



Bafang Electric (Suzhou) Co., Ltd

BESST Pro Instructions for Use

Revision	Date	Description	Modified by
V1.0	2022.10.15	First edition	Liu Jianmin
V1.1	2022.10.17	Add registration interface	Liu Jianmin
V1.2	2023.6.25	New user registration and automatic update	Liu Jianmin
V1.3	2023.9.15	Add batch update, one-click update, parameter setting function, and HMI setting function	Liu Jianmin
V1.4	2023.10.26	Modify contents in Parameter Setting	Liu Jianmin
V1.5	2023.12.8	Modify speed limit rules and add registration prompts	Liu Jianmin
V1.6	2024.5.11	New functions: sensor update, battery diagnosis, and controller setting	Liu Jianmin

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1 Software Installation

1.1 Background

In order to better meet the market demand and better serve the dealers, Bafang has launched the stronger software BESST Pro on the basis of updating the existing BESST software. After streamlining part of functions, BESST Pro has added plenty of new functions to provide accurate error diagnosis and professional technical support, contributing to a comfortable riding experience for customers. Hence, we have been committed to developing innovative products to set a new standard for the EPAC industry.

1.2 System Environment Requirements

Windows 8 and above

MacOS High Sierra 10.13 and above

BESST Pro only supports the products are compatible with the compatibility matching standards of Bafang in a list of matching system, which is kept up-to-date constantly. If the product is not listed, it will be incompatible with BESST Pro. Additionally, note that Bafang products released prior to the implementation of EN 15194:2017 regulations are not supported by BESST pro as well.

1.3 Installation

Download address: <https://bafang-e.com/en/oem-area/service/besst-pro/>

Unzip the software installation package, double click to enter the software installation program, and follow the prompts to complete the installation.

1.4 Hardware Connection

The hardware connection is shown as the Fig. 1-1 (The hardware version of the BESST Tool needs to be 3.0 and above).



Fig. 1-1 Hardware connection

2 Login Function

2.1 Offline Login

Offline login is not required to enter account and password. You can select "Offline Login" to enter the interface of component inspection directly (Fig. 2-1). There is an icon to the left of the "Local Update" icon and click on it to view the updating steps (Fig. 2-2). The current firmware version of the system component is displayed, and the latest firmware file is obtained locally. The firmware file for offline upgrading should be obtained by contacting Bafang after-sales personnel.

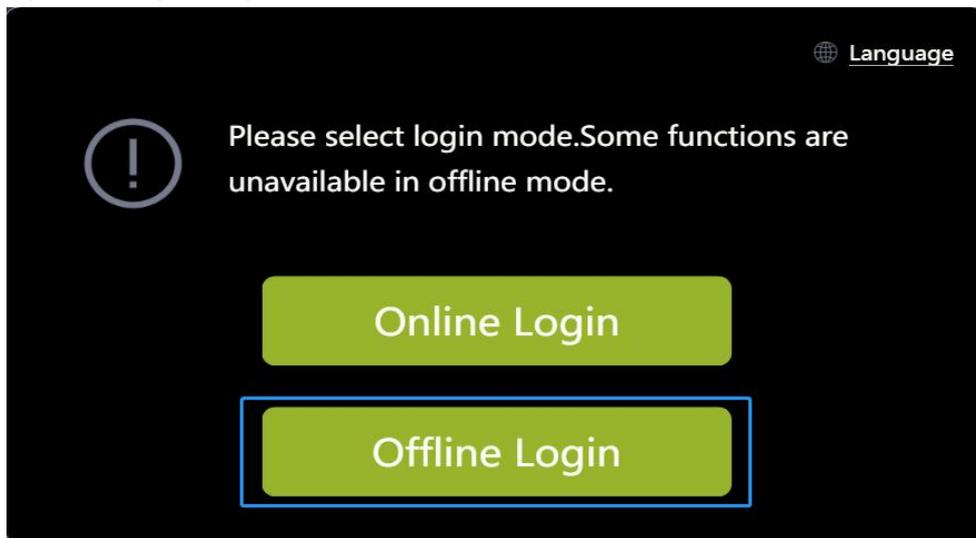


Fig. 2-1 Offline login

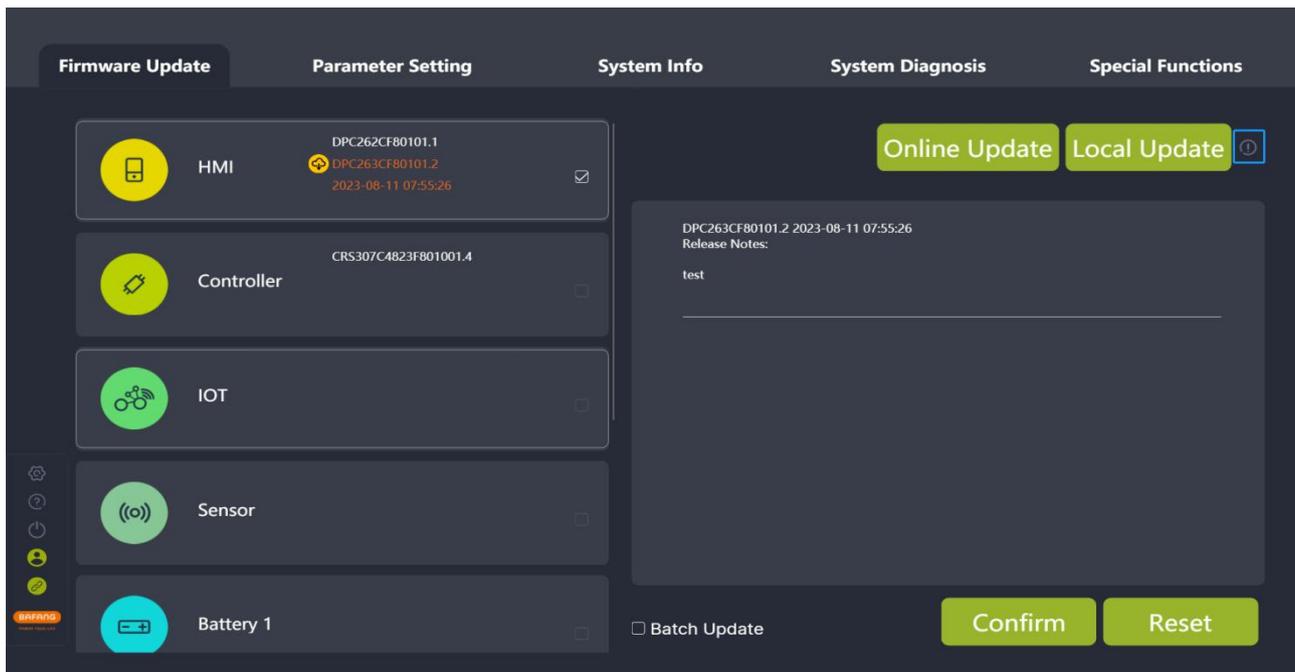


Fig. 2-2 Tips for updating steps

2.2 Online Login

Online login requires the account and password (of BESST). You must check the box to agree to the "User Agreement" to login. You can choose whether to check the "Remember me" icon or not. If any update of system components, the latest firmware version will be displayed and the latest firmware can be obtained directly online (Fig.2-5).

Follow the steps below:

- (1) Select the "Online Login".
- (2) Enter your "UserName".
- (3) Enter your "Password".
- (4) Check the box to agree to the "User Agreement".
- (5) Click the "Login".

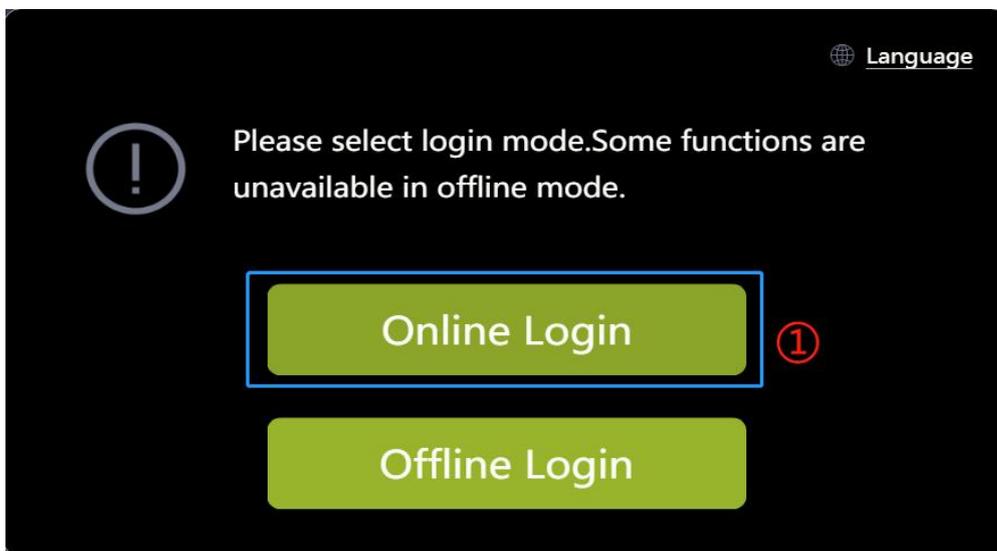


Fig. 2-3 Online login

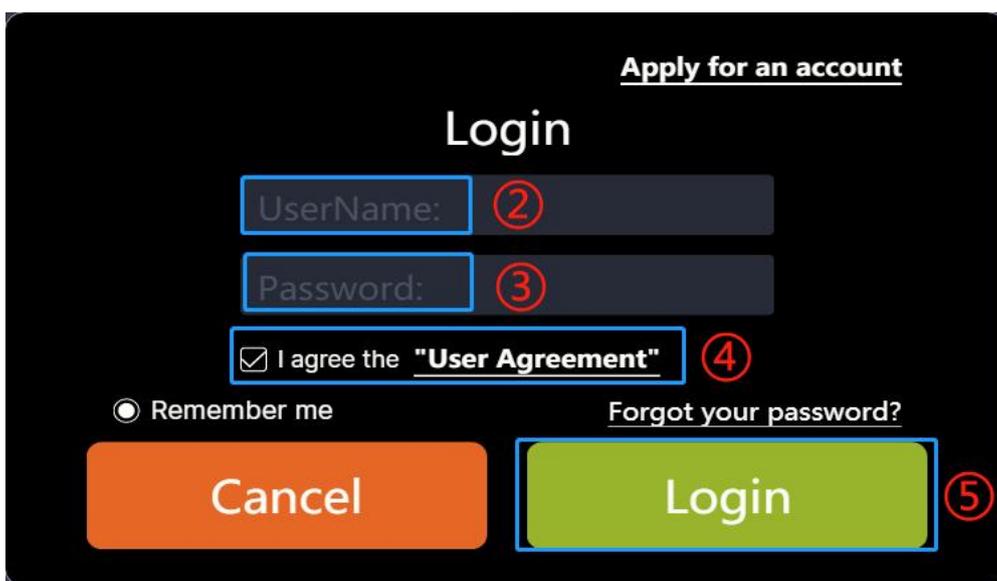


Fig. 2-4 Online login

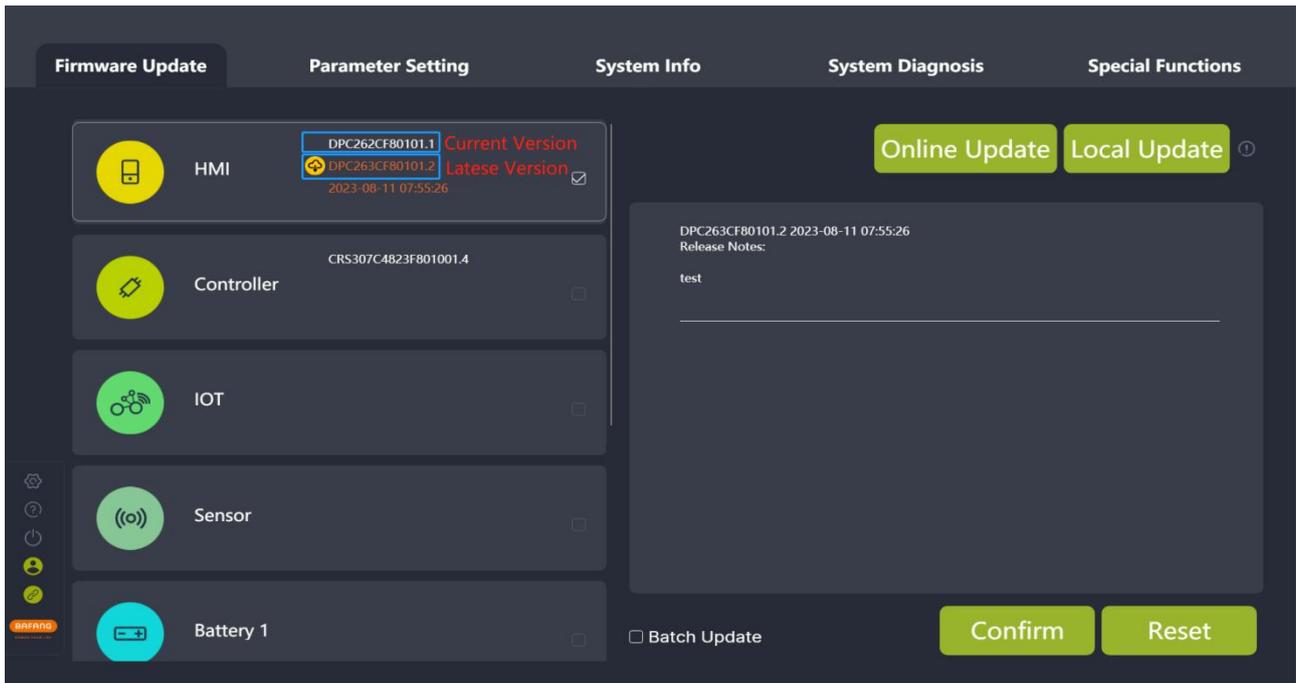


Fig. 2-5 Online login page

2.3 Account Registration

- (1) If you don't have the login account, click "Apply for an account" in the login interface.

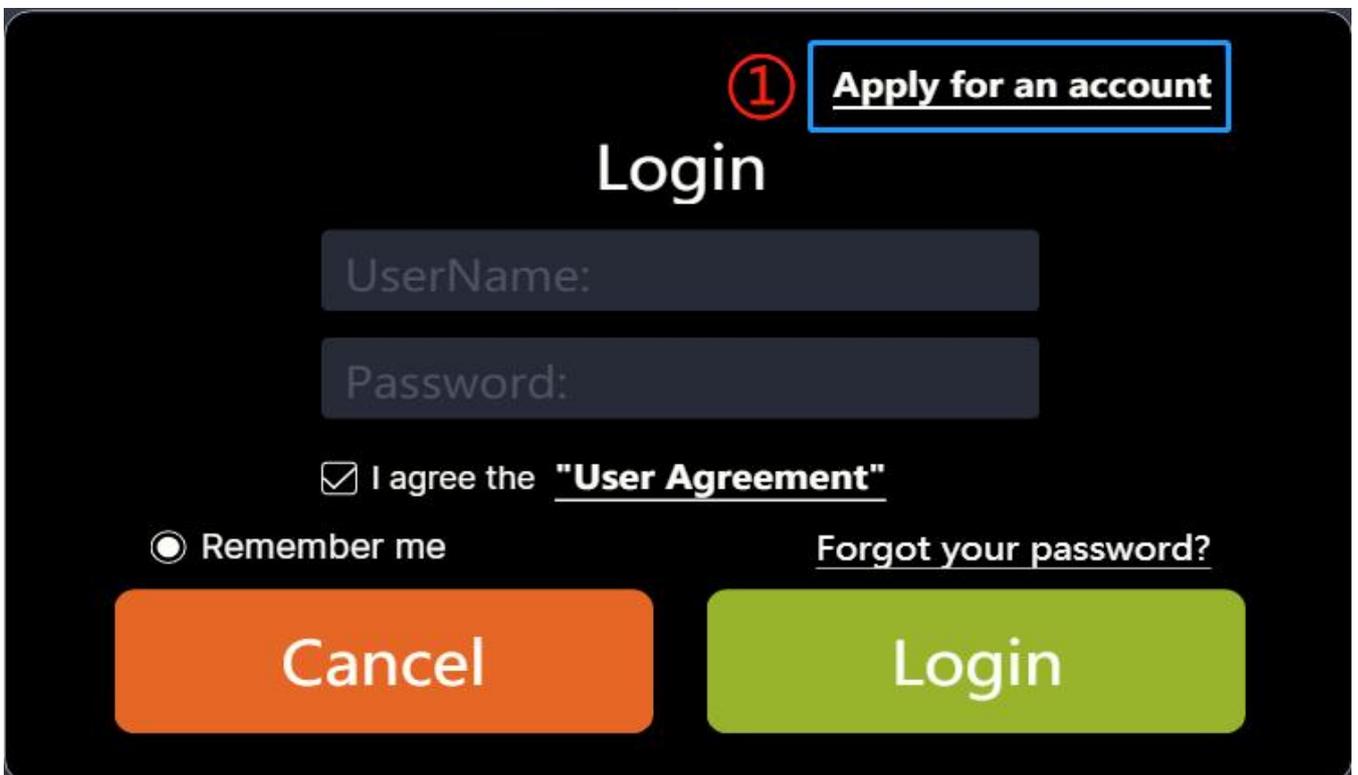
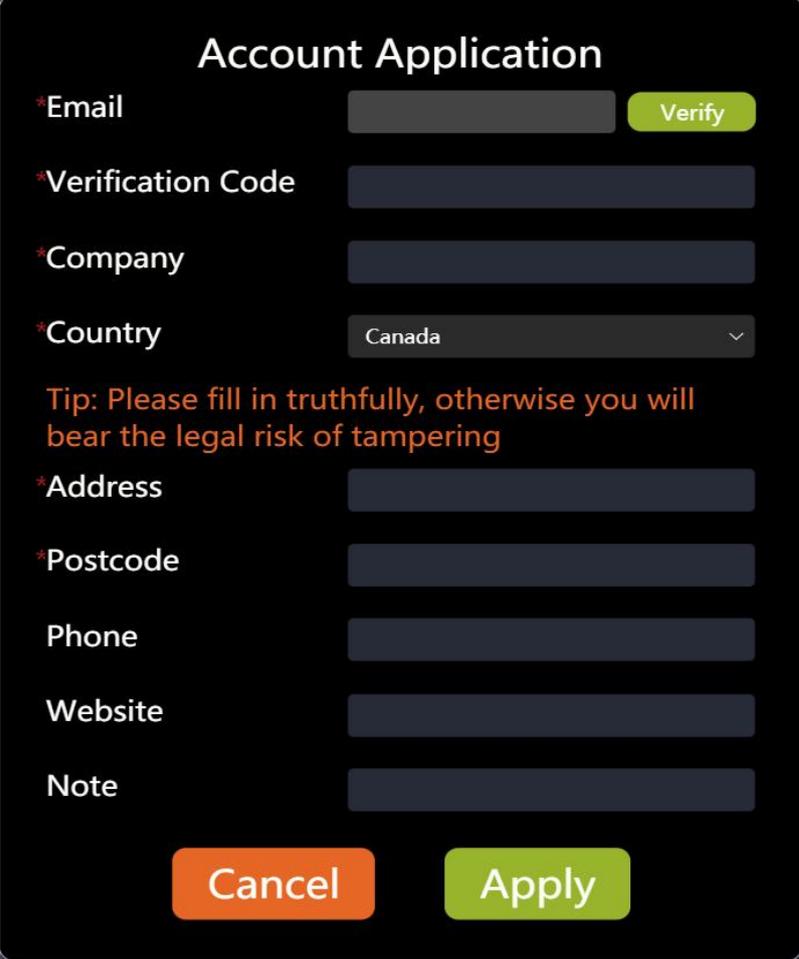


Fig. 2-6 Apply for an account

- (2) Enter your e-mail address, and click "Verify" to get the verification code. Enter the code you received and other information (company, country/region, address and postcode are required), and click "Apply".



The image shows a dark-themed 'Account Application' form. At the top, the title 'Account Application' is centered. Below it, there are several input fields, each with a red asterisk indicating a required field. The fields are: 'Email' with a 'Verify' button to its right; 'Verification Code'; 'Company'; 'Country' with a dropdown menu showing 'Canada'; 'Address'; 'Postcode'; 'Phone'; 'Website'; and 'Note'. A red tip message reads: 'Tip: Please fill in truthfully, otherwise you will bear the legal risk of tampering'. At the bottom, there are two buttons: 'Cancel' (orange) and 'Apply' (green).

Fig. 2-7 Fill in registration information

- (3) After registering, it will prompt "Application has been submitted and the review result will be notified by e-mail".

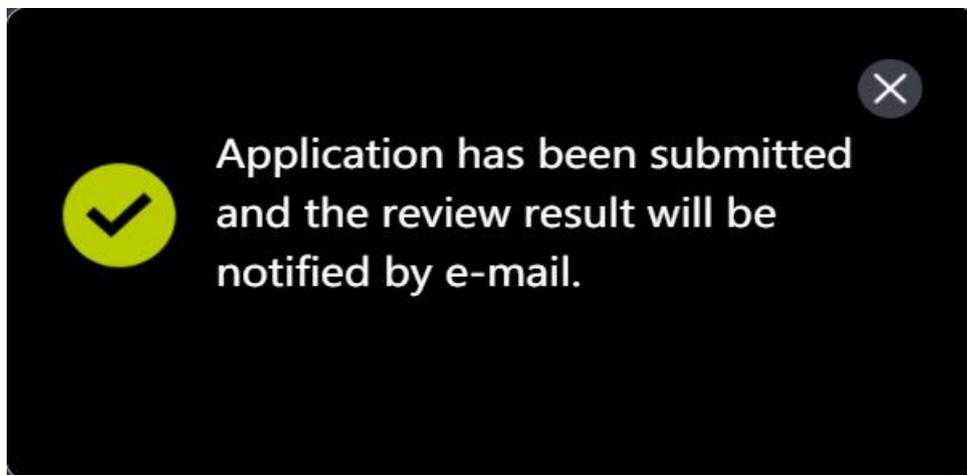


Fig. 2-8 Tips for successful registration

2.4 Forgot Password

If you forgot your login password, BESST Pro supports reset password. The steps are as follows:

- (1) Click the "Forgot your Password?" icon on the login pop-up window.

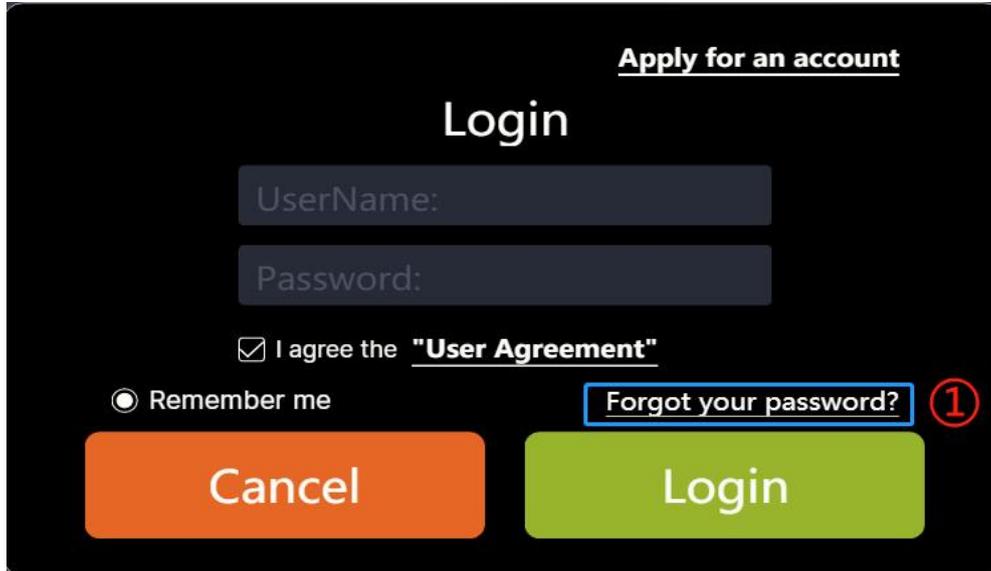


Fig. 2-9 Forgot your password

- (2) If you have logged in before, you will get the email address automatically; if you have never logged in, you need to enter the email address.
- (3) Click on the "Verify".
- (4) Enter the "Verification Code" received by email.
- (5) Enter your "New Password".
- (6) Enter your "New Password" again.
- (7) Click the "Reset".

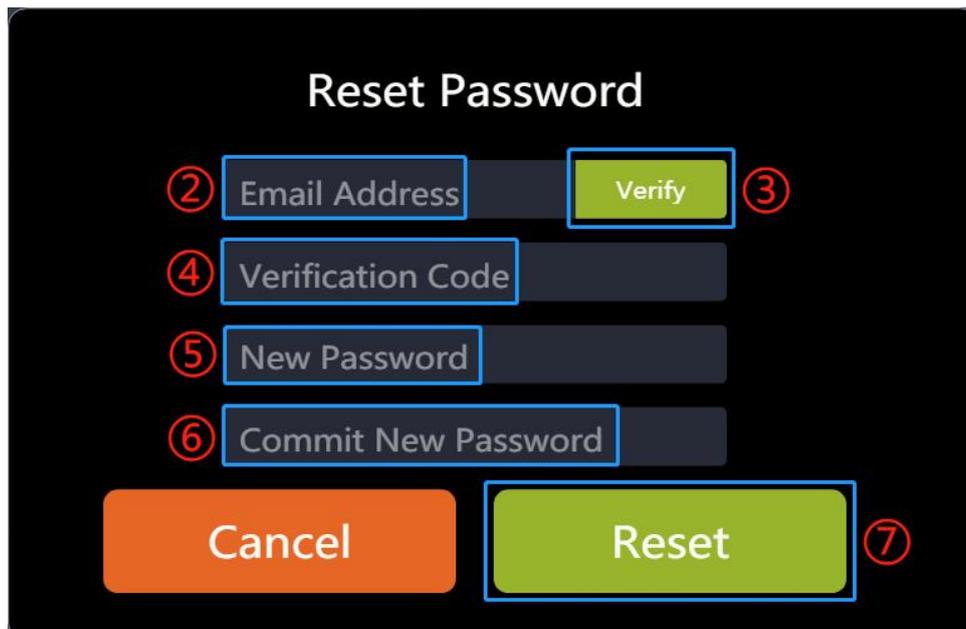


Fig. 2-10 Forgot your password

2.5 Reset Password

If you want to reset the password after logging in, you can follow the steps as below:

- (1) Click the "Login" icon.

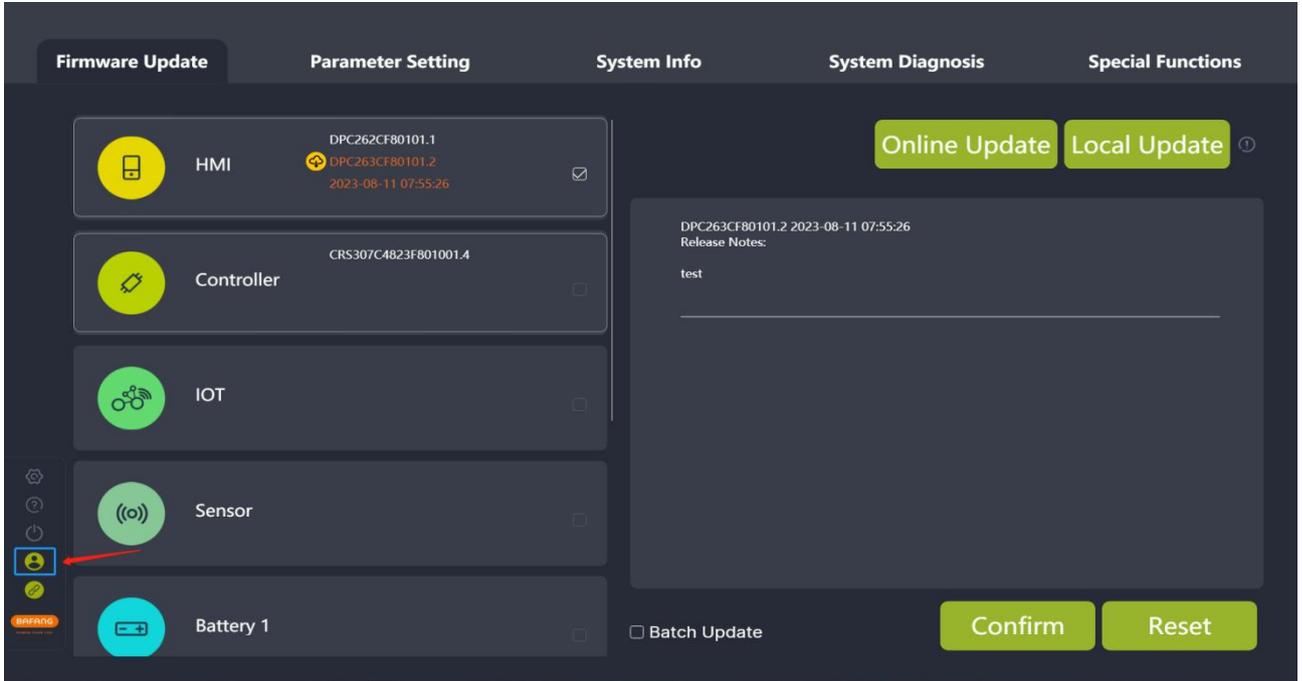


Fig. 2-11 Click the "Login" icon

- (2) Click the "Reset Password" in the pop-up window.



Fig. 2-12 Reset Password

- (3) The system will get the email address automatically and click the "Verify".
- (4) Enter the "Verification Code" received by email.
- (5) Enter your "New Password".

