# GoldWing RC

# 88in EXTRA300LP 50CC

# Instruction Manual



Dear Customer,

Thanks for purchasing this newly designed 88in EXTRA300 50CC aerobatic RC airplane. The weight is approximately 17Lbs. It's good for IMAC and free style flying. It's a beautiful plane with amazing flight performance. It's covered with genuine monocote, and comes with good quality accessories, including carbon fiber wing tube, Anodized 6061 aluminum landing gear or carbon fiber as an option. We hope you enjoy this plane.

## A QUICK WORD ABOUT SAFETY AND RADIO CONTROL FLYING MODELS

With radio control aircraft, like any hobby or sport, there are certain risks. The operator of these models is responsible for these risks. If misused or abused, you may cause serious bodily injury and/or damage to property. With this in mind, you will want to be certain that you build your model carefully and correctly. If you are not an experienced flier, have your work checked and ask for help in learning to fly safely. **This model aircraft is not a toy** and must be operated and flown in a safe manner at all times. Always perform a pre-flight check of the model including all control surfaces, proper function of the radio gear, structure, radio range, and any other area relating to the safe operation of this aircraft.

Models are not insurable but operators are. You can obtain coverage through membership in the Academy of Model Aeronautics (AMA). For an AMA information package call 1-800-435-9262, ext. 292 or visit the AMA website at "www.modelaircraft.org".

***By the act of using the final assembled model, the purchaser/operator accepts all resulting liability.***

## ARF MODELS WARRANTY AND RETURN POLICY

We guarantee that the plane is in perfect condition at purchase. The warranty will be voided after modifications and usages. If you have any questions or find any issues, please contact the distributors in your area.

## SPECIFICATIONS

WING SPAN:88"(2235mm)
LENGTH: 83"(2110mm)
WING AREA:1465sq in(94.5sq dm)
FLYING WEIGHT:16-17lbs(7200-7700g)
GAS:50CC-70CC Gas DLE55 DLE61 DA50 DA60 GP61
Electric Power：
Hacker Q80-8M with 12S 5000mah 24x10 prop
Or other 4000Watt electric motor
ESC:160A

RADIO:6+CH/5-6S

## FEATURES INCLUDED

Newly designed structure
Two pieces removable wings & stabs
Larger aileron and elevator design for excellent 3D aerobatic flying
Full length Tuned pipe tunnel designed into fuselage
Servo extension safety connector clips
High performance cap head bolts
Flat nylon hinges for increased strength
High quality 3mm ball links assembly
Carbon fiber wing tube
Carbon fiber stab tube

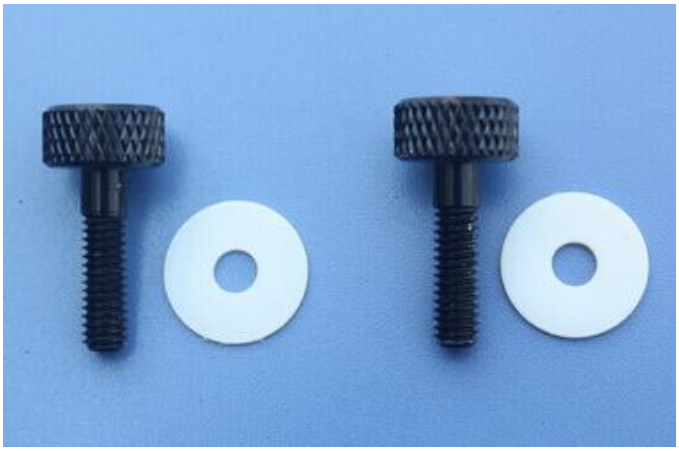
- Removable rudder




- Includes Side Force Generator's(SFG)

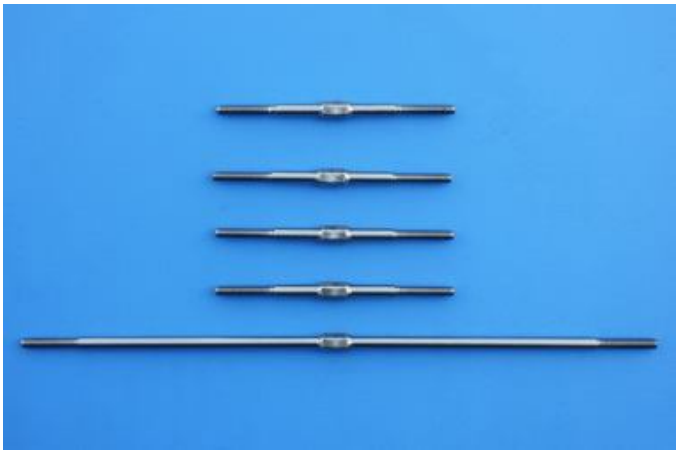


- CNC anodized aluminum Canopy Bolts



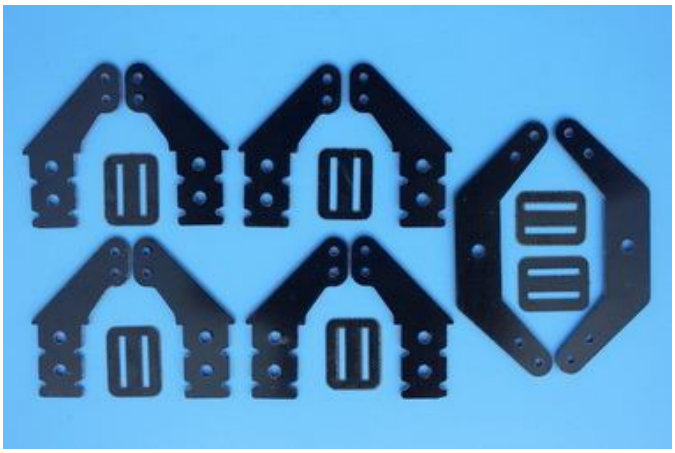


- Adjustable pushrods for easy fine tuning(Includes wrench)





- New dual fiberglass horn assembly







- Carbon fiber tail wheel assembly



- High-quality durable rubber wheels



- Stainless steel Axles



- Anodized 6061 Aluminum landing gear
- **The EXTRA is designed to directly accommodate KUZA® rudder servo tray.**





## Items Required to Complete This Model:

- 50-70CC Gas engine and exhaust
- Appropriate propeller for your Motor
- All required engine and exhaust mounting hardware
- Ignition battery and switch
- One quality throttle servo and appropriate servo arm
- 4Pcs high quality metal gear servos or better for the ailerons and elevators
- Appropriate servo arms for the above
- Servo wire extensions. Recommends two 48", One 18", two 12" extensions
- Two switches with charging jacks for the Rx
- Two high quality Rx batteries of significant capacity to power your choice of servos.
- One Receiver of your choice

**Shop Supplies/Tools**

- Covering Iron and heat gun
- Assortment normal hobby tools such as screwdrivers, hobby knife, drill and drill bits, pliers, etc.
- Thick and Thin CA adhesives
- 30 minute Epoxy
- Isopropyl alcohol
- Ruler or tape measure
- Blue thread-lock or equivalent

Note: As with all kits, it's a good idea to read all the instructions and study the parts before you begin construction. Handle the parts of this kit with care so you do not damage any of the structure or covering. Inspect all the parts for any shipping damage and report any issues to as soon as you can. Make sure you have a flat and sturdy workbench and follow all safety advice for the tools and adhesives you plan to use.

## AIRCRAFT COVERING

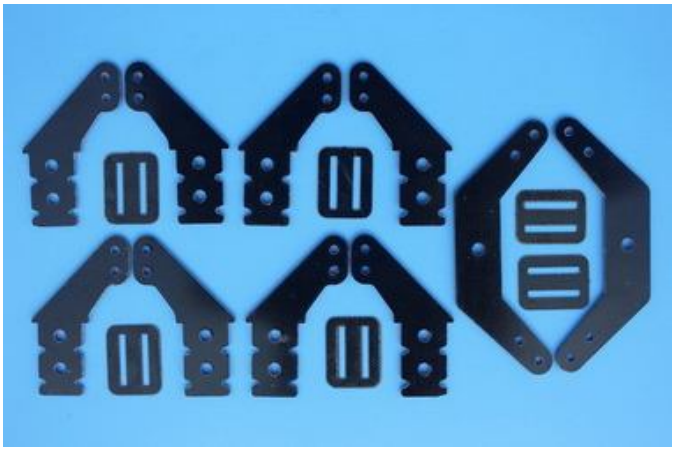
1. With all ARFs, varying temperatures and storage delays can cause covering material to loosen over time and transportation. recommends lightly going over all the covering with a covering iron set at medium temperatures. Be sure to use a soft cover over your iron so you do not scratch the covering surface. Be sure you go over all seams and edges of the covering to assure it is secure to the airframe and other covering. Be careful not to apply too much heat or you may cause bubbles or damage to the covering. A heat gun may also be used along with a soft cotton cloth to shrink and adhere the covering. Again, be extremely careful when using a heat gun.

2. Be sure to seal any exposed wood with a thin coating of epoxy to prevent engine oil from soaking in. This is especially important around the engine compartment and servo openings with exposed areas.
3. Some modelers prefer to seal the hinge gaps using strips of appropriate covering or clear trim tape. We have found this to be helpful with models intended for higher speed flight or models with unusually large hinge gaps. aircraft utilize a very tight double beveled hinge line and do not normally require this step. Sealing the hinge gaps is therefore left as an option for the modeler.



## Please locate the accessories before assembly:

New Expoxy horn kits (Bag No. KA05CA): 8 single horns for ailerons and elevators. 2 dual horns for rudder.

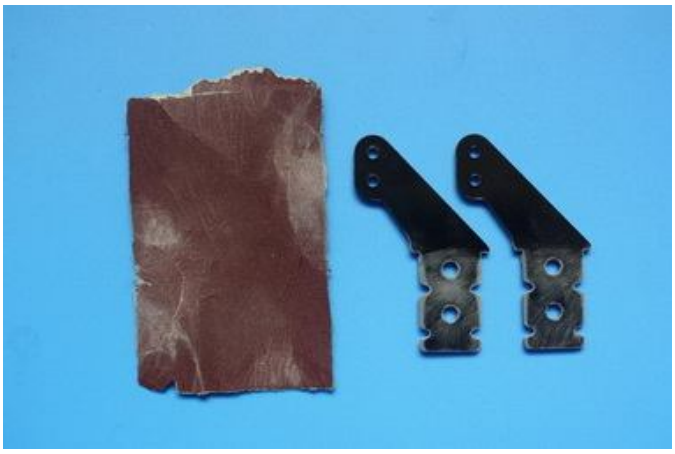


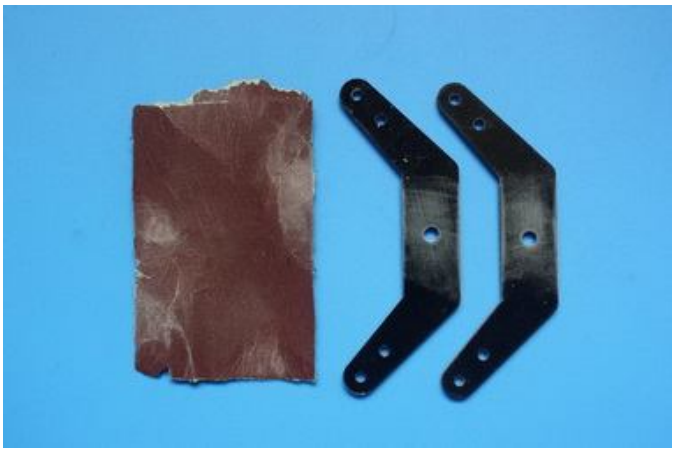
There is a layer of protection film on the horns. Please remove the film as shown following picture.



