E-FLIGHT BLADE CX
COMPLETE DISASSEMBLY
JANUARY 2006

AERONUTS

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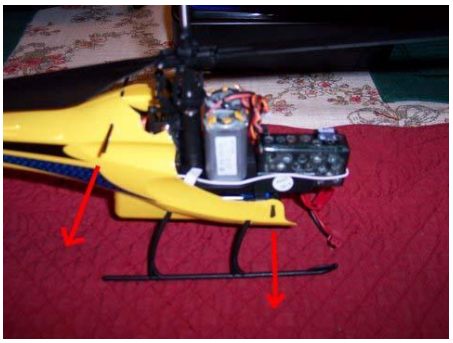
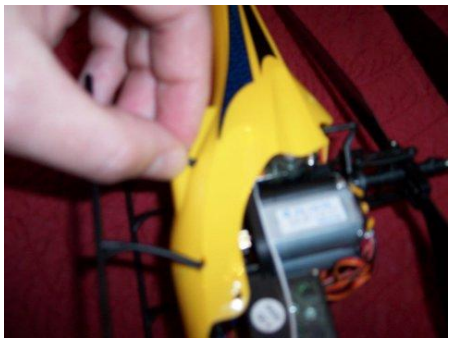
The E-Flight Blade CX in basically stock form, prior to disassembly. You will be working with small parts and screws that are easy to lose. Keep a plastic cup or other container on your work surface to contain screws and/or small parts.

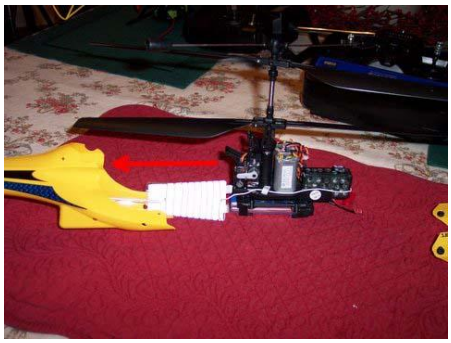
The only tool you will absolutely need for the disassembly (not including mods) is the precision Phillips head screwdriver (*far left*) that was supplied in the parts bag with your Blade CX.
I prefer something with a little more grip, so I use a Stanley precision screwdriver (*center*). These are available in a set from just about any retail store (got mine at WalMart).
You will also find a set of ball link pliers (*right*) helpful, although not necessary.



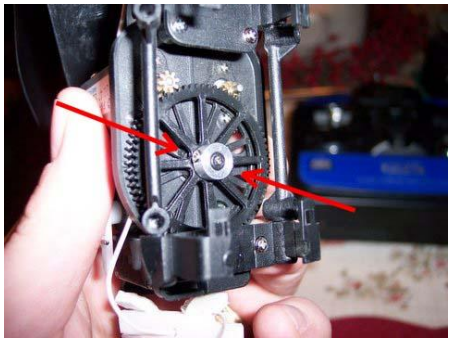
Remove the canopy and slide the two CF rods out of the frame and tail section.



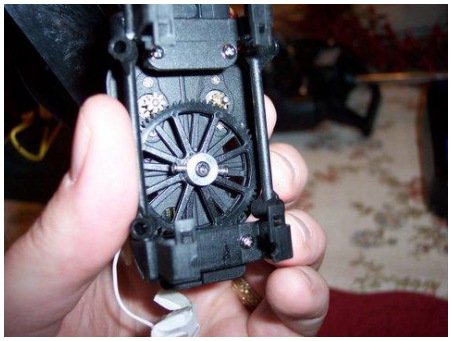
To remove skids, grasp strut firmly against body and gently pull strut from battery holder assembly on bottom of main frame. Do this for each of the four struts.



Gently slide tail section off of frame and antenna.



To remove the drive gear for the inner shaft, loosen the screws on each side of the aluminum retaining collar. This will allow the inner shaft to be pulled out of the rotor mast.



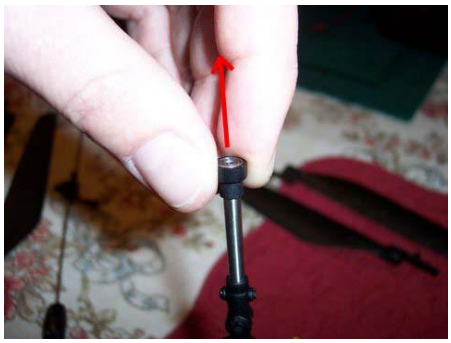
Just as a suggestion, back the screws all the way out, then screw them back in 1 ½ to 2 turns so you can keep the screws in the collar and not misplace them.

Grasp the upper rotor head and gently pull it out.

