User Manual of Suokuwheel Electric Unicycle

This manual includes safety usage instructions. Pleas ensure this manual is read and understood before you use the product.

1. About Suokuwheel self-balancing Unicycle

Suokuwheel is the latest high-tech means of transport adopting aerospace attitude control theory, fuzzy algorithm, and gyroscope system to achieve balance by forward and backward leaning. Users can control the vehicle to go forward,accelerate,decelerate, brake or others,by inclining forward or leaning backwards.The left and right balance is similar to the technique of riding a bicycle – achieved through slightly slanting left or right.Suokuwheel features as a green product that can be easily carried around on a bus or subway,making it a helpful tool in commuting.

2. Safety

There are risks to riding or driving every vehicle,Suokuwheel is no exception.Please ensure this manual is read and understood beforehand,and do pay extra attention when riding.

Important:

1. Do not make rapid acceleration or deceleration or over incline forward or lean backwards.
2. Do not use Suokuwheel if there are any risks in accidental falls. Safety first.

Attention:

1. Please wear helmet, gloves, elbow/keen pads or other protection garments.
2. Do not ride Suokuwheel on busy roads or crowded streets.
3. Do not ride Suokuwheel on rough or bumpy surfaces,such as muddy or pebbled roads.
4. Do not ride Suokuwheel on wet, slippery surfaces,especially snowy roads.
5. Do not ride Suokuwheel on slopes slanting more than 15° angle.
6. Do not ride Suokuwheel in bleak winter conditions
7. Do not allow children under 12 to use Suokuwheel.

Other sudden unpredictable risks may occur during use, please ride with care. Suokuwheel will not be responsible for any injuries caused by misuse of the product.

3. User Guide

3.1 Preparation for riding the Suokuwheel

When you want to start your first ride of Suokuwheel, please try to wear comfortable casual or sports outfit and wear flat shoes. Please bring the Suokuwheel to a more spacious place, and ensure that there is no any significant obstacles.

3.2 Steps to riding your Suokuwheel

1. Hold Suokuwheel with one hand to make sure it perpendicular to the ground.
2. Unfold the foot platforms and press them into the down position. Place your feet parallel on both sides of the Suokuwheel
3. Put one foot on one platform and stand up straight. Shifting your weight forward, lightly push off the ground with the other foot and immediately place it on the other platform so that you straddle the ninebot one, squeezing the pads between your lower legs.
4. Shift your body weight gradually forward to pick up speed. Do not lunge forward.
5. Shift your body weight backward to slow down or stop.
6. To turn, lean the wheel in the direction you want to go
7. IMPORTANT: Twist your feet right and left for balance and steering. This is similar to maneuvering the front wheel of a bicycle. (Attempting to balance by leaning and tilting is much less effective.
8. When you are ready to get off, slow down, stop and step off with one foot; grab the handle. Keep your other foot on the other platform and turn the suokuwheel off.

3.3Learning Tip

3.3.1 Use Handlebar tape to ensure your driving safety

(When you are not yet familiar with driving the electric unicycle,the Handlebar tape can help you avoid falling and scratching.)

1) Tie the handle bar tape to self-balancing unicycle's handle. One foot on the pedal board and adjust the length of the strap to a comfortable position.
2) When you are out of balance in the process of driving,and had to jumped out of the car, then you can take advantage of the handle tape to grabbed self-balancing unicycle to avoid the lose caused by its out of control.

3.3.2 How to control the balance

self-balancing electric unicycle keep it forward and backward self-balancing with a gyroscope. When you lean forward,self-balancing unicycle will sense your actions to accelerate;When you learn back, self-balancing electric unicycle will control the motor slow down to maintain you and the body balance.

self-balancing electric unicycle can not keep balance of left and right automatically, just like bike,it relys on a certain speed and your body to control the left and right balance.

Do not ride on smooth pavement or fine sand-covered roads,the needs friction of the wheel and the ground to maintain its balance.

3.3.3 How to move ahead?

primary:

Like riding a bicycle,most of the center of gravity have shifted to self-balancing electric unicycle,so when you gently tread the pedal and the other feet tread the ground backward,self-balancing electric unicycle will go forward.just like in the previous step to keep balancing, you need try you best to keep the body balanced in the cycling process,and the other foot off ground should step on the match pedal quickly and lightly. This step requires you at least be able to ride a distance of 3-5 meters.

Intermediate ahead:

You can basically control self-balancing electric unicycle when you in this step,witch needs you to pay attention to two points:first is maintain a certain speed, secondly,control speed via lean backward and forward. We recommend that you continue to accumulate experience in the cycling process,continuous learning, when you are more confident that you can keep riding long distances then go to next step.

