# Hoverboard User Manual

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Thank you for buying Hoverboard! Please read and follow the guidelines provided in this manual for operating it safety. We hope that you will enjoy this amazing vehicle to its full extent!

Firstly, we want to thank you for purchasing our product, which is a self-balancing electric skateboard. The Hoverboard is going to be next advancement in the field of transportation because it combines in itself the fun of a classical skateboard, the ease of a motor scooter, plus a thrilling and amazing ride!

This Manual will provide you all necessary information about the operations and usage of this device. So before using this vehicle, read all the instructions carefully for its safe assemblage and employment.

While reading this manual pay attention to the information written under "**WARNING**" or "**NOTE**".

If you have any query which is not covered by this manual, or do not have safety video then please contact Hoverboard service provider before using it.

**Risk of death or serious injury**

We declare that by riding/using our product the user recognizes and accept responsibility of all risks and hazards associated with it. Those risks include injuries, broken bones, lacerations, and possibly death. Any of this may occur while using the Hoverboard. If you want to avoid this and ride safely, we urge you to read all the instructions and warnings given in this User Manual.

## WARNING:

To ensure safety please read the following safety precautions.

- You should not drive the Hoverboard unless you have read this manual or watched its operational videos.
- Protect yourself! When riding the Hoverboard you should always wear shoes, a helmet, and proper safety kits such as knee and elbow pads. Do not use a loose helmet which does not fit you properly. Use an appropriate helmet that provides protection to every part of your head and fits as if it was made for you.
- When driving the Hoverboard you should stay out of obstacles and frictionless surfaces which can cause a loss of balance or adherence and results in fall.
- This vehicle is not meant to be used at high speeds, uneven lands or gradients.
- Make sure that only your feet are there on rider detection pads and nothing else. If there is anything else placed on rider detection pads then the Hoverboard may travel on its own, and can cause damages to both humans and property.
- Do not step off of the Hoverboard unless it is stopped. If you step off of the Hoverboard during its motion, you are most likely to damage yourself, the people and the property around you.
- Despite the fact that the Hoverboard is a self-balancing vehicle yet it is very susceptible to overturning at high speeds or unfavorable conditions like steep slopes, rough tracks. So please avoid them as much as you can.
- When riding Hoverboard you should always be conscious of the riding surface and environmental conditions around you. Always keep your eyes on that portion of the track which would be coming in contact with the wheels of vehicle so that you may avoid slippery surfaces or little obstacles.
- It is designed for a single passenger.
- You should never ride your Hoverboard when you are intoxicated due to alcohol, drugs or any such material. You must abide by all local and traffic laws just like you abide them while driving a car or motorbike.
- It is designed for riders over 4 ft. of height and its minimum weight limit is 44 lbs.
- The maximum weight on the vehicle should not exceed 165 lbs.
- You should never ever try to open or modify the vehicle unless you have read the Chapter 6 of this manual.

**NOTE: Its Self-Balancing technology cannot prevent accident or injury, if you do not ride this vehicle safely and do not use your judgment effectively in an unforeseen condition.**

# Contents

# Chapter 1: Preliminary Information

### 1.1 Importance of this manual

This Manual will teach you the assemblage, functions and usage of your Hoverboard. Read and follow all these instructions for safe assemblage and operation of this vehicle. If you have a question which is not being answered in this manual then please contact us or your place of purchase.

### 1.2 Be aware of the risk

The Hoverboard is a self-balancing device; it has passed all stages of safety testing. Still, you may get injured if you don't understand and follow the simple instructions given in this manual. While riding the Hoverboard there is always a probability to crash, fall off, lose balance, etc., causing severe injuries and even death. To avoid any injury or accident, please read this manual carefully.

### 1.3 Before you start

Always make sure that the battery is fully charged before you begin your ride and wear proper safety gadgets like helmets, pads etc. Before riding it, you should know that this vehicle is risky and there is always a probability of injury or even death if you don't follow the safety precautions.

