
INTERCEPTOR 400





We will start with the head assembly.
This is the contents of the bag.



This is the assembly order of the Blade Holders (INT-003).



Over view of the entire head assembly.



The M3 Nylon Nut (INT-007) followed by the Bearing (INT-005), Bearing Collar (INT-006) & the last Bearing. These are put on the Feathering Spindle (INT-010).



Push through Blade Holders (INT-003).



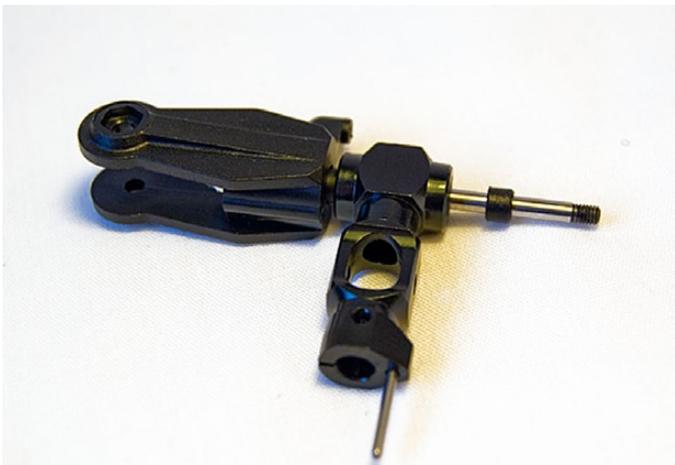
Once in place slide on Spindle Bush (INT-009).



Take four O Rings (INT-008).



Place two on either side of the Centre Hub CNC (INT-004).



Insert Feathering Spindle (INT-010) and place Spindle Bush (INT-009) on opposite side. Place second Blade Holder (INT-003) over Feathering Spindle (INT-010).



Put the Bearings (INT-005) into place followed by the Collar (INT-006).



Place the last Bearing (INT-005).



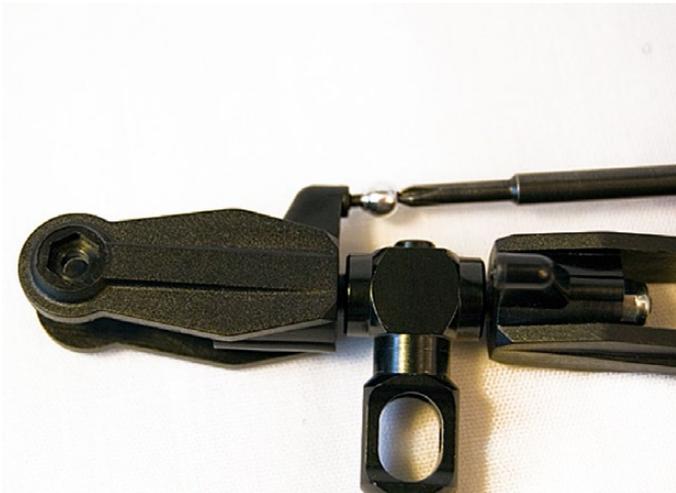
Place the Nylon Nut (INT-007) on to end.



Tighten with two 5.5mm socket wrenches.



Assemble ball links (INT-001 + INT-002).



Attach Ball Links to Blade Holders (INT-003).



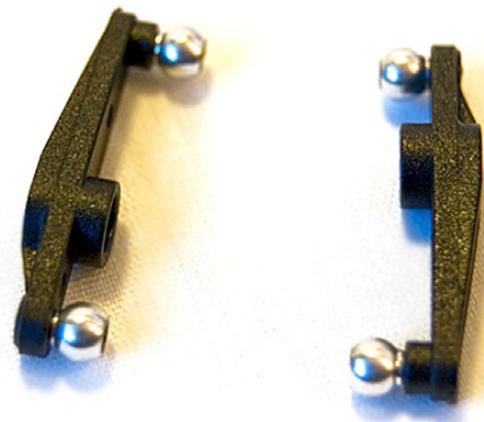
Screw two 3mm screws into each Blade Holder.



That is the blade grips completed.



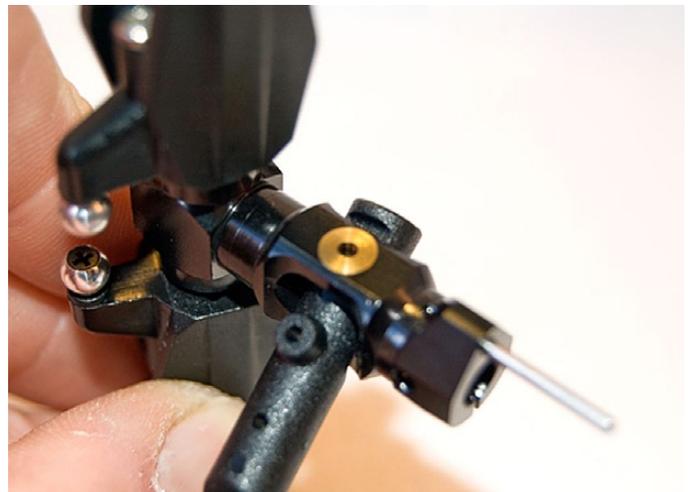
Next is assembling the Stabilizer Control Arm Set (INT-018).



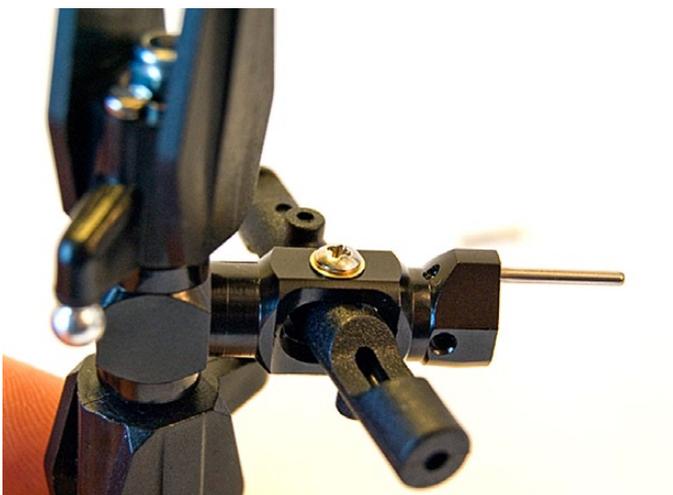
Assemble the ball links (INT-001 + INT-002) and screw them on to the Mixing Arms (INT-017) - note position.



Screw another two ball links (INT-001 + INT-002) into place on Stabilizer Control Set (INT-018).



Place Collar (INT-011) into CNC Centre Hub (INT-004) and push Seesaw (INT-016) into place.



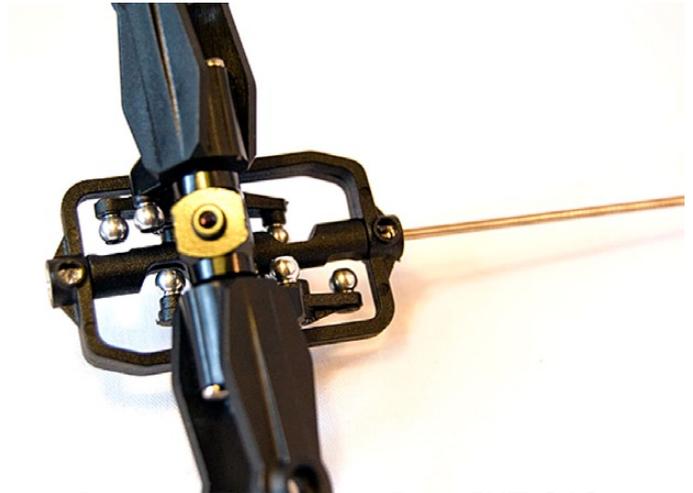
Screw Seesaw (INT-016) into place from both sides with Pan Head Screw (INT-012) .



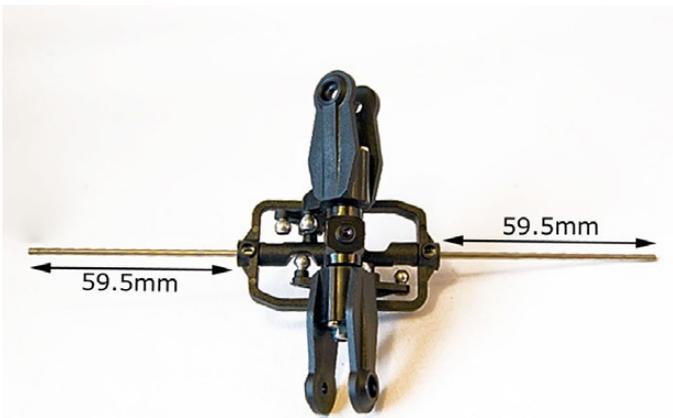
Screw both Mixing Arms (INT-017) onto the Seesaw (INT-016) through a Bearing Spacer (INT-013) and two Bearings (INT-014) with a Pan Head Screw (INT-015).



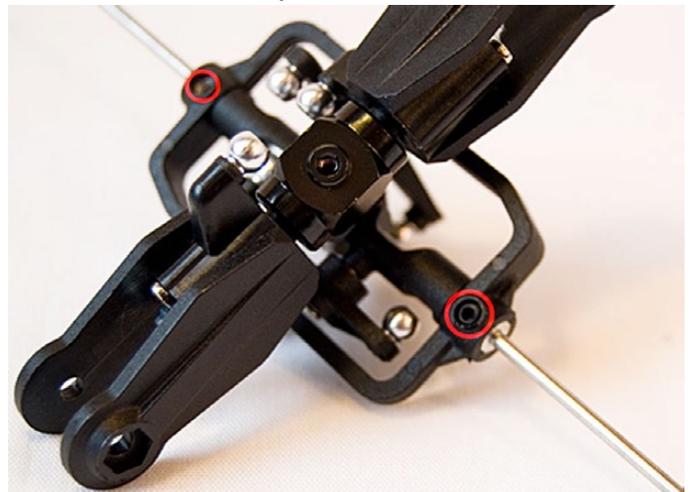
Position the Stabilizer Control Set (INT-018).



Push the Stabilizer Bar (INT-019) through the Stabilizer Control Set (INT-018) and Seesaw (INT-016) and into position.



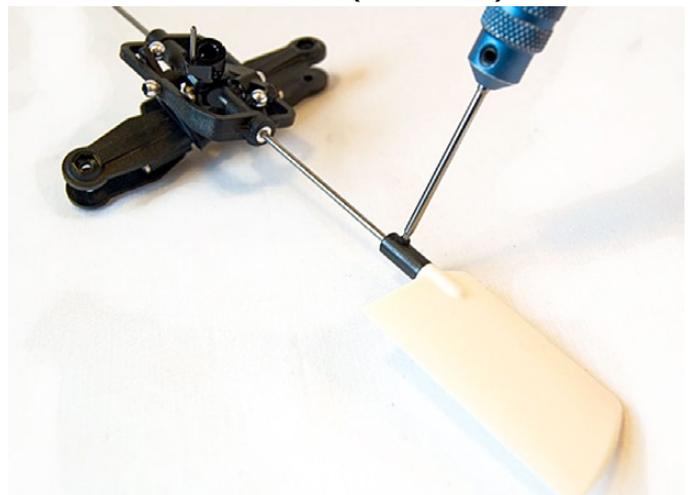
Centre the Stabilizer Bar (INT-019) with an equal length on each side of the Stabilizer Control Set (INT-018).



Insert grub screws (threadlock metal on metal fixings) into Stabilizer Control Set (INT-018) to lock Stabilizer Bar. Put Stabilizer Blades (INT-020) on.



Check that the Stabilizer Blades (INT-020) are level with the Stabilizer Control Set (INT-018).



Apply threadlock to grub screw and fix into place.



Ensure that all the Ball Links (INT-001 + INT-002) are correctly fitted to the Swashplate Set (INT-023).



The Main Mast (INT-026) may require cleaning to remove residue - please ensure that it is smooth.



Assembly order of Washout Control Arm (INT-029).



Insert Needle Pin (INT-028) into Washout Control Arm (INT-029) - note orientation of part.



Push Bearing (INT-014) into place.



