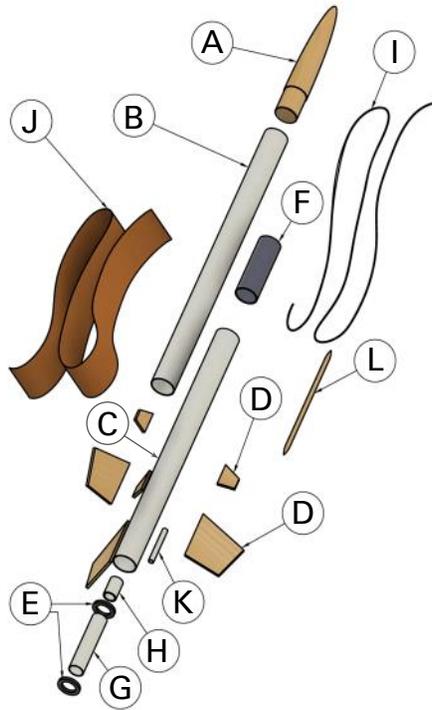


EXPLODED VIEW



PARTS LIST

A	1	Balsa Nose Cone.....	BNC-4X
B	1	Body Tube	BT-4HW
C	1	Body Tube	BT 4-54
D	1	Laser-cut Basswood Fin Set....	FM-06
E	2	Centering Rings	RA-2-4
F	1	Coupler Tube (Blue)	CPL-4-1
G	1	Motor Tube	BT-2-125
H	1	Thrust Block.....	TB-2
I	1	Kevlar Cord	SKC-24
J	1	Streamer Pack.....	SP-124
K	1	Launch Lug	LL-MX
L	1	Wood Dowel 1/12" x 2.5"	WD-13
M	1	Decal (not Shown)	DKMX-06
N	3	Fin Alignment Tool (Not Shown)	TKMX-06

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About the MX BLUE BIRD ZERO™

The MX Blue Bird Zero™ is a Downscale of the popular Blue Bird Zero originally produced by Estes Industries. It was designed by Mike Dorffler and was released in their 1980 catalog as Catalog Number (1335) and sold for \$6.00.

Jay Berry was inspired to engineer the MX Blue Bird Zero™ to utilize the Micro Maxx brand of engines. These engines allow MX rockets to be flown in a smaller flying field for greater recoverability.

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 putting 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 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.

