

About Semroc

Semroc Astronautics Corporation was started by Carl McLawhorn in his college dorm at North Carolina State University in November, 1967. Convincing a small group of investors in his home town of Ayden, North Carolina to invest in a small corporation, the company was re-incorporated as Semroc Astronautics Corporation on December 31, 1969.

Semroc produced a full line of model rocket kits and motors. At its peak, Semroc had twenty-five full time employees working at two facilities. One was for research and development, printing, shipping, and administration. The other was outside of town and handled all production and model rocket motor manufacturing. For several years, Semroc successfully sold model rocket kits, supplies, and motors by mail-order and in hobby shops. In early 1971, Semroc became insolvent and had to close its doors.

After 31 years of dreams and preparations, Semroc Astronautics Corporation was reincorporated on April 2, 2002 with a strong commitment to helping put the fun back into model rocketry. Many years of excellent service to the rocketry community passed by until sadly, on August 11 2013, Carl passed away and left a great void in the hearts of many rocketeers. He is forever in our hearts and minds.

In February of 2015, Semroc was sold to eRockets and moved to Dayton, Ohio where it resides today. It is our goal to continue the level of service and dedication to the hobby that Carl and his family were so well known for. We strive to serve you, our customers, to the best of our abilities as we carry the vision of Carl McLawhorn boldly into the future.

About the Visitor™

The Visitor is the creation of Jim Z. He completed this design a few years ago but it was never put into production. We at Semroc are glad to see this creative rocket finally see the light of day!

What is that up in the sky? Look at those odd fins and that aerodynamic design! Is it even from this world?

