



X-ray View

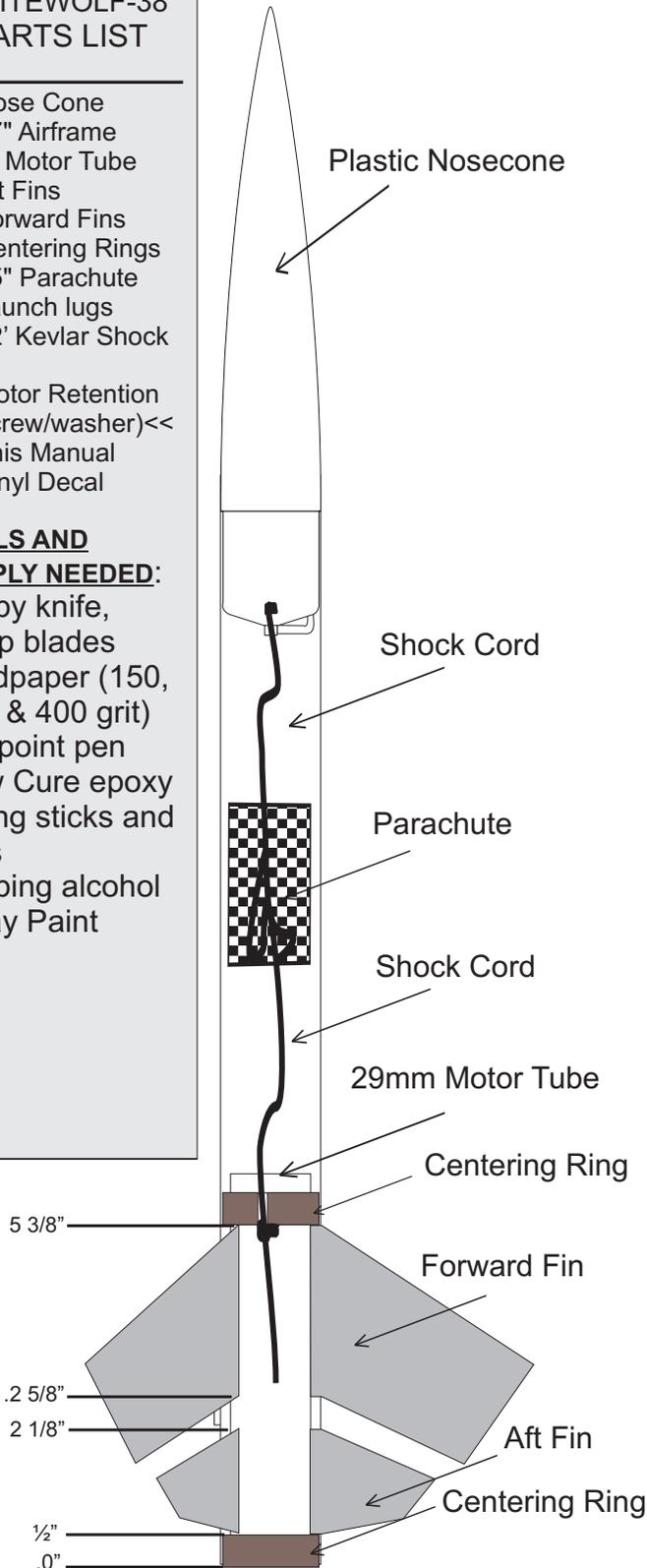
WHITEWOLF-38 PARTS LIST

- 1 - Nose Cone
- 1 - 17" Airframe
- 1 - 6" Motor Tube
- 3 - Aft Fins
- 3 - Forward Fins
- 2 - Centering Rings
- 1 - 15" Parachute
- 2 - launch lugs
- 1 - 12' Kevlar Shock Cord
- 1 - Motor Retention >>(screw/washer)<<
- 1 - This Manual
- 1 - Vinyl Decal

TOOLS AND

SUPPLY NEEDED:

- Hobby knife, sharp blades
- Sandpaper (150, 220, & 400 grit)
- Ball point pen
- Slow Cure epoxy
- Mixing sticks and cups
- Rubbing alcohol
- Spray Paint



WHITE WOLF

MID POWER MODEL ROCKET KIT

BUILDING INSTRUCTIONS

KIT SPECIFICATIONS:

- DIAMETER: 38mm
- LENGTH: 25"
- WEIGHT: 9 oz. (No motor)
- MOTOR MOUNT: 29mm
- RECOVERY: Motor ejection, 15 parachute
- REC. MOTORS: D thru H

This high-performance 38mm White-Wolf is designed to use most 29mm motors (CTI, AT).