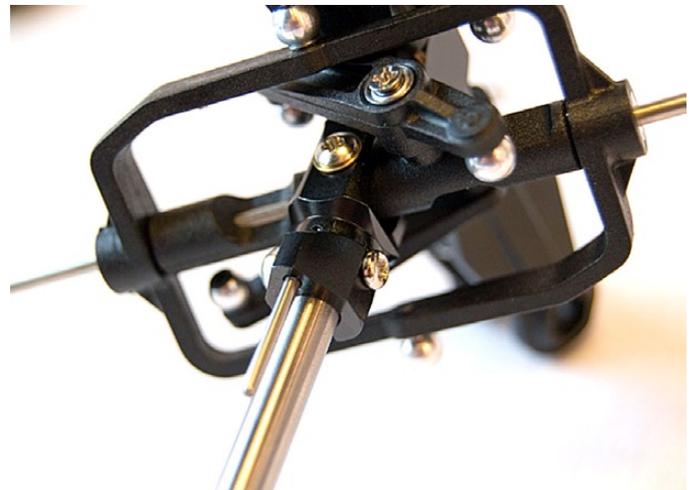
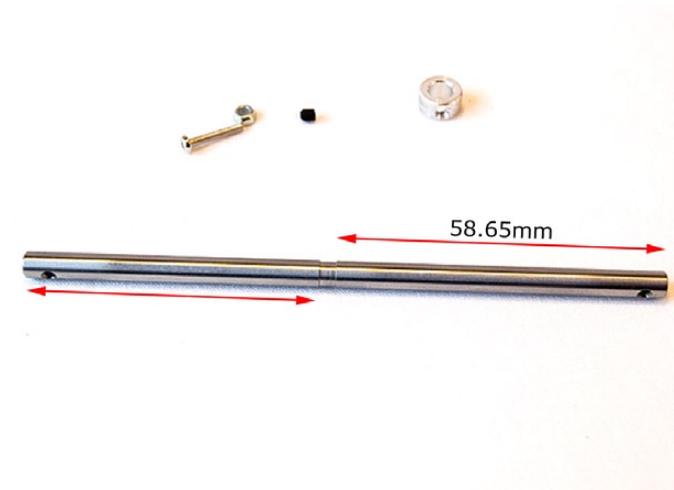
Put Collar (INT-011) on opposing side and screw into place the Ball Link (INT-001 + INT-002).



Screw Washout Control Arm (INT-029) into place on Slide Block (INT-031). Please ensure screw is aligned correctly. DO NOT OVERTIGHTEN.



Repeat assembly of Washout Control Arm (INT-029) and affix to the other side of the Slide Block (INT-031).

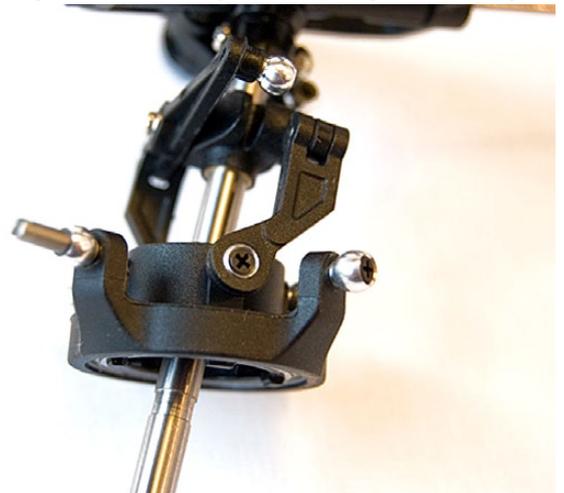


One length from the engraved edge is longer than the other. The longer side is to be placed into the frame of the helicopter. The shorter length into the head.

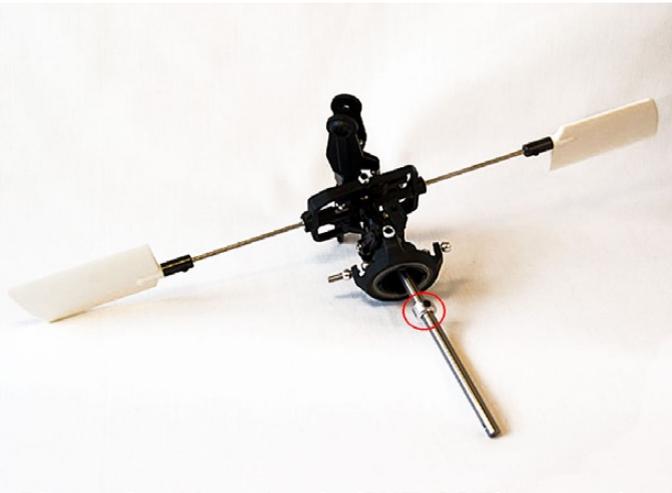
Insert the shorter side of the Main Mast (INT-026) into CNC Centre Hub (INT-004) and fix with Pan Head Screw (INT025) and M2 Nylon Nut (INT-024).



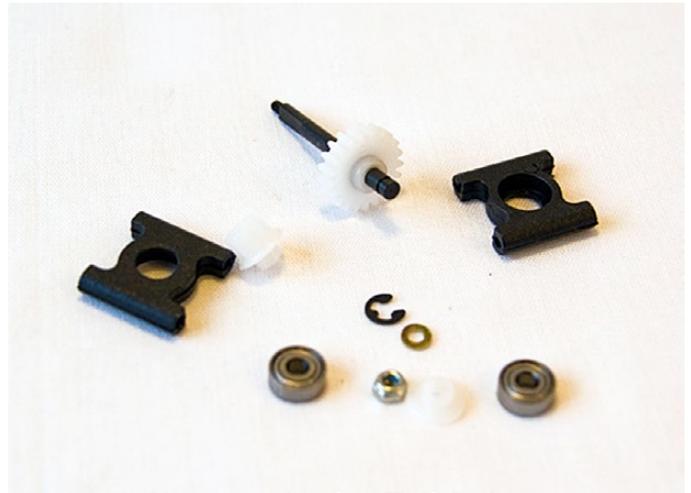
Slide Washout Control Set onto the Main Mast and align with pins - please note the direction the washout is inserted.



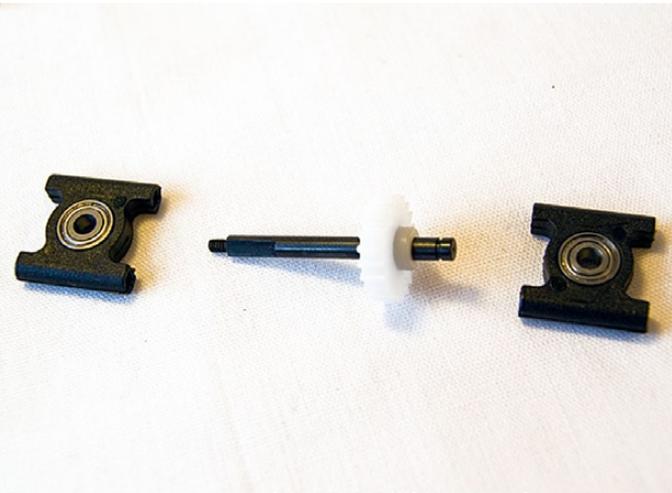
Slide Swashplate (INT-023) on to the the Main Mast and clip the Radius Arms (INT-030) on to the inner Swashplate (INT-023).



Place the Mast Lock (INT-027) onto the main shaft and lightly fasten it in place with the grub screw. That is the head completed.



Next up is the Tail Drive.



Insert Bearings (INT-034) into the Counter Gear Case (INT-035).



Push the head of the Counter Shaft (INT-036) into the Counter Gear Case and secure with an E ring (INT-037).



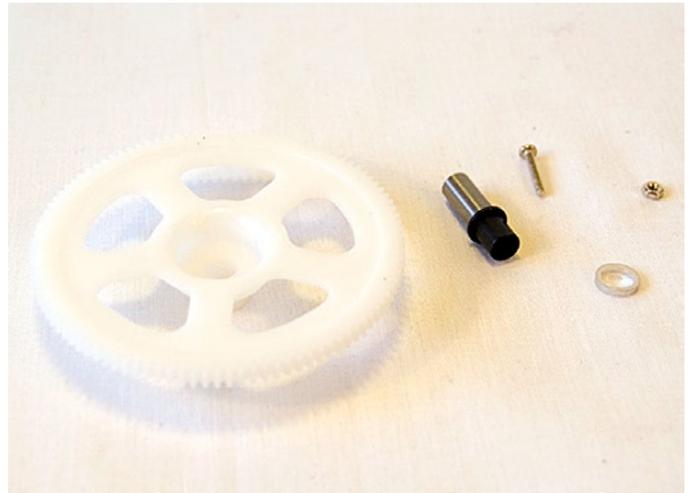
Push the second Counter Gear Case (INT-035) onto Counter Shaft (INT-036).



Place Drive Pulley (INT-033) onto the end of the Counter Shaft (INT-036) and place cap on end.



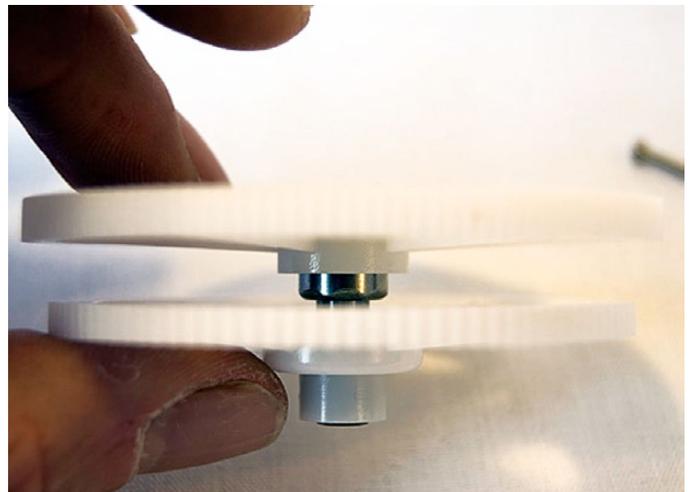
Place washer (INT-032) followed by a Nylon Nut (INT-024) - do not over tighten.



Next is the Auto Rotation Gear Set (INT-041).



Insert Autorotation Drive Shaft (INT-042) into Autorotation Gear (INT-043) - it should click into place.



Place Main Gear with one way bearing (INT-040) on top of the Autorotation Gear (INT-043).



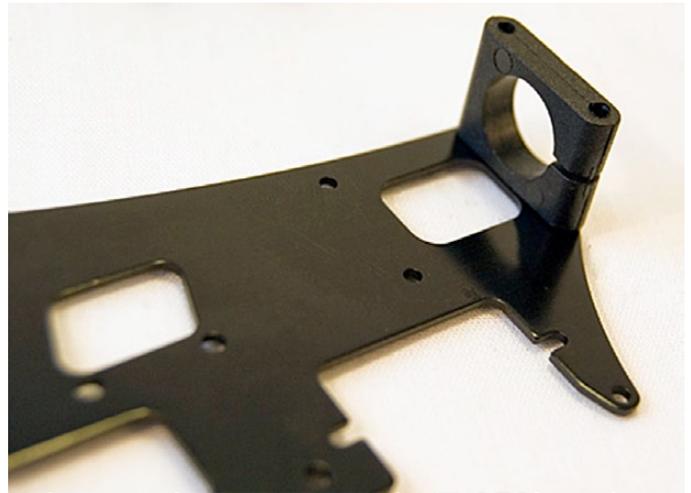
Put the collar on top the one way bearing. Put to one side in a safe place along with nut and bolt.



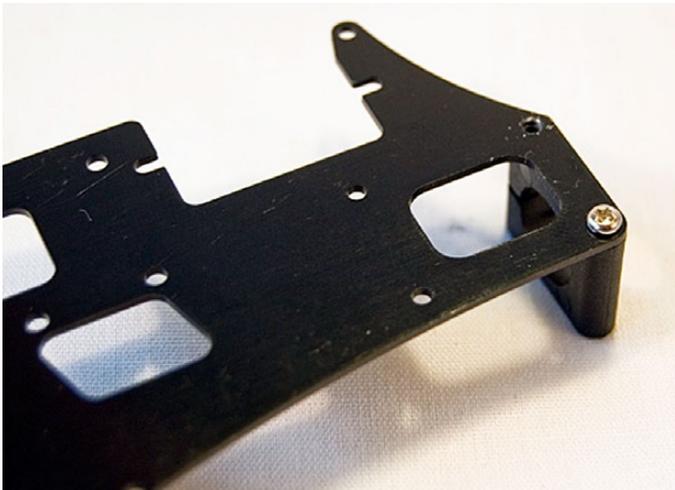
Push bearings into the correct blocks (INT-038).



Screw ball links (INT-001 + INT-002) into the elevator arm (INT-048)



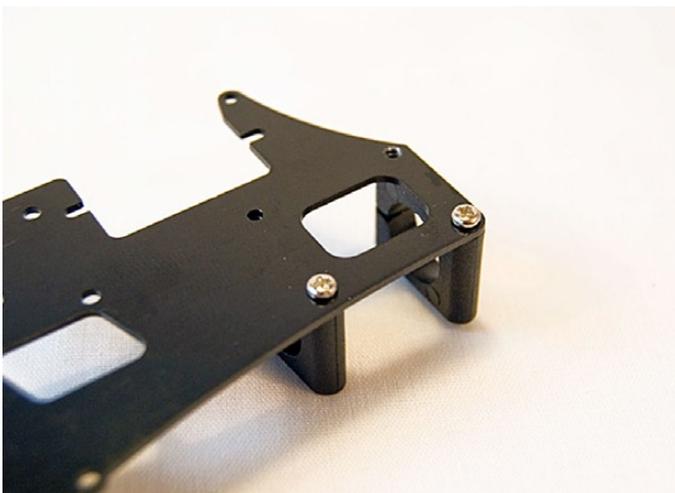
Take rear boom holder (INT-050) and put into place on frame. Note single slot facing downward.