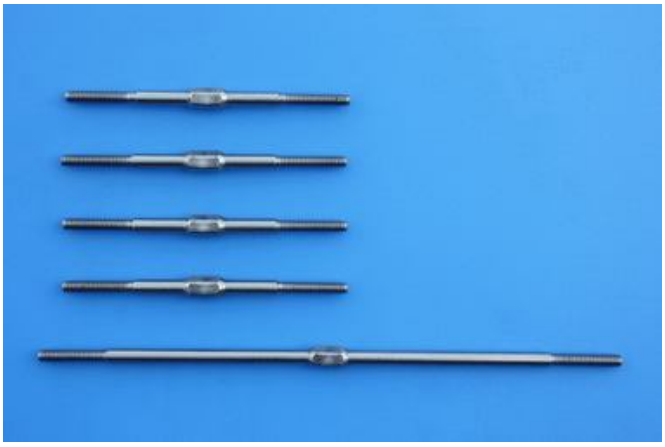
Make sure to sand the horns so the surface is rough to glue correctly.







Pushrods(Bag No. KA05CBG2) Four 3x61mm pushrods for ailerons. One 3x125mm pushrods rudder （Pull-push style）



Pull-pull assembly kits for the rudder. (Bag No. KA05CD)



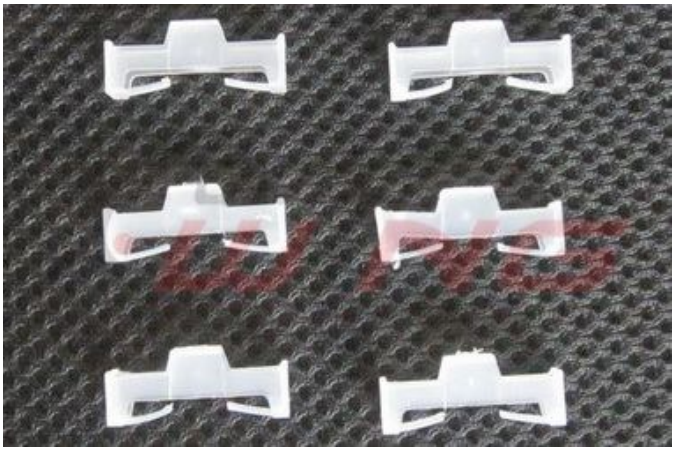
Ball link assemblies (Bag No. KAG00131): 8 for ailerons and elevators.




Alu long arm kits (Bag No. KA05CC): 4 single arms for ailerons and elevators.  1 dual arm for the rudder.



6 Servo extension safety connector clips (Bag No. KAG0021)



Main rubber wheels (Bag No. KAG014B)：2PCS



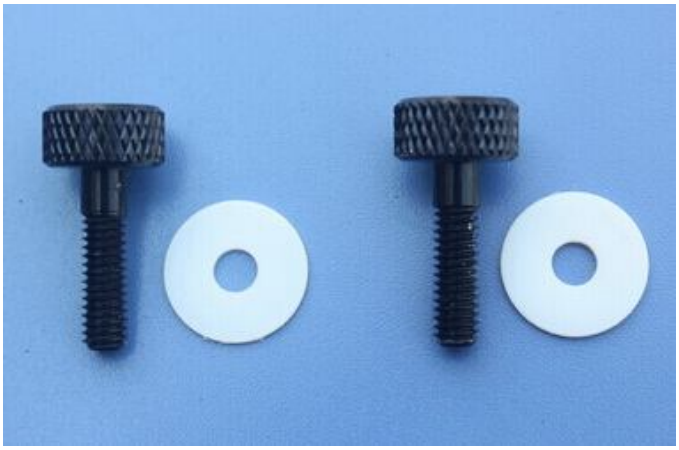
New stainless steel Axle kits (Bag No. KA05CH): 2PCS



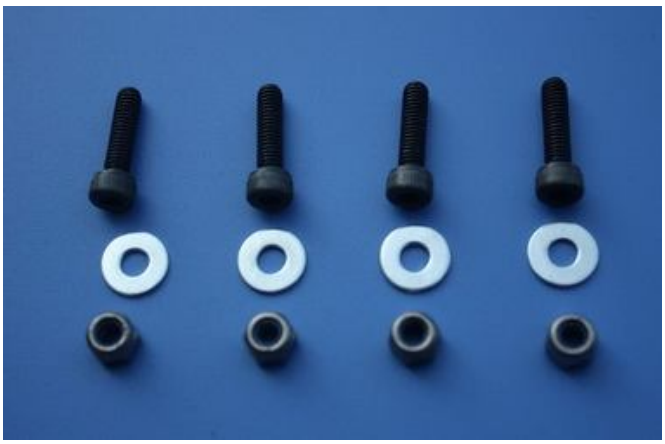
New Carbon fiber tail wheel assembly. (Bag No. KAG0104)



4mm ALU canopy bolts & 12mm PTFE washers (Bag No.KAG0043)



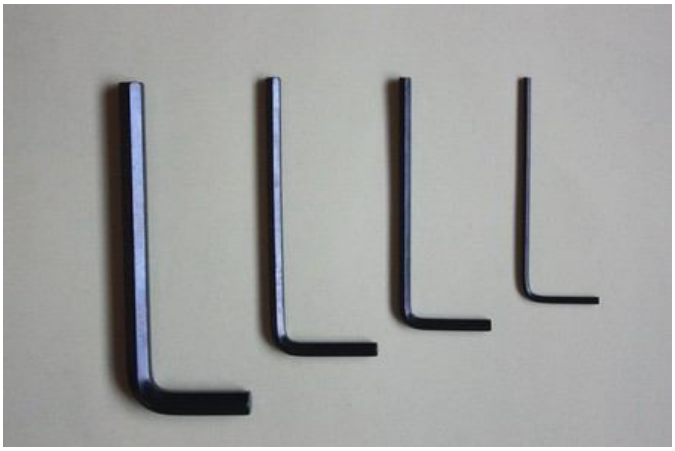
Bolts for landing gear: 4(4x20mm) hex bolts and 4(M4) stainless steel self-locking nuts & 4 washers



Bolts & washers for cowl: 4(3x16mm) Hexagon bolts and 2(10mm) PTFE washers and 2 wsahers



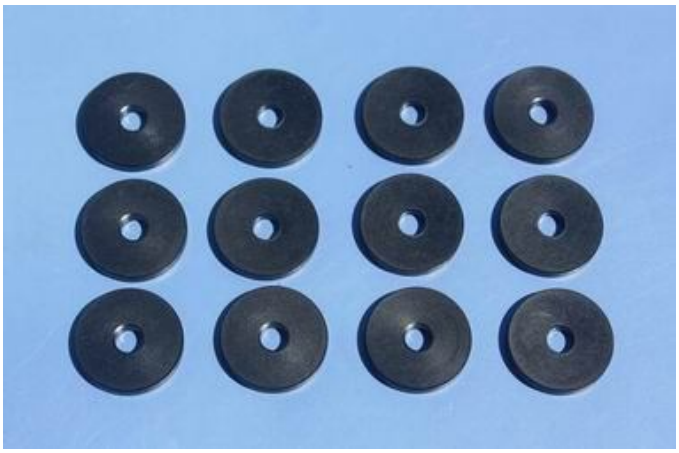
4 allen keys(Bag No. KA05CE)



Bolts & washers for stab tails: 4(3x12mm) Hexagon bolts and 4(10mm) PTFE washers



Washers for gas engine: 12(20mm) POM washers



## Wing Assembly

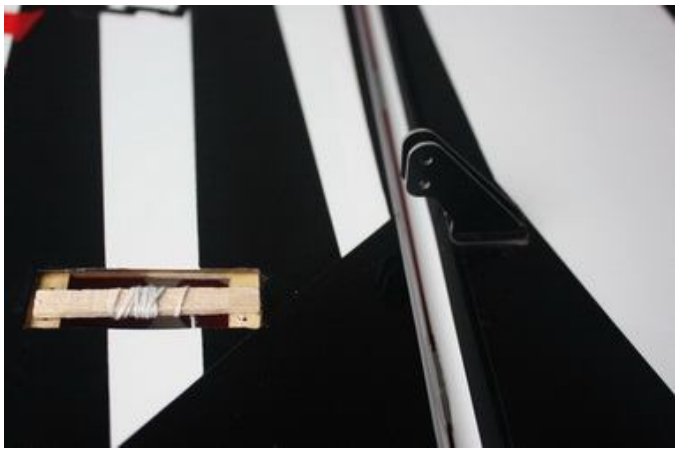
1.Aileron push rod linkage set. 3x61mm Pushrods for aileron.




2.It is much easier to install the twin control horns before installing the wing. Locate the fiberglass aileron control horns, ball links, and associated bolts and nylon-insert lock nuts. Use some fine sandpaper to roughen up the center areas of the two control horns so that the glue adheres better. Using a sharp hobby knife cut the covering away from the slots in the rudder and trial fit the two control horns.

3. Mix up some 30 minute epoxy and coat the inside of the slots and the center of the control horns. Hint: a scrap piece of 1/16" ply, tooth pick, or old hobby blade can be used to coat the inside of the aileron slots. Slide the control horns in place and make sure they are centered perfectly by using a ruler to measure between the pivot holes and the hinge line. Wipe any excess glue off with isopropyl alcohol and paper towels. Install the ball links, bolts and nuts into the holes to help assure alignment of both control horns while the glue cures. Set aside until cured.





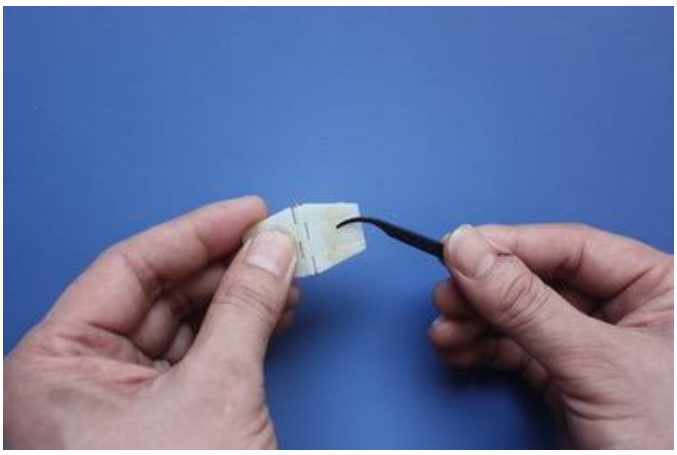
4. The slots for the supplied hinges are pre cut. Locate the hinges and dry fit the hinges and aileron into place and test the operation. The hinges should seat fully into the slots so that the hinge line gap is minimal while still allowing full aileron deflection.

5. Before gluing the hinges in you must first clean the hinges of any mold release agent using isopropyl alcohol. We also recommend scuffing up the plastic with light sandpaper for maximum glue adhesion.

6. Mix up some 30 minute epoxy and using a toothpick or small wooden dowel coat the inside of each hinge slot with epoxy. Also put a thin layer of epoxy on one side of the hinges. Install this end into the slots of the rudder and make sure each hinge is properly aligned at exactly 90 degrees to the hinge line.

