

Ninebot Gokart Series Maintenance Guidance

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Contents

Ninebot Gokart Series Maintenance Guidance..... 1

1. Purpose of This Guidance:..... 3

2. Scope of Application:..... 3

3. Version Records: 3

 4.1. Maintenance Requirements 3

 4.2 Environmental Requirements 3

 4.3 Instruction of Professional Tools..... 3

 4.4 Common Error Codes and Solutions 5

 4.4.1 Error code 1 - Dry Cells Power too Low 5

 4.4.2 Error code 55 - Serial Port Communication Interrupted 6

 4.4.3 Error code 56 - Bluetooth Communication Error 6

 4.4.4 Error code 57- Serial Port & Bluetooth Communication Error 6

 4.4.5 Error code 58 - Throttle Signal Abnormal 7

 4.4.6 Error code 59 - Brake Signal Abnormal 7

 4.4.7 Error code 61 - Balancing vehicle does not adapt 8

 4.4.8 Error code 62 - Balancing vehicle firmware too low 8

 4.5. Troubleshooting Methods and Solutions of Common Faults: 8

 4.5.1 Unable to Power On..... 8

 4.5.2 Swaying steering wheel..... 11

 4.5.3 Unable to connect to Bluetooth..... 12

 4.5.4 Powering on automatically forward or backward..... 13

 4.5.5 Unable to reach maximum speed..... 13

 4.5.6 balancing vehicle prompts error code when installed to Gokart 14

 4.5.7 Gokart Kit 2, Gokart pro2 throttle has no reaction when powering on 14

 4.5.8 Gokart got stuck during riding..... 16

 4.5.9 Gokart keeps beeping during riding..... 16

 4.5.10 Cannot adapt Ninebor engine speaker..... 16

 4.5.11 Gokart game kit system halted..... 17

 4.5.12 Gokart Game kit steering wheel skew..... 18

1. Purpose of This Guidance:

This guidance is prepared to guide the maintenance work of Ninebot products. Enable the service center technicians authorized by our company to timely and accurately do the troubleshooting and repair according to the error codes and failure phenomenon. To ensure the normal operation of the product, this maintenance guidance is hereby written, hope maintenance personnel can read it carefully and abide by the operating requirements and specifications in this manual.

2. Scope of Application:

This manual is mainly for the Gokart series and introduces the troubleshooting methods of common problems. This manual is only for service providers authorized by Segway-Ninebot and internal use, and shall not be disseminated in any form or means.

3. Version Records:

No.	Last Version	Revision	Revise Contents	Revision Date	Revised by
1	-	23V1	New	20230218	Di Renjie
2	23V1	23V2	New	20231002	Wu Xiaolei
3	23V2	23V3	New	20231026	Wu Xiaolei

4. Work Preparation:

4.1. Maintenance Requirements

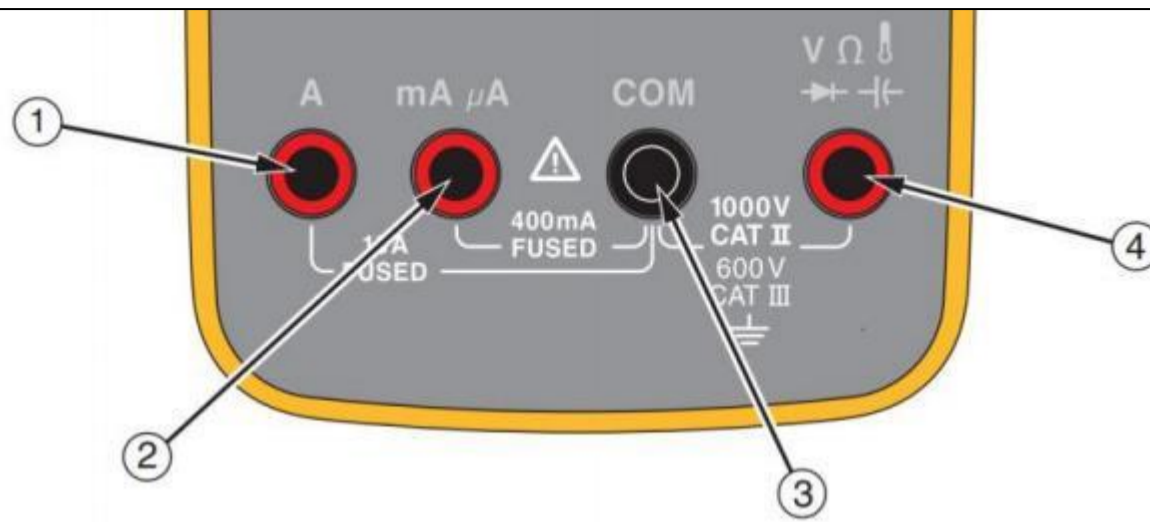
4.1.1 Maintenance personnel must be trained and obtain the training certificate before they maintain the product.