# Chapter 2: Product Information

### 2.1 What it is

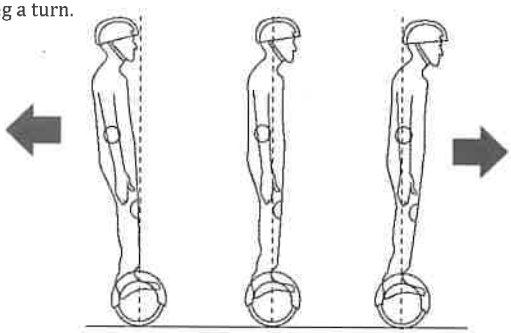
The Hoverboard is an automated self-balancing electrical skateboard which can move in both forward and backward direction. Its driving and stopping follow the principles of Dynamic Equilibrium. It can be easily operated and controlled. Moreover it is environmental friendly, completely free of producing any type of pollution, and looks incredibly cool to ride!

## 2.2 Main Components


## 2.3 Working

The Hoverboard self-balancing technology is based on the principles of Dynamic Equilibrium. It employs an internal gyroscope and acceleration sensors to move. The rate of movement or speed depends on your center of gravity. When you lean forward, it will sense this change and accelerate. If you want to take a right turn, you must slow down and gently shift your weight on your left. Similarly if you want to turn left, you should shift your weight on right. It turns opposite to the side where you shift your weight.

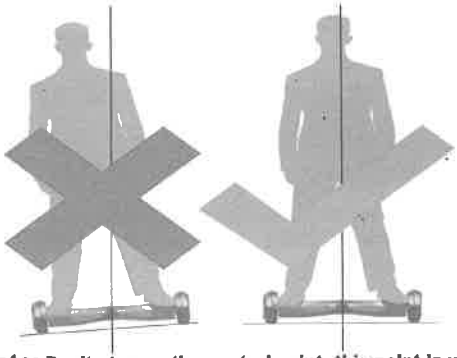
The Hoverboard keeps you erect by an inertial dynamic stabilization system. However, if you lean too much to your left or right or you take a foot off the board then it will stop detecting you. Always reduce your speed before taking a turn.



# Chapter 3: Control and Indicators

## 3.1 Pedal Sensors

The Hoverboard has four sensors located below the pedals. Hoverboard will balance itself automatically as soon as you step on the pedals.



When riding the Hoverboard, you must be touching the pedals. The Hoverboard will not detect you if you step on the part outside the pedal. Never lean too far back or forward, and do not ride it on a sloppy surface.

Don't put any object on the pedals. There is a strong possibility that it will drive off and crash into something, damaging the Hoverboard and possibly causing injury to nearby people.

**Note: Don't step on the central point, this point is weaker and this may break your Hoverboard**

## 3.2 Indicator LEDs

Two types of indicator lights are located in the center of the Hoverboard:

**1. Battery Indicator:**
If green light is displayed it means that the battery is fully charged. If the green light turns to orange or the green light starts flashing it means there is 50% battery life remaining. If it turns to red, then means it is below 20% battery life. At this point you should stop using the Hoverboard immediately and recharge the battery.

**2. Operation Indicator:**
The operation indicator will show green light if the system is operating normally. If the system experiences an error, the indicator will turn red. In such a case you should stop using it immediately.

**NOTE: If the battery or the operation indicator turns red then you must immediately get off from it. At low battery level the Hoverboard will not self-balance and you will fall.**

# Chapter 4: Safe Usage

We wish every operator can ride the Hoverboard safety and enjoy it to its full extent. You can learn it real fast if you recall your past experiences when you learned to drive a bike, or a car, or a classical skateboard. You should keep following points in mind while driving:

- Before riding it for the first time, we urge you to read and follow the instructions given in this user manual.
- This manual covers important information, including speed restrictions, indicator warnings, how to end a ride and step off safely, etc.
- Please make sure that the tires and mechanical parts are not loose.
- If you see something suspicious in the vehicle then please contact us or the salesperson you bought it from.
- Please never employ this vehicle in anything that may cause personal injury or property damage.
- Never try to make a change in any part of the vehicle since it is a high precision device. Any modifications can cause unexpected results, damage to Hoverboard or cause injury to you.
- You should never ever try to open or modify the vehicle unless you have read the Chapter 6 of this manual.

