EFT Agri APP

Quickstart Guide

Version1.0 en

Contents

1. Document Instructions

1.1 Introduction

EFT Agriculture APP is the latest agricultural drone control system launched by EFT. In order to facilitate users to fully understand and use the product, this document will introduce in detail the functions and operations of the APP.

We will keep the documentation updated to ensure all information is correct. If you meet errors or have any suggestion , please feel free to contact us.

Welcome to learn more from Official Website: www.effort-tech.com

1.2 Disclaimer

Please read this manual carefully before using this App. You shall be deemed to have read, understood, agreed and acknowledged all terms and conditions and information stated herein upon activation of the product.

This App is not suitable for all flight controls and is limited to EFT Z series drone systems or authorized FC systems. There are certain risks when using it. And it is not suitable for the following groups: under 18 years of age, citizens restricted by law, people without civil capacity or disabled. Please keep the product out of reach of children and be particularly cautions while there are children present.

Please fully understand and be willing to bear all the risks of damage caused by accidental factors. EFT isn't responsibility for the accidents: improper operation during use, and other losses by surrounding environment .

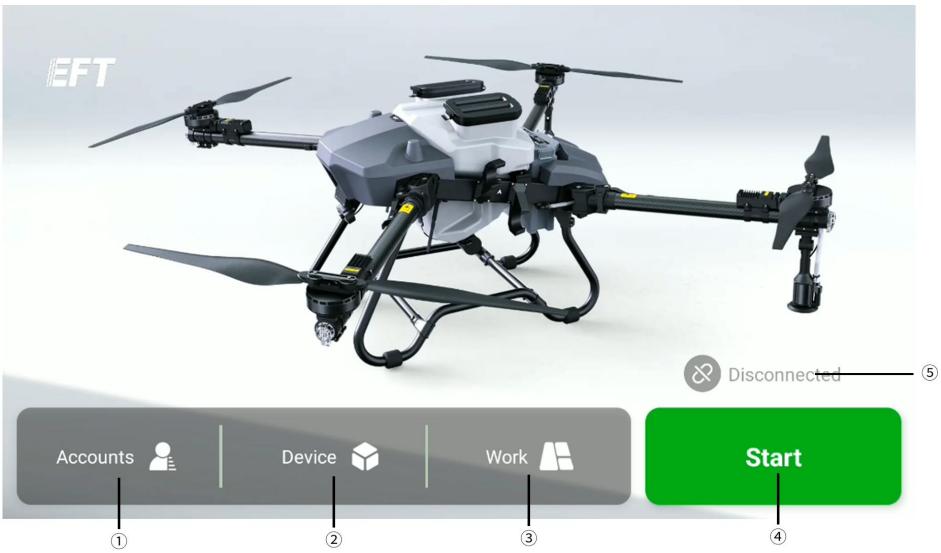
The user shall comply with the laws and regulations of the country and the region where the product is used. EFT does not assume any responsibility from your violation of relevant laws and Regulations

To the extend permitted by law, EFT reserves the rights for final explanation and reversion of the terms and conditions via channels including its official website, the User Manual and online App, without prior notice.

2 . Product Overview

EFT Agri APP is designed for ZP series agriculture drones. Users can control and view the operation status of flying, spraying and spreading in real-time . Get datas of the radars, water pumps, and flow meter etc . This APP is smart operating system, with Manual mode, AB mode and Auto mode. User can set Intelligent Route planning to enjoy efficient intelligent operations.

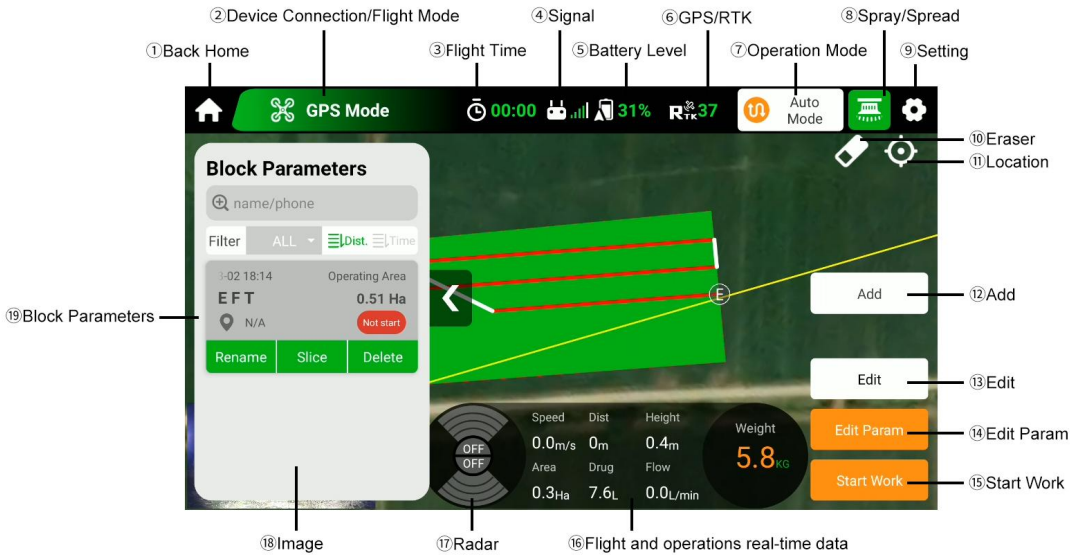
2.1 APP Homepage



APP Homepage

① Accounts
Check the user information of the logged in account, etc.
② Device
Check the device connection status, firmware version, etc.
③ Work
Check the flight operation records.
④ Start
Tap to start working
⑤ Connection status
Check whether the drone is connected to the remote controller.