4.2 Environmental Requirements

The indoor work area must be equipped with electrostatic protection devices to facilitate the replacement and maintenance of anti-static components. The main functions are electrostatic leakage, dissipation, neutralization, reinforcement, shielding, and grounding.

4.3 Instruction of Professional Tools

4.3.1 Instruction of Using Multimeter:



No.	Description
1	For AC and DC current measurement (up to 10 A)
2	Microampere (μA) and Milliampere (mA) measurements for AC and DC (up to 400mA)
3	Common terminal (return) for all measurements.
4	Input terminals for voltage, resistance, continuity, diode, and capacitance measurements.

4.3.2 Basic Operation of Multimeter

Operation	Figure
<p>Voltage Measurement:</p> <ol style="list-style-type: none"> Rotate the switch to \overline{V} select DC. Plug the red test cable into the $v \Omega \uparrow$ terminal and the black test cable into the COM terminal. Use the probe to touch the correct test point on the circuit to measure the voltage, as shown on the right. Read the measured voltage on the display. 	
<p>Resistance Measurement:</p> <ol style="list-style-type: none"> Rotate the switch to Ω. Make sure that power of the test circuit is already turned off before measurement. Plug the red test cable into the $v \Omega \uparrow$ terminal and the black test cable into the COM terminal. Use the probe to touch the correct test point on the circuit to measure the resistance. Read the measured resistance on the display. <p>Continuity Measurement:</p> <ol style="list-style-type: none"> Select the resistance mode, and press the yellow button once to activate the continuity beeper. When the resistance is lower than 70 Ω, the buzzer will sound continuous, indicating the short circuit 	

4.3.3 Tools to remove the steering bar bracket

Operations	Picture
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Tools to remove the steering bar bracket:

1. **PN:** AB.50.0002.39

2. **Function:** Used to remove steering bar of Ninebot Mini or steering shaft of Mini Pro



4.4 Common Error Codes and Solutions

How to identify the error code after the product fails: The alarm code can be judged by the length of the alarm sound, the long drop represents ten, the short drop represents one, or by viewing the APP, the corresponding maintenance method of the alarm code is as follows:

4.4.1 Error code 1 - Dry Cells Power too Low

Error Code	Troubleshooting	Result	Solution
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1 (Yellow light flashing in the front cabin)	1. The Gokart front cabin yellow light flashes and rings at intervals;	1.Dry Cells Power too Low	1.Replace six dry batteries. (This phenomenon may occur with 1.2V rechargeable batteries, it is not recommended to use 1.2V batteries), the replacement is ineffective, you need to replace the front cabin housing
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4.4.2 Error code 55 - Serial Port Communication Interrupted

Error Code	Troubleshooting	Result	Solution
55	After the trouble-free balancing vehicle is installed, the Gokart reports an error of 55;	2.The serial communication between the balance car and the kart is abnormal	2.Check whether the connection between the balance vehicle and the Gokart is good, you can try to remove the extension cord, directly connect the balance vehicle with the Gokart line is it also alarm, if it is still alarm, replace the Gokart spring wire or controller or balance vehicle battery

4.4.3 Error code 56 - Bluetooth Communication Error

Error Code	Troubleshooting	Result	Solution
56	1.After the trouble-free balancing car is installed on the kart, the kart reports 56 errors;	1. The Bluetooth signal of balancing vehicle is occupied by other devices, causing the Bluetooth communication between Gokart and balancing vehicle to fail; 2. The Bluetooth communication between Gokart and balancing vehicle is interrupted	1. Turn off the Bluetooth of nearby mobile phones to ensure that the Bluetooth of balancing vehicle is not occupied by other devices, and then restart balancing vehicle and Gokart; 2. If the balancing vehicle is not connected to Gokart, power it on separately, open the APP and search the vehicle again to see if it can be searched and connected to the balancing vehicle. If not, the middle cabin of the balancing vehicle is damaged; if yes, the Gokart controller is damaged;

