

## Wildman Mini me's !!!!

Introducing the latest addition to the Wildman Fleet. The Wild Child & it's brother the DarkStar mini. Wildman decided to shrink the 2 most popular rockets to fill the void for mid power flier's.

Finally a fiberglass rocket that suites the needs of mid-power fliers. Having all the fine attributes of their high power big brothers.

Von Karmen nose cones, 38mm light weight spiral wound G-12 body tubes, 29mm motor mounts, Kevlar shock cords and Topflight premium nylon chutes.

Designed to fly on motors from E,F,G and up, 24mm & 29mm. And at a very affordable price!

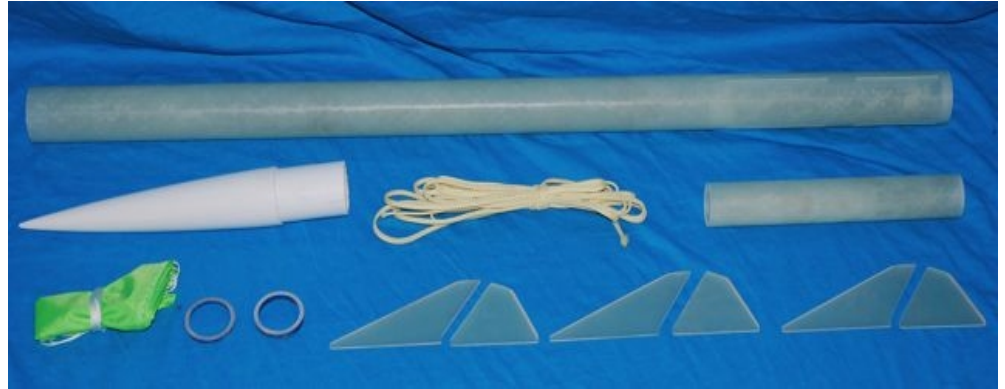
Assembled with 5 minute epoxy or the new Foam it & Fly it technique developed by the Wildman himself, shown as an optional build method in this manual. You decide....be mild or be WILD when you build!

These 2 kits build the same except for the fins, as you will see.



## The Parts.... DarkStar mini.

38mm G-12 body tube  
3 upper fins  
3 lower fins  
29mm motor tube  
Von Karmen NC  
2 centering rings  
Kevlar shock cord  
15 in. Topflight chute



## Wild Child - Wildman mini



38mm G-12 body tube  
3 fins  
29mm motor tube  
Von Karmen NC  
2 centering rings  
Kevlar shock cord  
15in. Topflight chute

Needed to complete:

60-80 grit sandpaper - for epoxy adhesion  
CA [superglue]  
5,10 or 15 minute epoxy  
primer, paint & sandpaper to paint.

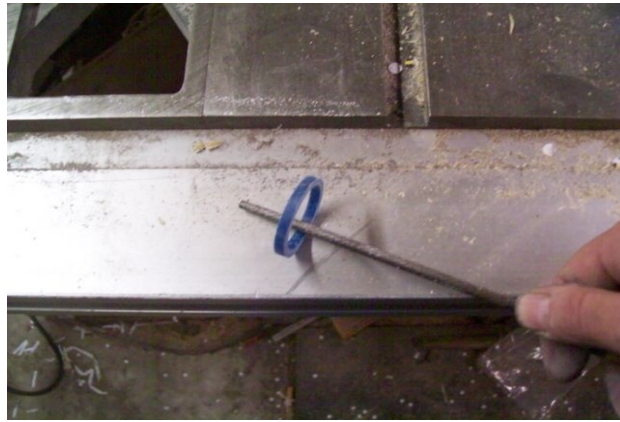
A word to first time fiberglass kit builders: it is very important to sand ALL areas that will be epoxied with 60-80 grit sandpaper. Unlike cardboard tubes, where the glue soaks in, epoxy adheres to fiberglass when the parts are sanded well. The rougher the contact areas, the better the adhesion! If you are using the traditional epoxy method be sure to sand fins, centering rings, motor tube and inside of airframe where parts meet and will be bonded.