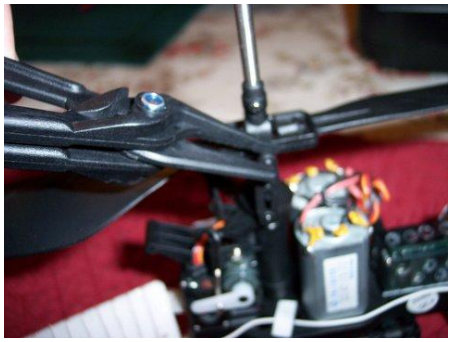
The drive gear and collar can then be removed, as it will be loose in the battery bracket.

During reassembly, keep in mind that the screws from the retaining collar must align and set into the notches at the end of the inner drive shaft. This will prevent the drive gear from spinning free on the shaft and causing failure and/or a crash.

Remove the flybar and upper blades from the upper rotor. This tutorial assumes that the user is familiar enough to be able to remove blades without further instruction.

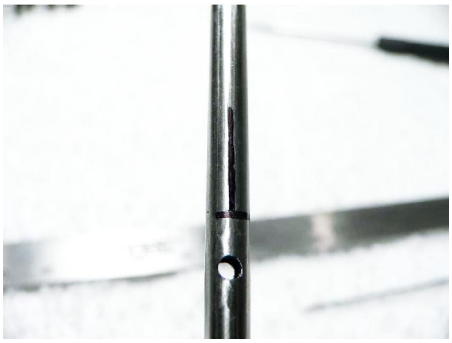


Gently pull the cap at the end of the outer drive shaft that holds the bearing for the inner drive shaft.



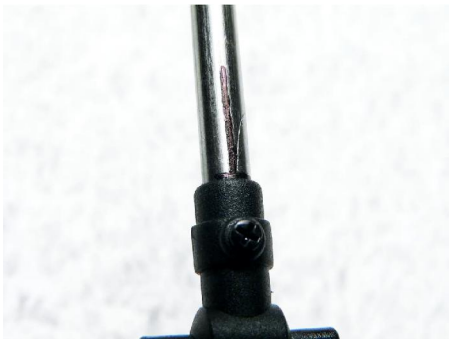
Gently remove the linkages from the lower blade's ball joints. This can be done with your fingers, however ball link pliers will make this task easier and reduce the likelihood of inadvertent damage to the links and ball joints.

The lower rotor head is affixed to the outer drive shaft by four screws. As with the retaining collar step, back the screws all the way out, then screw them back in slightly to prevent loss of the screws. ***Replacement lower rotor heads do not currently come with new screws.***



As a note for reassembly, the upper screws of the rotor head must align and set into the holes of the outer drive shaft.

This photo, and the one that follows, were posted by LRHann. He recommends to mark the outer drive shaft with a sharpie horizontally at the top of the rotor hub, and vertically in line with the set holes. This makes lining up the screws easier during reassembly.



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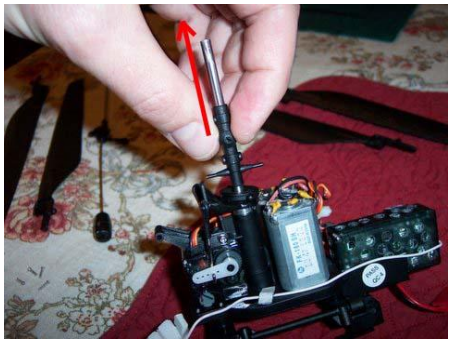
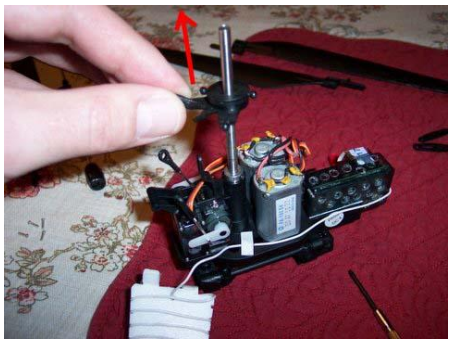


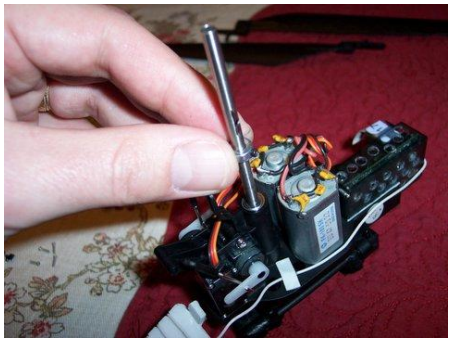
Once all four screws have been sufficiently loosened, gently pull the lower rotor shaft from the outer drive shaft.

Gently remove the linkages from the swashplate's ball joints. This can be done with your fingers, however ball link pliers will make this task easier and reduce the likelihood of inadvertent damage to the links and ball joints.

