

As the APP operation on different platforms is the same, the App on the Android platform will be used to explain in below.

# 9. 2 Registration and login

### 9. 2. 1 Open App

Open the newly downloaded "XSTO" App, and see Figure 9.5 open the App.

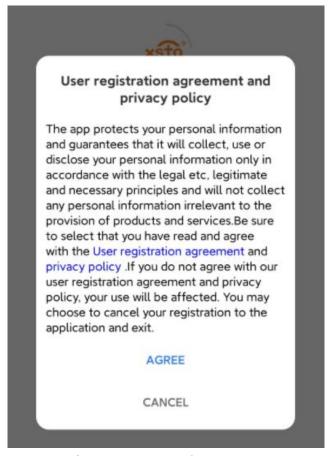


Figure 9.5 opens the app

The following needs to operate online, so here the Apple platform chooses the corresponding networking means, and the same is true on the Huawei platform, you should connect to the network in advance.

After selecting the network connection mode, it is shown in Figure 9.6 login interface:

Note that the Android App needs to get the location information in advance.



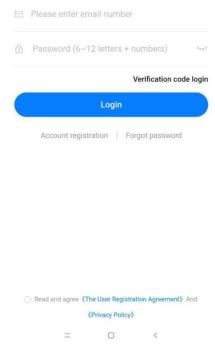


Figure 9.6 Login interface

### 9.2.2 Register

After entering the login interface, you need to use the account password to login, so need to register an account, click on the registered account registration, interface as shown in figure 9.7 registered account, use email number, enter the email number, then

click 'Obtain verification code' .Log in your email, check your email, and check the verification code. Enter verification code, then input to set the password that you want, pay attention to the password length in 6-12 bit, and is composed of numbers and letters.

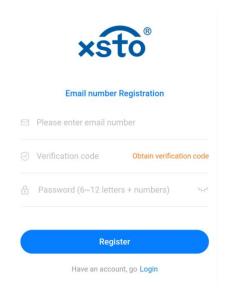


Figure 9.7, Account registration

### 9. 2. 3 Entry

After successful registration, log in, return to the login interface, enter the registered information to log in, check the bottom to read and agree to the User Registration Agreement and Privacy Policy, as shown in Figure 9.8:



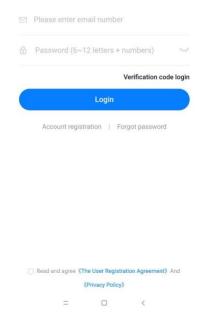


Figure 9.8, with the input information

After successful login, you can see it as shown in Figure 9.9:

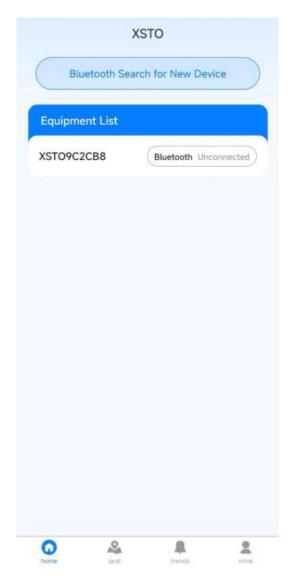


Figure 9.9 Login successful interface

Because just registered login, the phone has not yet bound any device, you need to search available devices. The Bluetooth for

connection, open Bluetooth, apple phone open Bluetooth method: finger click the top of the screen, then slide down, then appear below figure 9.10 connection Bluetooth, click the figure 9.10 Bluetooth icon Bluetooth, open the Bluetooth, Bluetooth icon as shown in the figure below shows blue background.

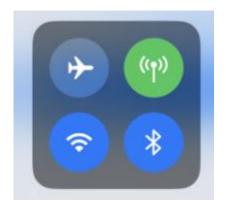


Figure 9.10 Connect to Bluetooth

After connecting with Bluetooth, click the Bluetooth search new device shown in Figure 9.9 to enter the Bluetooth, then search new device interface shown in Figure 9.11. Search for a connected device as shown in the figure. Select the connection XSTO9C2CB8 here as an example of explanation.

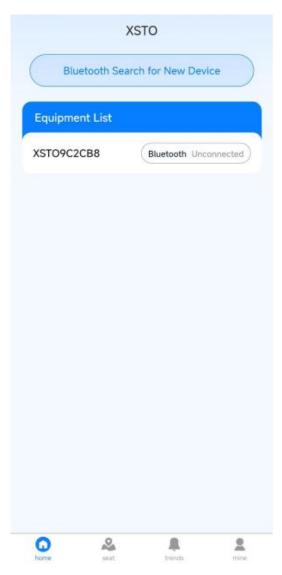


Figure 9.11 A Bluetooth search for a new device interface Click the XSTO9C2CB8 in Figure 9.11 to connect, After clicking, enter the 4-digit password (the last four digits of the device name as

default: 2CB8), and then click the confirm button to connect to the device.

