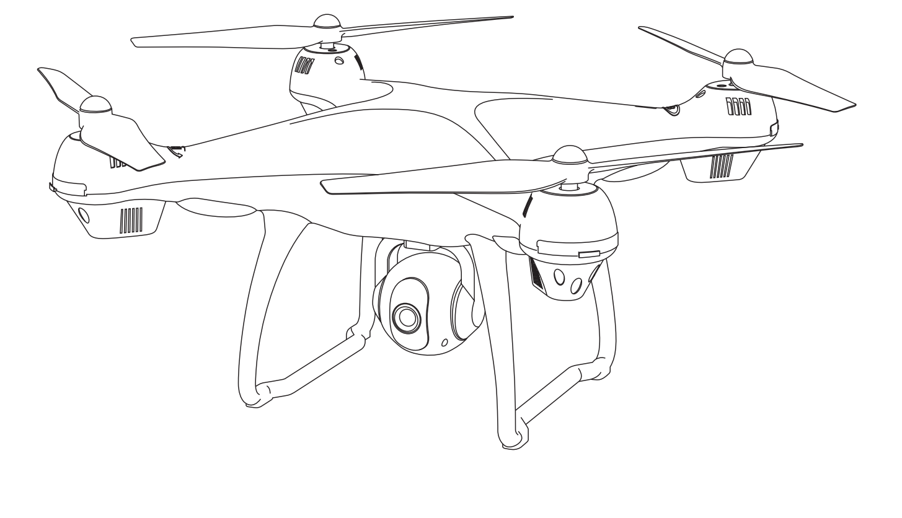
Potensic®

14+ for age

T35

2.4GHz FPV real-time video and image transmission Quad-copter

(GPS/1080P)



In order to make sure that it meets the requirement of the electromagnetic environment of the aviation radio station, flying within the scope of 10 kilometers on each side by taking the airport runway center line as the middle line is HIGHLY FORBIDDEN or flying within the scope of 20 kilometers by taking both ends of the runway as the center is HIGHLY FORBIDDEN. Flying on the route of the airline is also PROHIBITED. Stop using all kinds of flying models or unmanned Quad-rotors in the AREA that prohibited by related authority or department of our country.

INTRODUCTION

Thank you for purchasing the Potensic GPS Drone. Please read all instructions and warnings carefully before operating. Please also keep this instruction manual for future reference and maintenance.

IMPORTANT:

1. This product is not a toy. It is a precision device, integrating machinery and electronics with air mechanics and high frequency transmission. It requires correct assembly and debugging to avoid any accident. The user should operate and control this product in a safe manner. In case of incorrect operation, it may cause serious injury or damage property. It can also be lost due to incorrect operation.
2. This product is suitable for experienced UAV pilots no less than 14 years of age.
3. In the event of a problem during using, operating, or maintenance, please contact the local sales agent or retailer or keep in touch with the responsible staff of our company.

SAFETY PRECAUTIONS:

This R/C flying model can be dangerous when in use, please make sure you keep it far away from any persons or spectators when flying. Incorrect installation, poor conditions, or users not familiar with operation may cause damage to the aircraft or injure people or may cause an unexpected accident. Please pay close attention to flying safety and learn to recognize more dangerous conditions which may cause an accident due to your own negligence.

1. **Keep it far away from any structures or crowds.**
   This R/C aircraft may vary slightly in speed or sensitivity while flying and can cause potential danger. Therefore, please keep it far away from crowds, buildings, trees, structures, high-voltage wire, etc. Please also avoid flying in adverse weather conditions such as rain, electrical storms, and high winds to ensure safety of the user, any spectators, and surrounding property.
2. **Keep it away from any moist environment.**
   The inside of the aircraft is composed of many precision electronic and mechanical parts. Therefore, please try to avoid any moisture or water content from entering the main body of the aircraft as it may cause a breakdown of the mechanical and electronic parts and thus cause an accident.
3. **Only operate with included parts for intended use.**
   Please use the original parts made by Potensic for any re-equipping or maintenance to ensure flying safety. Please operate and use only under the scope of the product function permitted. Using un-approved parts will void warranty.
   DO NOT use for any illegal purpose or use beyond the scope of which your local laws and regulations have stipulated.
4. **Avoid controlling it independently.**
   New users may have certain difficulties during the early stages of learning to operate this aircraft. Please try to avoid operating the aircraft alone. When available, always operate this aircraft under the guidance of a more experienced user.
5. **Do not operate under the influence of drugs or alcohol.**
   Please operate this R/C aircraft according to your own state and flying skill. Any fatigue, bad mental state, or incorrect operation may increase the probability of accidental risk.
6. **Please keep a safe distance from aircraft when using top speed.**
   When the operator is flying in high speed, please keep the aircraft far from the pilot and any surrounding persons or objects so as not to cause danger or damage.
7. **Store it in a cool, dry place.**
   The R/C aircraft is composed of material such as metal, fiber, plastic, electronics, etc. Therefore, please keep it away from any heat source and avoid prolonged exposure to direct sunlight. Excessive heat exposure can cause distortion and damage.

- NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
- However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interfer-ence to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.
- Please note that changes or modifications not expressly approved by the party responsible for compliance could void the use's authority to operate the equipment.

WARNING

1. There is important information contained in this package and instruction manual, please keep it for future reference.
2. You have the responsibility to make sure that this model of aircraft won't cause injury to others' body or cause any damage to property.
3. Please operate strictly as shown on the instruction manual when debugging or assembling this aircraft. During the process of flying or landing, please pay more attention to keep 1-2 meters between the user and the aircraft to avoid colliding to the head or face or body, which may cause injury.
4. Our company and distributors won't be responsible for any incorrect operation, which may cause loss or damage or injury to the body.
5. Children ages 14 and up should use this product under the guidance of an adult. This product is FORBIDDEN to be used by children under 14 years old.
6. Please correctly assemble and use this product as shown on the instruction manual or packing instruction. Some parts should be assembled by an adult.
7. Small parts are included with this product. Please place it beyond the reach of the children to avoid a CHOKING HAZARD or parts being mistakenly swallowed.
8. Playing on the road or near high traffic areas is strictly FORBIDDEN so as not to cause an accident.

9. Please dispose of the packing material timely so as not to cause injury to children.
10. Please DO NOT disassemble or re-equip the aircraft as it may cause a breakdown of the aircraft during flying.
11. Batteries in the battery compartment of the charger should be inserted into the designated power source which has the same logo as the product.
12. Built-in rechargeable 3.7V lithium polymer battery included in the transmitter.
13. Only the original charger made from our factory can be used.
14. Charger is not a toy.
15. When charging the battery, please conduct it under the surveillance of an adult. Please also keep it far away from any combustible object when charging. Please keep this aircraft within eyesight when charging.
16. Please DO NOT make it short-circuited or squeeze the battery so as not to cause an explosion.
17. DO NOT mix the Li-ion battery with a different type of battery.
18. Intelligent lithium battery is loaded in the Quad-rotor. Both built-in or external can be used for charging.
19. Please DO NOT make the battery short-circuited or decompose the battery or throw the battery into the fire; DO NOT place the batteries near the high temperature or heated area (such as near the fire or near the electric heating device).
20. Aircraft should be kept far away from any other electric compliance or equipment as far as possible or kept far away from the place where having the magnetic object nearby as they may cause interference with each other.
21. Please keep the safe distance from the high-speed rotating rotor so as not to cause twisted or danger of being wounded or being cut.
22. Engine will heat up. Please DO NOT touch it to avoid being burned or injured.
23. Please DO NOT close this product to your ear as it may cause injury to your hearing.
24. Mini USB 5V wall charger recommended for charging. DO NOT use any charger stronger than 5V.
25. To comply with the command of the magnetic environment requirement formulated by the Aviation Radio Bureau and the related authority, during the regulated period in certain areas, please stop using the transmitter of this model when such regulation command is issued.
26. Keep your UAS within sight.
27. Never fly over groups of people.
28. Never fly over stadiums or sports events.
29. Understand airspace restrictions and requirements.

WARNING: CHOKING HAZARD-Small parts. Not for children under 3 years.

MADE IN CHINA

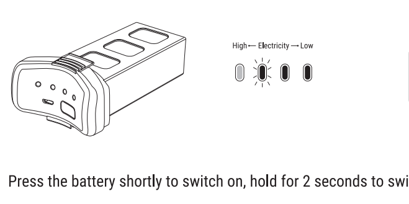
WARNING: Product should only be used by adults and children 14 years and older. Adult supervision required for children under 14 years of age.

WARNING: CHARGING OF THE DRONE BATTERY MUST BE SUPERVISED AT ALL TIMES BY AN ADULT. UNPLUG THE BATTERY WHEN FULLY CHARGED. DO NOT OVER-CHARGE THE BATTERY.

MAINTENANCE

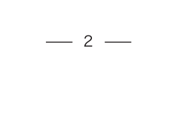
1. Use a clean soft cloth to clean this product frequently.
2. Avoid heating or prolonged exposure to the sun.
3. Don't put the product in water. It will damage electronic parts.
4. Please check the plug and other accessories atregular intervals. If there is any damage, please stop using it immediately until it is repaired completely.

DRONE PARTS



1. HD Camera
2. Landing Rack
3. Blade
4. Motor
5. LED indicator

QUADROTOR LI-POLYMER

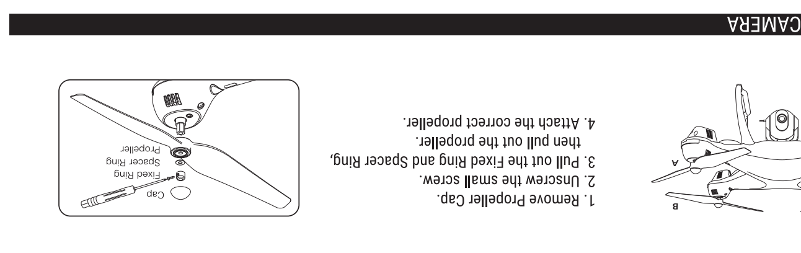


1. Battery power indicator
2. USB charging port
3. Battery switch

Press the battery shortly to switch on, hold for 2 seconds to switch it off.

