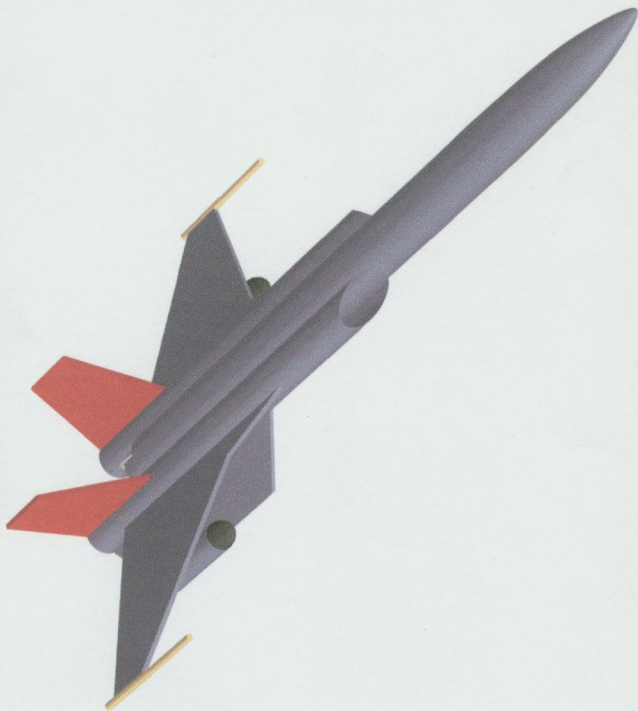


INTERDICTOR

Skill Level 3

A futuristic fighter craft!

Recommended Engines: A8-3, B4-4, B6-4, C6-5



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A E R O S P A C E

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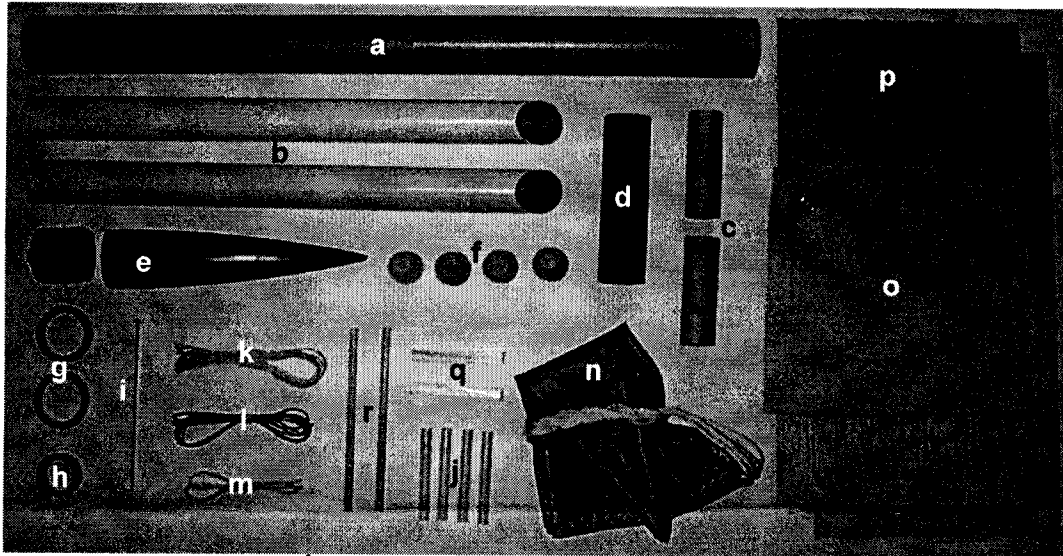
Rogue Aerospace Corporation has exercised reasonable care in the design and manufacture of this kit, and warrants it to be free from manufacturing defects for 1 year from the date of purchase. If your kit is missing a part, please call or e-mail us for a replacement.