## 4.1 Weight Restriction

Hoverboard operates most efficiently when the total weight on it lies in the following range.

Max. weight limit: 165 lbs ( 75 kg)
Min. weight limit: 44 lbs (20 kg)

This restriction is implemented due to two reasons:

1. To guarantee the safety of user.
2. To ensure the proper operation of Hoverboard.

**NOTE: If the weight exceeds the maximum limit, you may fall off and get injured. If the weight is lower than the minimum limit then the vehicle cannot self-balance itself.**

## 4.2 Range/Charge

The total distance traversed by the Hoverboard after fully charging the battery is known as range per charge. It depends on the following factors:

- **Terrain**: The range per charge will be more on a smooth even road while on a rough, uneven or sloppy ground, it will be less.

- **Total Load**: The range or the driving distance decreases if more weight is placed on the vehicle as compared to less weight.
- **Environment**: The range decreases if the Hoverboard is subjected to too hot or too cold environment.
- **Maintenance**: The range increases if Hoverboard is charged properly under proper maintenance. Improper charging and maintenance will decrease its range.
- **Speed and Acceleration**: The range increases for a moderate, constant speed. However frequent starts, stops, accelerations, and decelerations will reduce its range.

### 4.3 Maximum Speed

- The maximum designed speed of the Hoverboard is 8.6mph (14 km/h).
- If the rider increases its speed beyond the maximum limit, the Hoverboard will sound an alarm.
- The Hoverboard can balance itself only when you are within the designed speed limit. If you exceed the maximum limit you are much likely to fall down and get injured.

### 4.4 Maximum Slope

Do not ride the Hoverboard on hills or slopes greater than 30° incline. The vehicle will balance itself only when it is in recommended angle range. Beyond that it will lose its balance and you may fall.

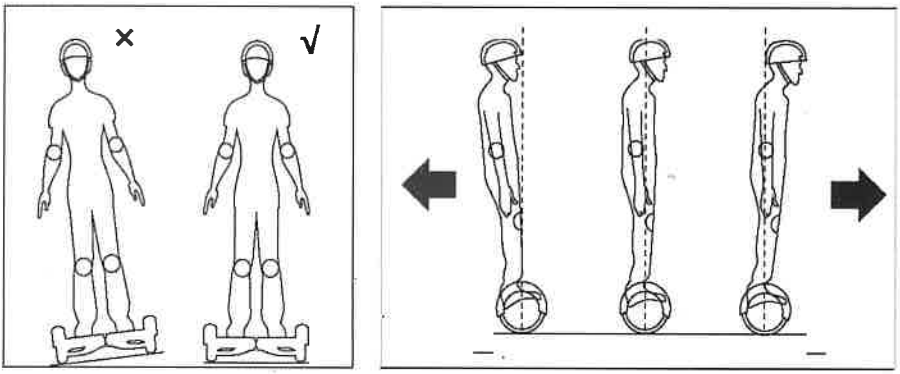
## Chapter 5: How to Use It

Everything you need to know about this vehicle is included in this manual so please read it carefully.

### 5.1 Steps of Operation

- Switch on the Hoverboard by power button.
- In order to ride it, step on one pedal. This will trigger the foot-switch and the system will enter self-balancing mode. As soon as you place your other foot on the pedal, it will start moving.
- Stand erect and do not make any fast or jerky movements. Lean forward or backward to increase or decrease its speed.
- If you want to take a turn then slow down and gently shift your weight. Putting more weight on your right foot turns it left while putting weight on your left foot turns it right.
- Before getting off the vehicle, make sure that the Hoverboard is stopped, then step off one foot at a time. Don't jump from the vehicle.

If the Hoverboard doesn't balance itself when you step on it and trigger the foot-switch, then a warning LED will light. You are not supposed to operate it in this condition and try again after few minutes. If you are on a slope, then move it to a flat surface. If this continues, then please contact technical support. DO NOT TRY ANYRHING




## 5.2 Diagram of Operation



### 5.3 Connecting Your Hoverboard to Your Smartphone

(Only for Bluetooth version)

You can connect your Hoverboard wirelessly to your smartphone and listen music and songs directly from its speakers.

