

# Hummingbird V<sup>3</sup>



## 100% Ready To Fly!

**Instruction Manual & Reference Guide**

### **SPECIFICATIONS**

Engineered for ultimate performance. Light weight, durable, powerful design featuring fiber reinforced composite structures.

MOTOR SIZE:	370
MAIN ROTOR DIAMETER:	520mm
LENGTH:	485mm
WEIGHT:	165g (without battery)

## **Century Helicopter Products**

**Designed and Developed in USA**

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**READ THIS FIRST!**

**This helicopter is 100% ready to fly. It has been factory tested and trimmed to fly as soon as the batteries are ready. This manual is an overview of the construction and operation of this R/C helicopter to be used as a reference.**

**THANK YOU!**

Thank you for purchasing the Hummingbird 100% Ready To Fly helicopter. This book will outline how to operate and maintain your model. This model comes prepared for flight and has been tested by our factory. This helicopter is fully electric so there is no messy fuel. The helicopter is designed with a main and tail motor that work together to give the model power and only requires 2 servos to operate.

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**When using the training gear:**

Training gear can be helpful in order to learn flying an R/C helicopter for the first time. The 100% ready to fly Hummingbird is trimmed and test flown without the training gear mounted. Mounting the training gear will slightly move the center of gravity depending on how it is mounted. Slight adjustments may be needed to trim settings.  
Note: Use twist ties or zip ties to fasten training gear to the landing gear.

**WARRANTY INFORMATION**

Your new equipment is warranted to the original purchaser against manufacturer defects in material and workmanship for 30 days from the date of purchase. During this period, Century Helicopter Products will repair or replace, at our discretion, any component that is found to be factory defective at no cost to the purchaser.

This warranty is limited to the original purchaser and is not transferable.

This warranty does not apply to any unit which has been improperly installed, mishandled, abused, or damaged in a crash, or to any unit which has been repaired or altered by any unauthorized agencies.

Under no circumstances will the buyer be entitled to consequential or incidental damages.

This limited warranty gives you specific legal rights. You also have other rights which may vary from state to state.

**SAFE OPERATION GUIDELINES**

The information in this manual is important information for understanding the helicopter and its components. This information is also valuable to keep you safe!

**Warning:** Always turn the transmitter ON first before plugging the battery into the control center. If the transmitter is OFF when the control center is ON, the motors may turn on unpredictably.

Use protective eyewear when operating a model with rapidly rotating parts. Main and tail rotors turn very fast and can be very dangerous if close to the face.

Keep away from small children. The model is made from many small and possibly sharp parts. Only operate and store model where children cannot possibly ingest pieces of the helicopter.

Handle any parts with care as they are fragile and may break under excessive stress. Be careful with small parts as they can be sharp and may cut you.

Do not store model or electronics in high temperature or anywhere that is very humid for an extended period of time as this can damage or deform the model.

When not in use or after use, always disconnect the battery. This will stop the batteries from leaking or overheating.

Only use batteries designed for the Hummingbird model helicopter from Century Helicopter Products. Always connect the batteries with the correct polarity otherwise you may damage the electronics.

Keep away from spinning rotors. Standing too closely puts the pilot at risk of being cut by the rotor blades. Keep roughly 2 meters between you and the model.

Keep fingers and hands away from rotating blades, moving gears and moving parts as this may cause injury. Obstructing moving parts during operation may result in serious damage to the model.

Batteries and motors become hot after operation. Allow a few minutes to cool before touching the battery or motors directly after flying.

The antenna of the radio should be extended at all times during operation as the signal can be compromised otherwise. Do not cut the antenna mounted on the control center as doing so will degrade signal strength.

Do not operate model on the same band/frequency as other R/C models as they cancel each other's signals.

Do not operate model near traffic, small children or crowds of people. This may cause accident or injury.

Do not operate model in dirty, sandy or wet conditions. Avoid operating model near pets as pet hair can get sucked in to the rotor and wound around operating parts obstructing them.

Only use Century replacement and optional parts. Do not modify the design of the model. Using aftermarket parts or modifying the model's design voids the warranty and may damage your model.

Do not clean model using thinner, alcohol or other chemicals as this may warp or deform the model. Simply wipe the pieces off with a dry cloth if they get dirty.

**SECTION 1: REVIEW PACKAGE CONTENTS (DVD CHAPTER 1)**

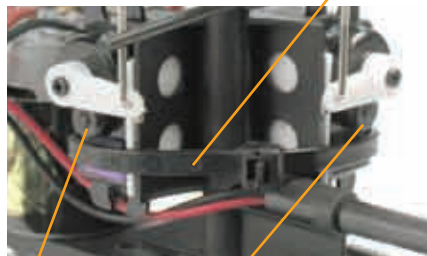
The 100% Ready To Fly Hummingbird is just as it's name implies. Below is a list of all the components required to operate the model.



**SECTION 2: COMPONENTS MOUNTED ON THE HELICOPTER**

Electronic controls are installed by the factory and set in position onto the helicopter frame. The factory has adjusted these electronics for basic flight. Check these components to ensure that they're installed snugly as some shifting may have occurred in shipping.