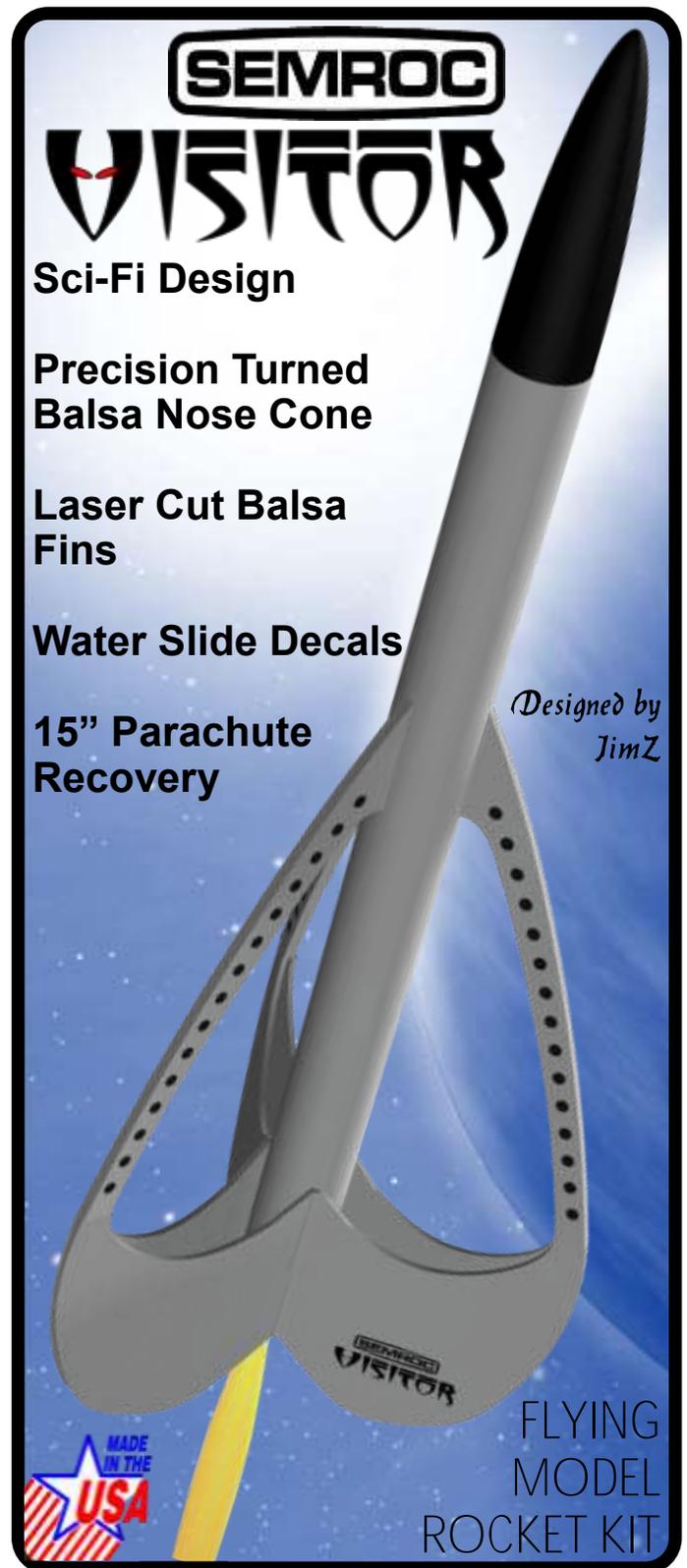
No! It's a **VISITOR**

TOOLS: In addition to the parts supplied, you will need the following tools to assemble and finish this kit.

White or Wood Glue Spray Paint Pencil

Sanding Sealer Hobby Knife Ruler Scissors

320 to 600 grit Sandpaper



SEMROC
VISITOR

Sci-Fi Design

Precision Turned Balsa Nose Cone

Laser Cut Balsa Fins

Water Slide Decals

15" Parachute Recovery

Designed by JimZ

MADE IN THE USA

FLYING MODEL ROCKET KIT

Made in the U.S.A by Semroc -Dayton, Ohio

VISITOR™ Kit No. KN-1

Specifications	Engine	Approx. Altitude
Body Diameter 0.998" (2.53 cm)	A8-3	275'
Length 16.75" (42.5 cm)	B6-4	600'
Fin Span 5.75" (14.6 cm)	C6-5	1150'
Net Weight 1.5 oz. (42.5 g)		

Skill Level 3

BEFORE YOU START!

Make sure you have all the parts included in this kit that are listed in the Parts List in these instructions. In addition to the parts included in this kit, you will also need the tools and materials listed below. Read the entire instructions before beginning to assemble your rocket. When you are thoroughly familiar with these instructions, begin construction. Read each step and study the accompanying drawings. Check off each step as it is completed. In each step, test-fit the parts together before applying any glue. It is sometimes necessary to sand lightly or build-up some parts to obtain a precision fit. If you are uncertain of the identity of some parts, refer to the exploded view. It is important that you always ensure that you have adequate glue joints.

A WORD ABOUT PAINTING

Because of the Visitor's unusual fin configuration, you may want to finish and paint the inside of the fin assemblies **before** gluing them together. If you choose to go this route, make sure to avoid getting paint on the fins where they will be glued together.

PREPARATION

Many experienced rocketeers prepare balsa surfaces and paper body tubes before beginning construction. This consists of sanding the "shiny" surface off the body tubes, filling the balsa grains, and sanding the fins and nose cone smooth.

ASSEMBLY

1. These instructions are presented in a logical order to help you put your Visitor™ together quickly and efficiently. Check off each step as you complete it. We hope you enjoy putting this kit together.

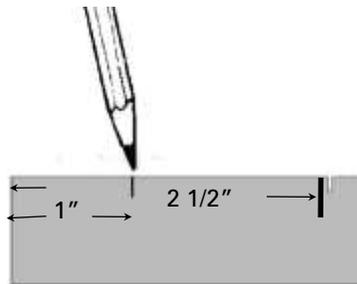
ENGINE MOUNT ASSEMBLY

2. Apply a ring of glue around the inside of motor tube (G) and insert the motor block (F) until it is even with the end of the motor mount tube. Quickly wipe away any excess glue from the inside of the motor tube.