7. Now coat the other end of the hinges with epoxy and install the aileron into the trailing edge of the wing. Again, make sure the hinges remain in proper alignment. Using paper towels and some isopropyl alcohol clean off any excess epoxy from the hinges and surrounding areas.

8. Make sure the aileron is fully seated so that the hinge gap is minimal while still allowing full deflection of the aileron. When satisfied, use some masking tape to hold the aileron in place along the bottom and counterbalance. After the epoxy has cured, remove the masking tape and check for proper operation. If the hinges are stiff some light oil carefully placed on each hinge will help greatly.

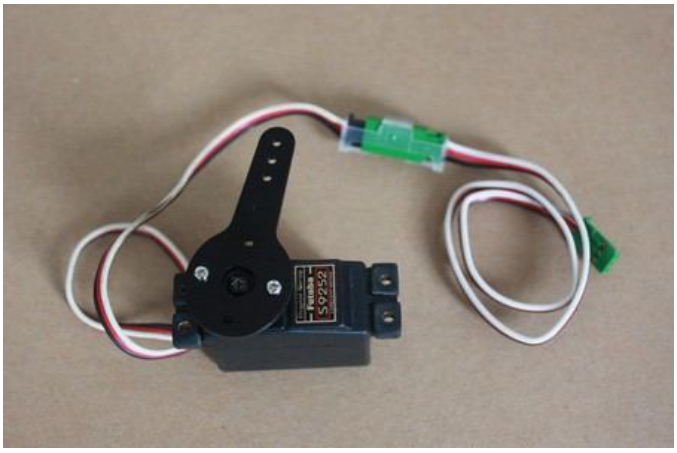


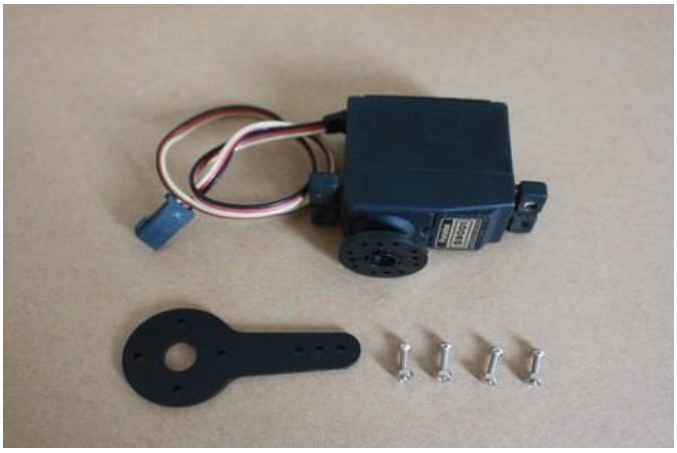


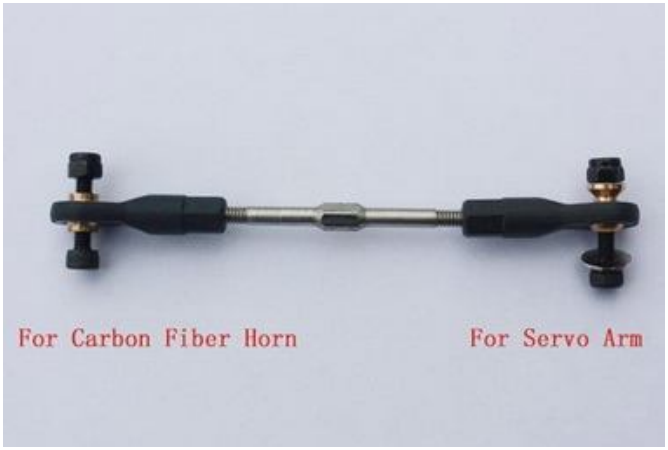
9. Cut the covering from the aileron servo openings from corner to corner and iron down inside the openings. Connect servo wire extensions to your servos and secure the connections with the supplied clips, your own clips, or tape. Feed the servo wires into the wing and out the root. Install the servos and screw firmly in place.

10. Use your radio to set the centers of each servo and then assemble and adjust the length of each control rod. The servo arm should be as close to perpendicular to the control rod as possible while the aileron is at neutral. Double check all screws, bolts and nuts to assure proper installation and operation without binding.Once satisfied, permanently attach the ball link to the servo arm with the supplied screw and nut.

11. Check the final radio operation of the ailerons and make sure there is no binding or servo fighting of each other. Also check to make sure all linkage bolts and nuts are secure.











12. We recommend using KUZA 1.5” aluminium CNC servo arm (sold separately) for wing control.



## Elevator Assembly

1. Push rod linkage set for elevator. 3x61mm Pushrods for elevator.

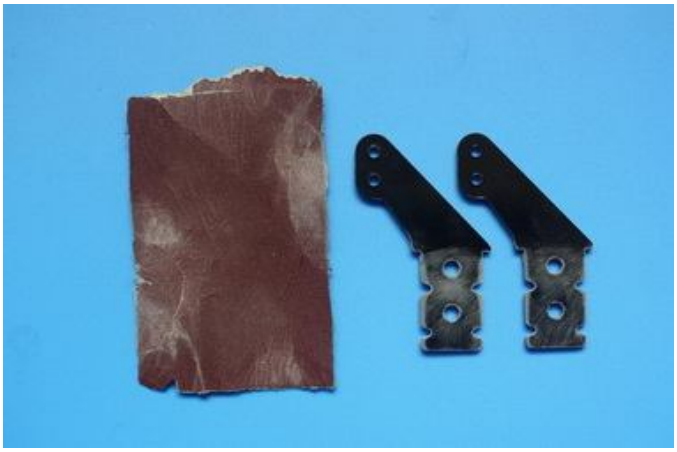



2. Find the slots for the control arms in the elevators and remove the covering where the horns are inserted and the area for the plate.





3. Sand the area on the horn that will be glued inside the elevator.



4. Using plenty of 30 minute epoxy fit the horn and plate into place. Use a ball joint and bolt to hold the horn in place while drying.



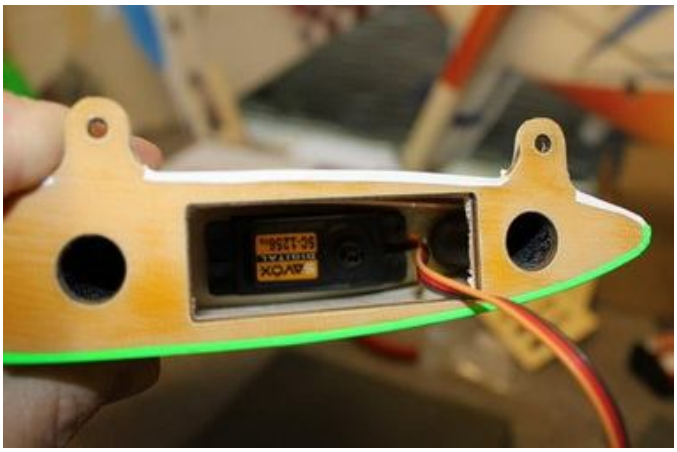
REPEAT FOR THE OTHER SIDE

5. Place long arms onto the servo's you are planning to use for the elevators.



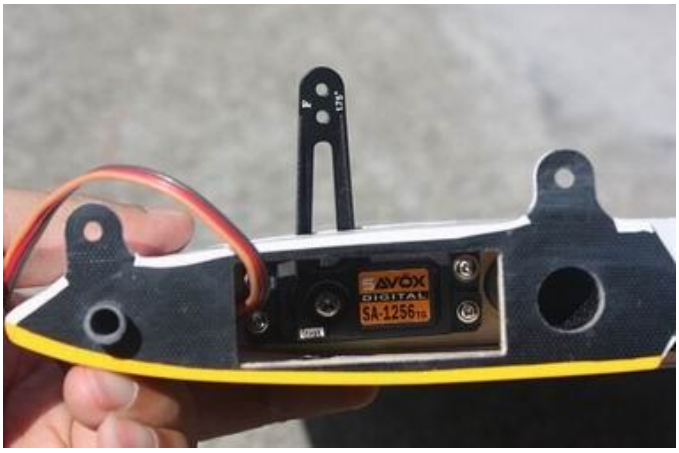



6. Place the servo into the elevator and screw in place. Remember to harden the holes with thin Cyano.





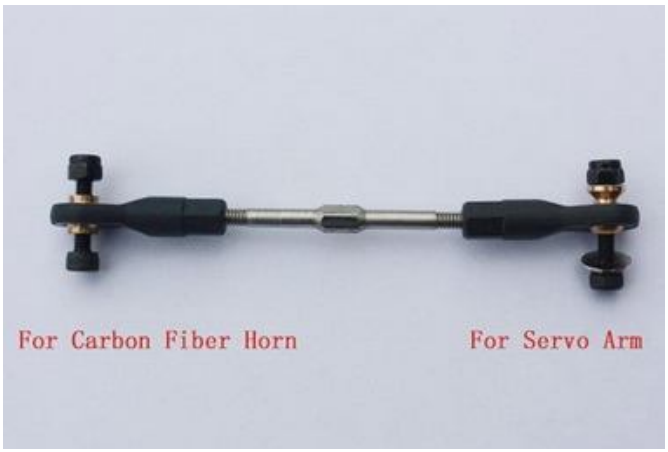
7. Place the servo arm back onto the servo, remembering to centre.




Use nutlock on the servo arm screw.

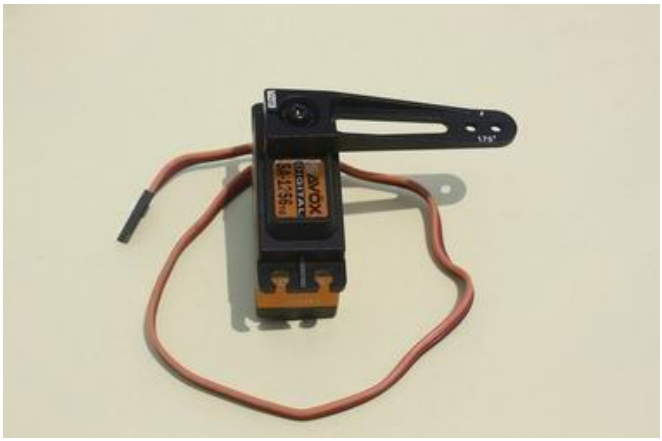
8. Fit the pushrod in place remembering one end is reverse threaded. Set it so the arm is centered and the elevator is flat. Choose the holes depending on how much deflection you require.