Zip-tie mounted to secure servos (if removed, trim settings may change)



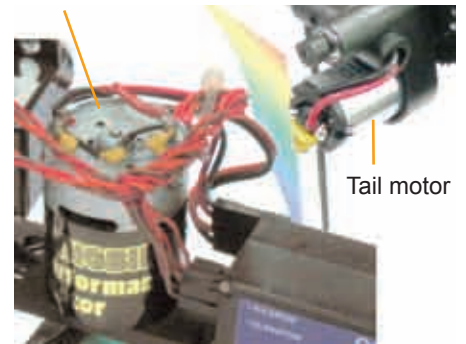
Aileron Servo Elevator Servo

5 in 1 Modulated Hummingbird Control Center



(For advanced users: Gain modifies gyro sensitivity. Mix modifies tail motor power)

Main motor



Tail motor

**SECTION 3: TRAINING GEAR**

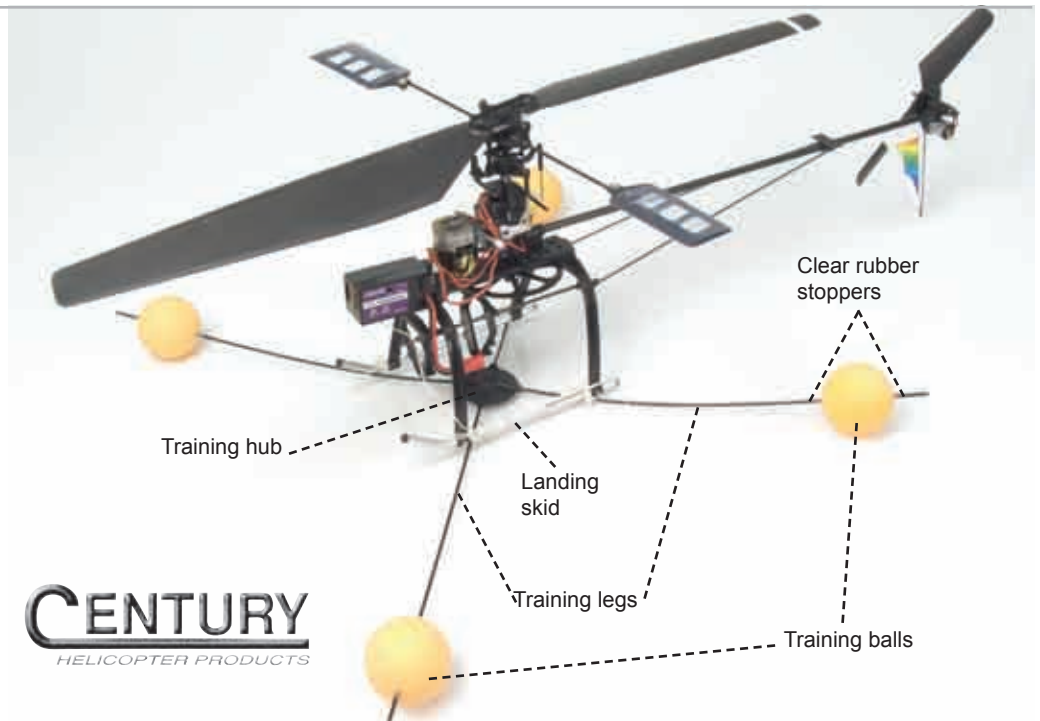
Attach the training legs to the training hub (use CA glue).

Attach the training balls to the training legs with a rubber stopper on each side of each ball.

Attach the training gear to the landing skids using cable, twist or zip ties.



These clips are used for older versions of the landing gear (v.1 & v.2) only. They will not fit on the v.3 landing gear due to a change.



**SECTION 4: INTRODUCING THE ELITE 6 CHANNEL FM RADIO (DVD CHAPTER 2, 3 & 4)**

The Elite 6 channel radio system features all you need to control the model. Examine the controls carefully and refer to this section regularly to identify terms used for making control and trim adjustments. When the voltage indicator falls below 9.5V you will need to change the batteries

**MAIN FEATURES OF THE ELITE 6 CHANNEL FM RADIO**

**Battery Case**  
8 "AA" batteries mount here

**Power Switch**  
Power on/off switch

**Tx Crystal**  
Must match receiver crystal (page 4, section 4)

**Channel Reverse Switches**  
used to reverse servo travel  
\*The channel reverse switches are pre-set by the factory. Changing these settings is only needed if you are using the radio on another model.

**Throttle Trim**  
Adjusts center position on throttle

**Throttle/Rudder Stick**  
Throttle: controls height  
Rudder: controls heading

**Rudder Trim**  
Adjusts center position of rudder

**Elevator Trim**  
Adjust center for elevator

**Trims (all)**  
Adjusts center point.  
Aileron: bank left/right  
Elevator: bank forward/back  
Throttle: increase/decrease main power  
Rudder: increase/decrease tail power

**Transmitter Antenna**  
Emits the radio signal

**Voltage Indicator**  
Displays Transmitter power level

**Trainer ON/OFF Switch (rear switch)**  
Enables trainer function (See 'Trainer Jack & Cord').

**Aileron/Elevator Stick**  
Elevator: forward/back  
Aileron: left/right

**Aileron Trim**  
Adjust center for aileron

**Trainer Jack & Cord (Included)**  
You can connect two Elite 6 radios together to train a student. The cord must be connected to both radios via the trainer jack. The student must remove the transmitter crystal and set it on the side (allowing the teacher's to override). The teacher must hold the trainer switch to allow control to the student and release the switch to regain control in order to correct the student.