**Connecting to iPhone:**

You can connect it to your iPhone by following these steps:

- Switch on the Hoverboard. A sound will beep. If no sound beeps then your Hoverboard is not Bluetooth supported.
- Open the settings in your iPhone and turn on the Bluetooth.
- Search for devices. A list of all nearby devices will appear on your screen.
- The Hoverboard can appear in any name like "BLUETOOTH", "HX-BLUETOOTH", or "WHEEL MUSIC". Select the newest signal which appeared on the list. It will be from your Hoverboard. Tap on it to connect it with your phone.
- If you hear another beeping sound from the Hoverboard, then it means that it has been connected to your iPhone and the two devices are now paired.
- Now, you can play music and songs just by opening the music app on your iPhone and it will play directly on your Hoverboard's speakers.
- You can control its volume by your iPhone.

**Connecting to Android:**
You can connect it to your Android phone by following these steps:

- First of all, go to the settings of your Android smartphone and switch on the Bluetooth.
- Now, switch on your Hoverboard and also turn its Bluetooth on. When you have enabled it, then your Hoverboard will be visible to all nearby devices with Bluetooth capability.
- Now, search for new devices from your Android phone.
- The Hoverboard can appear in any name like "BLUETOOTH", "HX-BLUETOOTH", or "WHEEL MUSIC". Select the newest signal which appeared on the list. It will be from your Hoverboard. Tap on it to connect it with your phone.
- You will hear a beeping sound from the Hoverboard just after tapping its signal.
- Your phone is now connected with the Hoverboard.
- To play music, open the music app in your phone and play a song. The music will play wirelessly to your Hoverboard's speakers.
- You can control its volume by your phone. Have fun!

## 5.4 Safety Instructions

- If the Hoverboard is not operated correctly or some error occurs in its system, then it will sound an alarm Error indicator LEDs will light up.
- The platform of the Hoverboard may tilt forwards or backwards up to maximum 10 degrees.
- The Hoverboard enters into power off mode approximately after 15 seconds, if the battery voltage gets very low.
- The Hoverboard enters into power off mode approximately after 15 seconds, if the battery gets over-worked, like when climbing a very steep slope.

The Hoverboard stops functioning if:

- It tilts more than 10 degrees.
- The charging of the battery is low.
- It is being charged.
- It flips inverted or upside down.
- You are going beyond the speed limit.
- It is vibrating too much. This occurs at uneven or rocky ground.

**WARNING!**

When the Hoverboard enters into a shutdown state due to any reason, its system automatically locks the vehicle. To unlock it press the unlock button. Please stop using the Hoverboard at once when the battery charging ends, any warning alarm sounds or error indicator LEDs light up. If you continue using it then self-balancing may malfunction and the user is at a great risk. Moreover, the continued operation of the vehicle after the charging of the battery drops can greatly reduce the life of battery. Please learn to drive and control it fully, before you take it outdoor as it may become a risk for you and others.

- Wear ordinary and simple outfits to maintain your flexibility and stability.
- Please practice in isolated open spaces until you learn to move forwards and backwards, turn, stop, and get off easily.
- In the start drive the vehicle on flat grounds and try to avoid slopes until you get some experience in using it.
- The Hoverboard is designed for smooth road so while driving on uneven surfaces, you should maintain a low speed. High speeds on uneven grounds increase the possibility of falling off.
- Until you have got some experience in driving the Hoverboard, you should avoid driving in places with pedestrians or obstacles.
- Be careful going through the doors since your height has increased by 4 inches due to the vehicle and you might hit your head.

## Chapter 6: Safe Driving

This chapter will focus on safety precautions and warnings. Please read and understand the following for your own safety and the safety of those around you.

