

- Thank you for choosing **Self Balancing scooter**.
- **Self Balancing scooter** is a self-balancing electric vehicle with two wheels.
- Before riding, please read the Product Manual carefully, and learn Security Warnings and Precautions.
- Product Manual can help you understand, use and maintain **Self Balancing scooter** quickly.

Product Manual

This manual applies to **Self Balancing scooter**.



- In order to avoid dangers that are caused by collisions, falls and loss of control, please learn how to drive Self Balancing scooter safely.
- You can learn driving skills by reading the product manual and watching videos.
- This manual includes all operating instructions and precautions, users must read it carefully and follow the instructions. All users are responsible for any consequences that are caused by violating warning contents or prompt operations. **Self Balancing scooter** cannot be held liable.

一: ATTENTION!

1. Use the supplied charger with this scooter: Manufacture: SHENZHEN FUYUANDIAN POWER CO LTD, Model: FY-0632521000
2. The operating temperature range of the charger is 0°C-40°C..
3. The operating temperature range of the Self Balancing scooter is 0°C-40°C.
4. Do not ride on icy or slippery surfaces
5. Read user's manual and warning labels before riding.
6. Stock and transport method.
 - 6.1. Storage condition: Store the Self-Balancing Scooter in a dry, ventilated environment
 - 6.2. Transportation condition: avoid violent crashes during transportation
7. Disposal: destroy the self-balancing scooter according to local law.

二: The risks of driving under low temperature.

The risks of driving under low temperature:

Low temperature will affect the lubrication of moving parts inside the scooter, increasing the internal resistance. At the same time, in low temperatures, the discharge capacity and the capacity itself of the battery will be significantly decreased, so don't do violent actions when riding a Self Balancing scooter in low temperature (below 0°C), otherwise it may increase the risk of losing control and falling down.

Catalogue

1. The document overview.....	
1.1 About User Manual	
1.2 Driving Risk.....	
1.3 Preparation before Driving.....	
1.4 Related Instructions.....	
2. Product Introduction.....	
2.1 Description of Self Balancing scooter.....	
2.2 Description of parts.....	
2.3 Working Principles.....	
3. Control and Information Display Device.....	
3.1 Pedal Sensor.....	
3.2 Display Board.....	
3.3 How to connect Bluetooth.....	
4. Safe-using of Self Balancing scooter.....	
4.1 Weight Limit.....	
4.2 Maximum Driving Range.....	
4.3 Speed Limit.....	
5. Learn driving.....	
5.1 Operation Procedure.....	
5.2 Protection Function.....	
5.3 Practice Driving.....	
6. Safe Driving.....	
7. Usage of Battery.....	
7.1 Battery Power.....	
7.2 Charging process.....	
7.3 Temperature.....	
7.4 Description of Battery.....	
7.5 Shipping Notes.....	
8. Maintenance.....	
8.1 Cleaning Self Balancing scooter.....	
8.2 Storing Self Balancing scooter.....	
9. Self Balancing scooter Parameters.....	
10. Packing list.....	
11. Handling Faults.....	
Enjoy your Self Balancing scooter	

1.The document overview

1.1 Description

Describe safety and warning information to ensure every user can drive Self Balancing scooter safely and enjoy Self Balancing scooter.

A. Introduce every part of Self Balancing scooter manual warnings and precautions to help you enjoy it.

C. This manual is only for Self Balancing scooter.

D. Any questions, please contact **Self Balancing scooter**

1.2 Driving Risk

Self Balancing scooter is a personal transporter, our technology and production processes have strict testing for every Self Balancing scooter. Driving without attention to contents of this manual may cause injury.



Falling, losing control, collision, or failure to obey Self Balancing scooter manual, may cause injury even death. In order to minimize the risk of driving, insure that you read Self Balancing scooter manual.

1.2.1 The risks of driving under low temperature.

Low temperature will affect the lubrication of moving parts inside then create internal resistance; at the same time, under the condition of low temperature, discharge capacity and the capacity itself of the battery will significantly decreased, so ,don't do violent action when riding a Self Balancing scooter especially under low temperature (below 0℃), otherwise it may increase the risk of losing control and falling down.