Should you decide to try the Foam method, this is not needed. [sanding]  
But you will need 2-part foam, mixing cup, CA and a syringe.

**Read the manual first, decide which build method to use, then come back and start!**

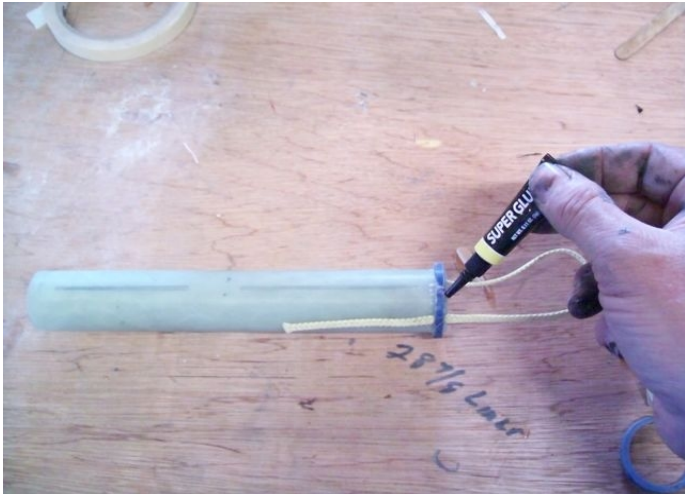
Check the fit of fins into the slots and centering rings on the motor tube & in the airframe. Sand where needed to fit.

The top CR will need a small notch filed or sanded on the inside to allow the shock cord to fit when glued to motor mount for recovery.



### TRADITIONAL EPOXY BUILD METHOD:

Sand exterior of motor mount with 60/80 grit. Position shock cord on tube and slide CR over it into position  $\frac{1}{4}$  from edge of tube. Tack CR on with superglue.



Then encapsulate the shock cord with epoxy. Epoxy top edge of CR to tube also. Don't get any inside or the motor won't fit!

Sand both sides of all fin slots for fillet adhesion. Sand inside of airframe where CR's will be glued. Wrapping a dowel with sandpaper will make this easier. Tuck the excess shockcord into the motor mount to keep it out of the way.

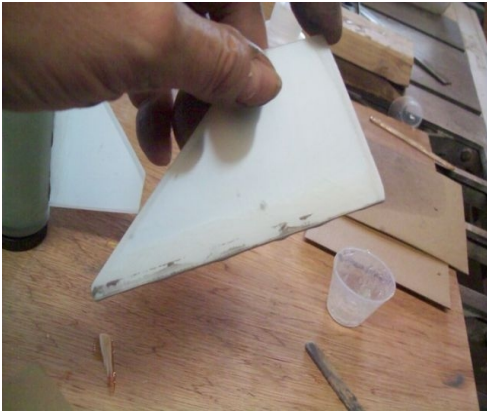


If using an Aero-pac for motor retention, first slide the rear CR on then epoxy the retainer on. Butt the CR up to front side of retainer and glue.

Slide MM assembly into airframe, **make sure to have shock cord BETWEEN the fin slots or fins won't fit.** Align the centering rings so fins will fit in between them when placed in slots.