2.2 Start The Operation



①Back to Homepage：Tap to return the homepage.

②Device Connection/Flight Mode：Display the drone status.

Tap  to check alarms ：If there is a alarm, tap to view the detail information and solve it accordingly before flying.

③Flight Time：The time of each flight is recorded and recalculated when landing.

④Signal：Communication status between the remote controller and the drone.

⑤Battery Level：Display the battery level (smart batteries show battery percentage, others show battery voltage).

⑥GPS/RTK Connection：Display the positioning mode .

⑦Operation Mode：Manual mode, AB mode and Auto mode are optional .

⑧Spray/Spread：Automatically identify operating modes

⑨Setting：Set the parameters of drone and remote controller.

⑩Eraser：Clear the flight trace

⑪Location：Locate the real-time positions of the remote controller and the drone.

⑫Add：Add the new block .

⑬Edit：Plan flight routes of the block

⑭Edit Param：Set operating parameters.

⑮Start Work：Tap to start work.

⑯Flight and operations real-time data

Speed：Drone real-time flight speed.

Dist：The real-time horizontal distance between the drone and the home point.

Height：If the altitude radar is turned on, displays the relative height of the drone and the object below. If turned off, it displays the relative height of the drone and the take-off point .

Area：Display the real-time operating area of one single flight.

Drug（Spray）：Display the weight of pesticide sprayed during spraying.

Valve Size（Spread）：Display the real-time opening of the spreader valve during spreading.

Flow（Spray ）：Display real-time spraying flow.

Turntable Speed（Spread）：Display real-time spreader turntable speed.

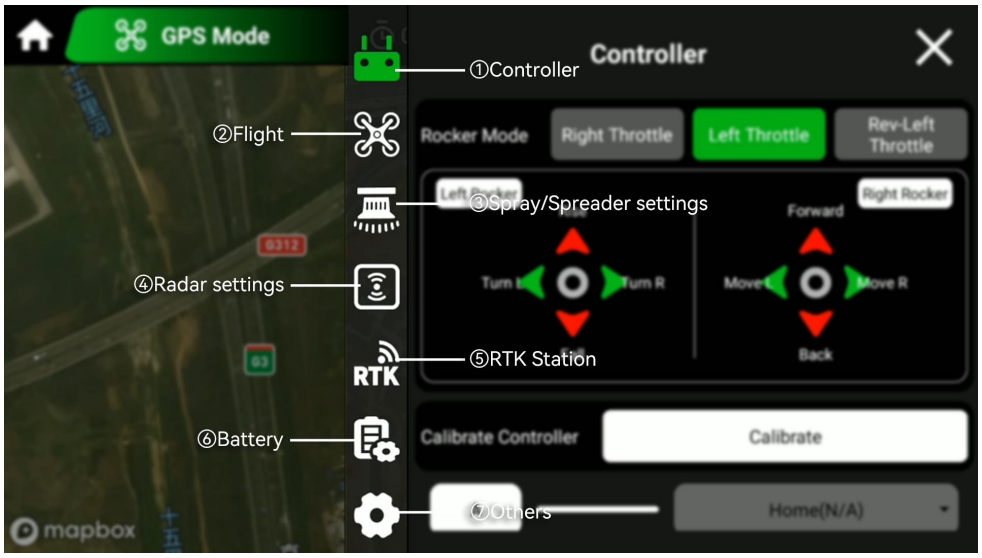
Weight：Display the remaining weight in the spraying tank/spreading tank.

⑰Radar：Detect and display vertical obstacles. Tap the icon to turn on or off the obstacle avoidance functions.

⑱Images：Show the real-time camera view, can be switched to full-screen display.

⑲Block Parameters /Route Parameters/Working Parameters ：Tap to expand the list.

2.3 Settings



Setting Page

①Controller：Choose rocker mode, calibrate controller , set channels .

②Flight：Include flight route parameters, Sensor Calibration, Arm Sensor、Smart Drug Breakpoint、Flight Safety Limit and Flight Simulator。

③Spray/Spread Settings：Spray/spread system related settings, including switch, datas and calibration.

④Radar Settings：Include switch of obstacle radar, Terrain radar、Obstacle Dist、Obstacle Avoidance Action and Radar Sensitivity.

⑤RTK Settings: Include RTK Network ,Station Custom and Status

⑥Battery Settings：Include Low power action, Aarm threshold value, and battery informations.

⑦Others：Include Map Follow, Voice, Advanced settings.