1.3 Preparation before Driving

Before driving, please check level of battery, details in chapter 5.

Failure to obey the Self Balancing scooter Manual, may cause injury.

1.4 Related Instructions

Instruction below are for Self Balancing scooter. Please give special attention to related WARNINGS and NOTES.

	Warning: Any improper action will danger your personal safety.
	Notes: Users should pay attention to the manual and the relevant notes on usage.

2. Product Introduction

2.1 Description of Self Balancing scooter

Self Balancing scooter is a high-tech electric transporter, it is based on dynamic balance principles and can control forward, backward, and stopping. Easy Operation, flexible control, low carbon footprint, green environmental protection and easy on-road travel are **Self Balancing scooter**'s advantages. **Self Balancing scooter** is widely used in leisure, scenic tours, security patrol and other fields.

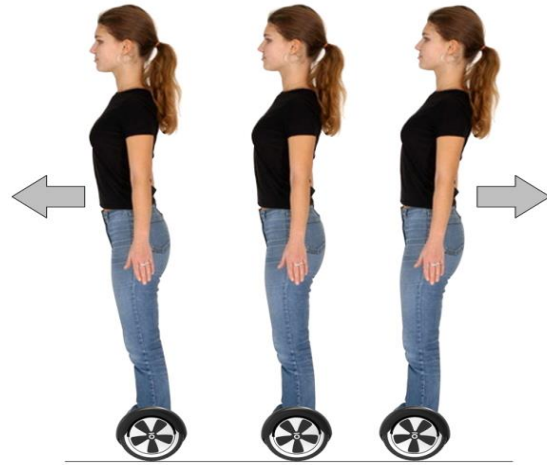
2.2 Description of parts



2.3 Working Principles

- Self Balancing scooter uses gyroscopes and acceleration sensors to control balance intelligently depending on center of gravity. Self Balancing scooter also uses a servo-control system to drive the motor. It adapts to the human body, when you stand on the Self Balancing scooter, lean body forward or backward and the power plant will control the wheels in a forward or backward movement to keep balance. When you turn, you need to slow down and move body left or right.

- Built-in inertia dynamic stabilization system can keep the direction of frontward and backward, however, it cannot guarantee the stability of left and right. When you drive Self Balancing scooter, please shift your weight in order to overcome the centrifugal force and improve the security of turning.



3.Control and Information Display Device

3.1 Mat Sensor

There are four sensors under the mat, when the user steps on Self Balancing scooter mats, it will automatically initiate the self balance mode.

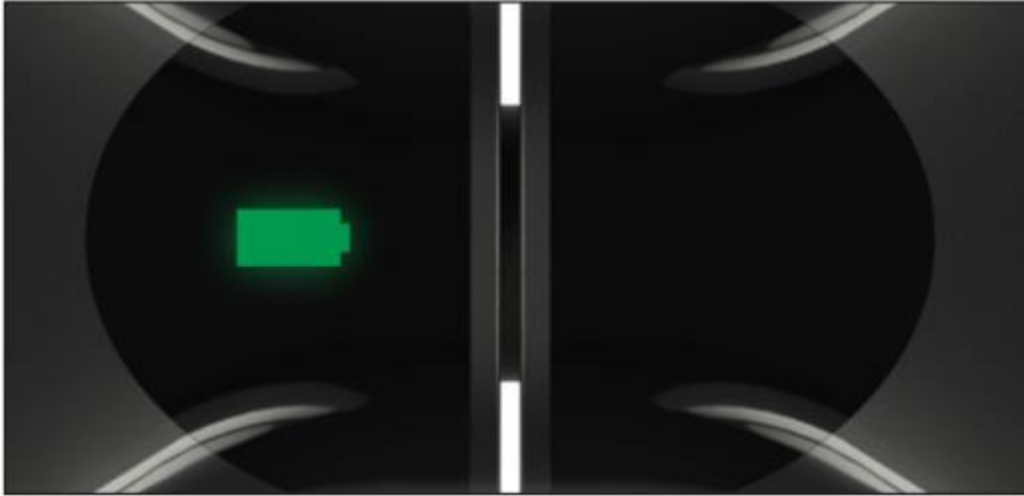
- A. While driving Self Balancing scooter, you must ensure that you are stepping on the foot mats, please don't step on any other area besides the mats.
- B. Please do not put items on the mats, which will make Self Balancing scooter switch on, and increase the probability of collision and cause injury to people or damage to Self Balancing scooter.