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- (6) Enter your "New Password" again.
- (7) Click the "Reset".

The image shows a 'Reset Password' form on a dark background. The form consists of several input fields and buttons. The fields are: 'Email Address' (with a 'Verify' button to its right), 'Verification Code', 'New Password', and 'Commit New Password'. At the bottom, there are two buttons: 'Cancel' (orange) and 'Reset' (green). Red circles with numbers 2 through 7 are placed around the form to indicate the sequence of steps: 2 points to the 'Email Address' field, 3 to the 'Verify' button, 4 to the 'Verification Code' field, 5 to the 'New Password' field, 6 to the 'Commit New Password' field, and 7 to the 'Reset' button.

Fig. 2-13 Reset Password

3 Component Inspection

BESST Pro supports automatic inspection of the connection of components in the current system. This operation takes some time, please wait patiently. The steps are as follows:

- (1) After logging in, the system will inspect the connection of all components. At the same time, it will prompt the user to check whether the system is correctly connected (Fig.3-1).

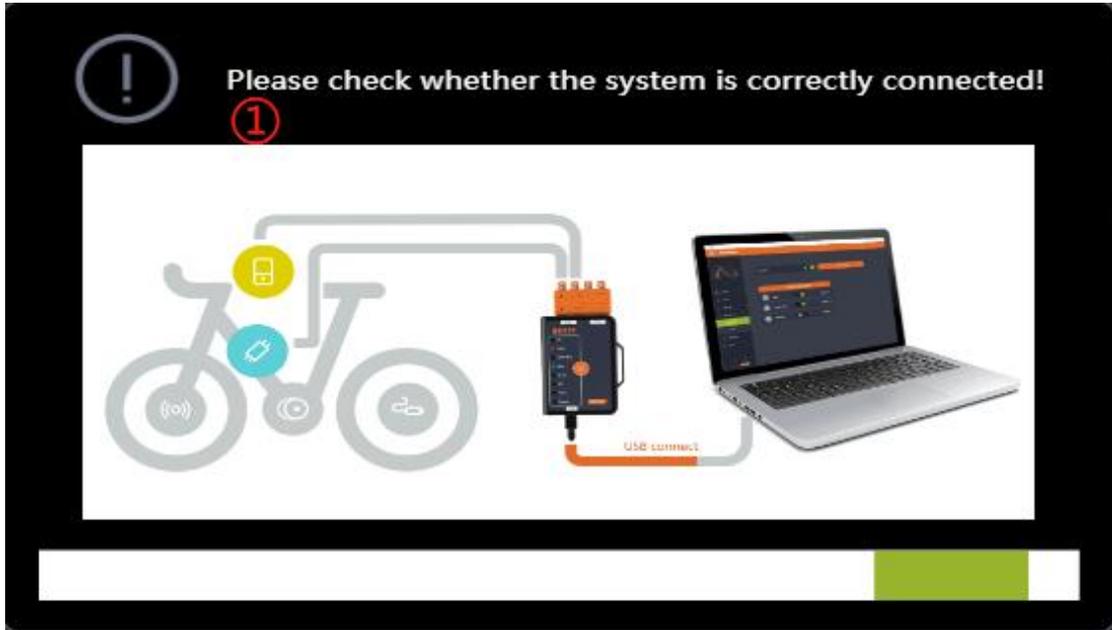


Fig. 3-1 Component inspection

- (2) Read the connected components' information at the same time, and the information will appear (Fig.3-2).

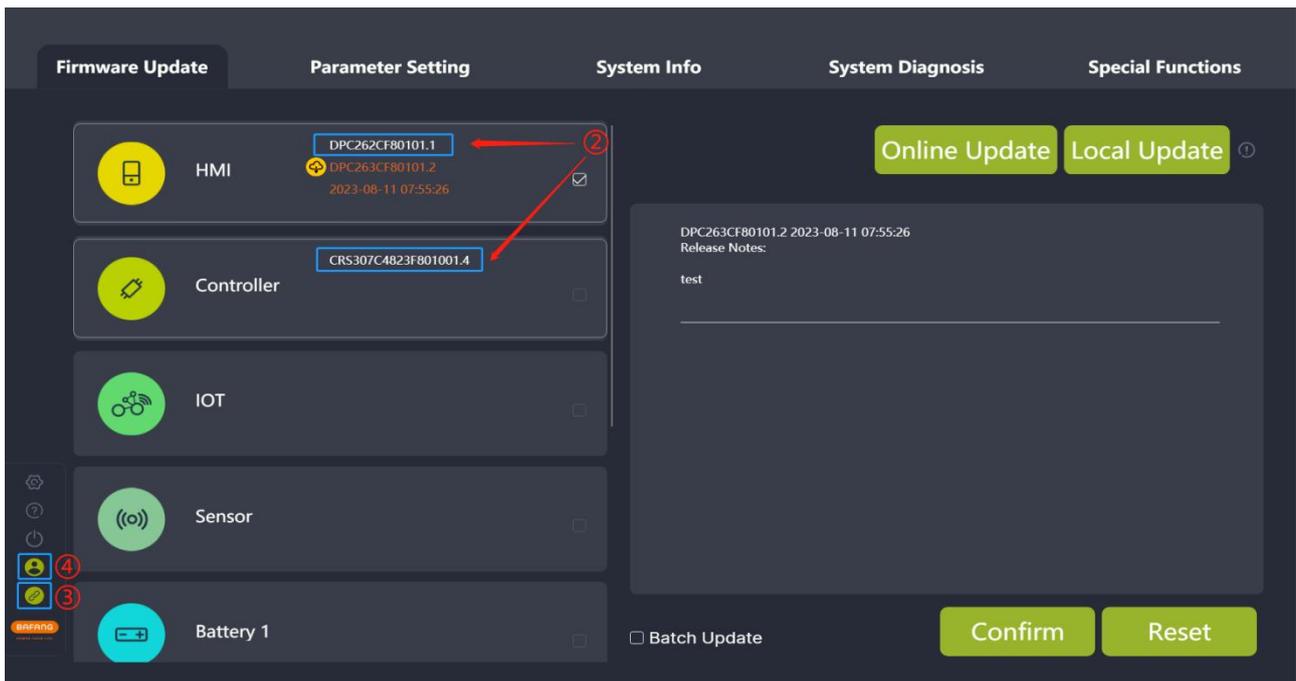


Fig. 3-2 Component inspection

- (3) BESST Tool and computer connection status icon:
Green: connected
Orange: unconnected
- (4) Login status icon:
Orange: offline login
Green: online login
- (5) Compatibility matching status:
The orange dot in the upper right corner of the component indicates that the product is not certified, and BESST PRO software is not guaranteed to be fully compatible.
The absence of the orange dot indicates that the product is certified and can be used normally on BESST Pro (Fig. 3-3). If the product is not certified, the tip will pop up.

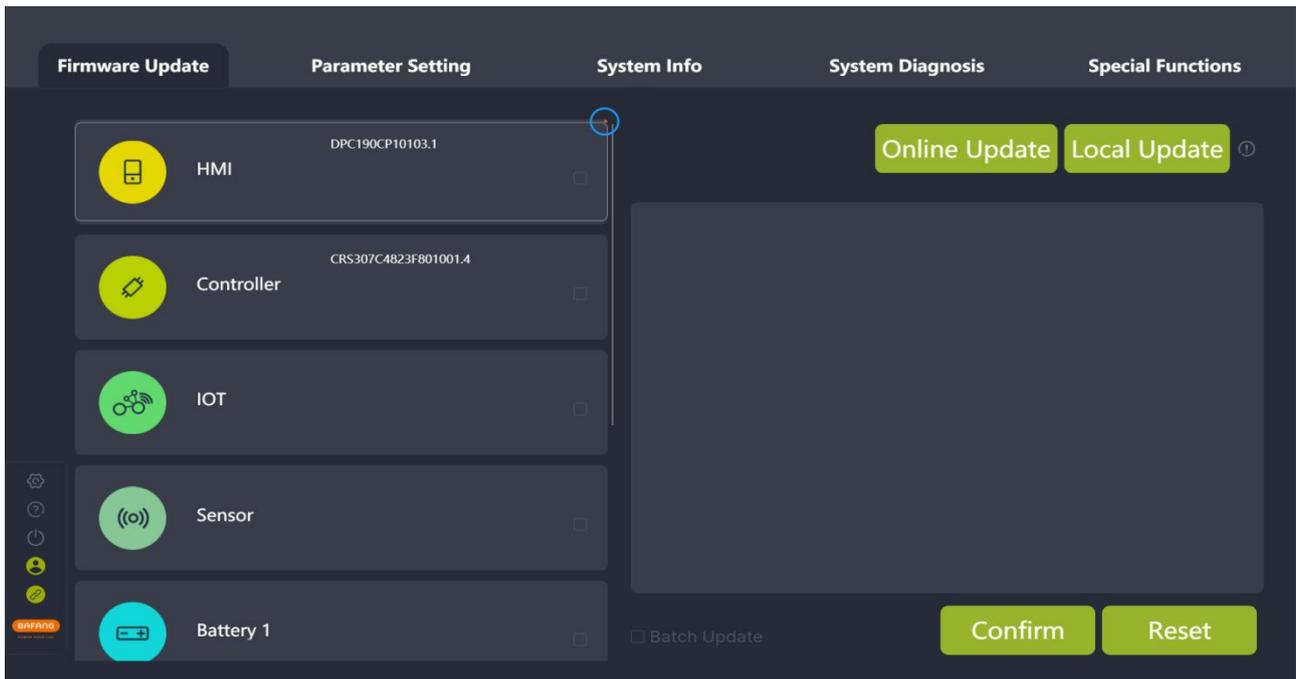


Fig. 3-3 Component inspection

4 Firmware Update

The firmware update module supports local and online update of HMI, battery, controller, IOT, sensor, and BESST Tool.

4.1 Local Update

Before upgrading the firmware, connect the component to your computer with BEEST Tool (The controller needs to be connected to the battery in the meantime). The steps are as follows:

- (1) Select the component(s) to be updated.
- (2) Click the "Local Update", and select the firmware(s) to be updated.

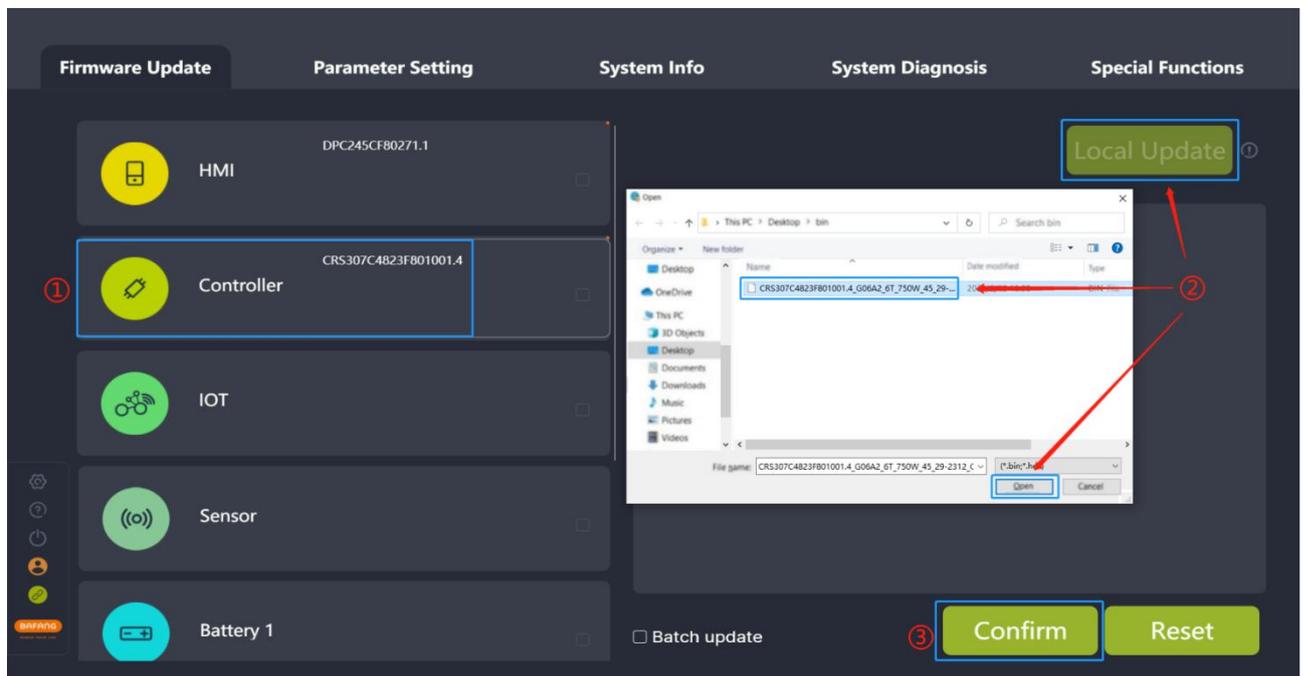


Fig. 4-1 Local update

- (3) Click the "Confirm", the pop-up window will appear. If you confirm the update, click "Confirm" again. Once clicked, the firmware be downloaded to the BESST Tool. If you hear a short beep from the BESST Tool, the firmware will have been downloaded successfully. If you hear the buzzer sounds for a long time, the firmware will have not been downloaded successfully. . Please click the "Reset" to update again.

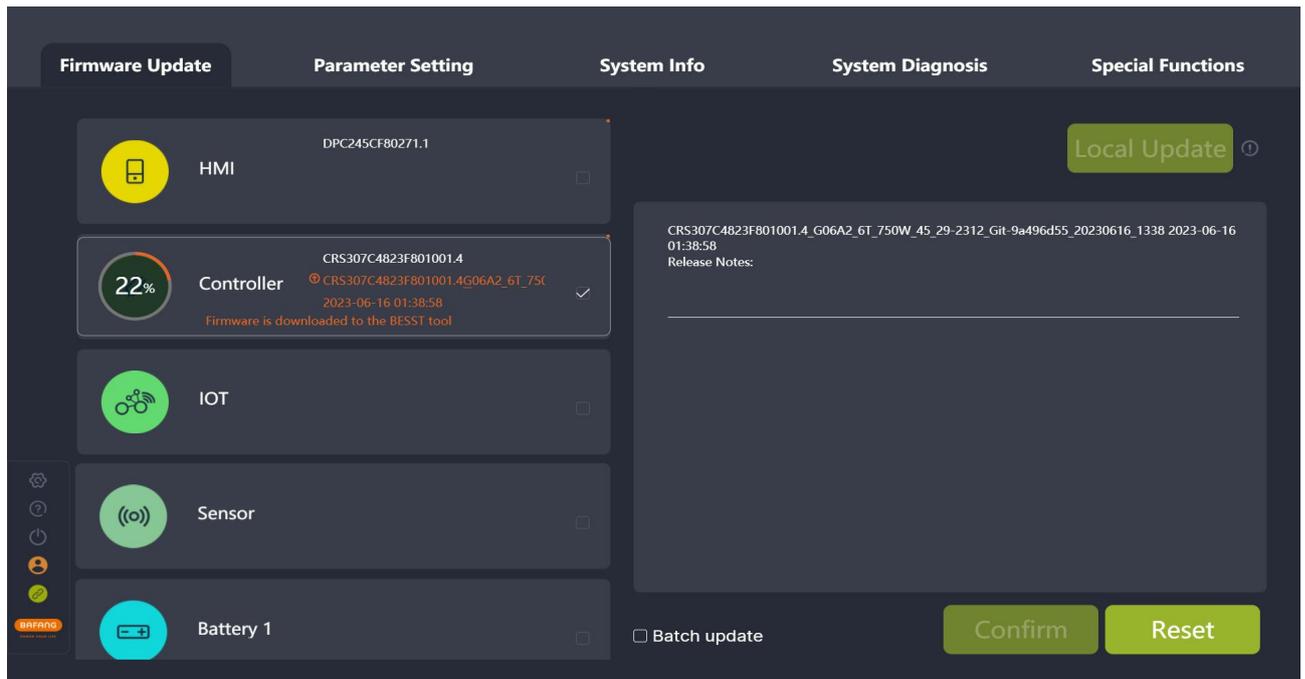


Fig. 4-2 Firmware downloading to BESST Tool

- (4) After successfully downloaded to the BESST Tool, the firmware will automatically download to the components and update them. (If the upgrading progress bar does not start within 10 seconds, please try to reconnect the BESST Tool and the components.)

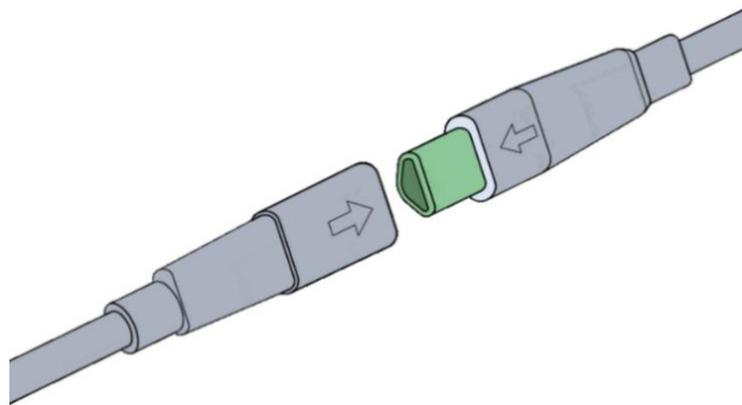


Fig. 4-3 Prompt for plugging and unplugging

- (5) In the upgrading process (BESST Tool - component), if you hear a short beep, the update will be successful. If the buzzer sounds for a long time, it means the update has failed. Please click the central orange button on the BESST Tool to cancel the updating, and repeat the steps above after connecting components and BESST Tool again.

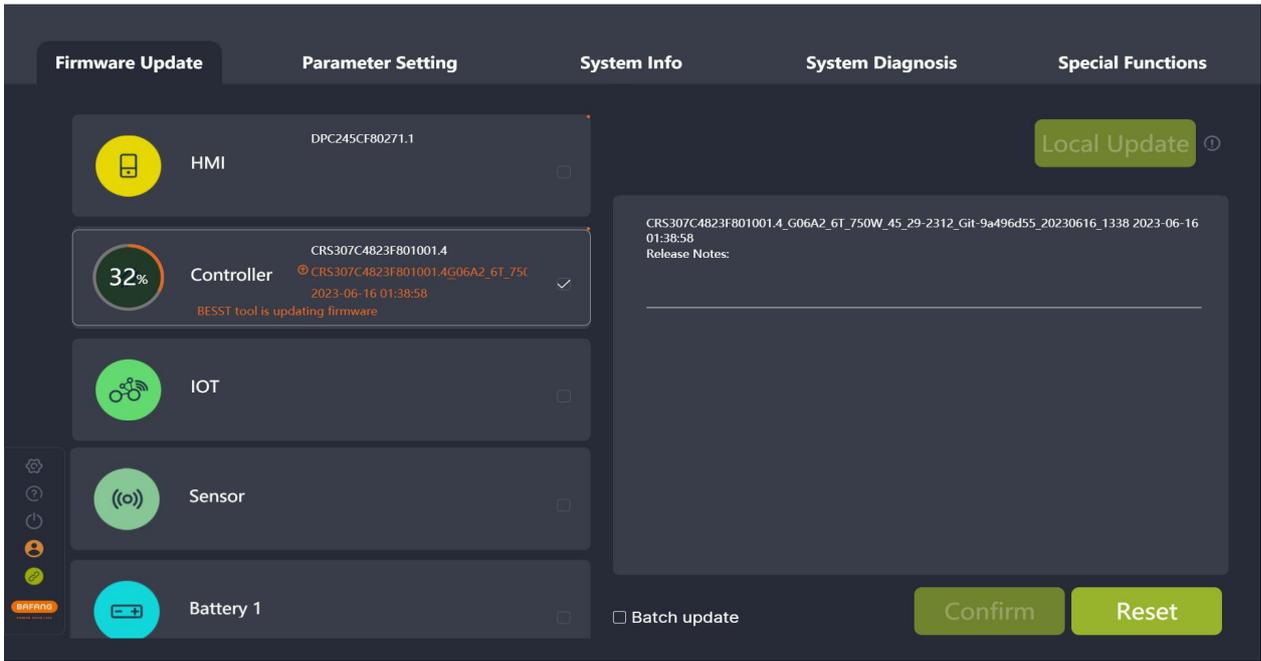


Fig. 4-4 Firmware update

- (6) After the firmware updates successfully, if the information cannot be read, connect the upgraded component to BESST Tool and the power supply, in order to read the information again.

4.2 Online Update

Users need to be logged in before the online update. Before upgrading the firmware, connect the component to your computer with BEEST Tool (The controller needs to be connected to the battery in the meantime). The system will inspect the latest firmware information automatically. The steps are as follows:

- (1) Select the component(s) to be updated.

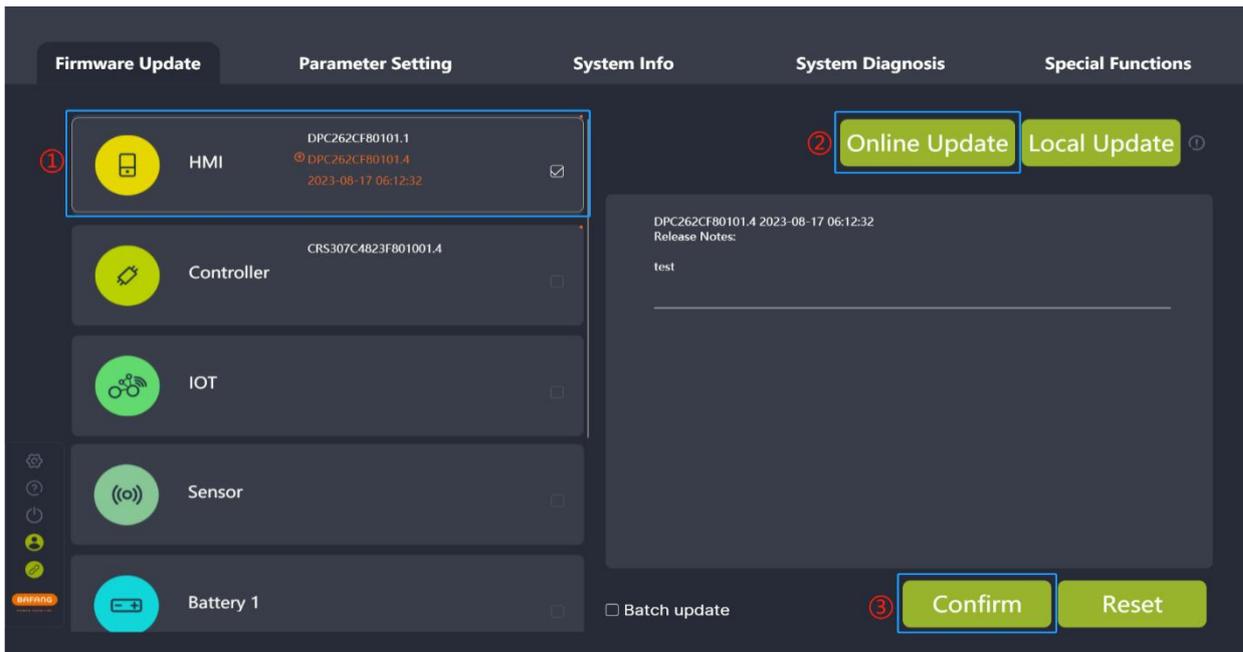


Fig. 4-5 Online update

- (2) Click "Online Update" to download the program locally.

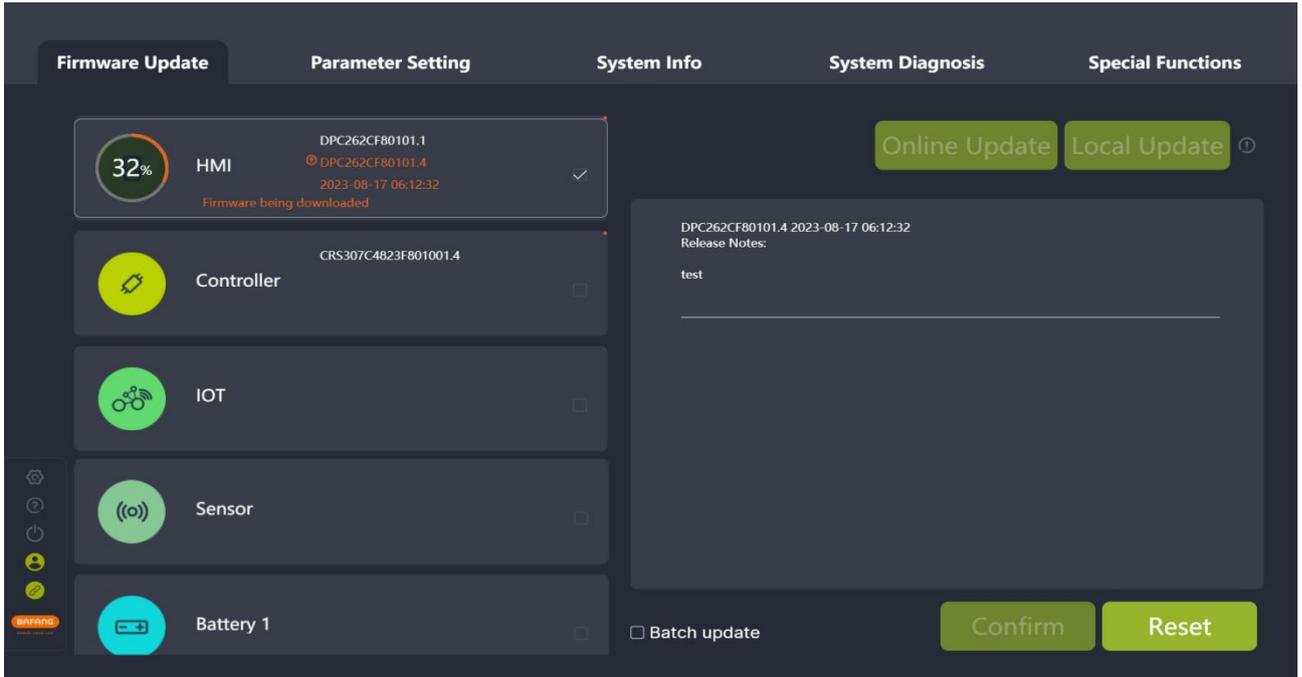


Fig. 4-6 Online update

- (3) Click the "Confirm", the pop-up window will appear. If you confirm the update, click "Confirm" again. Once clicked, the firmware be downloaded to the BESST Tool. If you hear a short beep from the BESST Tool, the firmware will have been downloaded successfully. If you hear the buzzer sounds for a long time, the firmware will have not been downloaded successfully. . Please click the "Reset" to update again.

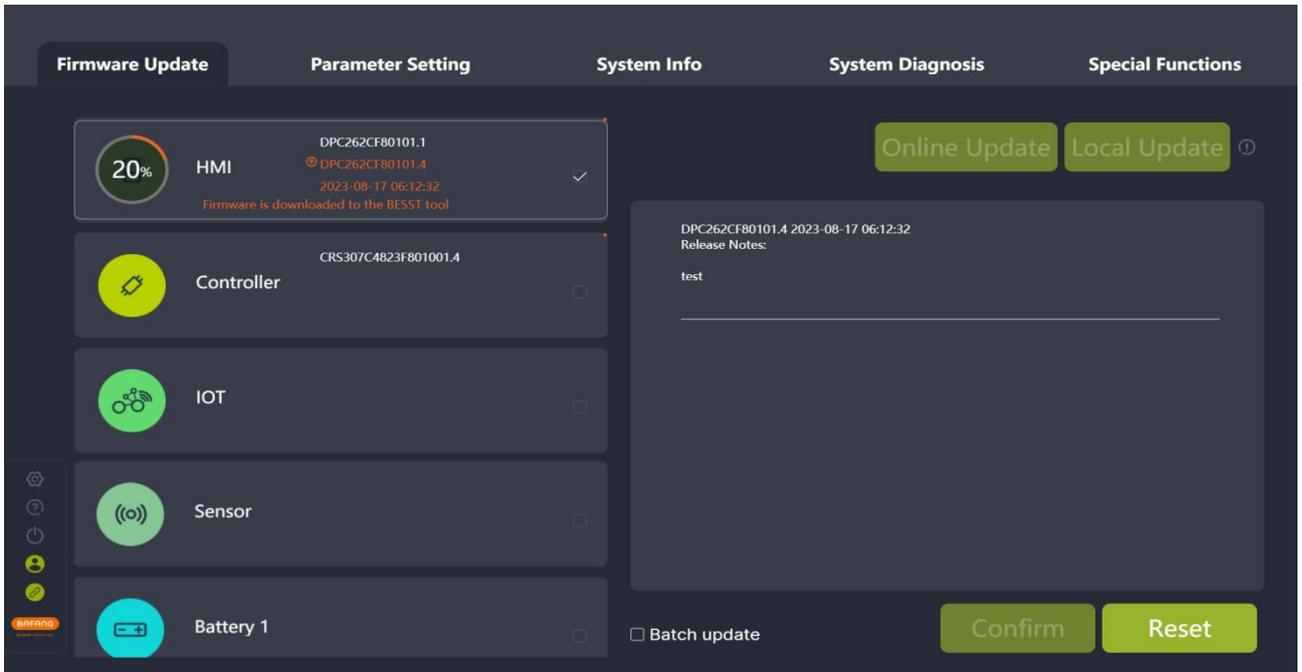


Fig. 4-7 Firmware downloading to BESST Tool

- (4) After successfully downloaded to the BESST Tool, the firmware will automatically download to the

components and update them. (If the upgrading progress bar does not start within 10 seconds, please try to reconnect the BESST Tool and the components.)