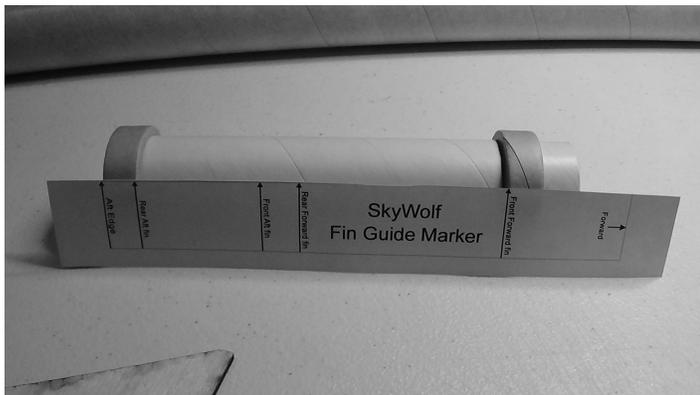
Kit comes complete with: Nose Cone, Airframe Laser cut Plywood fins, Center rings, Shock Cord, parachute and a complete Vinyl Decals.

With a proper build, She will Whistle while she works!



Build light! Every ounce you save building this rocket kit will add up to increased performance. When using glue, use enough to secure the joint - don't build up too much!

□ STEP 1: Remove all parts from the bag and inspect them. Familiarize yourself with each part and, if necessary, mark each part so that you can quickly identify it later. Make sure you check all packing material for small parts! If any parts are missing, Email us and we'll be glad to get you replacements. Check the parts fit and LIGHTLY sand as necessary.

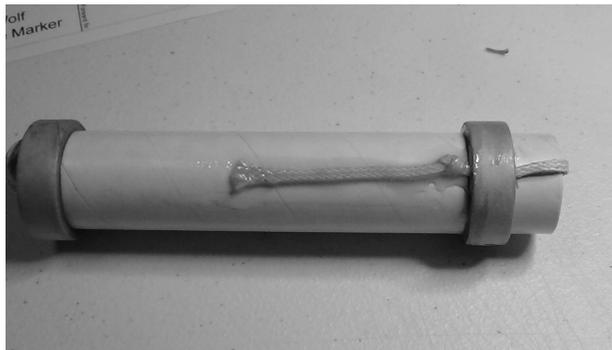


□ STEP 2: Locate the (2) 29mm to 38mm Centering Rings, Motor Tube and Fin guide Mark located on the last page of these instruction. Slide one centering ring onto the tube, line it up flush with one end of the motor tube. Epoxy it in place and allow it to cure.

Slide a second centering ring on to the other end of the motor tube. Do not glue the ring yet! Using the fin guide marker to move the CR into it's position shown and marked it's place., slide it back off.



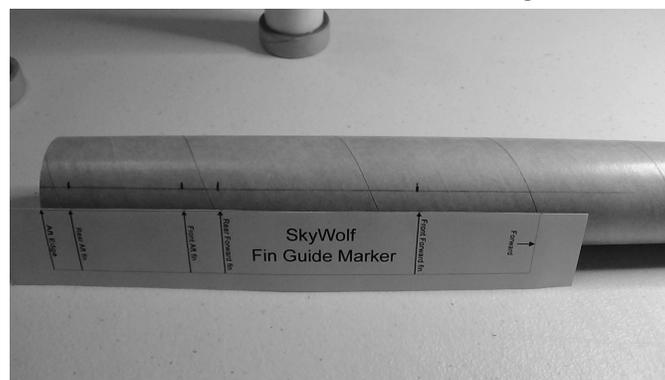
With a sharp Exacto blade remove a 1/8" section from the inside the forward centering ring. This will allow the shock cord to pass thru that centering ring. Get the shock cord and tie a tight knot 3" from one end and test fit it into the motor tube assembly, with the knot pull up against the forward centering ring, make sure it can not pull thru the CR.



Mix up some epoxy and soak the end of the shock cord up to the knot and place it back on to the motor tube as marked before, using some black tape to hold the shock cord tight against the motor tube, make sure that the knot is not higher than the centering ring. Allow to fully cure, then remove the tape.