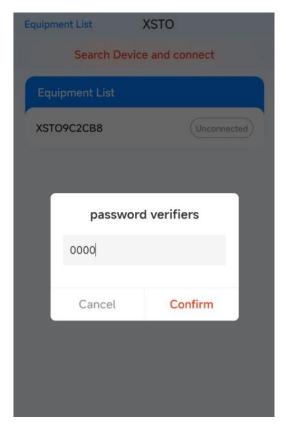


Figure 9.12 Device password interface

After the device is successfully connected, the App automatically jumps to the successful device connection interface as shown in Figure 9.13

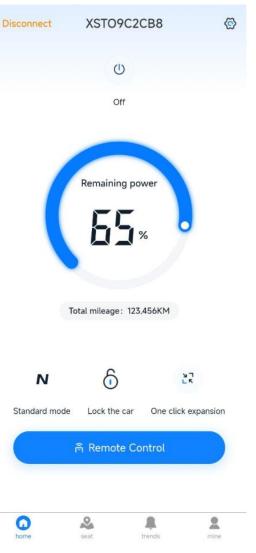


Figure 9.13 The Device is connected successfully

### 9. 3 Remote control and operation

#### 9. 3. 1 Device connection success interface

The screen display can be divided into the upper, middle and lower parts. The upper part of the interface is composed of Disconnection in the upper left corner, Device name, Settings on the right hand corner, Shutdown in the lower, Standard mode in the lower left corner, Lock the car, and one-key folding in the lower right corner. The interface consists of a large power display, total kilometers and remote control buttons in the middle. The next part of the interface consists of the Home page, Location, News, and Mine.

#### 9.3.2 Disconnect

Click the disconnect that as shown in Figure 9.13, the popup as shown in Figure 9.14. Click the OK to disconnect the device XSTO9C2CB8, then the App will jump to the interface shown in Figure 9.9 and display contents different from Figure 9.9, as shown in the new successful login interface in Figure 9.15, because XSTO9C2CB8 has been successfully connected, the phone has bound with XSTO9C2CB8 and record the device. If you want to connect the device XSTO9C2CB8 again, you just need to click XSTO9C2CB8 to connect.

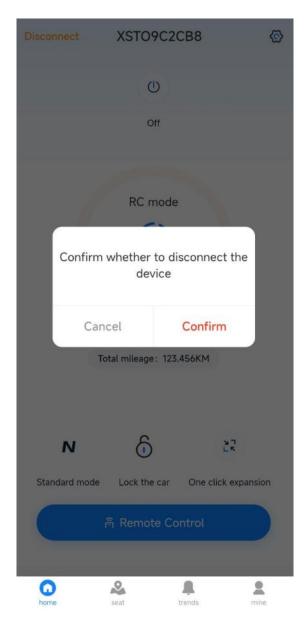


Figure 9.14 Disconnect

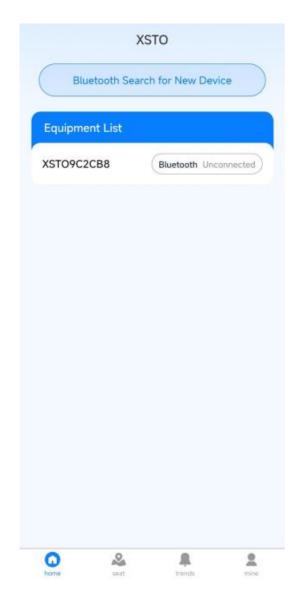


Figure 9.15 New login success interface

### 9. 3. 3 Set up

Click the Setting in the upper right corner of Figure 9.13 to jump to the Setting interface shown in Figure 9.16. There are four options in the Settings interface, General Settings, Battery information, Device version, and Emergency contact.

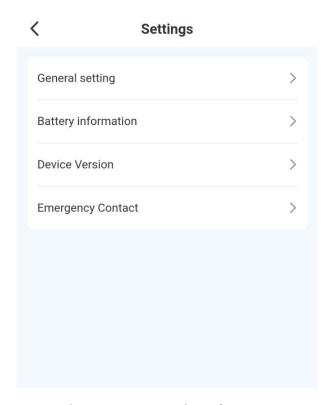
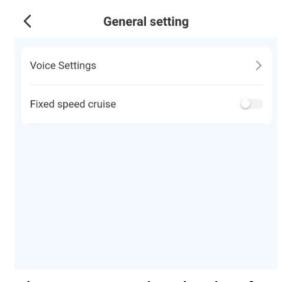


Figure 9.16 Setup interface

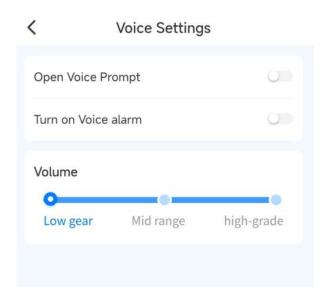
#### 9. 3. 3. 1 General settings

Click the General setting in Figure 9.16 and jump to the general setting interface shown in Figure 9.17. The General setting is composed of Voice setting and Cruise at fixed speed.