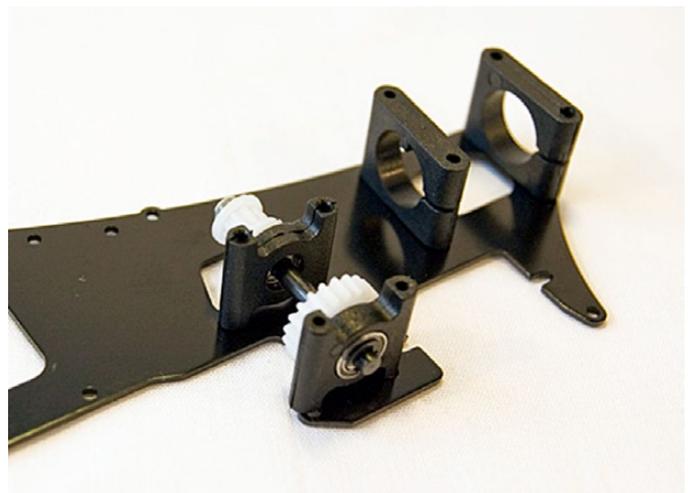
Take one self tapping screw (INT-047) and affix through the top mount.



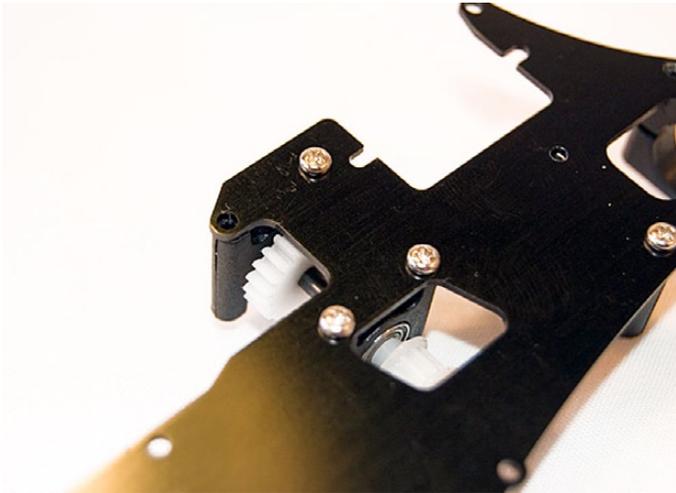
Position forward boom holder - note position of notch on the left side of the frame.



Use another tapping screw to affix the inner boom holder.



Place the tail drive like so.



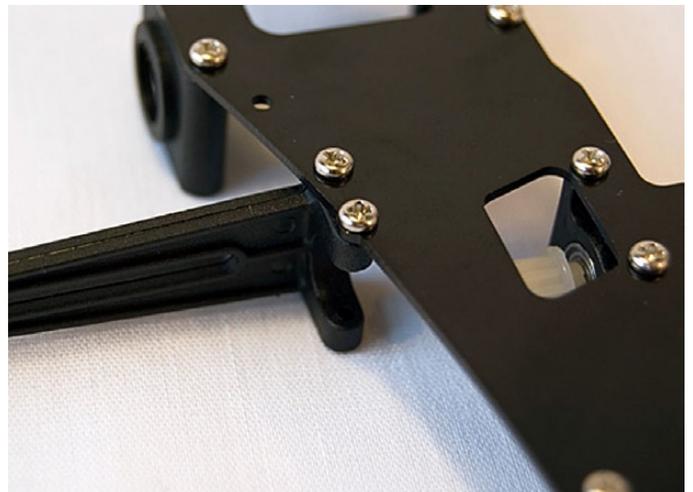
Affix with three self tapping screws at the above points.



Place bearing holders so that the bearing faces upward and the recess is downward (applies for both upper and lower).



Affix both bearing holders in place with self tapping screws.



Screw into place with tapping screws the radius arm stay set (INT-045) - note the direction it faces.



Screw into place the canopy mounts - affix both left and right sides to either frame (will not be accessible once frame is assembled).



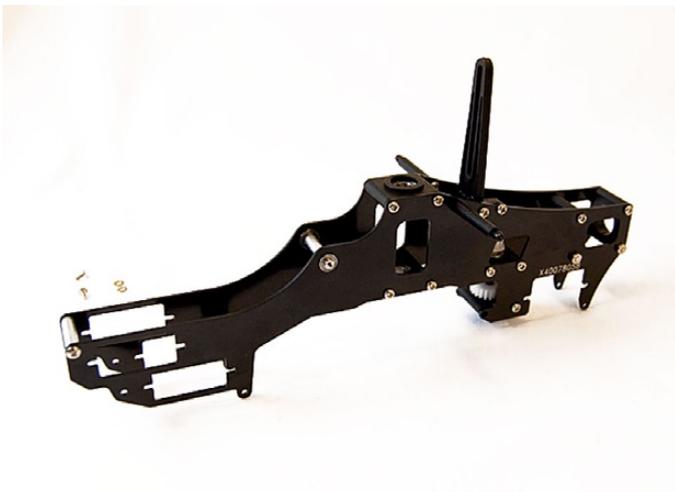
Place elevator shaft (INT-051) into holder on frame.



Screw into place the Cross Member (INT-052) with a Pan Head Screw (INT-012) use threadlock to secure.



Fix the sides of the frame together - work from the back. Using the Pan Head Bolt (INT-053) and M2 Nut (INT-044) - don't tighten.



Complete the frame by matching up the relevant screws to their opposites. Remember to use threadlock on metal to metal fixings.



The Aileron Levers (INT-059) need to have the ball links (INT-001 + INT-002) attached to them as above.



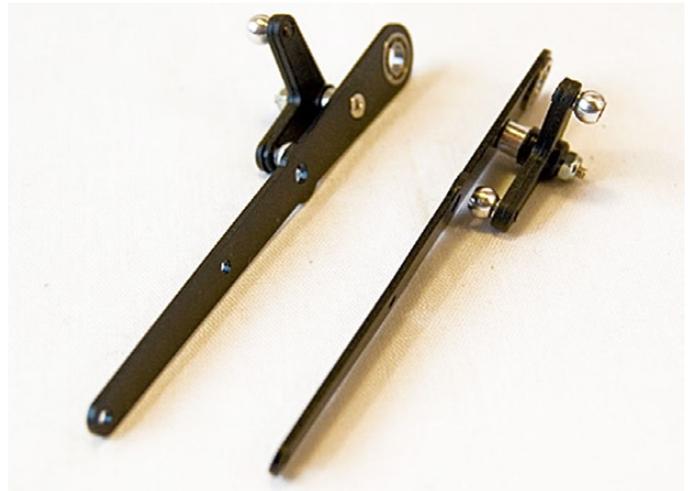
Elevator Torque Lever (INT-054) also needs the ball links (INT-001 + INT-002) installed.



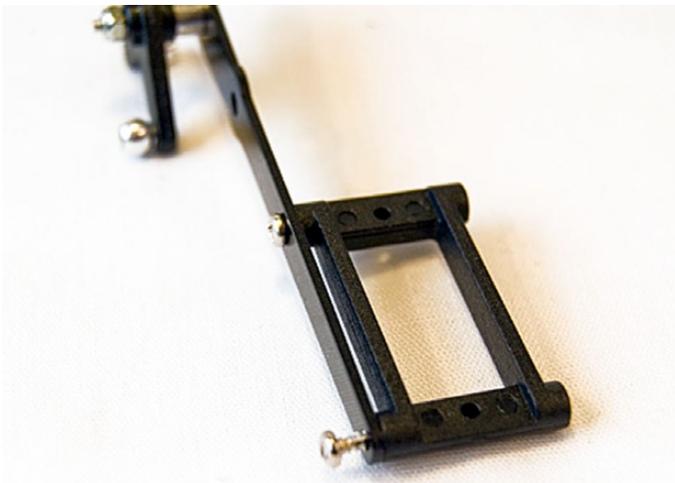
Take one Collective Pitch Lever (INT-057) and push one Flush Head Screw (INT-056) through and into an Elevator Mount (INT-055). Like above.



Install the assembled Aileron Levers and secure with an M2 Nylon Nut (INT-024). Do not overtighten.



Repeat for both sides. Note direction of arms.



Place the servo mount with the flat edge up ward and affix to one side with Tapping Screws (INT-047).



Next you need these two washers.



Place the washers over the end of the Elevator Shaft (INT-051).



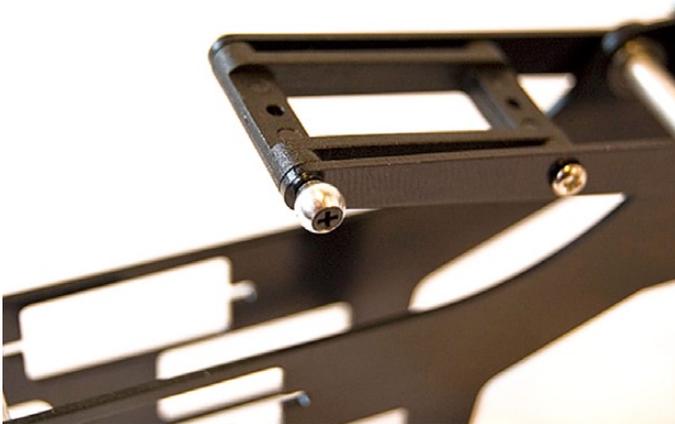
Place the Collective Pitch Lever and fix through the central hole with a Pan head Screw (INT-012) be careful with the threadlock.



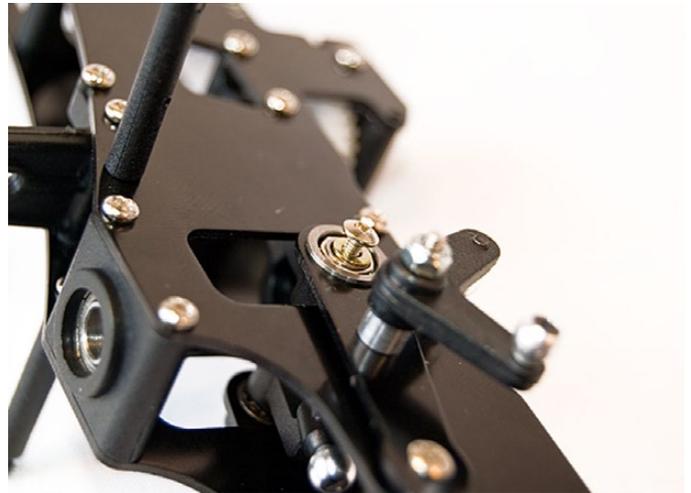
This is to be inserted into the frame and fixed through the Collective Pitch Lever (INT-057).



Push the Elevator Lever into the fixed Collective Pitch Lever. The longer part should extrude past the lever.



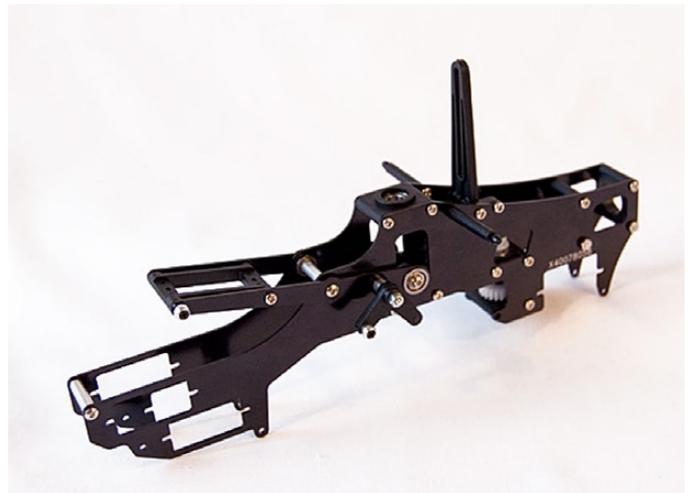
Screw the Collective Pitch Lever into place on the opposite side - note ball link fixing. Remember to use thread lock on the Elevator Shaft fitting (INT-051).



Fix into place the Elevator Lever (INT-048) with a Washer (INT-032) and a Pan Head Screw (INT-012).



Fix the Elevator Torque Lever (INT-054) to the Elevator Arm (INT-048) with Washer (INT-032) and Pan Head Screw (INT-012). Place washer between lever and screw



That is the upper frame completed. Well done!