INTERDICTOR

RAC #10042

Skill Level 3

Recommended Engines: A8-3, B4-4, B6-4, C6-5



Materials Included in This Kit

- a** T-25 brown paper tube (30.5cm [12"] long)
- b** Two T-19 white paper tubes (22.5cm [8.9"] long) with slanted end
- c** Two T-14E yellow paper tubes (4.5cm [1.75"] long)
- d** T-19E green paper engine mount tube (7cm [2.75"] long)
- e** PNC-25P plastic nose cone and shoulder
- f** Four BNC-11A balsa nose cones
- g** Two CR-1925 centering rings
- h** TR-18 green thrust ring
- i** EC-7 engine clip
- j** Four 3mm (1/8") launch lugs (3.8cm [1 1/2"] long)
- k** KC-4 Kevlar tether (yellow, 1m [39"] long)
- l** KC-1 Kevlar tether (green, 74cm [29"] long)
- m** ESC-1 elastic cord (20cm [8"] long)
- n** PP-30 nylon parachute (30cm [12"] diameter)
- o** PW-25 Perma-Wadding (10cm [4"] x 10cm [4"])
- p** Balsa fin stock (2mm [3/32"] thick)
- q** Two balsa sticks
- r** Two hardwood dowels
- s** Decal sheet (not pictured)

Materials You Must Supply

Adhesives

White glue ("school" glue or craft glue such as "Allene's Tacky")

Plastic cement or cyanoacrylate (CA)

Pencil

Scissors

Hobby knife

Metal ruler

Wax paper

Masking tape

Fine and extra-fine sandpaper

Paint

Rules to Live By

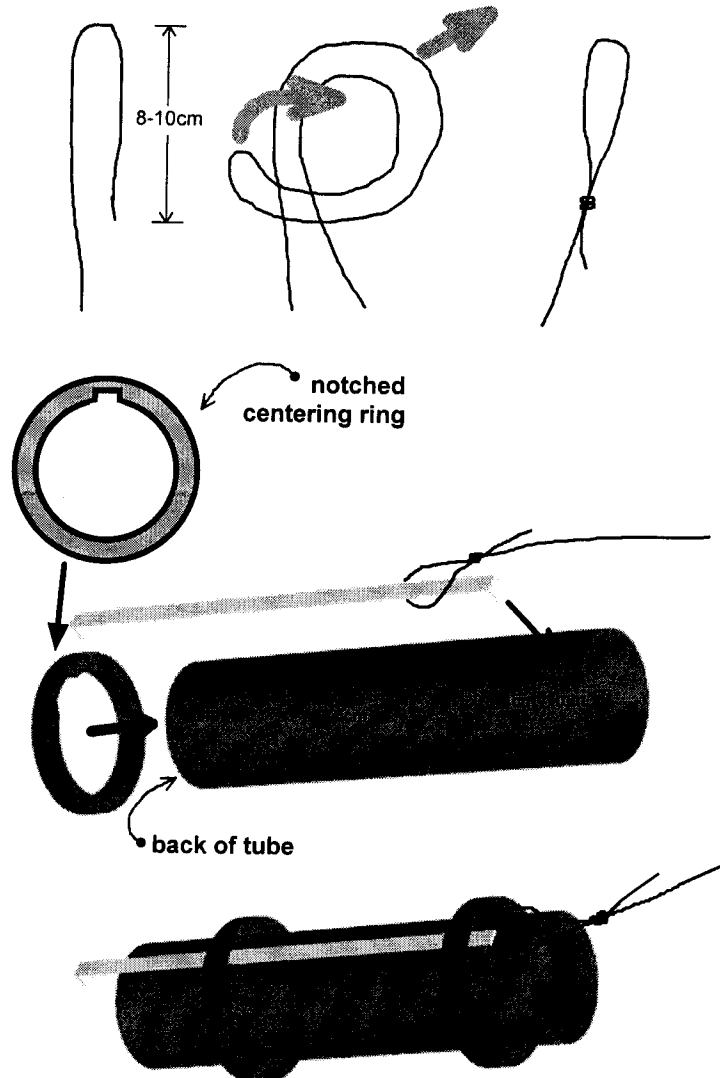
- 1** Before you begin to build your model, **make sure you have read and understood all steps in these instructions.** It's much better to spend a few minutes becoming familiar with these instructions now, than a few hours trying to correct a major mistake later. A good rocketeer is a careful modeller. Do not proceed with any step until you are certain you know what to do. Make all measurements twice before cutting or gluing.
- 2** **Do not alter the basic design of this model rocket in any way.** Most importantly, do not reduce the number or size of fins, shorten the body tube, use a different nose, or add fins to the rocket. Any of these changes would affect the stability of the rocket and could cause it to lose the ability to fly straight. An unstable rocket is less than worthless and is no fun for anyone. Of course, you can change the color scheme, decals, and so forth as you wish.
- 3** Once you've finished your rocket, **launch it only in accordance with the Model Rocket Safety Code** created by the National Association of Rocketry. A copy of the Code is included with your model. If you don't follow the Code, you could jeopardize the future of model rocketry... and make every other model rocketeer in the world angry. Follow the Code.