Click the voice Settings to display the Voice related Settings as shown in Figure 9.18. In the voice prompt, click the open voice prompt button to swipe to the right and display the blue background color. Open the voice alarm in the same way, the voice prompt is not opened yet and the voice alarm is opened. The volume has three options, click three options to select.



**Figure 9.17 General Settings interface** 



**Figure 9.18 Voice Settings** 

In the opening of cruise speed, it is like opening the voice prompt. A warning will appear after opening the warning, and click OK to open cruise speed.

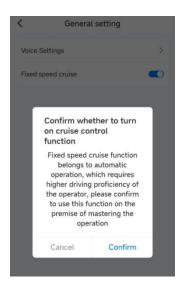


Figure 9.19 cruise speed

#### 9.3.3.2 Battery information

Click the battery information in Figure 9.16 to see the battery power and battery status at this time, as shown in the battery information in Figure 9.20, the battery power is 100% and the battery state is normal.

# Battery information

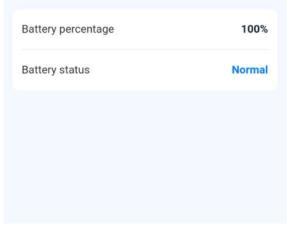


Figure 9.20 Battery information

#### 9.3.3.3 Device version

Click the device version in Figure 9.16, as shown in Figure 9.21.

# Device Version



Figure 9.21 Device version

### 9. 3. 3. 4 Emergency contact

Click the emergency contact in Figure 9.16, as shown in Figure 9.22. Since the emergency contact is empty, it can be added by click the Adding in the upper right corner, as shown in Figure 9.23, and the emergency contact in Figure 9.24.

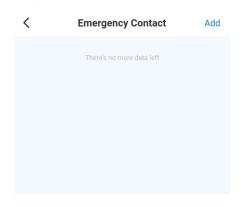


Figure 9.22 Emergency contacts

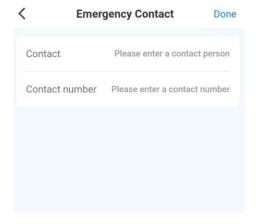


Figure 9.23 Add emergency contacts

# 9.3.4 Mode switching

Click the N mode in Figure 9.13 to switch to the S mode as shown in Figure 9.25, and the N mode speed is slower than the S mode.

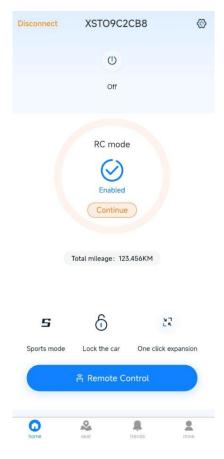


Figure 9.25 Mode switching

# 9.3.5 Unlock/Lock

Click "Unlock/Lock" to switch to lock mode, then click again to return to unlock mode.

# 9.3.6 One key folding

The one-key folding function folds or expands the machine. If M4U is in the unfolding state, click the One key fold button in Figure 9.13 and the machine will fold. If M4U is in the folding state, pressing the one key fold button will expand the machine.

#### 9. 3. 7 Shut down

Click the Off button in Figure 9.13, and the pop-up window in the shutdown interface in Figure 9.26 appears. Click the Confirm button to enter the shutdown state, and the app will jump to the interface in Figure 9.15.

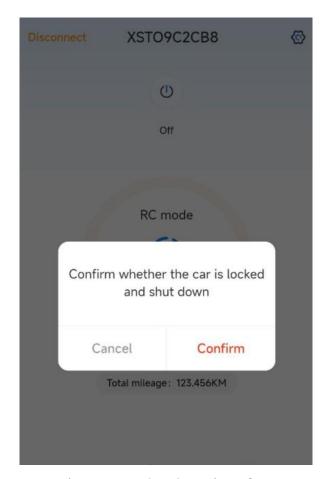


Figure 9.26 Shutdown interface

#### 9.3.8 Remote control

Click the remote control button in Figure 9.13, and the interface in Figure 9.13 will switch to Figure 9.27. Click the Continued control interface to enter the remote control interface in Figure 9.28.

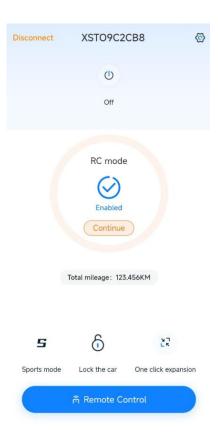


Figure 9.27 Continue to control the interface

On the right side of the remote control interface are the Horn switch and the holistic attitude regulation, in the middle is the speed of the current machine and the virtual operation joystick, located directly below the virtual operation remote sensing is the speed gear adjustment button.



Figure 9.28 Remote control interface

#### 9. 3. 8. 1 The horn switch

Click the horn switch button in Figure 9.28 to turn on the horn; Release the button to turn off the horn.

