

### FCC Part 15 B Notice

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 interference 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 experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions :

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.



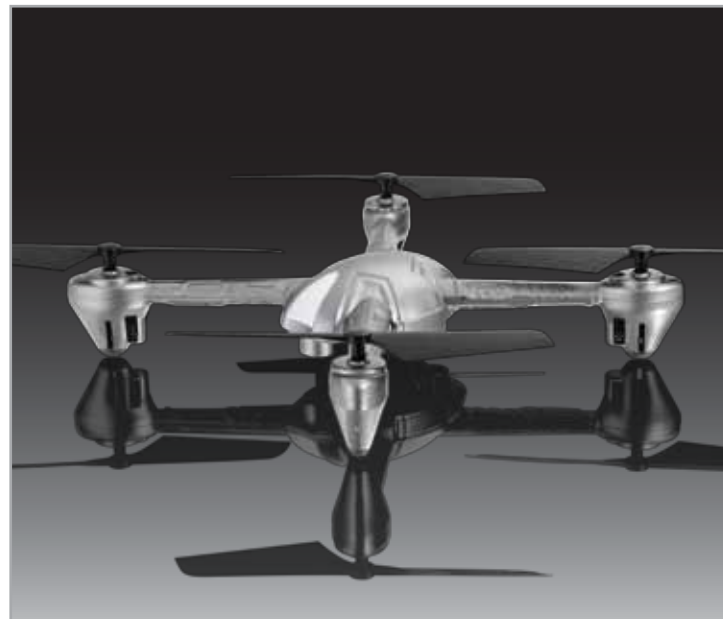
Conforms to safety requirements of ASTM, CPSIA and FCC.

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Tel: + (1) 949-566-9573 • www.propelrc.com

Made in China

## HD SONIC DRONE

### 2.4GHz Quadrocopter With HD Camera



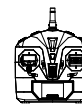
### INSTRUCTION BOOKLET

**WARNING:** Never leave product charging unattended for extended periods of time. Always disconnect HD Sonic Drone from charger immediately after the HD Sonic Drone is fully charged. Please refer to enclosed safety instructions.

### PACKAGE CONTAINS:



HD Sonic Drone



2.4G Wireless Controller



Spare Parts



Instruction Booklet

Colors and styles may slightly vary.



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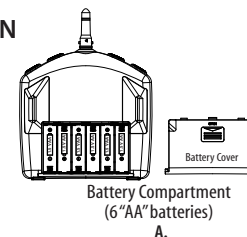
Thank you for purchasing the HD Sonic Drone 2.4Ghz Quadcopter. Please read this instruction booklet as it contains valuable information on how to properly fly and care for your HD Sonic Drone.

## FEATURES

- Wide Range Digital Radio Allows Flight Range Up to 200 Meters!
- Invesense™ 6axis Gyro for Extremely Stable Flight and Maneuverability
- Patented Switch-Blade™ Technology Allows You to Operate in 3ch or 4ch Modes for beginner to advanced pilots.
- Push Button 360 Aerial Stunts
- On Board Camera Records High-Definition Video and Captures Still Pictures with the push of button
- Sonic Sensors Pulse the Earth for Assisted Landing
- Digital Controller, Replaceable Li-poly Battery and Additional Replacement Parts Included.

## REMOTE CONTROL BATTERY INSTALLATION

1. Slide off the battery cover from the back of the controller.
2. Install 6 "AA" alkaline batteries into the controller as shown in diagram A.
3. Replace the battery cover.
4. Turn over the controller and turn the on/off switch to the on position to check for an LCD screen. If the LCD screen turns on you have installed your batteries properly.

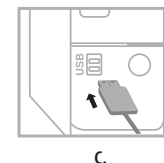
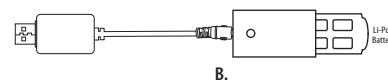


## CHARGING THE HD SONIC DRONE LI-POLY BATTERY

1. Connect the battery to the adaptor as shown (see illustration B).
2. Next, connect the USB charging cord to your computer's USB port (see diagram C)  
Note: The USB plug will show a RED charging indicator light. This lets you know that Charging is in progress.
3. When the battery is fully charged the Charging indicator light will change to green.
4. Average charging time is approximately 30-40 minutes. A fully charged your drone can fly for 6-8 minutes depending on environment and user input.