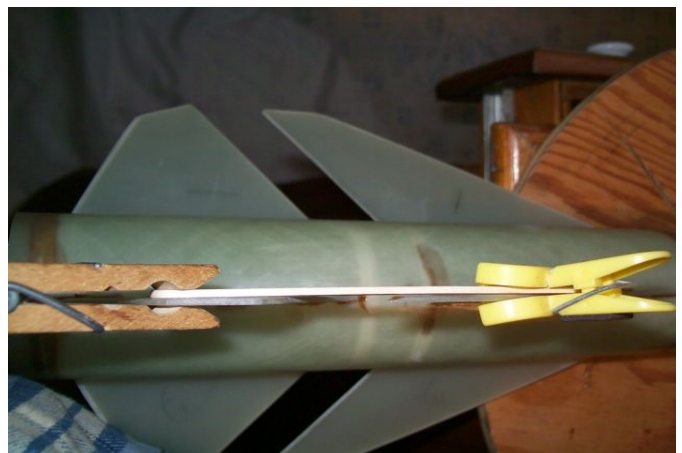
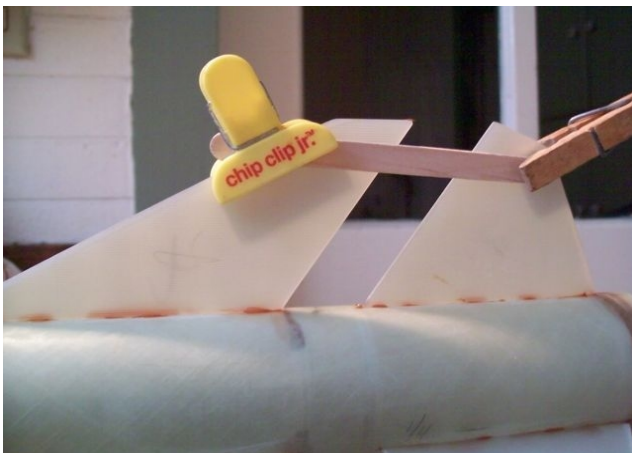
Wild Child :place bead of epoxy on bottom edge of fin, place into slot and align. Repeat for other 2 fins.



For DarkStar tack bottom 3 fins on first, set aside to cure.



Then using cloths pin, chip clip, clamp, etc and a popsicle stick or other small straight edge, tack and align the upper 3 fins.



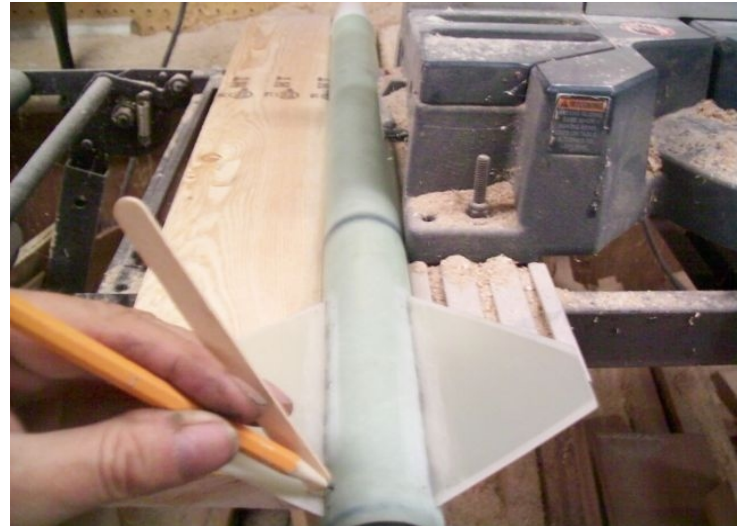
External fillets:

Simple as: a small bead of epoxy placed in the V-groove between fin & body tube .

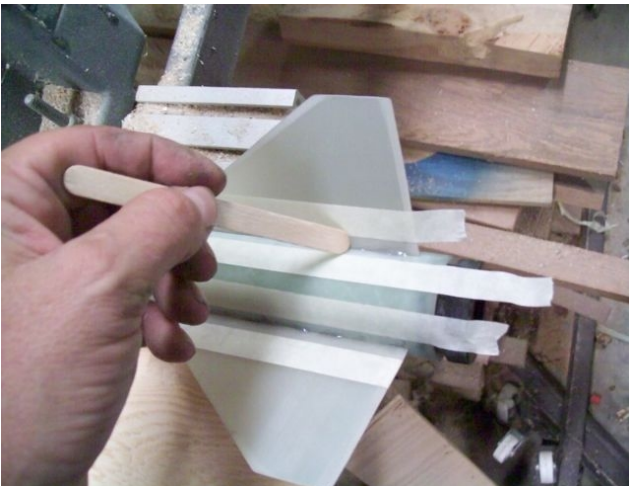
Or taped and smoothed with stick.