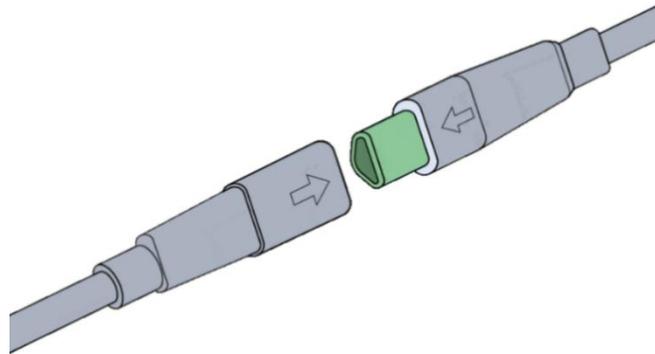


Fig. 4-8 Prompt for plugging and unplugging

- (5) In the upgrading process (BESST Tool - component), if you hear a short beep, the update will be successful. If the buzzer sounds for a long time, it means the update has failed. Please click the central reset button to cancel the updating state, and repeat the update steps above after once connection of parts and BESST Tool.

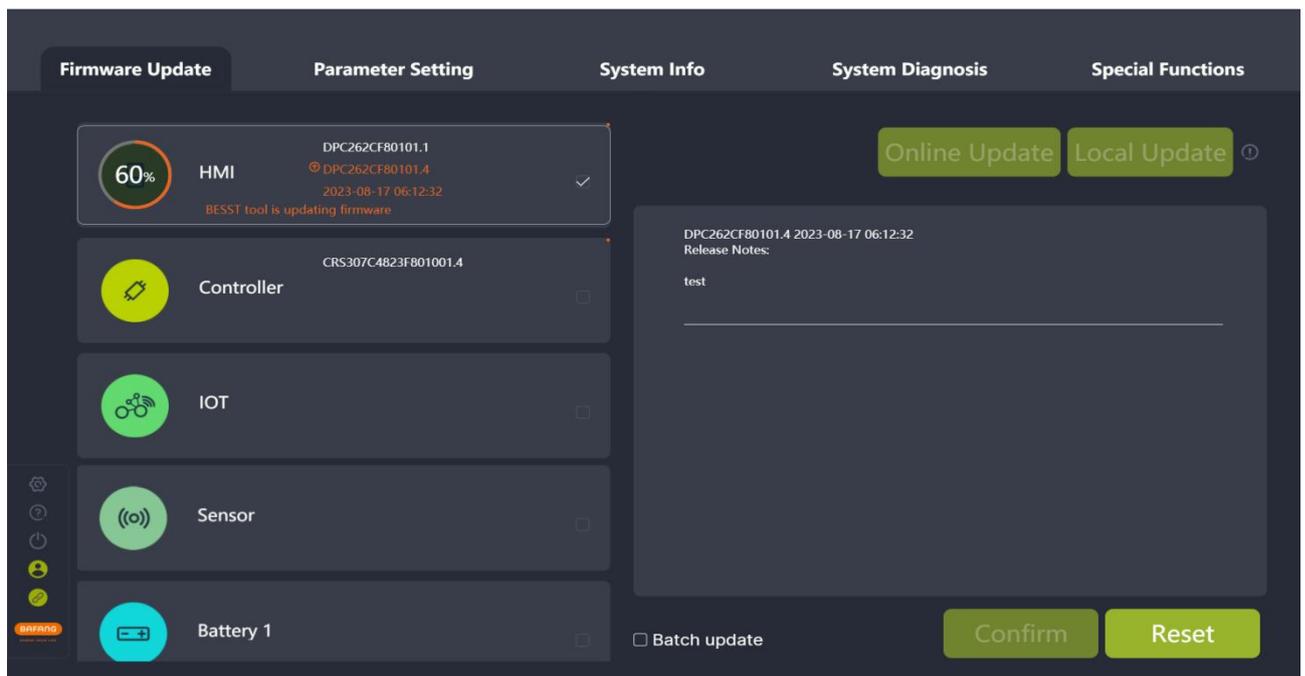


Fig. 4-9 Firmware update

- (6) After the firmware updates successfully, if the information cannot be read, connect the upgraded component to BESST Tool and the power supply, in order to read the information again.

4.3 Batch Update

Local update and online update are both supported. For products using the same update firmware, you can check the "Batch update" for continuous updating. There is no need to select firmware needing updating

again. The specific operation steps are as follows:

- (1) Local update: Click "Local Update" to select the firmware to update locally (Fig.4-10).
Online update: Click "Online Update" to download the firmware locally (Fig.4-11).

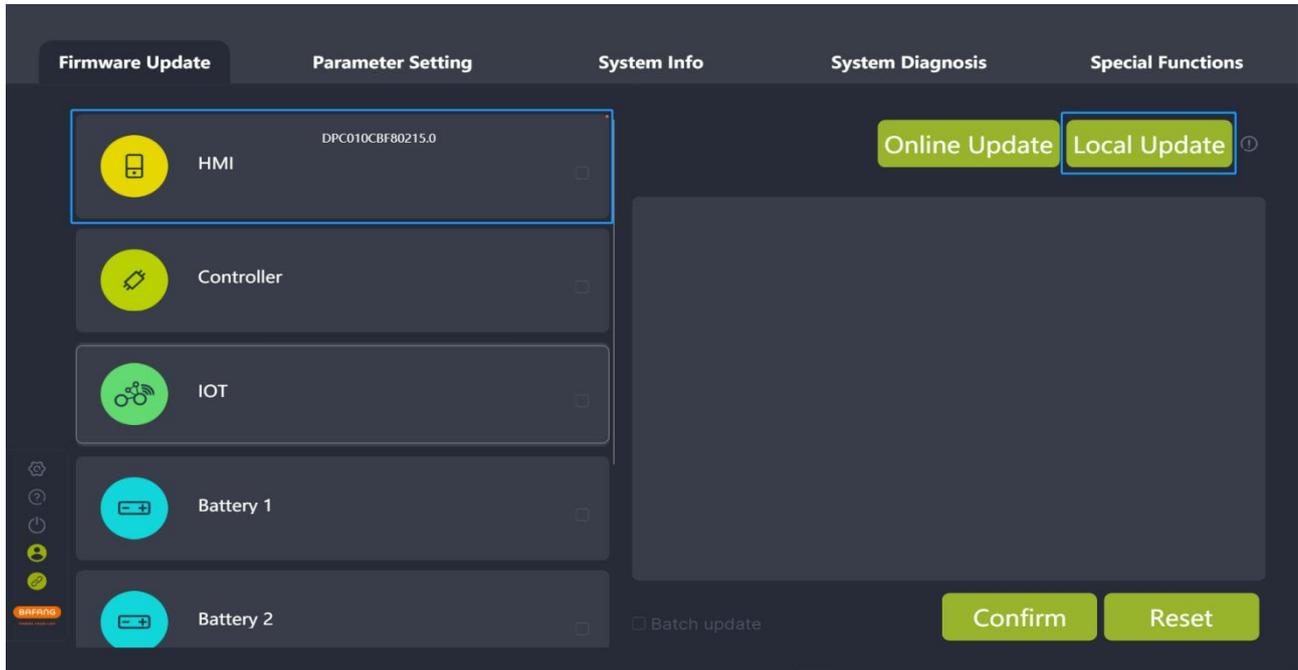


Fig. 4-10 Local update

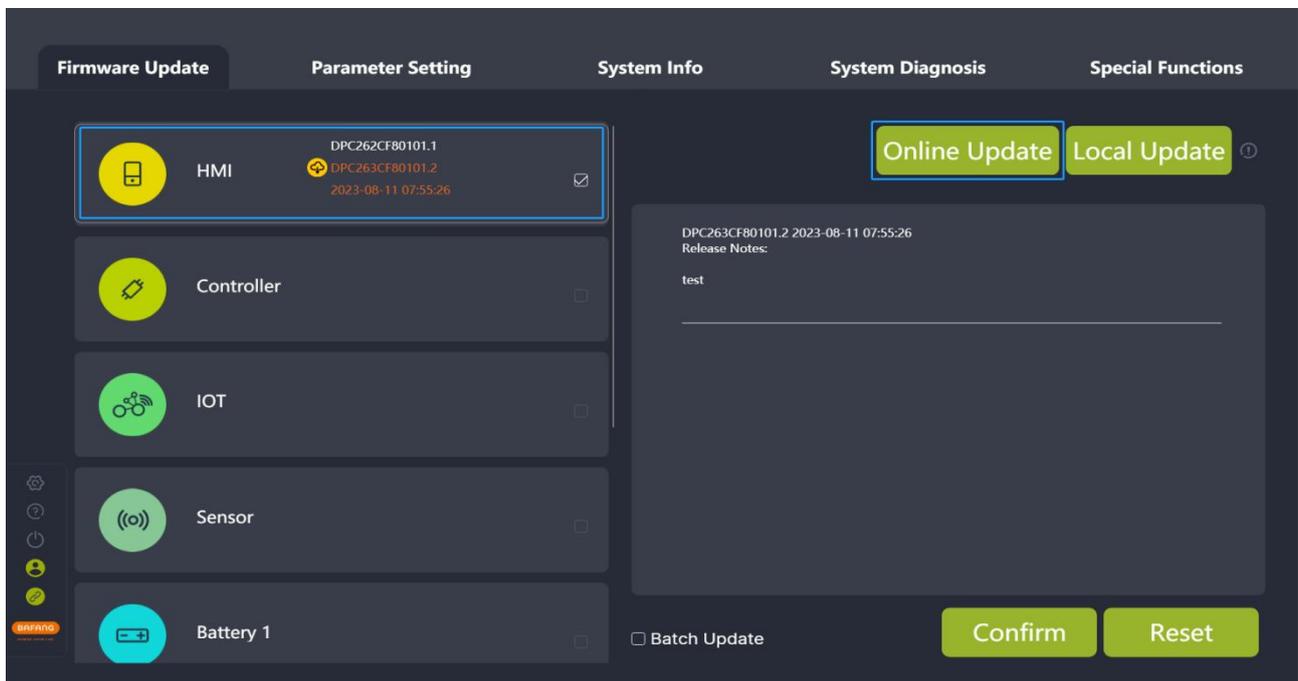


Fig. 4-11 Online update

- (2) Check "Batch update".
- (3) Click "Confirm" to update.
- (4) After updating, unplug the components connected, and connect the same model components again to update.

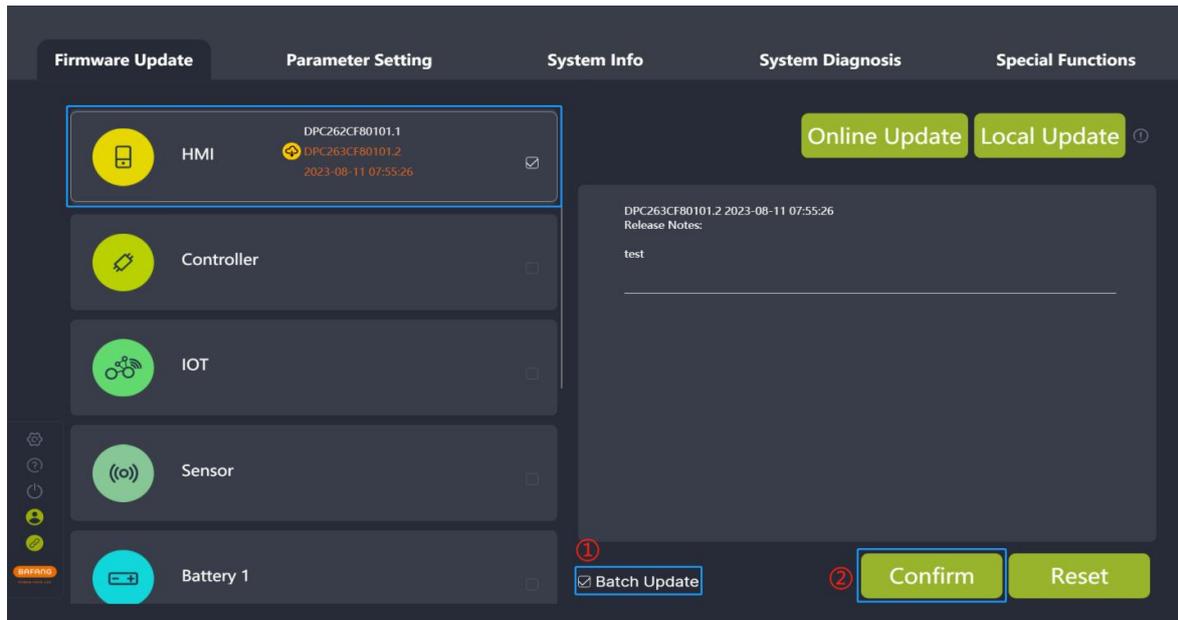


Fig. 4-12 Batch update

4.4 One-click Update

Local update and online update are both supported. After selecting the update firmwares of multiple components, you can update the components sequentially in order. The specific operation steps are as follows:

- (1) **Local update:** Click "Local Update". After selecting multiple firmwares to be updated from the local area, check the components to be updated (Fig.4-13).

Online update: Check the components that can be updated online and click "Update Online" to download the firmware locally(Fig.4-14).

- (2) Click "Confirm" and the updates will be performed in order.

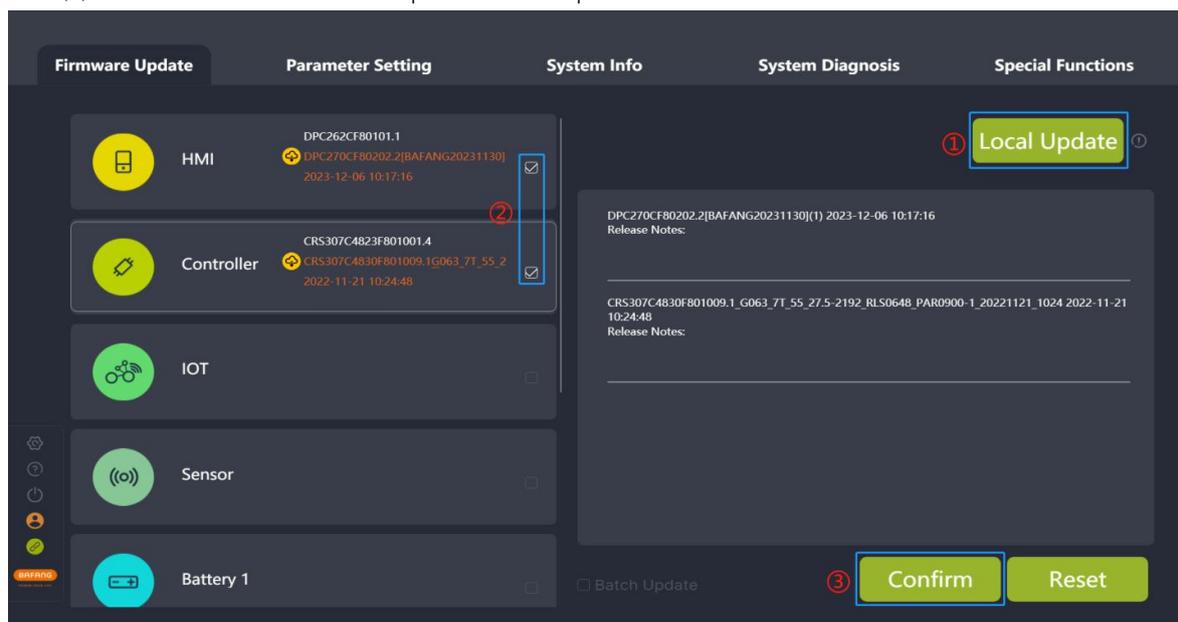


Fig. 4-13 Local update

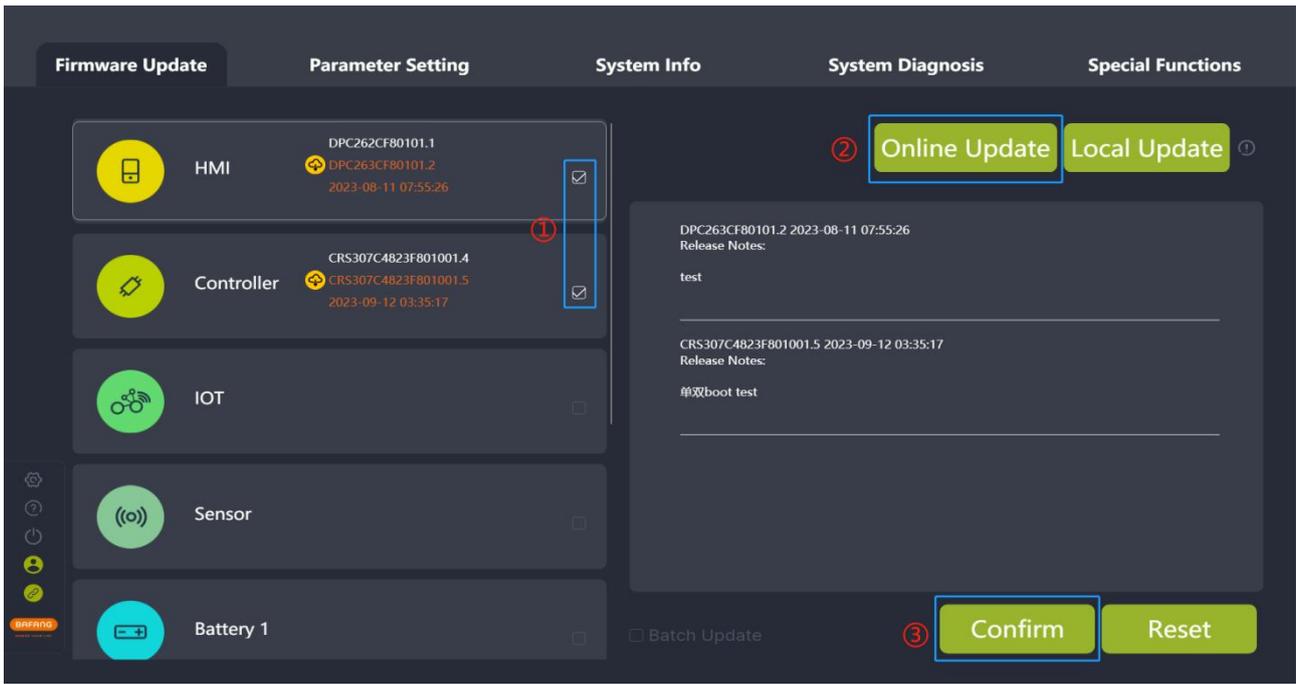


Fig. 4-14 Online update

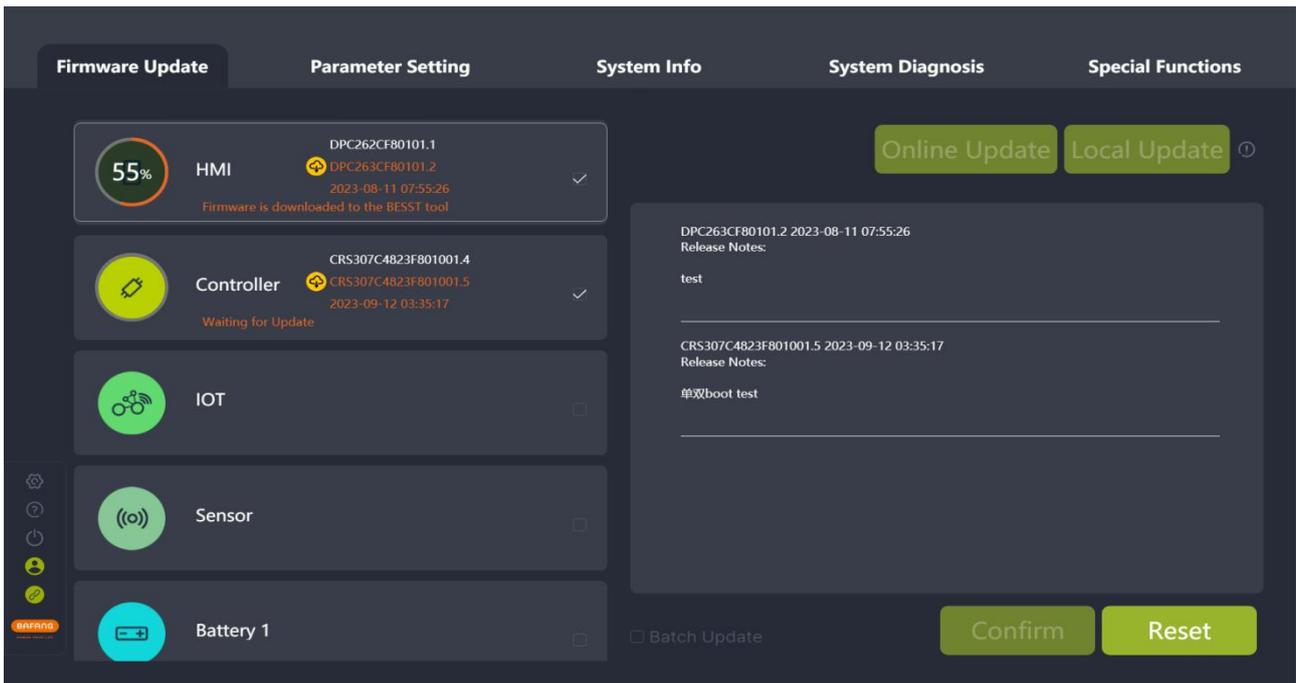


Fig. 4-15 One-click update

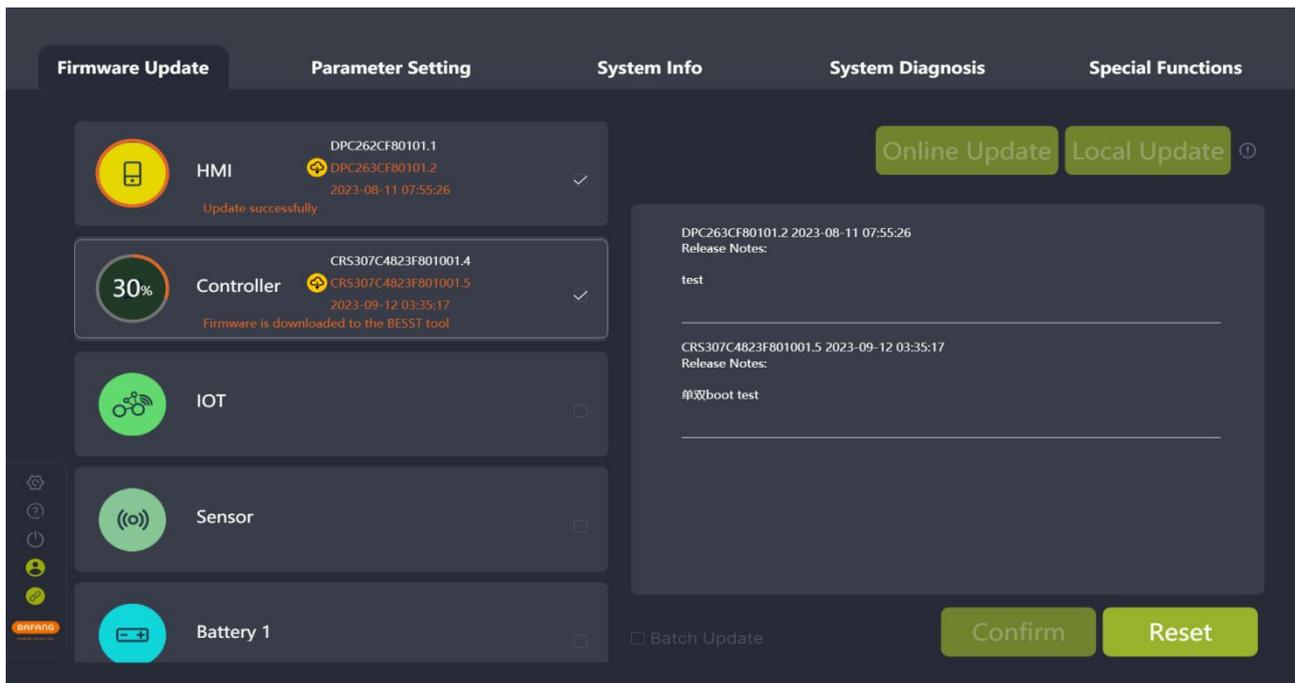


Fig. 4-16 One-click update

5 Parameter Setting

The parameter setting module mainly consists of parameters reading and setting, parameters resetting and parameter configuration files importing and exporting.

BESST Pro displays different interfaces depending on the actual connected products.

Connect a general product: You can read, set, import, and export the basic information (Speed Limit, Wheel Diameter, Circumference), Speed Limit %, Max. Power, Acceleration, and Startup Angle of the product (Fig. 5-1).

Connect an interactive product: You can read, set, reset, import, and export the basic information (Speed Limit, Wheel Diameter, Circumference), Speed Limit %, Assistance %, Max. Power, Acceleration, Startup Angle, PAS Curves, and Start Ramp of the product (Fig. 5-2).

To comply with legal requirements, the upper limit of the speed limit is automatically changed according to the country/region of the account.

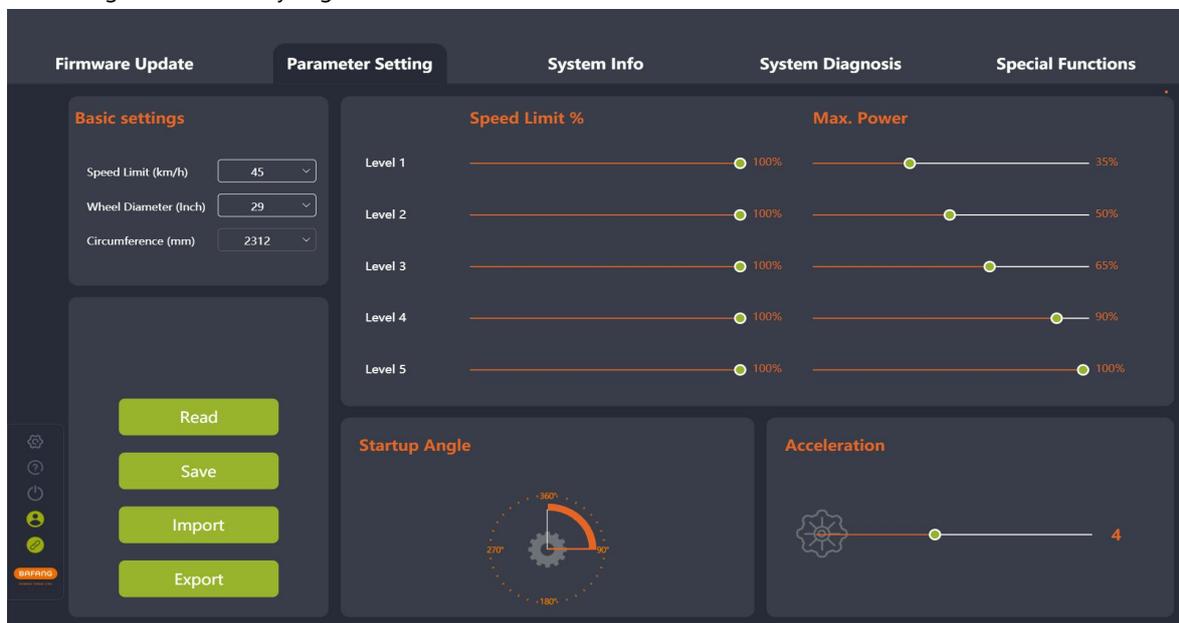


Fig. 5-1 General product parameter setting

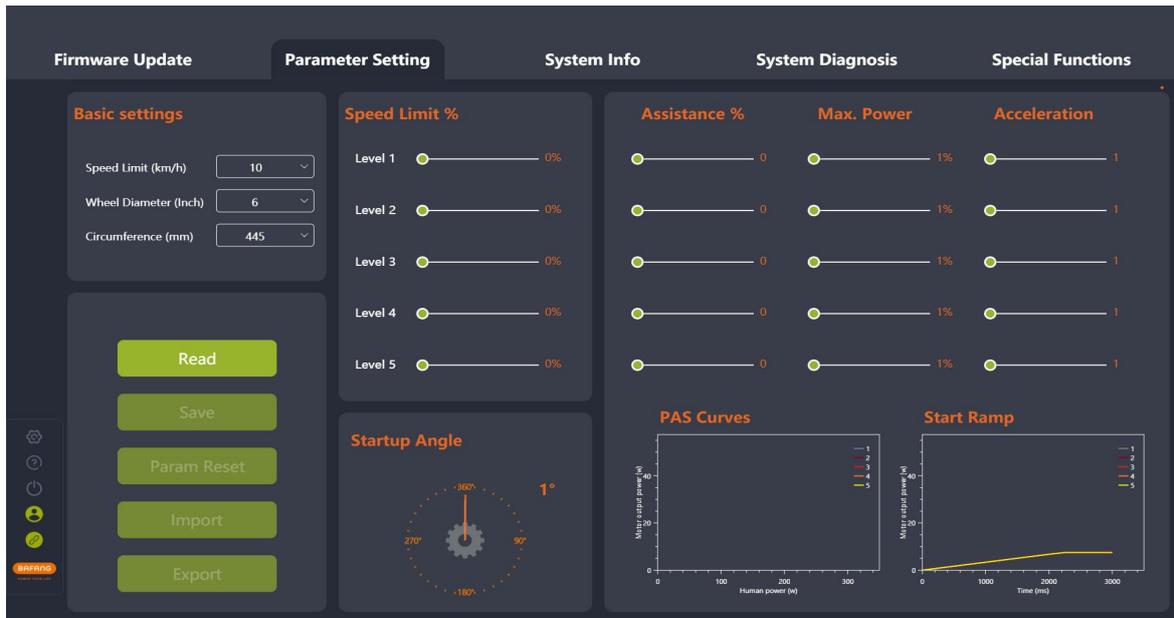


Fig. 5-2 Interactive product parameter setting

5.1 General Product Parameters

This interface displays 4 parameters: Speed Limit %, Max. Power, Startup Angle, and Acceleration. They can be adjusted by pulling the slider or rotating the pointer.