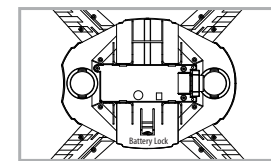
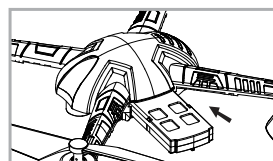
NOTE: You may purchase additional batteries and rapid wall charges at [www.propelrc.com](http://www.propelrc.com).

**IMPORTANT: ALWAYS REMEMBER TO UNPLUG YOUR CHARGING CORD WHEN NOT IN USE!**

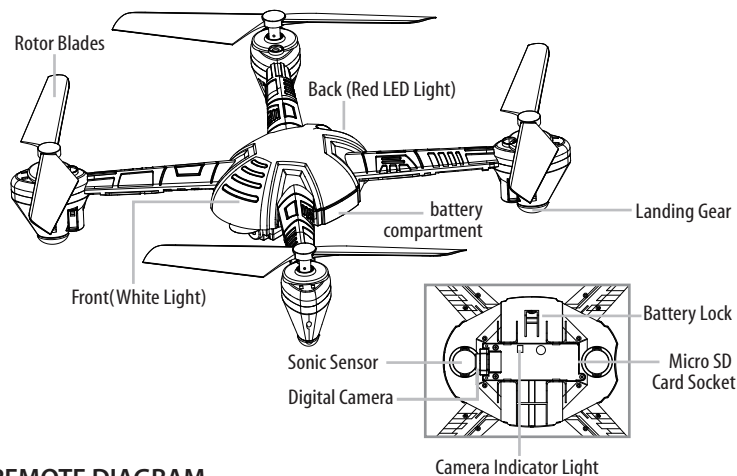


## HD SONIC DRONE BATTERY INSTALLATION

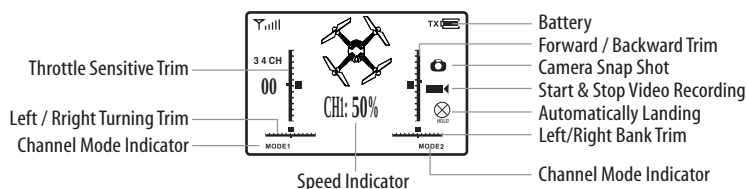
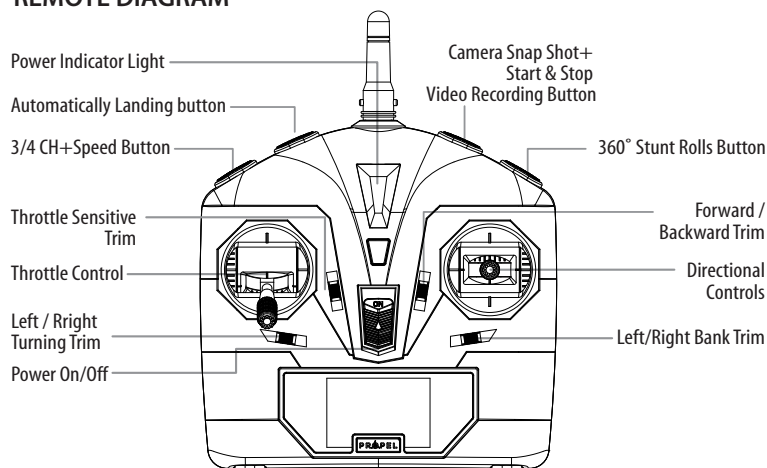
1. Slide the fully charged battery into HD SONIC DRONE battery compartment (see diagram D), the battery only fit the battery compartment one way.
2. Push the battery all the way down and you will heard a click, the drone's LED lights will light up and begin flashing when you install the battery correctly.
3. NOTE: The HD SONIC DRONE has no on/off switch. The HD SONIC DRONE automatically turns on when the Li-POLY battery is installed. To Switch off simply pull out the battery lock underside of the HD SONIC DRONE (see diaram E), the battery will pop out automatically.