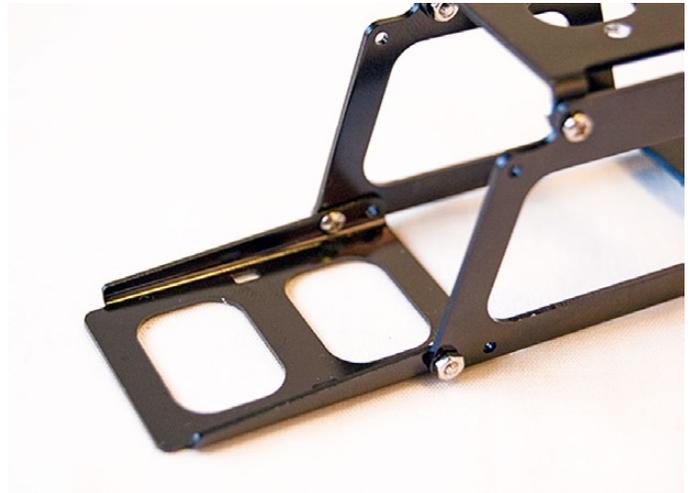
Take Cross Member M2x34 (INT-063) and insert through the Gyro Mount (INT-060).



Affix the Lower Frame Set (INT-065) to the the Cross Member on both sides using a Pan Head Screw (INT-012) thread lock is advised.



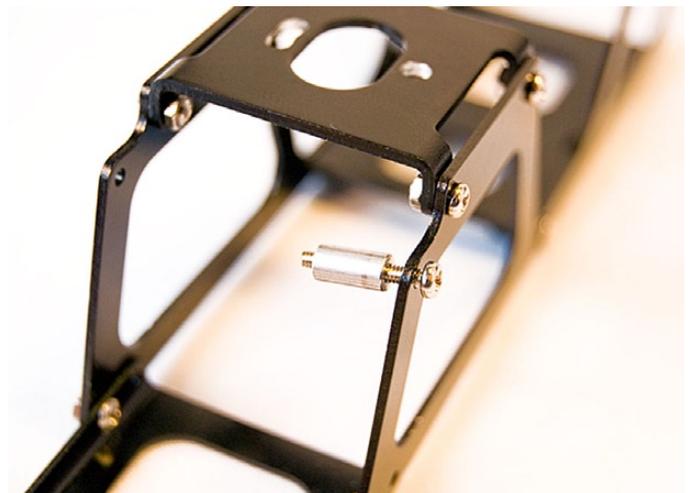
Fit the Motor Mount (INT-061) with Pan Head Screw (INT-067) and M2 Nut (INT-044) with thread lock.



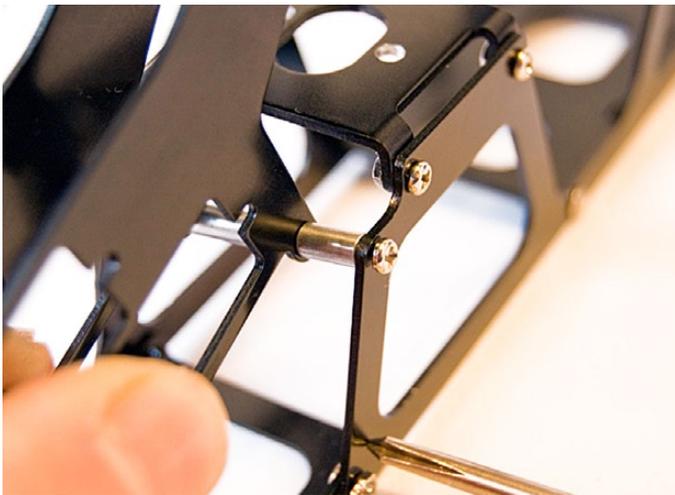
Next is to screw the Battery Mount (INT-062) into place with Pan Head Screws (INT-012) and M2 Nuts (INT-044) - the nuts are on the outside of the frame.



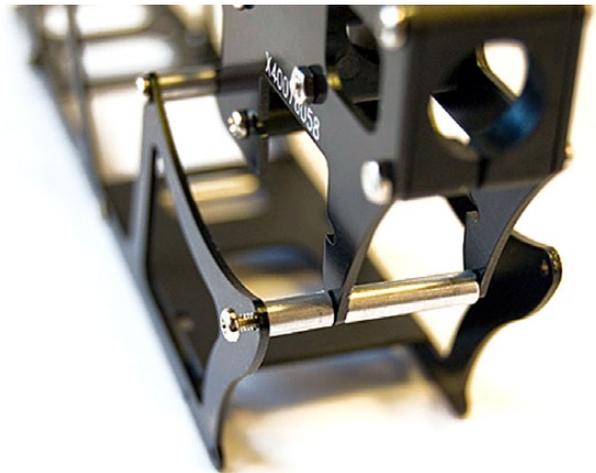
Now to mount the upper frame. Starting at the front take one Cross Member M2x16 (INT-052) and hold between upper frames.



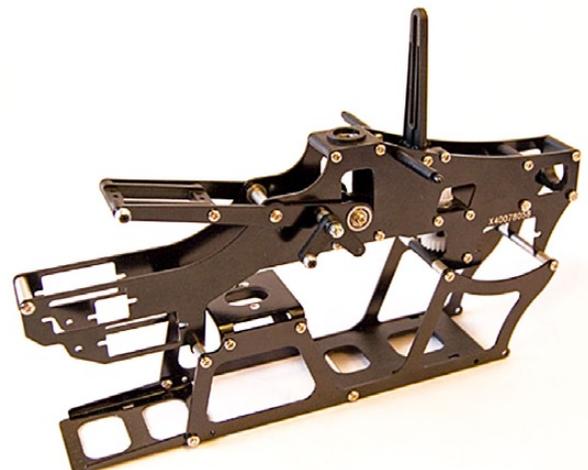
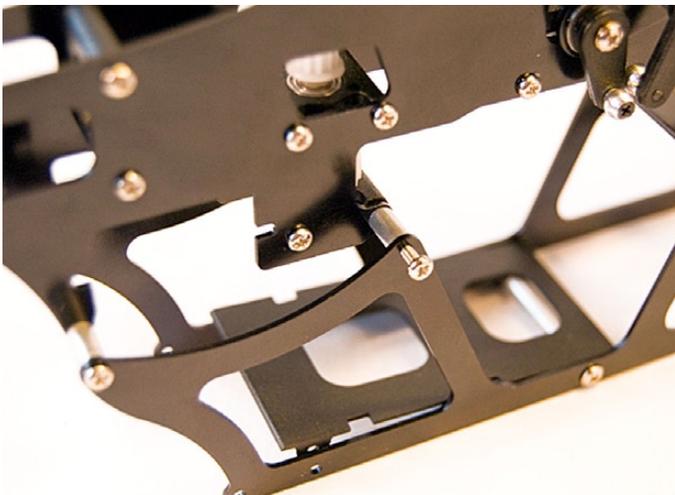
Place a long Pan Head Screw M2x14 (INT-066) through the frame and slide a Cross Member M2x8 (INT-064) onto it.



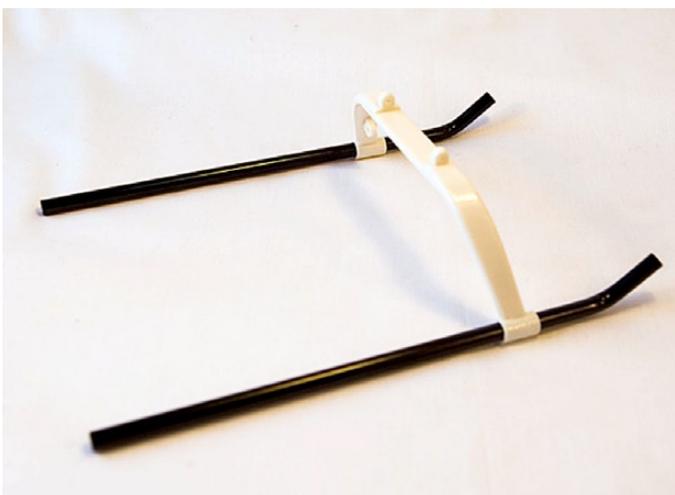
Screw into place - remember to use threadlock on metal to metal fittings. Repeat for other side.



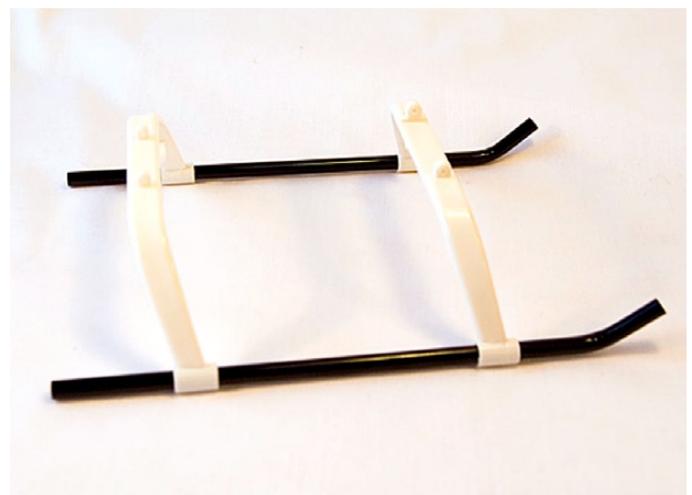
Carry out the same procedure for the two rear fittings of the frame.



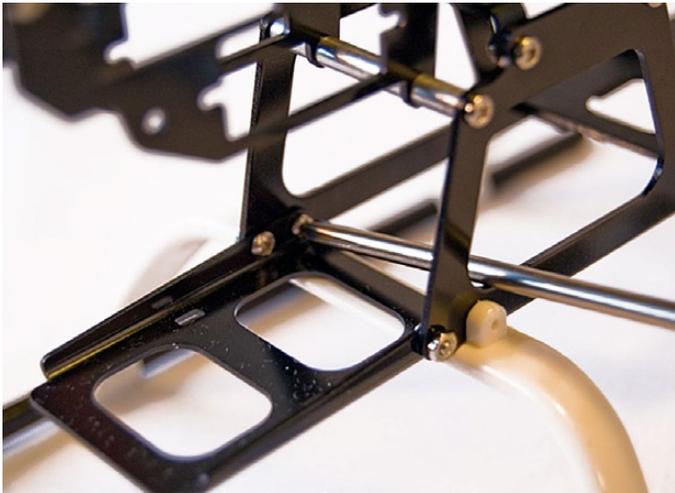
Once complete the upper frame should be securely attached to the lower frame like above.



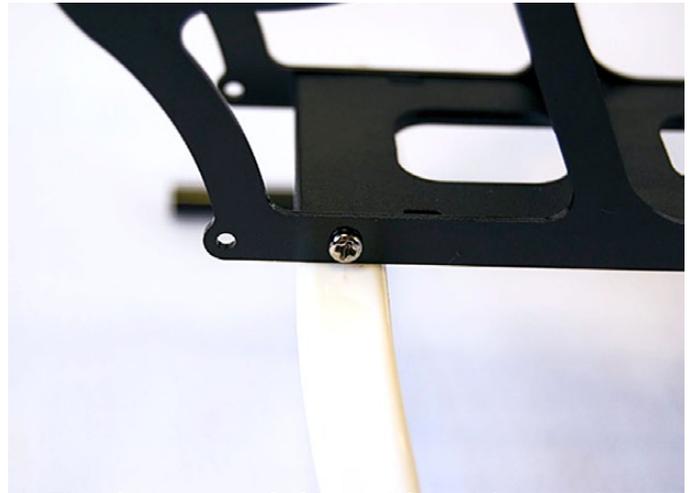
To make up the skids place the uprights with the larger gap between its mounts on first as they they fix to the front of the frame.



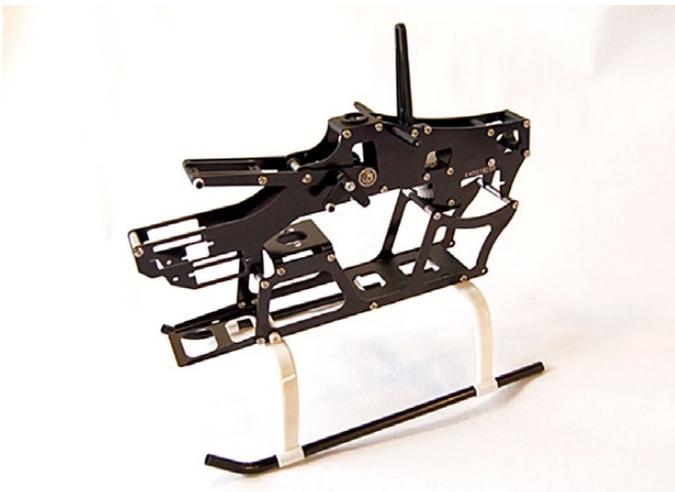
Slide the rear uprights on last.



Fix through the frame with Tapping Screws (INT-047) - note that you fix from the inside of the frame.



Fix the rear of the skids with another Tapping Screw (INT-047) but screw from the outside in.



Your Interceptor 400 should now look like this.



Start the tail by assembling the rotor holders.