- Wear a helmet, knee pads, elbow pads, and other protective gear while you are learning to drive it.
- You must follow all local laws and traffic regulations while driving it. Never drive it on a sidewalk.
- Due to its different nature than traditional transports, you should not ride it in traffic.
- Children, elderly and pregnant women should not drive the Hoverboard.
- Do not drive it when you are not in your senses. If you are intoxicated or under the influence of medication or drugs then its use is not only dangerous but also illegal.
- Do not carry items while driving this vehicle.
- When driving the Hoverboard you must abide by the local laws and give way to pedestrians.
- Please be aware of your surroundings. To ensure a safe ride do not drive in dimly lit or dark places since some obstacle can cause the toppling of vehicle.
- To maintain balance on uneven ground slightly bend your knees and stand in a relax position.
- During a ride, never take your feet off the pedals because doing this is incredibly dangerous.
- Please wear appropriate clothes and safety gear, this will help you handle emergencies better.
- The Hoverboard is designed for one person so it should not carry more than one person.
- The total weight on the vehicle should neither exceed the maximum weight limit nor fall below the lower limit. If weight exceeds then the vehicle may get damaged and malfunction. While at weights lower than the minimum weight limit, it becomes very difficult to control. This is extremely risky when riding downhill, as the Hoverboard may reach unsafe speeds.
- Drive at normal speeds so that you may stop safely in case of emergency.

- If you are at high speed then you should not take a turn, it may cause accident. You should avoid turning on a sloppy surface. The self-balancing sensors may malfunction, and you can fall.
- If you meet an accident, please contact EMS / 911 right away.
- When you and your friends, all are riding Hoverboards near each other, then please keep a safe distance from each other to avoid collisions.
- When going through doors, don't forget that you are now four inches (10 cm) taller than your normal height.
- When steering, pay attention to your body's center of gravity since it is an extremely sensitive vehicle and a sudden shift may cause you to fall.
- Do not operate it in the rain. Avoid backwards riding for large distances or at high speeds. Be careful when riding backwards and turning.
- The Hoverboard is not a medical mobility vehicle for disabled persons. You can only ride and control it if you are in good health.
- Avoid driving over obstacles and frictionless surfaces such as snow, ice, and wet grounds.
- Avoid driving on fibrous materials, small branches, and stones.
- Avoid driving in constricted regions or where there are obstacles.
- Only drive the Hoverboard where it is allowed. You are supposed to follow local laws about its use.
- Do not operate it near inflammable substances, dust or fibers, and other fire hazards.
- Hoverboard is a motor vehicle and is treated like a car or a motorbike. You should follow all local laws while driving it. You should not drive it in an intoxicated condition or at those places where motor vehicles are banned like sidewalks.
- Do not start or stop suddenly, you may fall off due to inertia. Avoid driving on steep slopes.

**NOTE: Always wear a helmet and appropriate safety kit before riding it. We are not responsible for any sort of injury or accidental death caused by its use.**

# Chapter 7: Battery

This division deals with the proper maintenance of the vehicle's battery, how to charge it, and other important battery related issues. Please read this chapter carefully so as to improve your battery life, and enhance its performance.

## 7.1 Low Battery Indicator

If the battery indicator turns red then it means that the battery's charging is consumed and should stop riding the vehicle. In order to stop you from further using it, the system will slightly tilt the standing platform. It is very risky to use the vehicle after its battery has drained and it may significantly affect battery's life. You should not use battery if:

- It emits any sound or any kind of smell.
- It starts leaking.

**WARNING:**

- For dismantling the vehicle, or any battery operation contact any authorized person. Don't do it yourself.
- If battery starts leaching then do not touch its leachate, it may be harmful.
- Keep the battery out of the reach of toddlers or pets. Don not use the vehicle during its charging process.

- The chemicals present in the battery are harmful if come in contact. Don't try to open it.
- Do not use any other chargers except the original charger of the vehicle.
- If the battery is overworked or overheated, it may burst, so please stop using the vehicle before the battery gets too hot.
- Protect the battery from fire.
- This vehicle is battery-motor operated. It should be operated at only those places where motor vehicles are permitted.