SEMROC

MX BLUE BIRD ZERO™

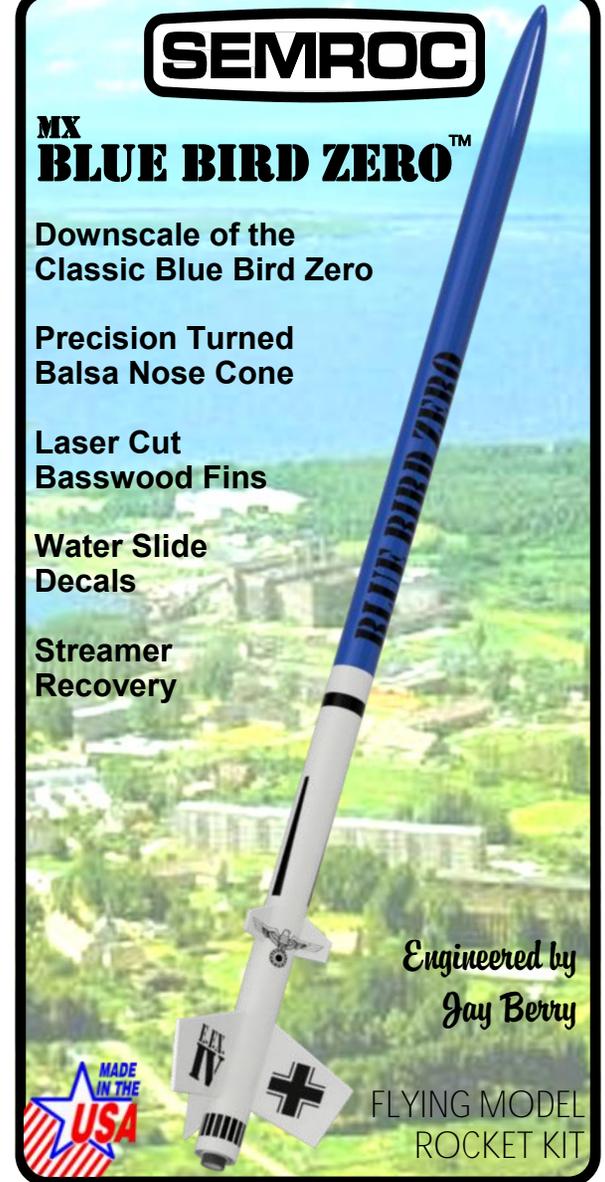
Downscale of the Classic Blue Bird Zero

Precision Turned Balsa Nose Cone

Laser Cut Basswood Fins

Water Slide Decals

Streamer Recovery



Engineered by
Jay Berry

FLYING MODEL
ROCKET KIT



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

MX Blue Bird Zero™ Kit No. KMX-06

	Specifications	Engine	Approx. Altitude
Body Diameter	.448" (1.14 cm)	Micro Maxx	215'
Length	13" (33.02 cm)		
Fin Span	2.5" (5.24 cm)		
Net Weight	0.173 oz. (4.90 g)		

Skill Level 2

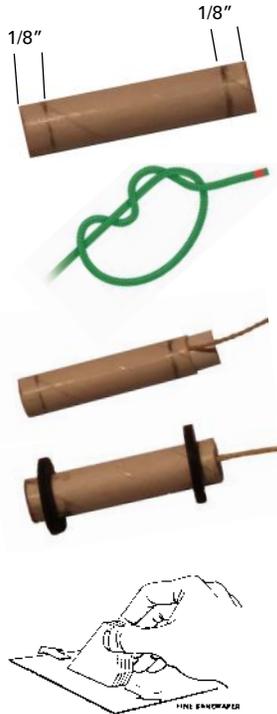
TOOLS

You will need the following for your assembly:

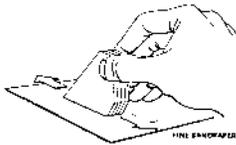
Pencil Ruler Knife Wax Paper
White or Wood Glue
220 Grit Sandpaper
Medium Viscosity Super Glue
Sanding Sealer Brush or Spray Paint

ASSEMBLY

1. Find the motor tube and place a mark 1/8 inch from each end of the tube. Tie a double overhand knot in the Kevlar shock cord near one end. See picture at right to see how to tie the knot. Cut the tail off close to the knot. Put some glue in one end of the motor tube to hold the motor thrust block. Insert the end of the Kevlar shock cord with the knot into the motor tube before inserting the thrust block into the motor tube trapping it between the thrust block and motor tube. Push the thrust block in until it is flush with the motor tube. Pull the Shock cord until the knot is seated against the motor block. Install the two black centering rings onto the motor tube and glue them at the marks that were made on the tube. Set aside to dry.



2. Stack all the fins in a set. Line the set of fins up squarely and sand the fins back and forth over some fine sandpaper to get rid of the hold-in tabs as shown.

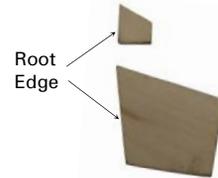


3. Take one of the Body Tubes and using a Door Jamb or a piece of angle, draw a line down the length of the tube. Mark the body tube 9/16" from one end and then 2 1/4" from the same end. These are the alignment lines for the trailing edges for both sets of fins. Take the blue Coupler Tube and make a mark 1/2" from one end. Glue the coupler into the end of the Body Tube opposite the end where you marked for the fin locations, stopping at the mark you made on the coupler.