9. We recommend using KUZA 1.75” aluminium CNC servo arm (sold separately) for elevator control.



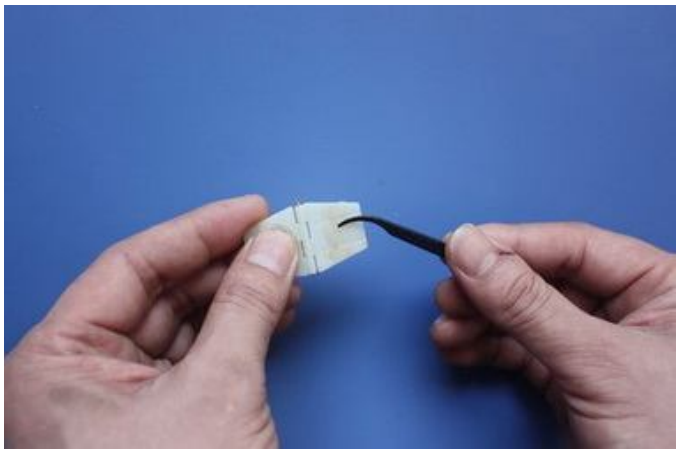
## Rudder Assembly

1. Install the fiberglass control horns in the same way as you did the elevator horns.









2. The EXTRA is supplied with a high quality set of pull-pull cables and ball-links.

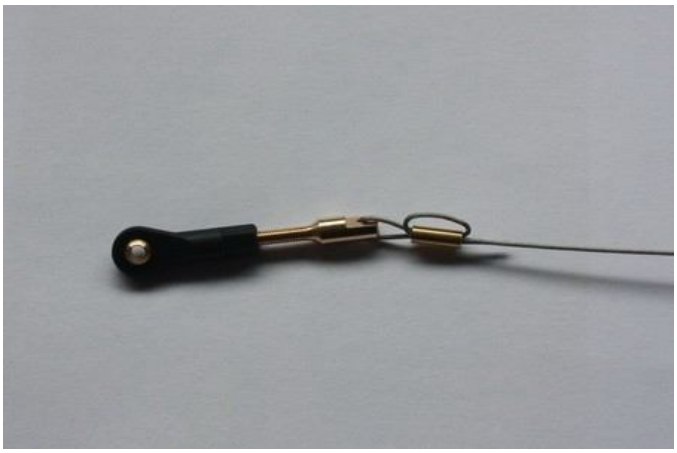


3. Locate the pull-pull cable set, threaded couplers, brass swaging tubes, and ball-links. If the cable is one long piece, cut it into two equal length pieces. Thread one end of the one cable through a brass tube and then through one of the threaded couplers. Run the cable back through the brass tube and then loop it back through a second time. Using a set of crimping pliers, place three crimps just tight enough not to cut the brass tube but enough to securely hold the wire in place. Cut off the excess cable with wire cutters. Wick thin CA into the brass tube to help hold the cable secure. Repeat for the other cable.

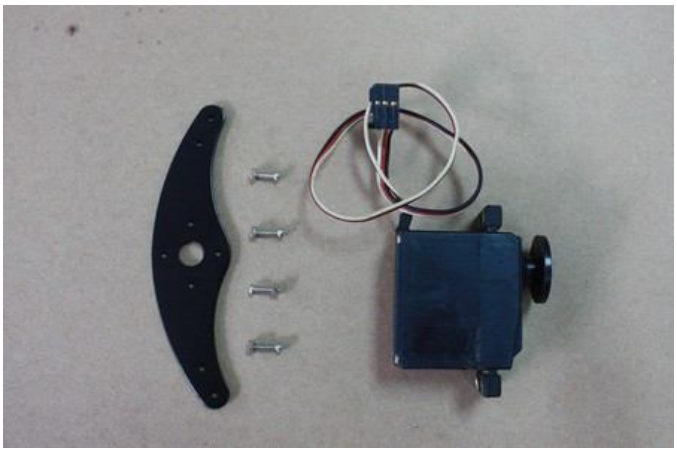
4. Thread the couplers about half way into the ball links of the rudder. Hint: remove the ball links from the rudder horn first to make this step easier and then re-install once the couplers are threaded on. Feed the loose end of each cable into the cable slots at the rear of the fuselage and feed them forward towards the servo mount location. A coat hanger with a hook on the end can be useful here if you can't reach the cable.

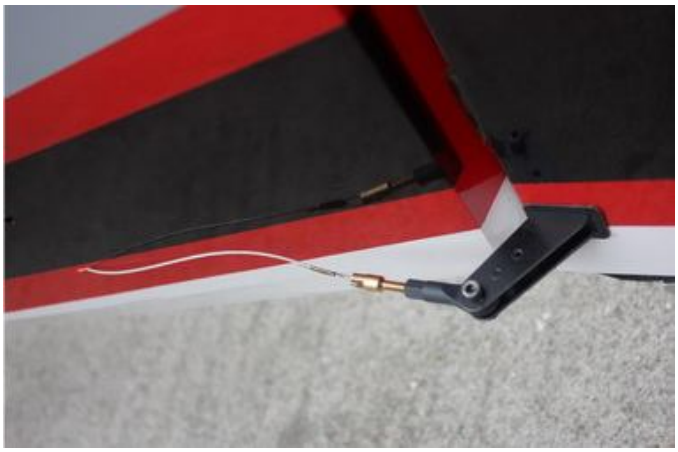
5.Use your radio system to center the rudder servo and attach either the supplied arm or an appropriate arm for your servo. Thread one of the ball links about half way onto one of the threaded couplers. Feed the loose end of one of the cables through a brass tube and then through the threaded coupler. Holding the rudder centered, adjust the cable length as tight as possible while checking the ball link position over the servo arm. When satisfied with the position, pinch the cable around the threaded coupler and then feed the loose end back through the brass tube. Loop the cable back through the brass tube as before and crimp the brass tube three times just tight enough not to cut the brass tube but enough to securely hold the wire in place. Cut off the excess cable with wire cutters. Wick thin CA into the brass tube to help hold the cable secure. Repeat for the other cable. Hint: Once you have established the position of the threaded coupler on the cable, you can remove the ball link from the rudder horn to give you more working slack in the fuselage. Re-install the ball link prior to setting the other cable.

6. Check the operation of the rudder using your radio and make sure there is no binding and the cables are adjusted properly. You may have to tighten the cables after a few flights as they may stretch slightly from the initial installation.





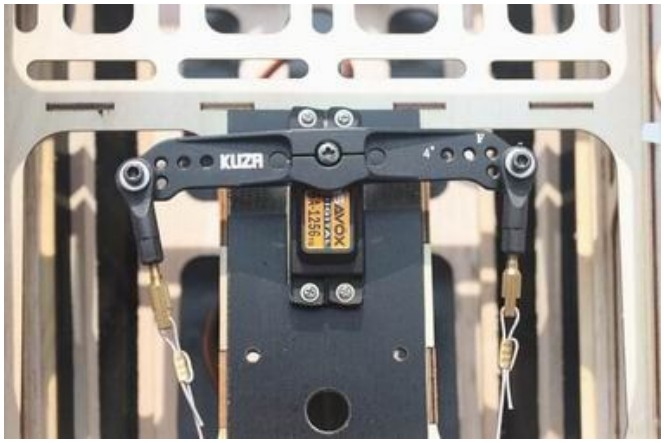






7. We recommend using KUZA 4” aluminium CNC servo arm (sold separately) for rudder control.




8. We recommend using KUZA® rudder servo tray (available separately) for better rudder performance.




9. This EXTRA is designed to directly accommodate KUZA® rudder servo tray, and so will be all other pending ARF airplanes that are 50cc or greater.



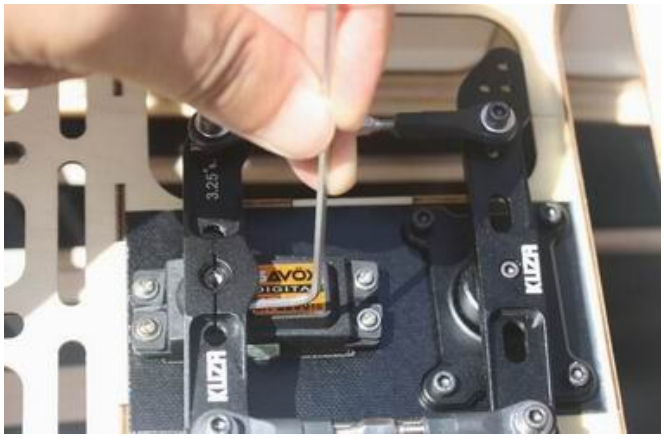
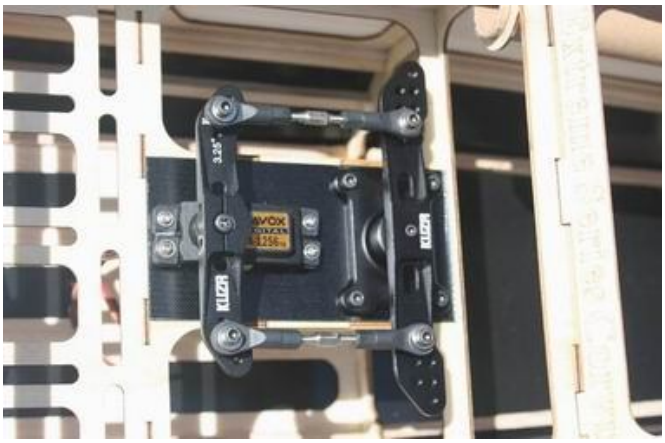
10. You will need to provide 3X42 mm push rods (2 Pcs) and ball links (4 Pcs), depending on the servo of your choice, a KUZA 3.25" aluminum CNC servo arm may also be needed.






11. Assembling rudder servo tray.



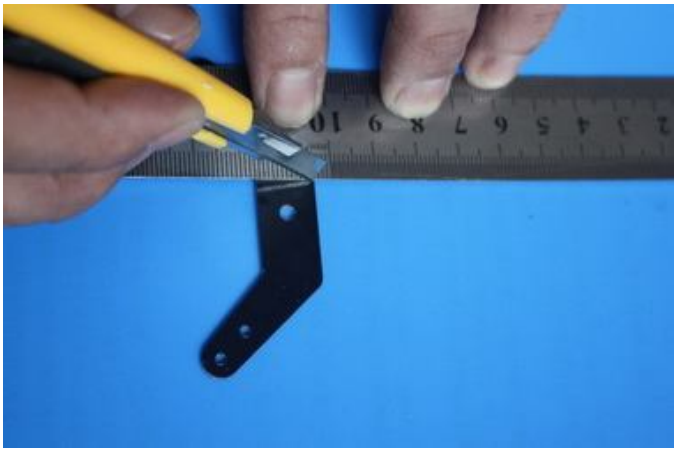






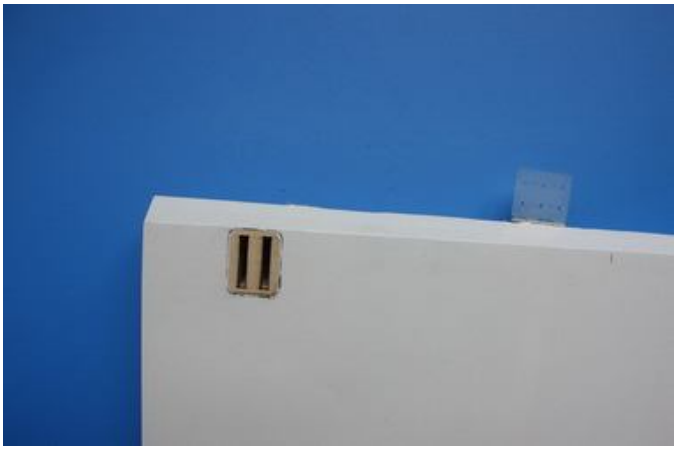
12. The EXTRA also provides pull-push style for rudder. Below is picture of pull-push style linkage set.

