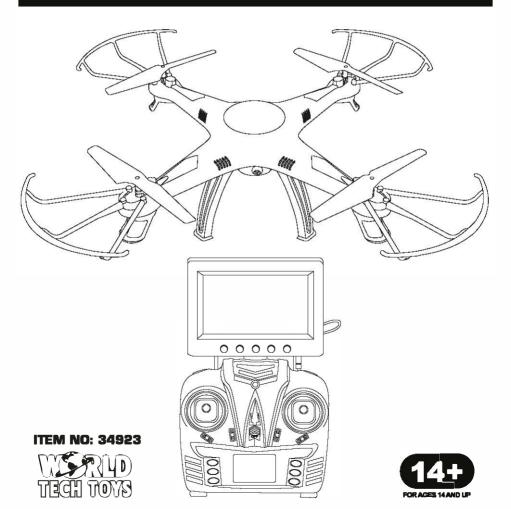
# SENTINEL SPY DRONE

4.5CH 2.4GHz LIVE FEED VIDEO RC QUADCOPTER

INSTRUCTION MANUAL



## INTRODUCTION

Thank you for purchasing this amazing World Tech Toys product. This drone is suitable for indoor and outdoor flight. Please carefully read the entire manual before operating this quadcopter and keep it for reference in the future.

## **PRECAUTIONS**

#### INDOOR AND OUTDOOR FLIGHT PRECAUTIONS

This drone is designed for outdoor flight. Please make sure there are no obstacles in the flight path of the drone. Colliding into an obstacle while flying may damage the drone. Make sure there is little to no wind when flying outside. Only fly the drone when people are a safe distance away. Do not fly the drone within the vicinity of a crowd. The spinning rotors may cause injury if the drone comes in contact with someone.



#### PREVENTING MOISTURE

Do not fly the drone outside when it is raining. Do not fly the drone close to open water. If the drone's comes in contact with water, it may short circuit the electronics and damage the drone.



#### PROPER OPERATION

Do not modify or add anything to the drone. Modifying the drone may change its ability to fly properly causing it to crash. Do not disassemble the drone.



#### TRANSMITTER AA BATTERY SAFETY

Make sure the AA batteries in the transmitter are installed with the correct polarity. Do not mix rechargeable AA batteries with non-rechargeable AA batteries. Do not dispose of drained AA batteries into a fire. Batteries may explode if disposed in a fire causing injury. Remove the AA batteries in the transmitter if you are not going to fly the drone for a long period of time. Store AA batteries in a cool dry place. Keep AA batteries away from heat.



#### DRONE BATTERY PACK SAFETY

The drone's battery pack is Lithium polymer. LiPo batteries pose higher operational risks compared to other battery packs so it's important to follow the instructions when using the battery. Manufacturer and dealer assume no liability for accidental damages caused by improper usage.

Do not use a charger other than the factory supplied charger to avoid causing a fire or damaging the battery pack. Do not try to disassemble, crush, burn or reverse polarity. Make sure there are no metallic materials close to the contacts of the battery. Do not charge the battery unsupervised.

Do not charge the battery unsupervised.

Do not charge the battery overnight. Over charging the battery may damage it, causing it to not hold a charge. Stop using or charging the battery if you notice the battery temperature has increased more than usual.



#### KEEP AWAY FROM HEAT

The drone is made out of various plastics and metal. Plastics are very susceptible to damage or deformation due to extreme heat and cold temperatures. Make sure not to store the drone near any source of heat such as an oven or heater. It is best to store the drone indoors in a climate controlled room temperature environment.