**Trainer jack**

**Trainer cord**

**ADVANCED CCPM FEATURES OF THE ELITE 6 CHANNEL FM RADIO**

**The radio supplied with the Hummingbird is now the Century Elite 6 Channel FM Radio system. This radio will work for the Hummingbird v.3 (and 100% RTF) using the normal control system setting.** Hummingbird Elite Series CP/FP and Elite 3D Pro work under the CCPM control system setting. **The CCPM feature does not work with fixed pitch helicopters (Hummingbird v.3 and Elite FP).**

**FRONT VIEW**

Normal/3D Collective pitch mode switch

Throttle/Pitch Trim in CCPM mode (Controls main blade pitch in CCPM mode only)

Trainer ON/OFF switch (rear)

CCPM/Normal control system switch (front)

4	3	2	1

**Normal (default) control system mode** requires the 'servo reverser' switch positions to be in the combination shown. (up, down, up & down)

**CCPM mode** requires the 'servo reverser' switch positions to be in the combination shown. (up, down, down & up)

In order to use the radio with a Hummingbird v.3 or Elite FP the radio must be set to normal mode and normal control. In order to use the radio with a Hummingbird CP/3D Pro (or other collective pitch model) the switches must be set for CCPM Mode before flying. In order to use the 3D Mode with a collective pitch helicopter (CP/3D Pro) the CCPM switch must be on. Note: the 3D mode cannot be used with Hummingbird v.3 or Elite FP.

**WARNING: Do not activate the CCPM switch when in normal (v.3/Elite FP) flight mode! If the CCPM switch is activated in normal flight mode the helicopter will stop functioning properly (lose signal) and possibly crash.**

**WARNING: If CCPM switched ON when preparing to fly using the 5 in 1 module (CN2001-2) will indicate NO SIGNAL.**

**TOP VIEW**

Normal/3D Collective pitch mode switch (default position for the Hummingbird v.3 is "Back").

Trainer toggle (see above)

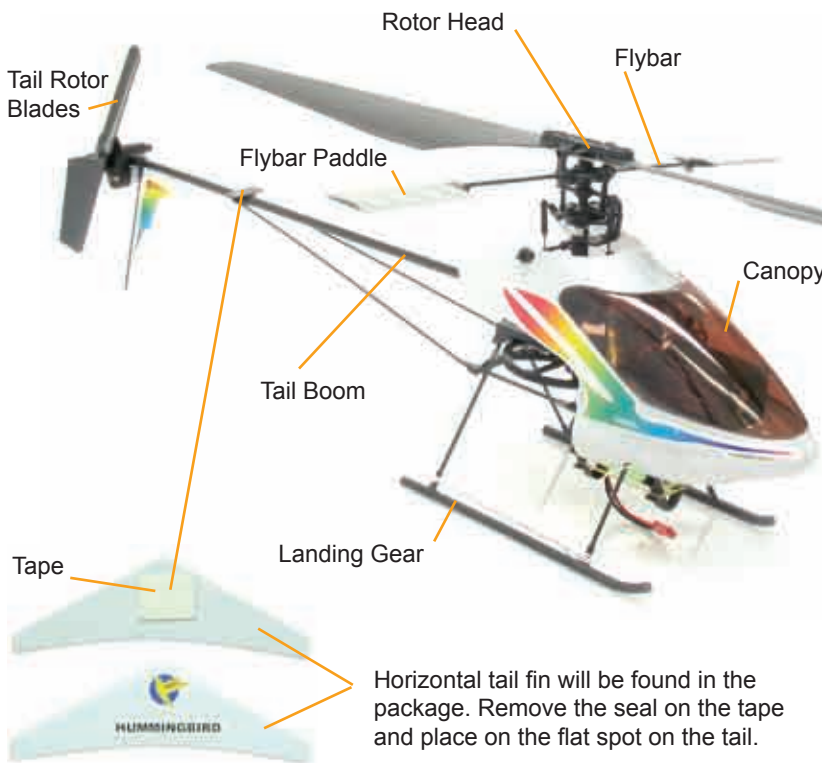
CCPM/Normal control system switch (default position for the Hummingbird v.3 is "Back").

Back

Front

## SECTION 5: HELICOPTER OVERVIEW OF COMPONENTS AND TERMS

The helicopter consists of several main components. Identifying these components and understanding their function is key to operation and maintenance of the Hummingbird.



You may need to remove the canopy for some adjustments. Simply pull the rubber grommets off of the mounting rod.

**(DVD CHAPTER 4)**

**Note:** Flybar paddles assist in stabilizing the helicopter. They should be level with part# CNE007A (see page9 & 10).

### CONTROL CENTER INFORMATION

Receiver crystal must match transmitter crystal (page 3, section 3)

Battery connector

Servo connectors

Tail motor connectors

Main motor connectors

Brown servo wire faces label marked "FM-72MHz"

(For advanced users: Gain modifies gyro sensitivity. Mix modifies tail motor power)

## SECTION 6: BATTERY PREPARATION AND INSTALLATION (DVD CHAPTER 2)

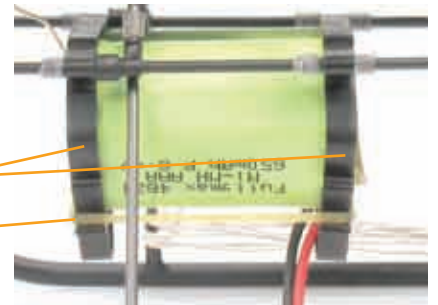
Battery use and installation is important to function the model. An improperly charged or damaged battery can be dangerous to use. Using poorly maintained or damaged batteries will not supply current in relation to the requirements of the control center and may damage the control center.

Charge the battery with the supplied wall charger. The charge should take 60 minutes or until warm. Periodically check the battery to avoid over charging.



**Warning: Do not leave battery unattended while charging! Improperly using/charging battery may result in damage!**

The battery is held to the helicopter using a rubber band and two plastic mounting brackets. Space the brackets to clasp the battery evenly so the battery will not fall out during flight.