The support level (sliders) displayed by the BESST Pro is the same as the HMI's support level.

Speed Limit % is used to adjust the power-assisted speed of different levels to enrich the feeling of riding. The smaller the value, the speed of that support level will be lower.

Max. Power indicates the maximum power output of the motor. The slider on the left means slow; the slider on the right means high. It requires high-level value \geq low-level value.

Startup Angle indicates the crank rotation angle before the motor starts the power assisting. It can adjust the angle of rotation of the pedal from 0 speed to the power assistance being turned on. The minimum starting angle may vary according to the actual product. Adjust the minimum startup angle based on the actual product.

Acceleration determines the time before the system reaches the maximum power assistance. The larger the value, the shorter the time. The slider on the left means slow; the slider on the right means fast.



Fig. 5-3 General product

5.1.1 Read Parameters

- (1) Check whether the BESST Tool is well connected to the controller, and click "Read".
- (2) Each parameter in the interface is displayed as a number and slider (Fig.5-4).

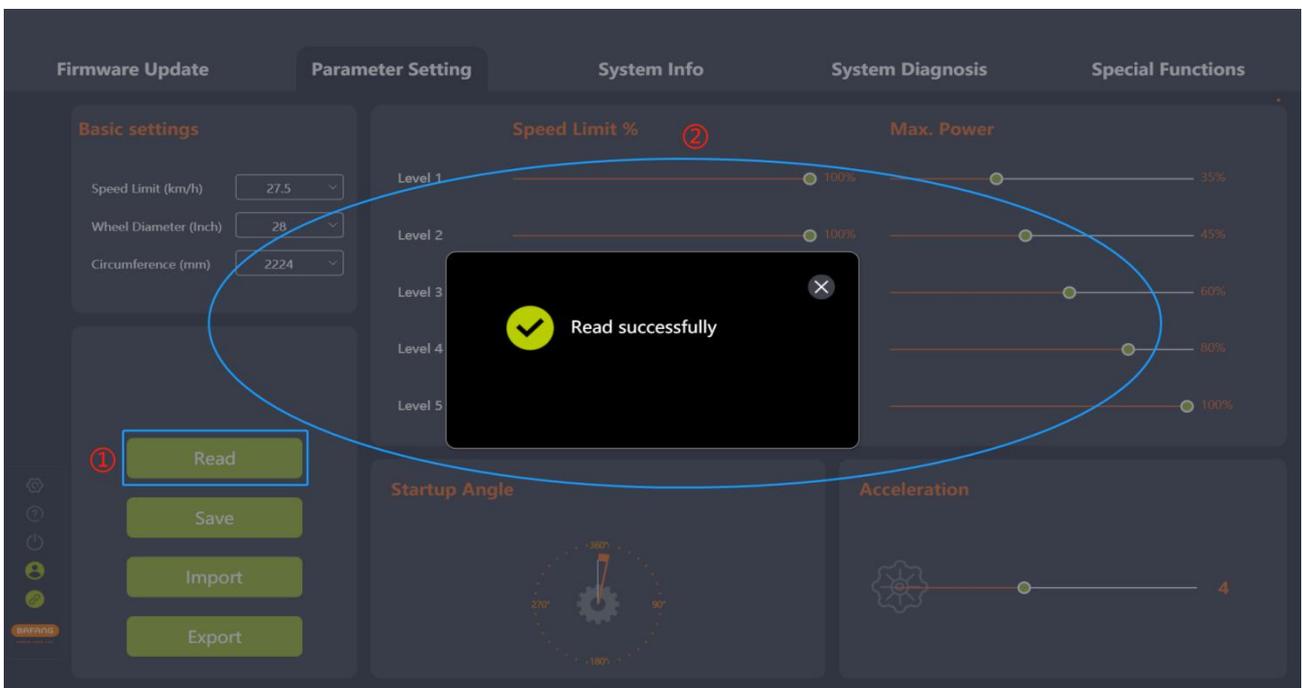


Fig. 5-4 Read

5.1.2 Set Parameters

The parameters of the controller can be adjusted only when the controller supports function.

- (1) After reading successfully, adjust the parameters on the right side by pulling the slider.
- (2) After adjusting, click "Save" to save the new parameters to the controller.
- (3) If you are not logged in, the "Login" interface will pop up, prompting you to log in (Fig.5-5). Note: Parameter setting is not available without logging in.
- (4) After logging in, you can set parameters (Fig.5-6).

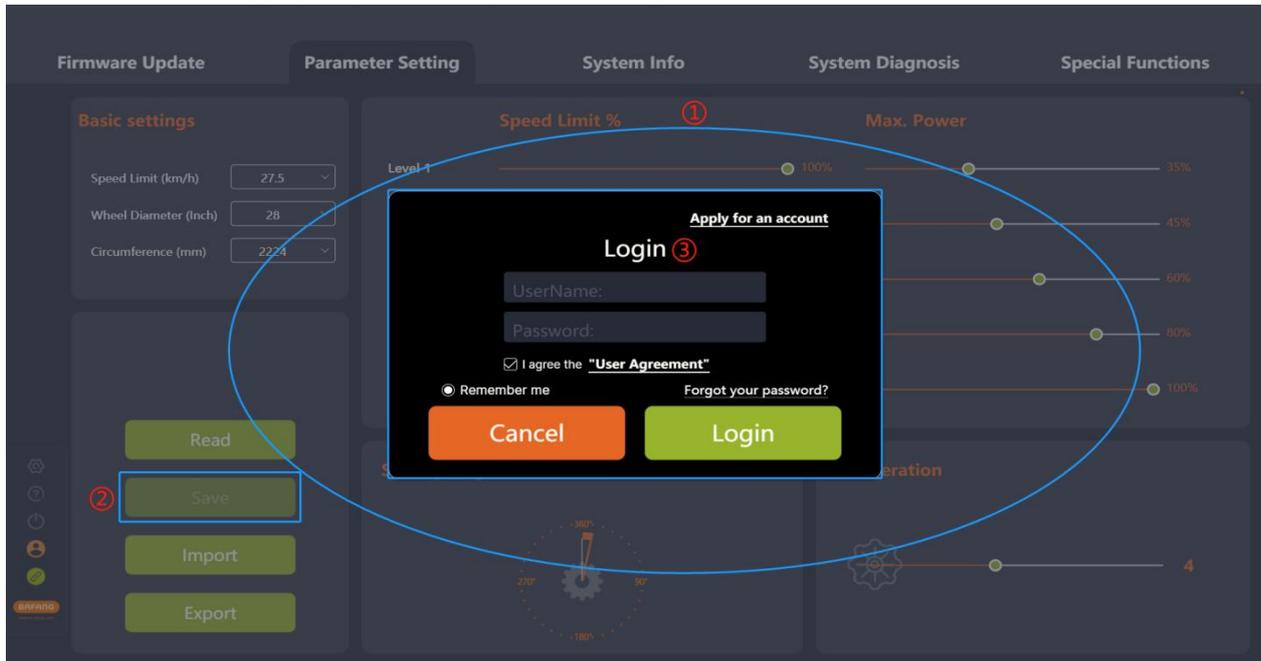


Fig. 5-5 Login

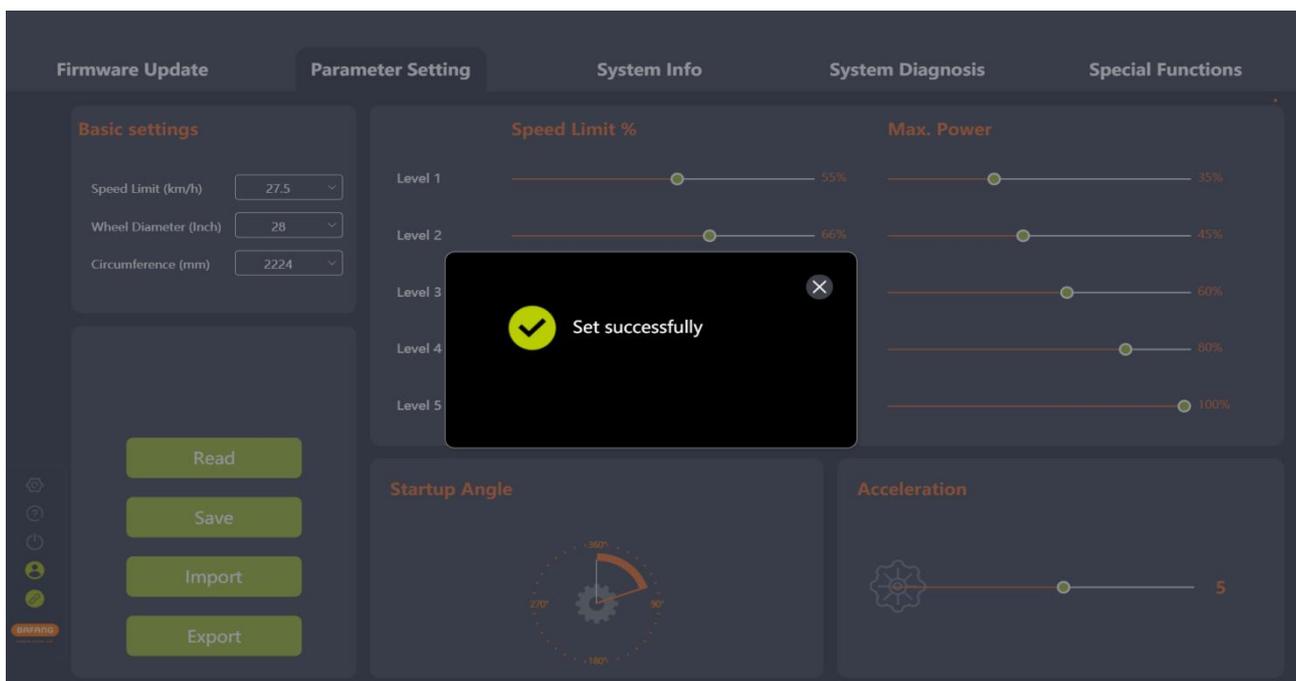


Fig. 5-6 Set parameters

5.1.3 Import Parameter Configuration Files

- (1) If you want to import the previously generated parameter configuration file (XML format) to the controller, click "Import". If you are not logged in, the "Login" interface will pop up, prompting you to log in (Fig.5-7).
- (2) Validation rules: The hardware version of the imported controller and the hardware version of the controller in the parameter configuration file shall be consistent. If not consistent, a prompt will be given and the importing will fail.
- (3) Select the local parameter configuration file.
- (4) Click "Open".

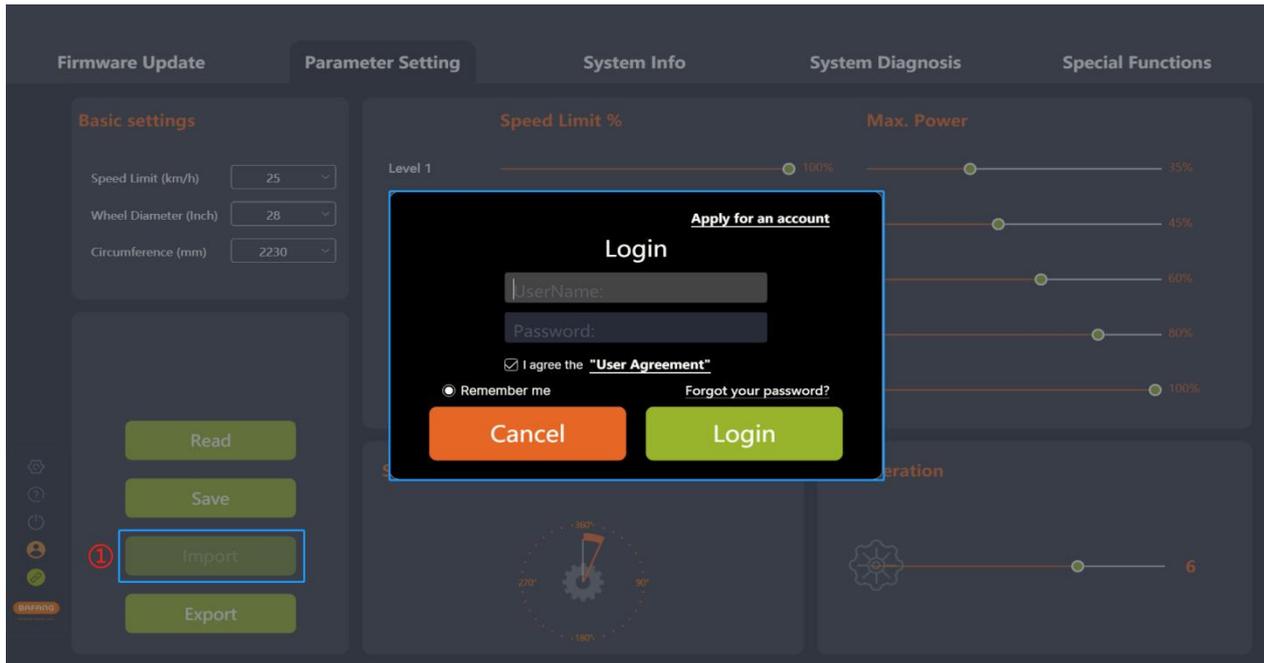


Fig. 5-7 Import

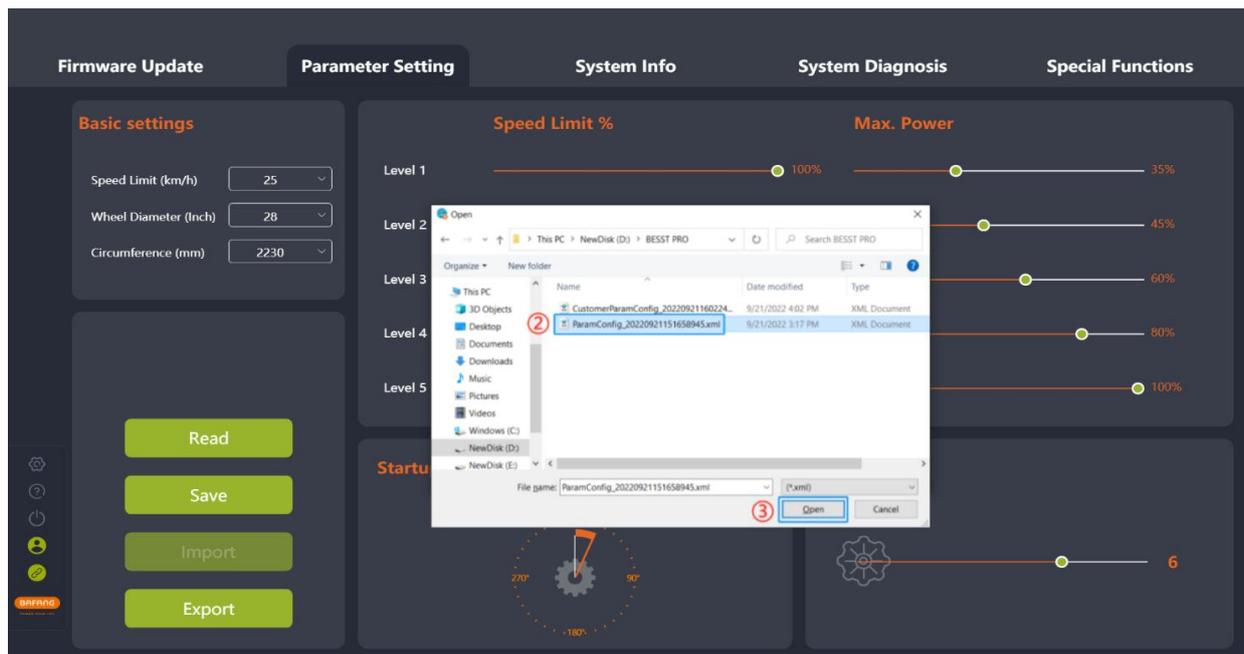


Fig. 5-8 Import

5.1.4 Export Parameter Configuration Files

- (1) Click "Export". If you are not logged in, the "Login" interface will pop up, prompting you to log in (Fig.5-9).
- (2) Export the configuration information on the parameter interface and the controller hardware version (for importing and verification) to a file and save it locally. The path can be chosen independently and the file name can be edited, e.g. ParamConfig_20220922094143245.xml (Fig. 5-10).

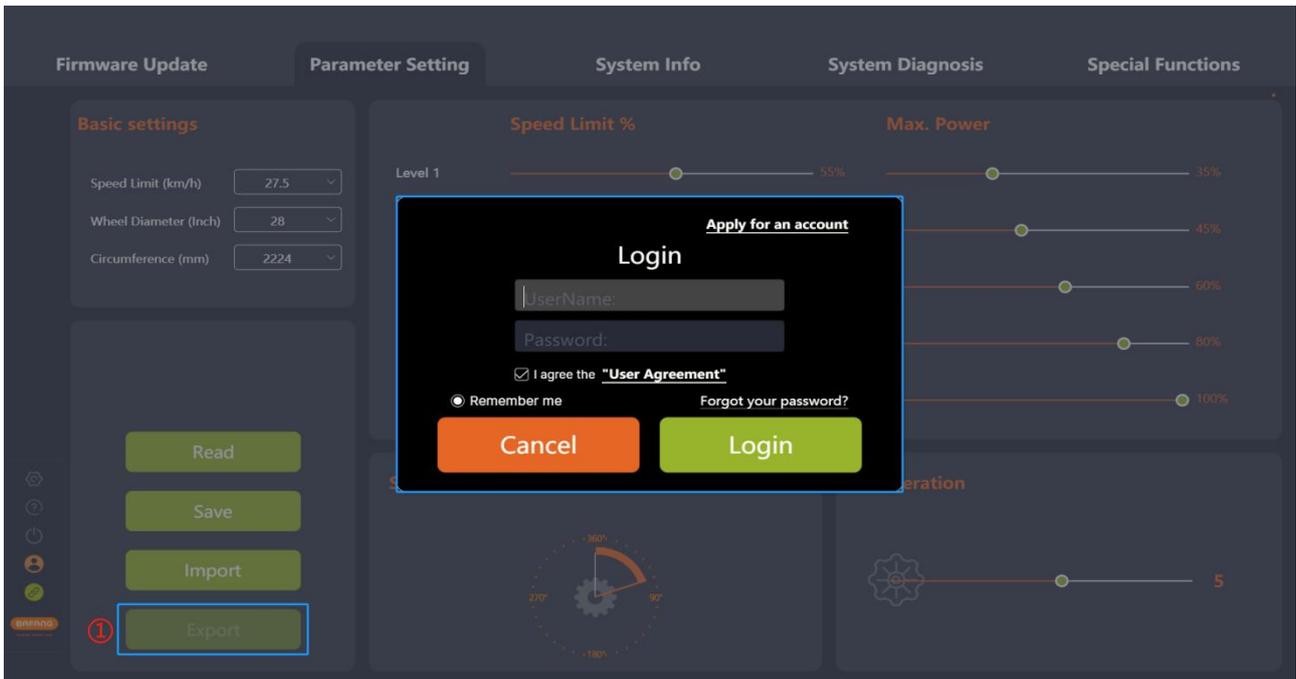


Fig. 5-9 Export

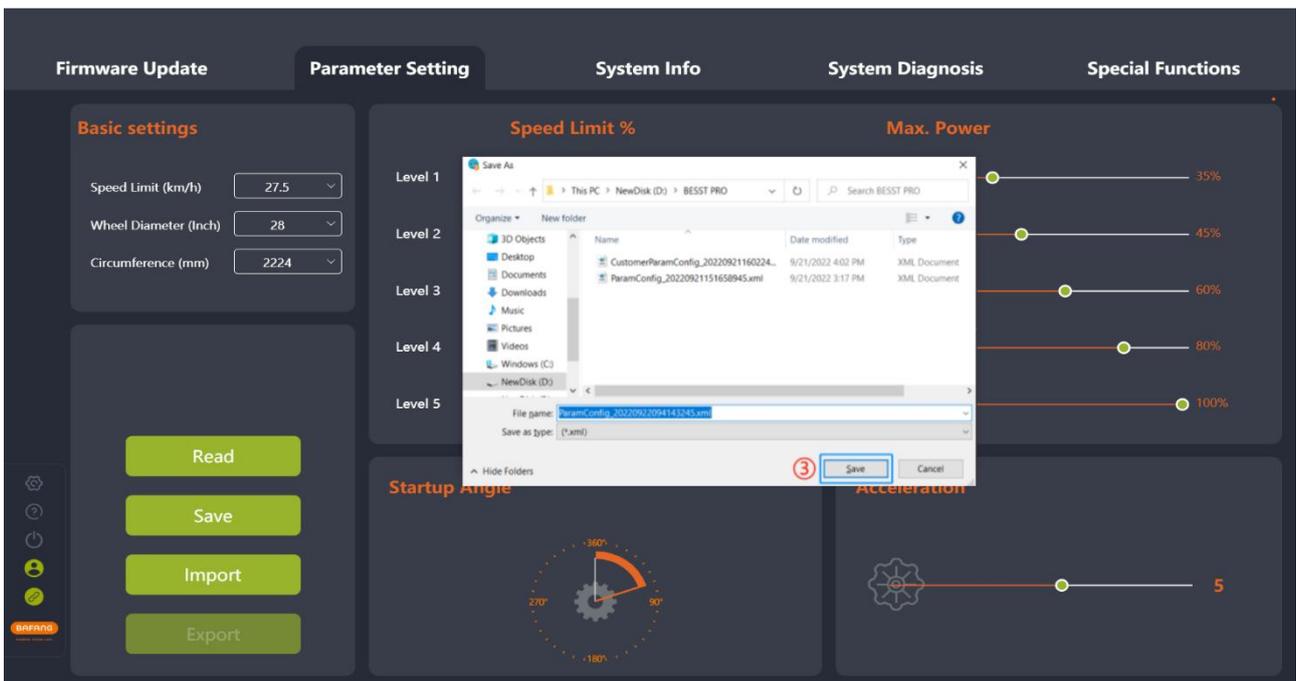


Fig. 5-10 Export

5.2 Interactive product

Basic parameters (Speed Limit, Wheel Diameter, Circumference), Speed Limit %, Assistance %, Max. Power and Startup Angle can be adjusted by pulling sliders. PAS Curves can be generated by adjusting the Assistance % and Max. Power. Start Ramp can be generated by adjusting the Max. Power and Acceleration.

The levels (sliders) displayed by the BESST Pro program are consistent with the levels on the HMI.

Speed Limit % is used to adjust the power-assisted speed of different levels to enrich the feeling of riding. The smaller the value, the speed of that support level will be lower. It requires high-level value \geq low-level value.

Assistance % is the motor output power / human power. The larger the value, the powerful the power assistance.

Max. Power is used to adjust the percentage of current limiting for different levels. The smaller the value, the weaker the power in the current level and the more power efficient. It requires high-level value \geq low-level value.

Acceleration determines the time before the system reaches the maximum power assistance. The larger the value, the shorter the time. The slider on the left means slow; the slider on the right means fast. It requires high-level value \geq low-level value.

Startup Angle indicates the crank rotation angle before the motor starts the power assisting. It can adjust the angle of rotation of the pedal from 0 speed to the power assistance being turned on. The minimum starting angle may vary according to the actual product. Adjust the minimum startup angle based on the actual product.

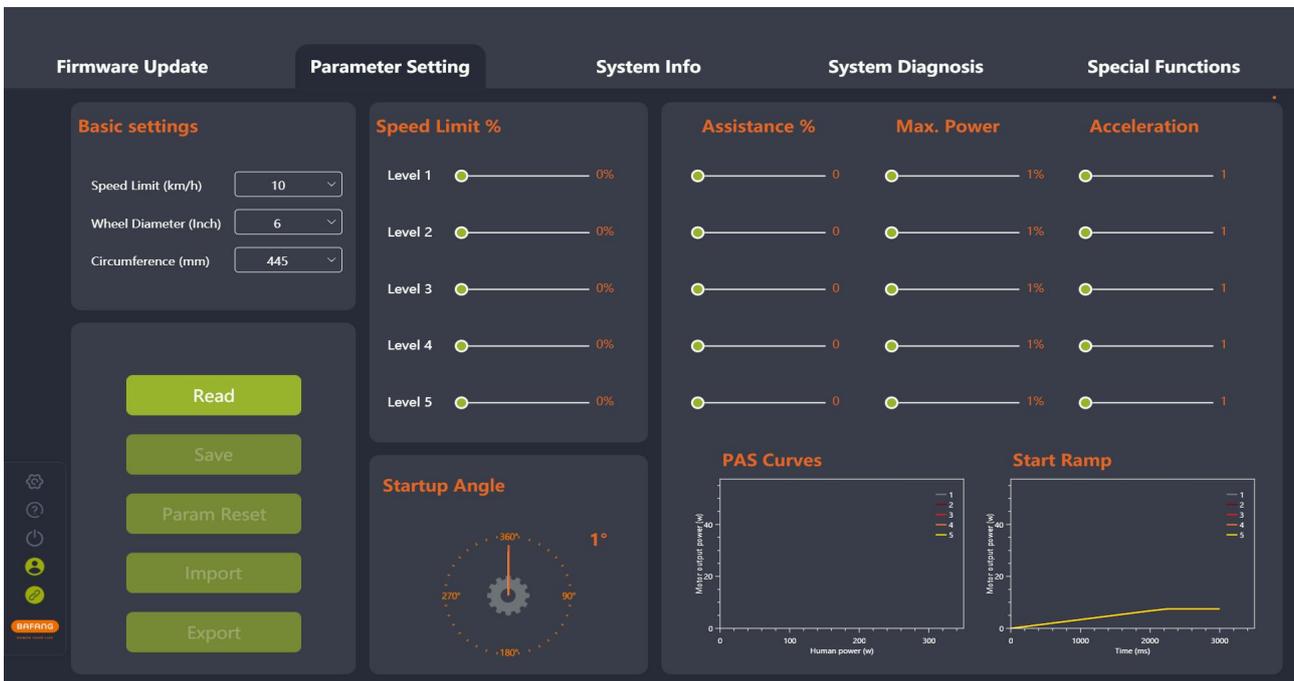


Fig. 5-11 Interactive product

5.2.1 Read Parameters

- (1) Check whether the BESST Tool is well connected to the controller, and ensure that the controller is well powered. Click "Read".

(2) After reading successfully, each parameter is displayed as a number, slider etc. (Fig.5-12).

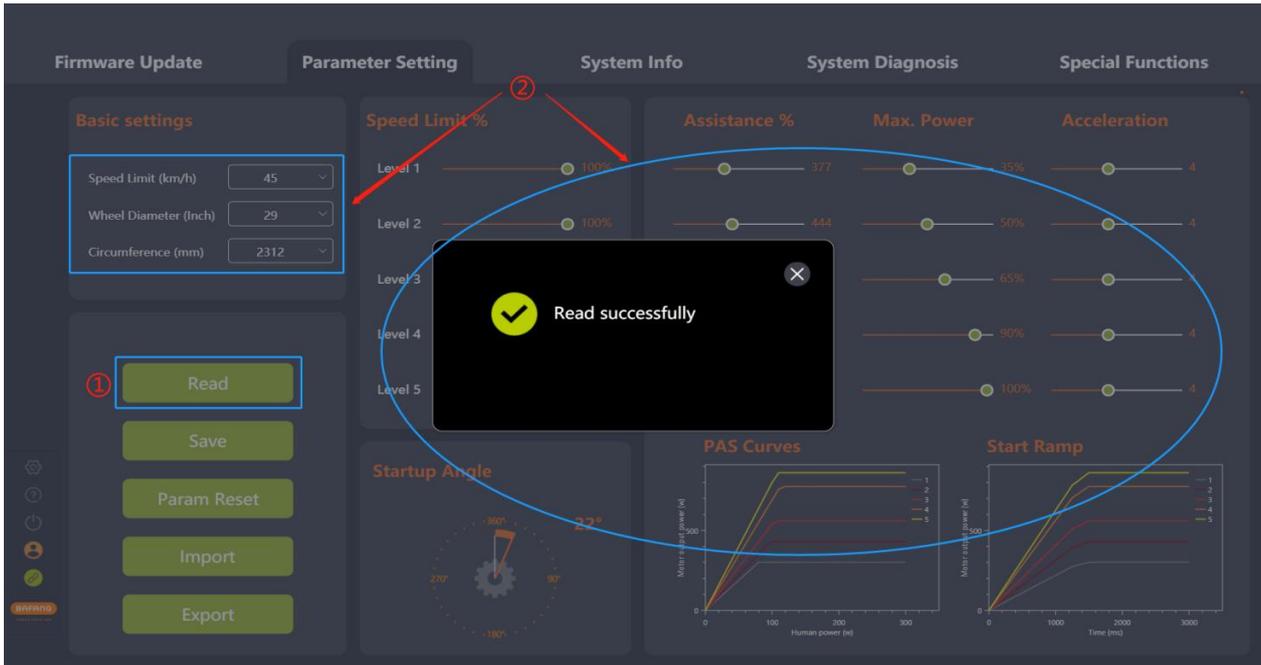


Fig. 5-12 Read

5.2.2 Set Parameters

The parameters of the controller can be adjusted only when the controller supports function.

- (1) After reading successfully, adjust the parameters on the right side by pulling the slider.
- (2) After adjusting, click "Save" to save the new parameters to the controller.
- (3) If you are not logged in, the "Login" interface will pop up, prompting you to log in (Fig.5-13).
Note: Parameter setting is not available without logging in.
- (4) After logging in, you can set parameters (Fig.5-14).