Apply glue inside



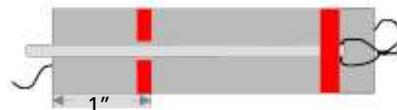
3. Mark the motor mount tube at 1 inch and 2 1/2 inches from one end.



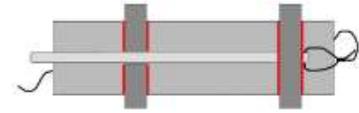
4. Tie a loop in the end of the Kevlar™ cord (M). Pass the loop over the end of motor hook (I) before inserting the hook into the slot in the tube.



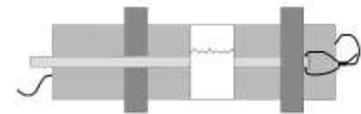
5. Pass the remaining length of Kevlar through the motor tube and out the bottom. Apply a ring of glue around the motor tube at the 1 inch mark and another just below the tube slot as shown.



6. Push the slotted adapter ring (H) on from the bottom until it is even with the 1 inch mark. Be careful to avoid getting glue under the motor hook. Push the other adapter ring (E) on from the top until it is seated in the glue. Use any excess glue to make fillets on both sides of the rings.

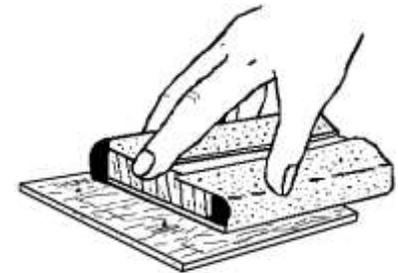


7. Wrap two or three layers of masking tape around the middle of the motor mount to hold the motor hook in place.



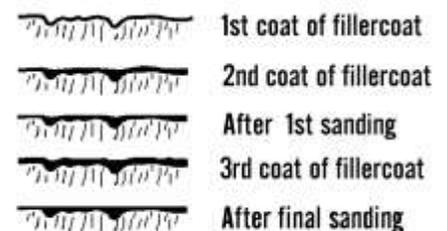
FIN PREPARATION

8. Lightly sand each side of the laser-cut fins. Carefully push the laser-cut fins from their sheet. Start at one point on each fin and slowly and gently work around the fin.

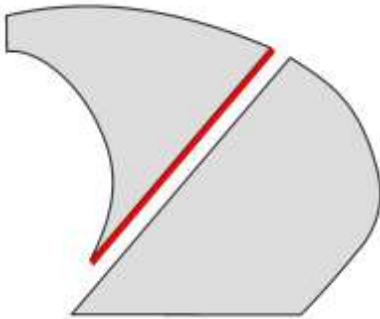


BALSA FINISHING

9. Since the fins in your Visitor kit are mounted in a unique way, you may wish to perform this step now. Prepare the balsa fins and the nose cone for a smooth professional looking finish. Fill the wood grain with balsa fillercoat or sanding sealer. When dry, sand with fine sandpaper. Repeat until smooth.



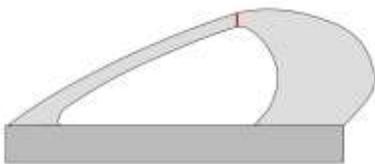
- ❑ 10. Glue the fins together as shown. Rub a line of glue onto the edge of one fin. Align the outer edges of the fins and then press the two halves together. Wipe off any excess glue. Repeat to make 6 fins.



- ❑ 11. After the glue has dried from the previous step, apply a spot of glue to the tip of the fins and glue them together. Use a clothespin to clamp them together until they are dry.

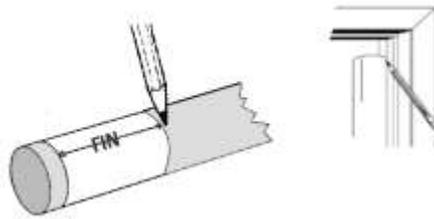


- ❑ 12. When the glue is dry on the clamped together fins, use a straightedge to align each fin with the 1/8 inch thick forward fin. Glue them together as shown below.