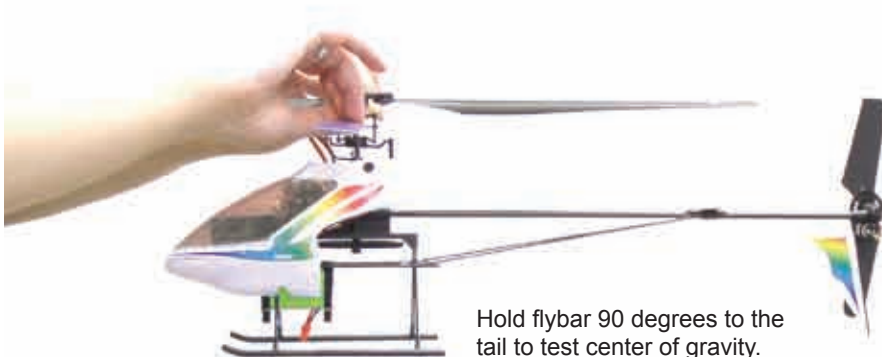


Brackets

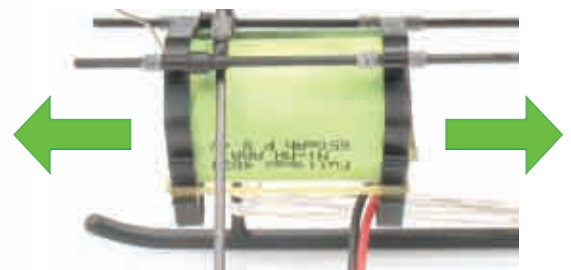
Rubber band

## SECTION 7: BALANCING AND CENTER OF GRAVITY (DVD CHAPTER 4)

The center of gravity will determine how the natural forces of gravity will effect the helicopter. Having the center of gravity too far forward or backward will cause the helicopter to drift accordingly. It's best to grasp the flybar while it is at a 90 degree angle to the tailboom and hold the helicopter up. Reposition the battery until the helicopter is level for optimal center of gravity.



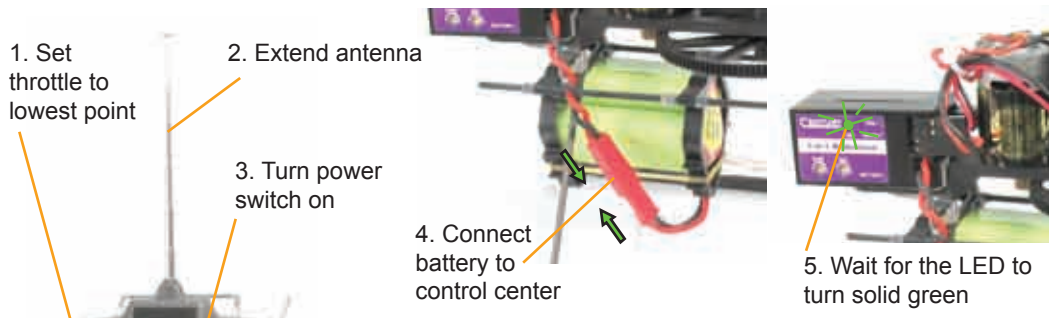
Hold flybar 90 degrees to the tail to test center of gravity.



Adjusting battery to change center of gravity.

**SECTION 8: OPERATING THE HUMMINGBIRD FOR THE FIRST TIME (DVD CHAPTER 2)**

Test the electronics to be sure the electronics operate properly. The helicopter must now be "trimmed" or fine tuned for optimal flight performance. Always turn the transmitter on before plugging the battery into the Hummingbird.



	Solid <b>green</b> indicates good connection.
	Flashing on/off <b>green</b> indicates the initialization period (please wait for 10 second initialazation).
	Solid or flashing <b>red</b> indicates an improper connection or setting (check connections and switches).
	Flashing <b>red/green</b> indicates no connection with the transmitter. (check for loose crystals)

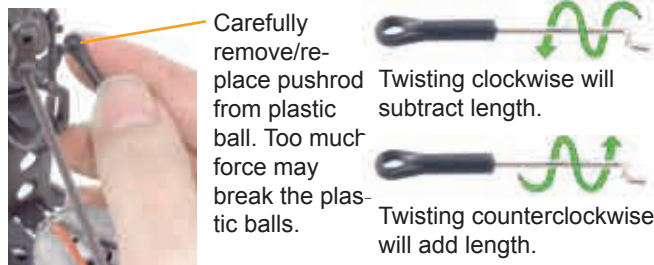
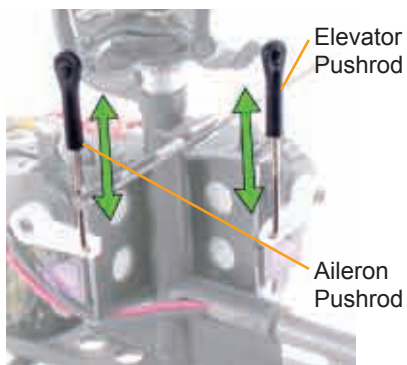
If the light on the control center does not become solid green, check the throttle trim on the radio (see page 3, section 3). Move the trim down until the light becomes green (when the trim is adjusted downward the center or zero position of the throttle is moving downward). The green light indicates everything is ready and the throttle is set to zero. After making this inspection disconnect the battery to power OFF or move on to the next step.

**Warning:** Always turn the transmitter ON first before plugging the battery into the control center. If the transmitter is OFF when the control center is ON the motors may turn on unpredictably possibly damaging the model or causing injury.