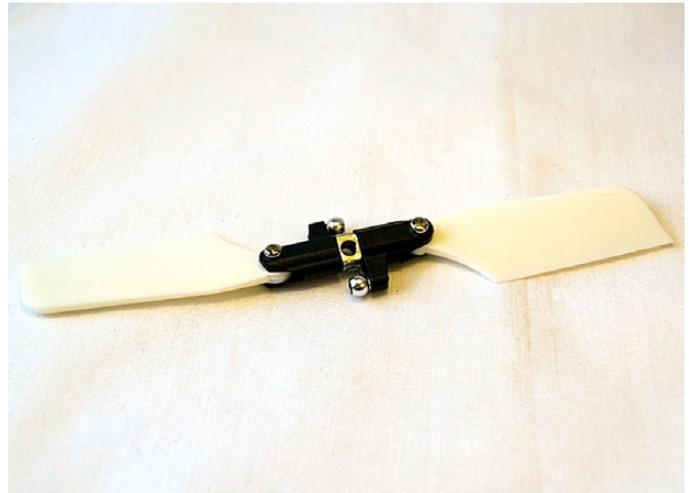
Affix ball links (INT-001 + INT-002) to the Tail Blade Holder (INT-073)



Push Bearings (INT-014) into Tail Blade Holders (INT-073).



Fix both Tail Blade Holders (INT-073) onto the Tail Housing (INT-074) with a Cap Screw (INT-072).



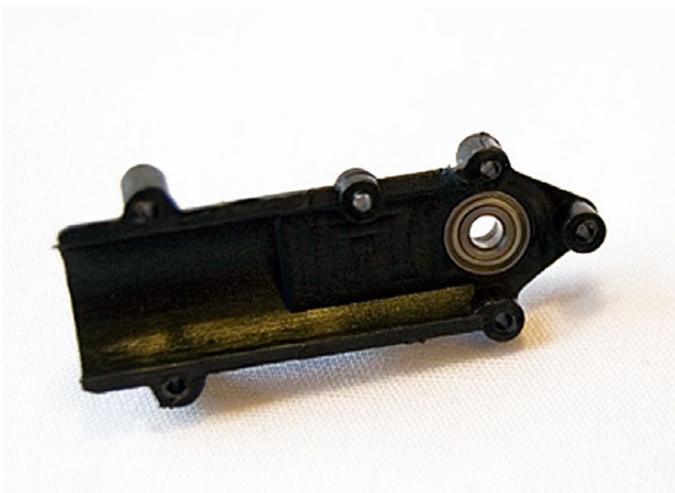
Screw the Tail Rotor Blades into place with a Pan Head Screw. Note direction of the blades in comparison with the ball links. Blades should not be tight.



On to the Tail Drive Gear Box.



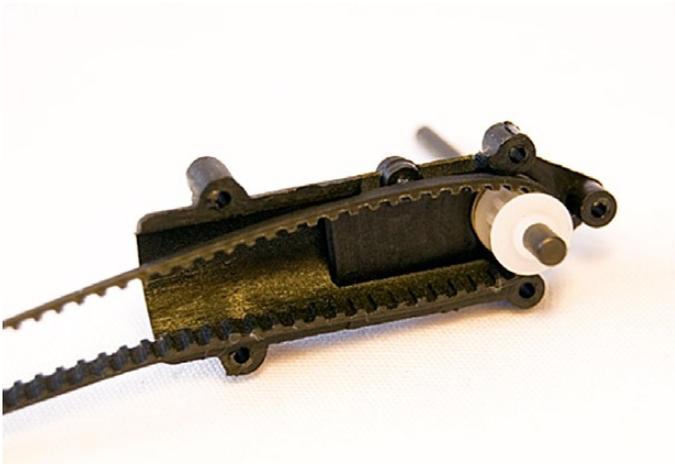
Screw into place Ball Link (INT-001 + INT-002) - note position.



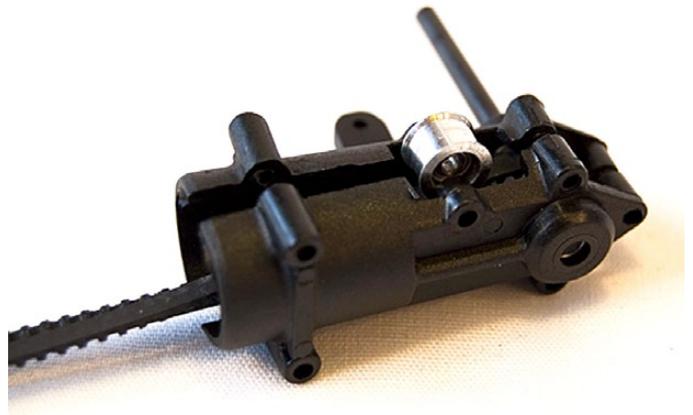
Push Bearings (INT-034) into Tail Unit Case Set (INT-078) - on both sides.



Place gear cap onto the end of Tail Shaft (INT-079).



Insert Tail Shaft (INT-079) into Tail Unit Case Set (INT-078) and loop Timing Belt (INT-081) over gear.



Put Guide Pulley (INT-080) into place before closing shut the Tail Unit Case Set (INT-078).



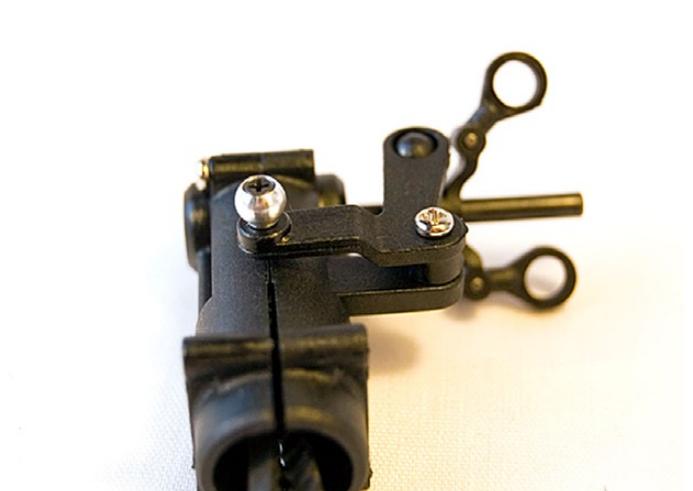
Screw the Tail Unit Case Set (INT-078) together as above.



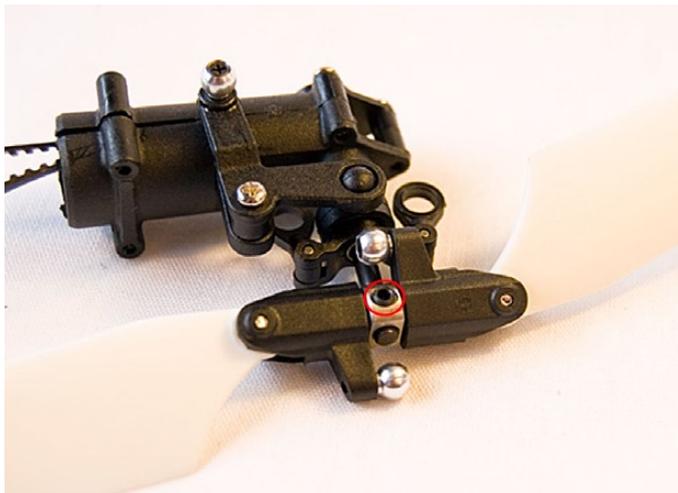
Slide Tail Pitch Set (INT-076) onto Tail Shaft (INT-079) - note direction of fitting.



Insert brass collar into Tail Pitch Lever (INT-077) and follow with screw.



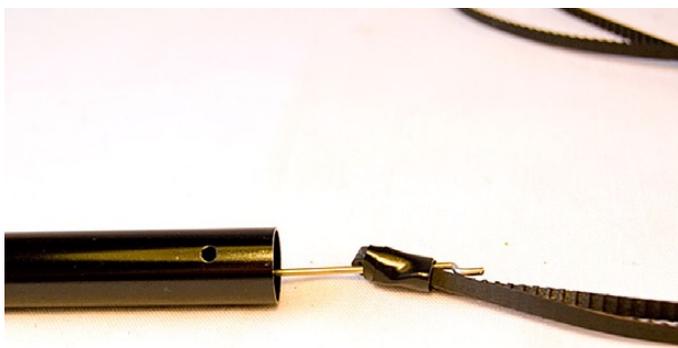
Screw Tail Pitch Lever (INT-077) onto Tail Unit Case Set (INT-078) at the point shown above. Clip on to ball link of Tail Pitch Set (INT-076).



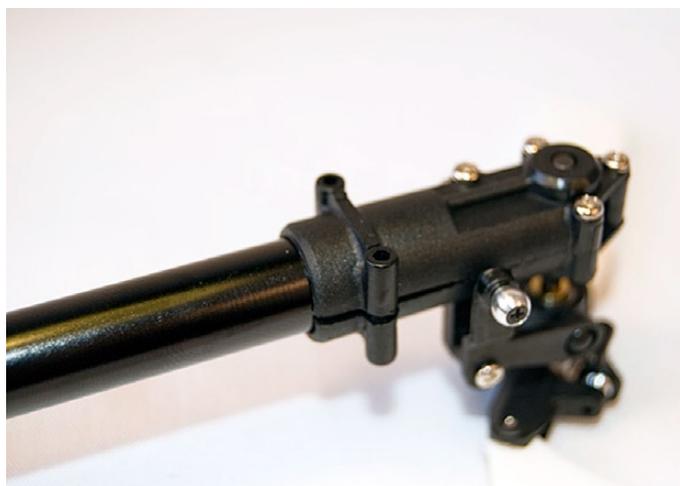
Put the Tail Rotor onto the Tail Shaft (INT-079) and thread lock the grub screw to ensure strong fitting.



Clip links together to complete the Tail Rotor.



Tape the Rudder Control Rod (INT-085) onto the Timing Belt (INT-081) and pull through the Boom so that the Tail Rotor ends up at the end with the small hole.



Clip the Tail Rotor assembly into place by aligning the plastic pin with the hole in the end of the Tail Boom (INT-083).



Next it is best if you fit the decals to the Tail Stabilizers (INT-082). Cut them out carefully.



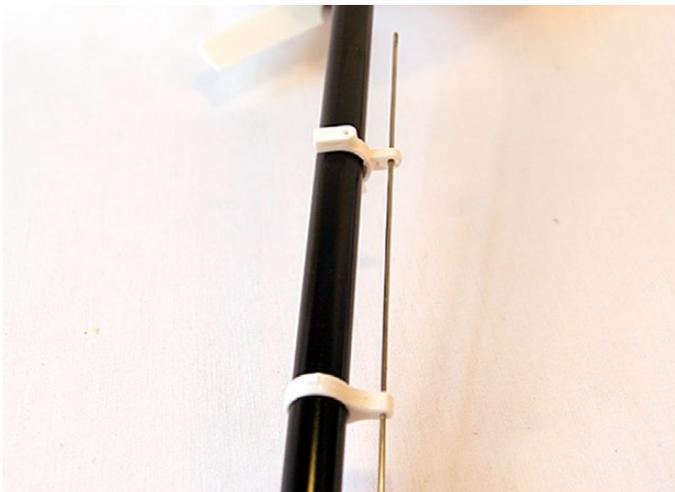
Stick them on to each side of the stabilizer. Pierce holes for screw fittings.



Fix onto Tail Rotor assembly with the screws.



Slide the rudder push rod support onto the boom.



Slide Rudder Push Rod (INT-085) through support and horizontal fin holder.



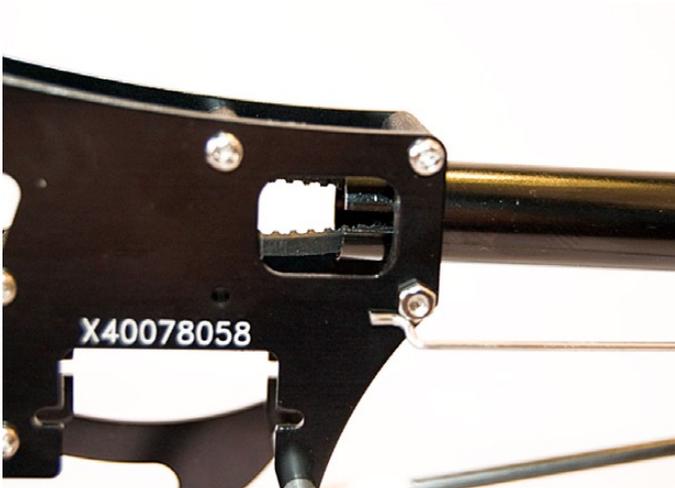
Screw ball link onto end of Rudder Push Rod (INT-085) and clip onto Tail Pitch Lever (INT-077).