## HD SONIC DRONE DIAGRAM



## REMOTE DIAGRAM



## WARNING

**DO NOT FLY YOUR HD SONIC DRONE IN FOUL WEATHER!**



## SYNCING YOUR HD SONIC DRONE

**Important!** When syncing your HD SONIC DRONE quadcopter with the controller always make sure that the quadcopter is on a flat level surface and that your digital trim settings are in the center position. This insures that the 6 Axis gyro is properly programmed to mimic your trim settings.

Your HD Sonic Drone utilizes an automatic 2.4G channel selection system that allows up to 8 people to fly side by side in the same wireless range with no interference.

### For One Person Play:

1. Before starting, make sure that the power on both your controller and HD Sonic Drone are in the OFF position. Make sure that there are no other 2.4G devices in the area as well.
2. Turn ON the HD SONIC DRONE and set it down on a flat surface. The red LED indicators of the HD SONIC DRONE should begin to flash.
3. Turn ON the remote, you will hear long beep, the HD Sonic Drone's red LED lights should change to solid, pull the throttle all the way down. Right now your controller and the helicopter successfully synced, Should this not happen, repeat above steps again.

### For Multi Person Play:

4. Before starting, make sure that the power on all HD Sonic Drones and Controllers are in the OFF position. Make sure that there are no other 2.4G devices in the area as well.
5. Each person will have to sync their HD Sonic Drone individually at a different time to avoid interference. Follow steps 1 to 3 above making sure to keep away from other people while also making sure that no one else is syncing at the same time.
6. After syncing a player's HD Sonic Drone, it should be left ON until all players have synced their HD Sonic Drone quadcopters.
7. Should there be a mistake/interference, all players must turn off their controllers and HD Sonic Drone Quadcopters for 60 seconds and then begin the process again.

## PREPARING FOR FLIGHT

- Verify that there are 6 "AA" batteries inside the remote control unit and the HD Sonic Drone has been fully charged.
- Make sure your HD Sonic Drone and controller are both turned on.
- Make sure to be in a large space with an open radius of at least 50 feet.
- Make sure the empty space has no obstacles and river. Set your HD Sonic Drone on a clean flat surface before take-off.

**DO NOT ATTEMPT TO FLY YOUR HD SONIC DRONE IF THERE IS RAIN, SNOW, HEAVY WINDS, THUNDER OR LIGHTNING OUTDOORS. IT COULD DAMAGE YOUR PRODUCT AND POSSIBLY EVEN CAUSE BODILY HARM.**

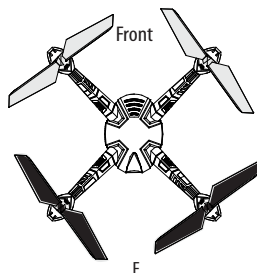
## FLYING TIPS

- It is recommended that you operate the HD Sonic Drone in a wide space. The ideal space should have a 200 foot radius.
- Parental guidance or adult supervision is suggested at all times.
- If you are flying the HD Sonic Drone with others, make sure all spectators are behind you.
- For best performance, it is recommended that you operate the HD Sonic Drone in zero wind conditions. Wind can greatly affect the performance of the HD Sonic Drone.

## RECOGNIZING THE FRONT & BACK OF THE HD SONIC DRONE

Even though the HD Sonic Drone has four rotors there is still a front or "forward" facing direction and "back" or backwards facing direction. The forward Front and forward facing direction of the HD Sonic Drone is the side with two gray blades (see diagram F ). The rear and back of the Quadrocopter is the side with two black propellers (see diagram F ).

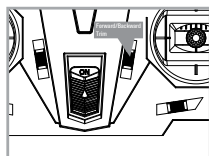
**NOTE:** The front of the Quadrocopter displays WHITE LED light and the back of the Quadrocopter displays RED LED lights.



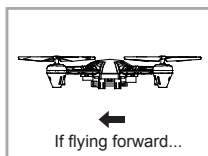
## UNDERSTANDING TRIM ADJUSTMENTS

### Forward/Backward Trim

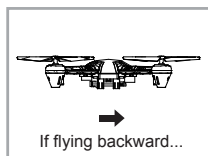
- If your HD Sonic Drone is moving forwards or backwards automatically, you may need to adjust the FORWARD/BACKWARD TRIM button.
- If your HD Sonic Drone flies forward, push and release the BACKWARD TRIM button back repeatedly until the moving stops and proper flight is maintained.
- If your HD Sonic Drone flies backwards, push and release the FORWARD TRIM button forward in the same manner until the problem is resolved.
- From time to time you may have to adjust the FORWARD or BACKWARD TRIM buttons to ensure the HD Sonic Drone will hover in mid-air and respond accurately to your commands.