**SECTION 9: TESTING AND ADJUSTING AILERON AND ELEVATOR CONTROL**

The two servos mounted on your helicopter control response. An aileron input (see page 3, section 3 and page 6, section 9) from the radio will cause the helicopter to tilt either left or right. The Elevator control causes the helicopter to tilt forward or back. Fine tuning these controls will cause the helicopter to tilt left to right and forward naturally.

**Note:** Before making adjustments to pushrods make sure the aileron/elevator trims are centered on the transmitter (see section 3). That way, you can be sure you're adjusting the servo center (zero) point. After adjusting the pushrod, use the trims to fine tune the settings.



<b>Trims (any)</b>	
Adjusts center point.	
Aileron: bank left/right	
Elevator: bank forward/back	
Throttle: increase/decrease main power	
Rudder: increase/decrease tail power	



Replace the canopy using the two rubber grommets and mounting rod. **Do not obstruct servos while remounting the canopy!**

Shortening the Aileron pushrod causes the helicopter to tilt more to the left. Lengthening the Aileron pushrod causes the helicopter to tilt more to the right. Shortening the Elevator pushrod causes the helicopter to tilt more backwards. Lengthening the Elevator pushrod causes the helicopter to tilt more to the forwards.

**SECTION 10: ADJUSTING THE BLADE TRACKING (DVD CHAPTER 4)**

The first main adjustment to make is blade tracking. The helicopter will lift poorly and vibrate if the blades do not track properly. To get the blades tracking properly use a bit of white or red (visible) tape on one of the blades then follow (this page, section 6) to turn everything on.

1. Secure the helicopter by the landing gear to a surface so the helicopter cannot take off on it's own.

2. Move the throttle stick up slowly until the blades begin to blur into a disc then **STOP! Do not go to full power!**

3. Look at the helicopter from the side. If the blades appear as in illustration A, tracking is correct. If rotors appear as in illustration B, mark the blade that is tracking above the other and add a small amount of tape which will bring it down. (Sometimes tracking will not be perfect. Very close is suitable.)



**Note:** Use something heavy to hold the helicopter down evenly for this phase.



**Note:** If tape will not bring the higher blade down far enough, try flexing that blade downward (gently or it may break) as this will also help with tracking.

SECTION 11: CONTROLS FOR THE HUMMINGBIRD R/C HELICOPTER (DVD CHAPTER 3)

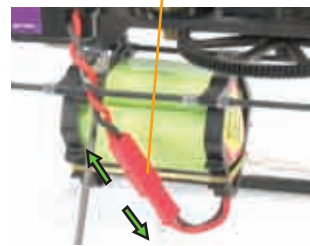
**Warning: This section covers R/C helicopter movement. If your helicopter is ON when you move these controls the motors may turn unexpectedly! Do not move the sticks on the transmitter while the helicopter is ON unless you're sure the model is working properly and you are ready to fly or make adjustments safely.**



1. Quickly move the throttle to the lowest position



2. Disconnect battery to control center



3. Inspect the model for damage. If there is no physical damage, check the components for realignment



Aileron controls the helicopter's left and right tilt. This control will result in the helicopter drifting in the direction the stick is moved. Be careful! Too much Aileron can cause the helicopter to tip too far.

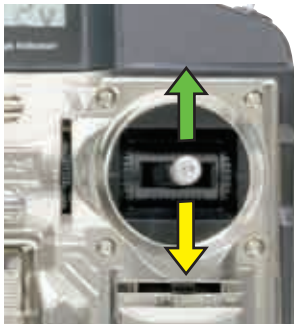


Helicopter tilts/drifts left by adding left Aileron input.



Helicopter tilts/drifts right by adding right Aileron input.

Elevator controls the helicopter's forward and reverse tilt. This control will result in the helicopter drifting in the direction the stick is moved. Be careful! Too much Elevator can cause the helicopter to tip too far.

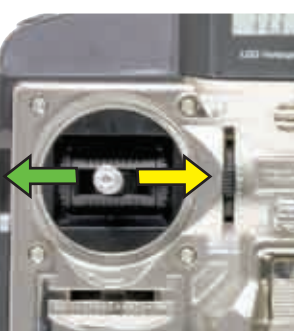


Helicopter tilts/drifts forward by adding upward Elevator input.



Helicopter tilts/drifts reverse by adding downward Elevator input.

Rudder controls the helicopter's facing direction and tail motor power. This control will result in the nose of the helicopter drifting in the direction the stick is moved. Be careful! Too much Rudder can cause the helicopter to spin too fast or lose orientation.

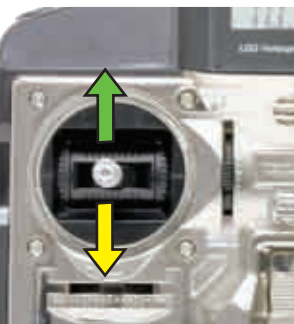


Helicopter nose moves left by decreasing the tail motor speed.



Helicopter nose moves right by increasing the tail motor speed.

Throttle controls the helicopter's elevation and motor power. This control will result in the helicopter changing elevation (height) in the direction the stick is moved. Be careful! Too much Throttle can cause the helicopter to fly out of visible range!



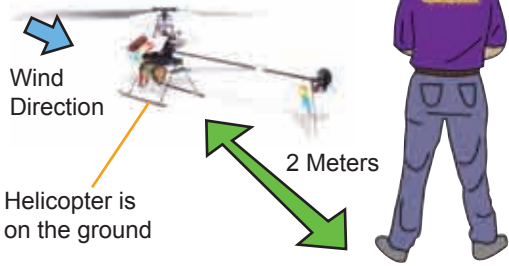
Adding throttle moves the helicopter higher in the air by increasing speed to the motors.



