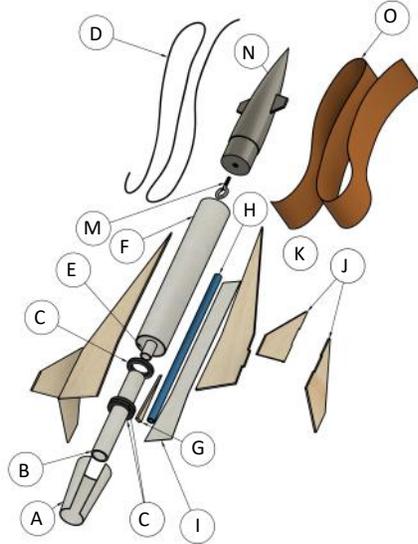


## EXPLODED VIEW



### Parts List

A	1	Tail Cone Shroud	LSKMX-04
B	1	Motor Tube	BT-2-1.25
C	3	Centering Rings	RA-2-4
D	1	Kevlar Shock Cord	SCK-18
E	1	Thrust Block	TB-2
F	1	Body Tube	BT-2-4-2.562
G	1	Balsa Wedge	FMX-04
H	1	Launch Lug	LL-MX-275
I	1	Launch Lug Shroud	LSKMX-04
J	4	Wing End Caps	FMX-04
K	2	Wings/Fins	FMX-04
L	1	Assembly Jig(Not Shown)	TKMX-04
M	1	Screw Eye	SE-2
N	1	Nose Cone	PNC-4-3D-JH
O	1	Streamer	SP-112

## TOOLS

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

White or Wood Glue  
Wax Paper  
Masking Tape  
Pencil  
Hobby Knife  
Spray Paint  
Super Glue

## BEFORE YOU START!

Be sure you have all the parts on the Parts List. You will also need the tools listed in the tools section. Read the entire instructions before assembling 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 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 location of some parts, refer to the exploded view. It is important that you always ensure that you have adequate glue joints.

## 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 Jayhawk AQM-37C

The AQM-37 Jayhawk was designed by Beechcraft for the United States Navy. It flew for the first time in May, 1961. It entered formal U.S. Navy service in 1963, and remains in service to this day.

The original version was the AQM-37A. There was no B variant as the Navy changed the order to AQM-37C.

Jayhawks could be configured to simulate different types of threats, such as anti-ship missiles, or high altitude naval attack missiles. One variant with improved thermal protection reached Mach 4.7 and attained an altitude of 112,000 ft (34 kilometers) to simulate an ICBM.

Small quantities were sold to Italy, Israel, and France, while Britain bought several hundred.

All variants are air launched with the U.S. Navy traditionally using the F-4 Phantom and the British using the Canberra.

More than 5000 AQM 37 targets of all variants have been delivered since the early 1960's. The AQM-37-C/D is currently in production for the U.S. Navy.

Released:

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# SEMROC

## MX JAYHAWK™ AQM-37-C

1/29th Scale

3D Printed Nose Cone

Laser Cut  
Basswood Fins

Accurate  
Water Slide  
Decals

Streamer  
Recovery



Engineered by:  
Phil Queen

FLYING MODEL  
ROCKET KIT

Made in the USA by Semroc - Dayton, Ohio

### MX JAYHAWK AQM-37C™

Kit No. KMX-04

Specifications	Engine	Approx. Altitude
Body Diameter	0.448"	Micro Maxx 60'
Length	5.5625"	
Net Weight	0.3oz	

## Skill Level 3

## ASSEMBLY

These instructions are presented in a logical order to help you assemble your Semroc MX Jayhawk quickly and efficiently. Check off each step as you complete it. We hope you enjoy putting this kit together.

### MOTOR MOUNT

❑ 1. Begin your assembly by pre-forming the Tail Cone Shroud (A) into a cone. You can do this by shaping it around a dowel or the motor tube. Try not to get any creases in the paper as you form the shroud.

❑ 2. Now that you have the cone formed, glue the edges together, lining up the edge to the line marked on the shroud.

❑ 3. Once the shroud has dried, glue it to the Motor Tube (B). Put a small bead of glue on one end of the motor tube and slide the shroud onto the motor tube until the small end is flush with the end of the motor tube. Carefully apply glue to the large inside end of the Shroud and also to the motor tube even with the end of the Shroud. Position a Centering Ring (C) in the end of the shroud flush with the end of the shroud, as shown in the picture at right.

❑ 4. Glue another Centering Ring against the first Centering Ring. Glue the final Ring flush with the end of the Motor Tube and add a small glue fillet to both rings. Allow glue to dry.