## GENERAL SPECIFICATIONS

CONTENTS: 1x Sentinel Spy Drone 1x Wall Charger 1x 2GB Memory Card

1x Transmitter with Live Feed Video Screen 1x Instruction Manual

1x Screwdriver 1x Memory Card Reader 4x Spare Rotors

Length Diagonally: 18.25 inches Drone Battery:

Width: 13.5 inches
7.4V 650mAh LiPo
Height: 3.5 inches
Rechargeable Battery

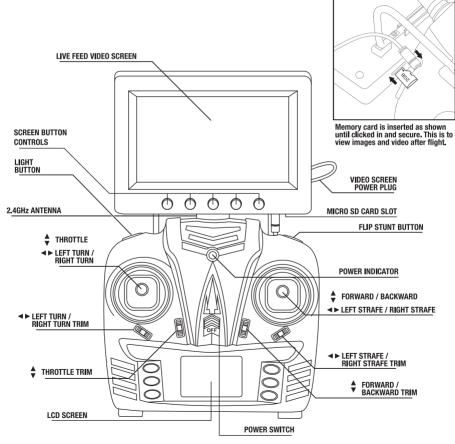
Fuselage Weight: 0.65 pounds

Flight Area: 984 to 1640 feet
Flying Time: 7 to 9 minutes

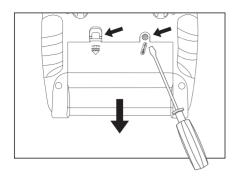
Charging Time: Approximately 60 minutes

RC Transmitter Battery:
6 x 1.5V AA Batteries
(Not Included)

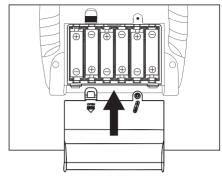
## TRANSMITTER DIAGRAM



# INSTALLING TRANSMITTER BATTERIES

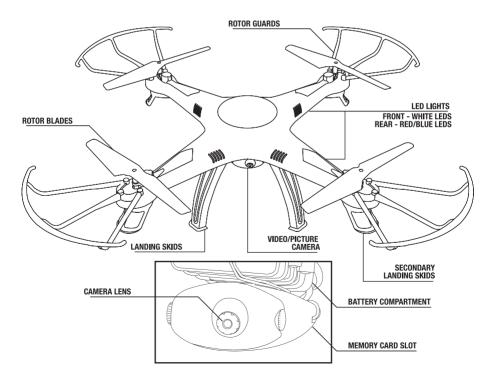


Remove the screw on battery cover and use the top tab to pull open. Install 6 AA Batteries. Please note the polarity.



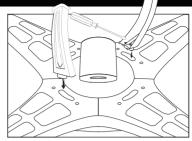
Replace the battery cover and screw once the batteries are properly installed.

# DRONE DIAGRAM



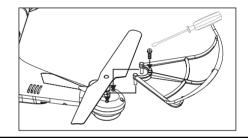
## LANDING SKIDS INSTALLATION

- 1.) Place drone upside down and take the landing skid placing it into the support frame. Make sure the screw hole on the landing skid lines up with the hole in the frame.
- 2.) Firmly screw in the landing skid to the frame with a screwdriver.
- 3.) Repeat steps 1 and 2 for the other landing skids.



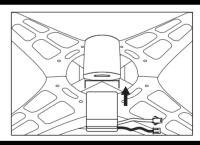
### ROTOR GUARD INSTALLATION

- 1.) Align and firmly push pegs of rotor guard into three slots on frame.
- 2.) Firmly screw in the rotor guard to the frame with a screwdriver.
- 3.) Repeat steps 1 and 2 for the other rotor guards.



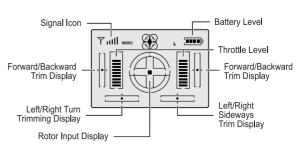
### DRONE BATTERY INSTALLATION

- 1.) Place drone upside down and locate power connector and battery slot underneath mounted camera.
- 2.) Slide battery into drone as shown.
- 3.) Connect battery to drone to turn on. Place on flat surface when ready to connect to transmitter to set gyroscopic stabilization.



## TRANSMITTER LCD DISPLAY SYNCING

After installing the batteries, turn the transmitter switch to "ON." The power indicator light flashes and the signal icon "Y" appears in the top left of the LCD screen, when there is no signal. After the transmitter successfully pairs with the drone, the transmitter will beep twice and the signal icon changes to "Tull". The transmitter paired with quadcopter and control information appears on the LED screen.