Use stick to mark where tape will go on fin and tube. Tape keeps excess epoxy from making a mess!

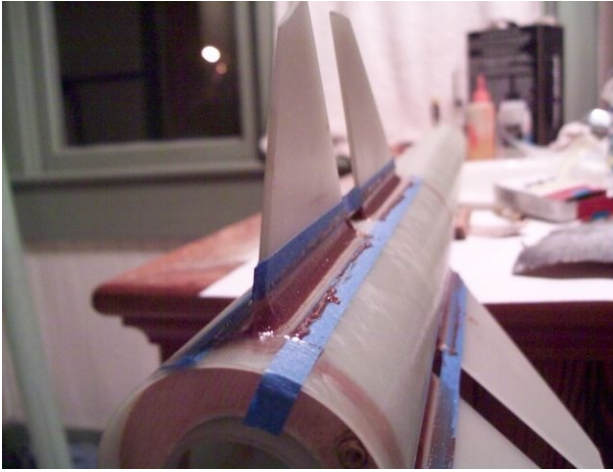
Mark on front and rear of fin where stick touches in V-groove. Same on body tube.



Tape where marks and edge will touch stick.



Place small amount of epoxy in grooves and smooth with rounded edge of stick. You may also thicken epoxy with filler if too runny. Either way, keep fillets tiny, you do not want to add unneeded weight! Epoxy darkened to make it easier to see.



Remove tape before epoxy fully hardens or it will become difficult.

## FOAM IT AND FLY METHOD!

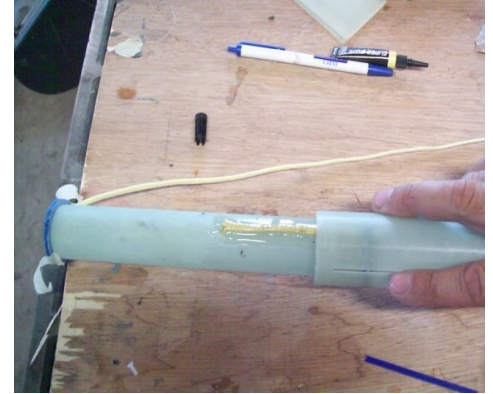
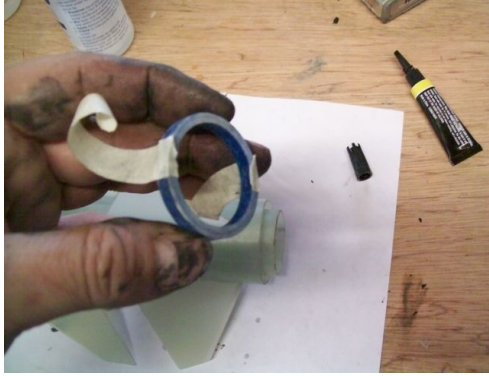
Using CA and 2-part foam.

Sand exterior of MM tube and slide CR over shock cord. Tack the shock cord on with superglue and use the CA to glue on the top CR  $\frac{1}{4}$  from top of MM. There is no need to sand anything else!!



Place 2 tape tabs on rear CR so you can remove it.  
Slide CR on end of MM DO NOT GLUE IT! You will take it off to use foam.

Place assembly into rear of tube. Align so CR's are at front and rear of slots. Leave  $\frac{1}{4}$  in. of motor mount extended out rear to install Aero-Pac if you are using one. Install AFTER foam!!