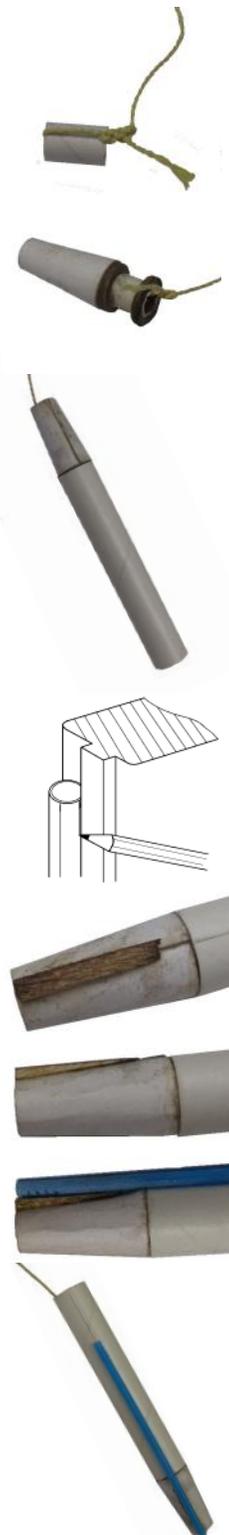
❑ 5. Tie the Kevlar Shock Cord (D) to the Thrust Block (E). Make sure the knot is tied securely. After you have the cord tied, glue the Thrust Block into the end of the Motor Tube with the Centering Rings. Push the Thrust Block in until it is flush with the end of the Motor Tube as shown at right.

❑ 6. Glue the Motor Mount into the Body Tube (F). Feed the shock cord down through the motor mount to keep it out of the way while you do this step. Apply a bead of glue to the inside of one end of the body tube. Apply a bead of glue to the upper side of the Centering Ring next to the Tail Shroud. Insert the Motor Mount into the Body Tube until the Tail Shroud is touching the Body Tube. Make sure the Shroud and the Tube make a smooth transition.

❑ 7. Draw a line on the Body Tube in line with the joint in the Tail Cone. You can use a small piece of angle or a drawer or door frame to keep the line parallel to the Body Tube.

❑ 8. Glue the small Balsa Wedge (G) onto the joint of the Tail Cone centered with the line on the body tube and flush with the end of the Motor Tube. Make sure the square corner of the piece is opposite the Tail Cone as shown in the picture at right.

❑ 9. Glue the Launch Lug (H) onto the Wedge and the Body Tube along the line that you have drawn. For best results, use Super glue to glue the Launch lug on. Keep it centered over both the wedge and the line. Also keep it flush with the end of the Motor Tube. This is the foundation for the projection on the underside of the rocket.



❑ 10. Locate the Launch Lug Shroud (I). Pre-form the Shroud by bending the Shroud on the lines printed on the inside of the Shroud. Using Super glue, adhere the Shroud to one side of the Launch Lug. Keep the wide end of the Shroud even with the end of the Motor Tube and tight against the tail shroud and body tube. Once the glue has had time to dry, form the shroud over the Launch Lug and glue it to the other side of the Launch Lug. Add glue fillets to the shroud at the body tube to complete this step.



### WING ASSEMBLY

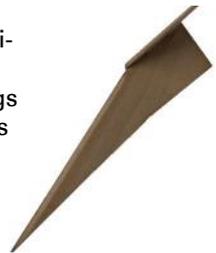
❑ 11. Glue a pair of Wing End Caps (J) together on a sheet of wax paper, making sure that they are flat. Repeat for other side. Let dry.



❑ 12. Once the Wing End Caps have dried, glue them onto the end of the Wings (K), making sure they are at a 90 degree angle to the wing.



❑ 13. If you want a more prototypical look to your model, you can sand the leading edges of the Wings and the End Caps to a knife edge as shown in the picture at right.



❑ 14. Assemble the Fin Assembly Jig (L) as shown in the picture at right. Tack glue the parts together.



❑ 15. With the Assembly Jig on a good flat surface, place the Body Tube into the cradle with the Launch Lug in the notch. Glue a Wing to the side of the Body Tube by laying the Wing on the Jig and sliding it against the Body Tube. Keep the Wing even with the rear of the Body Tube. Repeat for the other side. Add Glue fillets for added strength. Allow the glue to dry.



❑ 16. Thread the Screw Eye (M) into the hole in the end of the Nose Cone (N). After you have inserted the Screw Eye Remove it and put some glue in the hole and re-insert the Screw Eye. Attach the Shock Cord to the Screw Eye.