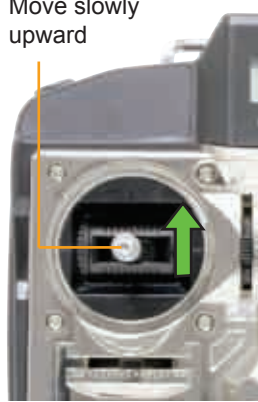
Reducing throttle moves the helicopter lower in the air by decreasing speed to the motors.

**SECTION 12: FLYING (DVD CHAPTER 5)** (Always make small corrections to the controls. Do not move sticks too far or you may overcorrect!)

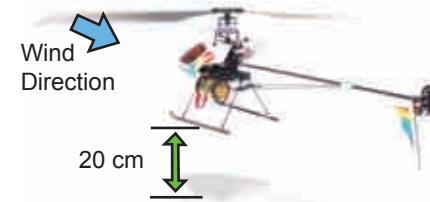
Place the helicopter so that it's nose is facing into the wind (if there is any). Keep elbows down and stand about 2 meters from the model.



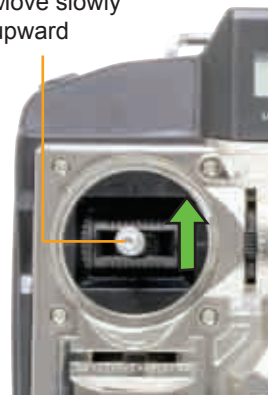
Move slowly upward



Practice lifting the helicopter a few centimeters off the ground. Continue to slowly raise the throttle stick. **Practice making small corrections to the controls.**



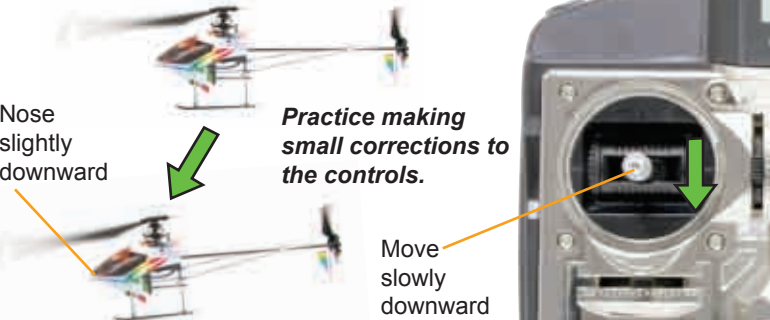
Move slowly upward



Slowly increase the throttle until the helicopter seems to begin lifting upwards. Focus on the nose while keeping the tail facing towards you.

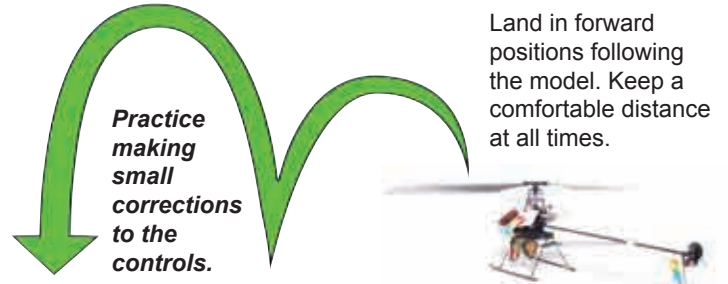
Keep focus on the nose of the helicopter and correct using the rudder control any time the nose turns too far left or right.

Practice landing the helicopter. Note that the helicopter will drop rapidly if the throttle stick is moved too low too fast so do so gradually.



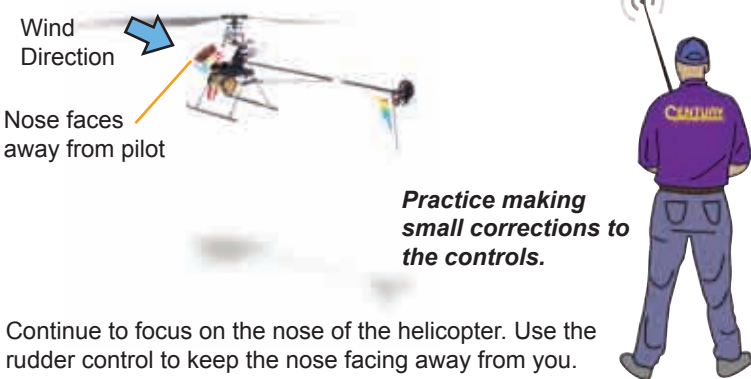
When landing, dip the nose downward slightly to avoid having a tail rotor strike. Landing with the tail drooping may allow the tail blades to touch the ground which will break them.

Make short hops with the helicopter increasing elevation as you become more comfortable while practicing making landings. Continue to land softly (**hard landings can damage landing gear or worse**) by slowly moving the throttle stick down.



The higher the helicopter flies the more corrections you will need to make to control it. Make note of any tendency to drift in order to make corrections to trims or pushrods (page 5, section 7).

Maintain a midair position by keeping the same elevation and staying in the same position using constant throttle, rudder, aileron and elevator corrections.



While in mid-air try using the aileron and elevator controls to move the helicopter forwards, backwards and side to side while maintaining the same elevation.