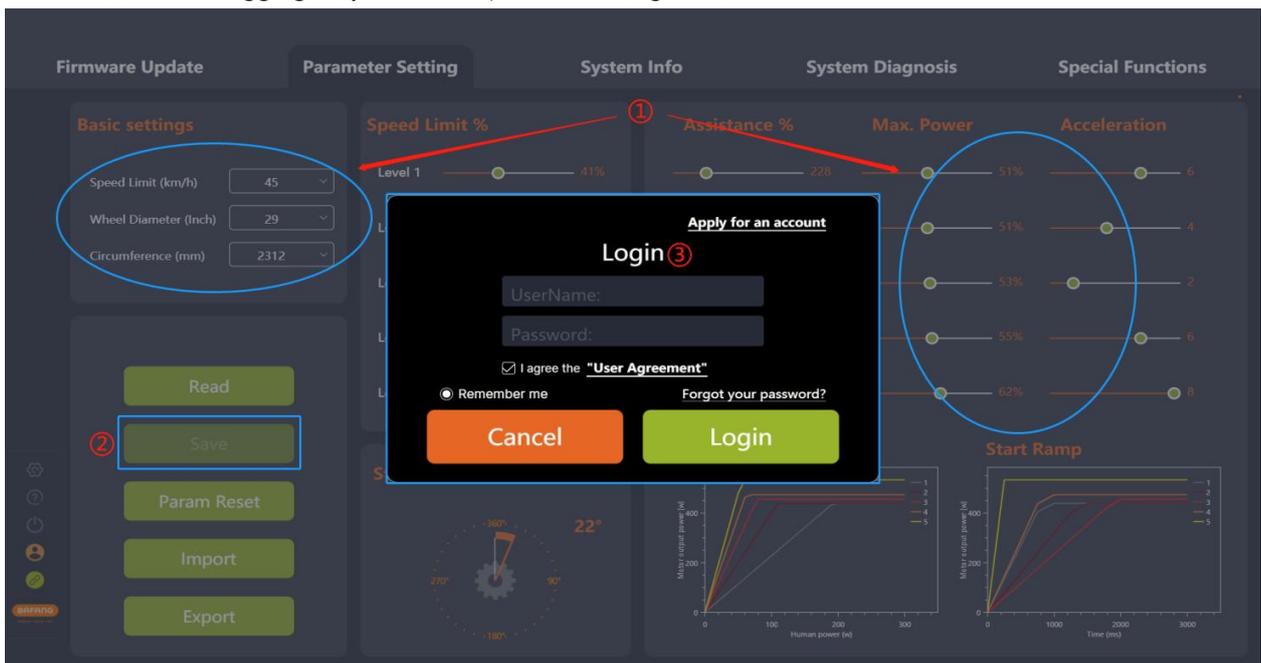


Fig. 5-13 Login

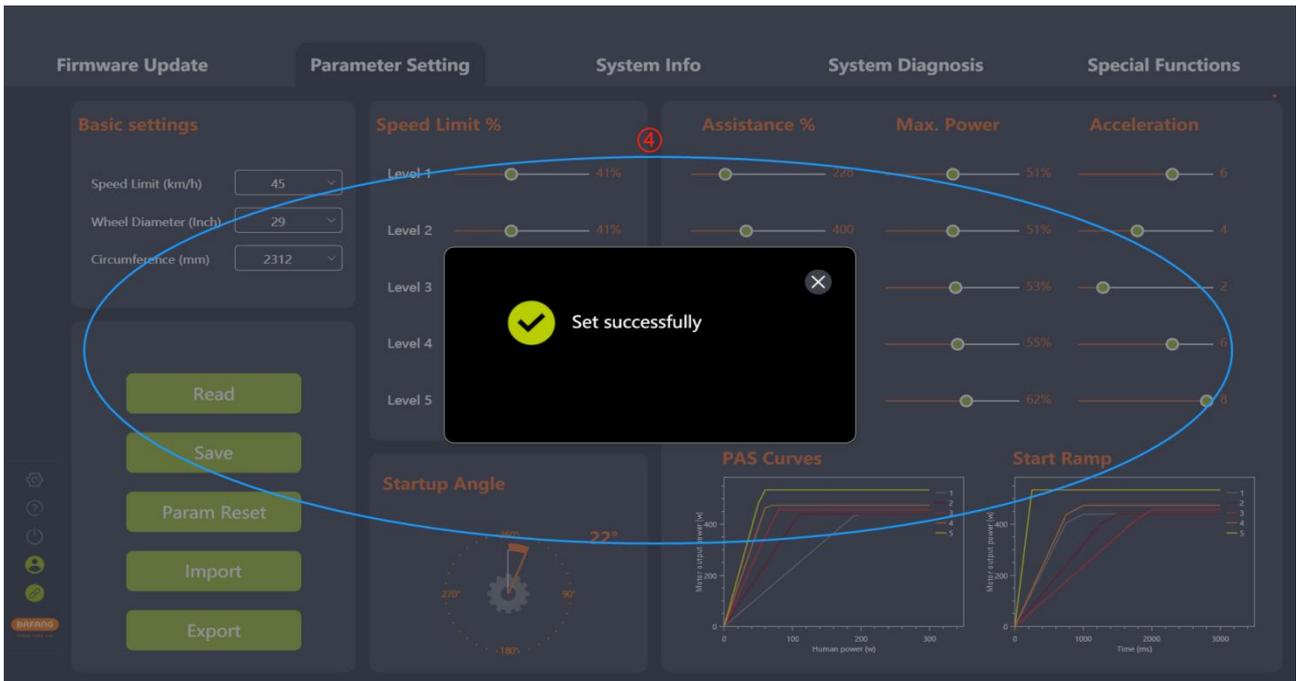


Fig. 5-14 Set parameters

5.2.3 Param Reset

- (1) Check whether the BESST Tool is well connected to the controller, and click "Param Reset". If you are not logged in, the "Login" interface will pop up, prompting you to log in (Fig.5-15).
- (2) The parameters are reset to default values.

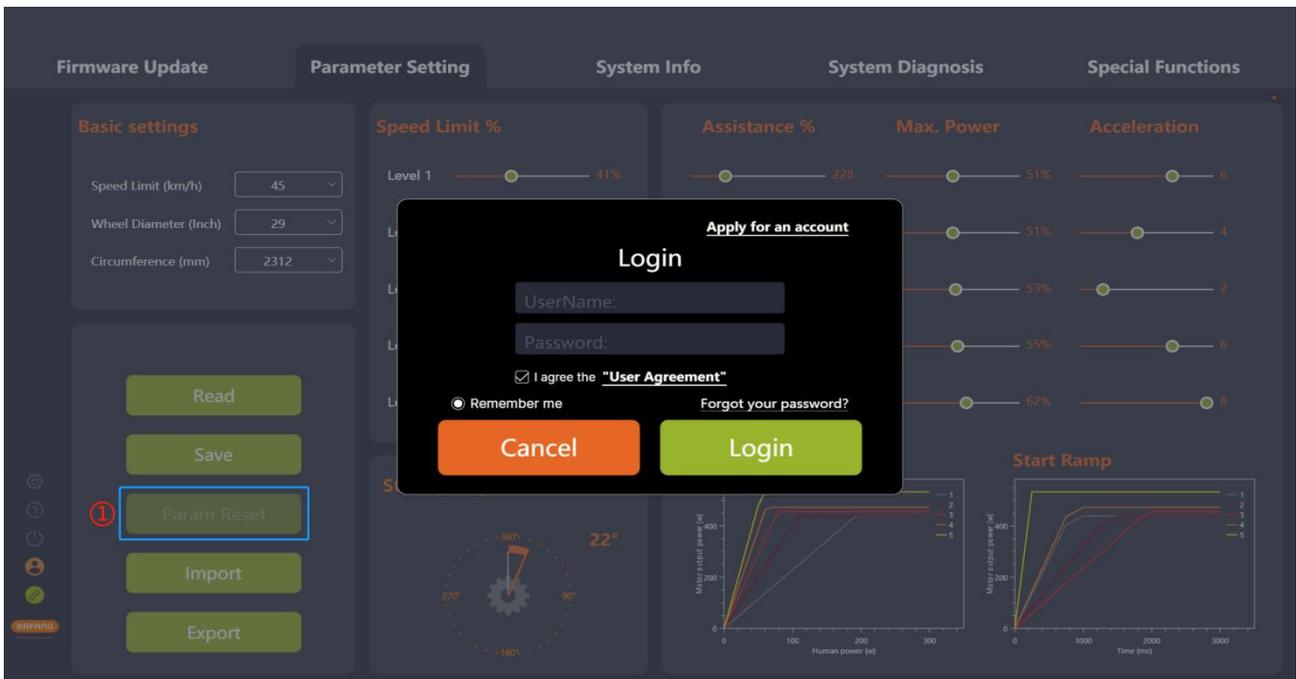


Fig. 5-15 Param reset

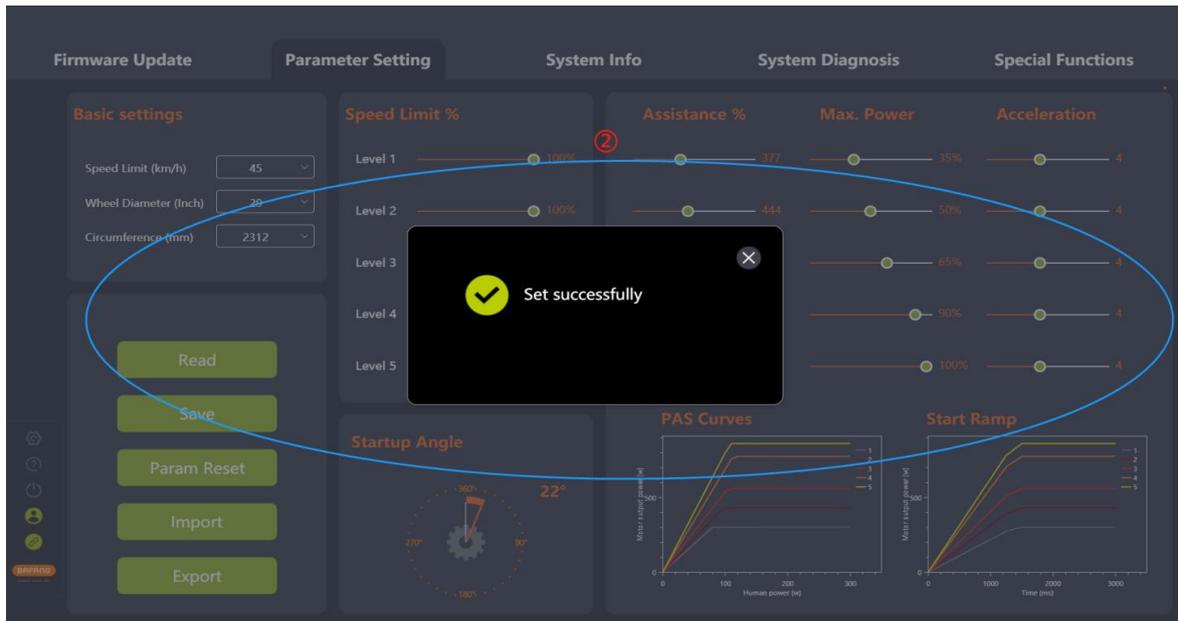


Fig. 5-16 Param reset

5.2.4 Import Configuration Files

- (1) If you want to import the previously generated configuration file (XML format) to the controller, click "Import". If you are not logged in, the "Login" interface will pop up, prompting you to log in (Fig.5-17).
- (2) Validation rules: The hardware version of the imported controller and the hardware version of the controller in the parameter file shall be consistent. If not consistent, a prompt will be given and the importing will fail.
- (3) Select the local parameter configuration file.
- (4) Click "Open".

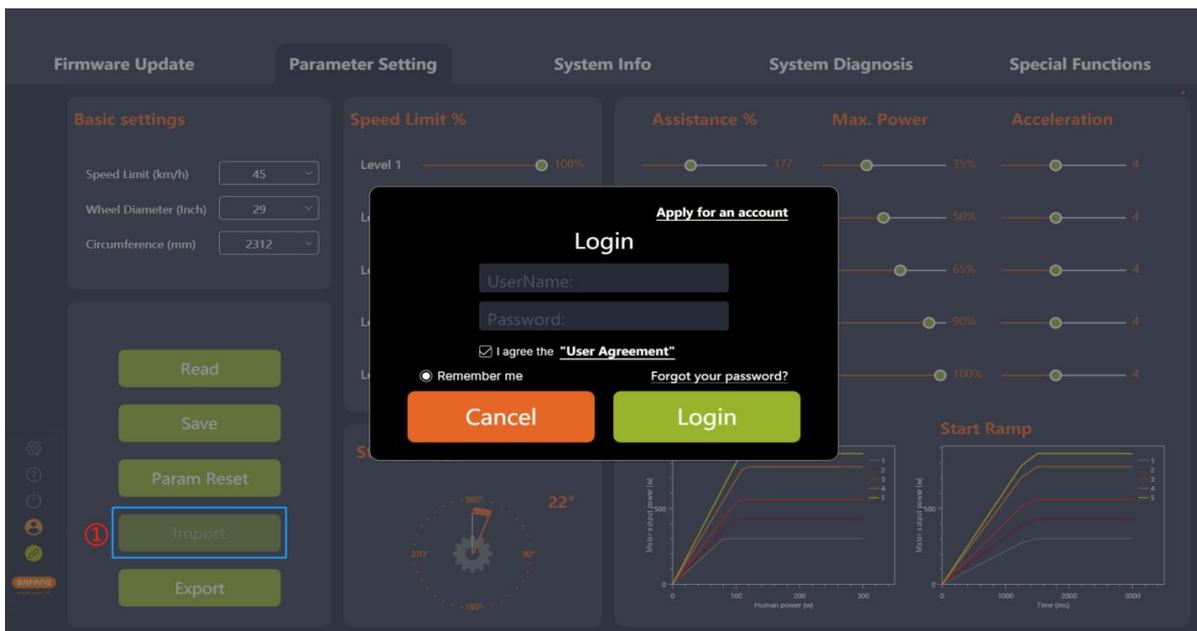


Fig. 5-17 Param reset

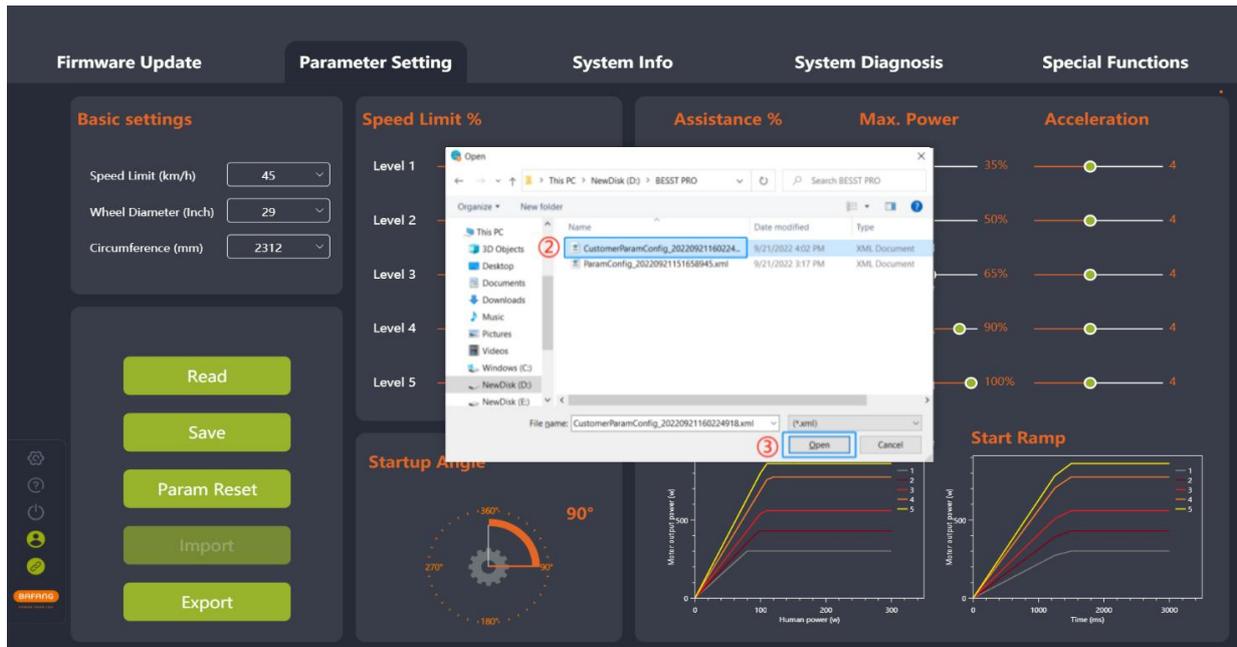


Fig. 5-18 Import

5.2.5 Export Configuration Files

- (1) Set the parameters.
- (2) Click "Export". If you are not logged in, the "Login" interface will pop up, prompting you to log in (Fig.5-19).
- (3) Export the configuration information on the parameter interface and the controller hardware version (for importing and verification) to a file and save it locally. The path can be chosen independently and the file name can be edited, e.g. PCustomerParamConfig_20220922095254112.xml (Fig. 5-20).

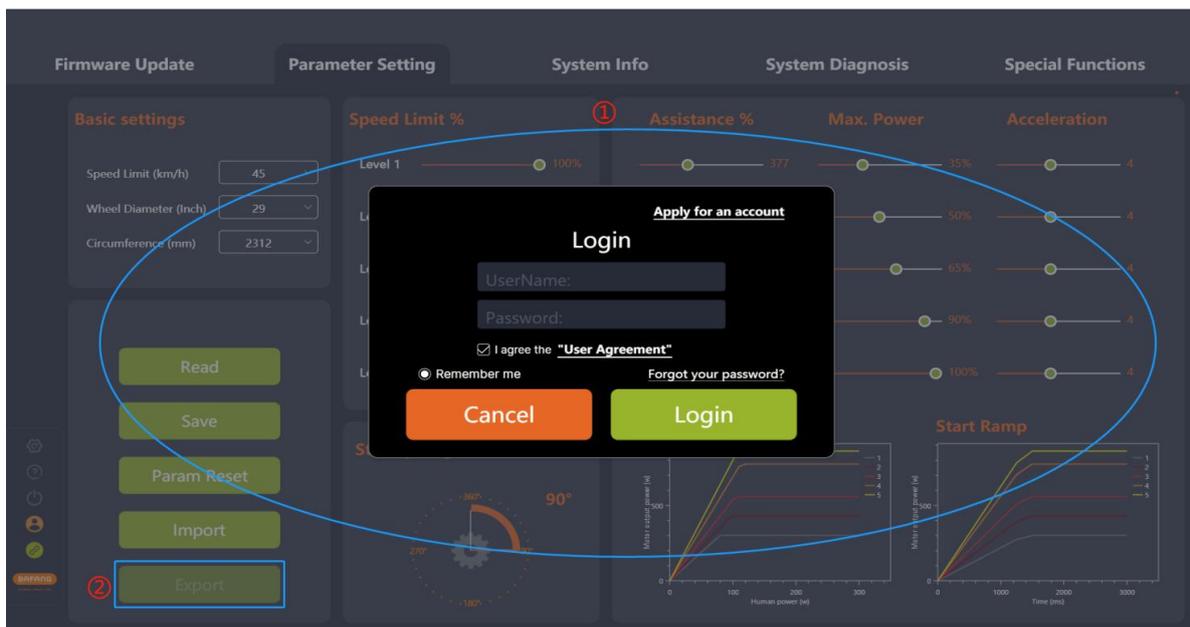


Fig. 5-19 Export

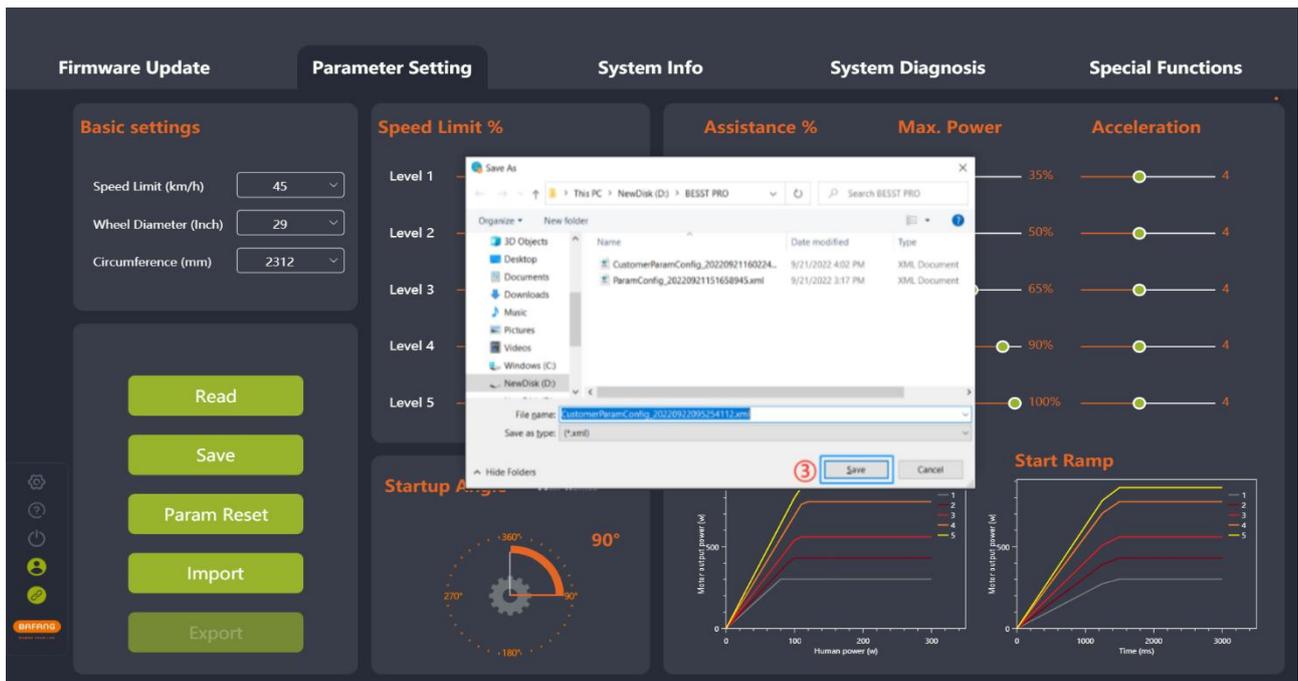


Fig. 5-20 Export

6 System Info

The system info module mainly includes reading component system info, generating riding records, and creating diagnostics reports, and the readable components include HMIs, controllers, batteries, and IOT.

6.1 Component Info

- (1) Select "System Info" to enter the interface to read information about the component(s).
- (2) Select the component(s) to be read.
- (3) Click "Read" to read the information (including SN, model, software version, and hardware version) of the selected components.
- (4) Status determination of the reading:
 - a. Success: "Success" appears when all information (such as model, software version, hardware version, etc.) is not null.

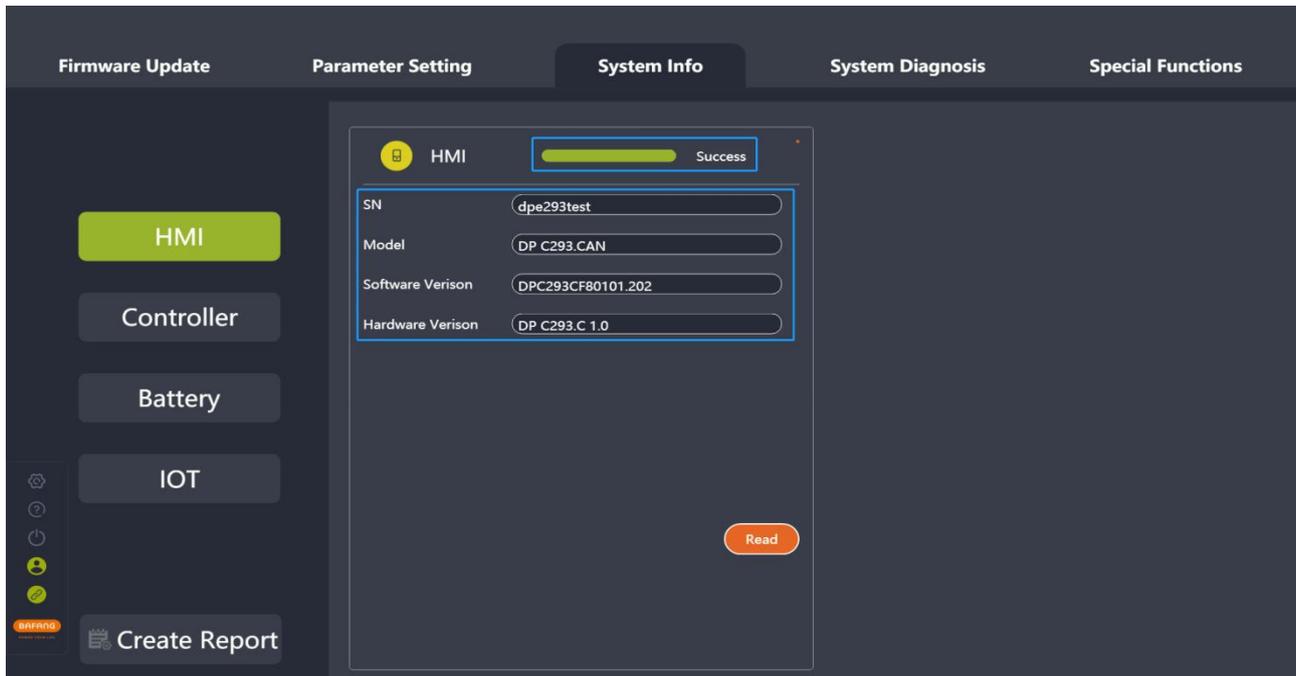


Fig.6-1 Read successfully

b. N/A: If the SN, model, software version, and hardware version are null, the "Result" displays "N/A" and the "Cause" will display "System connection failed". In this case, the current component may be damaged or connected abnormally, please replace or reconnect the component, and read it again.

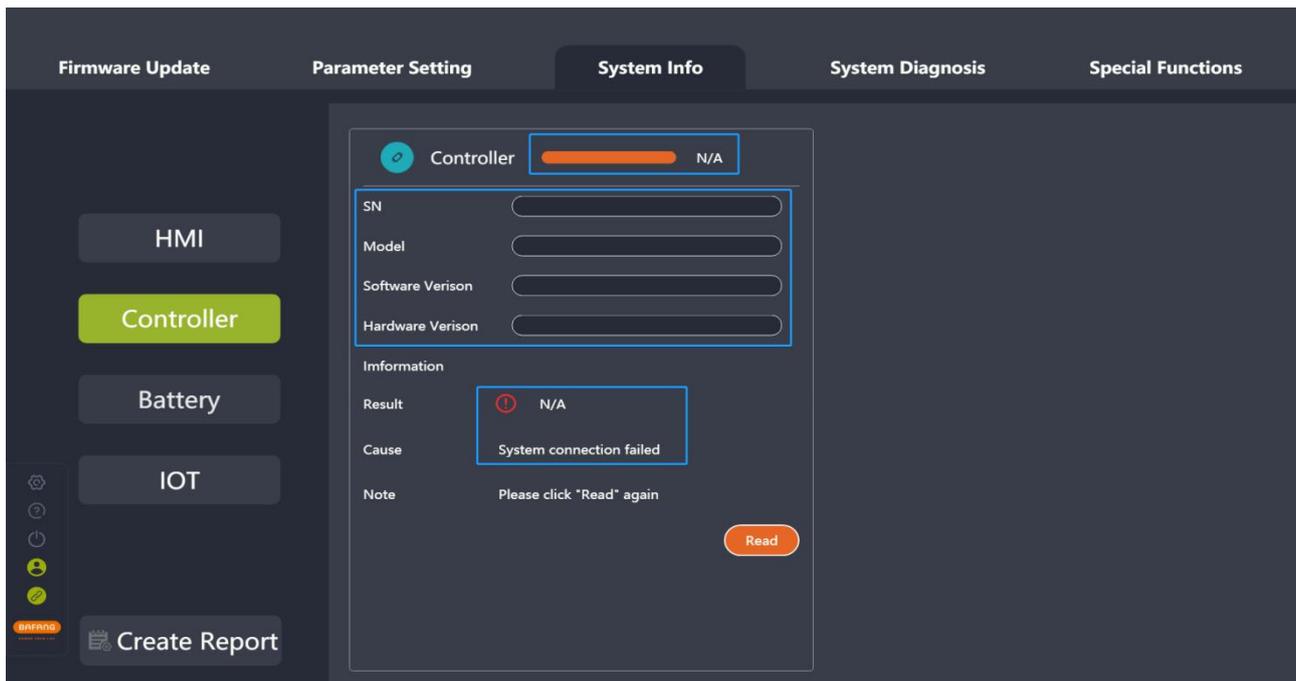


Fig.6-2 N/A

c. Lost: If one or more of the model, software version, or hardware version is null (not all), "Result" will display "Lost", and "Cause" will display "No information was read". In this case, please reconnect the component to the system and read it again.