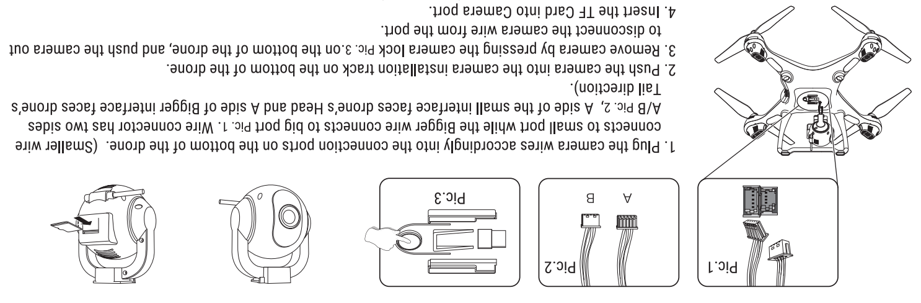
ASSEMBLE THE PROPELLER

Please note that the letter "A" or "B" is printed on each propeller, and make sure all the propellers are attached in the correct motor position.



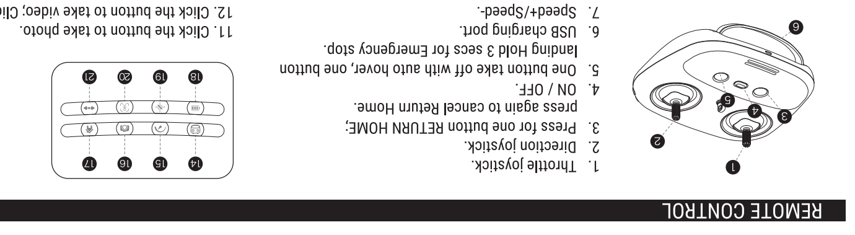
1. Remove Propeller Cap.
2. Unscrew the small screw.
3. Pull out the Fixed Ring and Spacer Ring, then pull out the propeller.
4. Attach the correct propeller.

ASSEMBLE THE CAMERA



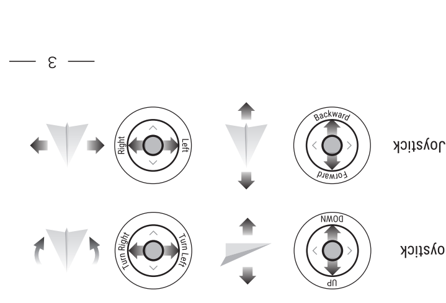
1. Plug the camera wires accordingly into the connection ports on the bottom of the drone. (Smaller wire connects to small port while the Bigger wire connects to big port Pic. 1. Wire connector has two sides A/B Pic. 2. A side of the small interface faces drone's Head and A side of Bigger interface faces drone's Tail direction).
2. Push the camera into the camera installation track on the bottom of the drone.
3. Remove camera by pressing the camera lock Pic. 3.on the bottom of the drone, and push the camera out to disconnect the camera wire from the port.
4. Insert the TF Card into Camera port.
   Insert the optional memory card (not included) into the webcam module's card channel which is on the bottom of the quad-copter, connect the quad-copter's power, and sync quadcopter and remote control. The blue indication light on the webcam module will constantly be on, and the camera is ready for photos and videos. (Memory card available separately)

REMOTE CONTROL

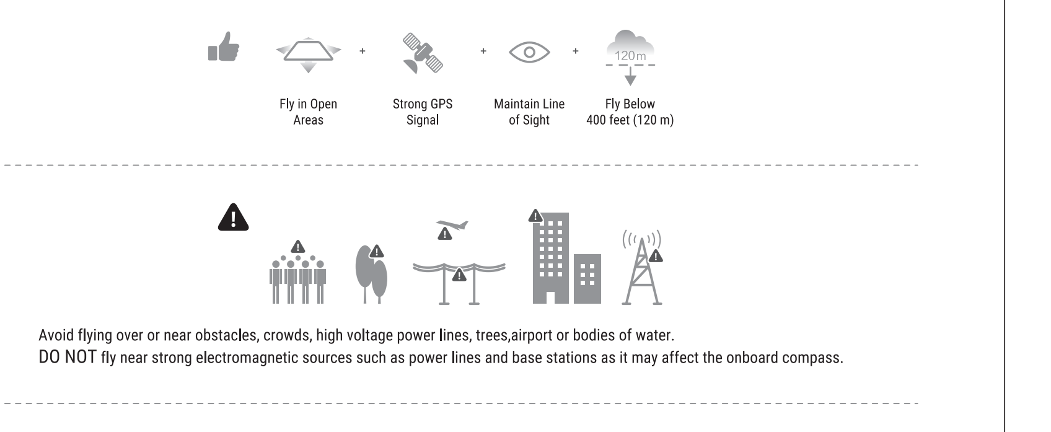


1. Throttle joystick.
2. Direction joystick.
3. Press for one button RETURN HOME; press again to cancel Return Home.
4. ON / OFF.
5. One button take off with auto hover, one button landing Hold 3 secs for Emergency stop.
6. USB charging port.
7. Speed+/Speed-.
8. Click once, enter Follow-me mode; Click again, cancel the follow-me mode. Hold the button for 3 seconds, enter Trim mode. Click the button, cancel Trim mode.
   Note: No need to trim under the GPS mode.
9. Click once to toggle headless/normal mode. Hold the button for 3 seconds to turn off GPS mode.
10. Adjust the angle of camera: Spin button down: camera down. Spin button up: camera up.
11. Click the button to take photo.
12. Click the button to take video; Click the button again to cancel video mode.
13. Phone Holder.
14. Power.
15. Speed.
16. Video.
17. Return Home.
18. Charging.
19. Headless Mode.
20. Follow-me.
21. Trim-See #8 above for access to trim mode.