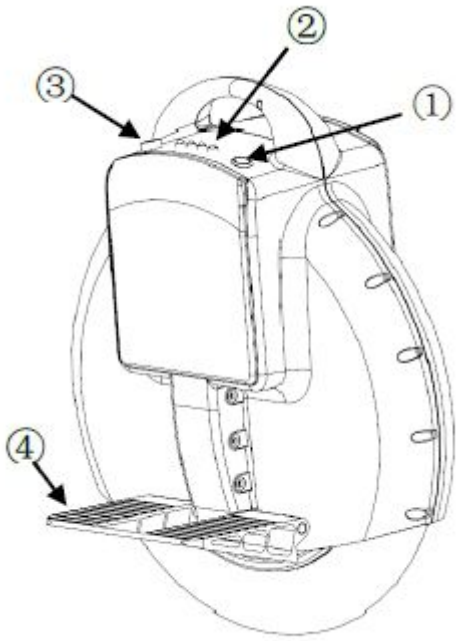
3.3.4 How to control the direction ?

About turn: we found that beginners like to turn by moving the upper body, but result in bad Efficient. So we recommend that you turn the through adjust the strength of left and right foot to the pedal,that can change the inclination of the unicycle.With constant practice,you will achieve the effect of turning you expect.

4. Usage of the Suokuwheel Self-balancing Unicycle

4.1 See diagram for reference:

① Power
② Battery level
③ Charger
④ Treadle (Foldable)



4.2 Starting Suokuwheel

Place Suokuwheel vertically on the ground and turn on power. Power and Battery Level LED will illuminate and buzzer will beep, then the vehicle is ready to use.
If Suokuwheel tilts either forward or backwards after power is switched on, then wait until it reverts to upright position before riding.

4.3 Battery level

A four-bar LED indicator is used to indicate battery level. All four will light up when power level is more than 85% and will go off one by one as the level decreases. Please check power level before usage to ensure there is enough power for the return trip. You may want to charge it every time after use.
When power level is lower than 10%, all four lights will flicker and the buzzer will sound off. The front part of the treadle will lower itself to force you to decelerate and eventually stop. Please do not restart when this occurs to avoid any accidents.
Sustained range will decrease during winter. This is because the battery performance decreases quickly in cold conditions. In -15℃, for example, battery performance is only about half in comparison to that in room temperature.

4.4 Speed Control

To prevent injuries caused by speed,Suokuwheel comes with a speed control design.When speed exceeds 10km/h, the front part of the treadle will rise slowly; when the speed exceeds 16km/h, the treadle will rise to a 10° angle, to prevent you from inclining forward to further accelerate. As the speed decreases, the angle of the treadle will also lower itself.
NOTE: When the speed is about to reach its limit, please do not incline forward anymore to force acceleration to prevent injuries.

4.5 Side-tilting protection.

When Suokuwheel tilts sideways more than a 45° angle, for example when Suokuwheel falls, the control system will activate side-tilt protection.The machine will stop running immediately to prevent injuries.The buzzer will sound off a long buzz and the LED will flicker when this is activated.
To deactivate this, turn the power off, then restart.

4.6 Charging

Plug in the power source after inserting the charger plug, or else the charger will not activate. This can also prevent potential risks, to ensure a safer charge.
Suokuwheel provides a high-power charger. During normal conditions, only one hour is needed to be fully charged 45mins allows 80% charged. The red light on the charger indicates charging, green indicates charging complete.If not in urgent need, please wait until charging complete before unplugging, because after charging,the protection circuit will perform power flow equilibrium.

4.7 Water resistance

The water resistance level of Suokuwheel is IP 56, allowing it to pass through water of no deeper than10 mm. It can be used in light rain, but do not steep the vehicle in water or take long rides in heavy rain.

5. Maintenance

5.1 Storage

Please store Suokuwheel in a dry place. If left unused, recharge the battery every two months to maintain longevity of the battery.

5.2 Inflation

Use the extension inflation tube to inflate the tire. Without the tube, you will not be able to pump air into the wheel.

5.3 Changing tires

To repair or change the inner or outer tires, open the side of the cover without the indicator lights. First, unscrew the 14 screws on the sides, then the six at the center. Now the side cover can be opened. Give care when disassembling the connecting terminal. No not force disconnection.

Note:

A: Plugging to power source after maintenance may cause sparks. This is normal. Do not panic.
B. Do not open the side with the lights or the aluminum panel. Opening any part other than instructed in this manual will forfeit your warranty rights.

6. Repair

Please keep the warranty and proof of purchase (i.e., receipt).
Limited warranty:
1. 1 year for vehicle, except battery or other consumables
2. Six months for battery; 1 month for inner and outer tires.

The warranty will not be covered under the following conditions:
1. Malfunction due to misuse
2. Malfunction caused by unauthorized modifications, disassembling, or repair.
3. Accidental damage or malfunction due to unsuitable storage
4. Unmatched warranty/proof of purchase and product
5. Surface damages
6. Disassembling parts unspecified by this manual.
7. Damage or malfunction caused by long rides in the rain or soaking in water