4.4.4 Error code 57- Serial Port & Bluetooth Communication Error

Error Code	Troubleshooting	Result	Solution
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57	<p>1.balancing vehicle 单独连接 APP , APP 提示有最新固件升级提示</p> <p>2.去掉延长线 , 车辆故障解决</p> <p>3.外接一根弹簧线 (拔掉原有的弹簧线 , 外接一根新线测试) , 车辆故障消失</p> <p>4.更换Gokart前舱控制器 , 车辆故障消失</p>	<p>1.可能不是最新固件 ;</p> <p>2.延长线接触不良</p> <p>3.弹簧线接触不良</p> <p>4.前舱控制器异常</p>	<p>1.升级到最新固件之后切换Gokart模式 , 与Gokart适配连接使用</p> <p>2.更换延长线</p> <p>3.更换弹簧线</p> <p>4.更换前舱控制器</p>
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4.4.5 Error code 58 - Throttle Signal Abnormal

Error Code	Troubleshooting	Result	Solution
58	<p>1.检查油门是否回弹到位 , 油门未正常回弹</p> <p>2.查看油门磁铁位置 , 发现磁铁脱落或者移位</p> <p>3.前舱指示灯闪烁 58 号报警 , 但没有实际报警声</p>	<p>1.油门组件异常</p> <p>2.油门组件异常</p> <p>3.TVS 管烧</p>	<p>1.更换油门刹车组件</p> <p>2.更换油门刹车组件</p> <p>3.同时更滑油门刹车组件与前舱控制器</p>

4.4.6 Error code 59 - Brake Signal Abnormal

Error Code	Troubleshooting	Result	Solution
59	<p>1.检查刹车是否回弹到位，油门未正常回弹</p> <p>2.查看刹车磁铁位置，发现磁铁脱落或者移位</p> <p>3.前舱指示灯闪烁 59 号报警，但没有实际报警声</p>	<p>1.油门组件异常</p> <p>2.油门组件异常</p> <p>3.TVS 管烧</p>	<p>1.更换油门刹车组件</p> <p>2.更换油门刹车组件</p> <p>3.同时更滑油门刹车组件与前舱控制器</p>

4.4.7 Error code 61 – Balancing vehicle does not adapt

Error Code	Troubleshooting	Result	Solution
61	<p>1.Gokart PRO 只能适配 balancing vehicle MAX 与平衡车 MAX 运动版，如果搭配 mini/minipro/燃动版就会报错 61 号报警</p> <p>2.balancing vehicle MAX 在维修更换中舱控制器之后</p> <p>搭配出现 61 号报警</p>	<p>1.车辆型号用错</p> <p>2.物料用错或序列号修改错误</p>	<p>1.使用正确车型适配Gokart</p> <p>2.更换正确型号物料或重新修改 SN 号</p>

4.4.8 Error code 62 –Balancing vehicle firmware too low

Error Code	Troubleshooting	Result	Solution
62	<p>Gokart改装套件2和GokartPro2分别搭配适配的 balancing vehicle 时，如果 balancing vehicle 固件版本过低，Gokart会报错62号报警</p>	<p>检查balancing vehicle 版本是否低于以下版本：</p> <p>balancing vehicle MAX： 2.6.8</p> <p>balancing vehicle 运动版： 3.1.6</p> <p>mini和minipro：1.9.4</p> <p>minipro2：1.9.2</p>	<p>用APP连接Gokart直接升级balancing vehicle 固件即可</p>