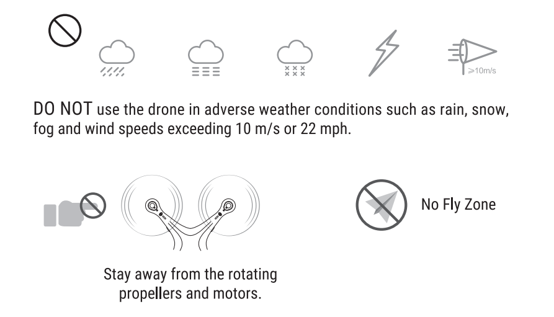
Operation method:



FLY SAFE



Avoid flying over or near obstacles, crowds, high voltage power lines, trees,airport or bodies of water.
DO NOT fly near strong electromagnetic sources such as power lines and base stations as it may affect the onboard compass.



DO NOT use the drone in adverse weather conditions such as rain, snow, fog and wind speeds exceeding 10 m/s or 22 mph.

Stay away from the rotating propellers and motors.

It's important to understand basic flight guidelines, for the safety of both you and those around you. Don't forget to read the Safety Guidelines before flight.

FLIGHT

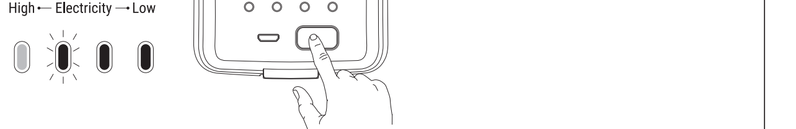
1. Software download and installation

QR code of "Potensic-G" software for Apple IOS system (Please scan this QR code to install this software).

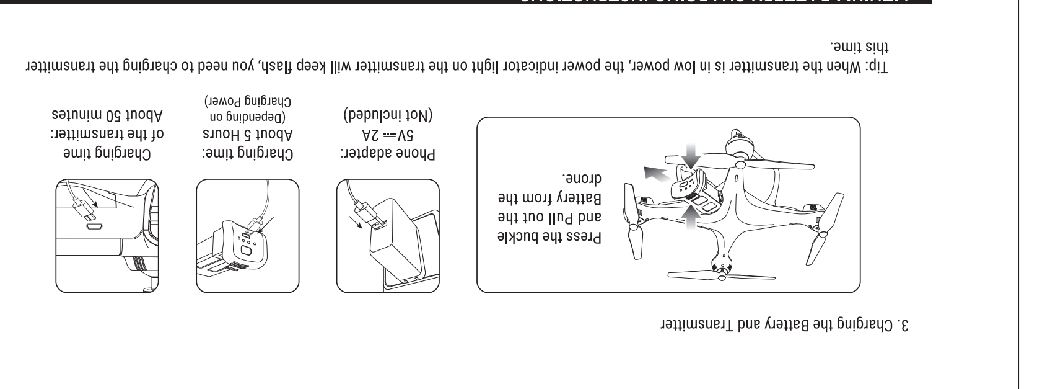
QR code of "Potensic-G" software for Android system (Please scan this QR code to install this software).

- Connect the power of this model, and then access into "SETTING" in the mobile phone, open the "WIFI"and find the "Potensic_XXX". When the link is successfully connected,please exit the"Setting"option.
- Open "Potensic-G" software in the mobile to access into the control interface.

2. Check the Battery Level



3. Charging the Battery and Transmitter


Press the buckle and Pull out the Battery from the drone.
Phone adapter: 5V⎓2A (Not included)
Charging time: About 5 Hours (Depending on Charging Power)
Charging time of the transmitter: About 50 minutes

Tip: When the transmitter is in low power, the power indicator light on the transmitter will keep flash, you need to charging the transmitter this time.

LITHIUM BATTERY CHARGING INSTRUCTIONS

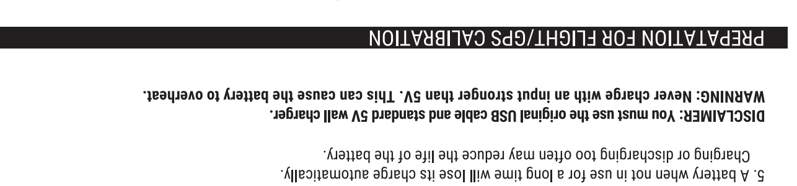
1. Balanced charging: If the power switch of the quad-copter is on the state ON / OFF, The Quad-copter can be charged. Insert the USB cable into the USB port of a computer, and then connect with the charging port of the drone. When charging,the indicator on the power switch will become blue blinking; When fully charged,all indicators on the power switch will turn solid blue.
2. Quad-copter can be charged by the mobile power or car-loaded power.
3. Full charging time takes about 5 hours, Flight time about 12-15 minutes.
4. Remote lithium battery Full charging time takes about 50 minutes.