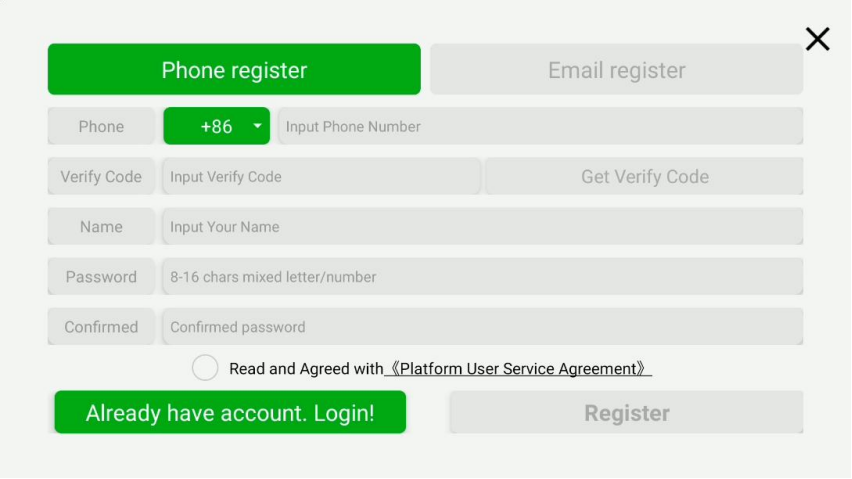
3. Flight Debugging

3.1 Connect The Drone

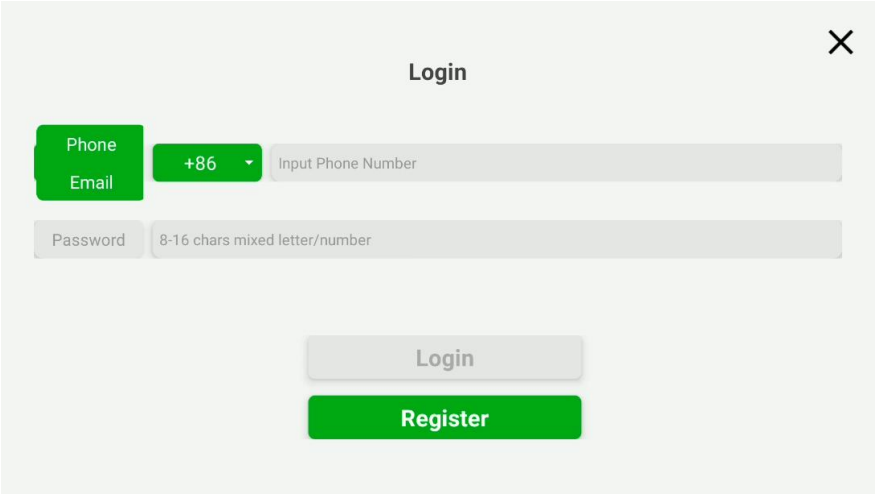
Step1：Power up the drone and turn on the remote controller.

Step2：Open **EFT Agriculture** APP, tap **Accounts**. Fill in the information as required(Choose phone number or email for registration). If an account exists, input the password to log in, it will be automatically activated.

*For the manufacturer account, please apply to EFT.



Registration Page

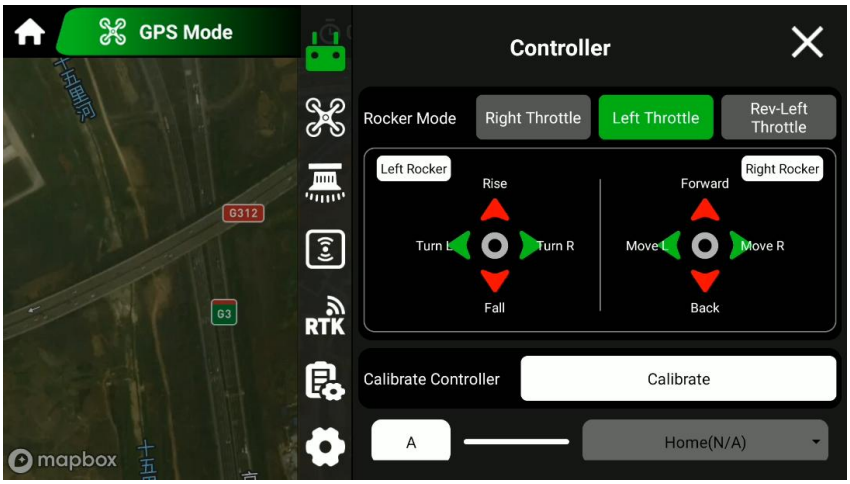


Login Page

3.2 Software Debugging

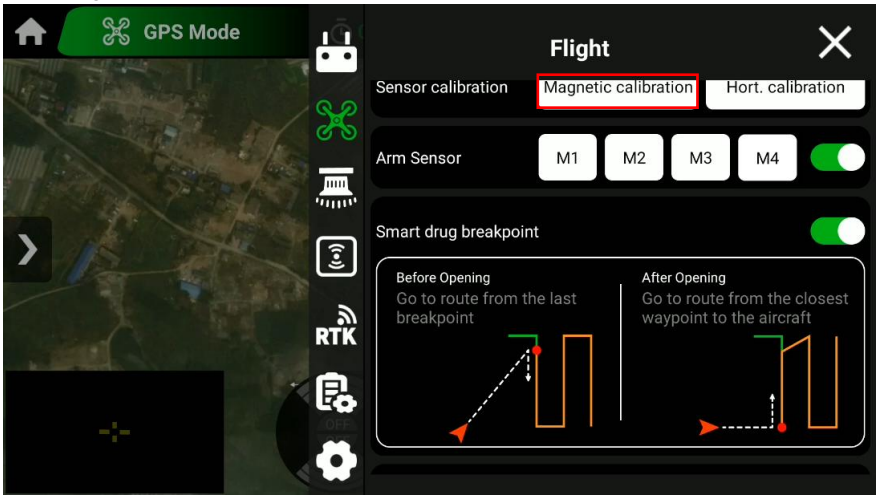
* The drone has completed the necessary parameter settings before delivery, users only need to do simple steps as below.