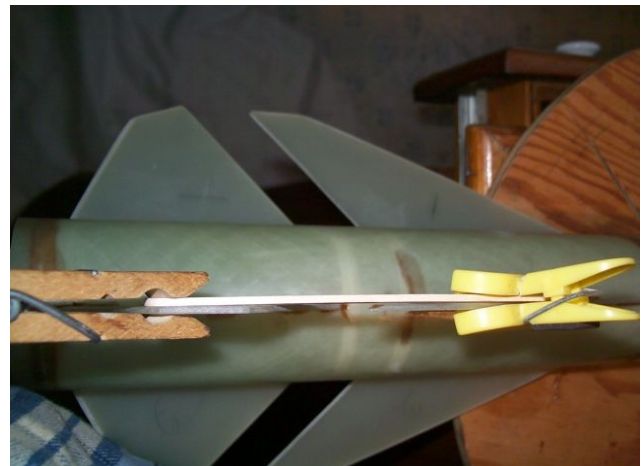
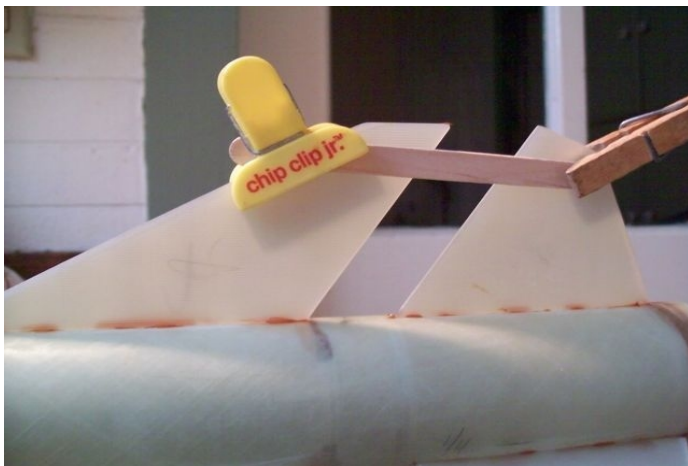


Make sure the rear CR is a loose fit so you can remove it with the tape tabs!

Place a few drops of CA on bottom of fin and align it and tack into position. Do other 2 fins.



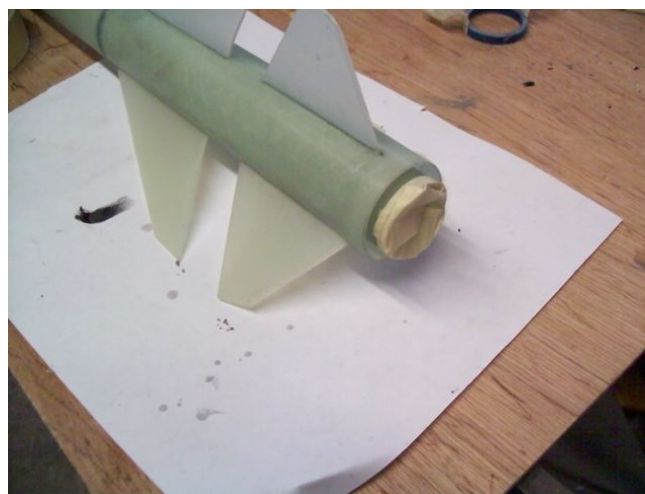
For the DarkStar do the bottom 3 fins first. Then use the clip, stick method described earlier to align upper and lower fins.





When using the CA to tack fins on: be careful NOT to get any on the rear CR! Don't tilt the airframe towards the rear CR so the superglue can run along a fin edge and glue the CR in! Use the Ca sparingly. Only need a drop or 2 per fin. This is just to hold the motor mount tube in position, then you pull out the rear centering ring, so you can pour in foam.

Now carefully remove the rear centering ring by gently pulling on the tape tabs. Then tape end of motor mount so no foam gets inside.[pic of DarkStar, same for Wild Child]



Prop up the airframe in the vertical position to hold steady while filling with 2-part foam.