CAUTIONS WHEN CHARGING:

1. When charging, please put this product in a dry ventilated area and keep it far away from heat sources or flammable products.
2. When charging, it is recommended to remove the batteries from the quadcopter. Charging process should be supervised by an adult so as not to cause an accident. The battery can also be charged while in the quadcopter.
3. After flying, please do not charge the battery if the surface temperature is still warm. If the battery has been used for a long time, or appears to be swollen, please replace them.
4. Please make sure that you use the original USB charging cable provided.
5. A battery when not in use for a long time will lose its charge automatically. Charging or discharging too often may reduce the life of the battery.

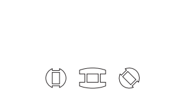
DISCLAIMER: You must use the original USB cable and standard 5V wall charger.
WARNING: Never charge with an input stronger than 5V. This can cause the battery to overheat.

PREPATATION FOR FLIGHT/GPS CALIBRATION

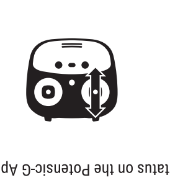


Please choose the spacious indoor or outside environment for flying, also it requires that it should be flied under the weather of non- snow or non-storm with wind force less than Level 4. When flying, please DO keep it far away from the crowd, tree, electric wire, skyscraper, airport or signal transmitting tower, etc.

Step 1: Turn on drone and set down on a *level surface**
– *The drone will auto-trim to this level surface.
– All lights blinking red.

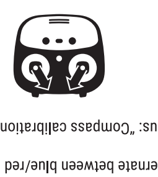


Step 2: Turn on remote
– Press Up, then Down on the left joystick.
– Lights flashing blue (back) and white (front).
– NOTE: *You can connect to the WiFi at this time to view the current drone status on the Potensic-G App, or wait until after GPS is calibrated.

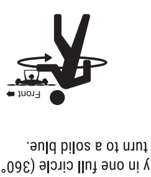


GPS CALIBRATION (CONTINUED)

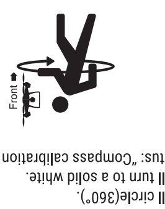
Step 3: Initiate GPS Compass Calibration
– Joysticks at the 1 & 11 o'clock positions.
– Lights rapid-alternate between blue/red (back) and white/red (front).
– App Drone Status: "Compass calibration".



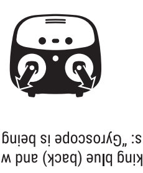
Step 4: GPS Compass Calibration Part 1
– Keeping the drone level, pick up the drone from the back and rotate your body in one full circle (360°).
– Back lights will turn to a solid blue.



Step 5: GPS Compass Calibration Part 2
– From the bottom, hold the drone face-down and rotate the your body in one full circle(360°).
– Front lights will turn to a solid white.
– App Drone Status: "Compass calibration okay".

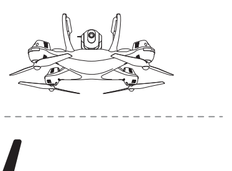


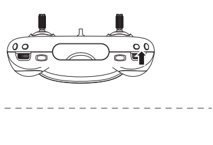
Step 6: Reset to Factory Setting / Calibrate Gyroscope
– Press the Joysticks into the 11 & 1 o'clock positions.
– Lights rapid-blinking blue (back) and white (front).
– App Drone Status: "Gyroscope is being calibrated" "Gyroscope okay".



Step 7: Finalize GPS Calibration
– Set drone back down to level surface.
– Lights return to rapid-blinking blue (back) and white (front) – This means the drone is finalizing its GPS calibration*.
– *This process can take a few minutes. – App Drone Status: "Waiting for GPS signal".

Once the lights have switched to all solid, you are ready to fly!
– Blue (back) and white (front) lights are all solid (no blinking).
– App Drone Status: "Ready to fly".



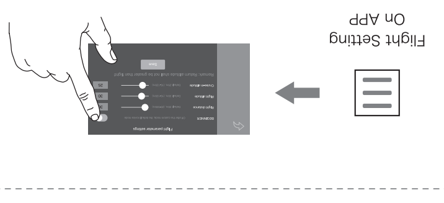


Under the environment of weak GPS signal(like indoors), the lights flash blue(back) and white(front); Press Headless Mode button on the remote for 2 seconds to turn off GPS Mode, then you can fly it, but all the GPS functions will shut down, including Position, Follow Me and One key Return function.

Flight

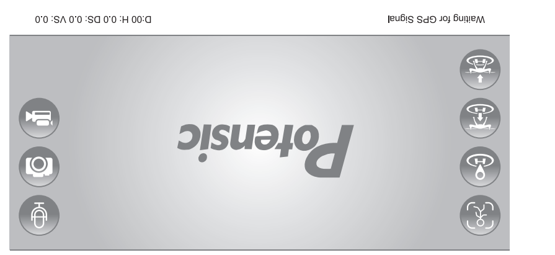
The Default GPS Mode is BEGINNER MODE, Under BEGINNER MODE:
1.Flight Distance is limited between 0-30 M.
2.Flight Altitude is limited between 0-30 M.
3.RTH Altitude is under 25 M.