Step1：On the Homepage, tap **Start—Setting** (Top right corner) enter **Controller**, choose the **Rocker Mode** discretionarily as **Right Throttle/Left Throttle/Rev-Left Throttle .**



Controller Setting Page

Step2：Calibrate drone magnetic sensor. Tap **Flight—Sensor Calibration—Magnetic Calibration.** Calibrate the drone according to the prompts until completed and Confirm . Then please power off the drone and restart again.



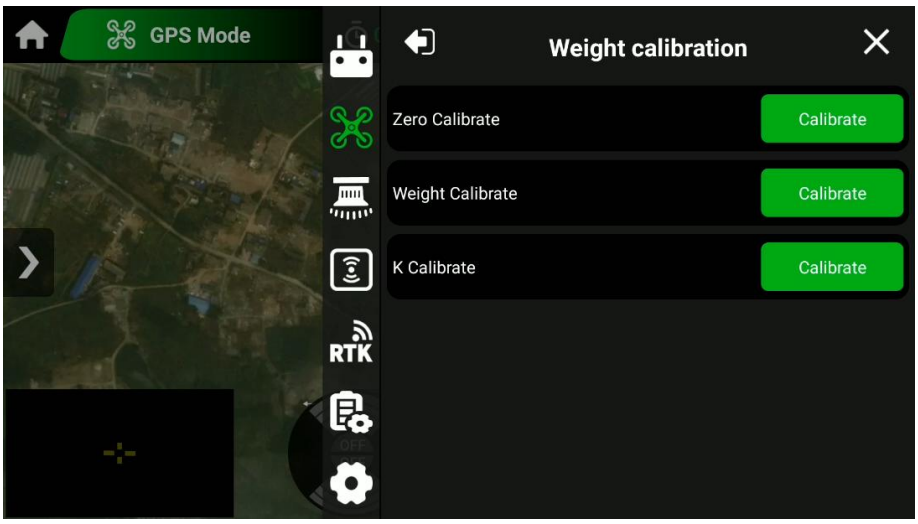
Magnetic Calibration Page

Step3：Tab to set spray parameters. Make sure the Spraying System is on. Please select **Double Nozzle** or **Four Nozzle** according to real situation. The **Four Nozzle** mode can be set to **Auto Double Open** or **All Open.**

For first time use， Tab to check **K** value in **Weight Calibration** and ensure it's correct, then start **Zero Calibrate** .

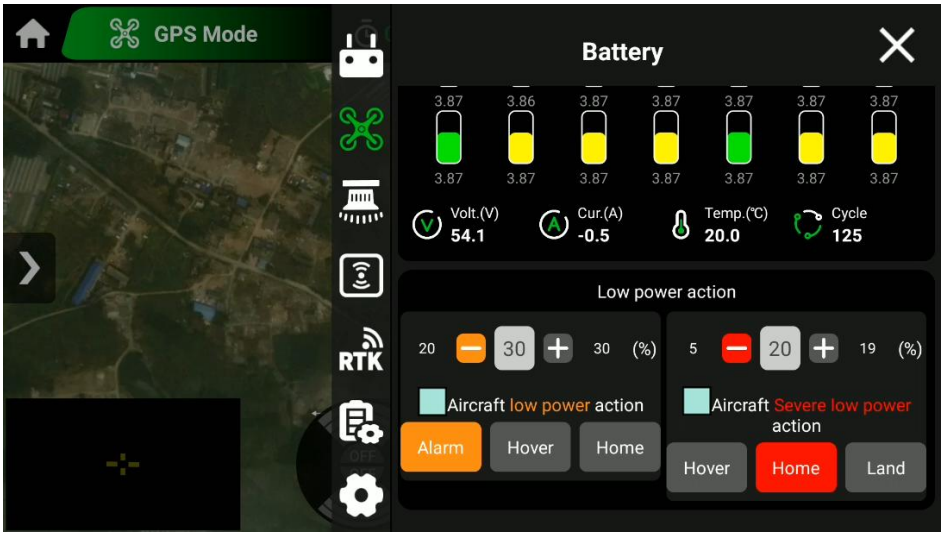
K Calibrate： Take out the tank, and tap **K Calibrate**. Check whether the K values of the 3 weighing modules are same as the values are displayed. If there is an error, please refill it.

Zero Calibrate： Tap **Zero Calibrate**, and make sure the drone is placed on the flat ground, empty the tank, and make sure the inside and outside are clean and no attachments. Tap **Calibrate**, then wait for the remote controller to display that calibration is complete. If it fails, please recalibrate .