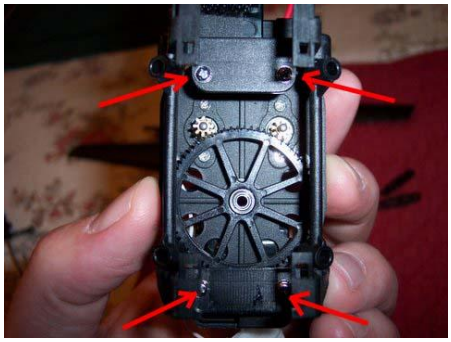


Gently push the anti-rotation arm to allow the anti-rotation pin of the swashplate to come free. Remove the swashplate from the outer shaft.

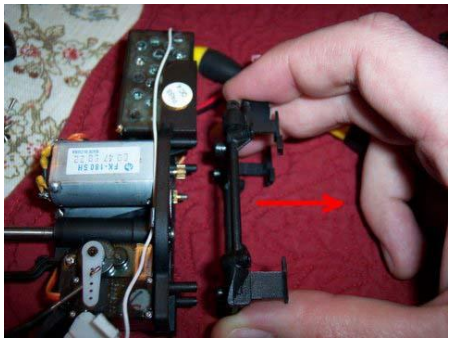
Loosen the set screw of the aluminum retaining collar that holds the outer drive shaft in place.



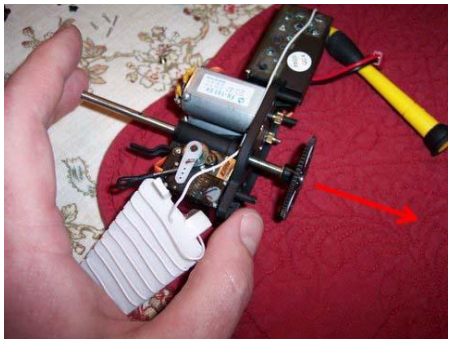
Slide the retaining collar up and off of the outer drive shaft.



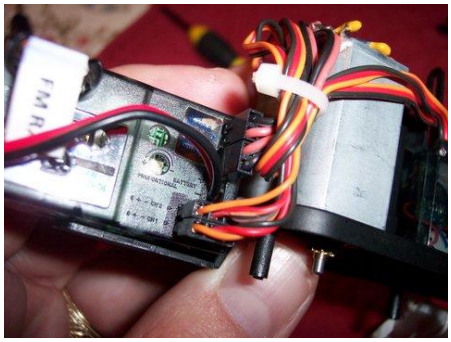
Remove the four screws that hold the battery tray to the main frame.



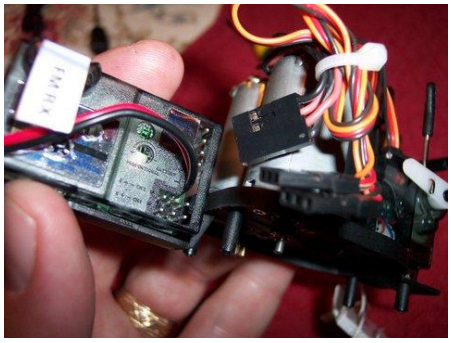
Gently work each of the four points where the battery tray attaches to the man frame, and separate the tray from the main frame.



The outer rotor shaft will now be free to be pushed fully out of the main frame.



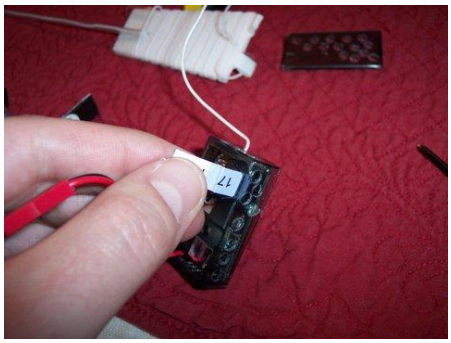
Unplug the motor and servo plugs from the 4in1 unit.



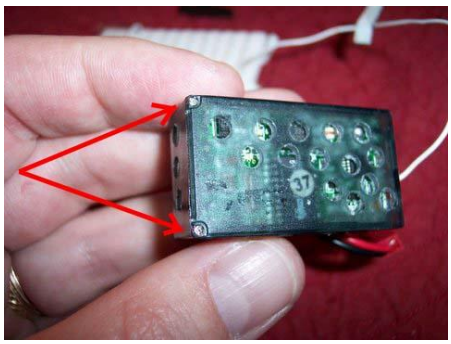
You may want to mark these connections to assure that you return them to the proper locations on the 4in1 during reassembly.

Gently twisting the 4in1 unit will often be enough to get the double sided adhesive tape that holds it in place to release. If not, gently working at the tape joint with a razor blade or flathead screwdriver should allow for separation.