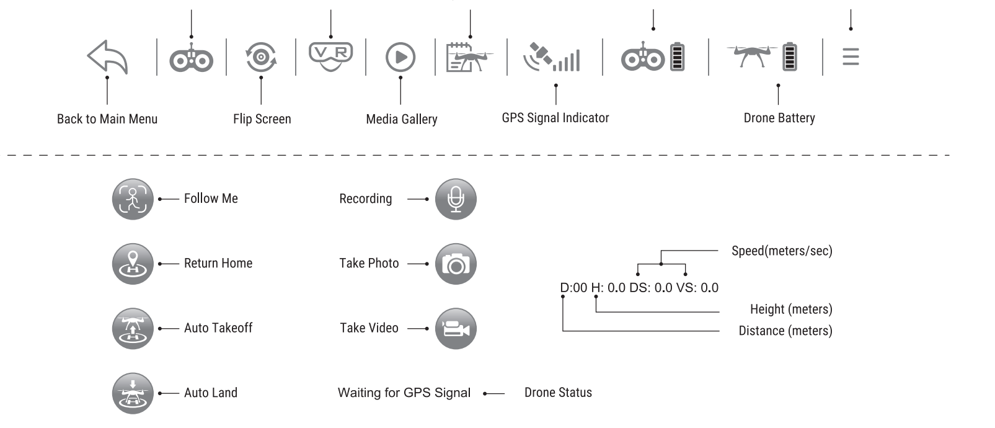
You can Turn-off the BEGINNER MODE to modify the parameters in the APP on your phone.



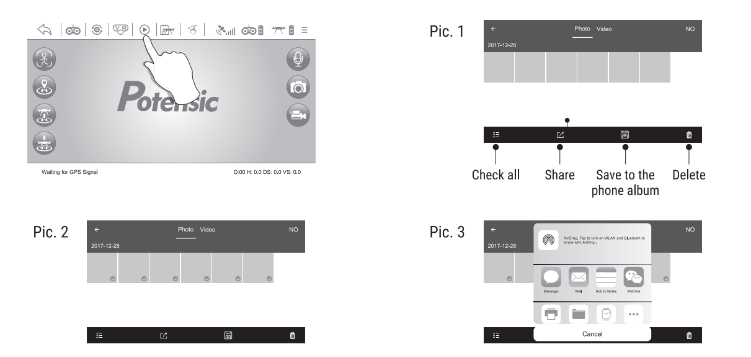
APP INTRODUCTION

Wait until the Drone Status says "Ready to Fly" before initiating flight. This will ensure that your GPS is synced and your drone is ready to fly.





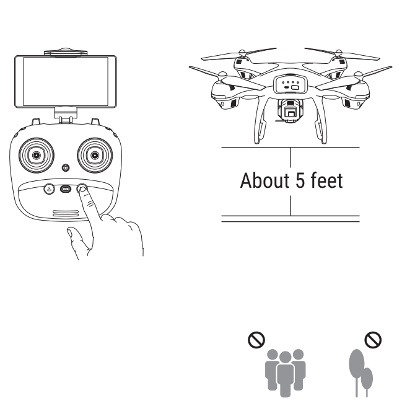
APP ONE KEY SHARE FUNCTION



1. Open the APP, click ⓟ, enter into the file (Pic 1.)
2. Click once or press to choose the photos which will be shared, click , choose the platforms that need to be shared(Pic 3).

Reminder: You can share 1 picture or 9 pictures at the same time.But you can only choose one video for sharing each time.

TAKE-OFF/LANDING/EMERGENCY STOP



⚠ Rotating propellers can be dangerous. DO NOT start the motors when there are people nearby.

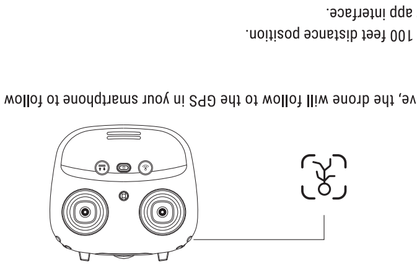
Press , the propellers will spin and the drone will take off at an altitude of about 5 feet. (Always keep the head of drone facing forward).

⚠ Press , the drone will land automatically. Remember to always keep your hands on the transmitter as long as the motor is still pinning.

⚠ Hold 3 secs for EMERGENCY STOP.

Only stop motors mid-flight in emergency when doing so can reduce the risk of damage or injury.

FOLLOW ME



When the Follow Me function is active, the drone will follow to the GPS in your smartphone to follow you wherever you go.

Follow Me Mode:

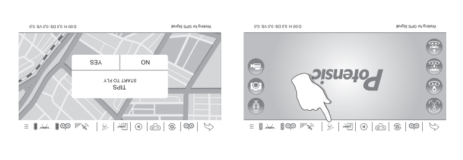
1. Set drone at least 10 feet high and 100 feet distance position.
2. Click the on the transmitter or app interface.
3. Wait for the "Potensic-G" app Drone Status to display"Follow Me ready"-- the drone will now follow the phone's coordinates.
4. To exit Follow Me mode, simply click the on the transmitter or app interface again.