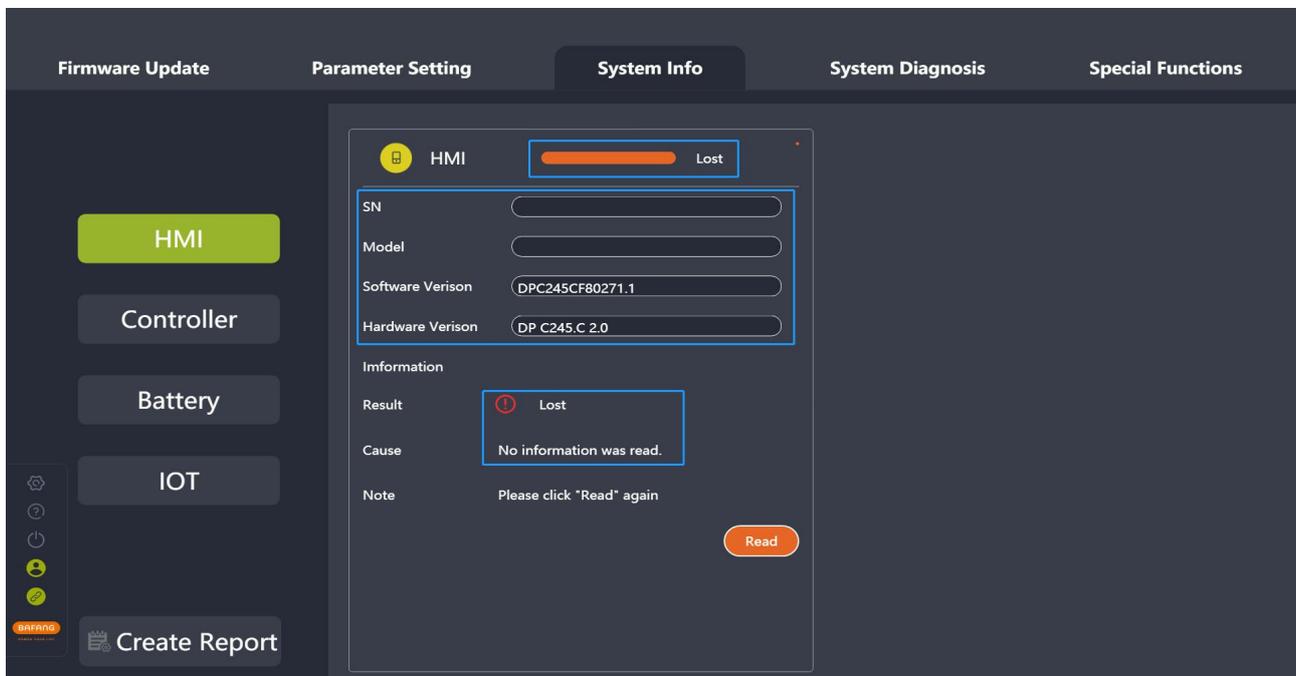


Fig.6-3 Lost

- (5) Click "Create Report" to generate a report and save it locally.

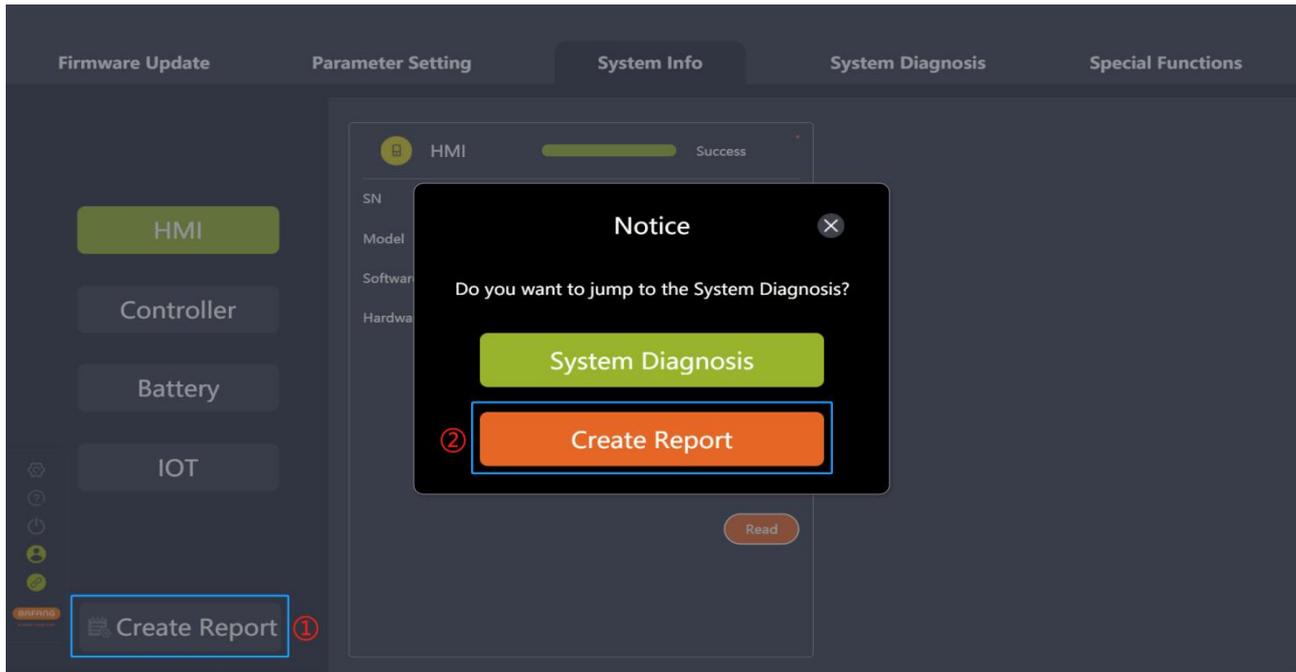


Fig. 6-4 System diagnosis

6.2 Create Report

In both System Info and System Diagnosis, there are function keys to create a report. Upon creating a System Info or System Diagnostics report, you will be prompted whether you want to jump to another item. The generated PDF report can be exported and saved after selecting the save path. The generated report involves the filled-in problem descriptions, inserted pictures, read or written component SNs, and selected errors for each component.

6.2.1 Create Report in the System Info

- (1) Click "Create Report", and a pop-up window will prompt "Do you want to jump to System Diagnosis?" (Fig.6-5).
- (2) For system diagnosis, click "System Diagnosis" to jump to it.
- (3) Click "Create Report".
- (4) Select the local save path.
- (5) Click "Save" to generate a PDF report.

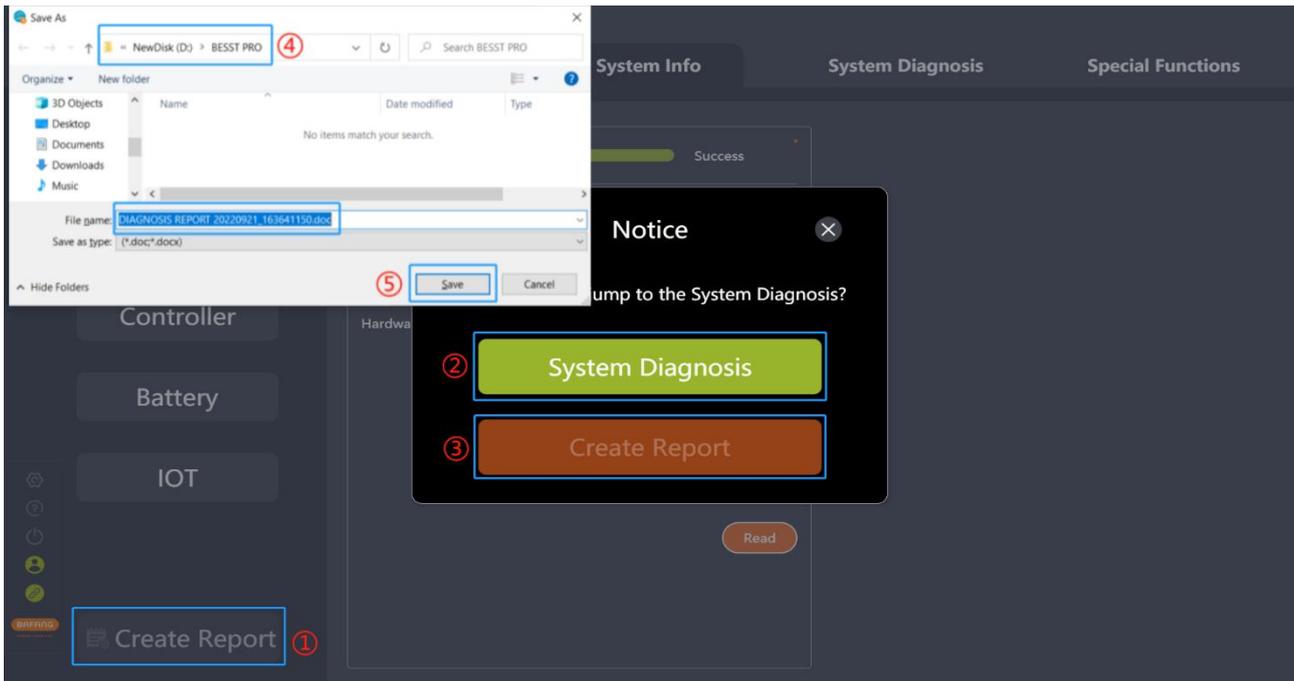


Fig. 6-5 System info interface reports creation

6.2.2 Create Report in System Diagnosis

- (1) Click "Create Report", and a pop-up window will prompt "Do you want to jump to System Info?" (Fig.6-6).
- (2) To read system information, click "System Info" to jump to it.
- (3) Click "Create Report".
- (4) Select the local save path.
- (5) Click "Save" to generate a PDF report.

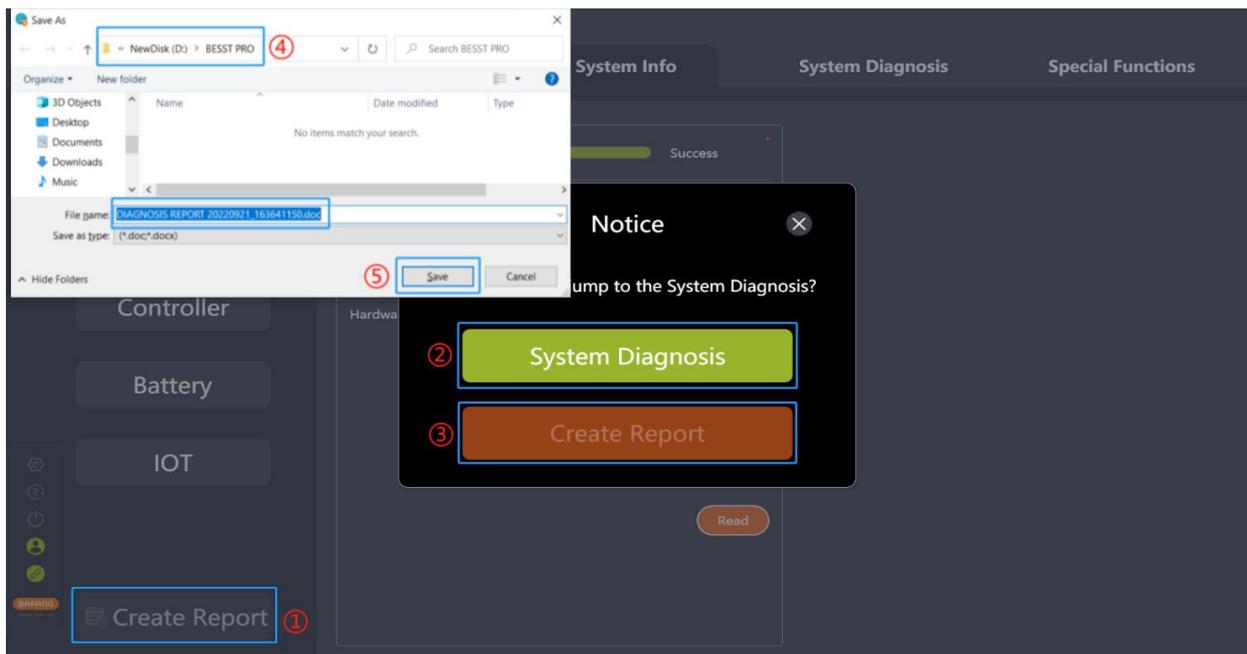


Fig. 6-6 System Diagnosis interface reports creation

7 System Diagnosis

The system diagnosis module includes System Test, Battery Diagnosis, Mechanical Diagnosis, FAQs, and Create Report.

7.1 System Test

The function is used to detect whether the current system components are abnormal functionally. The result can be a reference for maintenance personnel. The steps are as follows:

- (1) Select "System Test" to enter it.
- (2) Click "Select" to select the components to test in the pop-up window and click "Confirm".
- (3) Click "Enter", and the boot animation will play, which prompts that the HMI will be powered off, and if you need to test, manually press the on/off button for more than 3 seconds to restart it.
- (4) Select the components in the component list and follow the instructions on the right side.
- (5) Click "Create Report" to generate a report and save it locally.

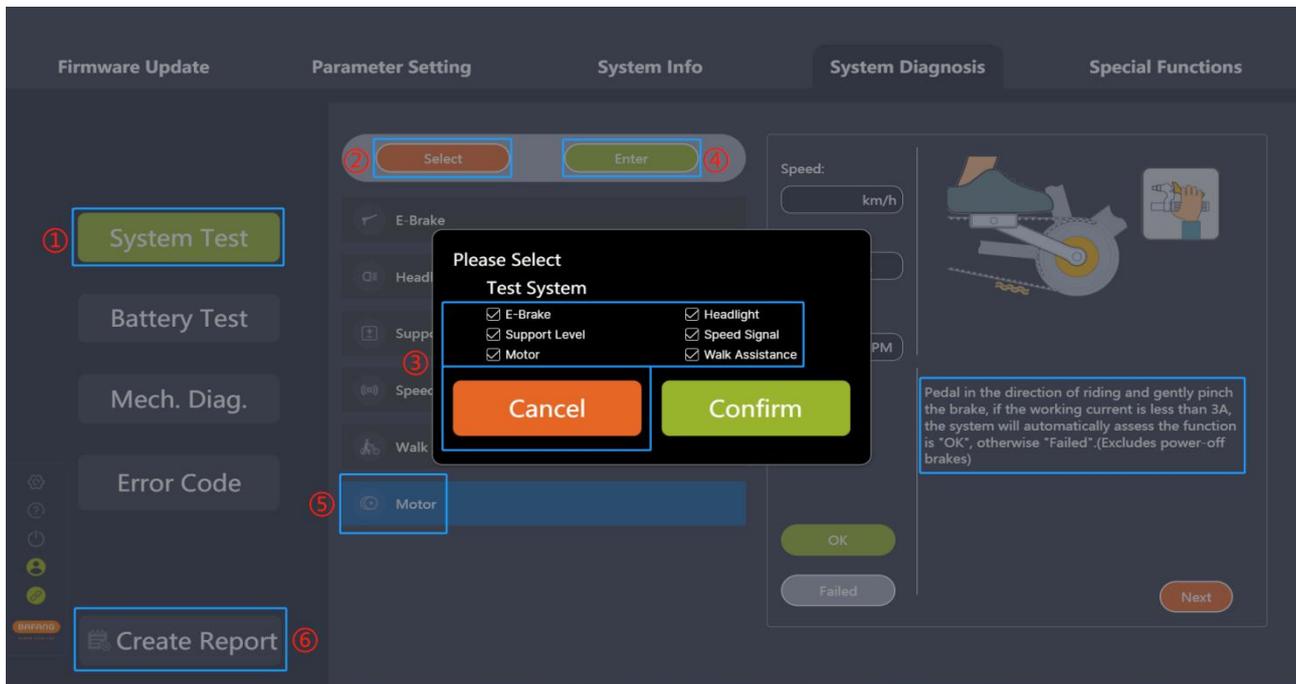


Fig. 7-1 System test

After entering the test mode, if the HMI is off, press and hold the On/Off button on the HMI for more than 3 seconds until the HMI is powered on again to test. The boot animation prompts as shown in the figure:

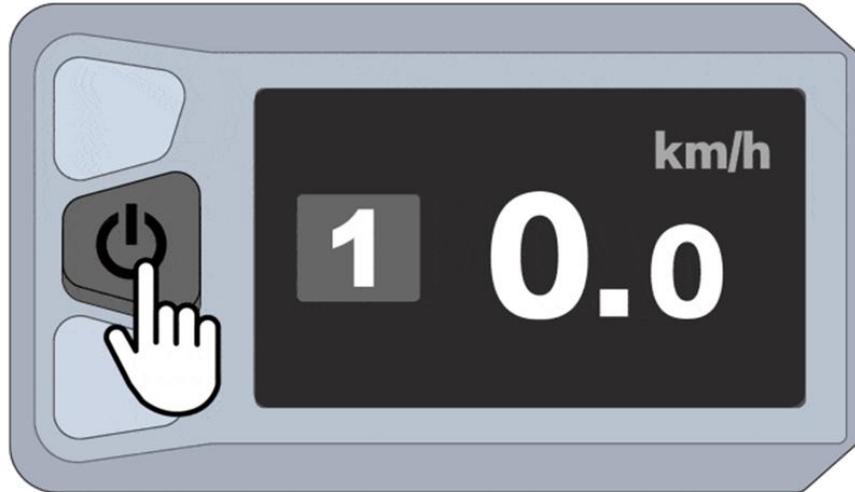


Fig. 7-2 HMI boot animation

If the test is interrupted, please wait for 3 seconds and click "Enter" again to enter the test status, as shown in the figure below:

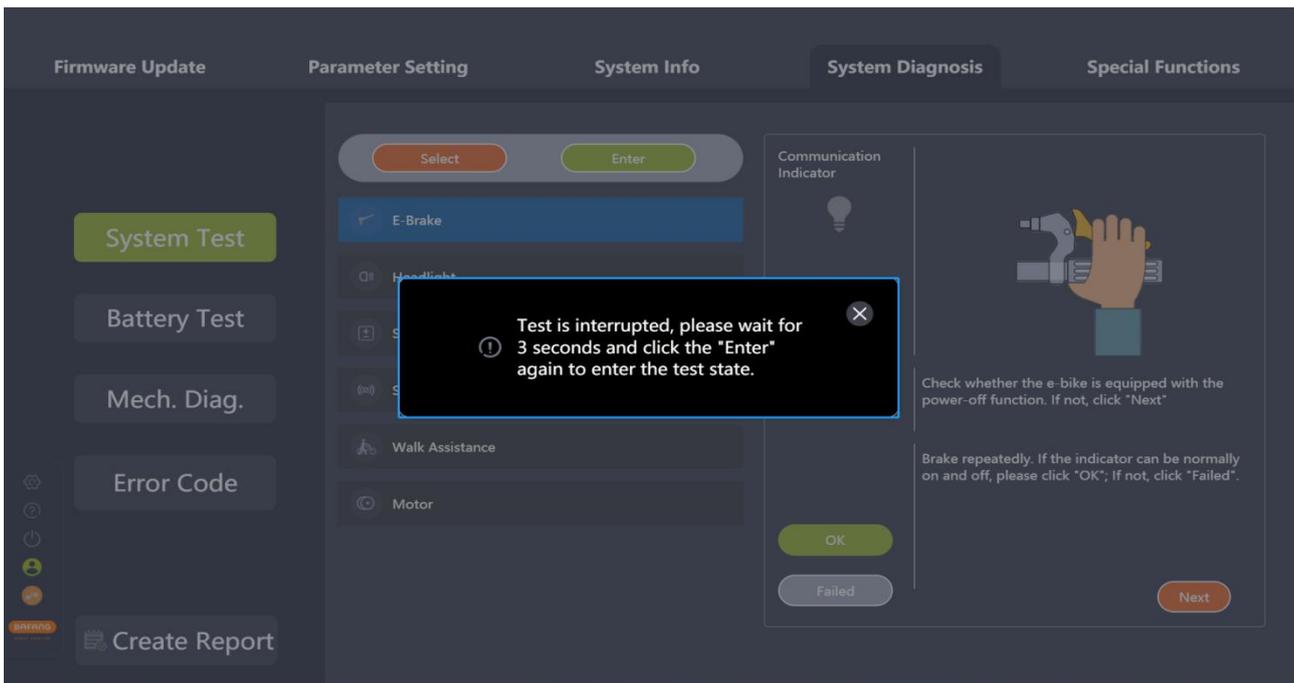


Fig. 7-3 The test is interrupted

7.2 Battery Diagnosis

Before do the diagnosis, connect the battery tester to the BESST Tool.

- (1) Select "Battery Diag." to enter it.
- (2) Click "Start".
- (3) The result and data will be displayed in the format of histograms and texts.

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- (4) Click "Create Report" to generate a report and save it locally.



Fig. 7-4 Battery diagnosis

7.3 Mechanical Diagnosis

When mechanical errors occur in the system, it can be described in words and pictures, and a diagnosis report can be provided to handle or seek technical support. The steps are as follows:

- (5) Select "Mech. Diag." to enter it.
- (6) A problem description of the error function, which is no more than 600 characters, can be provided.
- (7) Pictures (no more than 5 pictures) can be uploaded.
- (8) You can select problems and error codes of each component. The component read successfully in "System Info", whose SN can be get automatically in "Mech. diag.".
- (9) Click "Create Report" to generate a report and save it locally.

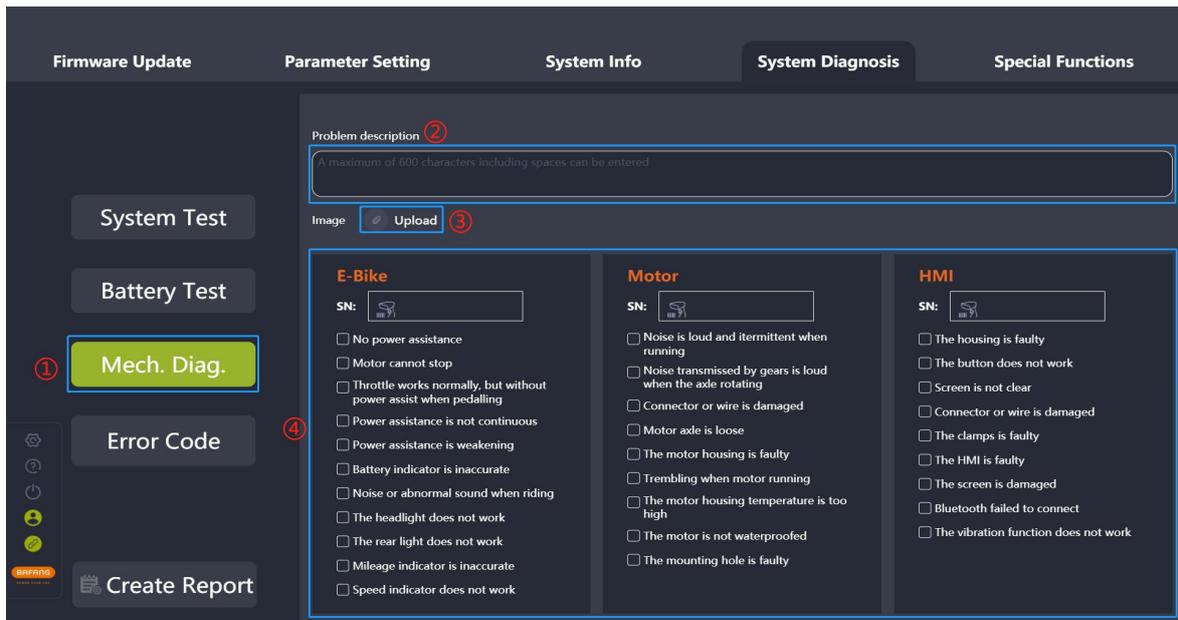


Fig. 7-5 Mechanical Diagnosis

7.4 FAQ

This module involves current and history errors, as well as descriptions and troubleshooting of common error codes.

7.4.1 Current Error

To display the current error, follow the steps below:

- (1) Click "Error Code".
- (2) Click "Current Error".
- (3) The current error code and the corresponding troubleshooting will be shown.

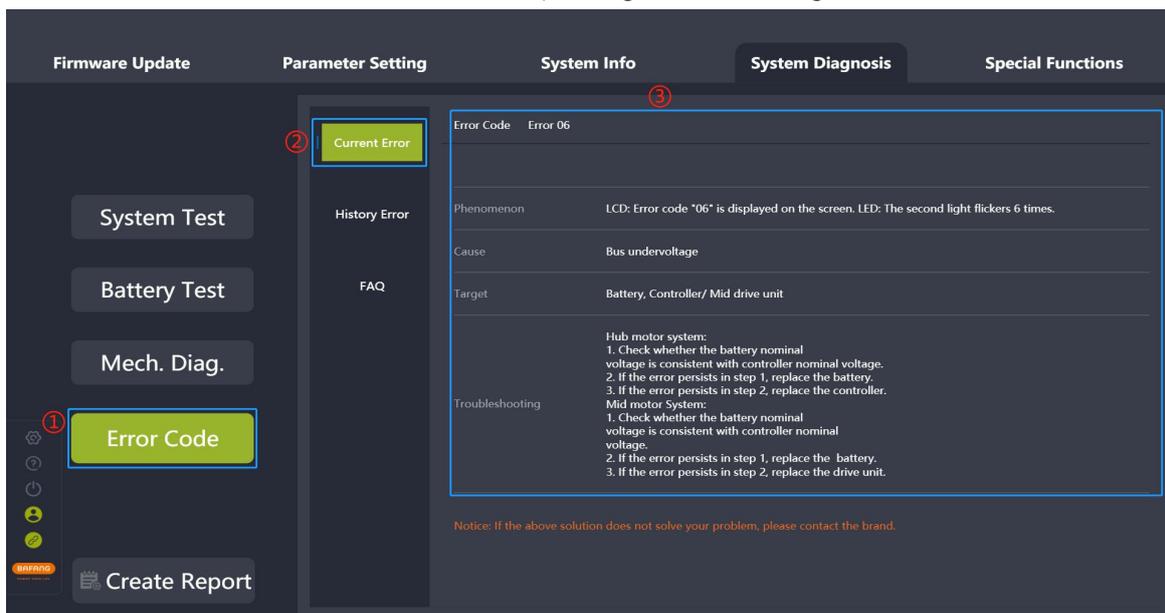


Fig. 7-6 Current error

7.4.2 History Error

Errors that have previously occurred and stored in the HMI will be displayed, and you can clear them.

- (1) Click "Error Code".
- (2) Click "History Error".
- (3) If there are history errors, the error codes and troubleshooting will be displayed. You can click "Clear History" to clear the history error(s).

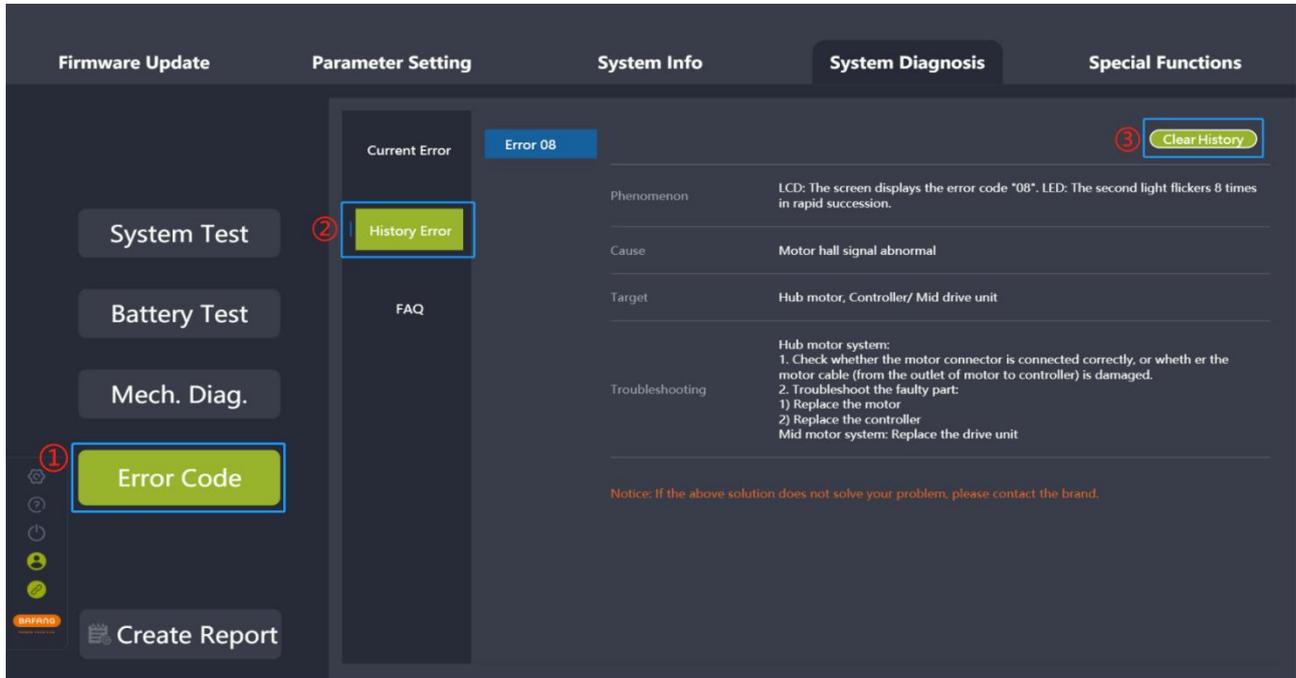


Fig. 7-7 History error

7.4.3 FAQ

Errors with a high frequency of occurrence with descriptions will be displayed.

- (1) Click "Error Code".
- (2) Click "FAQ".
- (3) Select the error code in the drop-down list for details.
- (4) The corresponding description and troubleshooting will be shown.