Weight Calibration Page

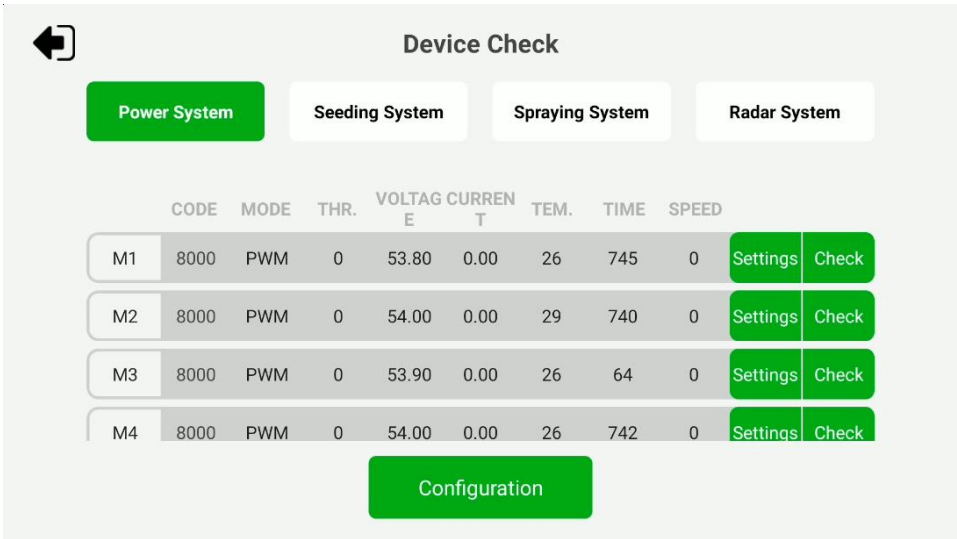
Step4：Tap to check battery informations. The recommended **Low power alarm** threshold value is **30%**, and **Low power action** set as **Alarm**. Recommend **Severe low power** threshold value **20%**, and the **Severe low power action** is **Home**.



Battery Information Page

Step5：Tap to set others , it is recommended to open **Map Follow** and **Voice**.

Device Check：Tap the Check button of **M1, M2, M3, M4** one by one to check whether the M1 and M3 propellers rotate counterclockwise, and whether the M2 and M4 propellers rotate clockwise.



Power System Check Page

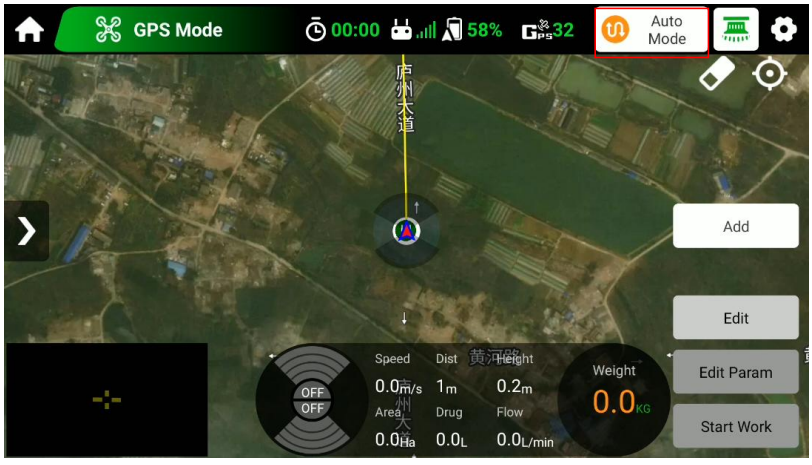
After the drone is assembled and debugged, it can add block and edit flight route to start wok.

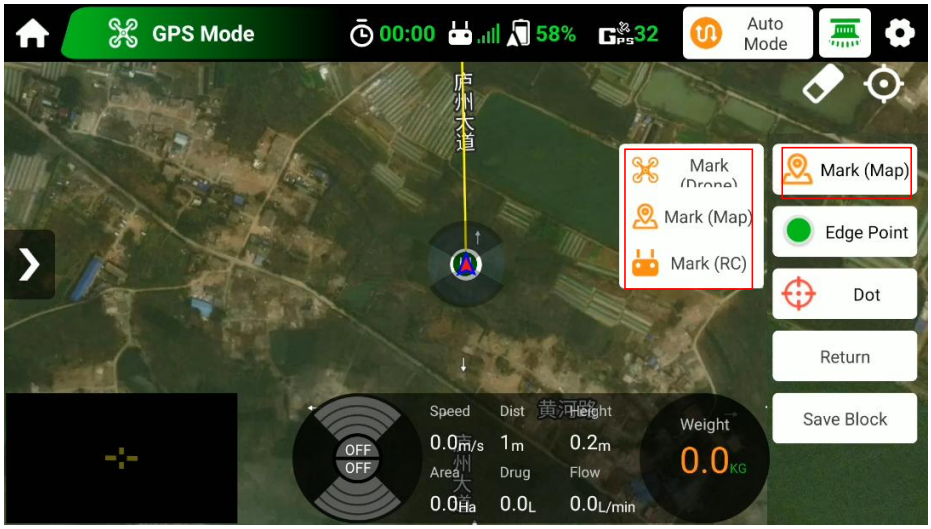
*First time flight under **Auto Mode**, if the remote controller reports that spraying is abnormal and the drone stays hovering. Please follow the "**Flow Meter and Water Pump Calibration Tutorial**" to calibrate the water pump accordingly.

4. Auto Mode

4.1 Add New Block

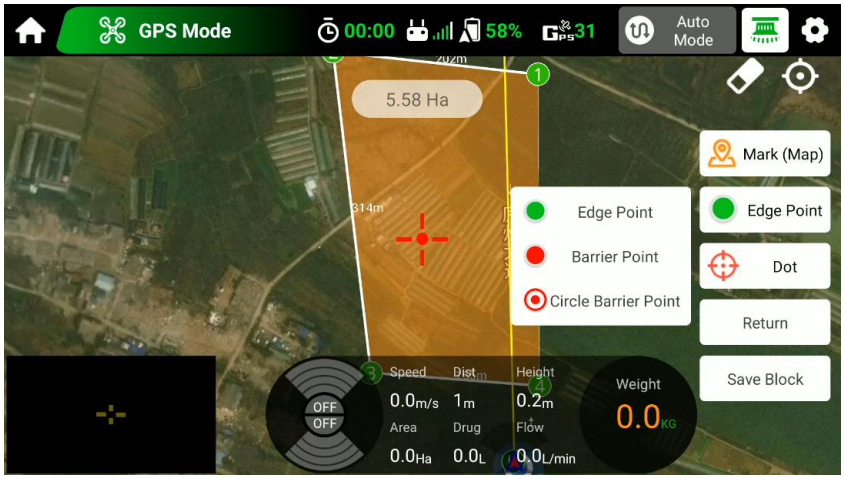
Enter the working page, make sure the top right corner is **Auto Mode**. Then tap **Add** to plan a new block . Tap **Mark(Map)** to choose **Mark(Drone), Mark(Map) or Mark(RC).**