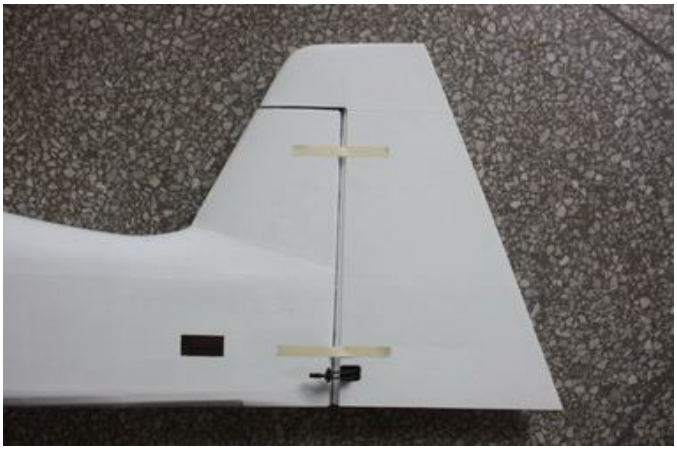



Cut off excess fiberglass rudder horn, and use sandpaper to roughen up the parts needed to inlay.



Use epoxy glue to glue the rudder horn.

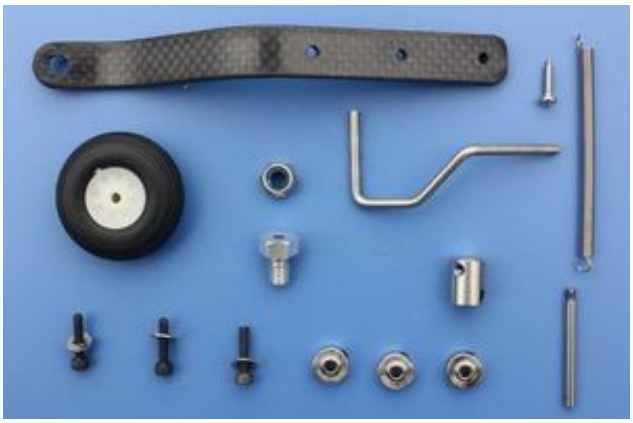




Use 3X125mm push rod to connect to the horn.

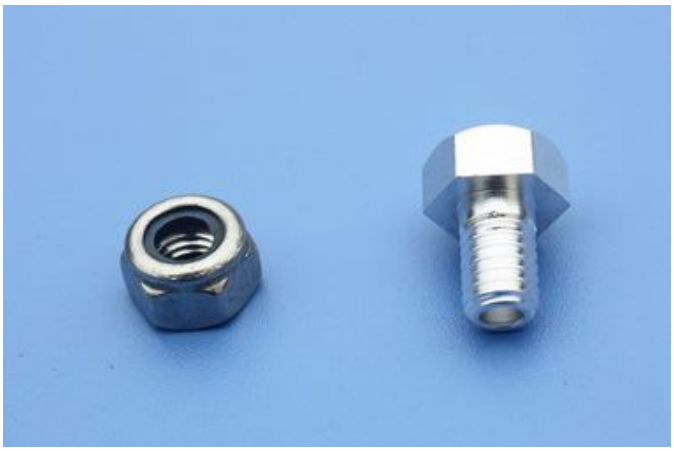


# Tail Wheel Installation





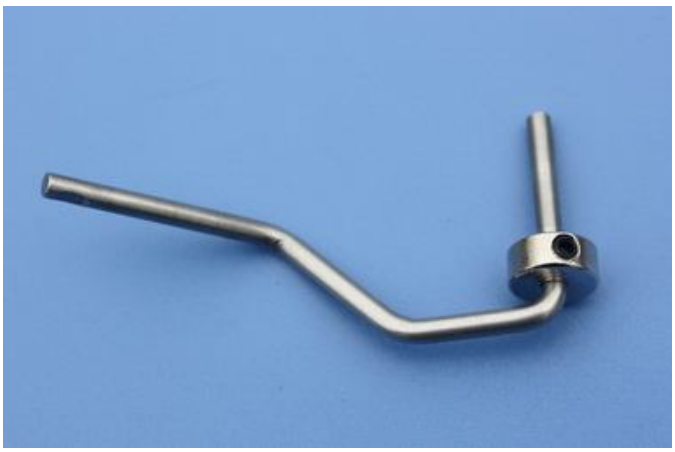
1. Begin the tail wheel assembly by installing the hollow hex bolt and lock nut into the large hole at the rear of the tail wheel bracket.

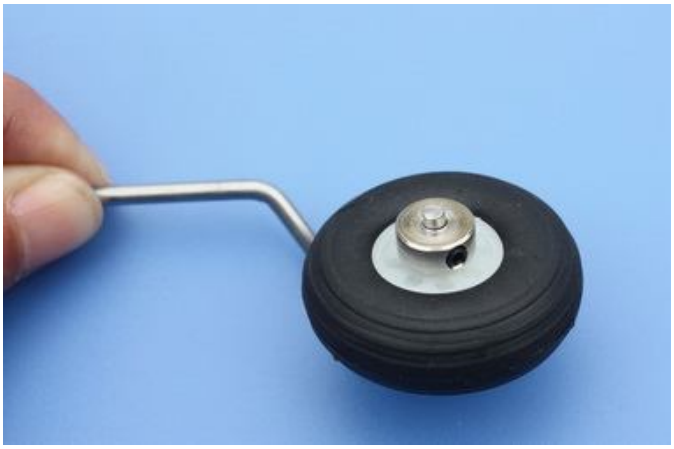


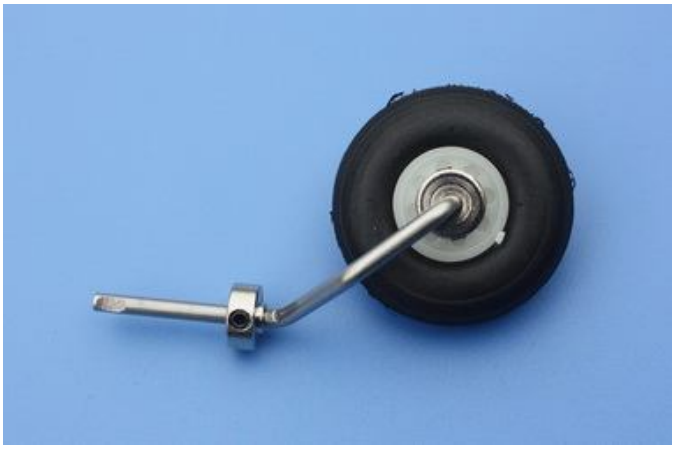


2. Slide 3 wheel collars and the wheel onto the pre-bent tail wheel wire and tighten in place with thread lock as shown below.

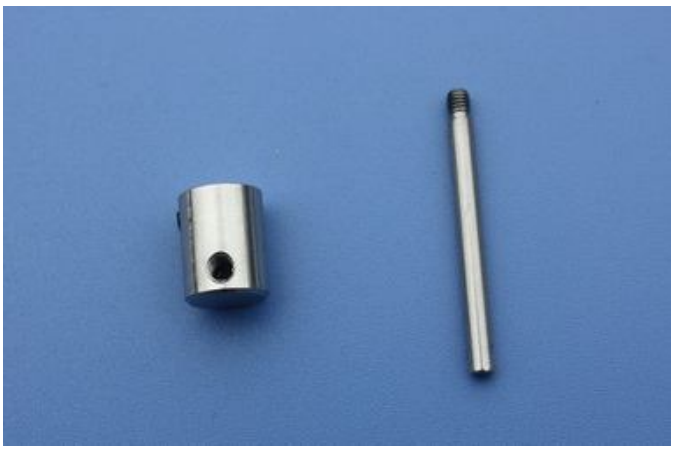






3．Install steering rod, again, the use of thread-lock on any metal to metal screw is advised.








4．There are 3 pre-installed blind nuts on the rear of the fuselage, locate the screw holes and puncture the covering. Then install the CF tail wheel bracket with M3 hex bolts and washers.





5．Drill a screw hole on the bottom of rudder, 200-220 mm away from the hinge line, with 2 mm drill bit. Secure one end of the wheel spring with a M3 12mm self-threaded screw, then hook the other end onto the steering rod.








6．Fully installed tail wheel assembly is shown below.

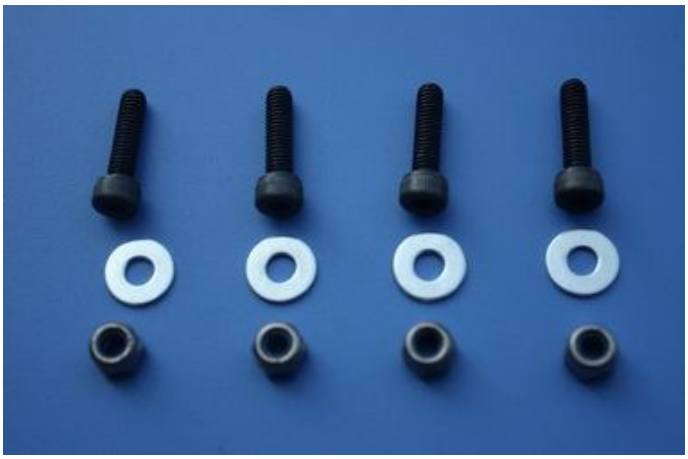


## Main Landing Gear Installation

1. Locate the supplied main landing gear parts and sort them out on your workbench.



2. Bolt the main gear to the bottom of the fuselage using the supplied bolts. Place the nuts in through the can tunnel opening with appropriate size spanner. Remember the gear will rake forward.





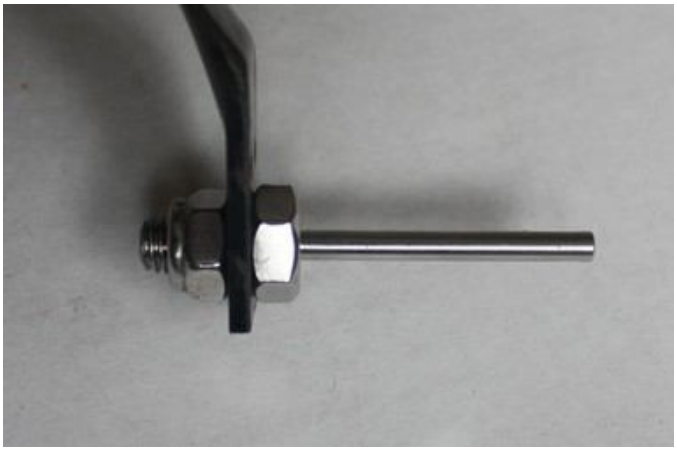
3. Loosen out the second nut, then apply 30 minute epoxy glue on the axle. Tighten the nut back in place, allow at least 1 hours for threadlocker to dry.





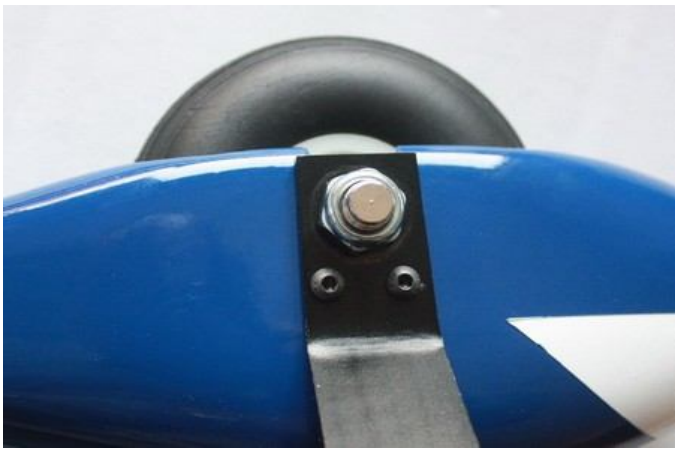


4. Install the main wheel axles to the composite landing gear and tighten the nylon-insert lock nut. Install one wheel collar onto the axle. Use a second wheel collar as a guide to leave a gap on the inboard of the axle. Use a small drop of thread-lock and tighten in place. Slide the wheel onto the axle and install a second wheel collar also using thread-lock on the set screw.





