TRAIL

Complete User Guide

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CONTENTS

Please read this section carefully before using your Kaiser Baas Trail Drone.

By operating this product, you hereby agree to these disclaimers and you have read and understood the warnings and conditions fully.

This product is not suitable for people under the age of 14. Always observe the safe flying instructions within this User Guide, as well as the guidelines and regulations of your local aviation authorities.

Above all, maintain a safe distance from people and property when operating your Trail Drone – a safe distance of 10m is recommended.

Kaiser Baas accepts no liability for damage(s) or injuries incurred directly or indirectly from the use of this product, including but not limited to the following conditions:

- Failure to follow the full instructions and cautions in the User Guide, pertaining to correct assembly and safe operation.
- Damage(s) or injuries caused by erratic operation or poor piloting decisions.
- Damage(s) or injuries caused by mechanical failures as a result of neglect, including the erosion and aging of product components.
- Damage(s) or injuries caused by the Drone being flown in the following conditions:
- Unfavourable lighting; where the Pilot's ability to see the Drone clearly is diminished.
- Inclement weather; moderate to high winds, rain, snow or hail.
- Flying near electrical hazards, such as power lines or towers.
- Flying in or near fire, floods, tsunamis, ice, avalanche, landslide, earthquake, etc.
- Damage(s) or injuries incurred due to users under the influence of drugs or alcohol, suffering dizziness, fatigue, nausea and any other condition; physical or mental that could impair the Pilot's ability to fly responsibly and within the boundaries of the law.

- Damage(s) or injuries caused by malfunctions or "hacks", refits or the replacement of original components with non-Kaiser Baas provided accessories and/or parts.
- Damage(s) or injuries caused by the misuse or incorrect operation of the battery, protection circuits, Remote Control Transmitter or Battery Charger.
- Damage(s) or injuries caused by flying the Drone in abnormal conditions and allowing external substances to come into contact with the Drone e.g. water, oil, soil, sand or any other material that could enter the Drone and its internal compartments, including the battery.
- Damage(s) or injuries caused by flying in areas such as those with: magnetic interference, radio interference, government regulated no-fly zones or airports.
- Any other losses that are not covered by the scope of Kaiser Baas liability.
- Kaiser Baas reserves the right to make changes to this User Guide if required. Please check the Kaiser Baas website for the most up to date version of this guide: www.kaiserbaas.com/support.

The information within this manual is subject to change without notice.

Operating Guidelines

Even though the Trail Drone may look small and light, there are important safety considerations to bear in mind when operating this device. Always observe the following guidelines:

Do not fly the Drone within 10m of people anywhere. Consider your personal liability when you choose to operate your Drone.

Do not attempt to handle or catch the Drone while it is in operation.

Do not attempt to handle the Drone while the rotor blades are still spinning.

Do not allow others to approach the Drone while it is in operation and the rotor blades are in motion.

Always make sure that you have completely “disarmed" the Drone before handling.

Always maintain visual line-of-sight (vlos) with the Drone. Always fly between official sunrise and official sunset, local time.

Never engage in careless or reckless manoeuvres. Consider the impact reckless behaviour might have on other Drone enthusiasts and future pilots. Never operate your Drone when intoxicated or when you are incapacitated in any other way. Always follow your local aviation authority’s guidelines.

Battery Guide

It is imperative that only a Kaiser Baas Trail Drone battery is used inside the Trail Drone. Do not use any third-party or unknown accessories or batteries. Always ensure your Drone battery is charged before flight.

Battery Safety Warnings

Do not disassemble the battery. Do not short-circuit the battery.

Do not ever poke or puncture the battery with any blunt or sharp instrument.

DO NOT ever poke or puncture the battery with any blunt or sharp implement [WARNING] There is a high risk of it igniting!

Do not ever leave the battery near an open flame or heat source.

Do not immerse the battery in water. Do not charge the battery in direct sunlight.

Never leave a charging battery unattended.

Only remove the battery from its supplied charger when the charging cycle is complete.

Do not reverse charge or over-charge the battery.

Always charge the battery in a designated space, away from people and animals.

If the battery becomes bloated or appears to be inflated discard the battery immediately.

