

# TOC AVIATION COMPANY "FUN SCALE" Edge Profile

[www.TOC1.com](http://www.TOC1.com)



Wingspan: 60"  
Length: 57"  
Flying Weight: 6-7lbs  
Wing Area: 915sq.in.  
Engine Size: .60-.91

Introducing the new TOC Edge Profile. This fun fly/3D aircraft is designed around the very popular, lightweight and powerful .91 class of engine. The PERFECT compact easy to transport everyday flyer. Featuring an extremely thick airfoil, this aircraft excels at slow high alpha 3D flight. As you can see, this is a highly prefabricated, low parts count ARF, and it can be built in an evening. Be sure to read over the instructions several

times before beginning the build. If you don't have a lot of experience assembling aircraft, ask someone with more skills...you will end up with a better flying, stronger plane.



#1 All you will receive with the TOC Aviation Edge 540 Profile kit



#2 Start by centering all the CA hinges in slots and applying thin CA (Do not use kicker on hinges)



#3 Now we will start with the wings, Cut away areas for the servos attach a 12in servo extension to servo lead and install in both wing halves. Then find the predrilled holes in aileron hard points. Cut away covering and install supplied horns (8:32 Screws) And thread on the nylon horn clevis.



#4 Select preferred pushrod and install with preferred rod ends and the wings are done!



#5 Pre fit your stab assy., After you get it in position you then mark it and cut away the covering leaving about 1/16th of covering so that the wood won't show. Then glue in using 30min epoxy. Making sure it remains straight while drying.



#6 Time to install the rudder. Follow the same procedures you used on the stab and wings concerning the hinges



#7 Find the hard point hole in the elevator and install horn in it as well (this screw is shorter for the elevator horn) You may choose what side you want your servo on and then cut out hole in elevator to match. You will need a 24in servo for the elevator servo. Cut away covering and install elevator servo, And pushrod then adjust.



#8 Cut away covering on bottom rear of fuse for the rudder servo and install servo with a 18in extension find the hole in the hard point this will go all the way through the rudder. Install the 8:32 stud with nuts on both sites and install the pull-pull cables and adjust.





#9 Install the tail wheel assy. This is simple, Install the provided wood screws and install the threaded eyelet in the rudder. I glued a 1in piece fuel tubing to the wire and stick it in the eyelet. Install the provided wheel with the provided collars...Done!



#10 Land gear, Position your landing as shown and drill 2 8:32 holes then use the (2) provided screws and nuts to secure to fuse.



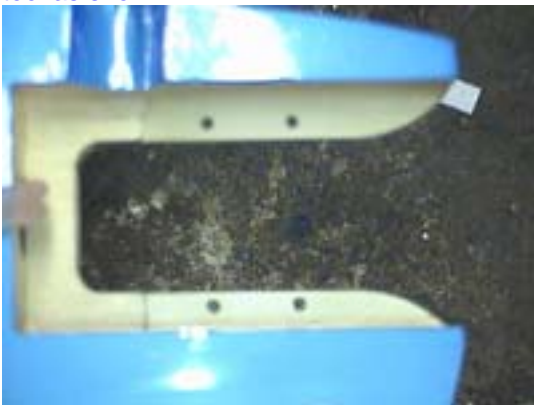
#11 Using the (2) axles (screws) with the provided collars, Install the 2 wheels leaving a space of approx 7/16th of inch out from landing gear, This will center your wheels in the wheel pants.



#12 Installing wheel pants, You must first install the (2) provided 1in hardwood blocks inside the pants. First rough up the side of each pant and block then use 30 min epoxy after dry grind a u-grove to allow for axle to clear. Place plane of level ground and place wheel pants up to landing gear allowing a 1 inch space from rear of pants and ground then mark pants with pen and drill and install your 440 blind nuts and install 440 screws making sure they clear wheel (I use 1/16th slice of fuel tubing between washer and pant on the screws to keep them vibrating loose)



#13 Lets now mount the motor, I used the Saito 100. First lay in your motor centering it in the hardwood mounting area, Then mark using a Deadcenter tool as shown



#14 Drill (4) 8:32 holes and mount using 4 8:32X1inch screws with nylock nuts and washers. I found no additional right thrust was needed, However you may want to experiment.



#15 Cut away covering exposing the area for the throttle servo. You will need a 12-18in extension (depending where you mount your receiver) Mount servo and make up a throttle pushrod (I used a 2:56 With a NYLON clevis) Bend and adjust. Done!



#16 Your motor job should be completed and look something like this



#17 Assemble fuel tank (Do not use the aluminum tubing, Replace with brass) Install in area shown using some foam around the tank. Being careful not to raise tank too high so canopy won't fit down on fuse. Run fuel lines through the 1in hole and plumb motor.

#18 Install your receiver and battery pack in a normal fashion approx the center of open area in fuse (Depending what motor is used for the C.G.) install on-off switch in side of fuse and you are now ready to install the wings and set the (Center of gravity...aka C.G.) Use the (2) provided nylon thumb screws for attaching the wing halves (you may need to shorten them up to 3/4 of an inch. (I used 1/4 20 studs with nuts and washers)

#19 you can play with your C.G. setting however Start at 33% back from the leading edge of wing 1.5 inches out from fuse

#20 Now that your plane is complete Please go over the entire plane before flying with a monocoat iron using a sock and approx 350deg to reseal all surfaces.



#21 Enjoy your TOC Aviation Edge 540 profile plane and fly safely and have fun

[Thank you for choosing TOC Aviation, Dave Sullivan](#)

Helpful hints: Use large diameter low pitch prop as recommended by your engine manufacturer. DO NOT fly this aircraft at high speeds. As with all 3D aircraft with extra large control surfaces, slow flight MUST be maintained to prevent dangerous flutter. After several flights, adjust Center of Gravity to suit your flying style...slowly moving the C.G. rearward will increase its ability to 3D, but will also make the aircraft less stable for beginner pilots. Run your sealing iron over all the seams and edges at a medium-high heat setting, dress it up with your favorite graphics and HAVE FUN!