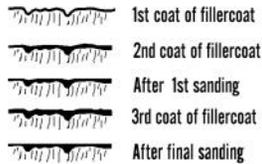


❑ 17. Cut the Streamer Material (O) in half lengthwise. Attach one piece of Streamer to the Shock Cord using a small piece of Masking tape.

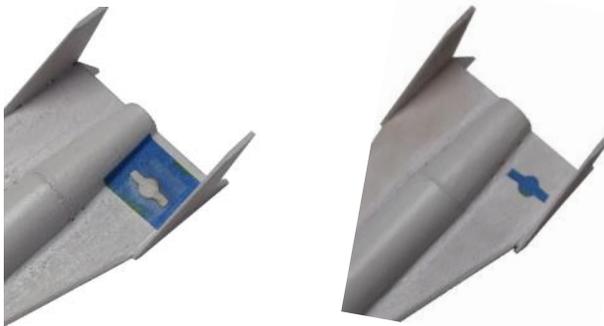


## FINISHING

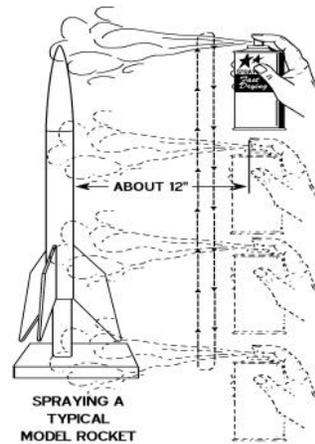
❑ 18. When all the glue has dried, prepare the basswood surfaces for a smooth professional looking finish. Fill the wood grain with balsa fillercoat or sanding sealer, When dry, sand with fine sandpaper. Repeat until smooth.



❑ 19. After all wood surfaces have been prepared, wipe off all sanding dust with a dry cloth. First spray the model with an enamel primer. 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.



If you are going to paint your model in the all Orange Scheme, you will need to do the same thing for the decals on the sides of the body tube.



❑ 20. Start by giving your model a coat of white paint. Once it is dry mask off the wings where the Red and Blue-Star and Bar Decals go. There are templates to help with this process. Start by putting down a layer of masking tape where you will put the decals. Next, using some cellophane tape, place the templates over the masking tape in the correct positions and trim the masking tape around the templates. Remove the excess masking tape leaving the correct mask in place.

Mask off the Body Tube if you are going with the Orange and White version and add the Orange color. We recommend Model Master's International Orange paint. There is also a guide for painting the Brown on the nose of the rocket. You can either mask off the nose cone and Canards and then slide the guide over the nose cone until it won't go down any further, and trim the masking tape, or carefully paint up to the guide using Brown paint to simulate the Phenolic tip of the Nose of the Jayhawk .



## APPLY DECALS

❑ 21. Refer to the following pictures in regards to decal placement. Carefully cut each decal from the decal sheet and let soak in luke-warm water until decal slides on backing paper. Using a set of tweezers, place each decal in it's correct position and then carefully blot dry with a paper towel to remove any excess water.



Right



Left Side



Top



Bottom

## ***FLIGHT PREP***

- 22.** Friction fit a Micro Maxx motor into the motor tube, making sure that it will not be expelled by the ejection charge, to insure deployment of the streamer.
- 23.** Remove the nose cone and streamer and insert some recovery wadding into the top of the body tube to protect the streamer, then re-pack the Streamer and Shock cord, and re-install the Nose cone.
- 24.** We recommend using an eRockets MMX Launch Rod and Holder # eR 9080 to Launch your AQM-37-C Jayhawk. Install a Micro Maxx Starter in the eR 9080 Holder, and then place your Jayhawk's Launch Lug over the Launch Rod and carefully slide it down the rod making sure the Starter wire goes into the nozzle of the Micro Maxx Motor. Do not force the wire into the nozzle.
- 25.** Take your Jayhawk on the eR 9080 Launch Rod to a normal launch pad with a 1/8 inch launch rod and slide the eR 9080 onto the 1/8 inch launch rod. You may need to support it with some masking tape around the rod or use a clothespin to keep the eR 9080 rod from going down the 1/8 inch rod too far.
- 26.** Attach the micro clips from the launch controller to the Micro Maxx starter, being careful that they don't make contact with one another.
- 27.** Retreat to a safe distance. Make sure that the Range is clear. Conduct your countdown. 5-4-3-2-1-Launch.
- 28.** Retrieve your Jayhawk and remove the spent motor and dispose of it properly. Inspect your Jayhawk for any damage and make any repairs before flying it again. Always check for damage before flying any rocket.

We hope you enjoy your AQM-37-C Jayhawk.