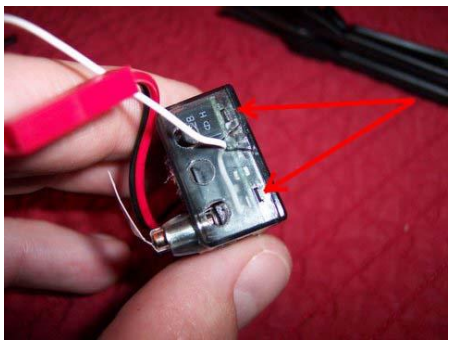
Set the 4in1 and antenna aside. This would be a good time to ventilate the plastic case of your 4in1 to reduce tail drift.



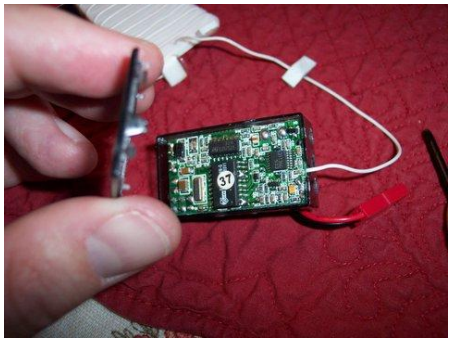
To disassemble the 4in1, so that you can ventilate the case without damaging the electronics, first remove the RX crystal.



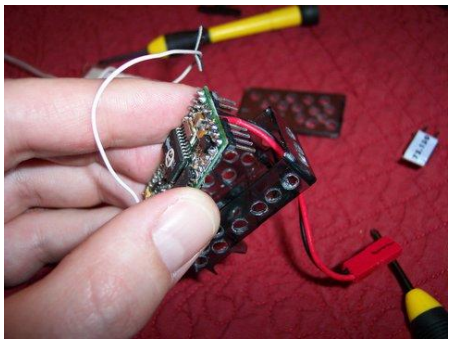
Remove the two small screws on the back of the 4in1 case.



Use a precision flathead screwdriver to gently push the two small retaining tabs on the opposite end of the 4in1 case.

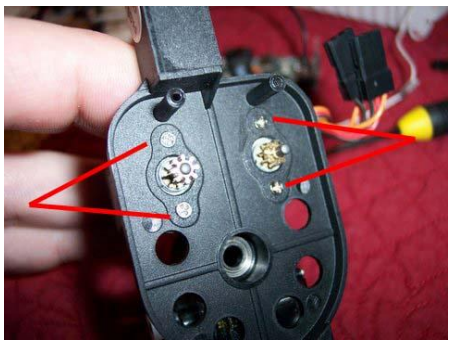


Gently remove the back of the case.

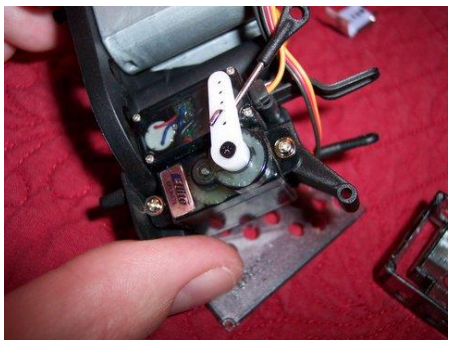


By pushing gently on the battery lead, and pulling gently on the circuit board, the adhesive that holds the board inside the case should break free and allow removal of the 4in1 board from its case.

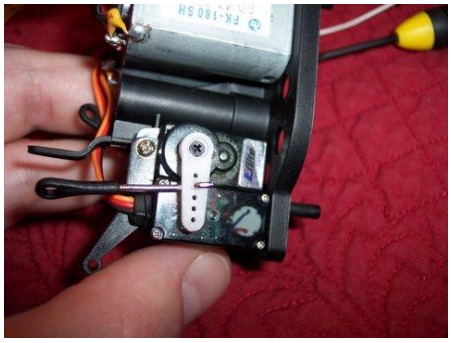
The empty case can now be safely cut or drilled to perform a 4in1 cooling mod.



Each of the rotor motors are held in place by two screws through the main frame. Removal of these screws will allow for the removal of the drive motors.



The port side servo is held by two screws.



The starboard side servo is held by one screw at the top and double stick tape at the bottom.

Disassembled BCX. Can I put this back together?!?!?!?!

Just reverse the steps and use a little common sense and good judgement. ☺

Obviously, this tutorial is not exhaustive or all-inclusive. It is offered as a basic guide for those with apprehension to performing their own repairs or making performance mods. Exercise some common sense and good judgment in using this guide. As always, if it doesn't feel like something is coming apart by being pulled gently, DO NOT FORCE IT!!!

The safe reassembly, assessment of flight-worthiness, and liability for any damage to property or injury to persons, are the sole responsibilities of the individual user. Use this guide at your own risk.

Direct any suggestions, recommendations, or feedback by PM to aeronuts at RCGroups.com