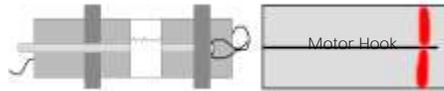
MARK TUBE

- ❑ 13. Cut out the fin marking guide and wrap it around the body tube. Use the marks at the edge of the guide to align it properly. Mark the fin, motor hook and launch lug positions on the sides of the tube. Next, find a convenient channel or groove such as a partially open drawer, a door jamb (as shown), or a piece of molding. Using the channel, extend all lines 6 inches. Extend Forward end of Fin lines at least 9 inches.



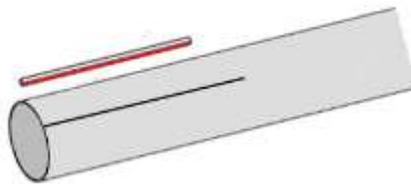
INSTALL ENGINE MOUNT

- ❑ 14. Using a scrap piece of balsa or a wooden dowel, spread a line of glue 2 inches inside the rear of the body tube. Line up the motor hook with the motor hook line you drew on the body tube. With one smooth motion, slide the motor mount into the body tube until the ends of the tubes are even.



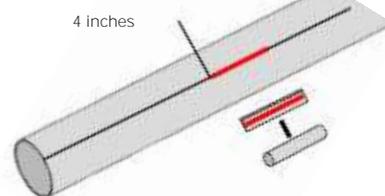
FIN ATTACHMENT

- ❑ 15. Apply glue to the edge of a conduit strip. Carefully line it up between the fin lines. The bottom of the conduit strip should be even with the bottom of the tube. Repeat for all three conduit strips.



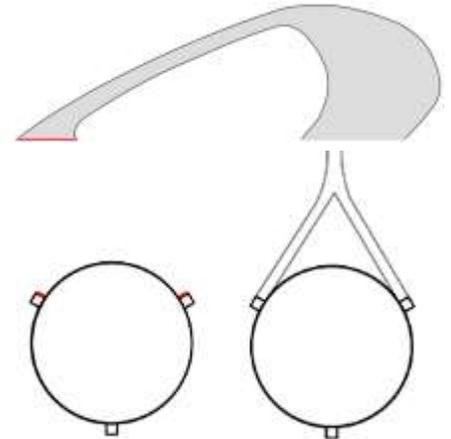
LAUNCH LUG

- ❑ 16. Glue the launch lug (L) to the launch lug standoff. Carefully glue the assembly on the launch lug line 4 inches from the bottom of the airframe tube.



- ❑ 17. You may wish to paint the model at this point as the area under the fins will be difficult to access after the fins are attached. If you choose to do this, mask off the outside edges of the conduit strips as you will be gluing the fin units to them in the next step.

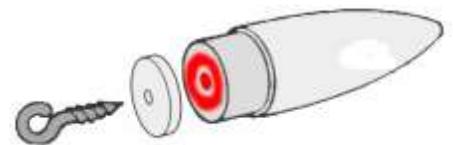
- ❑ 18. Apply glue to the inside edges of two conduit strips and the root edge of the forward part of the fin assembly. Take a fin assembly and glue into place. The bottom of the fin should be even with the bottom of the conduit. Repeat for all three fin assemblies.



NOSE CONE

- ❑ 19. Insert the nose cone into the body tube and check for proper fit. The nose cone should be snug to hold itself in alignment. If it is too loose, add masking tape. If it is too tight, sand the shoulder slightly.

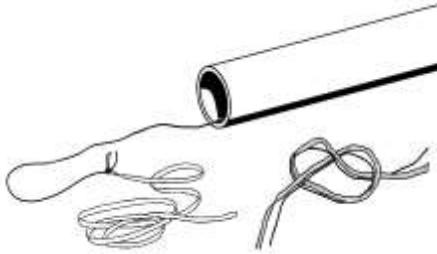
- ❑ 20. Thread the screw eye (C) into the nose cone (A) and remove. Squirt some glue into the hole in the nose cone and spread some glue on the bottom of the cone as well. Slide the washer weight (B) onto the screw eye and then thread the screw eye back into the nose cone.