Instructions to discard a bloated battery: Place the bloated battery in a bucket filled with salt water (200 grams salt to 1-litre water) and leave the battery in the solution for three days. You may now dispose of the battery through your local recycling centre. Never use your battery after conducting the discard process.

If the battery has a high surface temperature, leave it to cool before you try to re-charge it.

Always ensure the battery is free from all damage and deformation before use.

If you see any sign of smoke coming from the Drone or battery area - stop operating immediately

– when safe, disconnect and remove the Drone battery.

Do not use the battery with unspecified equipment.

Do not touch a leaking battery directly. Never let battery contents touch your skin or clothing. If contact occurs, seek medical advice immediately.

Do not throw or cause any trauma to the battery.

Do not put the battery in a microwave or high pressure container.

Do not charge the battery if the ambient temperature is below 0°c or above 45°c.

Always use the supplied charger and observe charging requirements.

Always store the battery in a safe and cool place and never store the battery fully charged.

Pre-Flight Checklist

- Do a complete check of your surroundings; look for hazards above, in front and behind you.
- Be especially aware of things like power lines and nearby people and animals. If these hazards exist, do not deploy your Drone and consider a new take-off location.
- Do not fly in inclement weather or moderate to high winds.
- Do not fly in populated areas as unforeseen flight hazards may occur.
- Remember you are the pilot. Safety is your responsibility.
- Do not fly near airports/controlled airspace. Ensure that you are at least 5.5Kms from any airfield and you are adhering to any regulations and laws laid out by your local aviation authority.
- Remember checking your distance to these areas is your responsibility
- Never fly your Drone near large crowds or above unwilling spectators.
- Make sure that you have the full permission of people within flying range of your Trail Drone and do not fly your Drone where people have not given permission or have requested that you not fly.
- Ensure the Drone is orientated in the desired direction.

It is the responsibility of the Pilot to properly research and familiarise themselves with the regulations surrounding the flying of their UAV. This list serves as a guide only:

- Australia: casa.gov.au
- New Zealand: caa.govt.nz
- UK: caa.co.uk/home
- Ireland: iaa.ie
- Scotland: transportstyrelsen.se/en/aviation
- France: ecologique-solidaire.gouv.fr

The Trail Drone makes the perfect travel companion for capturing all your adventures in HD. The compact, foldable design allows you to take your Drone everywhere with you so you never miss a moment. The GPS and Intelligent Flight Modes make flying easier than ever before.

If you are new to flying Drones, you can expect to be up and flying in a short time. Of course, you need to familiarize yourself with the safety, operating and controls of the Trail Drone first! Give yourself time to become accustomed to the feel of the Drone and effect of the controls.

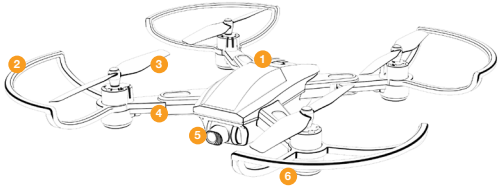
The Trail Drone can be used with its camera or Remote Control Transmitter in the following configurations.

- Drone and Remote Control Transmitter (No FPV)
- Drone, FPV App and Remote Control Transmitter
- Drone, FPV App and Smartphone Control

For reference on how to use the FPV (First Person View) and Smartphone Control Modes please refer to the WiFi App Operation section of this user guide.

Key Features

- Waypoint Modes
- Orbit mode
- Follow-me mode
- Live FPV/VR
- Foldable
- Auto Hover
- Headless Mode
- Auto Take-off/Landing
- 1 Key Return home
- Low battery return
- WiFi



1. Power ON / OFF
HOLD FOR 3 SECONDS

2. Rotor Blade Guards
PROTECT ROTOR BLADES

3. Rotor Blades
STABILISE THE Drone

4. Foldable Arms
COMPACT THE Drone

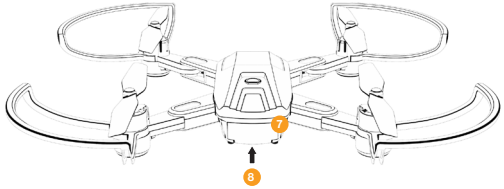
5. 720P Camera Module
VIDEO & PHOTO CAPTURE

