

# Arreauxnot - Streamer Duration (F&G Impulse Classes)

G Streamer Duration: **2 min, 48 seconds**

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## Materials Needed for Arreauxnot:

Item	Source	Part #	Price
Balsa Nose Cone	ASP Rocketry	BNC 60MS	\$4.50
30" BT-60 Body Tube	ASP Rocketry	T-60	3.50
1/8" Basswood	Your Hobby Store	N/A	.00*
Steel Cable Shock Cord Mount – 120 lb.	ASP Rocketry	SCM 120-36	5.75
10' of 1/2" Flat Elastic Shock Cord	ASP Rocketry	FE 1/2 -10	2.12
5 ft. of Kevlar Safety Line – 250 lb.	Pratt Hobbies	SL2-C	.75
Large Screw Eye	Home Depot	N/A	.50
1/2" 29mm Thrust Ring	Sawed off an old 29mm motor casing		.00
29mm to 38mm centering ring	ASP Rocketry	LCR 29-38	2.25
1/8" Brass Rod (for engine hook)	Home Depot	N/A	1.35
1/4" Launch Lugs (2) 1" long each	ASP Rocketry	LL 1/4 -6	1.80
29mm tube (for engine)	ASP Rocketry	T-29	5.50
WorldTex Fabric Covering Material (for Streamer)	Your Hobby Store	N/A	12.99
<i>(Or you can try Cover-rite 21<sup>st</sup> Century Fabric – Black 15' from Tower Hobbies # 8410 – \$39.99)</i>			
C/A glue	Your Hobby Store	N/A	.00*
Tite-Bond Wood Glue	Your Hobby Store	N/A	.00*
5 min Epoxy	Your Hobby Store	N/A	.00*
<b>Total Cost:</b>			<b>\$41.01</b>

\* Cost of these materials are negligible because only a small quantity of what you purchased is used. 3"x24" piece of Basswood is \$2.19.

You can order most of these materials at:

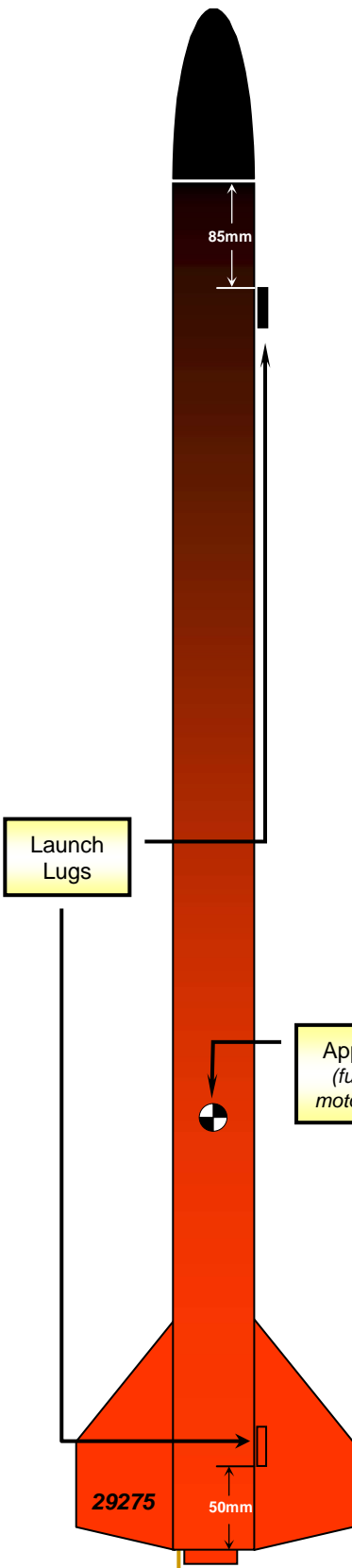
ASP Rocketry: [www.asp-rocketry.com](http://www.asp-rocketry.com)