Common Issues:

Follow Me mode would be hardly activated If phone's GPS signal is too weak, This could be due to the signal loss from surrounding buildings, trees, or congestion from too many mobile phones in the area.

* Use in open area and be mindful of your surroundings. Drone is NOT equipped with obstacle avoidance.

TAP FLIGHT

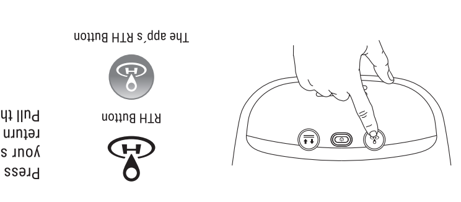


Precondition: When the drone operated under GPS mode, tap flight can be activated.
1. Turn on the APP interface from the mobile phone,click
2. Map Coordinates appeared on the interface;
3. Click one dot from the WIFI effective distance on the map,click then you can fly point to point.

RETURN-TO-HOME (RTH)

The Return to Home(RTH)function brings the drone back to the last recorded Home Point. There are three types of RTH:
Smart RTH / Low--Battery RTH / Failsafe RTH

1. Smart Return To Home



Press the Return to Home Button on your Transmitter or tap on the App of your smart phone, and the transmitter will start beeping. Your drone will return to the TAKE OFF Point. Press the button again to stop RTH procedure. Pull the throttle down to land the drone in a safe area.

2. Low-Battery RTH

Low-Battery RTH is triggered when the Flight Battery level is low, When Low-Battery RTH is activated, the drone will fly back to where away from you about 100 feet, and you can still control your drone. Pull the throttle down to land the drone in a safe area. When the power of drone is completely empty, drone will return to the TAKE OFF point where you set.

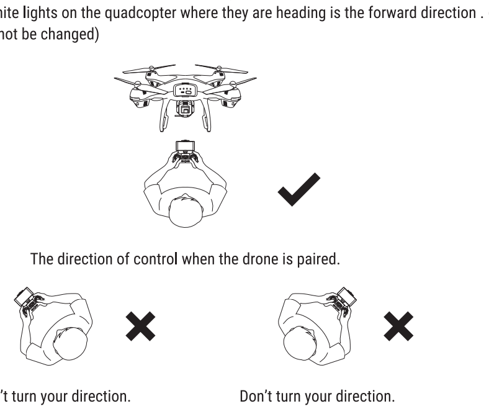
3. Failsafe RTH

Drone will enter Return to Home Mode if the signal to the transmitter is lost. Rebind the transmitter to the drone if dronr flies back into your view. Pull the throttle down to land the drone at safe area.

⚠ **WARNING: This drone is NOT equipped with obstacle-avoidance.**

HEADLESS MODE AND NORMAL MODE

1. It defaults the Normal Mode when the quadcopter and remote control are matched sucessfully, click , enter into Headless mode; click again, exit the Headless mode.
2. Normal mode: Before take-off, the white lights on the quadcopter where they are heading is the forward direction .
3. Headless mode: Before take-off, the white lights on the quadcopter where they are heading is the forward direction . (When the quadcopter rotates in flight,the flight direction will not be changed)



The direction of control when the drone is paired.

Don't turn your direction. Don't turn your direction.

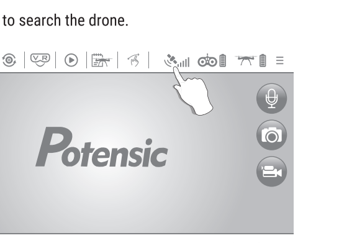
Under Headless Mode, the forward direction is the direction the pilot faces where the pilot pairs the drone with the transmitter. If the pilot pushes the direction joystick forward the drone will fly forward. If the pilot pushes the direction joystick backward, the drone will flight towards him/her. If the pilot moves the right stick left or right, then the drone will also move left or right relative to you. It is very important that the pilot does not change positions or the direction he or she is facing because this will cause confusion on the drone.

TRIM UNDER NO GPS MODE

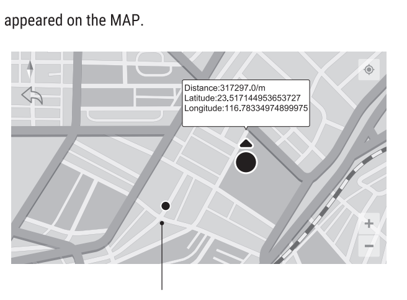
If the drone flies under NO GPS Mode, you can trim the drone to obtain more balanced flight. Press for 3 seconds, and you will enter the trim mode. Push the direction stick to the opposite side that the drone drifts to rebalance the drone. For example, if the drone drifts to the left, push the direction stick to the right to make the drone balanced. Press again to exit the TrimMode.

HOW TO SEARCH THE LOST DRONE

1.Continue to click 3 times to open the MAP surface to search the drone.