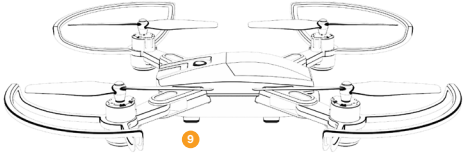
6. Indication Lights
BLINK RED / GREEN

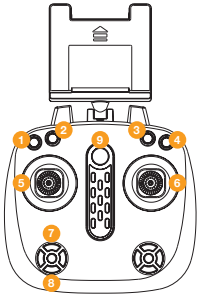
7. Battery
PRESS & PULL TO OPEN

8. MicroSD Card
VIDEO & PHOTO STORAGE

9. Landing Feet
ALLOW FOR SOFT LANDING







1. Speed

Drone SPEED LEVELS

2. Return Home

RETURN TO POINT OF ORIGIN

3. Take Off & Landing

BEGIN / END FLIGHT

4. GPS Mode

TURN ON / OFF

5. Throttle Control

INCREASE / DECREASE THRUST

6. Directional Control

FLIGHT MANOUVERING

7. Camera Tilt

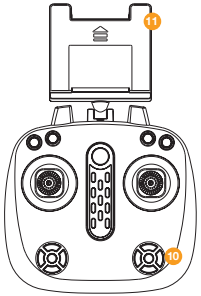
ADJUSTS CAMERA ANGLE UP

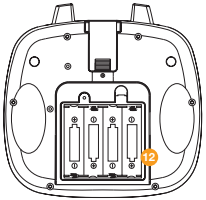
8. Camera Tilt

ADJUST CAMERA ANGLE DOWN

9. Power

Trail ON / OFF





10. Headless Mode

RELATIVE FORWARD MOVEMENT

11. Smartphone Holder

MOUNT YOUR SMARTPHONE

12. Battery

4x AA BATTERIES (NOT INCLUDED)

To charge the Drone Battery

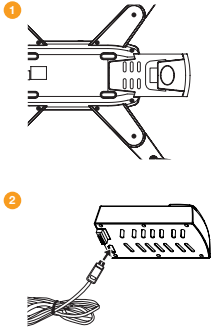
1. Remove the battery from the Drone by sliding it out of the Drone battery compartment.
2. Connect the USB wall charger (not included) to the Micro USB charging port on the battery using the supplied charging cable.
3. The USB Charging Cable features a red LED indicator light that will turn off when charging is complete. While it is charging the light will be ON.
4. A full charge cycle will take approximately 2-3 hours by 1A charger adapter as the battery capacity is 7.5V 850 mAh.

Low Battery

The Trail drone is also able to return to its home point when the battery level is low when the drone is on the GPS mode. In the normal mode, the Drone LED Lights will flash when the drone is in Low Power Mode. When the LEDs are flashing you should bring the Drone to a complete stop.

Failure to land the Drone when the Low Battery signal starts flashing may cause a sudden loss of power endangering persons, property and the Drone.

Ensure the Drone is OFF prior to installation of modules.



Rotor Blades Assembly

It is important that only Kaiser Baas Trail Drone Rotor Blades are fitted to the Trail Drone. Never use any third-party accessories or tools.

Your Drone will come ready to fly with Rotor Blades attached. If you need to replace them, please refer to the following guide:

Disassembly

Use the provided screwdriver to untighten the screw in an anti-clockwise direction.

Remove the Rotor Blade by pulling up and off the motor axis bar.

Assembly

Insert the Rotor Blade onto the motor axis bar.

Only install the Rotor Blades to the corresponding clockwise/anti-clockwise motor. A letter is marked on each blade to indicate which motor it should go on. Incorrect installation will cause severe instability. Refer to the diagram.