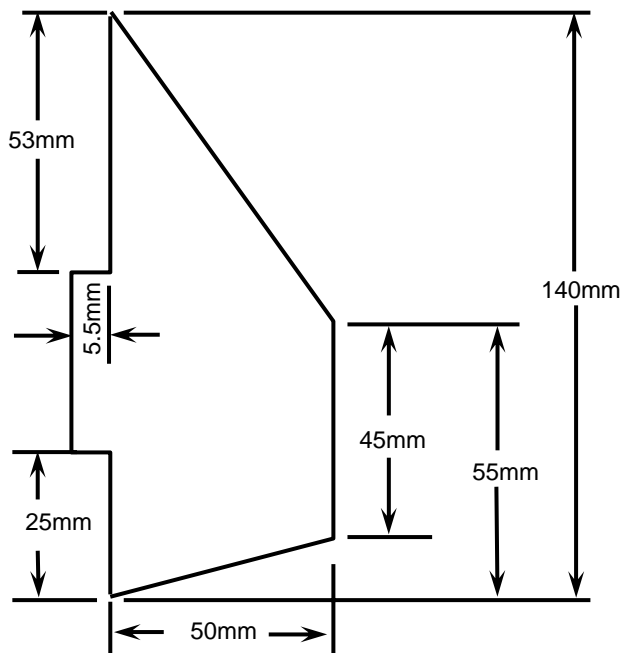
**NOTE:** If you can't find the WorldTex Fabric Covering at your Hobby Store, you can call World Engines at (513) 793-5900

## How to Build Arreauxnot:

1. Sand nose cone with 320 sandpaper, apply 50/50 thinned dope. Let dry and repeat two more times. Finish by sanding with 400 sandpaper.
2. Paint nose cone with a light coat of gray primer. Sand with 320 sandpaper until almost all of the primer is off. Use fine steel wool and polish until glossy.
3. Sand body tube with 200, then 320, then 400 sandpaper.
4. See fin diagram on the next page as these are through-the-wall fins. Cut fins out and sand with 320 sandpaper. You may streamline them if you have a few hours spare time, but I just left all the edges square. Apply 50/50 thinned dope (only 1 coat). Let dry and sand with 400 sandpaper

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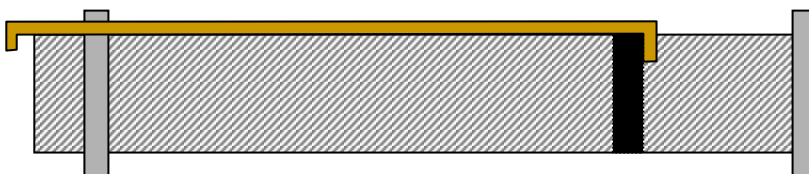




**NOTE:** Drawing of Fin not to scale. Do not use as template.

### How to Build Arreauxnot (Cont'd):

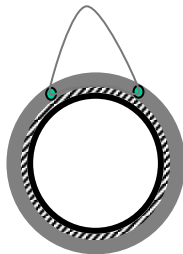
5. Draw lines on body tube for launch lugs and fins. Mark where you are going to cut through the body tube, but don't cut through it yet.
6. Time to assemble the motor assembly! Cut 175mm of the 29mm tube. Cut off two 13mm pieces of the 29mm/38mm centering ring. Cut out a 1/8 inch notch in one of the centering rings (the engine hook goes through here).
7. Cut off about 150mm of the 1/8" brass rod and bend so it is 135mm long (see diagram below). The bent end that will be at the end of the rocket (the part near the exhaust nozzle of the engine) should be 5mm long and the bent end that goes into the 29mm tube should be about 10 mm long. This is the Engine Hook.
8. Drill a 1/8" hole in the 29mm tube about 122mm from the end for the Engine Hook. Insert Hook into body tube and tape in near top of tube.
9. Slide the centering with no notch in it on the top of the tube and C/A on. Once dry, add two coats of Tite-Bond fillets to each side where the centering ring meets the motor assembly and let dry.
10. Slide bottom centering ring on (the one the notch) onto bottom of assembly and C/A 13mm from the bottom of assembly. Once dry, add two coats of Tite-Bond billets to each side where the centering ring meets the motor assembly and let dry.
11. Glue thrust ring (old 29mm motor sawed off 1/2") into motor assembly. The thrust ring should slide all the way in until it touches the part of the engine hook that went through the motor assembly near the top.