3.2 Display Board

Display board is located on the middle of the Self Balancing scooter. It is for displaying the current information of Self Balancing scooter.

A. Battery Display: This green LED light indicates the Self Balancing scooter is fully charged, yellow LED light indicates the power is down to 50%, red LED light indicates the power is down to 20%, when LED light become red, please recharge it.

B. Running LED: When the operator triggers the foot switches, the running LED will light up, which means that the system has entered the running state; when the system has an error in operation, running LED light will turn to red.



3.3 How to connect Bluetooth

1. Press the switch turn on the scooter.
2. You would hear a sound that means the built-in Bluetooth function well.
3. Then turn on the Bluetooth of your mobile, search for the Bluetooth of the scooter.
4. There will be a sound again indicates the Bluetooth of the mobile and the scooter are connected.
5. Put on some music and test if the Bluetooth speaker works.

4. Safe-using of Self Balancing scooter

We hope every user can drive Self Balancing scooter safely and enjoy the fun. You can recall the memories of learning how to ride a bicycle, drive a car, ski or use other similar means of transportation; all these experiences can be applied to our product.

1. Please follow the related content in "Product Manual". We strongly recommend that you read the "Product Manual" carefully before riding Self Balancing scooter the first time. Check whether tires are damaged, or parts are loose before driving. If there is any abnormal situation, please contact local dealer for repair.

2. Please carefully read the "Product Manual", this will help you to get a lot of important safety information such as speed limits, vibration alert and safety shutdown, etc.

3. Do not use the Self Balancing scooter incorrectly to endanger the safety of persons or property.

4. Do not modify the parts of Self Balancing scooter, it will affect the performance of Self Balancing scooter, and can cause serious injury.

4.1 User's Weight Limit

- The following two points are the reason for a weight limit:
 1. To ensure the safety of the user.
 2. To reduce damage due to overload.
- Maximum Load: 100kg.
- Minimum Load: 20kg



Overweight use may increase possibility of injury.
4.2 Maximum Range

There are a lot of factors that will affect driving range, such as:

- Grade: A smooth, flat surface will increase the driving distance, while an incline or hilly terrain will reduce the distance.
- Weight: The weight of the driver can affect driving distance.
- Ambient temperature: Please ride and store Self Balancing scooter under recommended temperature, which will increase driving distance.
- Maintenance: Reasonable battery charging and maintenance will increase the distance.
- Speed and Driving Style: Maintaining a moderate speed will increase distance, on the contrary, frequent starting, stopping, acceleration and deceleration will reduce the distance.

4.3 Speed Limit

- Self Balancing scooter's top speed is 15km/h
- When the speed is close to the maximum allowable speed, the buzzer alarm will ring.
- Self Balancing scooter can keep the user in balance within the specified speed. If the speed exceeds the specified speed; Self Balancing scooter will take the initiative to tilt the driver so as to bring the speed down to a safe range.

5. Learning to drive

It is important to learn and remember the related warnings and notes before driving Self Balancing scooter.

5.1 Operation Procedure

Step 1: Start Self Balancing scooter

Open the charging port of vehicle and press the power button.

Step 2: Prepare driving

1. Put Self Balancing scooter on a flat surface.
2. Put one foot on pad that will trigger pedal switch and turn on indicator light, after the system enters the self-balancing mode, then put the other foot on the other pad.

Step 3: Control Self Balancing scooter

After standing up successfully, keep your balance and center of gravity stable while Self Balancing scooter is in stationary state. Make small forward or backward movements through body, remember **do not make sudden movements**.