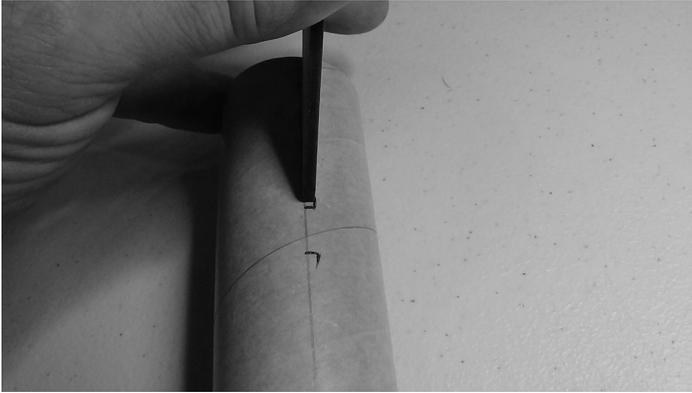
□ STEP 3 Get the airframe section and notice the pre-drawn marks, (3) fins lines and a line with a "L" marked on it, the launch lug line.



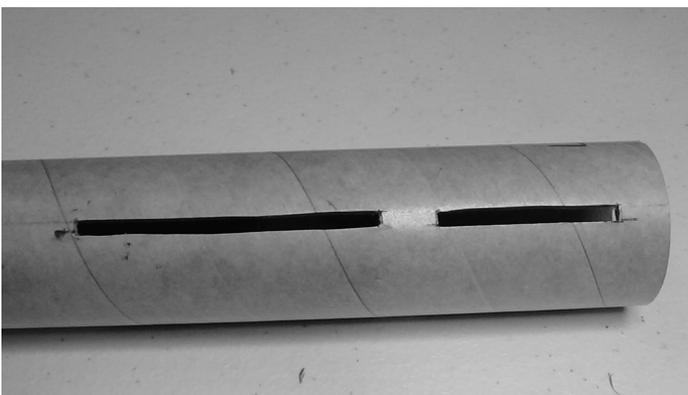
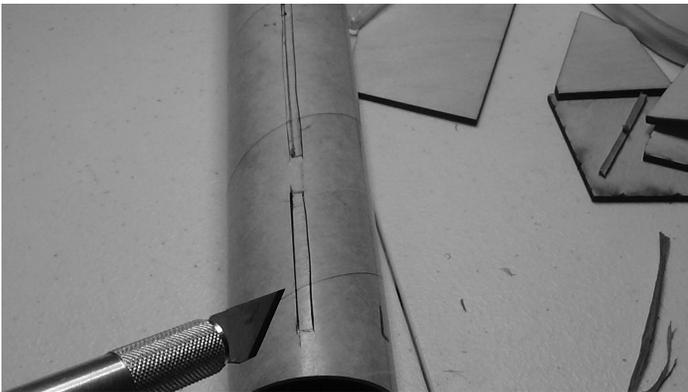
□ STEP 4: Next we'll add the cross mark line for the cutout areas. Line up the fin guide marker to the bottom(aft) edge of the airframe. Place the (4) cross marks on all (3) fin marking on the airframe

Cutting the fin slots

□ STEP 5 The best way to mark the thickness of you cut is??? A fin, line one side up along the premarked line and in between the marks you just added and mark the opposite side.



Now you have your cut out area's. Should look like below. Time for the cuts, Do this slowly, use multiple passes and cut lightly (3 to 5 passes) with a very sharp or new Exacto blade. Again, TAKE your time.



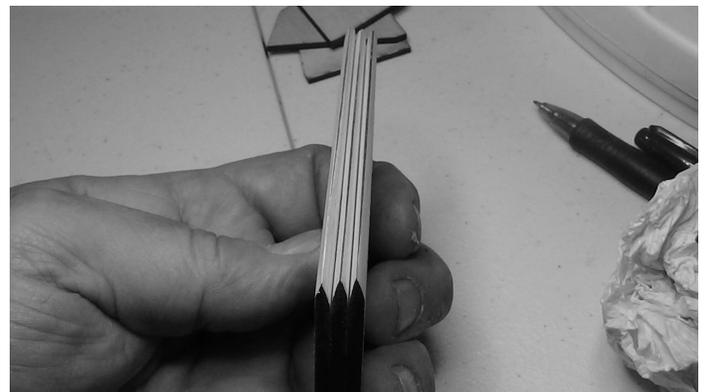
End results should look like this. Finish the rest of fin cutouts. Try sliding in the motor tube assembly, it should fit and line up with the fin cuts, if not, adjust the fin cuts to fit.