Forward/Backward Trim Controls



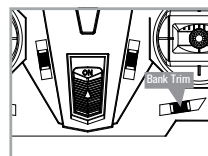
Push and release to go backward



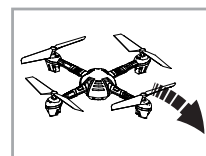
Push and release to go forward

### Banking Left/Right Trim

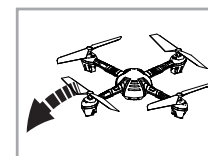
- If your HD Sonic Drone is not steadily hovering and is banking to the left or right automatically, you may need to adjust the LEFT BANK or RIGHT BANK Trim button.
- If your HD Sonic Drone banks to the left, push and release the RIGHT BANK TRIM button right repeatedly until the banking stops and proper flight is maintained.
- If your HD Sonic Drone banks to the right, push and release the LEFT BANK TRIM button left in the same manner until the problem is resolved.
- From time to time you may have to adjust the LEFT and RIGHT BANK TRIM to ensure the HD Sonic Drone will steadily hover in mid-air and respond accurately to your commands.



Left/Right Banking Controls



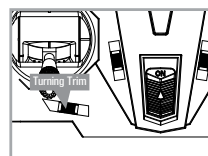
Push the left button to increase left banking sensitivity



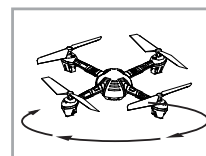
Push to right button to increase right banking sensitivity

### Turning Left/Right Trim

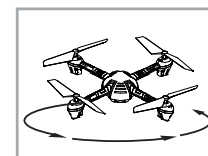
- If your HD Sonic Drone is not steadily hovering and is turning to the left or right automatically, you may need to adjust the LEFT/RIGHT TURNING Trim button.
- If your HD Sonic Drone turns to the left, push and release the TURNING TRIM button right repeatedly until the turning stops and proper flight is maintained.
- If your HD Sonic Drone turns to the right, push and release the TURNING TRIM button left in the same manner until the problem is resolved.
- From time to time you may have to adjust the LEFT/RIGHT TURNING TRIM to ensure the HD Sonic Drone will steadily hover in mid-air and respond accurately to your commands.



Left/Right Turning Controls



Push the left button to increase left turning sensitivity



Push to right button to increase right turning sensitivity

### Throttle Speed Trim

If you find the throttle is too sensitive when you fly the HD Sonic Drone, you may need to utilize the Throttle speed trim.

Push and release the Throttle speed trim button back to lower the sensitivity of the throttle. Push and release the Throttle speed trim button forward to increase the sensitivity of the throttle. The middle position is recommended.

**NOTE:** The use of the Trim buttons are accompanied with a Beep tone. A single long Beep indicates the product is center trimmed. Continuous long Beeps indicate the product is trimmed to the maximum on a particular side.

## REPLACING THE PROPELLER BLADE

Your HD Sonic Drone propeller system is a precision instrument that may need repair or replacement from time to time for optimal flight function. Crash landing from high-speed aerial flights may cause damage to your HD Sonic Drone propellers.

1. The HD Sonic Drone have four blades, two gray colors on front, and two black colors on back (see the diagram I).
2. When replacing the propeller blades, make sure to match both the color of the blade and the indication letter on the blade.
3. Replacing the correct blade to the broken blade.

Gray Blade Front Left = 2  
Gray Blade Front Right = 3

---

Black Blade Back Left = 3  
Black Blade Back Right = 2



## HD SONIC DRONE WARNING:

The HD Sonic Drone is designed for INDOOR or OUTDOOR. The HD Sonic Drone blades revolve at high speeds and can cause damage to the user, spectators and animals. Stand away from the HD Sonic Drone to reduce the risk of getting into the flight path. Warn spectators that you will be flying your HD Sonic Drone so that they are aware of its position. Before flight, inspect the rotor blades to make certain that the blades are securely fastened to the HD Sonic Drone.