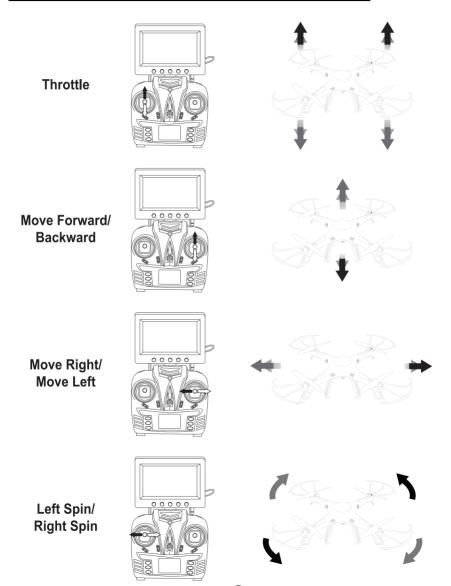




# FLYING THE DRONE

Before flying the quadcopter for the first time please read the instructions carefully and make sure you fully understand how to control your drone.

#### BASIC FLYING CONTROLS

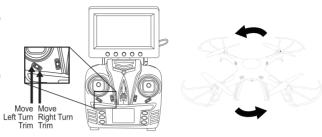


#### ADJUSTING THE TRIM

When drone moves with no directional transmitter input, adjust the trim controls until hovering is stable.

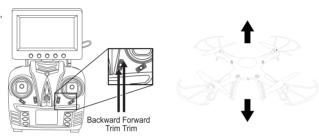
If the drone is spinning to the left, push the **RIGHT TURNING TRIM** button until the drone stops spinning.

If the drone is spinning to the right, push the **LEFT TURNING TRIM** button until the drone stops spinning.



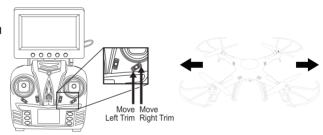
If the drone is moving forward, push the **BACKWARD TRIM** button until the drone stops moving forward.

If the drone is moving backward, push the FORWARD TRIM button until the drone stops moving backward.



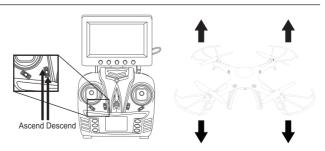
If the drone is moving left, push the **MOVE RIGHT TRIM** button until the drone stops moving left.

If the drone is moving right, push the **MOVE LEFT TRIM** button until the drone stops moving right.



If the drone ascends to quickly when you push the throttle stick up, push the **DESCEND** button until you can hover.

If the drone descends to quickly when you push the throttle stick down, push the ASCEND button until you can hover.



Throttle Trim seldom needs adjustment, for advanced users you can adjust the dead zones on the throttle stick to enable quicker ascending and descending for more precise movements.



#### FLIP STUNT MODE



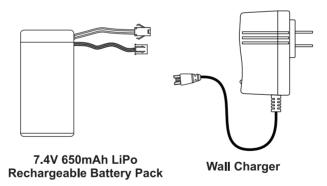


Have the drone hover at least 10 feet off the ground. Press the Flip Stunt Button and push the right joystick in the direction you want the drone to perform a single flip.

#### IMPORTANT:

Make sure the drone is hovering at least 10 feet off the ground before performing the flip stunt. The flip stunt will cause the drone to drop approximately 6 feet. If you perform the flip stunt while being less than 10 feet off the ground, the drone could crash.

## CHARGING THE DRONE BATTERY PACK

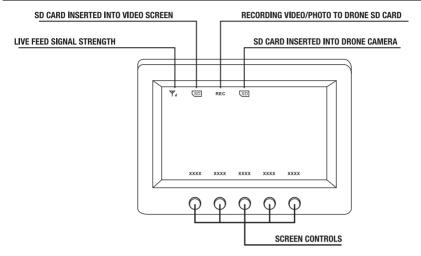


The drone battery pack can be recharged with the included wall charger.