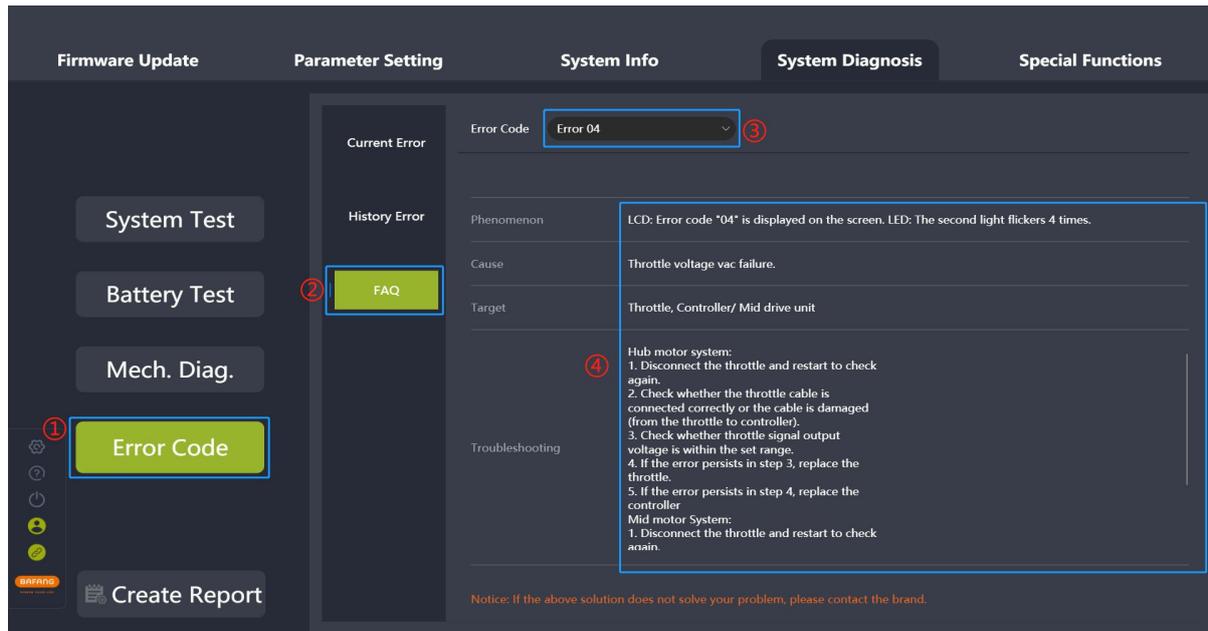


Fig. 7-8 FAQ

7.5 Create Report

In both System Info and System Diagnosis, there are function keys to create a report. Upon creating a System Info or System Diagnostics report, you will be prompted whether you want to jump to another item. The generated PDF report can be exported and saved after selecting the save path. The generated report involves the filled-in problem descriptions, inserted pictures, read or written component SNs, and selected errors for each component.

7.5.1 Create Report in System Diagnosis

- (1) Click "Create Report", and a pop-up window will prompt "Do you want to jump to System Info?" (Fig.7-8).
- (2) To read system information, click "System Info" to jump to it.
- (3) Click "Create Report".
- (4) Select the local save path.
- (5) Click "Save" to generate a PDF report.

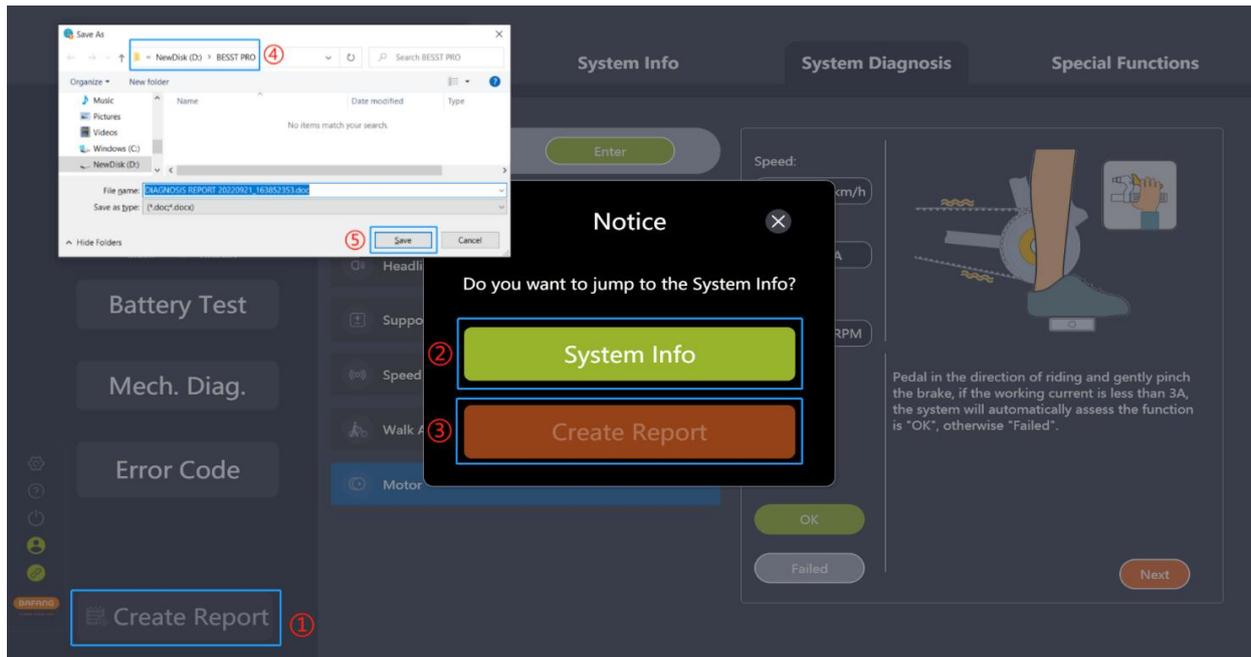


Fig. 7-9 Create report in System Diagnosis

7.5.2 Create Report in the System Info

- (1) Click "Create Report", and a pop-up window will prompt "Do you want to jump to System Diagnosis?" (Fig.7-9).
- (2) For system diagnosis, click "System Diagnosis" to jump to it.
- (3) Click "Create Report".
- (4) Select the local save path.
- (5) Click "Save" to generate a PDF report.

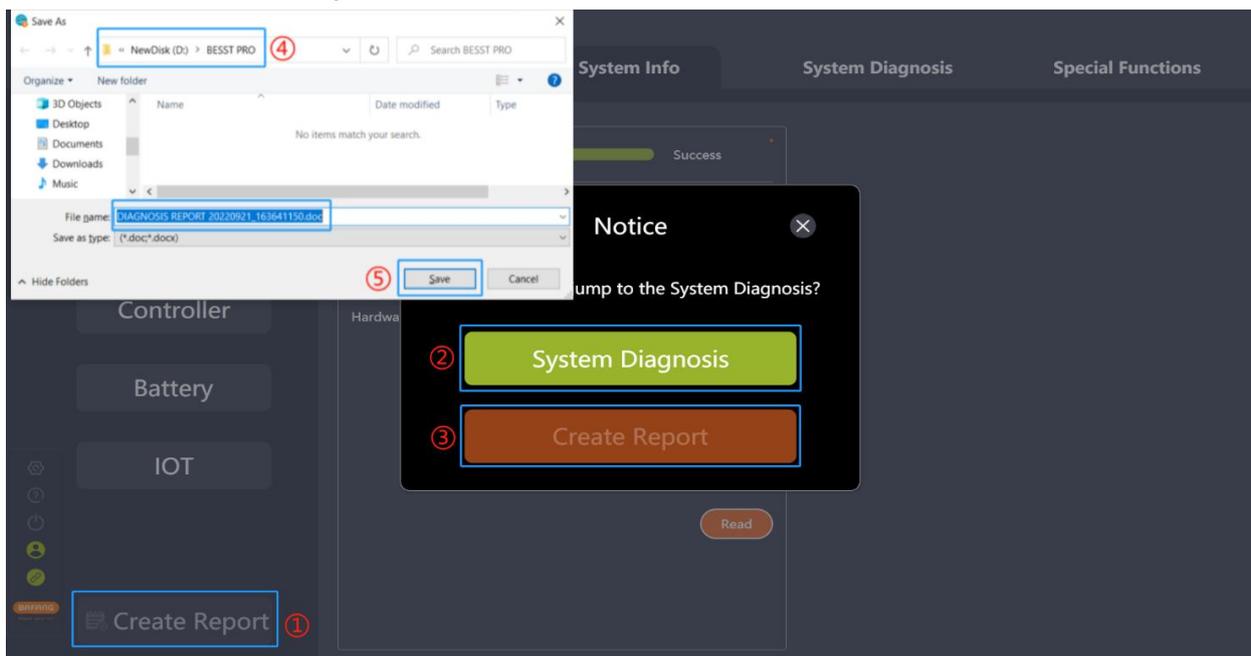


Fig. 7-10 Create report in the System Info

8 Special Functions

The module mainly includes Servs Mlg, HMI Setting, Controller Setting, and Calibration.

8.1 Servs Mlg

The HMI will prompt for maintenance service when the riding mileage reaches the set value of service mileage. The service mileage can be set to 1000~5000km.

- (1) Connect the BESST Tool to the HMI and select "Servs Mlg".
- (2) Ensure the HMI supports function. If it supports, enter the service mileage.
- (3) Click "Save" (Fig.8-1).

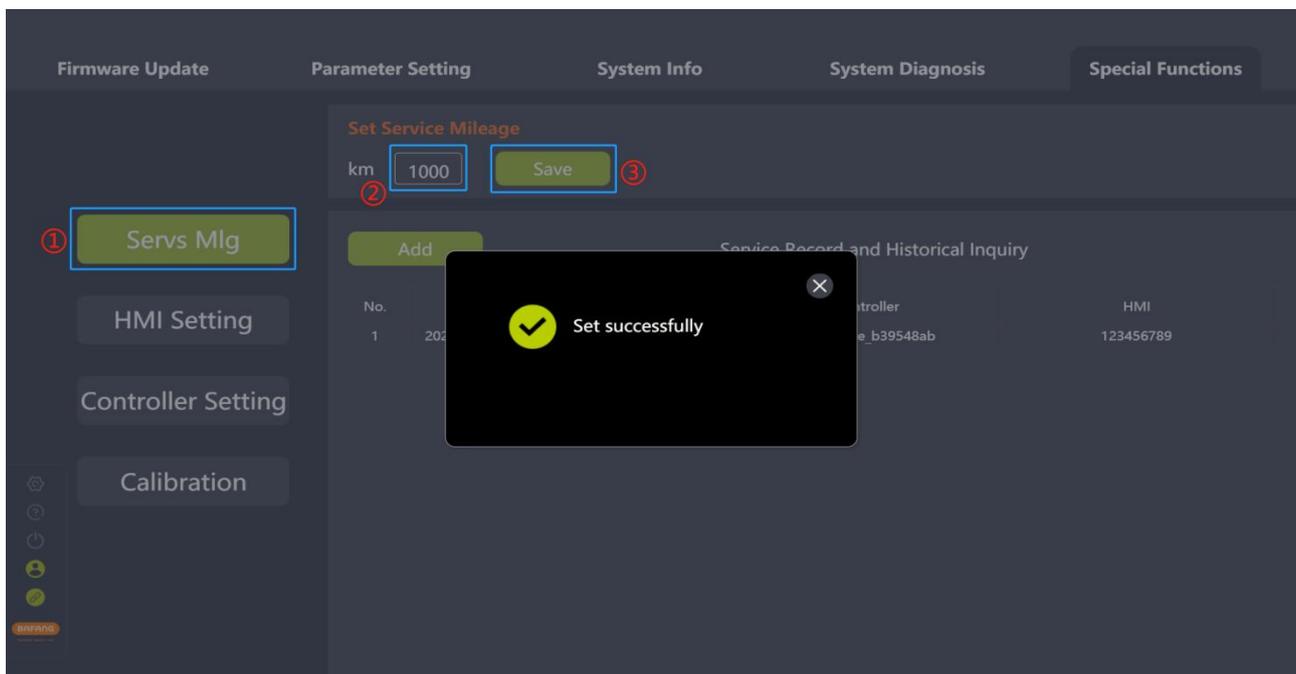


Fig. 8-1 Set service mileage

- (4) To add the record to the service record, click "Add" after saving successfully. The record information includes serviceman, time, next maintenance mileage, controller SN, HMI SN, and battery SN.

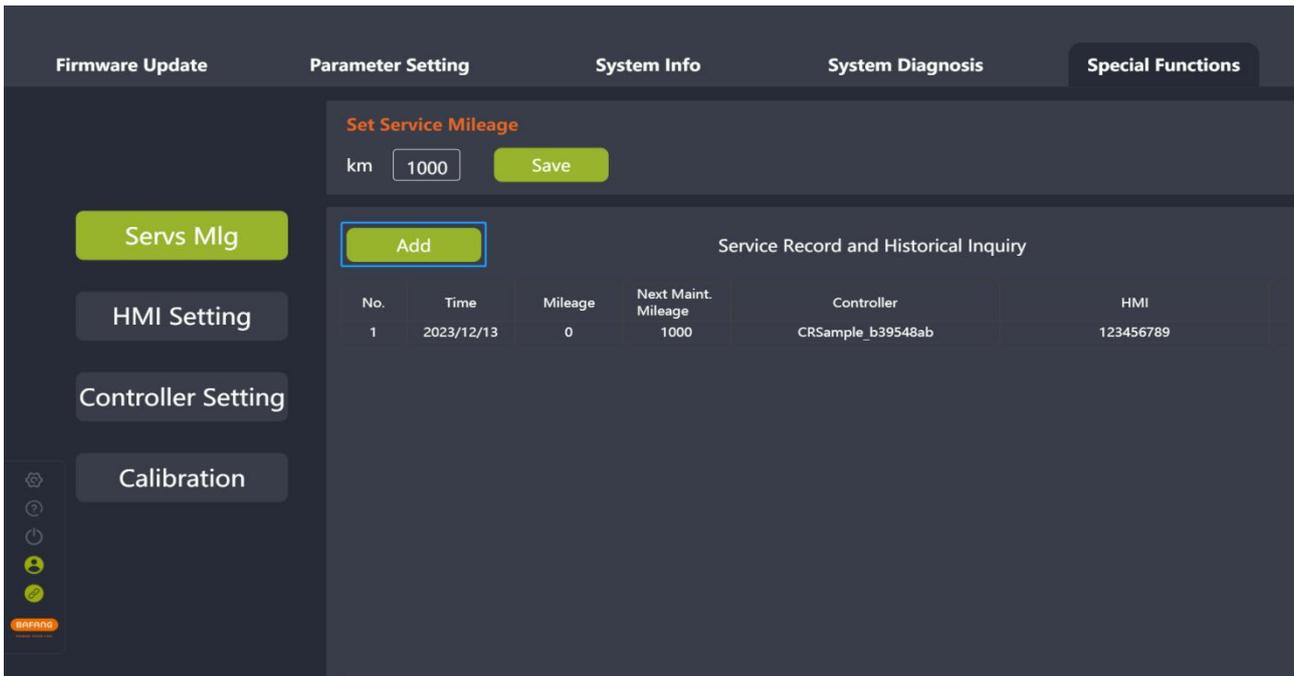


Fig. 8-2 Set service mileage

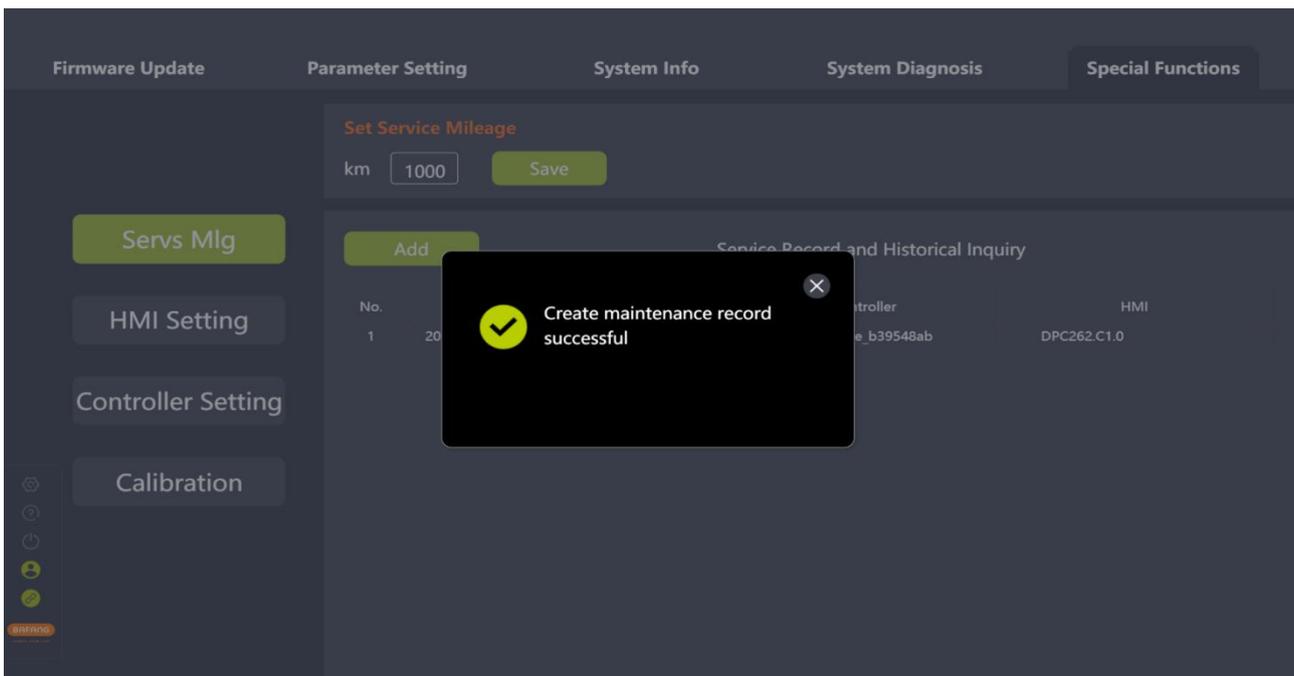


Fig. 8-3 Set service mileage

8.2 HMI Setting

8.2.1 Set ODO

If the user wants to transmit the ODO data in the older HMI to the current HMI after a replacement, they can use this function. The steps are as follows:

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- (1) Connect the BESST Tool to the HMI and select "HMI Setting".
- (2) Enter the ODO value (an integer from 0 to 9999) in the "Set ODO(km)" input box.
- (3) Click "Save" (Fig.8-4).

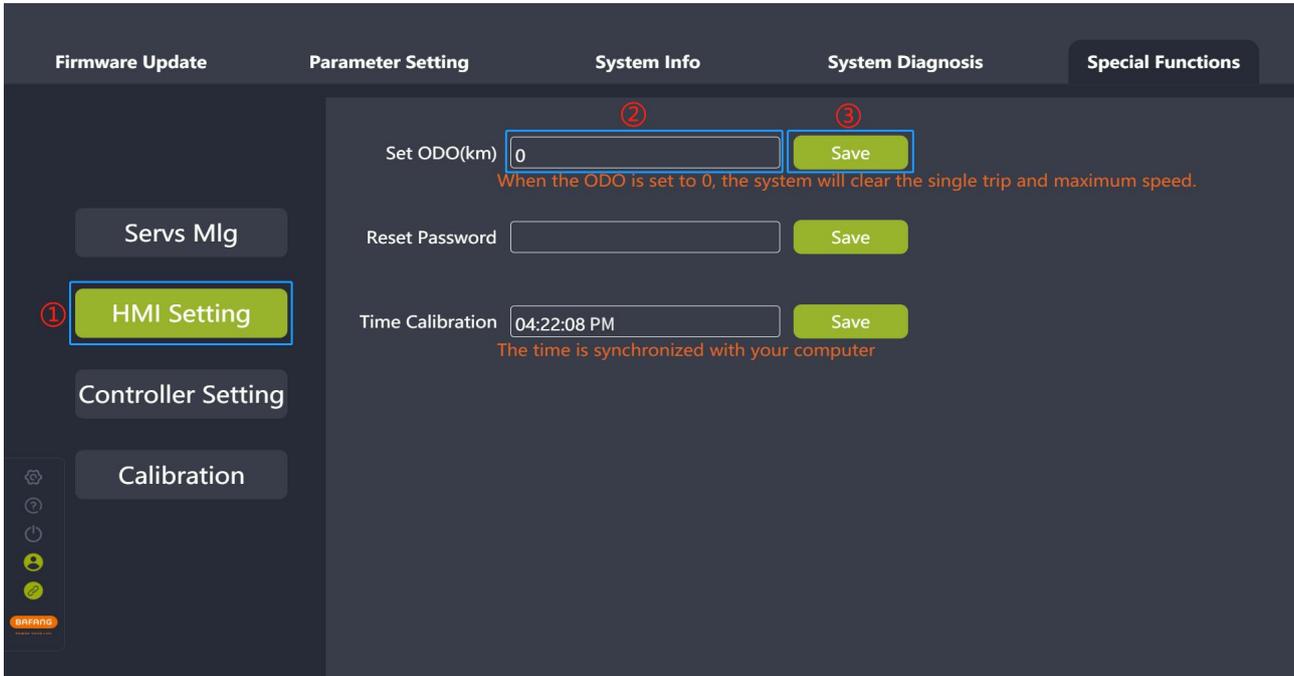


Fig. 8-4 Set ODO

8.2.2 Reset the Power-on Password

Users may forget their passwords. The function is used to set the password to a new 4-digit password. The specific operation steps are as follows:

- (1) Connect the BESST Tool to the HMI (if supports) and select "HMI Setting".
- (2) Enter the new 4-digit password into the "Reset Password" box.
- (3) Click "Save", and the password will be reset successfully (Fig. 8-5).

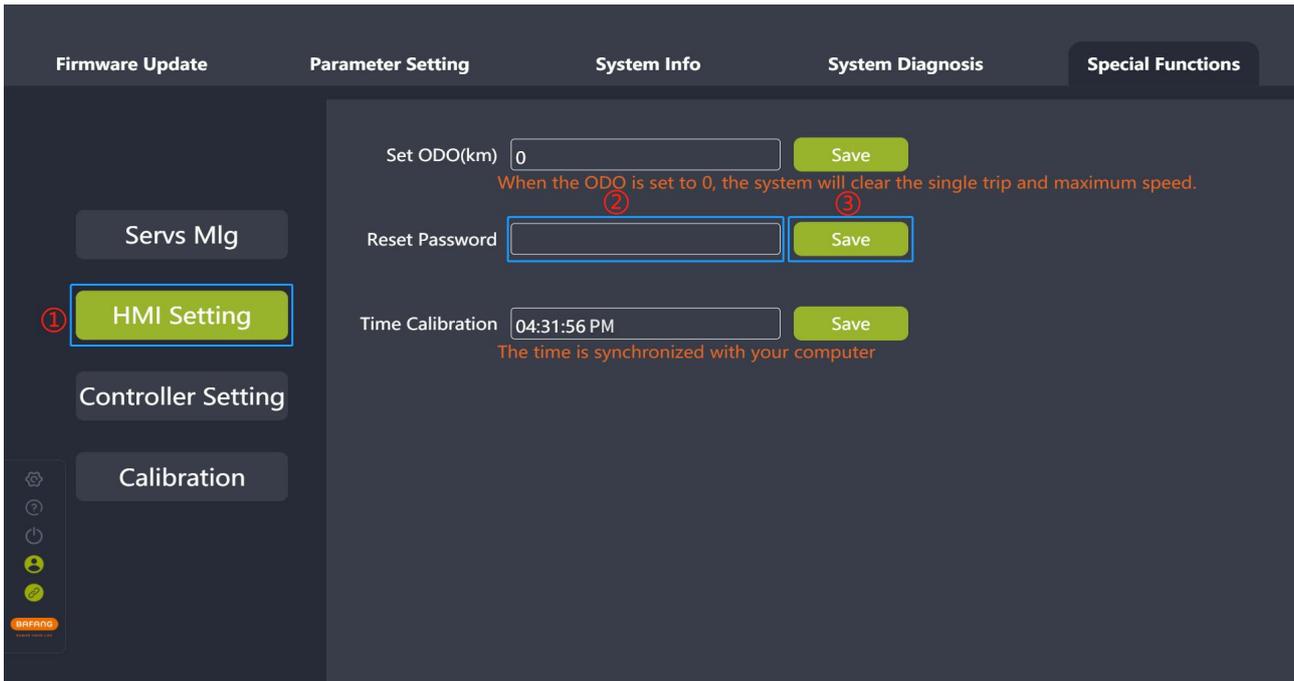


Fig. 8-5 Reset the power-on password

8.2.3 Time Calibration

The time shown in the "Time Calibration" box is consistent with the user computer time. To calibrate the HMI time, follow the steps below:

- (1) Connect the BESST Tool to the HMI (if supports) and select "HMI Setting".
- (2) The current computer time will be shown in the "Time Calibration" box.
- (3) Click "Save", and the HMI time will be calibrated successfully (Fig.8-6).

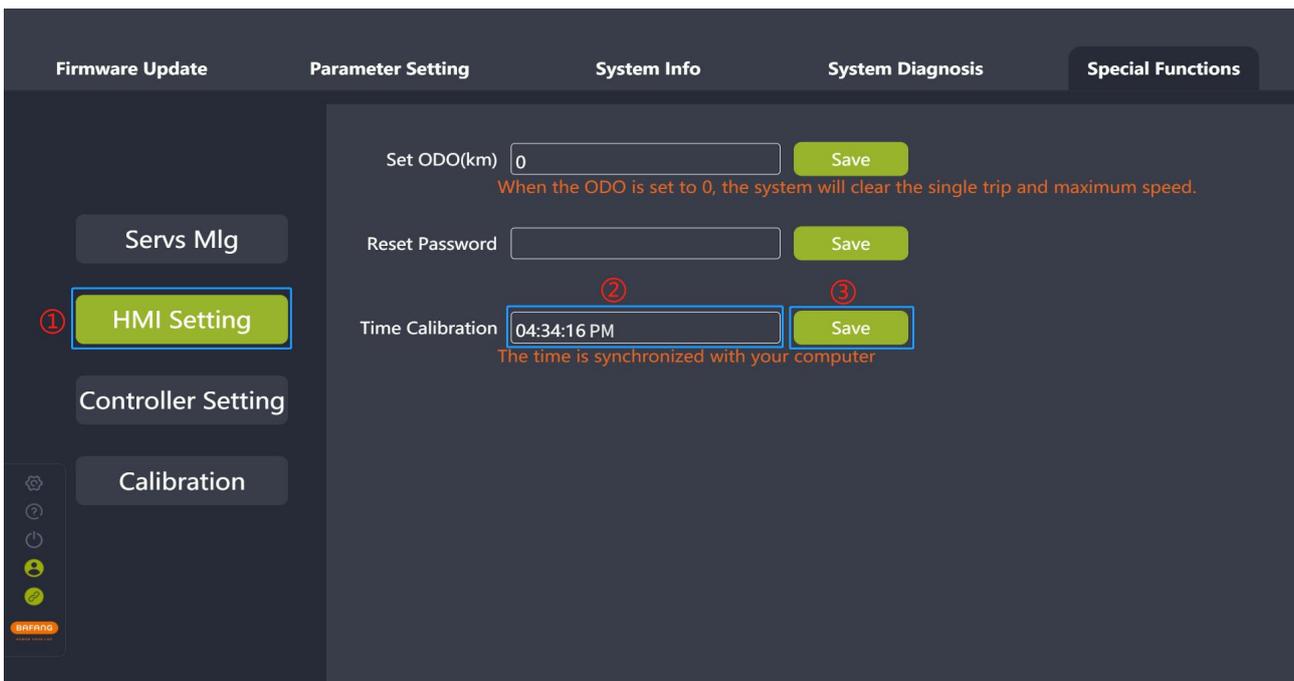


Fig. 8-6 Time calibration

8.3 Controller Setting

8.3.1 Set ODO

To set the controller ODO, follow the steps below:

- (1) Connect the BESST Tool to the controller (if supports) and select "Controller Setting".
- (2) Enter the ODO value (an integer from 0 to 9999) in the "Set ODO(km)" input box.
- (3) Click "Save" (Fig.8-7).

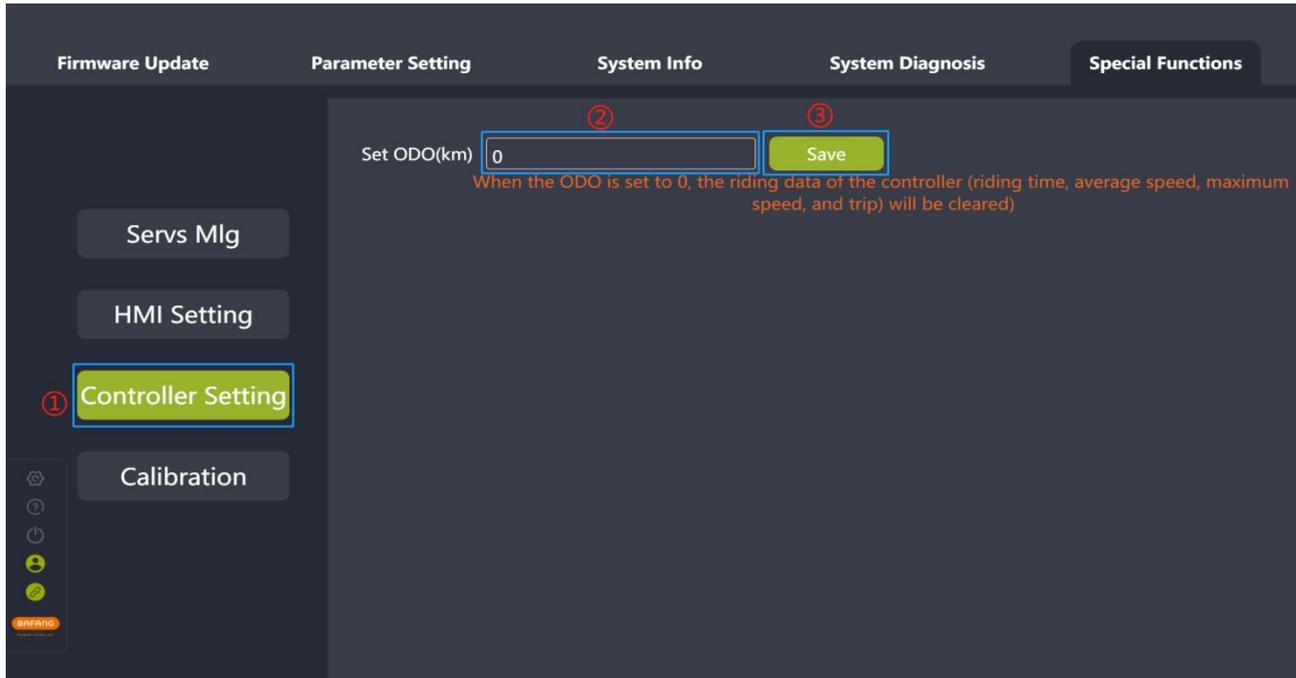


Fig. 8-7 Set ODO

8.4 Calibration

8.4.1 Position Sensor Calibration

- (1) Connect the BESST Tool to the controller and select "Calibration".
- (2) Click "Start" next to the tag "Position Sensor Calibration" to start the calibration (Fig.8-8).
- (3) There is an icon to the right of "Position Sensor Calibration" and click it to view the tips (Fig. 8-9).