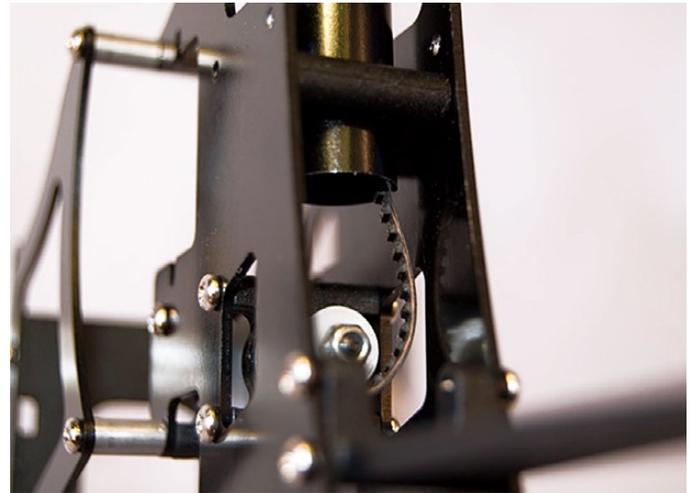
Cut out decal and fit to horizontal stabilizer - take time on lower one as it can be a tricky fit around the boom rest.



Put one end on to each of the Tail Boom Brace rods. Use a little CA Glue.



Check that the belt is not twisted and that the second bolt and nut are removed. Then push the boom past the first boom holder.



Push past the second holder - you may need to remove the screws holding the second boom holder too. This should allow you to loop the belt over the pulley.



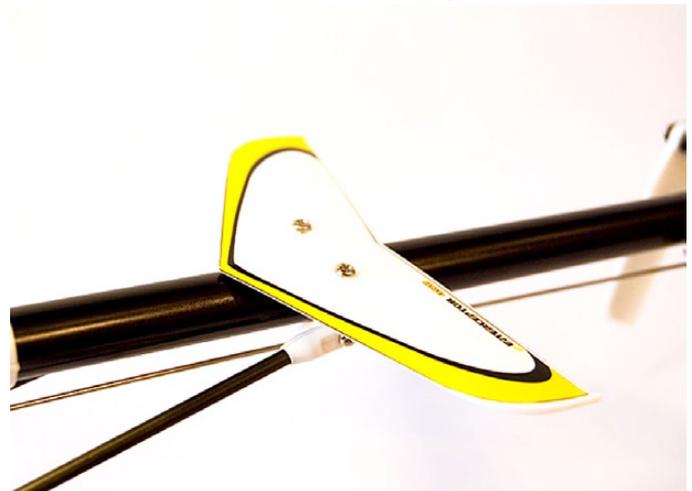
Once the belt is correctly looped over the pulley (see diagram) pull the boom and holder back into place and refix - tightening fully. This will ensure correct tension.



Place Cross Member M2x34 (INT-063) and screw into place the Tail Boom Braces (INT-084). Use thread lock to hold the screw securely.



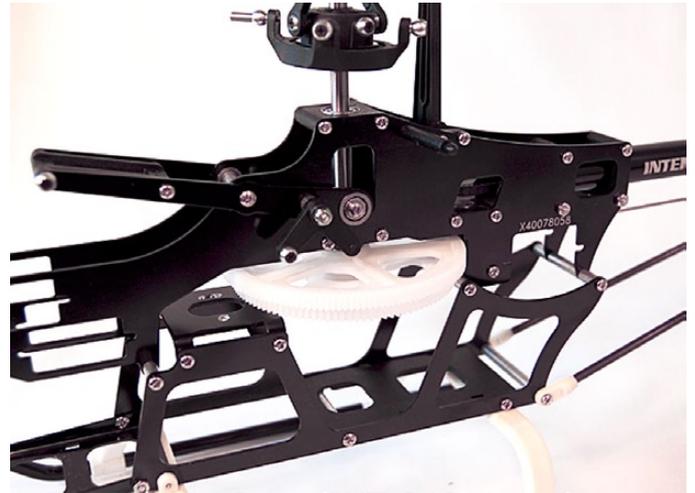
Affix ends of Tail Boom Brace Sets (apply a CA Glue) and screw into stabilizer holder with smaller screws before it sets.



Screw the horizontal stabilizer into the holder using the longer screws.



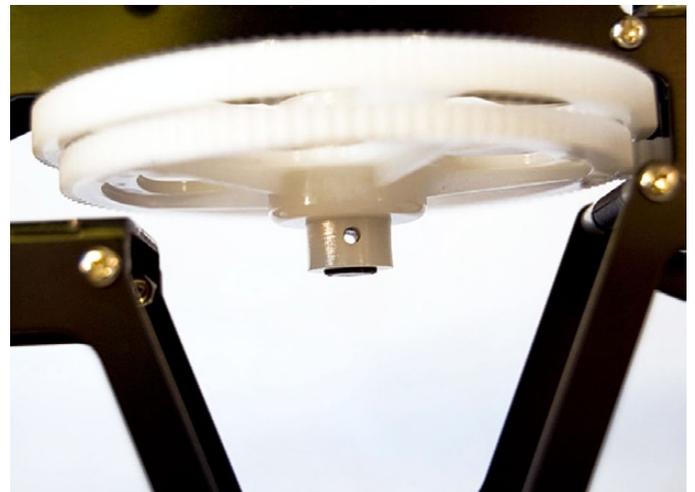
Take the Main Gear (INT-040) you have assembled and check that the collar is on top.



Place Main Gear (INT-040) into frame with collar facing up. Drop Main Mast through the bearings and the Main Gear.



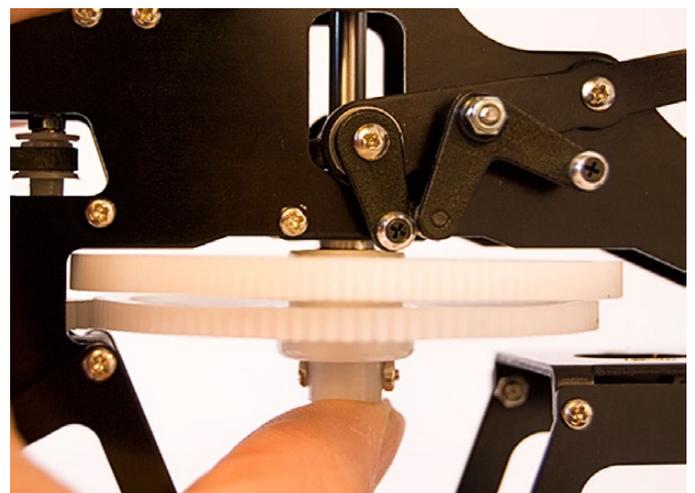
Loosen the Mast Lock (INT-027).



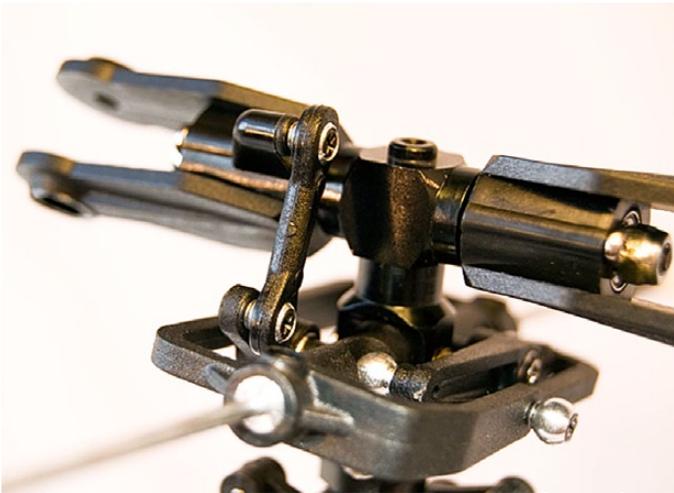
Align Main Mast with hole in Main Gear. Tip - the hole in the Mast is in line with Flybar.



Insert Pan Head Screw (INT-025) and secure with M2 Nut (INT-044) - do not overtighten or you may damage the Main Gear.



Push the Main Gear up and hold whilst tightening the Mast Lock (INT-027) - threadlock the grub screw.



Now you need to attach the push rods. Clip the Pitch Rod (INT-086) from the Blade Holders (INT-003) to the shorter end of the Mixing Arm (INT-017).



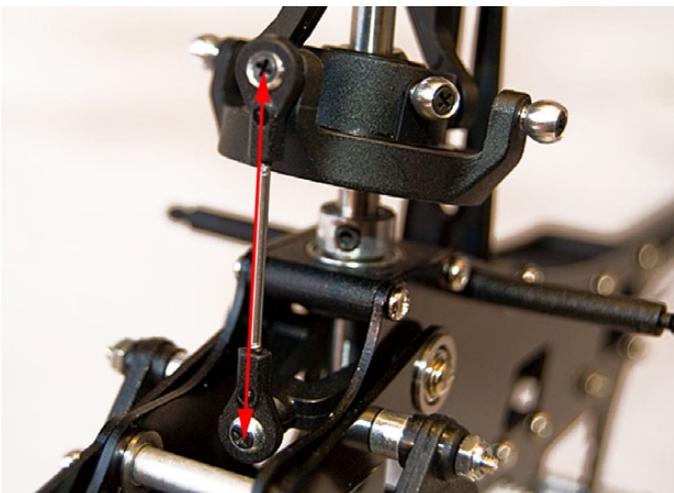
Make up the Stabilizer Control Rod (INT-088) it should be 6.5mm from link to link.



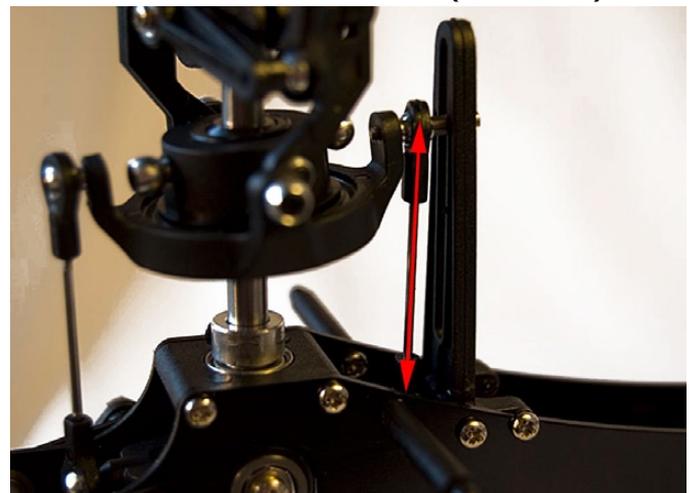
The Stabilizer Control Rods (INT-088) go from the Stabilizer Control Set (INT-018) to the Wash-out Control Arm (INT-029).
As above.



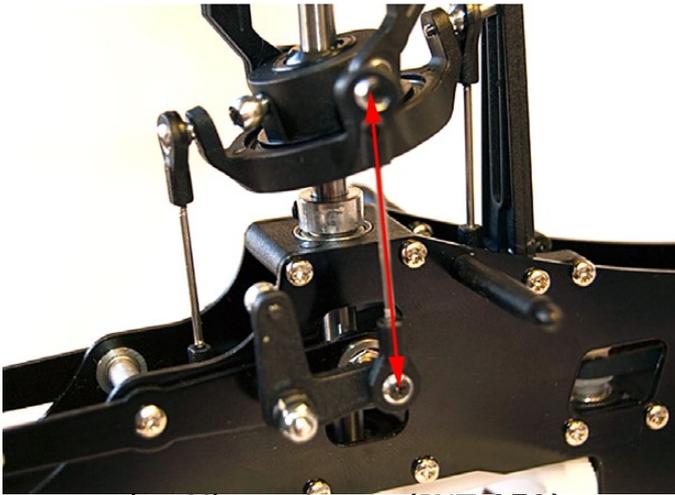
Put together four Elevator Swash Rods (INT-090) with a link to link measurement of 20.5mm. They all attach from the lower Swash Plate Set (INT-023) to...



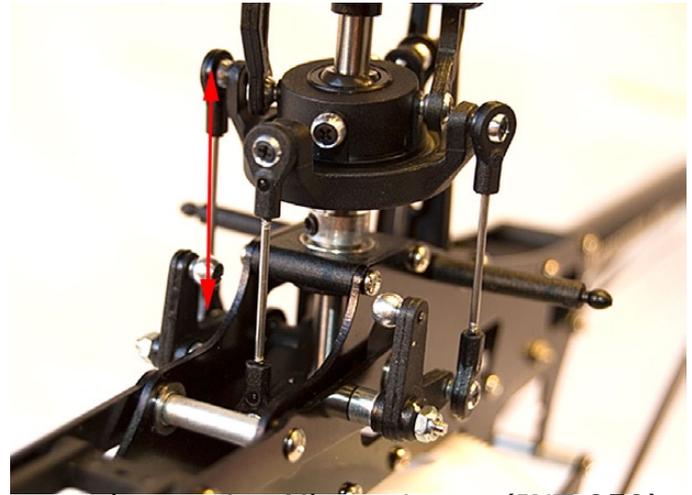
...one end of the Elevator Lever (INT-048)...