# 9. 3. 8. 2 Holistic attitude regulation

Click the holistic attitude regulation button in Figure 9.28, and

the interface will switch to the seat adjustment interface in Figure 9.30.

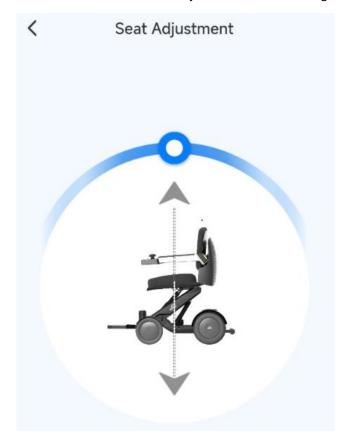


Figure 9.30 Seat adjustment interface

The seat of M4U can rise and descend, so keep press the upward arrow in figure 9.30 below, the seat rises, and the prompt font in the seat rise shown in the successful seat adjustment interface of M 4 Figure 9.31 appears.

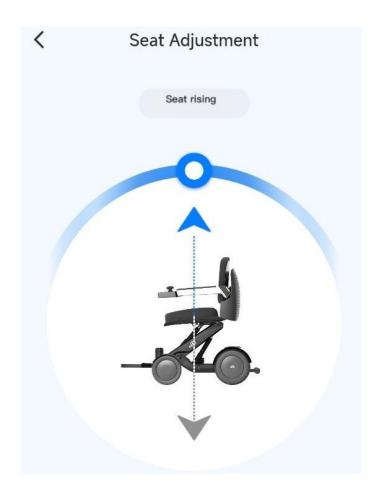


Figure 9.31 The M4U seat was adjusted successfully

#### 9. 3. 8. 3 Seat Automatic Balance Switch

Click the "Seat Automatic Balance" button to confirm, turn on automatic balance, and then click "Confirm" again to turn off automatic balance.

### 9. 3. 8. 4 Virtual operation rocker

Press and hold the virtual operation joystick in Figure 9.28, the person sits directly in front of the direction the machine faces, and operate the joystick forward, the machine walks forward at the speed adjusted by speed gear, and through the joystick, the person can operate the machine to walk forward, back, left and right.

# 9. 3. 8. 5 Speed gear regulation

Press the speed gear adjustment in Figure 9.28, and the remote control speed gear adjustment popover appears in Figure 9.32, press the current speed in the figure, and drag the speed 1 to adjust the speed gear.

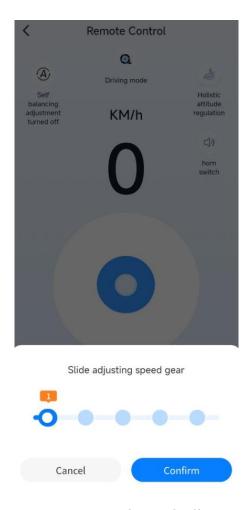


Figure 9.32 Remote control speed adjustment popup

# 9. 3. 9 Home page

Click the home page of Figure 9.13, which is the page of Figure 9.13. The content of Figure 9.13 has been introduced in detail above.

#### 9. 3. 10 **Position**

Click the Position of Figure 9.13 and enter the position information page of Figure 9.33. In the App on Apple platform, Figure 9.33 will appear. According to your own needs, click to run once or use the App. If the click is not allowed, this function cannot be used. (NOTICE: The Android version of the App opens the App to ask for the location information. This feature is only applicable to products with positioning function).

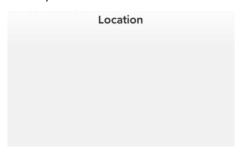


Figure 9.33 Location information page

Click Run once or use the App, figure 9.34. Figure 9.34 The red coordinates show the current position of the mobile phone, and the blue coordinates indicate the position information sent by the machine XSTO9C2CB8.



Figure 9.34 Get location success

# 9. 3. 11 Trends

Click the Dynamics of Figure 9.13, and the interface switches to Figure 9.35:



Figure 9.35 Introduction of the equipment

# 9. 3. 11. 1 Company profile

Click on the company profile in Figure 9.35 to switch the interface to Figure 9.36:

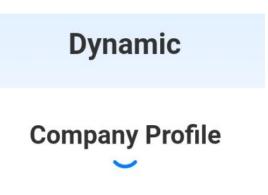


Figure 9.36: Company Profile

#### 9. 3. 11. 2 Company profile

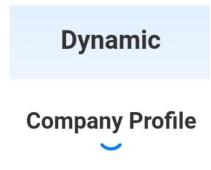
Click the brand promotion in Figure 9.35, and the interface switches to that shown in Figure 9.37:



Figure 9.37 Brand promotion

# $9.\ 3.\ 11.\ 3$ Equipment leasing

Click the equipment lease in Figure 9.35 and switch the interface to that shown in Figure 9.38:



**Figure 9.38 Equipment Leasing** 

#### 9.3.12 Mine

Click Mine in Figure 9.13, the interface switches to Figure 9.39. There are 8 parts, click the top user Nickname to modify my data, Account and security, Feedback, User agreement, Privacy policy, Check for update, Clear cache and About us.