SHOCK CORD

- ❑ 21. Pull the Kevlar cord back through the motor mount and out the top of the body tube. Line up one end

of the elastic cord (N) with the free end of the Kevlar cord, and tie an overhand knot at the end of the two cords. Pull the knot tight and place a small drop of white glue on the knot to prevent it from loosening.



FINAL ASSEMBLY

21. Assemble the 15" parachute (O) using instructions on the package. Attach chute by passing the lines through the screw eye and tying a double knot. After you have tied on the parachute, attach the elastic shock cord with a double overhand knot as well.



This completes the assembly of your

VISITOR

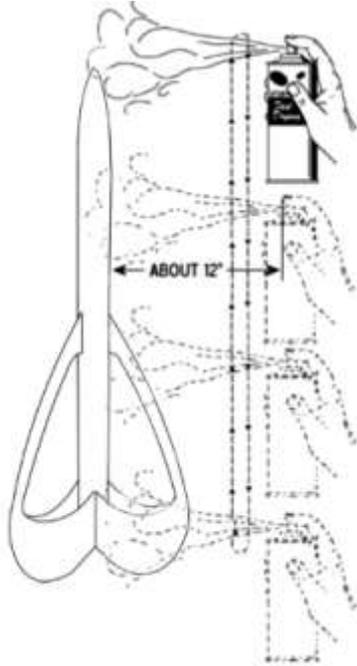
FINISHING

23. After all balsa surfaces have been prepared, wipe off all balsa dust with a dry cloth. First spray the model with an enamel primer, then spray a base color of gloss white. For better visibility, bright colors should be used for final coats.

24. Spray painting your model with a fast-drying enamel will produce the best results.

PATIENCE...is the most important ingredient. Use several thin coats, allowing each coat to completely dry before the next coat. Start each spray a few inches above the model and end a few inches below the model.

Keep the can about 12" away and use quick light coats. The final coat can be a little heavier to give the model a glossy wet-looking finish.



25. After the paint has dried, decals should be applied. The decals supplied with the Visitor™ are waterslide decals. Apply each decal before starting the next. Check for fit before wetting the decal. A drop of detergent in the water will allow for more movement before the decal sets. Use the cover photo as a guide for decal placement.



FLIGHT PREPPING

26. Pack the recovery wadding from the top of the body tube. Use a sufficient quantity to protect the parachute, but not too much that there is no room left. There is not much room left after sufficient wadding is applied.

27. Fold the parachute and pack it and the shock cord on top of the recovery wadding. Slide the nose cone into place, making sure it does not pinch the shock cord or parachute.



28. Refer to the model rocket engine manufacturer's instructions to complete the engine prepping. Different engines have different igniters and methods of hooking them up to the launch controllers.

29. Carefully check all parts of your rocket before each flight as a part of your pre-flight checklist. Launch the Visitor™ from a 1/8" diameter by 36" long launch rod.

Overlap Tab
Conduit Line
Fin Leading Edge
Launch Lug Conduit Line
Fin Leading Edge
Conduit Line
Fin Leading Edge

Parts List

- A. Nose ConeBC-932
- B. Washer Weight.....WW-8
- C. Screw EyeSE-12
- D. Airframe TubeST-91270
- E. Adapter RingCR-7-9
- F. Thrust Ring.....EB-20A
- G. Motor Mount Tube.....ST-278E
- H. Adapter RingCR-7-9S
- I. Motor Hook.....EH-28
- J. Laser Cut Fins.....FN-1
- K. Conduit Strips.....FN-1
- L. Launch LugLL-110
- M. Kevlar CordSCK-124
- N. Elastic Cord.....EC-124
- O. 15" Parachute.....CP-12-24
- P. DecalsDKN-1