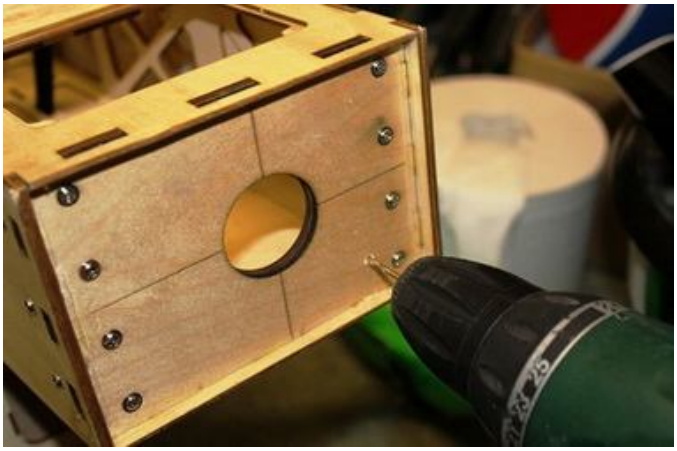

5. Fit the wheel pant in place and install using the two supplied bolts. Use thread-lock to secure the bolts in place. Repeat the above steps for the other main gear.

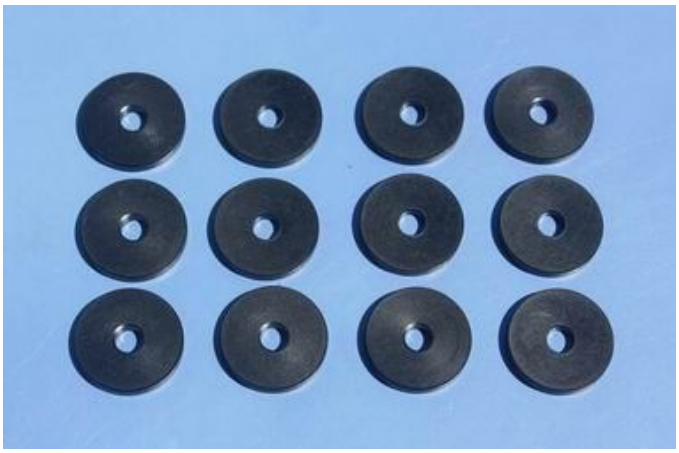
## ENGINE, EXHAUST, & FUEL SYSTEM

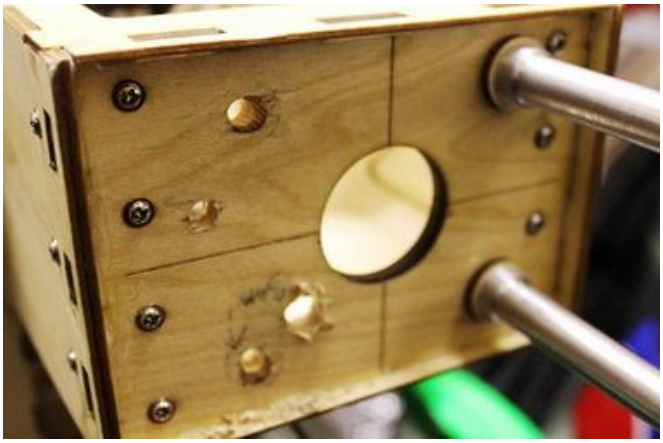
1.Templates are provided in the kit for both DA and 3W 50 cc engines as well as the DA 60 engine. Select the proper guide for your engine and mark and drill the mounting holes and cut out the center as indicated. Notice that the engine center line is offset to the left to compensate for the right thrust built into the engine box.





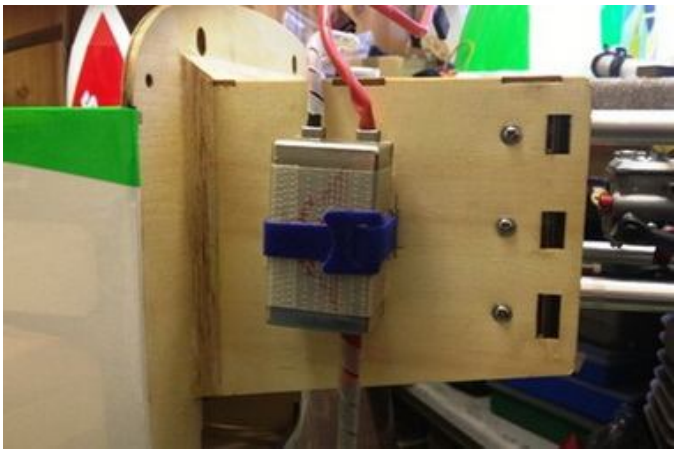
2. Fit the Cowl and measure the distance from the engine bulkhead to the front of the cowl, add approx 2-3mm for the spinner back plate and this is the length that your engine should be set Using the correct length stand offs, mount your engine securely using bolts, 20mm POM washers, and locknuts. The use of thread-lock is also highly essential for the engine bolts.







3. Mount the ignition module according to the manufacturer's instructions. The best place to mount it is on the side of the engine box. Secure the pickup lead and ignition wires with zip ties so that they do not vibrate or touch any hot part of the engine or exhaust.



5. Assemble the throttle servo mount using the supplied laser cut parts or there is a servo cutout in the bottom of the engine box for 50cc-70cc engines. Mount your throttle servo and complete your linkage setup. A hole will need to be drilled on the firewall to allow the pushrod to connect to the throttle arm on the carb.



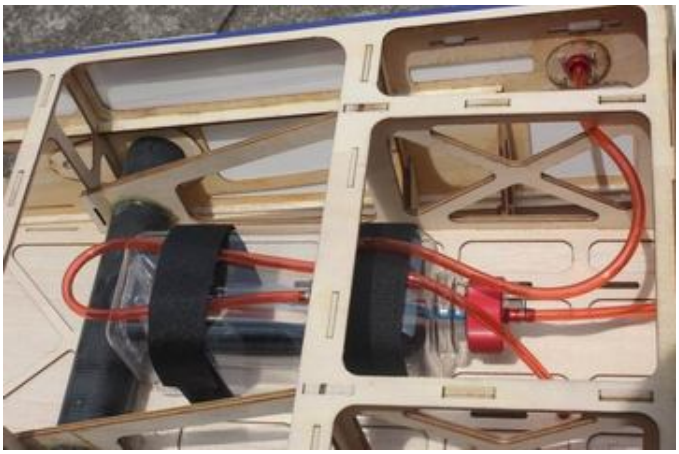


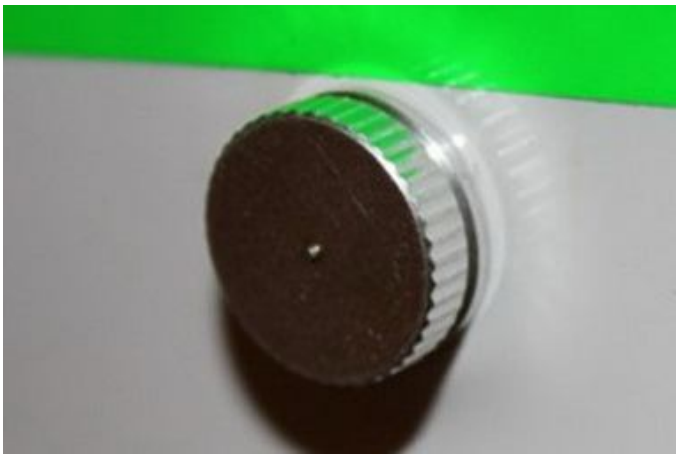
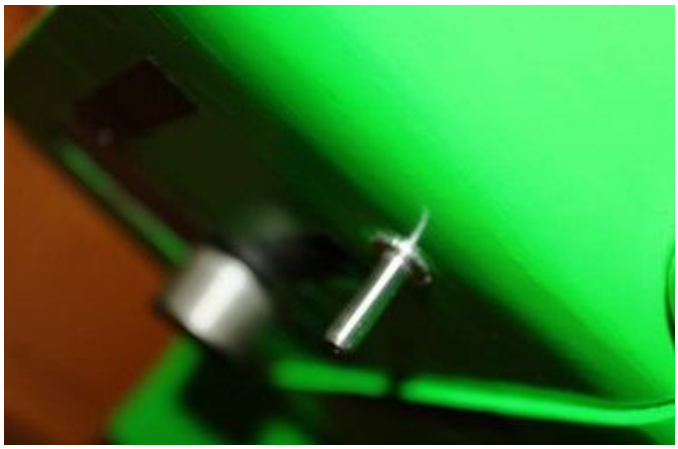


6. An extra servo can be fitted for choke or a mechanical linkage can be used.

7. The new KUZA 500cc Fuel Tank with aluminum tank cap is preassembled. Complete the installation in the fuselage using zip ties or velcro straps to hold the tank in position. Connect a fuel line between the tank and carb, a fuel line between the tank vent and the bottom of the fuselage, and a fill line to a fueling port which can be mounted on the fuselage side opposite your ignition switch. Make sure your vent line does not come close to any hot exhaust part such as the muffler or canister. recommends the use of small zip ties or fuel line clamps to secure the lines to the tank.





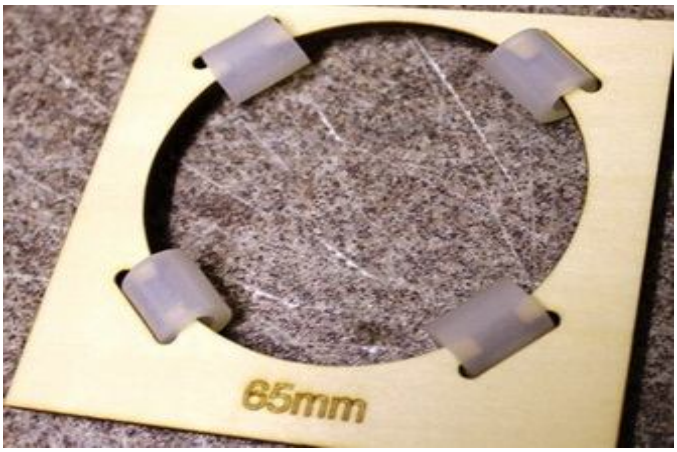
A barb on the bottom of the fuselage can be fitted for the vent.