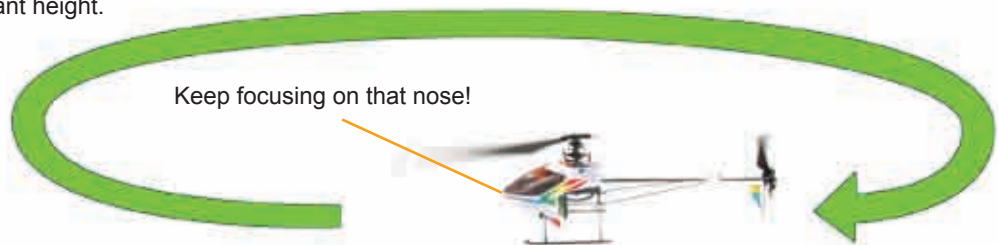


Only slight inputs are needed to move the helicopter. Too much input can cause the helicopter to tip too far to one side. Continue to make small corrections to keep it level.

Turning the helicopter and flying a circle is important because in certain positions the helicopter's nose will be facing you. Slowly use aileron and elevator to move the helicopter around in a circle. Be careful not to move too fast and lose control. Height may vary when making these adjustments. Try adjusting throttle to maintain a constant height.

Control inputs for turning right:

1. Tilt the model right by adding right aileron.
2. Move elevator upwards and rudder to the right.
3. After turning, return elevator and rudder to neutral and add left aileron to make the model level. (in order to turn left reverse the aileron and rudder controls listed)



**It may take some time to learn how to fly the helicopter. Practicing the techniques above will help the process go more quickly.**

**SECTION 13: TROUBLESHOOTING AND PROBLEM SOLVING (DVD CHAPTER 4)****Q: Everything is on and connected. Why won't the rotors turn?**

- A: -Your throttle channel may be reversed.  
 -The battery may be too low in power to turn them.  
 -The motor may have burned out. Main motors will usually burn out after about 50 flights.

**Q: Why do the servos move but rotors do not turn?**

- A: -Check the light on the control center. If the light is red make sure the throttle stick is in the lowest position. Also try reducing the amount of throttle trim on the transmitter until the light becomes green.

**Q: Why does the helicopter spin like a top?**

- A: -It's possible that the rudder channel on your radio is reversed or your control center is installed upside down. Try remounting the control center in different positions. The tail rotor motor should only respond to the gyro when the helicopter turns counterclockwise (nose left).  
 -Check the connections to the control center to make sure connections are correct. If the problem persists take a look at the direction the tail motor turns.  
 -The curved portion of the tail rotor should move forward being the "leading edge". If this is not the case please check the polarity of the motor's connection to the control center.

**Q: Why is there vibration?**

- A: -The main blades may be out of track. Refer to the blade tracking in (page 5, section 8).  
 -Main blades are made as balanced pairs. Replacing only one blade at a time may cause vibration if those blades are not balanced. It is best to replace main blades as a pair.  
 -The main shaft may be bent. This can be difficult to notice when the blades are not moving. A bent main shaft can be caused in a crash or a hard blade strike.  
 -Vibration can also result from any loosely connected components such as the battery tray or the landing gear. Make sure to secure them and be sure to check the frame and flybar every time you crash or have a hard landing as they may need to be repositioned.

**Q: Why does the model always want to move in one direction?**

- A: -There may be a breeze or your model may be affected by nearby air conditioning vent or fan.  
 -Rudder may be drifting. Adjust the trim on the radio or change the MIX setting on the control center to vary the ratio of tail motor power in relation to the main.  
 -Tail motor may be wearing out. It will need to be replaced after roughly 20 flights.  
 -Aileron or elevator linkage or trims may need to be adjusted.

**Q: Why won't the helicopter come off of the ground?**

- A: -Be sure that the gear mesh on the main motor moves smoothly and that the battery is fully charged. Do not fully discharge a NiMH type battery as it will lose its capacity memory.  
 -If you don't think it's the battery it's possible that slightly damaged blades are reducing the possible lift. If there is a part of the blade broken off especially near the tip the helicopter may not lift properly.  
 -Check to make sure nothing is rubbing against the main gear possibly slowing its RPM.

**Q: Why does the helicopter operate on its own without my command inputs?**

- A: -You may be getting hit with interference. RF interference can occur for many reasons. Ordinary household electronics, televisions, cell phones, microwaves, electric tools and other R/C models can add to the field of interference affecting your model. Try turning off unnecessary electronics or find an area where there are less electrical disturbances.  
 -Large road, highway or pylon may be close. These areas are rich with interference. Another flying location may need to be designated.

**Q: Why does the helicopter still move too far forward or backward even after adjusting the servo arm positions and trims?**

- A: -The helicopter may not have an even center of gravity. You can slide the battery in its mounting tray to adjust its center of gravity.  
 -You can also combine your battery weight centering with trims and servo arm positions to get any desired combination.



If the helicopter does not seem to have enough power or the motor sounds like the motor is being bogged down, check the gear mesh. If the gear mesh is too tight, it can cause unnecessary wear to the main motor. If too tight, the gear mesh will shorten the life of the main motor and degrade performance in the model overall. To adjust the gear mesh, loosen the two screws holding the motor in place and realign.



If the helicopter does not seem to turn properly or the tail motor seems to make a gritty sound as it tries to turn, check the gear mesh. If the gear mesh is too tight, this will cause excessive wear on the tail motor shortening its life and degrading performance. If the gear mesh is too loose, the tail will simply not respond well enough. Adjust the two screws that hold the motor in place in order to realign the mesh.



Blade tension can change after a few uses. The blades should be held by their screws at about the same tightness. Adjust the screws to about the same tightness. The blades should not droop when the helicopter is sideways but they should be loose enough to fold back in a blade strike.