4.5. Troubleshooting Methods and Solutions of Common Faults:

4.5.1 Unable to Power On

Error Code	Troubleshooting	Result	Solution
Can not turn on (kart front cabin blue light is not on, can not turn on the machine)	<p>1. The balancing vehicle itself out of the Gokart, the car can not start</p> <p>2. Balancing vehicle can be driven outside the kart Machine, can not be started after putting Gokart</p>	<p>1. The balancing vehicle itself cannot supply power;</p> <p>2. There is a short circuit in the balancing vehicle.</p> <p>3.1. Dry battery is dead</p> <p>3.2. The extension wire is in poor contact</p> <p>3.3. The spring wire</p>	<p>1. Check whether balancing vehicle cannot be started</p> <p>2. See the following flowchart for troubleshooting;</p> <div data-bbox="735 222 1995 1513"> <p>平衡车车体带电一般是车辆某个部件电路短路直接与车体连接导致。这样当平衡车骑行时不受影响，但是与卡丁车组装好匹配时，会导致卡丁车无法开机，并且平衡车电量会显示为空。</p> <p>判断：如图所示，万用表打到高压电压档一端与转轴接触，一端测量电池充电口四个针，一般电压是零或者零点是正常的，如果读数是小数点之前的就说明有问题了</p> <p>图一：万用表打到蜂鸣档，一端与车体接触，另一端依次接触控制器引脚（不要碰到螺丝）如果有短路，会长鸣</p> <p>图二：万用表打到蜂鸣档，一端接触车体，另一端依次接触Bos的针脚，如果中船有短路，万用表会长鸣</p> </div>

		is in poor contact 3.4. Balance car battery charging	
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<p>3. Balancing vehicle starts normally in the kart, Bluetooth blinks, and the indicator light of the front cabin housing of the kart is off:</p> <p>3.1. Replace 6 dry batteries and turn on Gokart normally</p> <p>3.2. After removing the extension cord, the spring cord is directly connected with balancing vehicle. The kart can be started normally</p> <p>3.3. Connect a spring wire (remove the original spring wire, connect a new wire to test), and Gokart starts up normally</p> <p>3.4. Replace the battery of balancing vehicle. Gokart starts up normally</p> <p>3.5. Replace the front cabin controller, Gokart starts up normally</p> <p>3.6. Replace the Y-cable and Gokart starts up normally</p>		<p>3.1. Replace the dry battery</p> <p>3.2. Replace the extension cable</p> <p>3.3. Replace the spring cable</p> <p>3.4. Replace the battery of the balancing vehicle</p> <p>3.5. Replace the front cabin controller</p> <p>3.6. Replace the Y-shaped cable</p>
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4.5.2 Swaying steering wheel

Error Code	Troubleshooting	Result	Solution
Steering wheel wobble	1. The whole body can swing up and down 2. The front compartment can swing from side to side 3. Steering wheel is loose	1. The frame is not fixed; 2. The quick removal under the front cabin is not locked; 3. Steering wheel screws loose;	1. Use the 5MM hex wrench provided with the car to tighten the frame; 2. Quickly disassemble and reinstall, pay attention to tighten the nut before pressing the wrench; 3. Remove the cover plate or code table on the steering wheel and tighten the screws on the steering wheel using a 4mm hex wrench;

4.5.3 Unable to connect to Bluetooth

Error Code	Troubleshooting	Result	Solution
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<p>The phone cannot connect to Gokart Bluetooth</p>	<p>1. Authorization related to the mobile phone is not enabled or the operation is incorrect; 2. Gokart Bluetooth is occupied by other devices; 3. The vehicle can be searched, but the pairing cannot be completed; 4. Gokart cannot be found.</p>	<p>1. Enable mobile phone authorization; 2. Gokart Bluetooth has been connected to other devices; 3. Pairing fails; 4. The Gokart controller is faulty.</p>	<p>1. Check whether the Bluetooth and positioning functions of the mobile phone are turned on, and whether the relevant permissions of the No. 9 travel APP are turned on and not prohibited by the mobile phone system; Point re-search vehicle re-add attempt; 2. Gokart blue light flashing indicates that the Bluetooth is not connected, blue light steady on indicates that the Bluetooth is connected, connected state, can not connect with other mobile phones; 3. Check whether the mobile phone network is normal. When the APP prompts you to step on the brake to complete the pairing, you need to step on the brake for a long time to complete the pairing. Pay attention to stepping on the brake to the end to eliminate the situation that the main brake of the foreign body card cannot be stepped on to the end; 4. Replace the Gokart controller.</p>
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4.5.4 Powering on automatically forward or backward