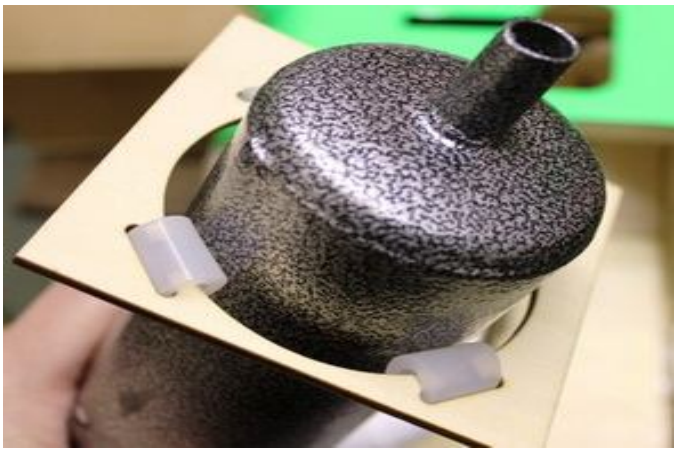
8. The EXTRA comes with canister pipe tunnel. Standard muffler, pitts muffler, canister or tuned pipe can be fitted. If a tuned pipe is going to be used the end of the can tunnel can be removed. The tunnel can be closed off to accept canisters of all sizes, or stock mufflers. Follow the manufacturer's instructions for your exhaust system paying attention to vibration mounts if required and air flow requirements. Trial fit your exhaust system now and work out any additional supports, but do not permanently install the system until you fit the cowling in the next steps.

**Pitts Muffler**



## Canister Fitting

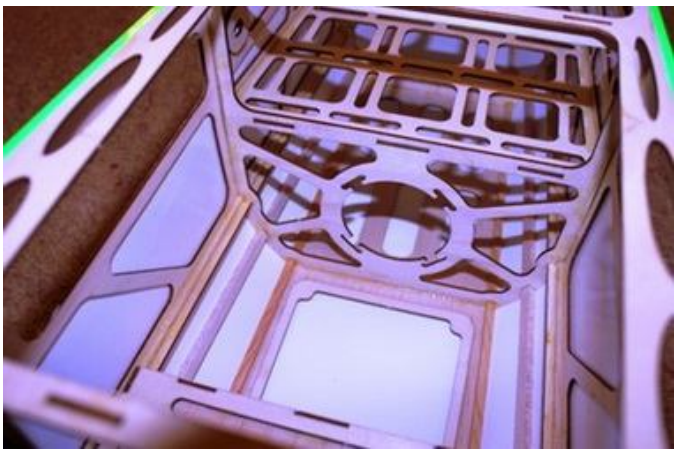


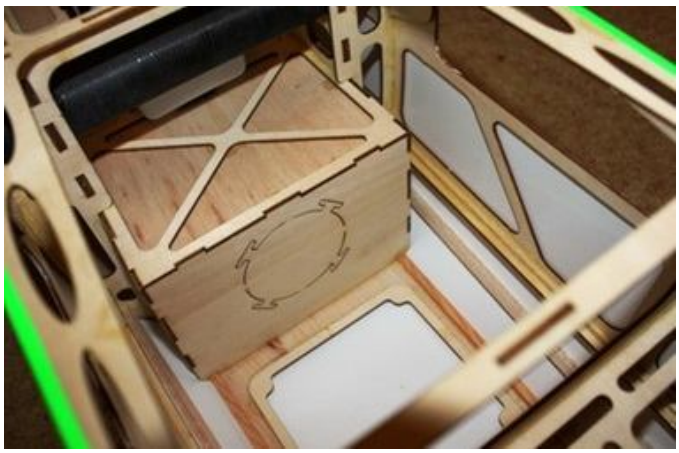







## Tuned Pipe Mounting





The EXTRA comes with many openings for the exhaust outlet, line up the exhaust then remove the covering for the required outlet. They come with covers that can be used for cooling. Use a soldering iron to open up the holes.



## Installation of KUZA Fuel Dot and Fuel Vent Line Plug （Not included）

1. From June 2015 and on, all Goldwing gas airplanes are made ready for KUZA fuel dot and vent line plug. Available in three colors: black, red and blue.







2. Installation of KUZA CNC Aluminum Fuel Dot

Sites for KUZA fuel dot installation are pre-cut on both sides of the fuselage, you may install it on either side. Use shape knife to remove the covering.



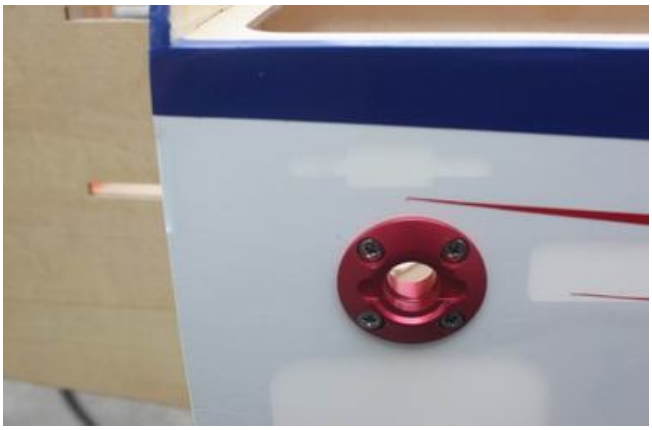


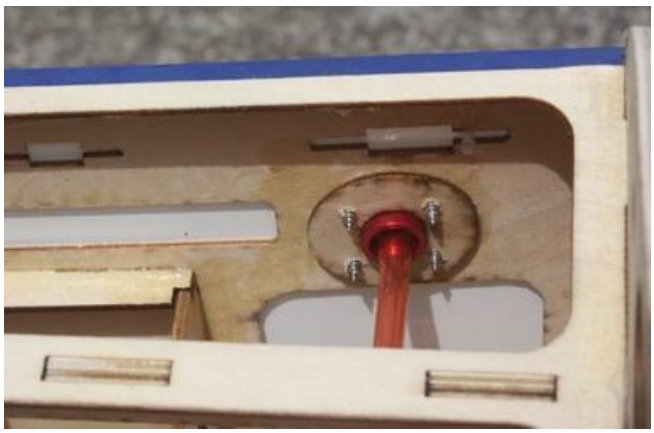


Secure the housing of fuel dot with supplied 2.5 mm self-tapping screws, then plug and install the fuel line to complete the setup of fuel dot.














3. Installation of KUZA CNC Aluminum Fuel Vent Line Plug

Similarly, two sites for vent line plug installation are available at the bottom of the fuselage. Secure KUZA vent line plug with four 2.5 mm self-tapping screws as shown below.







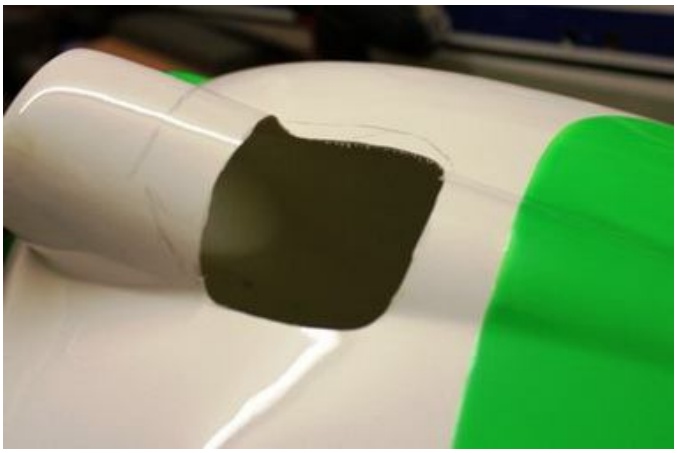
## COWLING INSTALLATION

1. With the engine fitted, tape a piece of card to the bottom of the fuselage that can overlap the cylinder head. Remove the engine and refit the cowl. Then fold over the card to show where the cylinder head would be as below.



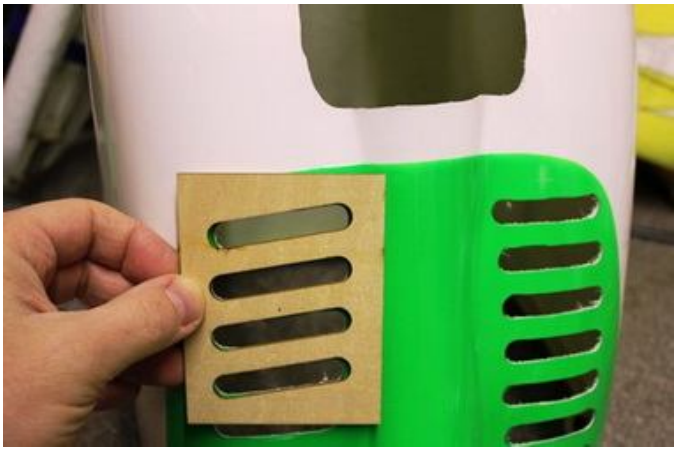
2. Mark onto the cowel the area to remove, and remove with a dremel.





As the EXTRA has a scale inlet, depending on your engine it may need to be removed. If it is still attached it may be beneficial to strengthen with a small amount of glass cloth.

- If your exhaust outlet comes out within the cowl area then use the same method.
- Depending on the amount of cooling required for your engine a template for louvers in the bottom of the cowl has been provided. Use a dremel tool to remove the material.



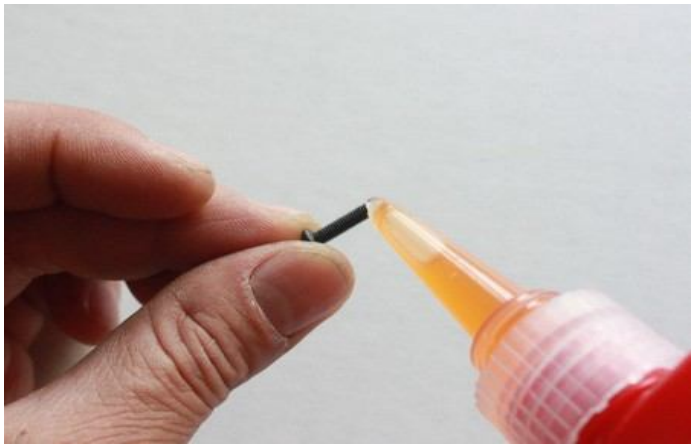
- When the cowl clears the engine etc correctly the prop shaft of the engine will be in the centre of the cowl.



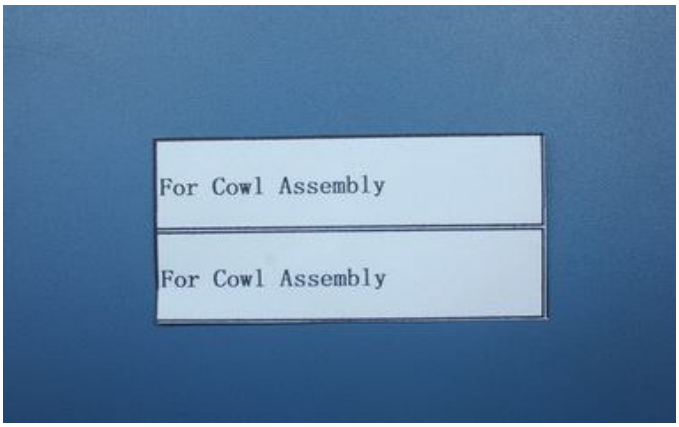
3.The cowl is secured with four 3 X 16mm bolts and washers.

Apply nutlock onto the bolts as the vibration from the gas engine will shake them come loose.