- 1.) Remove the battery pack from drone.
- 2.) Plug wall charger into standard outlet, LED will light up green.
- 3.) Connect battery pack cable to wall charger cable. LED will light up red to indicate charging.
- 4.) After approximately 60 minutes the LED will turn back to green. Charging is complete.

\*Do not leave charger charging unattended or overnight. Unplug charger promptly after charging is complete to reduce risk of fire and/or injury.

### LIVE FEED VIDEO SCREEN OPERATION



The live feed video screen comes pre installed and ready to go. If screen does not turn on when transmitter is turned on ensure power cable of screen is connected to transmitter.

Live feed is the default mode when turned on allowing you to view what the drones camera sees. In "VIEW" mode the screen controls become "VIEW" "REC" "SNAP" "DOWN" "UP"

Make sure a memory card is inserted into drone to use the "REC" and "SNAP" functions above the screen controls to record video or snap a picture. Press "REC" to start video recording, press again to stop. Press "SNAP" to take a single photo.

The "DOWN" and "UP" functions above the screen controls will brighten or dim the screen depending on your needs and weather conditions..

#### VIEW MODE

When a memory card is inserted into the screen you may use "VIEW" function above the screen controls to view and/or delete videos and photos captured to that card. This is ideal to review your videos and photos from anywhere after you are done flying your drone.

In "VIEW" mode the screen controls become "DEL" "PLAY" "BACK" "DOWN" "UP" with memory card usage and max capacity details above.

In this mode a basic file folder system is viewable. Use "DOWN" and "UP" to navigate and "PLAY" to enter either the VIDEO or PICTURE folders. Pressing "DEL" when highlighting an image or video will pop up a prompt to select "YES" or "NO" to delete file from memory card permanently.

Pressing "PLAY" while on a highlighted image or video will open the file. Videos will play until completion, press "BACK" to return to view mode. When viewing pictures you may press "BACK" to return to view mode or press "PRE" or "NEXT" to cycle through images.

## POST FLIGHT

After you are done flying the Drone make sure the battery pack on the quadcopter is disconnected and the transmitter power is turned off. If you are not going to use the quadcopter for a long period of time, please remove the AA batteries to prevent the batteries from draining or leaking.

#### AUTOMATIC SHUTDOWN OVERRIDE FUNCTIONS

For safety precautions, the drone will automatically shut down when the following situations occur:

- 1. When the drone's battery is running low.
- 2. When one or more of the drone's propellers gets into a collision impact or any form of entanglement.

## TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Quadcopter is unresponsive. The Transmitter light keeps flashing.	Transmitter is not syncing with quadcopter.	Repeat the power up process.
Quadcopter is unresponsive.	Transmitter and or quadcopter is not powered ON.	Turn both transmitter and quadcopter ON.
	Transmitter batteries are installed incorrectly.	Install the batteries with the correct polarity.
	Transmitter batteries are drained.	Install fresh batteries to the transmitter.
Transmitter light is ON. Quadcopter is unresponsive.	Quadcopter's battery pack is drained.	Charge the quadcopter's battery pack.
Quadcopter's rotors spins but doesn't take off.	Rotor blades are damaged.	Replace the damaged rotor blades.
	Quadcopter's battery pack is drained.	Charge the quadcopter's battery pack.
	Quadcopter is not on a flat surface.	Place the quadcopter on a flat surface before attempting to take off.
Quadcopter is shaking when flying.	Rotor blades are damaged.	Replace the damaged rotor blades.
Quadcopter moves while hovering without transmitter input.	Trim needs to be adjusted.	Adjust the trim.
Quadcopter still moves forward after adjusting the trim.	Gyroscope midpoint is off.	Turn off both transmitter and quadcopter. Go through power on process and make sure you place the quadcopter on a flat surface before taking off.