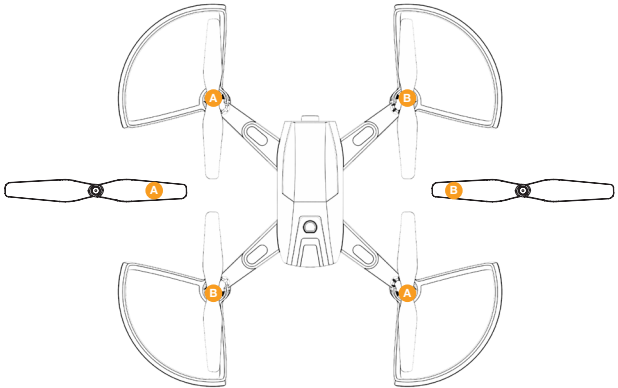
Use the provided screwdriver to tighten the screws in a clockwise direction.

[WARNING] Never use Rotor Blades with any signs of damage or wear and tear. This includes chips, scratches and cracks. Damaged Rotor Blades can cause the Drone to fail in- flight and may result in damage to persons or property.

[WARNING] Never touch the Drone or the Rotor Blades when the motors are spinning.

Rotor guard installation

It is highly recommended to install the Rotor Blade Guards before using the Drone to ensure safety.



To operate your Drone, you must first pair the Drone to your Remote Control Transmitter before every flight. Ensure your Drone and Remote Control Transmitter are fully charged and follow these steps in order:

1. Turn on your Drone by holding the power button for 2 seconds.
2. The Drone lights will flash indicating it is ready to pair to a Remote Control Transmitter.
3. Turn on the Remote Control Transmitter.
4. Using the Left Throttle/Yaw Stick move it to the maximum UP position and return it back to the zero position, you will hear a beep.

The Drone is now paired to the Remote Control Transmitter.

Calibration

It is important that you calibrate the gyroscope and compass every time before flying outdoor

To Calibrate;

1. Place the Drone on level surface
2. Turn on the Trail Drone & pair with the controller.
3. Refer to the next page for Gyroscopic and Compass Calibration.

Gyroscopic Calibration

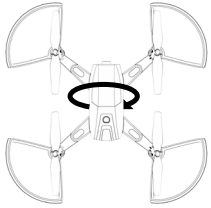
Press and hold the Gyro calibration button for 4 seconds. The LED lights under the Drone will start flashing quickly. Wait until the LED lights are pulsing.

Compass Calibration

Press and hold the Compass calibration button for 4 seconds. The LED lights under the Drone will start flashing quickly. Wait until the LED lights are pulsing.

Now, hold the Drone straight and horizontally rotate 360° in clockwise direction for 3 times continuously.

Then hold the Drone vertically with the camera facing up and rotate 360° in clockwise direction for 3 times. Place it on a leveled surface again, LED lights will flash slowly. Calibration is now competed. LED lights will become solid once the Drone received sufficient GPS signal.



GPS

Make sure the Drone receives GPS signal before you take it to fly. If the signal is weak, the LED light will start flashing. LED lights becomes solid when the GPS signal is strong.

Trail Drone will enter default into GPS mode once it received the GPS signal. If the Drone does not receive the signal, check the GPS Trail on the remote controller and ensure that it is on.

When you press, long beep indicates that the GPS is on and short beep indicates that the GPS is off.

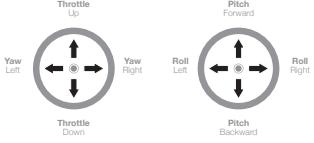
When operating the Drone, it is important for new Pilots to ensure that the Drone's heading is facing away from you. The Remote Control Remote Control Transmitter has two control sticks, left stick (Throttle/Yaw) and right stick (Pitch/Roll).

Left Stick

This controls the Drone's Throttle (Up/Down) and Yaw (Left/Right).

Right Stick

This controls the Drone's Pitch (Forwards/ Backwards) and Roll (Left/Right) movement.



To Take-Off

To Take-Off you must first bind the Drone to your Remote Control Transmitter. Refer to the Drone/ Remote Control Transmitter Binding Section. The Trail Drone comes equipped with a Take-Off and Landing function.

Once the Drone is paired with the controller, arm the Drone by simultaneously pulling the left joystick to bottom left corner and right joystick to bottom right corner.

The Rotor Blades will start to spin indicating it is ready to fly.

Press the Take-Off/Landing button once or push the Throttle/Yaw Left Stick slightly UP to fly.