### WARNING!

- Choking/Cutting Hazard. Small Parts/Sharp Rotor Blades.
- Keep hands, hair and loose clothing away from the propeller when the power switch is turned to the ON position.
- Turn off the transmitter and HD Sonic Drone power switches when not in use.
- The included charger is built specifically for the HD Sonic Drone Li-Poly battery. Do not use it to charge any other battery.
- New alkaline batteries are recommended for maximum performance.
- Parental supervision recommended when flying HD Sonic Drone.

## BATTERY WARNINGS

### RECHARGEABLE BATTERY:

This HD Sonic Drone uses a Li-Poly rechargeable battery. If battery no longer stays charged, dispose of battery properly according to local disposal requirements.

### CONTROLLER BATTERIES:

Remote control requires 6 "AA" batteries (not included). Please read the important battery safety warning below.

- Do not mix alkaline, standard (carbon-zinc) and rechargeable batteries (Nickel Metal Hydride).
- Do not mix old and new batteries.
- Non-rechargeable batteries are not to be recharged.
- Rechargeable batteries are to be removed from the item before being charged (if removable).
- Rechargeable batteries are only to be charged under adult supervision.
- Exhausted batteries should be removed immediately and must be recycled or disposed of properly according to state or local government ordinances and regulations.
- The supply terminals are not to be short-circuited.
- Only batteries of the same or equivalent type as recommended are to be used.
- Batteries are to be inserted with the correct polarity (see inside booklet for diagram).
- Do not dispose batteries in a fire - batteries may leak or explode.

## CARE AND MAINTENANCE

- Always remove the batteries from the wireless infrared remote control when it is not being used for an extended period of time.
- To clean, gently wipe the remote control and HD Sonic Drone with a clean damp cloth.
- Keep the toy away from direct heat or sunlight.
- Do not submerge the toy into water. This can damage the unit beyond repair.
- Parental guidance recommended when installing or replacing the batteries.

### 3/4 CHANNEL SELECT

HD Sonic Drone allows you to control your Quadcopter in 3 channel mode (beginner) or 4 channel mode (advanced flying). The HD Sonic Drone default setting is 4 Channel mode.

To change to 3 Channel mode:

PRESS and hold the 3/4 CH button (see remote diagram on pg 3), you will hear beeps and the screen shown *MODE2* indicating the HD Sonic Drone now is set to 3CH mode.

To change back to 4 Channel mode:

PRESS and hold the 3/4 CH button (see remote diagram on pg 3), you will hear beeps and the screen shown *MODE1* indicating the HD Sonic Drone is now set to 4CH mode.

### SPEED SELECT BUTTON

The HD Sonic Drone has 3 speed settings; **SLOW(40%)**, **MEDIUM(70%)** and **HIGH(100%)**. The Default setting when you first turn on your HD Sonic Drone is the **SLOW(40%)** speed mode. To increase the speed simply depress the Speed setting button (see remote diagram on pg 3) you will here a beep and the speed setting indicator on screen will show you what speed setting you are on .

### AUTOMATICALLY LANDING BUTTON

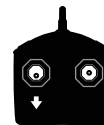
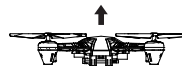
The HD Sonic Drone has a sonic sensor to allows you laning easily. Simplay depress the Automatically Landing Button and your HD Sonic Drone will slowdown the motor and start to landing.

### 4 CHANNEL FLIGHT CONTROL

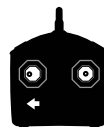
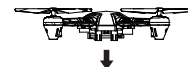
Below is a list of basic flight functions for your long-range remote control HD Sonic Drone. While learning to fly your HD Sonic Drone it is best to start with a large space until you get used to the basic controls. As you master flying your HD Sonic Drone you can move to more advanced maneuvering techniques. Practice makes perfect! When you have these basic steps down you can move to the next level.



Move the left Throttle stick up to increase the speed and the HD Sonic Drone will accelerate and ascend.



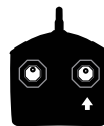
Move the left Throttle stick down to decrease the speed and the HD Sonic Drone will decelerate and descend.



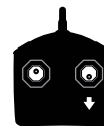
Move the left Throttle stick left and the HD Sonic Drone will turn/spin left.