Add New Block Page

Mark(Map)：Suitable for terrain with regular plots and clear display on the map . Find the specified plot on the map, move the cursor to the boundary of the plot, tap **Dot** to set the **Edge** Point in turn to complete plot mapping . The edge points could be **Reset/Deleted/Moved**. Then tap **Save Block**, fill in the relevant information as required to save it.



Mark(Map) Page

Mark(Drone)：Suitable for terrain with regular plots but not clear on the map.

After tapping **Mark(Drone)** , fly the drone to the desired plot edge, mark points around the plot, and tap

Save Block.

Mark(RC)：Suitable for irregular plots and unclear boundaries on the map.

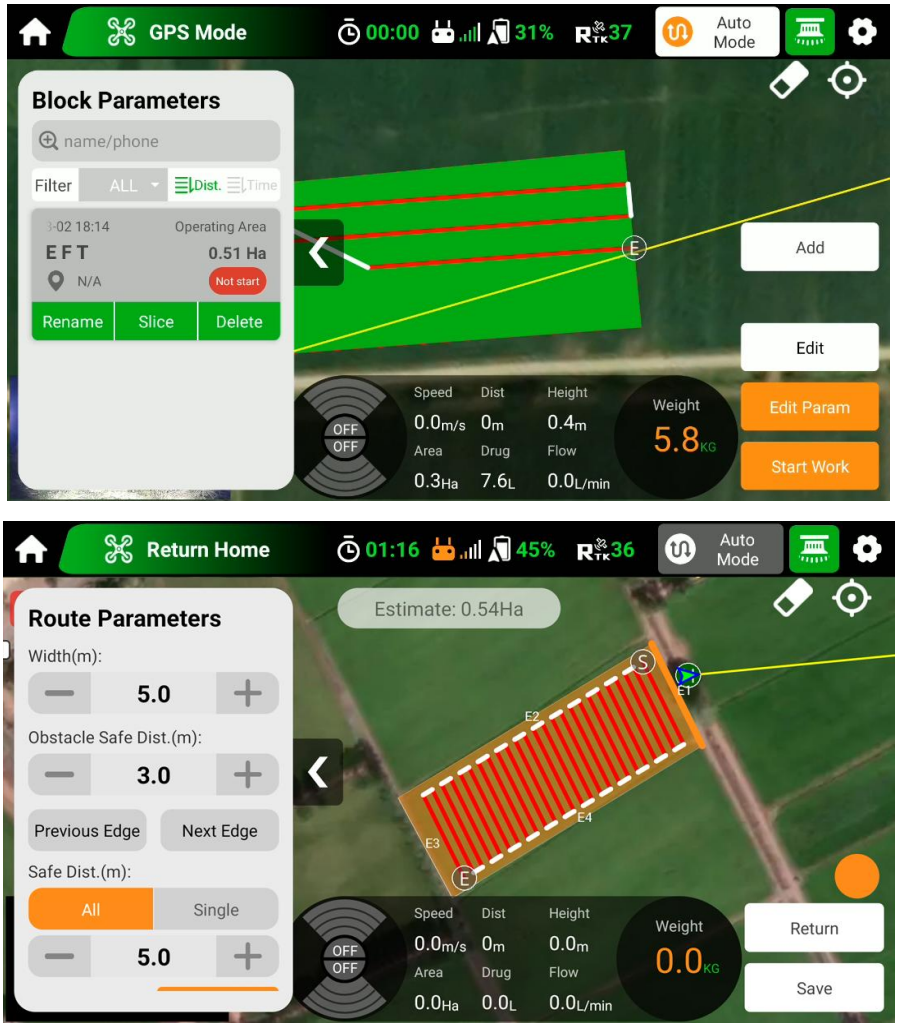
After tapping **Mark(RC),** walk to the edge of the plot with the remote controller, mark points around the plot, and **Save Block.**

4.2 Route Parameters

After saving the block , the block list will pop up and the just mapped block will be selected automatically, rename, split and delete are allowed

Tap **Edit** to re-edit this block, the operations are the same before..