The Trail Drone features Auto-Hover, releasing the Throttle/Yaw stick will keep the Drone at the same altitude. Pushing the Throttle/Yaw Left Stick UP or DOWN will ascend or descend the Drone.

Flying Indoors

If you are flying your Drone indoors, you must first turn off the GPS once the drone is armed. To do this, press the GPS button then press the Take-off/Landing button.

To Land

Whilst the Drone is in flight press the Take-Off/ Landing button. The Drone will then descend to the same altitude/level from which you armed it.

[WARNING] Do not operate the Drone in severe weather. This includes wind speeds exceeding 5m/s, snow, rain and fog. Don't operate when the GPS signal is weak, in case the positioning function is interfered and impacts the flight safety.

Speed Modes

There are 2 Speed modes on the Trail Drone. They can be cycled through on the Remote Control Transmitter by pressing the Speed Mode Button. Each mode is indicated by an increasing series of beeps.

Mode 1-Beginner Mode

This is the default operating mode that the Trail Drone initializes in. Please ensure that you use this mode in a large open space with no obstacles. The sensitivity is very low and is suitable for beginner pilots. It is less responsive and more forgiving.

Mode 2-Pro Mode

To enable this mode, press the Speed Mode Button TWICE. The Remote Control Transmitter will beep three times indicating you are in Pro Mode. This is the most responsive and fastest mode the Drone can operate in.

This is only recommended for pilots with experience flying the Drone. Headless Mode allows you to control the Drone relative to its direction from the take-off location. This means you can fly the Drone without worrying which direction it is facing. Before you use Headless Mode, ensure the Drone's Direction/Heading is facing away from the pilot/operator.

Headless Mode

To enable Headless Mode, simply press the Headless Mode Button on the Remote Control Transmitter as indicated in the diagram. You will hear a short beep and the drone light will start flashing.

To avoid confusion, you should ensure the controls are correct from take-off. Headless Mode can be turned on while in flight. You should arm the Drone while you are standing behind it, so that you and Drone are both facing in the same direction. Failure to do this will result in incorrect control.

Normal Mode

Headless Mode

Return Home Mode

Return home function brings the Trail drone back to the last recorded point of origin.

Return mode will only work when the Trail drone is on GPS mode.

The Trail drone is also able to return to its home point when the battery level is low when the drone is on GPS mode.

Press return button on the Remote Control Transmitter as indicated in the diagram. You will hear a long beep and the drone light will start returning to home point.

Install the KB Trail App

Download and install the KB Trail App on your Smartphone.

The Trail App features Wi-Fi and can record video, take photos and access a range of other features includes Follow-me, Waypoint, Orbit mode etc.

How to connect

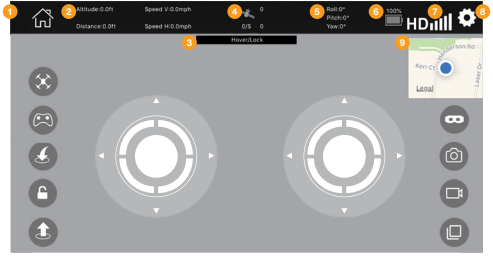
To control the Drone with the smartphone, you must take Trail Drone outdoor and ensure that it receives GPS signal.

1. Turn on the Drone. The indication lights at the bottom of the Drone will start to blink.
2. Make sure the Remote Controller is off.
3. Open your phone and go into the WiFi settings, turn the WiFi on if it is off.
4. Wait for few seconds and select KB Trail once it appears on the list.
5. Once connected open the KB Trail App on your phone.
6. Click on the Ready to Fly tab to control your Drone.

Operation

The Trail Drone has a feature that lets you control the Drone exclusively via the APP. We recommend beginner pilots learn to use the remote Remote Control Transmitter before attempting to control the Drone through the App.

To pilot the Drone without the Remote Control Transmitter, we suggest you learn the keys and functions.