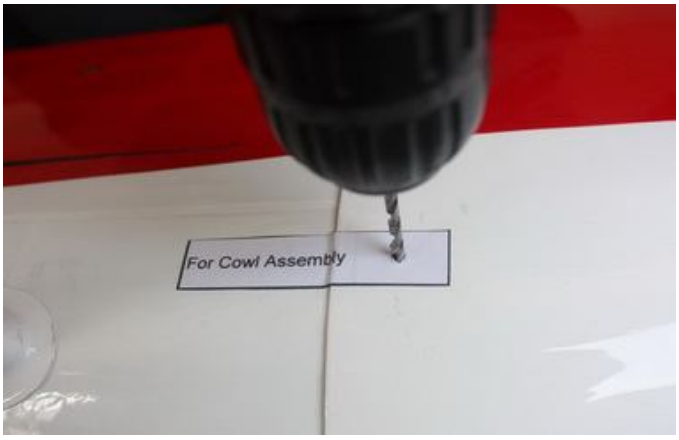


Labels are provided for aligning the drill holes for the cowl. Stick then on without the cowl, mark the hole. Fit the cowl then press back down. The hole will then show the area to drill. Sere below.
















## FINAL RADIO SYSTEM INSTALLATION

1. Whether you 72 MHz systems or the newer 2.4 GHz systems, proper radio installation and care is vital to the safe and reliable operation of your aircraft. Follow the manufacturer's instruction for installation guidance of receivers and batteries paying attention to factors such as vibration isolation, adequate cooling, and clearances.

2. Mount your reciever(s) securely in a location which provides a clean and maintenance free solution to your setup. All servo wires should be neatly routed and secured in place so they will not come loose or flop around during flight.

3. The fuselage ply sides provide space to mount your switches just below the canopy. Mount your switches according to the manufacturer's instructions and route your wires safely and securely as above.

4. Your receiver battery(s) can be mounted in a variety of locations depending on your balance needs. Regardless of where you mount your batteries it is vital that they are very secure with no possibility of coming loose. Use double sided velcro to hold the batteries from sliding around and then use zip ties or velcro straps to secure them tightly in place.

5. Servo and battery leads are the life blood of your aircraft. Make sure all wires are top quality and connectors are tight and display no loose pins or frayed wires. Servo clips are provided in the kit for your convenience. These servo clips can even be glued to the wood structure using CA if desired.

6. Check all radio programming and control surface operations thouroughly before your initial flight. Check your radio range according to the radio manufacturer's instructions both with the engine off and running.

## BALANCING and PRE-FLIGHT

1. Most state of the art aerobatic aircraft allow for a wide margin for balancing depending on what level of precision or freestyle the pilot prefers. To perform properly without being too pitch sensitive, you must not go too aft on the CG. **We recommends an initial CG setting of 143-163mm (5.6-6.4 inches) behind the leading edge of the wing at the root.** More experienced pilots may want to set the CG further aft for more 3D capability. Varying weights of engines and radio gear will dictate how you should install each. The batteries can easily be located pretty much anywhere in the fuselage.

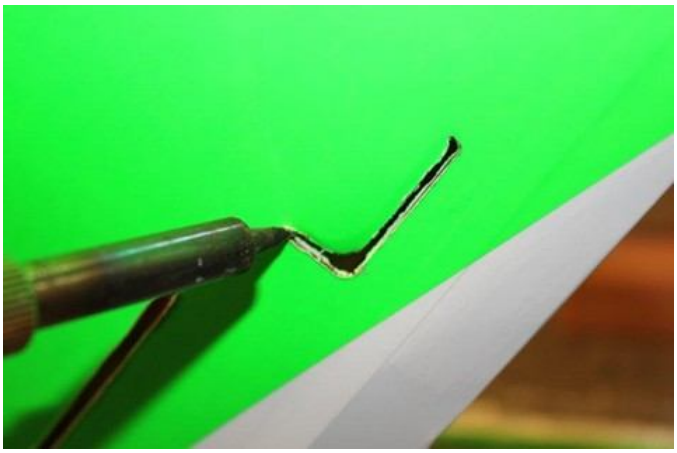
**Note:** The best way to check your balance is to trim for level flight at about 1/2 to 3/4 throttle and then roll inverted. The aircraft should maintain level flight with very little to no down elevator input. If the aircraft climbs when inverted then you've probably got your CG too far aft. If the nose drops more than slightly, then you are most likely nose heavy.

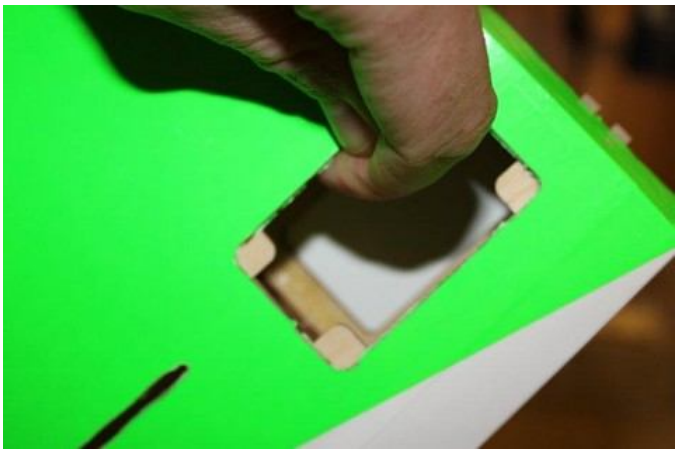
**Recommended control surface deflections:**

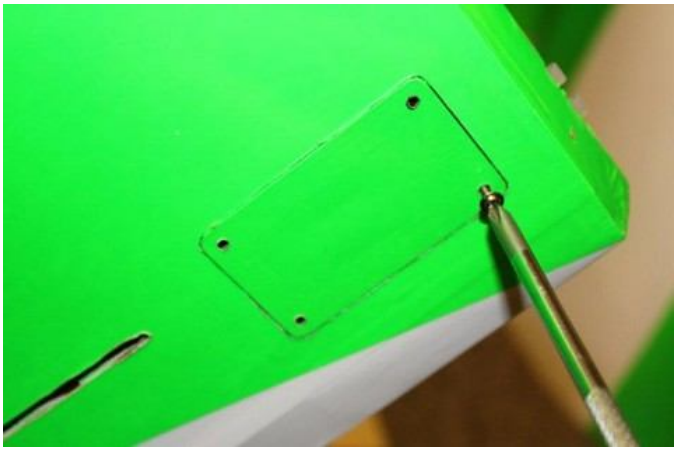
| | Low Rate | High Rate |
|---|---|---|
| Elevator | 15 degrees | 45-50 degrees |
| Rudder | 25 degrees | 40-45 degrees |
| Ailerons | 25 degrees | 35-40 degrees |

Use exponential on the dual rates at levels that suit your flying style.

If you find that you require tail weight and cannot move parts around the aircraft a rear hatch has been added. Glue in the inner ring, once the covering has been removed.







## FINAL ASSEMBLY AND PRE-FLIGHT INSPECTIONS

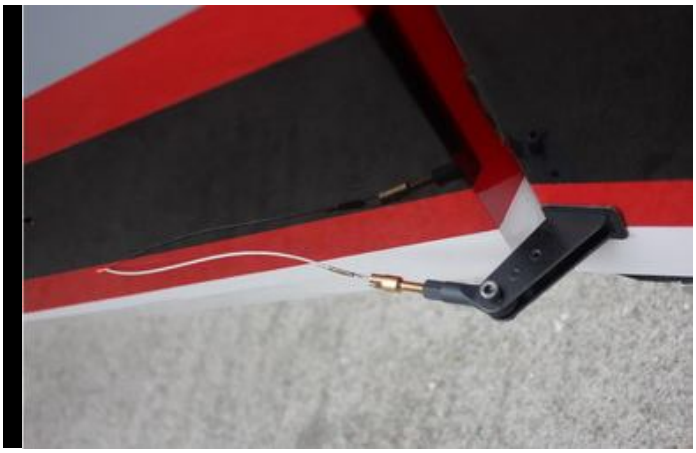
1. Before arriving at your flying field, be sure all your batteries are properly charged and all radio systems are in proper working order.
2. Installation of Rudder

Rudder is removable for convenience in transportation, it is connected to fuselage by inserting a 1.8 mm steel rod through the hinge line.






Then install pull-pull ball links on control horns.

3. Installation of Elevators

Connect extension servo wire, secure with safe clips.

Attach elevators with 3X12mm Hex-head bolts and washers.

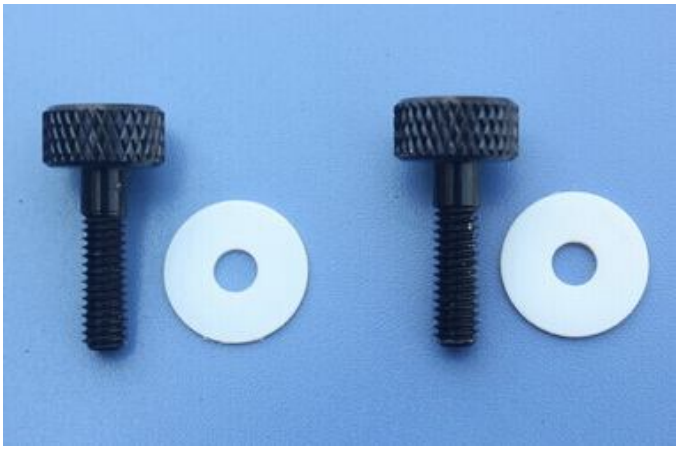



4.Install the wings onto the fuselage being careful to align the wing tube with the wings and not force it. The wing tube may be initially tight but will loosen some with use. Guide your servo wires into the fuselage openings and connect to the proper aileron channels. Servo clips are recommended. Once you have the wings fully seated in the fuselage tighten the wing bolts inside the fuselage.



5. Fill your fuel tank making sure your vent line is not plugged or capped. With the canopy off, this is a good time to check for any fuel leaks.

6. Position the canopy in place and tighten ALU Canopy Bolts. Be sure to use the supplied PTFE washers under the screw heads.





7. If you have removed your horizontal stabilizers, install them once again and check all bolts and connections.

8. Check all control surfaces for secure hinges by performed a slight tug on the control surfaces and observing if there is any give in the hinges. Check all control rods, ball links, servo screws, etc. for proper operation and installation.

9. Check your batteries and perform a proper range check once again with the engine off and running. Be sure all surfaces are moving in the correct direction and the proper amount for your flying setup.

## Recommend Accessories（Not included）:

*** KUZA Gas Fuel line** size: 6X3.5mm 3 color to choose: red , blue, yellow

No. KAG006131R or KAG0061U or KAG0061Y







*** KUZA CNC Aluminum Fuel Dot** 3 color to choose: black, blue, red No. KAG0231B or KAG0231U or KAG0231R







*** KUZA CNC Aluminum Fuel Vent Line Plug** 3 color to choose: black, blue, red No. KAG0232B or KAG0232U or KAG0232R






*** KUZA Fuel line clips** 10PCS No. KAG02454










*** KUZA 1x servo tray  No. KAG0T01**




*** KUZA Heavy duty 7075 aluminum Servo Arm**

For Futaba servo（25T）：
47mm/1.75in Single  No. KAG0S7F
100mm/4in Dual  No. KAG0D723F







For Hitec servo（24T）：
47mm/1.75in Single　No. KAG0S7H
100mm/4in Dual　No. KAG0D73H






For JR servo（23T）：
47mm/1.75in Single　No. KAG0S73J
100mm/4in Dual　No. KAG0D73J




*** KUZA new　Wingbag for 50CC**　Two color to choose: red/ black, blue / silver　No. KAG0093













# GoldWing RC

www.goldwingrc.com