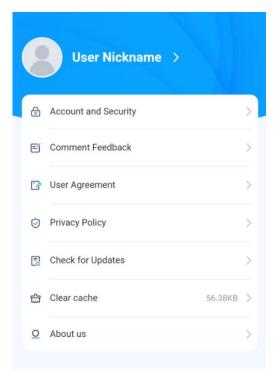


Figure Figure 9.39 of mine

#### 9. 3. 12. 1 My information

Click the user's nickname to modify my data. You can modify the avatar and nickname, and click save after modification.

#### 9. 3. 12. 2 Account number and security

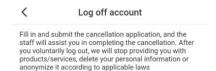
Click on the figure 9.39 account and security, can modify the account password and cancel account, as shown in figure 9.41 account and security, click modify the password can modify the password, and change the password there are two ways: through the old password or by mobile phone number verification, as shown in figure 9.42 to TO change password, the another is click on the cancellation account, you can click to fill out the account, as shown in figure 9.43 cancellation account.



Figure 9.41 Account number and Security



Figure 9.42 Modify the password

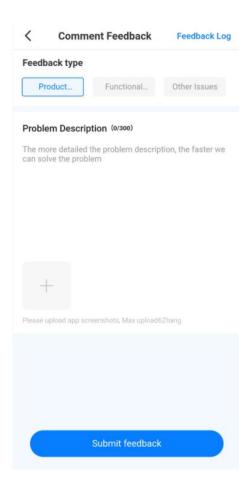


Fill in the Cancellation Application

Figure 9.43 Cancel your account

#### 9. 3. 12. 3 Feedback

Click the feedback in Figure 9.39, as shown in Figure 9.44. The feedback can be given according to the corresponding feedback type.



**Figure 9.44 Opinion Feedback** 

### 9. 3. 12. 4 User agreement

Click on the user agreement in Figure 9.39, as shown in Figure 9.45, and show the agreement content related to user registration in detail.

#### Registration Agreement

《XSTO 》 User Service Agreement

The 《XSTO 》 User Service Agreement will help you unde rstand the following content:

- 1, Introduction
- 2. Service Description
- 3. Service usage rules
- 4. Upload and share user content
- 5. User Personal Information Protection
- 6. Intellectual Property
- 7. Advertising, third-party links
- 8. Limitation of Liability
- 9. Change and Termination of Services
- 10. Account cancellation
- 11. Minors clause
- 12. Notification
- 13. Contact information
- 14, Other
- 1. Introduction
- 1.1 This agreement is between the user (hereinafter referr ed to as "you") and the Zhongshan Xiaoshentong Innovati on Technology Co., Ltd (hereinafter referred to as "Xiaoshentong"), and the Xiaoshentong will strictly provide product s and/or services in accordance with the terms of this agreement. The terms of this agreement constitute a prerequisite for your use of the products and/or services provided by the Xiaoshentong and their derivative services. You sha

# Figure 9.45 User Agreement

### 9. 3. 12. 5 Privacy policy

Click on the privacy policy in Figure 9.39, as shown in Figure 9.46, to use the detailed content of the privacy policy of this App.

Privacy Policy

<

Updated on:June 16, 2023

Effective date: June 16, 2023

This policy applies to XSTO App products or services (her einafter referred to as "this application")

This privacy policy section will help you understand the fol lowing:

- 1. Definition and Scope of Application
- 2. How do we collect and use your information;
- How do we use cookies and similar technol ogies;
- How do we share, transfer, and publicly disc lose users' personal information;
- How do we protect the information securit y of users;
- 6. How do you manage personal information;
- 7. How do we handle information about minor
- 8. How your information is transferred globall

у;

S;

# Figure 9.46 Privacy Policy

#### 9. 3. 12. 6 Check the update

Click to check the update in Figure 9.39, as shown in Figure 9.47, you can check whether the current App version is the latest version. The display in the figure is that the current App is the latest version and no update is needed.

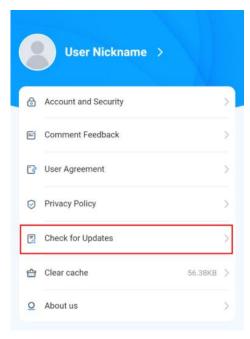


Figure 9.47 Check for updates

#### 9. 3. 12. 7 Clear cache

Click in figure 9.39 Clear cache, can clear the App for use cache related information, specific cache size displayed on the right side of

the picture, the figure 9.39 of cache size is 1.3MB, pay attention to clean the cache, then use App related content may again use traffic download related content, in order to avoid unnecessary cache additional traffic consumption, please carefully choose empty cache.

#### 9. 3. 12. 8 About Us

Click on about us in Figure 9.39, as shown in Figure 9.48. About us.