1. Home
RETURN TO HOME SCREEN

2. GPS Co-ordinates
ALTITUDE / DISTANCE

3. Hover / Lock
Drone STATUS

4. Satellite
NUMBER OF SATELLITE CONNECTIONS

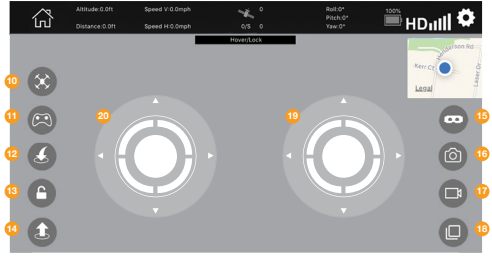
5. Flight Details
ROLL / PITCH / YAW

6. Battery
BATTERY STATUS

7. Wifi Signal
STRENGTH OF SIGNAL

8. Settings
CUSTOMIZE Drone SETTINGS

9. Map
SHOWS Drone POSITION



10. Intelligent Flight Modes
WAYPOINT / FOLLOW ME / ORBIT

11. Drone Control
JOYSTICK CONTROL

12. Return to Home
RETURN TO POINT OF ORIGIN

13. Unlock / Start
ARM THE Drone

14. Auto Take Off / Landing
BEGIN / END FLIGHT

15. VR Mode
FIRST PERSON VIEW

16. Photo
PHOTO CAPTURE MODE

17. Video
RECORD

18. Gallery
PREVIEW YOUR MEDIA

19. Throttle Control
INCREASE / DECREASE THRUST

20. Directional Control
FLIGHT MANOUVERING

Take the Trail Drone outside**.** Connect your smartphone to the Trail Drone through Wi-Fi.

Enter the app control interface by clicking the start flight button on the app.

It is important that you calibrate the gyroscope and compass every time before flying outdoors.

To Calibrate

Go to Settings (8).

Under Joystick tab, tap on Accelerometer calibrate, this will calibrate the Accelerometer.

Next, tap on the Magnetometer calibrate.

Now, hold the Drone straight and horizontally rotate 360° in clockwise direction for 3 times continuously.

Then hold the Drone vertically with the camera facing up and rotate 360° in clockwise direction for 3 times.

Place it on a levelled surface again, LED lights will flash slowly. Calibration is now competed.

LED lights will become solid once the Drone received sufficient GPS signal.

Tap on the Settings (8) icon once again to hide the Settings popup.

It's time to take off

Ensure the Drone receives GPS signal. (Wait until the LED lights become solid). You will see the number of satellites connected to the Drone. More number of satellites will increase the stability and position accuracy of Drone.

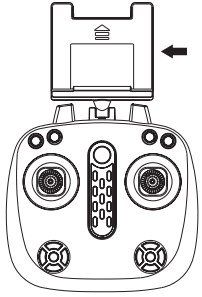
1. Tap on the Lock icon (13) to unlock the Drone.
2. Once the rotor starts spinning, tap on the take/off landing button (14) to take off.
3. Press the controller icon (11) to display Throttle control and Directional controls on the screen.

Using the Remote Controller & Smartphone simultaneously

You can use the smartphone for live FPV when you control the Drone with the remote controller.

Follow the below steps to operate this way;

Attach the Smartphone to the phone holder and mount it to the remote controller.



1. Turn on the Trail Drone.
2. Bind the Remote-Control Transmitter and the Drone first.
3. Pair the Smartphone with the Drone. Please see pairing instruction above.
4. Once connected open the Kaiser Baas Trail Drone App.
5. Click on the Start Flight tab to see the live FPV of your Drone.

Note: When you are on combo mode, you can only operate the Drone using the remote control. Videos/Photos will be saved to smartphone by default unless you turn the app controls off on the KB Trail interface. If the SD card is not inserted when the Drone is connected to smartphone, files will be saved to the smartphone by default.

Waypoint mode

Define an exact flying route on the map and altitude by using Waypoints.