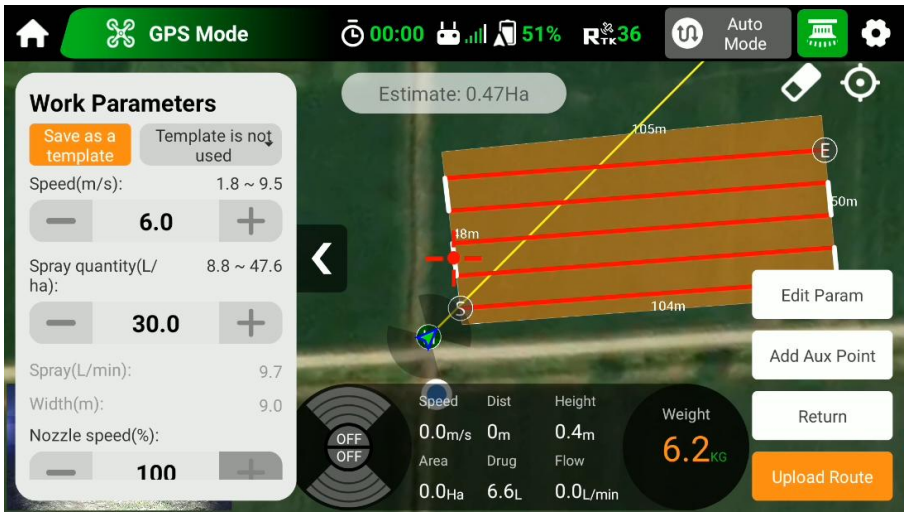
Tap **Edit Param**, the flight route will be created automatically, then set the relevant parameters and **Save** it .



Edit Route Parameters Page

4.3 Work Parameters

After saving the route parameters, the **Work Parameters** list will pop up automatically



Edit Work Parameters Page

4.4 Start Work

After setting the work parameters, tap **Upload Route**, then confirm the flight informations, **slide the indicator bar**, and the aircraft will automatically operate according to the settings.

Flight Confirm Page

5 . AB Mode

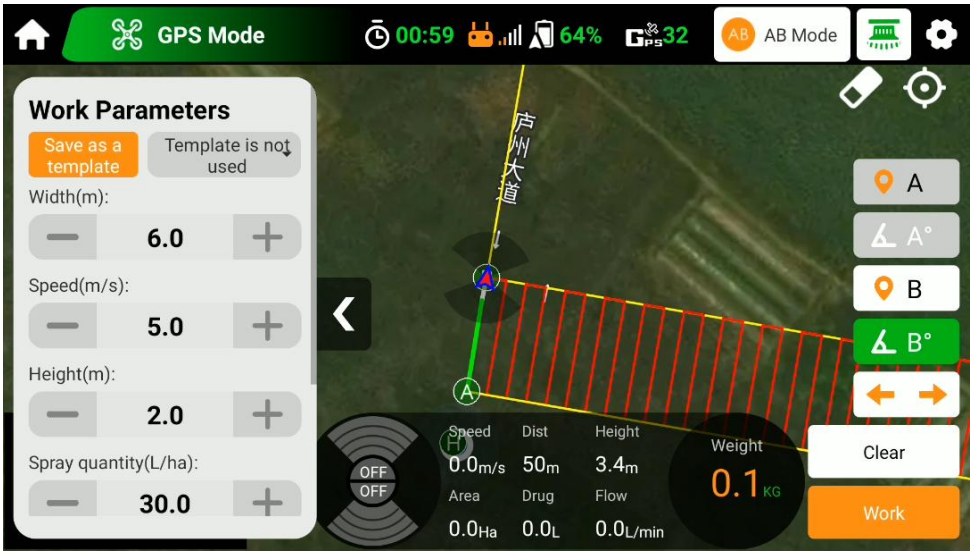
Enter **EFT Agriculture** ,tap **Start** and switch **Auto Mode** to **AB mode** . This mode is suitable for large areas with few obstacles and regular plots.

5.1 AB Point Parameters Setting

Step1：After setting the work parameters of AB Mode , it's recommended to save it as a template for next time.

Step2：Manually **fly the drone to the start point** (make sure the spray tank is filled).and Tap **A** to set point A on the app or the custom key on the remote controller. If the plot is a triangle or trapezoid, adjust the angles of points A and B after recording them.

Step3：**Fly the drone to point B** and the water pump will open automatically . Tap **B** or a custom key on the remote controlle to set point B.



AB Point Setting Page

5.2 Creating AB Route

After successfully recording points A and B, the APP will automatically create the route. Click to switch the direction of routes

5.3 Start Work

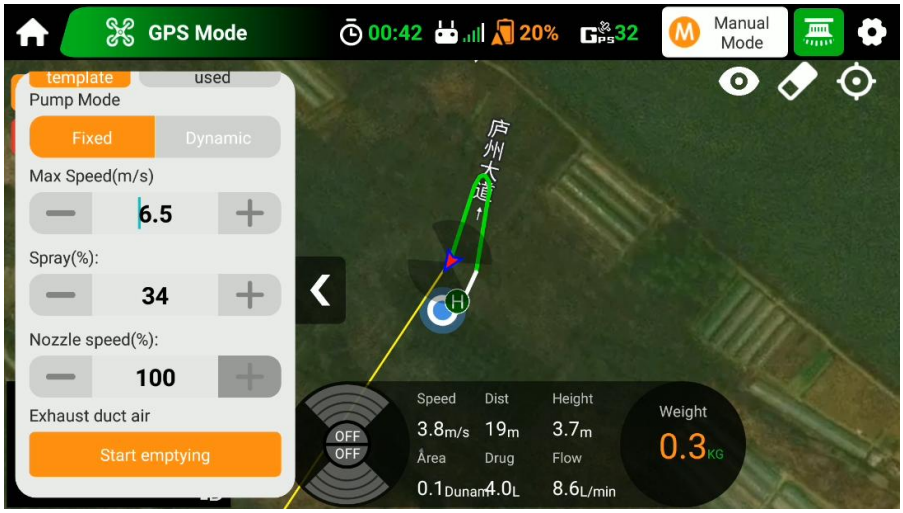
Tap **Work** after confirming the route, then slide indicator bar to take off and it will work automatically .