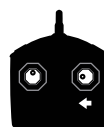
Move the left Throttle stick right and the HD Sonic Drone will turn/spin right.



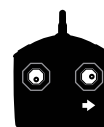
Move the right Direction Control up and the HD Sonic Drone will move forward.



Move the right Direction Control down and the HD Sonic Drone will move backward.



Move the right Direction Control left and the HD Sonic Drone will bank to the left.

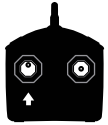


Move the right Direction Control right and the HD Sonic Drone will bank to the right.

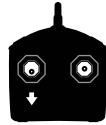


### 3 CHANNEL FLIGHT CONTROL

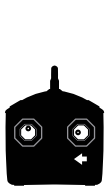
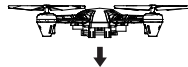
Below is a list of basic flight functions for your long-range remote control HD Sonic Drone. While learning to fly your HD Sonic Drone it is best to start with a large space until you get used to the basic controls. As you master flying your HD Sonic Drone you can move to more advanced maneuvering techniques. Practice makes perfect! When you have these basic steps down you can move to the next level.



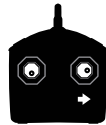
Move the left Throttle stick up to increase the speed and the HD Sonic Drone will accelerate and ascend.



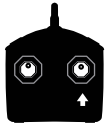
Move the left Throttle stick down to decrease the speed and the HD Sonic Drone will decelerate and descend.



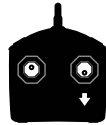
Move the right Direction stick left and the HD Sonic Drone will turn/spin left.



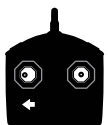
Move the right Direction stick right and the HD Sonic Drone will turn/spin right.



Move the right Direction Control up and the HD Sonic Drone will move forward.



Move the right Direction Control down and the HD Sonic Drone will move backward.



Move the left Throttle Control left and the HD Sonic Drone will bank to the left.



Move the left Throttle Control right and the HD Sonic Drone will bank to the right.



### HOW TO DO 360° STUNT ROLLS

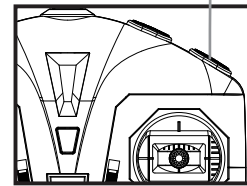
Doing 360° stunt rolls with the HD Sonic Drone Quadcopter is as easy as 1-2-3:

1. Hover the quadcopter in still position making sure that you have at least 3 feet of clearance above and below quadcopter, Set the speed to 70% or 100%.
2. Press down and hold the 360 stunt button and you will enter the stunt roll mode which is indicated by a rapid beeping (see diagram G).
3. Decide which direction you want it to flip and quickly push the right control stick in the direction you want to flip your Quadcopter(SEE Diagram H ). You have 4 choices a) Forward Roll, b) Backwards roll, c) right side roll, d) left side roll.

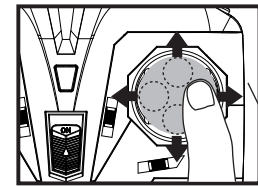
**IMPORTANT NOTICE: You must hold down the stunt button as you flip your helicopter.**

- 4). To exit the Stunt Rolls mode, simply release the button and push the directional control stick in any direction.

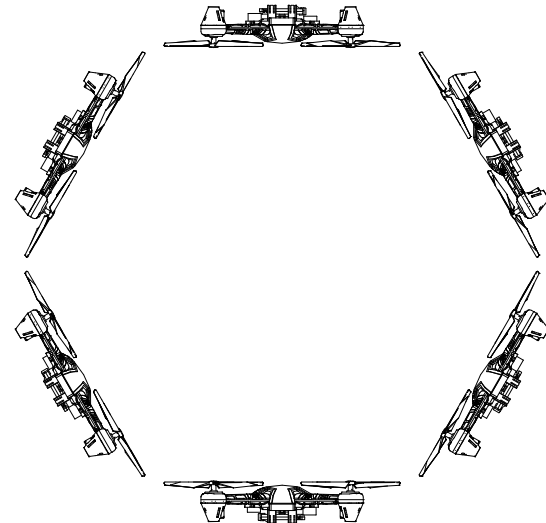
360° Stunt Rolls button



G



H



## USING YOUR ON BOARD CAMERA AND VIDEO RECORDER

Your HD Sonic Drone helicopter comes equipped with an onboard digital camera that takes both video and still Photographs. Now you can have hours of fun creating aerial photography and videos for family and friends.