To activate Waypoint flight mode:

1. Pair your smartphone with the Drone and launch the KB Trail app.
2. Wait for the Drone to receive GPS signal and sufficient number of satellites.
3. Once the Drone starts receiving GPS signal, Hover/Lock (3) will turn to Point/lock on the app screen.
4. You can now tap on the Intelligent flight mode icon (10).
5. Select Waypoint mode, choose the pen icon from the right and set the flight path.
6. You can either drop the points one by one using this pen (Fig.1) or draw the flight path with a series of points using this pen (Fig.2).
7. Now set the altitude of flight by taping on each point and you are all set to go;
8. Unlock Drone by taping on the lock icon (13).
9. Then tap on the take/off icon (14).
10. Once the Drone is airborne, tap on the mode activate icon (Fig.3) to begin the waypoint flight mode.

Exit the Waypoint mode by pressing this button.

Follow me mode

In this mode Drone can automatically follow the person holding the smartphone controller.

To use the Follow-Me Mode the Drone must be connected with the smartphone, it should have a minimum altitude of 5m and a maximum altitude of 50m. For better videos an altitude between 10 - 30m is recommended. Note that the Follow me performance is subject to the GPS accuracy on the smartphone device.

To activate Follow me flight mode

1. Pair your smartphone with the Drone and launch the KB Trail app.
2. Wait for the Drone to receive GPS signal and sufficient number of satellites.
3. Once the Drone starts receiving GPS signal, Hover/Lock (3) will turn to Point/lock.
4. You can now take off the Drone and hover it in the air with the sufficient altitude (5m-50m). It is recommended to fly and hold the Drone a few meters away from you before you activate the follow-me mode.
5. You can now tap on the Intelligent flight mode icon (10).
6. Select Follow-me mode.

The Drone will start following the person holding the smartphone controller.

Exit the Follow me mode by pressing this button.

You can take over the control manually anytime during the flight by tapping the Joystick control.

Orbit mode

In this mode, you can set a point on the map and Drone will orbit around that point.

Your desired radius from the point and aircraft altitude can be controlled manually during your flight.

To activate orbit mode

1. Pair your smartphone with the Drone and launch the KB Trail app.
2. Wait for the Drone to receive GPS signal and sufficient number of satellites.
3. Once the Drone starts receiving GPS signal, Hover/Lock (3) will turn to Point/lock.
4. You can now take off the Drone and hover it in the air with the sufficient altitude (5m-50m).
5. Tap on the Intelligent Flight mode icon (10) and select Orbit mode.

6. Set the point of interest (Fig.4) on the Orbit menu and tap on the mode activate button (Fig 5.) to begin the Orbit flight mode. You can set the altitude of flight by tapping on the point of interest (Fig.4).

The Drone will now move from its current position to the point of interest and start orbiting around the point. You can take over the control manually anytime during the flight by taping the Joystick control icon (11).

[WARNING] Before you activate any intellegent flight modes, make sure the area you fly in is clear from obstacles, crowds, trees, high voltage power lines and bodies of water.

Exit the Follow me mode by pressing this button.

You can take over the control manually anytime during the flight by tapping the Joystick control.

The Drone LED lights are flashing. What does this mean?

- No GPS signal detected. Move your Drone to a plane area.
- Insufficient battery power. Please charge the Drone battery
- The Drone is not paired with a Remote Control Transmitter. Refer to the Drone Setup/ Installation section.

The Drone's Rotor Blades spin but the Drone does not take-off?

Insufficient Battery Power. If the Drone LEDs are flashing and the Drone Rotor blades are spinning without any lift, recharge the Drone battery. The Rotor Blades are distorted. Replace them with only official Kaiser Baas replacement blades.

Why is the Drone is shaking and not stable in flight?

Please check to ensure the Rotor Blades are not damaged. Check that all the motors are spinning.

The Drone is out of control and is difficult to fly. How can I make it easier?

Prior to every flight we recommend you calibrate the Drone. Refer to the calibration section.

Dimension	35*35*6.5CM
Weight	215g
Camera Resolution	720P
Flight time	10-12 minutes
Range	150m (Remote Control) 30m (Smartphone)
Battery Drone	7.4V 850mAh Li-po battery
Battery RC	4x 2AA batteries.
File Storage	Micro SD card / Smartphone
Intelligent Flight mode	Yes

Support

Having trouble with your Drone?

Don't worry, our friendly support team can help. Please visit us at:
www.kaiserbaas.com/support

Or send us an email at:
helpdesk@kaiserbaas.com

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