Motor tube installation

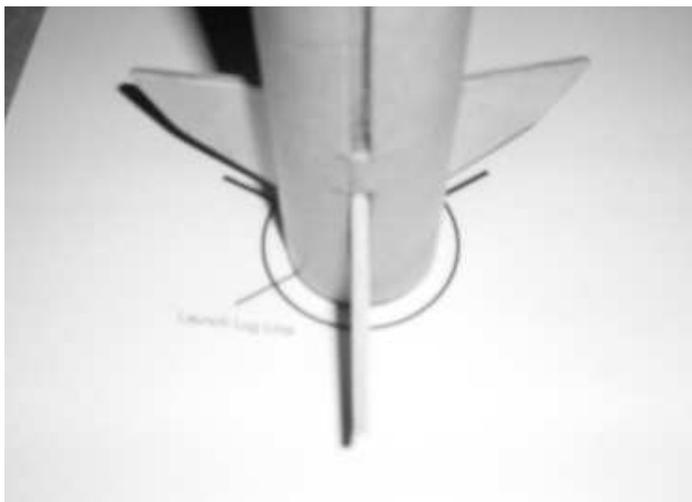
□ STEP 6: Now that you've test fit the motor tube assembly in the airframe, it time to install. Stuff the shock cord inside the motor tube and set aside for a minute and mix up some epoxy, using a long stick apply and 1/4" bead around the whole tube, just in front of the top fin slot. Insert the motor tube in shock cord end first (sorry, just had to say that) slide it in till the aft centering ring is 1" from the airframe. Add some more epoxy around the inside at the base then push in until the bottoms of both airframe and motor tube are flush, Take your finger and twist the motor tube till all fins shot are clear of the shock cords glue mount (we want that between the fins). Wipe off any excess epoxy around or in the fin slots (try using a tooth pick), Set to the side standing aft end down and let fully cure.

Fin prep and installation

□ STEP 7: get the forward fins and sand the front edge to your desired shape (TIP: just small taper to the fins has a better effect for making a whistling sound) and finish sand the rest with like 400 sand paper. Finish sand the aft fins only, leave all fin edges very square.

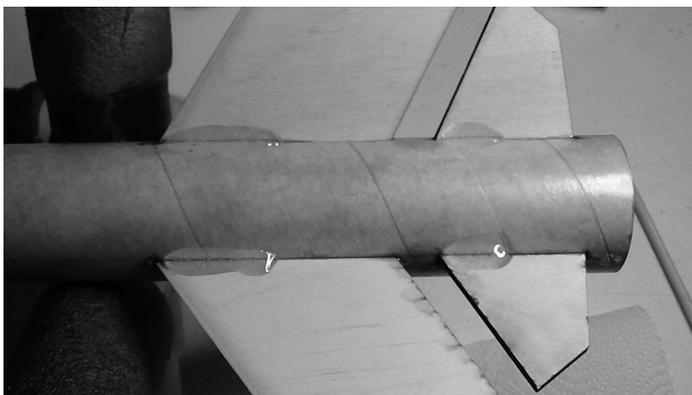


Mix up a batch of epoxy and start with the aft fins first, apply a small bead of epoxy inside each lower fin slots on the motor tube using a thin popsicle stick (toothpick). Now, one at a time apply a small bead along the root edge of the aft fins and install them in each aft fin slot.. Wipe off any excess epoxy. Set the rocket base over the fin guide again.(Remember it, last page of the instruction) Looking down on it, making sure it's centered and fin slots are inline with the fin line on the guide, move the fins till all line up correctly, hold them with tape if necessary. Let them fully cure!



□ STEP 8: Forward fins next, you'll need a couple of popsicle type sticks and small spring clamps or tape. Mix up a batch of epoxy, apply a small bead of epoxy inside each forward fin slots on the motor tube using a tooth pick. Now, one at a time apply a small bead along the root edge of the aft fins and install them in each aft fin slot and use a popsicle stick to hold the fins in place and straight to the aft fins. Spring clamps are great for this, using one clamp to hold the stick to the aft fin and one to hold the forward fin. Repeat this for all (3) forward fins , wipe off any excess epoxy it this time, stand aft end down and let fully cure.