If user stands on Self Balancing scooter, and platform is not at the level state, the buzzer will alarm and warning indicator will light up. At that time the system cannot enter self-balancing status, users are forbidden to operate Self Balancing scooter.

Step 4: Control Turning

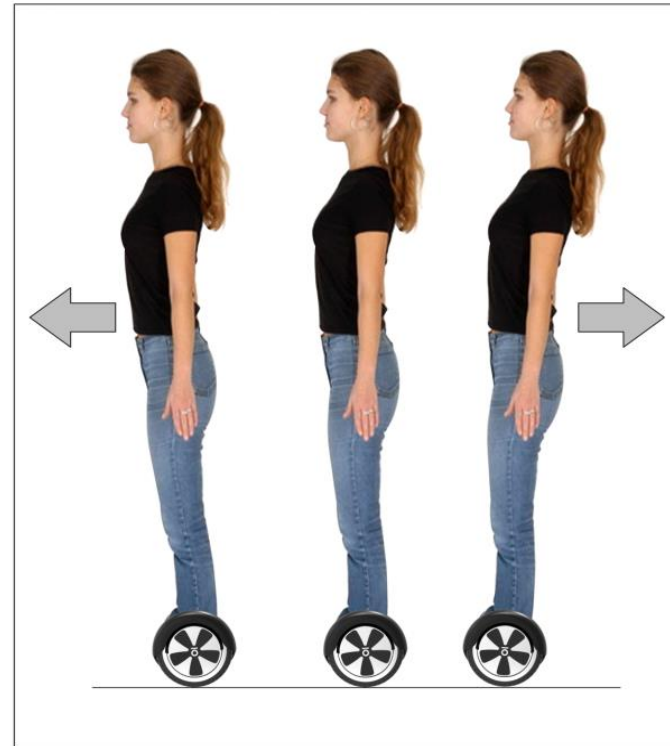
Lean your body slightly left, Self Balancing scooter will turn to the left; lean right, and it will turn to the right.

The right foot forward will turn left

The left foot forward will turn right

Step 5: Get off

Keep Self Balancing scooter balanced; get one foot down, then the other foot off mat quickly.



Driving Schematic



- **Do not turn sharply or at high speed to avoid danger.**
- **Do not drive and turn around quickly on slopes, it may cause serious injury.**

5.2 Protection Function

During operation, if there is a system error or illegal operation, Self Balancing scooter will prompt drivers in different ways. Prohibited riding surface, alarm indicator lights up, buzzer sounds intermittently, system cannot enter self-balancing mode.

- If you get on the Self Balancing scooter, while the platform is forward or backward more than 10 degrees.
- Battery voltage is too low.
- In charging mode.
- In driving status, platform begins to tilt, stop driving.
- Over-speed.
- Battery has a short.
- Motor temperature is too high.
- Self Balancing scooter body rocking back and forth over 30 seconds.
- System enters protection mode, alarm indicator will be lighted up, buzzer will alarm.
 - The platform is leaned forward or backward more than 15 degrees, Self Balancing scooter will engine off.
 - Tires blocked, Self Balancing scooter will halt after 2 seconds.
 - Battery is insufficient below protection, Self Balancing scooter will engine off after 15 seconds.
- Sustained high discharge rate during performance (such as driving up long steep slope), Self Balancing scooter will engine off after 15 seconds.



When Self Balancing scooter goes into engine off, system will halt, press battery display to unlock. Do not continue driving Self Balancing scooter when the battery is exhausted or the system initiates the stop state, it may lead to danger.

Continued driving under low power will affect battery life.

5.3 Practice Driving

Learn how to ride Self Balancing scooter in an open field until you can get on and off the vehicle, travel forward and backward, and turn and stop easily.

- Dress in casual clothes and flat shoes.
- You can drive Self Balancing scooter in outdoor space until you can easily control. Get on, forward, backward, turning, get off.
- Drive on flat surface.
- You can drive Self Balancing scooter in different terrain, but please slow down in an unfamiliar terrain.
- Self Balancing scooter is design to be a personal transporter and to drive on flat ground, if you drive in different terrain, please slow down in an unfamiliar terrain.
- If you are not skilled at driving Self Balancing scooter, please avoid driving it in a crowded place. When you go through a door, please make sure Self Balancing scooter can pass easily and mind your head.