### 7.2 How to Charge

To charge the battery, follow these steps:

- Please power off before charging.
- Check that the charging port situated at the backside of the vehicle is dry.
- Connect the charger with 100V-240V AC mains of 50-60 Hz frequency. Connect the other end of the charger with the vehicle only if green LED lights up.
- The charging process will be fine if red charging light lights up. If red light do not shows up, then unplug the charger and reconnect it.
- If the LED light turns its color from red to green then it means that battery is charged and you should unplug it. Overcharging may lessen the battery life and performance.
- Please do not charge more than 6hours.

Charger Details:

- Manufacturer: Shen zhen FuYuan Dian Power Co.,Ltd
- Model No.: FY0632941500

**WARNING:**

- The approximate time to charge the battery is 2 hours. Please do not let your battery be overcharged.
- Make sure that the charging port is free of moisture and dirt.
-

### 7.3 Recommended Temperature

- Recommended Temperature
- For optimum operation of the vehicle its battery's temperature while charging and operation should be in the following limits given in the table.
- The charging process takes place at its maximum rate only in recommended temperature. Below and beyond this temperature charging would be slower.

### 7.4Transporting the Battery

In order to transport Lithium batteries, you must take permission from local authorities since they are extremely dangerous. You are also not allowed to import/export bare lithium batteries across the countries because their international shipment is prohibited. You must ship a Hoverboard with an installed battery.

### 7.5 Specifications

| NAME | PARAMETERS |
|---|---|
| Type of Battery | Lithium-Ion Battery |
| Time for full charging | 2-3 hours |
| Voltage | 25.2 volts |
| Initial Volume | 2 AH |
| Working Temperature | 41°F-104°F (5°C-40°C ) |
| Charging Temperature | 41°F-104°F (5°C-40°C) |
| Max Charging | 29.4V/1.5A |
| Relative Humidity of Storage | 5%-85% |
| Storage time (-20°C-25°C ) | 12months |
| IP rating | IPX4 |

# Chapter 8: Maintenance

Just like any other machinery, this vehicle also needs proper maintenance and service. This chapter deals with the maintenance of your Hoverboard. In order to do any maintenance operations on the vehicle make sure it is powered off and is not being charged.

### 8.1 How to Clean it

- Before cleaning make sure that the Hoverboard is powered off and disconnected from charging plug.
- To clean it, gently rub its surface by a soft and dry cloth.

**WARNING:**

- This vehicle is designed on IPX4 Water Protection Criteria. It is not affected by splashes of water but never let it submerged under water.
- Avoid its contact with water and other liquids because they may affect its electronic circuit.
- Keep it clean and free from dirt and in clean environment.

## 8.2 How to Store it

- If you want to store the vehicle for some time then fully charge its battery before storing.
- If you want to store it for a longer duration then charge its battery after every three months.
- If you have stored it in a cold place having temperature below 32° Fahrenheit (0° Centigrade), then bring it to a normal temperature before charging it. This could be done by simply placing the battery at a place having temperature more than 50° Fahrenheit (10° Centigrade).
- Make sure to store it in some covering so as to avoid the deposit of dirt in its internal circuits.
- Store it in a moderate temperature preferably indoor environment with little or no humidity.
- Do not operate the hoverboard on a wet road,ice, or in the rain or snow.
- Do not be stored in outside
- Don't throw it away When you don't need or scrap your hover board! It can be a risk to you and others.

Prolonged Exposure to UV Rays, Rain and the Elements May Damage the Enclosure Materials, Store Indoors When Not in Use

**WARNING:**

- *WARNING-Risk of Fire- No User Serviceable Parts.*
- We strongly advise you to visit only our recommended service centers for any sort of repair or restoration. You should never ever try to open or modify the vehicle
  This is extremely risky and nullifies all warranties.

# Specifications

# Materials in Packing

| NO. | Name | Quantity |
|---|---|---|
| 1 | Hoverboard | 1 |
| 2 | Charger | 1 |
| 3 | Manual | 1 |

**HOVERBOARD**

**Experience a ride, like never before!**

**please full charging before use the hoverboard**