□ STEP 9: Working on two fins set at a time, you will now add the fillets to the fins. These will add strength as well as improve the aerodynamics and appearance of your model. , Wipe clean with rubbing alcohol the fillet areas. Mix up a batch of slow cure epoxy, add Milled Fiber for extra strength. Apply a good size bead of epoxy at the joint of the fins and airframe tube. Dip your finger in some rubbing alcohol and smooth out the epoxy at this joint until you have created about a 1/8" fillet of epoxy. Keep running your finger down the fillet until it is smooth. The rubbing alcohol is great for cleaning your fingers after this procedure too!



Allow epoxy to fully cure, and rotate the Airframe and repeat this process on the next two fins. Repeat this process until all the fins are filleted. Allow all epoxy to completely cure before standing the rocket upright!

□ STEP 10: Time to mount the Launch lugs. Get the two provided 1/4" launch lug. Pickup the airframe and locate the launch lug line you drew previously and make a cross mark 1" in from aft ends and 3" from the forward end. Mixup a small amount of epoxy and coat one side of each lug and place it on the airframe with the mark lined up with the outside ends. Use a launch rod and tape to hold those lugs inline with each other and straight to the airframe. (A really straight piece of coat hanger will work too.) Lay on it's side with the lugs facing up and let fully cure, again clean off any extra glue.

Prepping and Painting

□ STEP 11: Using 200 grit or finer sand all fins, fin joints (fillets) and lug areas . Remove all imperfections and sand till smooth to the touch. Do the same on the nose cone to remove casting marks, but try to use a finer sand paper like a 400 grit and leave no scratch marks on the nose cone (this will make it harder to paint and require more coats).

□ STEP 12: Paint a good quality primer coat on the airframe and nose cone, let fully dry lightly sand again with 400 grit paper. Repeat this process till your happy with the end results. Wipe down the airframe with alcohol on a dust free cloth . Now comes the time to select your colors. The colors used should be so the black decal will show up nicely).

□ STEP 13: Again using Tape and newspaper, coverup anything below the top 4" of the airframe and place the nose cone on top . Wipe down the exposed airframe with a dust free cloth. I suggest using a gloss black paint here, apply many light coats till your happy with the result. Let fully dry and remove all tape and covering.

Applying Decals

STEP 14: Cut out each decal on the black decal sheet as close to the decal edge as possible. On the fin decals also notice the difference between fin sides and maybe even separate them into different piles for easy application. The decals are really quite simple to apply. Decide where the graphics will be located on the airframe and fins. Carefully peel the application tape (the semitransparent part) away from the backing. **THE VINYL LETTERS WILL COME UP WITH THE APPLICATION TAPE - THIS IS GOOD!** This also exposes the adhesive on the vinyl. Take your time - once you've applied the decal to a surface, they are **stuck!** Make sure you line everything up over the tube or fins before allowing the vinyl to contact it! Finally get the 1" wide holographic strip, peel the tape backing off and place it evenly around the spot where the black and other color meet (4" down from the forward airframe). Try to get the meeting the the two color in the middle of the tape and rap it all the way around the tube, some will overlap. Your done, place the nose cone on and take a good look, you've got a rocket!

Nose Cone cord mounting



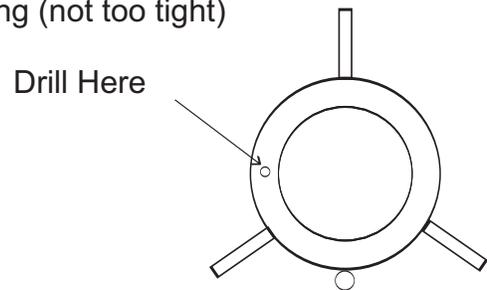
□ STEP 15: Remove the nose cone and pull out the shock cord. Cut off 9" of the shock cord end. Using a 1/4" drill bit , drill (2) hole in the base of the NC as shown above. (We don't trust the cord loop provided!), Thread the 9" piece of shock cord thru the (2) hole and tie the (2) end together in a knot, Drop a bit of CA on the knot and let dry.

□ STEP 16: Take the open end of shock cord and Tie it into loop (big enough to fit over the NC with a good knot and maybe even put a drop or two of CA on the knot, let fully dry! Then measure down the cord about 2 ½ feet and make a 2" loop knot there, this is for the parachute, and a drop of CA here too!