6. Safe Driving

This section provides some safety knowledge and cautionary statements, teaching you about the safety precautions before using the Self Balancing scooter.

To ensure that you can safely drive Self Balancing scooter, please be sure to read product manuals and comply with the relevant safety instructions. Please note all the safety warnings and safety precautions that are mentioned in the product manual, which can make driving Self Balancing scooter safer more fun.

- At any time using the Self Balancing scooter, it may cause injury due to loss of control, collision and falling. To avoid injury, you must carefully read the user manual and drive the Self Balancing scooter only after referring to the manual. Please make sure to use Self Balancing scooter in good conditions and carefully read and know well all users materials provided by our company before using the product.
- 
- When you are driving Self Balancing scooter, make sure to take all the safety measures, such as: wear a helmet, knee pads, elbow pads and other protective gear.
 - Self Balancing scooter should only be used for personal use, and is not designed for commercial applications.
 - It is prohibited to use on a motorway.
 - Do not allow children, the elderly, or pregnant women to drive it.
 - Do not drive after drinking or using drugs.
 - Do not carry items when you are driving Self Balancing scooter.
 - When driving Self Balancing scooter, please comply with local traffic laws, and give way to pedestrians.
 - Please be alert to things in front or far away from you, keeping good vision will help keep you safe.
 - Legs should be relaxed, knees slightly bent, to help you keep balance when you encounter uneven ground.
 - Make sure the feet are always riding on the pads.
 - Please wear suitable sports apparel to drive Self Balancing scooter.
 - Self Balancing scooter should only be driven by one person, it cannot be driven by two or more people.
 - Users and their belongings should not exceed the maximum load 100kgs or it would make it easier to fall or get injured during the course of driving, and even cause Self Balancing scooter functional damage. In addition, the driver should not be less than 20kgs, which will prevent driver from operating Self Balancing scooter, especially on the downhill the driver cannot reduce speed or stop safely.
 - Ensure the speed stays within the safety range.
 - If an accident occurs, please stay in place and wait for help.
 - When you drive Self Balancing scooter along with other users, please keep distance between each other to avoid a collision.
 - You should always keep in mind your height has increased 8 inches, be carefully when you pass doors.
 - When turning, please keep your balance.
 - Do not be distracted when driving Self Balancing scooter, such as talking on the phone, listening to music, or engaging in any other activities.
 - Do not drive on slippery roads or on rainy days, reverse turning while at high-speeds or long range high-speeds.
 - Do not drive in dark places.
 - Avoid driving in impediment and smooth surface, such as: snow, ice, and slippery floor.
 - Do not drive in road with obstacles, such as twigs, litter or small stones, etc.
 - Avoid driving in narrow spaces.
 - Avoid driving on a steep slope.
 - Avoid driving in unsafe places, including flammable gas, steam, liquid, dust, fiber which could cause fire or an explosion accident.

7. Usage of Battery

This section mainly describes the charging method of Self Balancing scooter, how to maintain the battery, some security issues, and battery specifications.

For users' safety, and the maximum extent of prolonging the battery life and improved battery performance, please follow the following operations using the battery.

7.1 Battery Power

You must stop driving if Self Balancing scooter displays low power, or it may affect lifetime use and cause dangerous situations.

Don't use the battery if the following occurs.

- Use only supplied battery pack
- Emits odor or overheats.
- Don't touch any leaking materials.
- Children and animals are forbidden to touch battery.
- The charger must be taken out before installing or driving or it may cause danger.
- Battery contains dangerous substances, do not open the battery, do not insert anything into the battery.
- Please use the charger provided with Self Balancing scooter.
- Don't charge the battery that has been overly discharged. It should be discarded for safety.
- Self Balancing scooter battery should be disposed of according to local law.