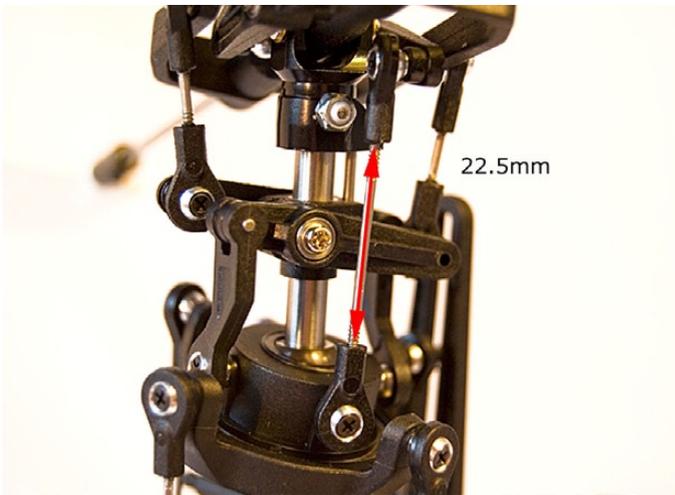
...and to the other end of Elevator Lever (INT-048)...



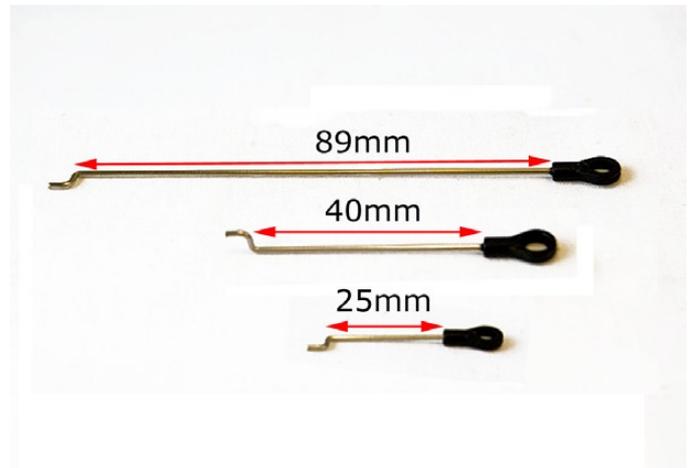
...the Aileron Lever (INT-059)...



...and opposite Aileron Lever (INT-059).



Make two Mixing Arm Rods (INT-087) and fix them from inner Swash Plate Set (INT-023) to free end of the Mixing Arm (INT-017). As above.



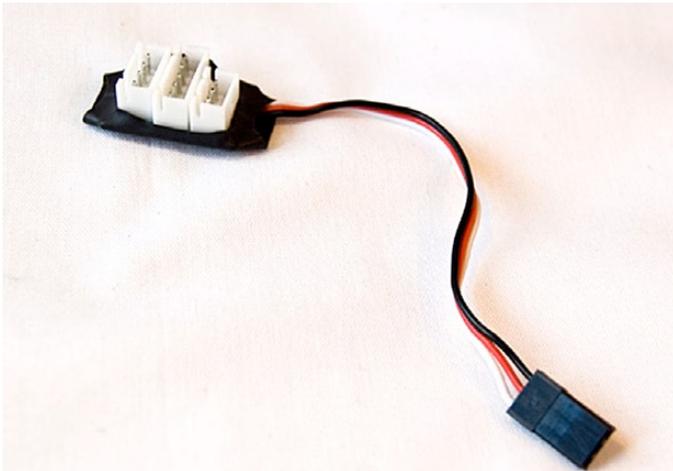
The Elevator Rod (INT-092) has a length of 89mm from bend to link. Aileron Rod (INT-091) is 40mm and the Pitch Rod (INT-086) is 25mm.



The next stages of the build detail installing optional electronics. We recommend ACER-LAB's range. The ACER-LAB 3100KV Motor w/ 12T Pinion.



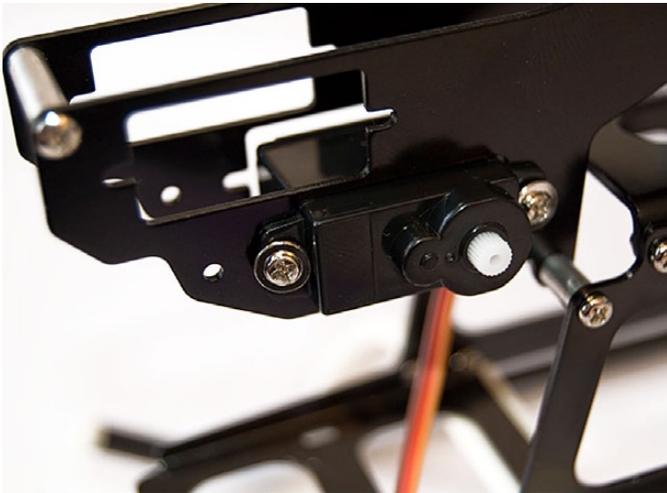
The ACER-LAB 40A ESC is the perfect option for the Interceptor due to its small size and powerful performance.



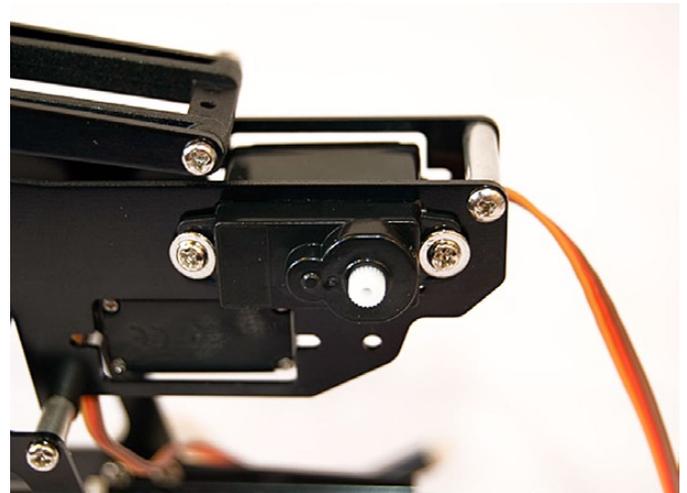
The ACER-LAB 40A ESC features the optional Lipo Protection lead. Connect the balance plug from your lipo your ESC will monitor the cell's and prevent damage.



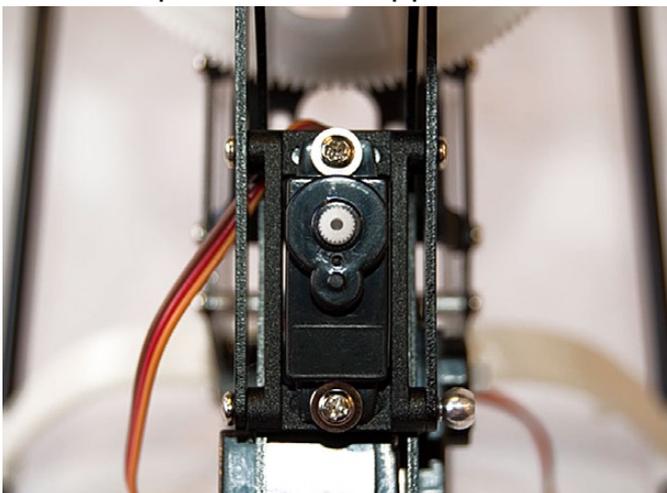
The ACER-LAB 8G Servos are the perfect fit and work great with the Alien Command.



Install the pitch servo - note position. Use the screws supplied with the servo if using AcerLab's. If not you will need to use the plastic nuts supplied in the kit.



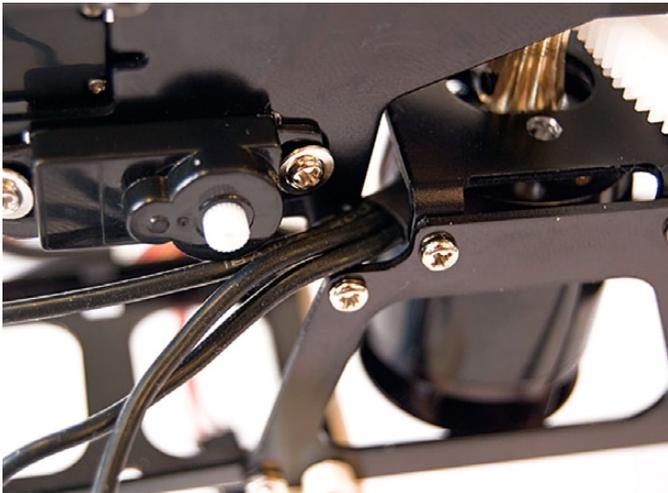
Install the Elevator servo and again please note the direction.



The Aileron servo is installed as above.



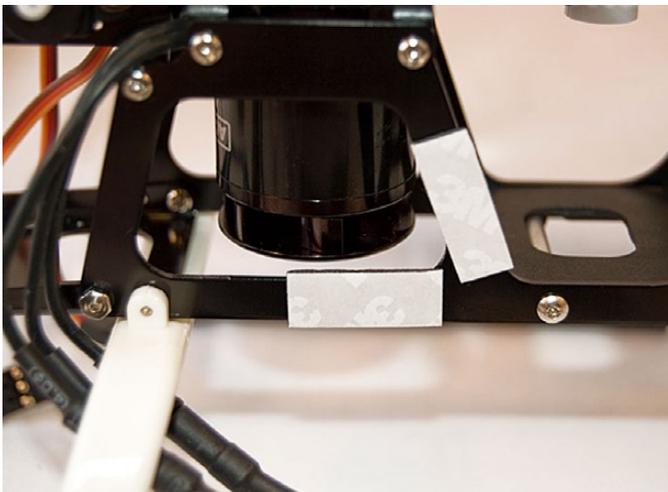
Install the pinion - we recommend a 12T for an all round performance. Use threadlock on the grub screw.



Install the motor - arrange cables as above.



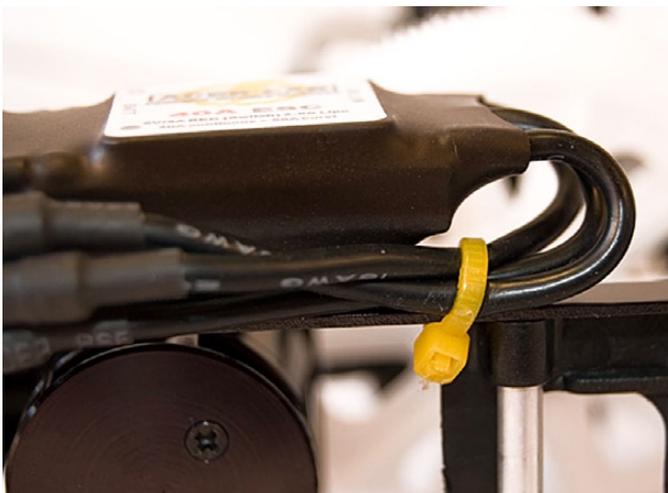
Adjust pinion and gear mesh - too tight will cause the ESC to burn out and overload your batteries. Too loose will risk stripping the gear.



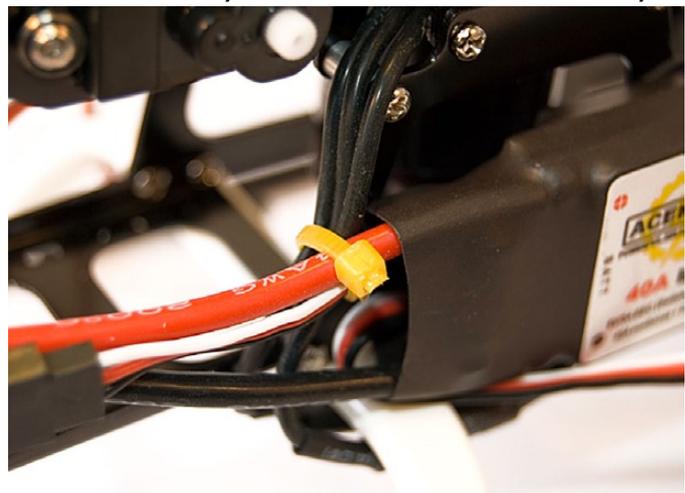
Use good quality adhesive pads and strips to mount the ESC. Note the positioning of the motor cables - around the back of the skids.



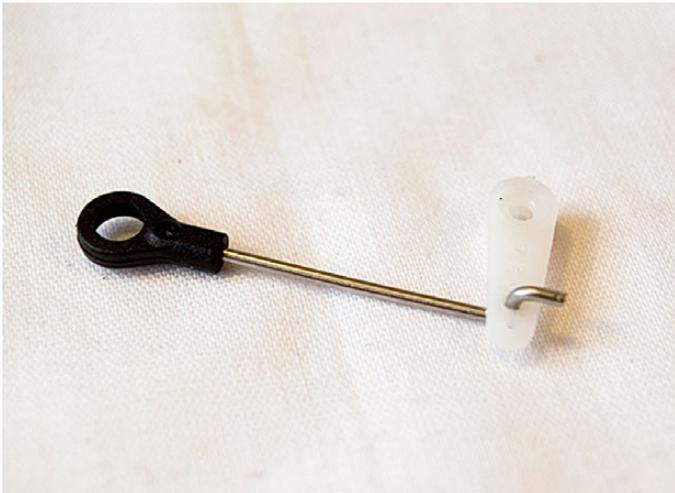
Mount the ESC as above - we advise not to use cable ties as this can cause overheating and malfunction. Using cable ties on many ESC's voids the warranty.