Figure 9.48 About us

# 10 Electromagnetic Compatibility Information

Note: Portable RF communications equipment should no closer than 30 cm (12 inches) to any part of the device, including cables specified by the manufacturer.

- $\cdot$  The M4U Mobility Robot complies with IEC60601:2005+A1:2012+A2:2020, ISO7176-21:2009 standard electromagnetic compatibility requirements.
- · Users should install and use it according to the electromagnetic compatibility information provided in the accompanying documents.
- The M4U Mobility Robot generates, uses, and radiates radio frequency energy. The equipment may cause radio frequency interference to other medical or non-medical devices and to radio communications.

If this equipment is found to cause interference, which can be determined by turning on and off the equipment, the operator or qualified service personnel should take following actions:

- Reorient or relocate the affected device;
- Increase the distance between the equipment and the affected device;
- Power the equipment by another source;
- Consult the service engineer for further suggestions.
- · Caution: The M4U Mobility Robot should not be used close to or stacked with other equipment. If it must be used close to or stacked, it should be observed and verified that it can operate normally under the configuration it is used in.
- · Caution: It is customer's responsibility to assure that this equipment and vicinity equipment comply with the contents of IEC 60601-1-2 4th Edition.
- · Caution: Do not use any device that might send out RF signals, including cell phone, radio transceiver and radio control products, which might cause operation parameters beyond the standards. Please shutdown these devices when you are near the equipment. Operator has the responsibility to warn user

or any others to comply with this rule.

- · Caution: Manufacturer will not responsible for any unauthorized actions that cause interference.
- · Caution: The M4U Mobility Robot cannot be used together with HF SURGICAL EQUIPMENT.

Table 1

### **Guidance and Manufacture's Declaration – Electromagnetic Emission**

The M4U Mobility Robot is intended for use in the electromagnetic environment specified below. User should assure that it is used in such an environment.

| <b>Emissions Test</b> | Complian | Electromagnetic Environment -              |
|-----------------------|----------|--|
|                       | ce       | Guidance                                   |
| RF emissions          | Group 1  | The M4U Mobility Robot uses RF             |
| CISPR 11              |          | energy only for its internal function. Its |
|                       |          | RF emissions are very low and are not      |
|                       |          | likely to cause any interference in        |
|                       |          | nearby electronic.                         |
| RF emissions          | Class B  | The M4U Mobility Robot is suitable for     |
| CISPR 11              |          | domestic establishments and those          |
| Harmonic emissions    | Class A  | directly connected to the public           |
| IEC 61000-3-2         |          | low-voltage power supply network.          |
| Voltage               | /        |  |
| fluctuations/flicker  |          |  |
| emissions             |          |  |
| IEC 61000-3-3         |          |  |

#### Table 2

### Guidance and Manufacture's Declaration – Electromagnetic Immunity

The M4U Mobility Robot is intended for use in the electromagnetic environment specified below. User should assure that it is used in such an

| environment.   |   |   |  |
|--|---|---|--|
| Immunity Test  | IEC60601 Test Level   | Compliance<br>Level   | Electromagneti<br>c Environment<br>- Guidance  |
| Electrostatic<br>discharge (ESD)<br>IEC 61000-4-2              | ±8kV contact<br>±2kV, ±4kV, ±8kV,<br>±15kV air  | ±8kV contact<br>±2kV, ±4kV,<br>±8kV, ±15kV air  | Floors should be wood, concrete or ceramic tile. Humidity should be at least 30% if it is synthetic materials.     |
| Electrical fast<br>transients/bursts<br>(EFT)<br>IEC 61000-4-4 | ±2kV<br>100kHz repetition<br>frequency<br>±0.5kV, ±1kV  | ±2kV<br>100kHz<br>repetition<br>frequency<br>±0.5kV, ±1kV   | Main power quality should be that of a typical   |
| Surges<br>IEC 61000-4-5  | line-to-line<br>±0.5kV, ±1kV, ±2kV<br>line-to-ground  | line-to-line<br>±0.5kV, ±1kV,<br>±2kV<br>line-to-ground   | commercial or<br>hospital<br>environment.  |
| Voltage dips<br>IEC 61000-4-11                                 | 0 % UT; 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°  0 % UT; 1 cycle and 70 % UT; 25/30 cycles Single phase: at 0° | 0 % UT; 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0 % UT; 1 cycle and 70 % UT; 25/30 cycles Single phase: at | Mains power quality should be typical commercial or hospital environment.  UPS power is recommended if this device |