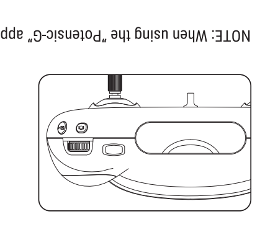


2.The last position of lost aircraft will be appeared on the MAP.



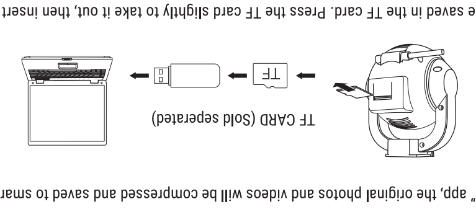
Current position of the mobile phone

CAMERA FUNCTIONS



Press on the Transmitter or tap on APP, the red indicator on camera will flash once, indicating the camera takes one photo.
Press on the Transmitter or tap on APP, the red indicator will keep flashing, indicating the camera is taking video.
Press again to save the video.
DO NOT take photo during taking video.

NOTE: When using the "Potensic-G" app, the original photos and videos will be compressed and saved to smartphone.

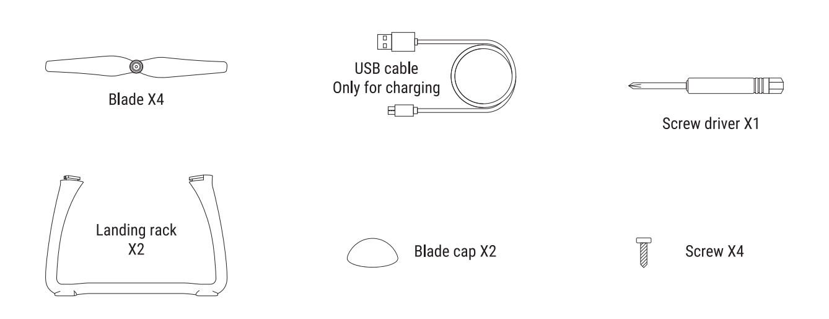


The Original images and videos are saved in the TF card. Press the TF card slightly to take it out, then insert the card into the card reader and insert into the USB outlet of a computer to read the data from TF card. The images can be also viewed in the App.

SPECIFICATIONS

- Drone
  MODEL: T35
  Weight (Including Battery): 700g/24.7 oz
  Flight Time: 12-15 minutes
  WIFI Distance: 100-150m/400m (Outdoor and unobstructed, depend on conditions and mobile device)
  Motor Model: 180
  Hovering: Enabled
  Operating Temperature Range: 32° to 104° F (0° to 40° C)
  Satellite Systems GPS / GLONASS
  Dimensions: 420X420X170 mm
- Gimbal
  Controllable Range: Pitch: -90° to 0°
- Camera
  Lens: FOV 120°/2.0
  Still Photography Modes: Single shot
  Video Recording Modes: HD 1280x720P / HD 1920x1080P (Depend on conditions and mobile device)
  Photo: JPEG
  Video: AVI
  Supported SD Cards: TF Card 8GB (not included)
  Operating Temperature: 32° to 104° F (0° to 40° C)
- APP / Live View
  Mobile App: Potensic-G
  Live View Working Frequency: 2.4 GHz ISM
  Live View Quality: 720P @ 25fps / 1080P @ 25fps (Depend on conditions and mobile device)
  Latency: Low Latency Video (depend on conditions and mobile device)
  Required Operating Systems: iOS 8.0 or later / Android 4.4.4 or later
  Recommended Devices: 4.7" to 5.5" Smart phones
- Transmitter
  Operating Frequency: 2.4 GHz
  Max transmission distance: 300m (Outdoor and unobstructed)
  Operating Voltage: 3.7V
  Mobile Device Holder: 4.7" to 5.5" Smart Phones
  Operating Temperature: 32° to 104° F (0° to 40° C)
- Flight Battery
  Capacity: 2500 mAh
  Voltage: 7.4V
  Battery Type: Lipo
  Energy: 18.5Wh
  Net Weight: 175 g / 6.1 oz
  Max Charging Power: 5-10W
  Max Charging Time: About 5 hours (Depending on Charging Power)
  Charging Temperature Range: 14° to 104° F (-10° to 40° C)
- USB Cable
  Voltage: 5V
  Rated Power: ≤10 W

PARTS LIST (Included)



COMMON PROBLEMS AND SOLUTIONS

THE PROBLEM	REASON	COUNTERMEASURES
Drone lights flashing and no response from the drone when operating.	1. Remote is not synced to the drone. 2. Insufficient battery power.	1. Refer to the Quick Start guide and re-sync the drone. 2. Recharge the battery.
The blades spin, but the drone cannot takeoff.	1. Insufficient battery power. 2. The blades distorted.	1. Recharge the battery. 2. Replace the blades.
The quadcopter shakes heavily.	The blades distorted.	Replace the blades.
Drone cannot stay balanced in flight.	1. The blades distorted. 2. The motor doesn't work properly.	1. Replace the blades. 2. Replace the motor.
Drone is unstable after crashing.	Three-axis acceleration sensor loses it's balance after crashing.	Restart and re-calibrate the drone.

咬口 S70WGPS(T35)英文说明书Potensic20180616