Error Code	Troubleshooting	Result	Solution
<p>Gokart turns on automatically to go forward or backward</p>	<p>1. Check whether balancing vehicle is upgraded to the latest firmware and switched to the Gokart mode. 2. Check whether the accelerator and brake pedal bounce back in place;</p>	<p>1. Check whether balancing vehicle is upgraded to the latest firmware and switched to the Gokart mode. 2. Check whether the accelerator and brake pedal bounce back in place;</p>	<p>1. Connect the balancing vehicle with the kart after upgrading to the latest firmware and switching to Gokart mode; 2. Ensure that the accelerator brake pedal bounces back in place. If it fails to rebound in place, replace it with a new accelerator brake pedal assembly;</p>

4.5.5 Unable to reach maximum speed


Error Code	Troubleshooting	Result	Solution
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<p>Gokart's maximum speed doesn't live up to its advertised speed</p>	<p>3、 1. The maximum speed of white Gokart with Xiaomi balancing vehicle is 24Km/h, and the maximum speed of MiniPro balancing vehicle is 27Km/h. The maximum speed of balancing vehicle MAX is 37Km/h;</p> <p>4、 2.Gokart Pro and Gokart Lamborghini. The Gokart Bumblebee. Gokart Optimus Prime can only be adapted to balancing vehicle MAX, the maximum speed can not reach 40Km/h;</p> <p>5、 3, Gokart modification kit 2 generation with millet balancing vehicle, maximum speed 24Km/h, with minipro/minipro2 maximum speed 27Km/h, with MAXbalancing vehicle maximum speed 37Km/h; Gokartpro2 with balancing vehicle MAX maximum speed 37Km/h, with balancing vehicle MAX (second generation) maximum speed 43Km/h;</p>	<p>1. Check whether the balancing vehicle model is different from the user's understanding.</p> <p>2. The maximum speed condition is not met;</p>	<p>1. Observe whether the maximum speed matches the vehicle type;</p> <p>2. Check whether Gokart is activated. Whether the driving mode is track mode (white Gokart+mini is sport mode); balancing vehicle power (more than 80%) is sufficient; Whether the temperature of balancing vehicle is within the range of 0~40°C; Whether the balancing vehicle or Gokart has an alarm;</p> <p>3. In the manual shift mode, whether the gear is switched to the 3rd gear;</p>
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4.5.6 balancing vehicle prompts error code when installed to Gokart

Error Code	Troubleshooting	Result	Solution
<p>Balancing vehicle prompts error code when installed to Gokart</p>	<p>1.balancing vehicle under the Gokart, when the steering shaft of balancing vehicle is in contact with the static plate of the card car, the vehicle will appear 57 alarm or not start; But the balancing vehicle won't call the police unless it makes contact with Gokart</p>	<p>1. There is electric leakage inside balancing vehicle, which interferes with communication</p>	<p>1.Balancing vehicle failure, check the place where leakage is easy to occur: inside the motor, you can determine whether there is resistance between the motor wire and the metal outside the motor by measuring with a multimeter;</p> <p>The middle compartment hit the line when it was loaded onto the body;</p>

4.5.7 Gokart Kit 2, Gokart pro2 throttle has no reaction when powering on

Error Code	Troubleshooting	Result	Solution
<p>Gokart turns it on but doesn't walk away</p>	<p>1. Confirm whether the Gokart is turned on normally. The blue light of the front cabin light is blinking or steady on</p> <p>2. Check the Gokart game suite screen to see if Gokart is in P-stop mode. Or "GAME" mode</p> <p>Check the Gokart game Kit screen to see if</p>	<p>1.Gokart starts normally without alarm</p> <p>2. The Gokart mode is incorrect</p> <p>3.Gokart is in the wrong gear</p>	<p>1. If the Gokart front cabin is not on or the red light is blinking, refer to other troubleshooting methods;</p> 

Gokart is in "0 gear" in "M" manual shift mode
(only Gokartpro2 supports this mode)