Flybar adjustment can be done by using a 1.5mm hex driver. The flybar should be equal length on both sides of the rotor head. An uneven flybar will cause vibration in the model making it more difficult to fly. After making any adjustment, make sure the flybar is tightly mounted.





**CNE001B**  
Main Rotor Yoke & Stiffener



**CNE002**  
Rotor Head Links



**CNE003**  
Main Blades



**CNE004A**  
Rotor Hub & Bearings



**CNE005**  
Flybar



**CNE006A**  
Flybar Paddles



**CNE007A**  
Seesaw & Timing Yoke



**CN-**  
Swashplate v.3



**CNE009A**  
Cyclic Links & Rods



**CNE011B**  
Main Frame



**CNE012A**  
Battery Support



**CNE013**  
Main Gear & Shaft



**CNE014C**  
Landing Struts



**CNE014E**  
Landing Struts



**CNE015**  
Rotor Head Bearings



**CNE016A**  
Canopy & Decal



**CNE017A**  
Tail Boom & Gearbox



**CNE018A**  
Fins & Boom Supports



**CNE256**  
N-30 Tail Drive Motor



**CNE020**  
Tail Gear & Shaft



**CNE021**  
Tail Bearings



**CNE022**  
Tail Rotor Blades



**CNE023**  
Tie Wraps, Tape & Band



**CNE024**  
Main Shaft Collar



**CNE055A**  
Fastener Set



**CNE050**  
Battery



**CNE051**  
Charger



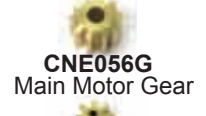
**CN2023**  
BB Micro Servo



**CNE054AM**  
Crash Kit



**CNE056A**  
Main Motor



**CNE056G**  
Main Motor Gear

**CNE019G**  
Tail Pinion Gear



**CN2001-1**  
Elite 6 Transmitter



**CN2001-2**  
Control Center



**CN2001-4**  
Trainer Cord

**HUMMINGBIRD v.3 OPTIONAL ACCESSORIES**

**Training Pod**



**CNE053**

**N-60 High Authority Tail Motor**



**CNE253**

**RotorTech Carbon Main Blades**



**CN262302**



**9.6V 600mAh NiMH Battery**  
**CNE050A**

**Tanic Li-Po battery packs**  
**MX-LP2830**



**Main Motor Heat Sink**  
**CNE061**



**Tail Motor Heat Sink**  
**CNE060**

**Carbon Fiber Main Blades**



**CNE062**



**Carbon Fiber Tail Blades**  
**CNE063**



**Carbon Fiber Fly Bar Paddle**  
**CNE064**



**Carbon Fiber Canopy**  
**CNE065**

**Blade Holder**



**CNE330**



**Lightning Brushless Motor**  
**CNE252**



**ELECTRON 12/18 Brushless Speed Controller**  
**CNE412**

# ELITE 3D PRO

HUMMINGBIRD SUPER-MICRO ELECTRIC R/C HELICOPTER



#### SPECIFICATIONS>>

Main Rotor Span: 556mm  
 Tail Rotor Span: 127mm  
 Length: 489mm  
 Height: 190mm  
 Weight: under 380g (with electronics)

#### FEATURES>>

Precision 120° ECCPM  
 Symmetrical Main Blades  
 Torque Tube Tail Drive System  
 Metal Pinion and Tail Drive Gear  
 Dual Step Light-Weight Aluminum Frames  
 Built In Autorotation Unit  
 And More ...

## TAKE YOURSELF TO THE NEXT LEVEL!



Lightning Brushless  
 Outrunner Motor  
 #CNE262A

#### NEW>> LIGHTNING BRUSHLESS OUTRUNNER MOTORS

Want more power? Lightning brushless outrunner motors can handle the most intense performance requirements for the most demanding 3D pilot. Lightning brushless outrunner motors are available for the Hummingbird 3D Pro and other electric helicopters. Power is now within your reach!



Electron 18/25 Brushless  
 Speed Controller  
 #CNE418

#### NEW>> ELECTRON BRUSHLESS SPEED CONTROLLERS

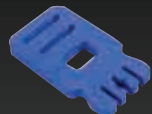
Are you looking for a plug-and-play speed controller? Introducing our very own solution for brushless speed controllers. We offer a full line of brushless ESCs for the Hummingbird 3D Pro and many other R/C helicopters with maximum performance and reliability!

Introducing the ultimate choice in aerobatic capable Super-micro electric R/C helicopters, the Hummingbird 3D Pro! We are proud to offer this magnificent model as 3D capable right out of the box. Combining the knowledge of R/C nitro collective precision along with the most advanced micro electric design concepts, we have arrived at a model that excels prepared to wipe out the competition.

Expect only the best as you experience tight, precise control and quick response as the Hummingbird 3D Pro will dazzle you with agility and speed. Using the basics of micro electric design to keep components light and durable while distributing heat away from electronic, the Hummingbird 3D Pro is not only precise, but also efficient. When you combine precision and efficiency and add beauty, you will arrive at the Hummingbird 3D Pro: **The Ultimate Super-Micro Electric Helicopter!**

**CENTURY**  
 HELICOPTER PRODUCTS

#### UPGRADES & ACCESSORIES>>



Blade Holder  
 #CNE330



CNC Seesaw  
 Assembly  
 #CNE260



CNC Main Blade Grips  
 #CNE258



Fully Carbon Main Blades  
 #CNE323C



CNC Swashplate  
 #CNE259



CNC Tail Rotor Hub & Grips  
 #CNE324A

There are even more upgrades & accessories available! Visit [www.centuryheli.com](http://www.centuryheli.com) for more info.

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