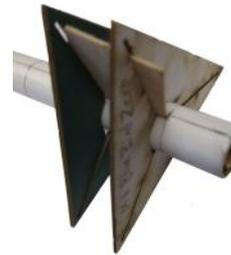


4. After the glue has had a chance to dry around the Centering Rings on the Motor Tube, spread some glue inside the body tube end that you marked for the fins. Add a ring of glue to the top side of the lower centering ring and then insert the shock cord and motor tube into the aft end of the body tube, stopping with the motor tube even with the end of the body tube, and the shock cord coming out through the coupler. Use a toothpick to put a fillet of glue around the rear centering ring against the body tube.

5. Using this picture, determine which edge of the fins is the root edge. This is the edge which will be glued to the body tube.



6. Using the enclosed fin alignment guides, glue the fins to the body tube. Because of the size of the fins, It is recommended that you use Medium Viscosity Super Glue to initially bond the fins to the body. Start by gluing the rear set of fins on keeping the rear of the fins at the rear mark and use the line as a reference for the first fin. This way you can get the front fins to be in alignment with the rear fins. Keep the jigs flat on the table to keep fins straight.

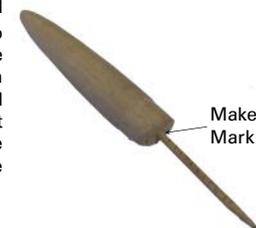


7. After you have all the rear fins attached, glue on the front set of fins in the same way keeping one jig on the rear fins to keep the fins aligned. After all fins are attached glue the plastic Launch Lug to the side of the body tube even with the rear of the Bottom Fin line. Again use Medium Viscosity Super Glue. After all the fins and the launch lug have dried, add white or wood glue fillets to all glue joints.



8. Glue the upper body tube to the coupler that is attached to the lower body tube. Make sure to feed the shock cord through the tube before sliding the tube onto the coupler. Once you start sliding the tube on the coupler, don't stop until it has seated against the other tube or it will seize and not seat on the coupler fully.

9. Take the toothpick and push it approximately half way into the rear end of the Nose Cone. Make a mark on the toothpick and then remove it. Fill the hole with glue and insert the end of the shock cord into the hole to hold the shock cord in place.



10. Cut the piece of supplied Streamer material in half lengthwise. Attach one of these pieces to the shock cord near the nose cone with a piece of Masking Tape as shown.



FINISHING

11. Prior to painting, the wood surfaces should be prepared by giving them several coats of Sanding Sealer to fill the open grain of the wood. This should be then sanded with 220 sandpaper to give it a smooth surface. The colors that were used on our cover picture were Testors #1245 Gloss White for the Body Tube and Fins, and Testors #1208 Gloss Light Blue for the Body Tube and Nose Cone.

12. The separation line of the white and blue is 5 1/4" from the rear of the rocket. The decals on the fins are the same on both sides of the fins.



FLIGHT PREP

13. Prior to launching your MX Blue Bird Zero you will need to install a motor in the motor tube. Put a small piece of masking tape on the side of the motor to friction fit it in the motor tube. It should be tight enough it will not come out when the ejection charge goes off. You will also need to put some recovery wadding into the body tube before you put the shock cord and streamer into the tube. This will keep the streamer from getting damaged when the ejection charge goes off. Put the nose cone back on the body tube making sure not to get any of the shock cord trapped between the body tube and the shoulder of the nose cone.

14. Using the eRockets Micro Maxx Launch Rod and Holder #eR 9080, prep your launch rod by inserting the igniter in the provided holes at the base of the launch rod. Slide the MX Blue Bird Zero onto the launch rod, sliding it down until it sits on top of the igniter with the igniter fully inserted in the nozzle of the motor. Connect the power clips to the igniter, clear the range, perform a countdown, and launch your rocket.

15. Always check your rocket for damage and make repairs prior to launch. Have fun, and fly safely!