2. Press the red power button in the middle of the game kit to switch modes such as "ECO.SPORT.RACE" or "M manual";



3. Press the right shift key and switch 1/2/3 in increments;

4.5.8 Gokart got stuck during riding

Error Code	Troubleshooting	Result	Solution
Gokart got stuck during the ride	<p>1. After the Gokart is turned on normally, unplug the spring cable, and the connection between the Gokart and balancing vehicle will be automatically switched to Bluetooth communication, and the vehicle will return to normal</p> <p>2. Replace the throttle pedal and the vehicle is back to normal</p> <p>3. Replace the front cabin controller and the vehicle is back to normal</p>	<p>1. The spring cable is in poor contact</p> <p>2. The accelerator pedal is abnormal</p> <p>3. The controller is abnormal</p>	<p>1. Replace the spring cable</p> <p>2. Replace the accelerator and brake components</p> <p>3. Replace the front cabin controller</p>

4.5.9 Gokart keeps beeping during riding

Error Code	Troubleshooting	Result	Solution
The Gokart drips and drips as it drives	<p>1. Check the device Settings in the APP, and the driving tone is turned on</p> <p>2. Press the brake twice in a row, and there will be no dripping sound</p> <p>3. The front cabin starts flashing yellow or red</p>	<p>1. Normal phenomena</p> <p>2. The vehicle is in reverse gear</p> <p>3. The vehicle is abnormal</p>	<p>1. Can be adjusted according to user requirements</p> <p>2. Step on the brake twice to switch gears</p> <p>3. Handle according to the alarm code processing method, see 4.4 series</p>

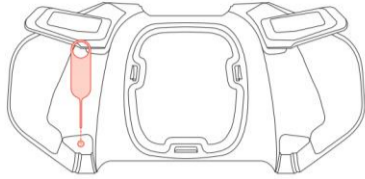
4.5.10 Cannot adapt Ninebor engine speaker

Error Code	Troubleshooting	Result	Solution
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<p>Cannot adapt Ninebot engine speaker</p>	<p>1. If the pairing mode is correct, the blue light flashes to connect the phone</p> <p>Mode, the white light blinks for connected vehicle mode</p> <p>2. Make sure there is only one Gokart around, and it is suitable</p> <p>Wait close to the front light</p> <p>3. The Gokart front cabin blue light is on, the APP is connected to the car 4, the speaker is not the latest firmware (some Gokart needs the latest</p> <p>Firmware can be adapted, such as co-branded)</p> <p>5. Exclude the above, replace the speaker or front cabin controller, and confirm whether it can be matched</p>	<p>1. The pairing mode is incorrect</p> <p>2. More vehicles affect the choice of speaker or the distance between the speaker and the car is too large to communicate with the vehicle</p> <p>3. The speaker cannot search for the vehicle Bluetooth because the Bluetooth is occupied</p> <p>4. The firmware is faulty</p> <p>5. The speaker or front cabin controller is faulty</p>	<p>1. Change the pairing mode</p> <p>2. Move the vehicle to an open environment with only one car, and adapt the sound box near the front cabin light</p> <p>3. The APP can exit the connection</p> <p>4. Update the latest firmware of the speaker</p> <p>5. Replace the front cabin controller or speaker</p>
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4.5.11 Gokart game kit system halted

Error Code	Troubleshooting	Result	Solution
<p>Gokart Game kit buttons do not react</p>	<p>Gokart Game Kit can power on/off properly or not</p>	<p>1. can shut down normally</p> <p>2. cannot shut down normally</p>	<p>1. Check whether the GAME kit is in "GAME" mode, the game kit in game mode does not play the game when the button is not any reaction, just need to unplug the USB receiver, restart the Gokart and the game kit.</p> <p>2. Cannot shut down, it can be determined that the game kit crashed, forced to restart the device.</p>

			<p>4 Restart</p> <p>If the steering wheel or device shuts down, please use tools to press the reset hole on the back of the game controller to restart it.</p> 
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4.5.12 Gokart Game kit steering wheel skew

Error Code	Troubleshooting	Result	Solution
<p>The game kit is not at the same Angle as the steering wheel in the game</p>			<p>3 Reset Steering wheel</p> <p>Note: Do not turn the steering wheel during reset.</p> <p>Press and hold the buttons as illustrated for 3 seconds when the steering wheel is mounted on Gokart.</p> <p>* If reset successfully, "C2" will be displayed on the screen. If failed, "F2" will be displayed.</p> 