6 .Manual Mode

Enter **EFT Agriculture** APP ,tap **Start** and switch to **Manual Mode**, this mode is suitable for irregular or small farmland.

- **Manual Mode Operational Process**

Step1：Tap on the APP , then set the relevant **Work parameters.**



Manual Mode Parameters Setting Page

Step2：Fly the drone to the target area for pesticide spraying, then press the spraying button **(B or D)** on the remote controller to start manual spraying.

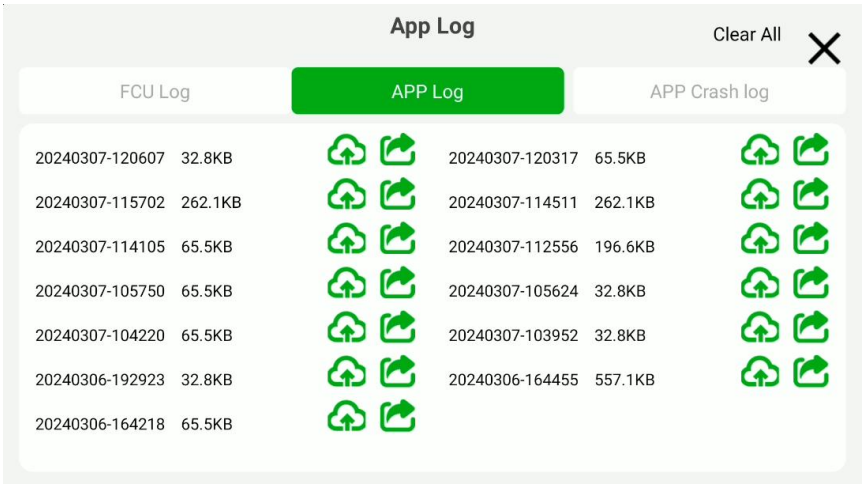
7 .Other Functions

7.1 Download Log

When met flight failure , please download the relevant logs as needed and share them with EFT customer service for log analysis.

Tap **Accounts** on the Homepage, slide down to find **APP Log**, where the **FCU Log, APP Log, APP Crash Log** are saved.

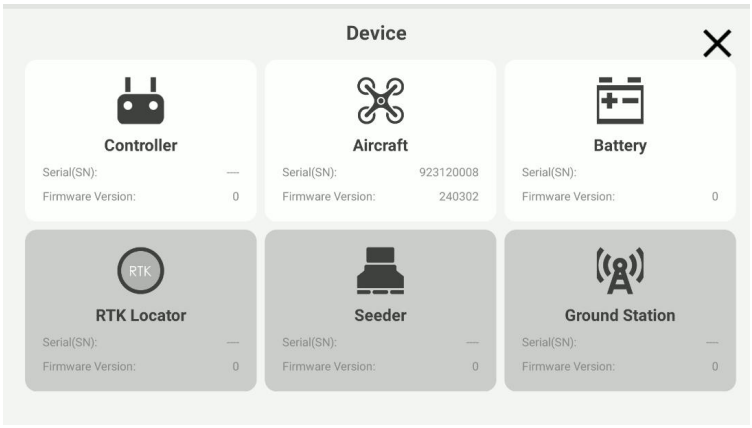
* When reading logs, make sure the drone is stayed on an open ground with propellers locked to avoid accidents.



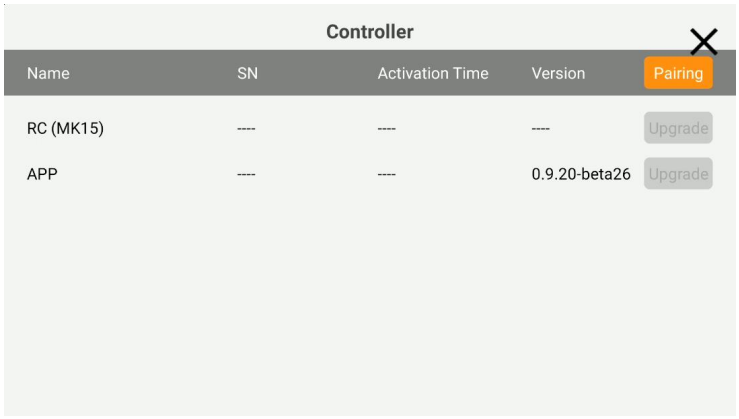
APP Log Page

7.2 Device

Tap **Device** on the Homepage to view **Controller, Aircraft, Battery, RTK Locator, Seeder, Ground Station . SN number, Activation time and APP Version** （Unconnected devices appear gray and unclickable ）. If the devices have new version. the **Upgrade** button will change to **green**. The users can upgrade latest version accordingly.



Device Page



Controller Page

* When replacing the receiver or remote controller, or **if remote controller fail to connect drone for over 2 minutes**, Please follow the steps to reconnect : **Tap Device-Controller-Pairing**, then press the **Link button** on the receiver until the signal light flashes rapidly. When the signal light flashes slowly and the remote controller will display **Pairing Successfully** , the pairing is complete.

Thank you for reading this documentation. If you have any questions or suggestions,welcome to contact us.

WeChat Official Web Youtube Facebook

Please follow EFT official website to get the updates in time : www.effort-tech.com