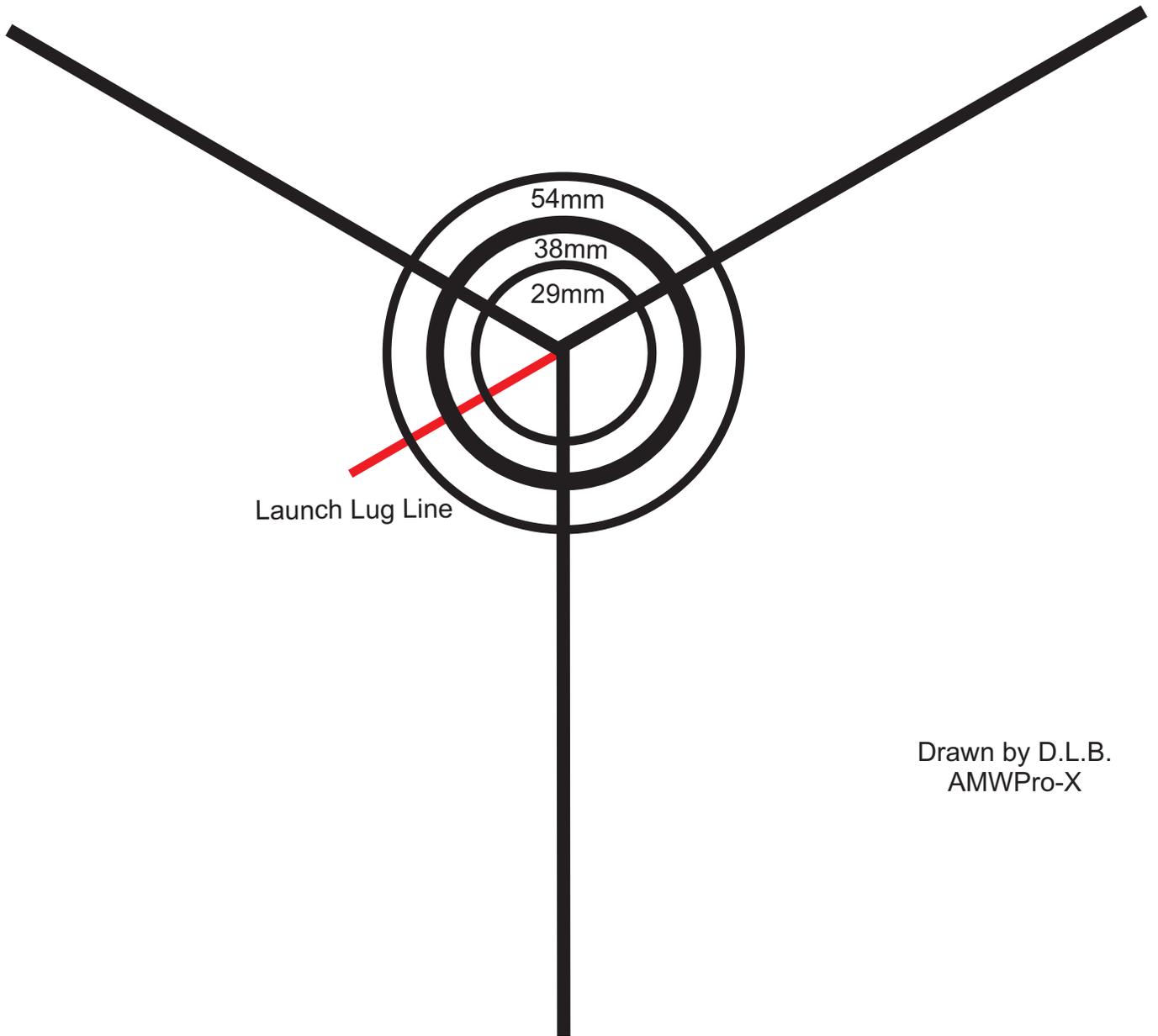
Get the Parachute and unfold and straighten the chute cord out and find the centers, form them into a loop. Insert the the parachute loop thru the shock cord loop, then pull the parachute thru the parachutes loop and pull tight, but even.

Motor retainers

□ STEP 17: Finally the last thing to do!!!! Using a drill and a 1/16" bit, drill (2) hole in the aft end centering ring in the center of opposing quadrants , like below and ½" deep . Locate the screw and washer and screw them in for safe keeping (not too tight)



White-Wolf's 3 Fin Alignment Guides



Drawn by D.L.B.
AMWPro-X