### WHAT YOU WILL NEED TO GET STARTED USING YOUR CAMERA

1. One Micro SD card (not included)
2. One Micro SD card reader (included)
3. One Computer with USB port and Windows Media Player or other Media player that can play AVI files (not included).

### FORMATTING YOUR MICRO SD CARD

Before you can begin to take videos or digital photographs you must first format your Micro SD card. To format your Micro SD card simply place the Micro SD card into the included USB SD card reader and plug it into your computers USB port (See diagram 1 and 2 below). After a few moments an icon will appear on your Desktop. Right click on the icon and follow instructions to format your Micro SD card.

### INSTALLING THE MICRO SD CARD IN YOUR HD SONIC DRONE

- Pop out the battery from the HD Sonic Drone.
- Place the formatted SD card into the back of the helicopters digital camera port. ( see diagram 3 below) Push gently and consistently until you hear and feel the micro SD card "click" into the digital camera slot.
- Turn the HD Sonic Drone on and make sure that it is both fully charged and properly synced to the Controller (see HOW TO SYNC YOUR HELICOPTER on page 4).
- When you have successfully installed your micro SD card and your HD Sonic Drone battery, you will see a solid red LED light on the camera unit belly (see camera indicator light diagram 4 below).

NOTE: If you see a continuous flashing light in red and blue this means you have not installed your Micro SD card correctly or there is a problem with your SD card. If this happens first make sure that the product is not in Video Record mode and if not then please reformat and try again. If you continue to encounter problems call our customers service line at 949.566.9573 Ext 1 for assistance.

### TAKING DIGITAL PHOTOS

To take photographs simply press and release the Camera Snap button on the front of the controller (refer to CONTROLLER DIAGRAM on pg. 3), when you push the button you will here a "beep" and the red LED lights will flash in blue color one time indicating that a picture has been taken. When the camera ready light becomes solid red again you are ready for your next photograph.

### RECORDING VIDEOS

To record a video first make sure that your HD Sonic Drone is fully charged and that you have correctly installed the micro SD card in the camera port. Begin recording a video by pressing and hold the VIDEO RECORD button on the front of the controller (see CONTROLLER DIAGRAM on page 3), you will here a long "beep" and the red LED light on the HD Sonic Drone will flash in blue color constantly to indicate that you are in video mode and the camera is recording. To stop the video recording, press and hold the VIDEO RECORD button a second time. The blue indicator light on the belly of the camera will change to solid red indicating that video recording has stopped and the Camera is in ready mode again.

**IMPORTANT NOTICE :** You can not take photos and videos at the same time. When you are in video mode your camera/ photo button is disabled. If you want to take photos you must first turn off video mode.

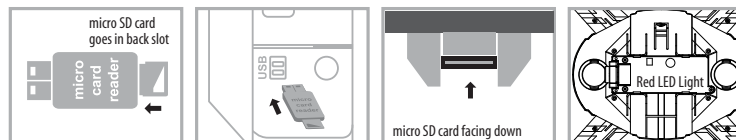


Diagram 1

Diagram 2

Diagram 3

Diagram 4

### REMOVING YOUR MICRO SD CARD

To remove your Micro SD Card push in gently on the back of the SD card with your thumb or forefinger until you hear and feel a "clicking sound". The Micro SD card will "pop out" slightly and is ready for removal. Simply grab and pull gently away from the helicopter camera port to remove the card. Always store your Micro SD card in a clean, safe and cool environment.

### DOWNLOADING AND CLEARING SPACE ON YOUR MICRO SD CARD

Plug your micro SD card into micro SD card reader and connect to your computer. It is best to always download all your videos and pictures on to your computer and not store this data on your Micro SD card. After downloading your photos and videos, follow your computers instructions to "delete" files on your Micro SD card.

**IMPORTANT NOTICE:** When your Micro SD card is full the indicator light on the bottom of your helicopter will not flashing when you press the photographs or video record button. This indicates that its time put a new SD card in your helicopter or download files and clear space for future photos and videos.