It takes 30ml [or cc, they are the same]of foam to fill the fincan, 15ml of part A and 15ml of part B. You must work fast,once you start mixing, the foam will begin to rise in 45 seconds to 1 minute depending on the temperature. Cut tip of syringe so you have a larger hole to work with if yours has a tiny one. Don't cut off too much, it still must fit between the airframe and motor mount tube.

Remove the plunger. Cover the hole in tip with one finger and pour the mixed foam into the syringe, about  $\frac{3}{4}$  full, place plunger back into hypo &

inject into the spaces between the fins. You will have to remove plunger and refill to use it all. **Do NOT try and suck the foam up into the syringe with the plunger, you will have a mess!** Let sit till the foam expands and fill all the space around the fins. It will probably expand out the end and out some of the spaces around the fin slots. This IS normal. **Do not try to wipe it off or stop it.** Let the process run it's course. Usually about 30-45 minutes before full cure depending on temperature.

Once the foam has finished expanding & cured, the excess can be scraped off and residue easily sanded off.

Add 15 ml part A foam.

Add 15 ml part B foam.

Mix for 30-40 seconds rapidly till it looks like coffee & cream.



Cover tip, pour foam into syringe.

Inject between fin & airframe.

Repeat for other 2 fins.



Let foam rise and set for 30-40 minutes. When cured it will be easy to scrape or cut off excess and sand residue.



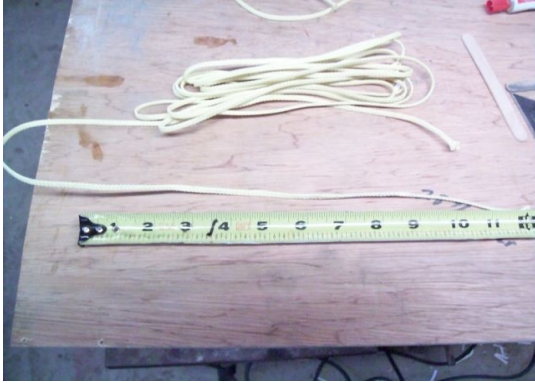
Finished fincan cleaned up and ready for next step. It is not necessary to use rear centering ring if foam is trimmed up neatly. Or you can install it if you wish. Just remove enough foam to get it in.



If using an Aero-Pac for motor retention, epoxy it on the motor mount tube now. They require  $\frac{1}{4}$  in of exposed MM to glue on to. Sand any residue foam off MM and epoxy on.

Cut 10-12 inches of Kevlar off supplied. Tie overhand knot to create loop.

If using epoxy method , then use 5 minute epoxy to glue ends on.

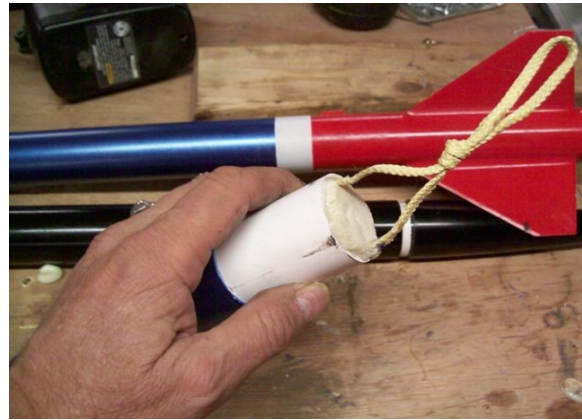


If using foam, just tack the kevlar on with CA.

Prop up the NC vertical.

Mix 8 ml part A foam & 8 ml Part B foam and pour into NC.

Wait 30 minutes till cure and trim excess foam off NC.



Glue  $\frac{1}{4}$  in. diameter launch lugs,  $\frac{3}{4}$  long, centered between the fins. One at rear of fincan & one just above front of fins. [ Or rail buttons]



Attach shock cord to nose cone. Measure 2 feet from nose cone tie loop in Kevlar, and attach Topflight parachute.



Congratulations your finished,welcome to the Wildman club.  
Now go fly your Wild Child or Darkstar mini!