|   |                              | 0°                      | needs to be used  |
|---|------------------------------|-------------------------|---|
| Voltage interruptions                               | 0% UT; 250/300               | 0% UT;                  | continuously.   |
| IEC 61000-4-11                                      | cycle                        | 250/300 cycle           |   |
| RATED power frequency magnetic fields IEC 61000-4-8 | 30A/m<br>50Hz or 60Hz        | 30A/m<br>50Hz or 60Hz   | Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment. |
|   | 65A/m,                       | 65A/m,                  |   |
|   | Modulation: Pulse            | Modulation:             |   |
|   | modulation, 2.1KHz           | Pulse                   |   |
|   | Test                         | modulation,             |   |
|   | frequency:134.2KH            | 2.1KHz                  |   |
| IMMUNITY to   | Z;                           | Test                    |   |
| proximity magnetic fields                           | 7.5A/m,<br>Modulation: Pulse | frequency:134.2<br>KHz; |   |
| IEC 61000-4-39                                      | modulation, 50KHz            | 7.5A/m,                 |   |
| 120 01000-4-39                                      | Test                         | Modulation:             |   |
|   | frequency:13.56MH            | Pulse                   |   |
|   | z;                           | modulation,             |   |
|   | See Table 6                  | 50KHz                   |   |
|   | See lable 0                  | Test                    |   |

|                    | frequency:13.56 |          |
|--------------------|-----------------|----------|
|                    | MHz;            |          |
|                    | See Table 6     |          |
|                    |                 |          |
| Nata UT's the A.C. |                 | - t. 1 1 |

Note: UT is the A.C. mains voltage prior to application of the test level.

Table 3: Guidance & Declaration - electromagnetic immunity concerning Conducted RF & Radiated RF

### Guidance & Declaration - Electromagnetic immunity

The M4U are intended for use in the electromagnetic environment specified below. The customer or the user of the M4U should assure that they are used in such an environment.

| Immunity test | IEC 60601 test    | Compliance      | Electromagnetic     |
|---------------|-------------------|-----------------|---------------------|
|               | level             | level           | environment -       |
|               |                   |                 | guidance            |
| Conducted RF  | 3 Vrms            | 3 Vrms          | Portable RF         |
| IEC 61000-4-6 | 150 kHz to 80 MHz | 150             | communications      |
|               | 6 Vrms in ISM     | kHz to 80 MHz   | equipment           |
|               | bands             | 6 Vrms in ISM & | (including          |
|               |                   | amateur radio   | peripherals such    |
|               |                   | bands           | as antenna cables   |
|               |                   |                 | and external        |
| Radiated RF   | 10 V/m            | 20V/m           | antennas) should    |
| IEC 61000-4-3 | 80 MHz to 2.7     | 26MHz to 25GHz  | be used no closer   |
|               | GHz               | 10 V/m          | than 30 cm (12      |
|               |                   | 80 MHz to 2.7   | inches) to any part |
|               |                   | GHz             | of the              |
|               | 385MHz-           |                 | M4U, including      |
|               | 5785MHz Test      |                 | cables specified    |
|               | specifications    | 385MHz-         | by the              |

| for               | 5785MHz Test       | manufacturer.      |
|-------------------|--------------------|--------------------|
| ENCLOSURE         | specifications for | Otherwise,         |
| PORT              | ENCLOSURE          | degradation of the |
| IMMUNITY to       | PORT IMMUNITY      | performance of     |
| RF wireless       | to RF wireless     | this equipment     |
| communication     | communication      | could result.      |
| equipment         | equipment (Refer   |                    |
| (Refer to table 9 | to table 9 of IEC  |                    |
| of IEC 60601-1-   | 60601-1-           |                    |
| 2:2014+A1:2020)   | 2:2014+A1:2020)    |                    |
|                   |                    |                    |

Table 4 -Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment

| Test<br>frequency<br>(MHz) | Band a) (MHz)  | Service a)   | Modulation                               | IMMUNITY TEST<br>LEVEL<br>(V/m) |    |
|----------------------------|----------------|--|--|---------------------------------|----|
| 385                        | 380 to 390     | TETRA 400  | Pulse modulation b)<br>18 Hz             | 27                              |    |
| 450                        | 430 to 470     | GMRS 460, FRS 460  | FM c)<br>± 5 kHz deviation<br>1 kHz sine | 28                              |    |
| 710                        | 704 to 787     |  |  | 9                               |    |
| 745                        |                | LTE Band 13, 17  | Pulse modulation b)                      |                                 |    |
| 780                        |                | ***************************************                    | 217 HZ                                   |                                 |    |
| 810                        |                | GSM 800/900, TETRA 800.                                    | Pulse modulation b)                      | I-II- N                         |    |
| 870                        | 800 to 960     | 870 800 to 960   | IDEN 820, CDMA 850,                      | 18 Hz                           | 28 |
| 930                        |                | LTE Band 5   | 16 FIZ                                   |                                 |    |
| 1 720                      |                | GSM 1800; CDMA 1900;                                       | Pulse modulation b)                      | 28                              |    |
| 1 845                      | 1 700 to 1 990 | GSM 1900; DECT; LTE Band                                   | 217 Hz                                   |                                 |    |
| 1 970                      | - 15           | 1, 3, 4, 25; UMTS  | 217 HZ                                   |                                 |    |
| 2 450                      | 2 400 to 2 570 | Bluetooth, WLAN,<br>802.11 b/g/n, RFID 2450,<br>LTE Band 7 | Pulse modulation b)<br>217 Hz            | 28                              |    |
| 5 240                      |                |  | 5 1 1 1 1 1 h)                           |                                 |    |
| 5 500                      | 5 100 to 5 800 | WLAN 802.11 a/n  | Pulse modulation b) 217 Hz               | 9                               |    |
| 5 785                      |                |  |  |                                 |    |

If necessary to achieve the IMMUNITY TEST LEVEL, the distance between the transmitting antenna and the ME EQUIPMENT or ME SYSTEM may be reduced to 1 m. The 1 m test distance is permitted by IEC 61000-4-3.