7.2 Charging process



- Ensure charging port is dry.
- Open the charging port.
- Plug the charging cable into the Self Balancing scooter, make sure green indicator lights up, then connect the cable with the power supply (100V ~ 240V; 50, 60 Hz).
- The red light indicates that it has began to charge, otherwise check whether the cable is connected.
- When the indicator light goes from red to green, it indicates that battery is fully charged. At this time, please stop charging, over-charging will affect lifetime use.
- Use local standard plug.
- Charge and store battery as suggested, otherwise it will damage the battery. The charging time is about 3-5 hours.
- Keep the charging environment clean and dry.

7.3 Temperature

- The best charging temperature is 0°C~40°C. Over cold and over heat will not completely charge the battery.

7.4 Description of Battery

Contents	Parameters
Battery	6S2P-21.6V-86.4WH-001
Charging time	3-5h
Voltage	25.2V
Battery Capacity	4.0Ah
Working Temperature	0°C~40°C
Charging Temperature	0°C~40°C

7.5 Shipping Notes



Lithium battery contains dangerous articles. Ship lithium only according to local law.



Please contact Self Balancing scooter or our authorized agent for parts and Self Balancing scooter can send to you according to your requirements.

8. Shipping and Maintenance

Self Balancing scooter requires the user to do routine maintenance.

This chapter describes maintenance steps and important operating tips.

Before you perform the following operations, ensure the power and charging cable are disconnected. If the battery is charging, the operation is not allowed.

8.1 Clean Self Balancing scooter

- Disconnect the charger and turn off Self Balancing scooter.
- Wipe the cover.



- Avoid using water or other liquids on the Self Balancing scooter for cleaning. . If water or other liquids seep into Self Balancing scooter, it will cause permanent damage to the internal electronics.

WARNING-----Risk of Fire – No User Serviceable Parts

Disposal of the used or wasted battery pack of the scooter should be according to the relevant regulations to waste batteries by the relevant local government Departments in a environmentally-friendly way.

Store the scooter in house when not riding

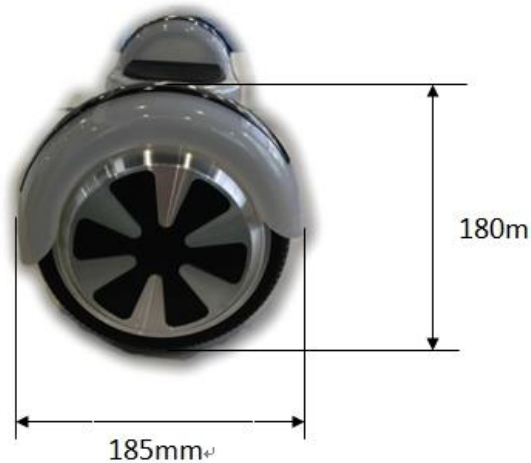
8.2 Store Self Balancing scooter

- Fully charge your battery before storing.
- If you store Self Balancing scooter more than one month, please remove the battery and charge it at least every three months.
- If the storage ambient temperature is below 10 °C, please do not charge. You can bring the Self Balancing scooter into a warm environment (10 °C-25°C) for charging.
- To prevent dust from entering the Self Balancing scooter, you should cover Self Balancing scooter.
- Store Self Balancing scooter indoors in a dry and suitable temperature. If you do not use it for a long time, please do not connect the power.



Users who disassemble Self Balancing scooter without permission will void the warranty.

10. Self Balancing scooter Parameters



Parameter		
Model No	X1-5	
Style	Parameter	Remark
Net Weight	9.55kg	
Load	20-100kg	Including rider and cargo
Maximum speed limit	15km/h	Do not exceed
MaximumRange	12km	Terrain, riding style and payload may affect range
Max climbing limit	15 °	Load affects climbing limit
Battery	Lithium-ion	
Power requirement	AC100-240V/50-60 HZ	Global compatible
Battery voltage	24 V	
Battery capacity	4.0 AH	



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning

- the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.

11. Troubleshooting

Self Balancing scooter has a self-examination function, such as sensors, the system static current, system dynamic current, motor speed fluctuation, etc. You can contact our service department to solve problems.

Enjoy your Self Balancing scooter.

13.Contact: 0571-86332301