**Motor Assembly**

## How to Build Arreauxnot (Cont'd):

12. Time to attach the steel cable shock cord mount. Drill two holes about 1" apart in the top centering ring. Attach as per instructions from ASP.



**NOTE:** Drawing of top part of motor assembly where steel cable is inserted. Do not use as template.

13. Slide the motor assembly into the BT-60 tube. Yes I know it's loose. Wrap tape around each of the centering rings until it is fairly snug. Feel better? Good.
14. Smear Tite-Bond (or you can use epoxy if you don't trust me) inside the BT-60 about 160mm from the end (the part with the lines for the fin draw on it).
15. Slide the motor assembly about ½ way in, making sure that the engine hook IS NOT LINED UP WITH A FIN OR LAUNCH LUG. PLACE ABOUT HALF-WAY IN-BETWEEN THE FINS!!! I made this mistake on my first model, and it was a pain to load an engine. Guess what, you learn from my mistakes.
16. Time to smear more of the Tite-Bond or epoxy on the inside of the tube (yes, near the end where you just crammed the engine assembly in). Smear it from the end, to about 13mm in. Push the motor assembly all the way in. The centering ring should be flush with the end of the BT-60.
17. Glue launch lugs to tube as per diagram on page 1 with CA. Add two fillets of Tite-Bond.
18. Cut out slots in body tube for fins. Smear Tite-Bond through the slots and onto the motor assembly. Smear glue on fin tab and fin roots as well. Glue fins to tube. When dry, add two fillets of Tite-Bond.
19. Screw the Screw Eye into nose cone. Remove and put Tite-Bond into hole. Re-Screw into nose cone.
20. Tie 10 ft. of ½" of the flat elastic shock cord to the steel cable that comes out of the body tube and attach to the nose cone. Use double knots for both and a drop of CA on the knot for good measure.
21. Insert nose cone into tube and paint model with light coat of paint (I used florescent red on bottom and feathered gloss black onto the top so that the model can be seen easily in the air **AND** on the ground).
22. Once paint is dry, sand entire rocket LIGHTLY with 400 sandpaper until a thin coat of paint remains. Then rub rocket with steel wool until shiny. OPTIONAL: Apply small amount of rubbing compound to model and work into paint. Remove any excess.
23. Time to build the streamer. I used 12 ft. of WorldTex Fabric covering, but you can pick your own material. The WorldTex covering has a texture to it much like fabric. I cut out a 12 ft. by 12 in. sheet and made 1" accordion folds at the upper 40". I CA'd some 250 lb. Kevlar safety line with knots tied into it and wrapped 3 times around the bottom end of the streamer. Folding and CA'ing the streamer around it each time I wrapped it around the streamer. Finish up with some Mylar tape to seal it.
24. Take the end of the Kevlar safety line and tie with knots to the screw eye on the nose cone. Add a few drops of CA to the knot and let dry.

### How to Fly Arreauxnot (Cont'd):

1. Squirt talcum powder into inside of body tube. Shake it all out.
2. Insert 6 or 7 full squares of Estes wadding into body tube.
3. Use your favorite poking device (pencil, launch rod, dowel, McDonalds® straw, etc...) and push wadding about 16 inches into tube.
4. S-fold the ½" elastic cord into the tube.
5. Accordion fold the top 1/3 of the streamer. Roll the rest of the streamer around this part and coat with a little talcum powder and push into tube. Make sure that the end with the Kevlar cord goes in last.
6. Add a square of wadding, and then squirt a lot of tracking powder into tube. Push in remaining bit of Kevlar and insert nose cone.
7. Fly from ¼" rod for best results. Make sure to rub off any residue from previous flight out of the tower with some steel wool.