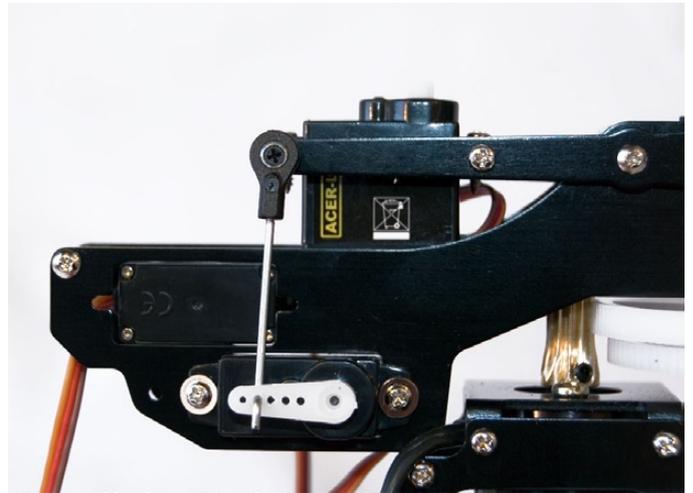
Secure the wires with cable ties. Do not pull them too tight.



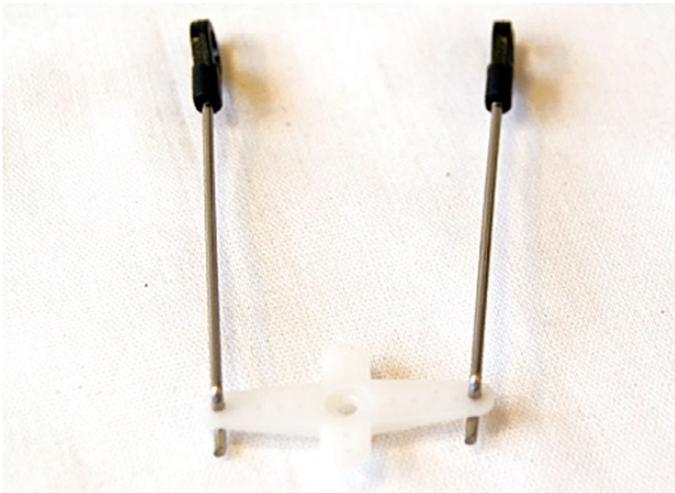
Ensure all wires are clear of any moving parts - ie the motor.



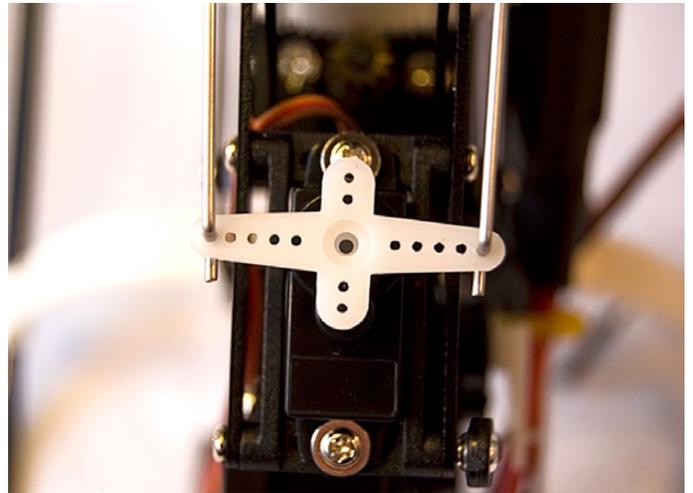
Take the Pitch Rod (INT-089) and insert into servo horn.



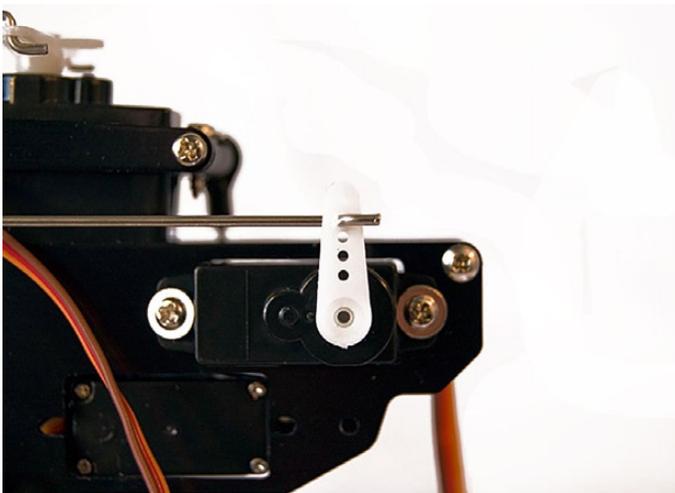
Install the Pitch Rod (INT-089) and horn so that it sits at 90° when the servo is at its neutral point.



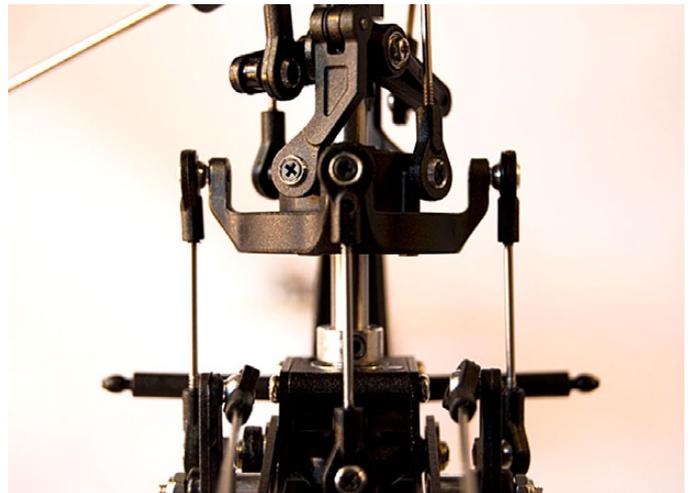
Attach Aileron Rods (INT-091) to the servo horn as above.



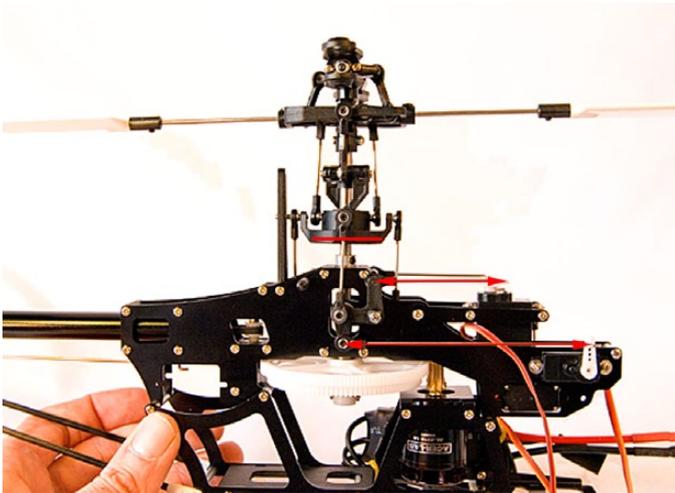
Install the horn and rods onto the Aileron servo as above - if the arms are too long for the servo fitting shorten them both.



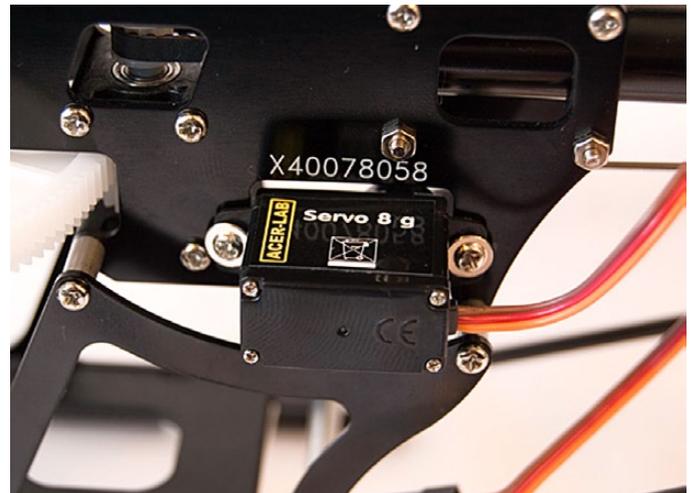
Install the Elevator Rod (INT-091) onto the servo horn and put in place at 90° to the neutral point as above.



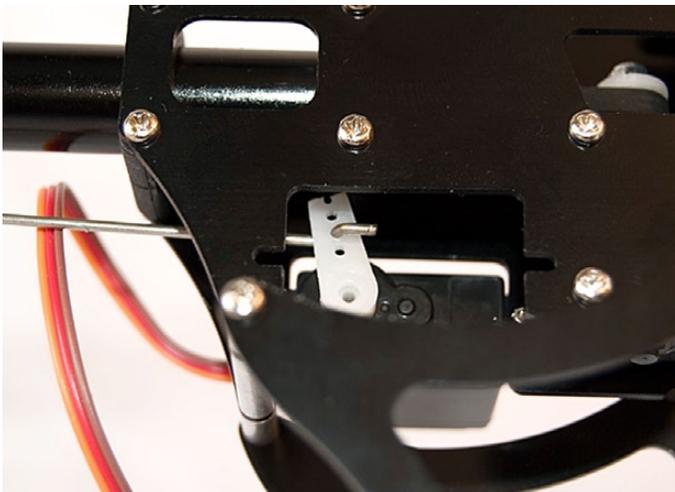
If correctly installed your swash should now be level when the servos are at their neutral point.



As above - all servos are set at 90° when at neutral.



Install the tail servo. It is easier to install if you insert the screws from the outside of the frame.



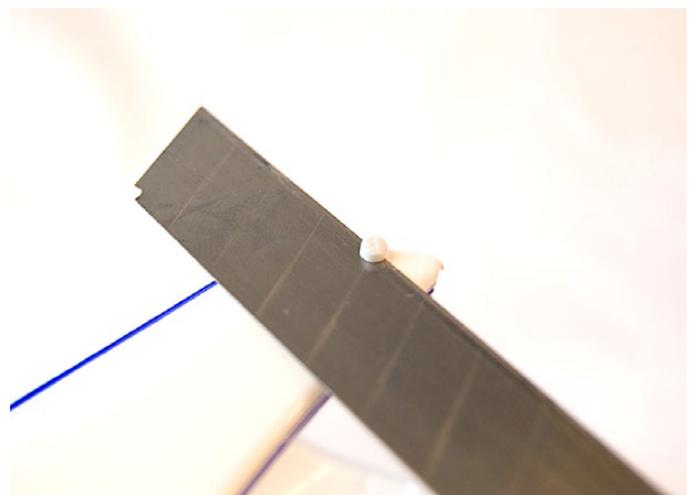
Install the servo horn with neutral point at 90°. You will need to clip the end of the horn off to prevent binding with the frame.



The Canopy (INT-094) needs the window area cut out and the flashing trimmed. The lines to follow are marked above.



Cut away the canopy and trimming using a craft knife and scissors.



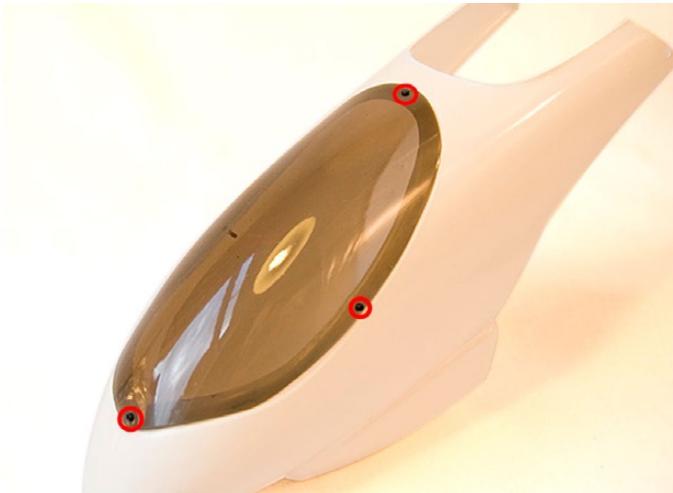
Use a blade to remove the notches for the canopy mounting holes.



Cut the Window (INT-095) from its mould.



Align the window on the Canopy and pierce both. Fix with the four window screws.



Fix screws as above.



Cut out the decals and stick them carefully onto the canopy.



Your Interceptor is nearly finished. Now you need to setup your radio equipment.