Tips:

Use the position sensor calibration function under the guidance of professionals, or the system failure may occur.

Only supports mid motors.

Please ensure that the battery has enough power (more than 20%).

Please ensure that the bicycle wheels and the pedals are suspended.

During calibrating, the bicycle wheels will rotate automatically. Please be careful to prevent personal injury.

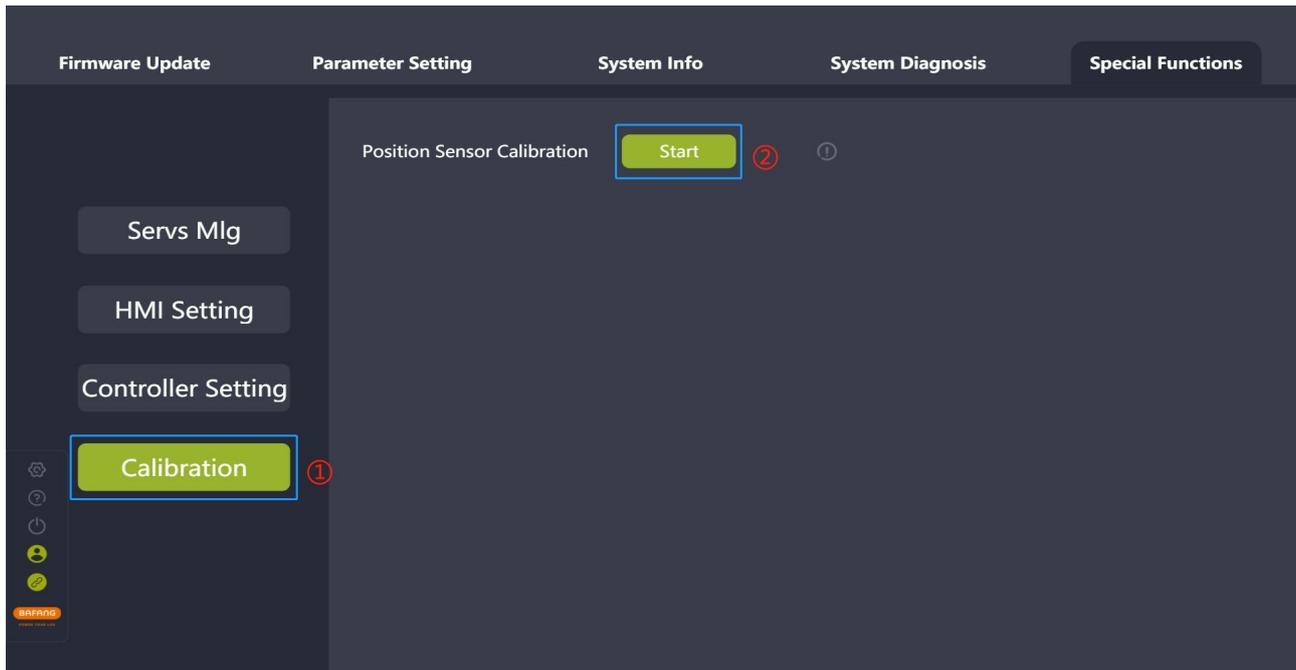


Fig. 8-8 Position sensor calibration

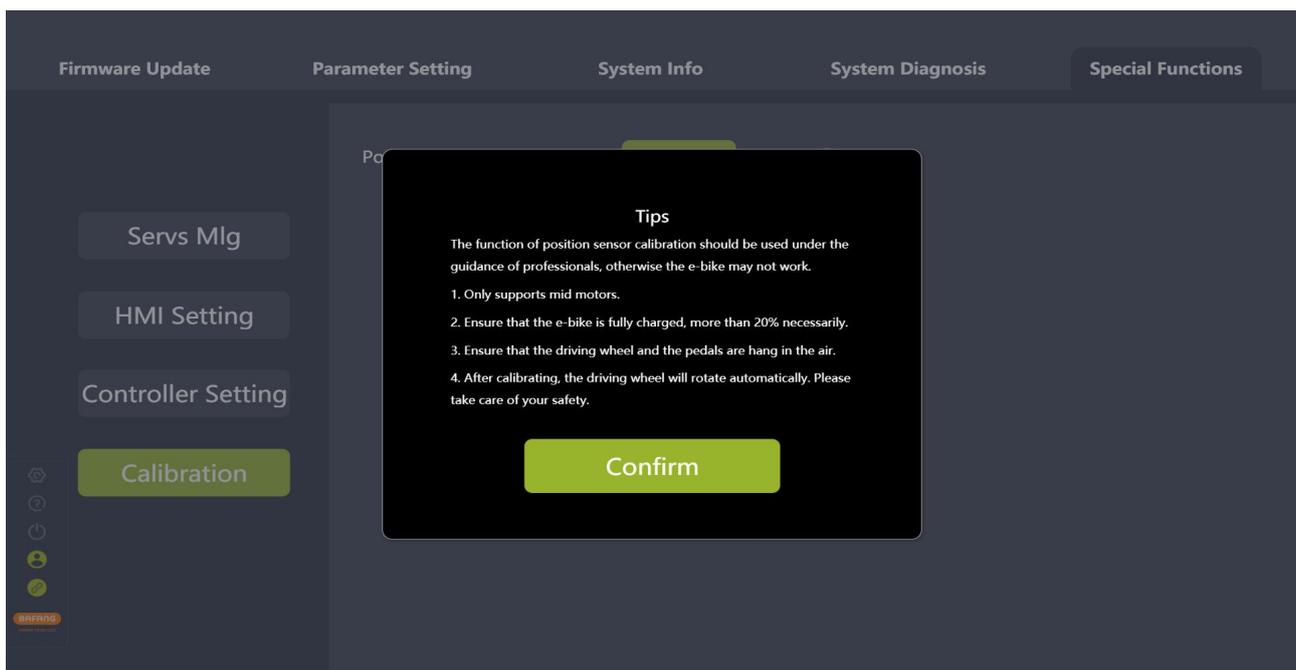


Fig. 8-9 Tips

9 System Environment

9.1 Language

Seven languages are supported, Chinese, Czech, Dutch, English, German, Italian, and French. After

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setting, the BESST Pro software will be restarted automatically and the setting will take effect.

- (1) Set the language in the right corner of the Login interface (Fig.9-1) or click "Settings" on the left interface (Fig.9-2).
- (2) Select your desired language in the drop-down list.
- (3) Click "Restart" to restart the software and the setting will take effect.
- (4) **Tip:** For the MAC version, click "Close" and restart the software manually and the setting will take effect.

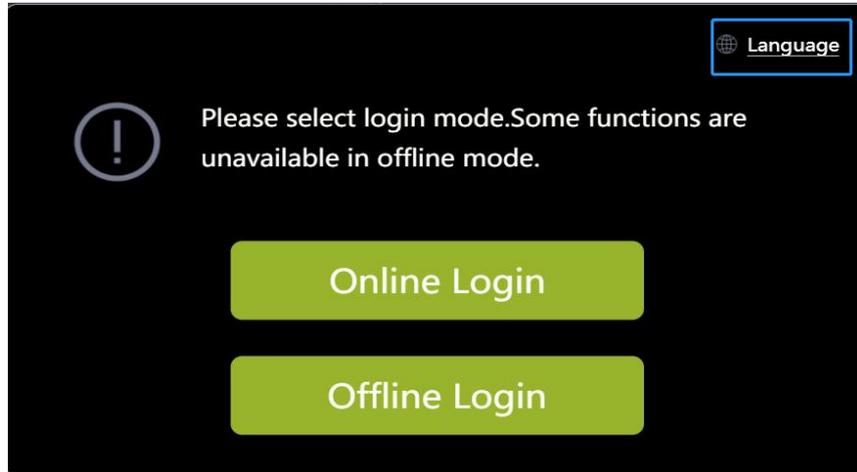


Fig. 9-1 Language

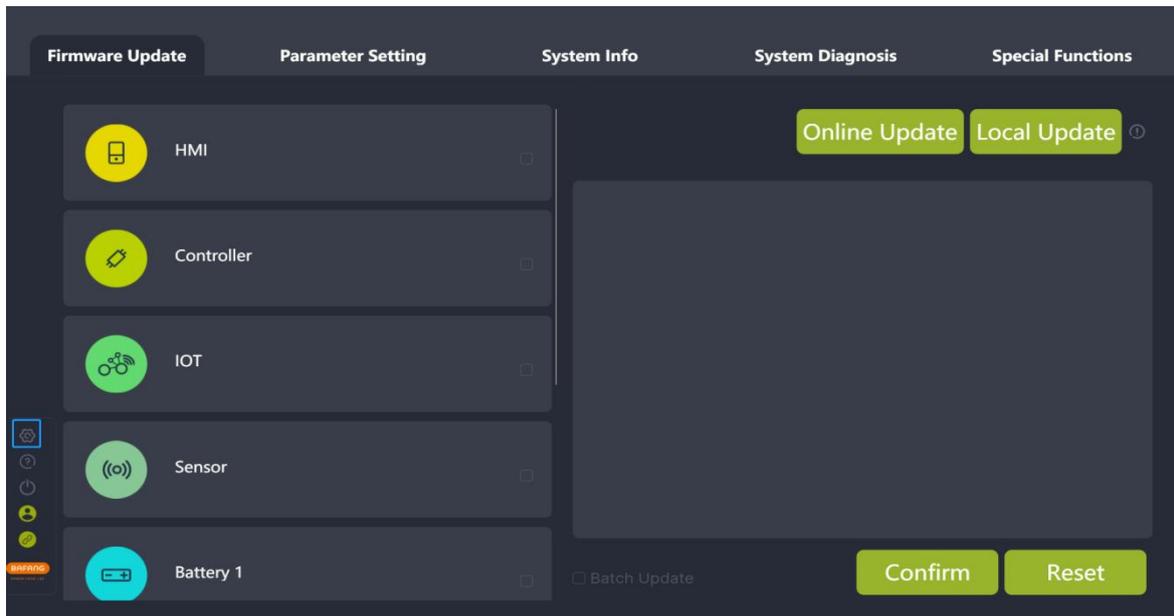


Fig. 9-2 Language

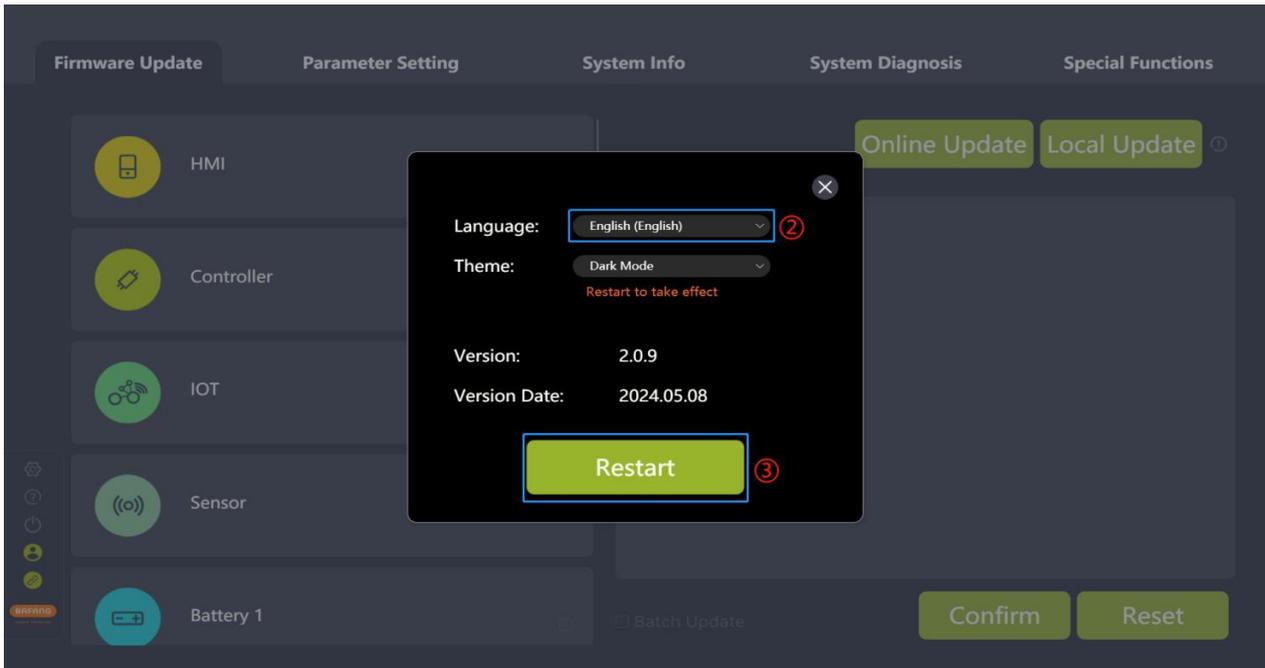


Fig. 9-3 Language

9.2 Theme

There are two themes, dark and light, which takes effect after restarting the BESST Pro software.

- (1) Click "Settings".
- (2) Select your desired theme in the drop-down list (Fig.9-4).
- (3) Click "Restart". Restart the software and the setting will take effect.
- (4) **Tip:** For the MAC version, click "Close" and restart the software manually and the setting will take effect.

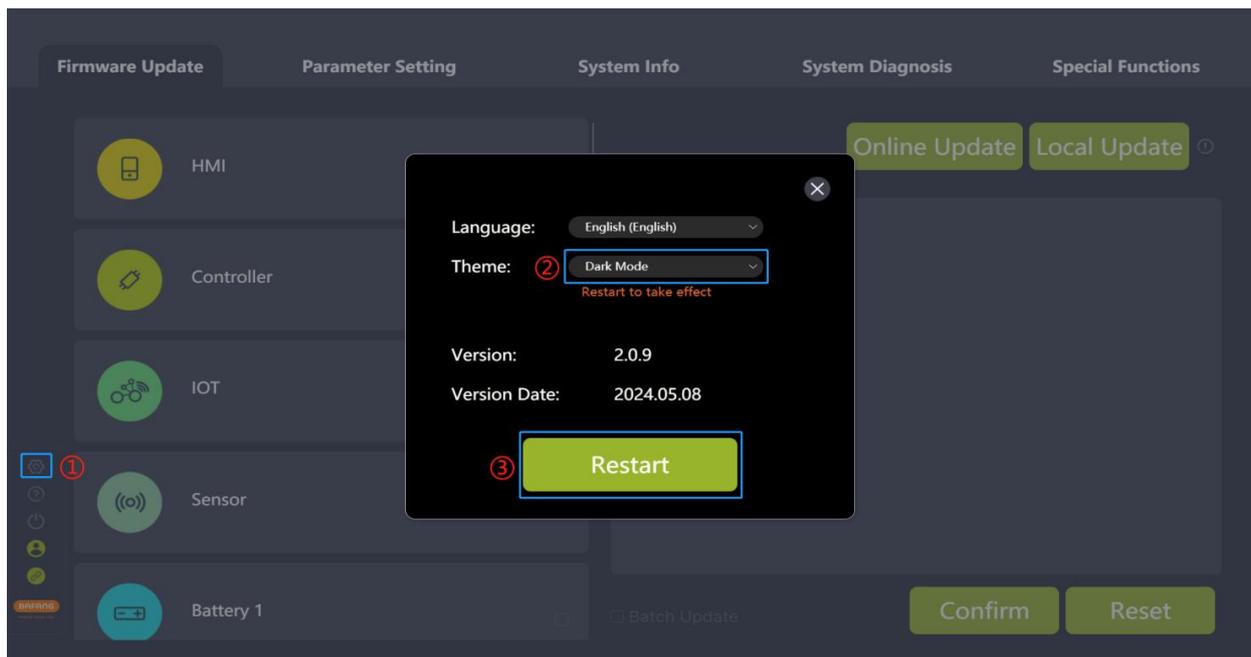


Fig. 9-4 Theme

9.3 Version

The version number of the BESST Pro software is shown.

9.4 Version Date

The version release date of the BESST Pro software is shown.

9.5 New Version Automatic Update

When the user opens BESST Pro the first time, the current version will be compared with the cloud version. If it is not the latest version, a pop-up will prompt you to download the latest version (Fig. 9-5).

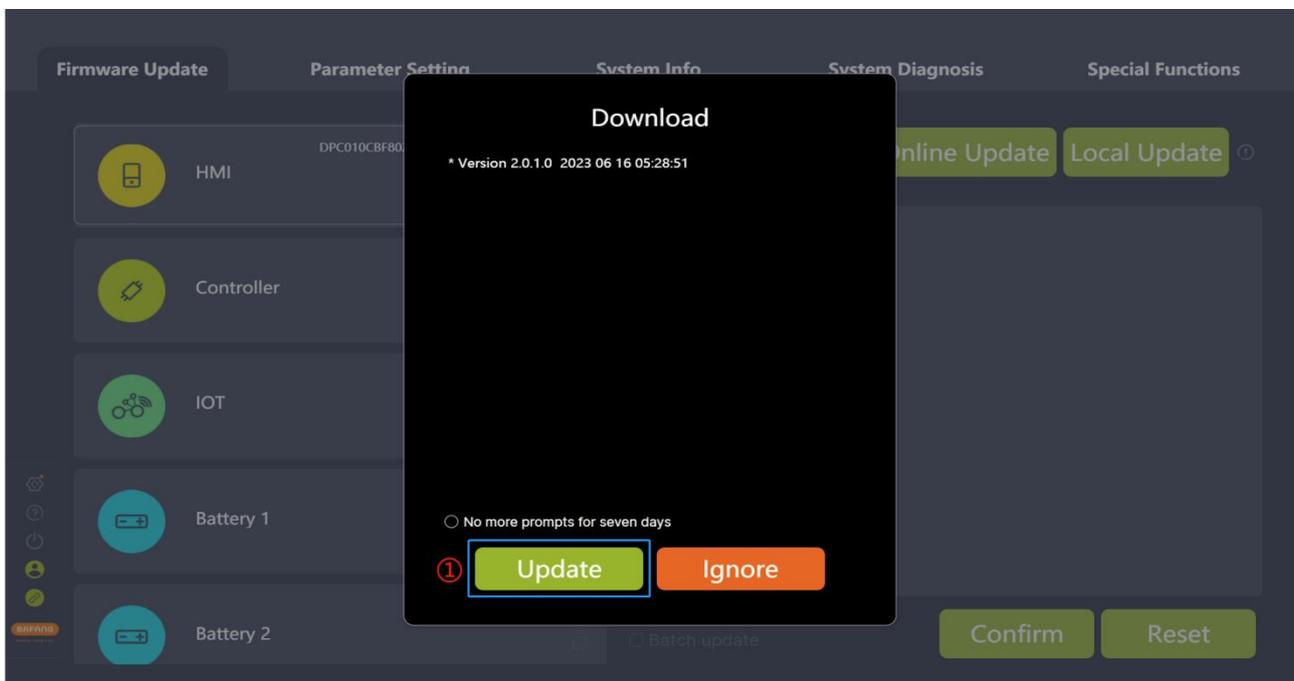


Fig. 9-5 Download and update the latest version

If the user clicks "Ignore", a small orange dot will appear on the settings icon in the bottom left corner of the main page. You can click this icon to display the latest version for future update requirements (Fig. 9-6).

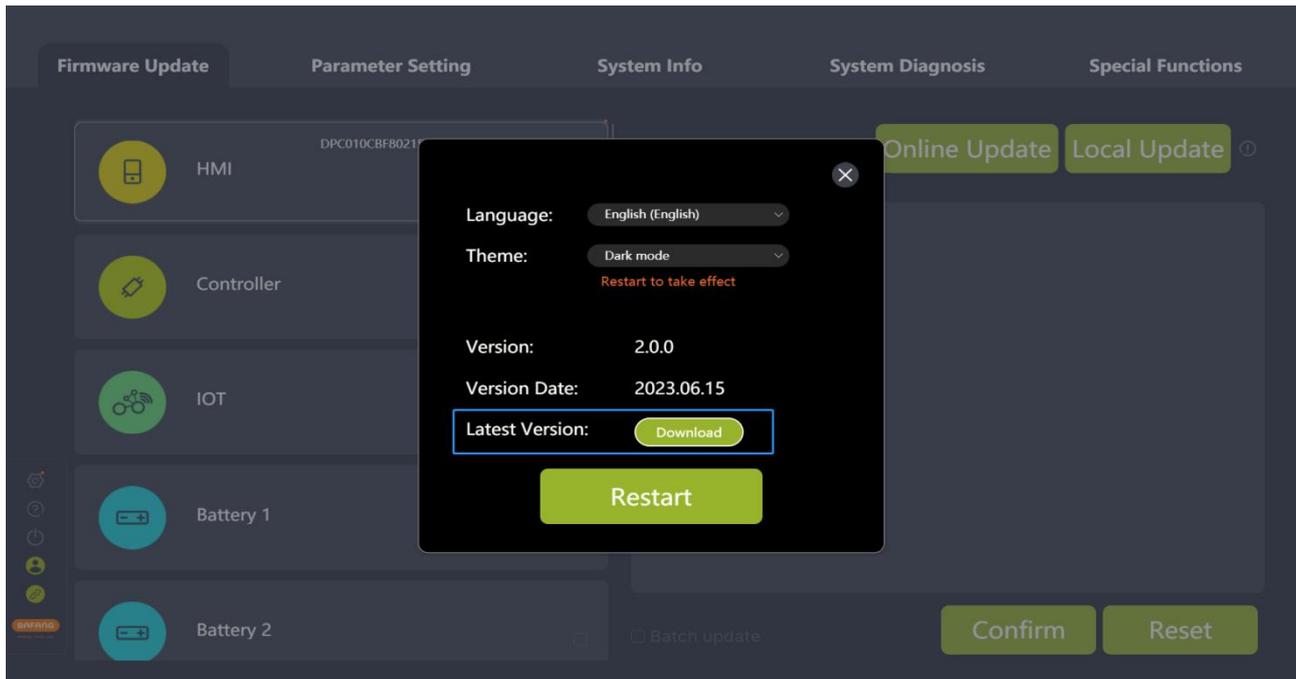


Fig. 9-6 The latest version downloading and update

After clicking "Download", the release date and update log of the latest version will be shown. Upon clicking "Update Now", you will see the downloading progress of the update package (Fig. 9-7).

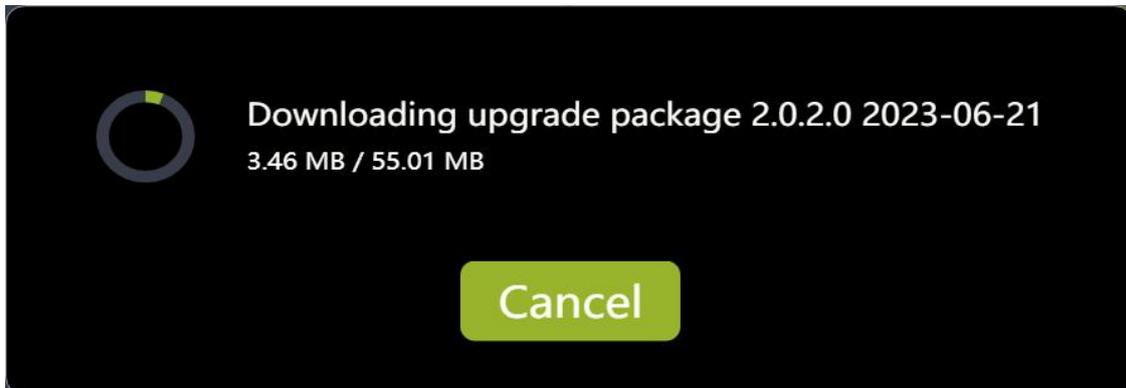


Fig. 9-7 The latest version downloading and update

When "Upgrade package download complete" appears, wait for automatic installation to complete the update (Fig. 9-8).

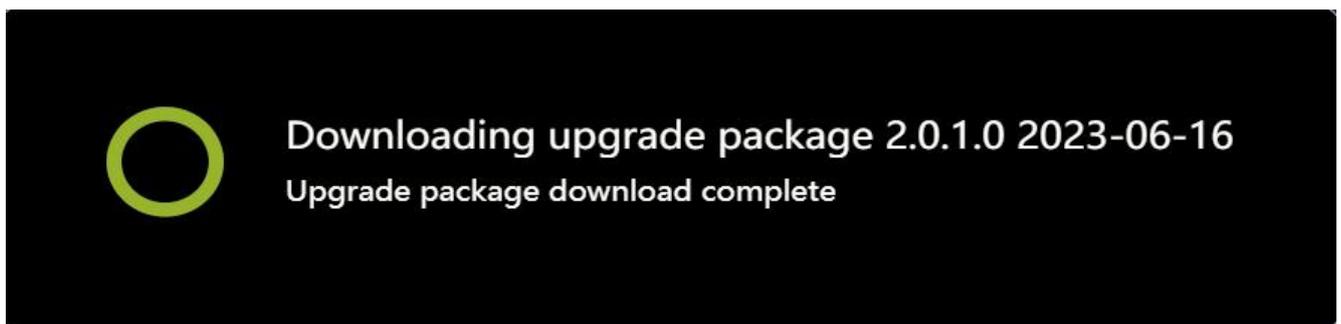


Fig. 9-8 The latest version downloading and update

If it has been the latest version, no notification will appear (Fig. 9-9).

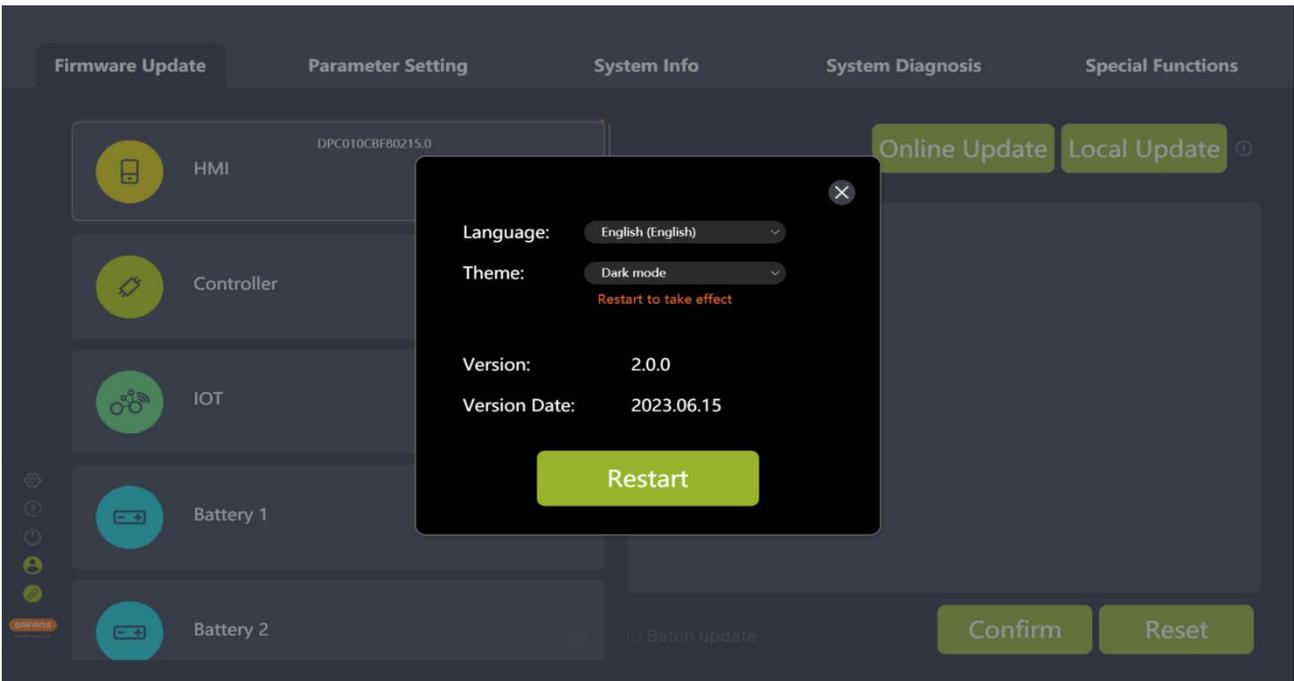


Fig. 9-9 Version information