Table 5 - Test specifications for ENCLOSURE PORT IMMUNITY to proximity magnetic fields

| Test frequency | Modulation                     | IMMUNITY TEST LEVEL (A/m) |
|----------------|--------------------------------|---------------------------|
| 30 kHz a)      | cw                             | 8                         |
| 134,2 kHz      | Pulse modulation b)<br>2,1 kHz | 65°)                      |
| 13,56 MHz      | Pulse modulation b)<br>50 kHz  | 7,5 °)                    |

a) This test is applicable only to ME EQUIPMENT and ME SYSTEMS intended for use in the HOME HEALTHCARE ENVIRONMENT.

a) For some services, only the uplink frequencies are included.

b) The carrier shall be modulated using a 50 % duty cycle square wave signal.

c) As an alternative to FM modulation, the carrier may be pulse modulated using a 50 % duty cycle square wave signal at 18 Hz. While it does not represent actual modulation, it would be worst case.

b) The carrier shall be modulated using a 50 % duty cycle square wave signal.

c) r.m.s., before modulation is applied.

# **EU Declaration of Conformity**

according to the REGULATION (EU) 2017/745 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

Doc. No.: XSTO-CE-T02-008-01

Manufacturer: XSTO CO., LTD.

Floor 1, Building C, 555 Plant, Ma'an Cun Rd, Cuiheng

Address: New District, Zhongshan City, Guangdong Province,

Single Registration Number CN-MF-000018902

(SRN) of the Manufacturer:

Authorised representative (AR):

Share Info GmbH

Address: Heerdter Lohweg 83, 40549 Düsseldorf

Single Registration Number

DE-AR-000005132 (SRN) of AR:

We, the manufacturer, declare under our sole responsibility that:

**Product** Mobility Robot

Name:

Type/model. identification of product

M4, M4U

allowing traceability (Where applicable):

the

medical

device(S)

EMDN Code:

Intended Purpose: Y122124 CARROZZINE ELETTRICHE The Mobility Robot is a motor driven transportation

Refer to the Appendix I for details.

suitable for medical institutions or families as people

with mobility difficulties.

Classification:

(Annex VIII of Class I Medical Device according to rule 13

the MDR)

Basic UDI-DI: 697505265M4YV

EU Declaration of Conformity + Technical Conformity assessment

> procedure: Documentation (Annex II)

Applied harmonized

standards and Common

Specification:

Notified Body:

Address:

Notified Body number:

Certificate(s) number.:

Expire date of the

Certificate:

Start of CE Marking: --

The product concerned has been manufactured under a quality management system according to Annex IX of Regulation (EU) 2017/745.

The above-mentioned declaration of conformity is exclusively under the responsibility of the manufacturer.

XSTO CO., LTD.

Floor 1, Building C, 555 Plant, Ma'an Cun Rd, Cuiheng New District, Zhongshan City, Guangdong Province, China

# Appendix I: Applied harmonized standards and Common Specification

is/are in conformity with the relevant provisions and requirements of the Council and the parliament regulation (EU) 2017/745 for medical device and all applicable harmonized standards and Common Specification. All supporting documents are retained under the premises of the manufacturer.

Applied harmonized standards and Common Specification Regulation (EU) EN ISO 10993-5: 2009 2017/745:2023

MEDDEV 2.7/1 rev.4:2016 EN ISO 10993-10: 2023 MEDDEV2.12/1-rev.8:2013 EN ISO 10993-23: 2021

EN ISO 14971: 2019/A11: EN 62366-1: 2015+AC:2015+AC:2016

2021 2015+AC:2015+AC:2011 +A1: 2020

ISO/TR 24971: 2020 EN 60601-1-6: 2010+A1:2015+A2:2021

EN ISO 13485: 2016+AC: 2018 EN 12184: 2022

EN 20417: 2021 EN 62133-1:2017 EN ISO 15223-1: 2021 EN 60601-1-2: 2015+A1:2020 EN 62304:2006/A1:2015

EN ISO 10993-1: 2020 This DoC is valid from 2024.02.04.

Authorized by:

CE

Signature (on behalf of the manufacturer)

Position: General Manager

Rev. 1.0

Signed on: 2024.02.04 Place: Zhongshan, China





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