Assembly Instructions

1

Assemble engine mount.

- a) Grasp one end of the yellow Kevlar tether and double it back on itself, making a loop about 8-10cm (3-4") long. Tie an overhand knot in the loop as shown.
- b) Using a hobby knife, make a small notch on the inside of each centering ring as shown, about the width of the engine clip.
- c) Make 3 marks on the green engine mount tube: at 6mm ($\frac{1}{4}$ "), 1cm ($\frac{3}{8}$ "), and 5cm (2") from one end (the "front" of the tube).
- d) At the 6mm ($\frac{1}{4}$ ") mark, cut a slit about 3mm ($\frac{1}{8}$ ") wide. Note that one end of the engine clip is shorter than the other. Insert this shorter end into the slit. Place the loop you made in the end of the Kevlar tether around the free end of the engine clip, and slide it towards the front of the engine tube.
- e) Apply glue around the engine mount tube at the 1cm ($\frac{3}{8}$ ") mark. Slide one centering ring on from the back of the tube until it meets the mark. Make sure the engine clip lies straight down tube, held in place by the centering ring.
- f) Apply glue around the tube at the 5cm (2") mark. Slide the remaining centering ring on from the back of the tube until it meets the mark, making sure the notch you made is centered around the engine clip.
- g) Apply glue around the inside of the front of the engine tube. Slide the green thrust ring into the tube until it rests against the end of the engine clip.



2

Mark fuselage body tube.

- a) Cut out the tube marking guide labelled "Fuselage Marking Guide." Wrap it around the brown body tube and tape its ends together with masking tape.
- b) While holding the guide steady, use a pencil to mark the body tube at the arrows. Be sure to label each mark with the word next to the arrow on the marking guide, such as HOOK. Remove the guide from the tube.
- c) Using a door jamb or angle aluminum as a guide, draw straight lines through all marks, extended over the length of the body tube.

3

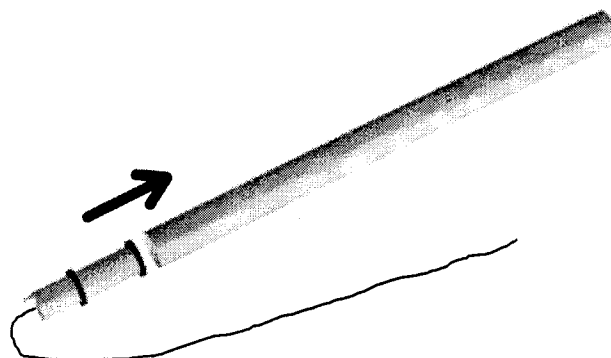
Mark jet intake body tubes.

- a) Cut out the tube marking guide labelled "Jet Intake Marking Guide." Wrap it around one of the white body tubes so that the big arrow marked UP is pointing at the slanted end of the tube. Tape the ends of the marking guide together with masking tape. Mark the white tube with a letter "L" to designate it as the **left** intake tube.
- b) Align the arrow marked TUBE with the guide line pre-marked on the tube. While holding the guide steady, use a pencil to mark the body tube at the arrows. Be sure to label each mark with the word next to the arrow on the marking guide, such as VENTRAL or DORSAL. Slide the guide off of the tube.
- c) Slide the guide onto the other white body tube, with the UP arrow on the guide pointing **away** from the slanted end. Align the arrow marked TUBE with the guide line pre-marked on the tube, and mark the tube as in step b. Mark this tube with a letter "R" to designate it as the **right** intake tube. Remove the marking guide.
- d) Using a door jamb or angle aluminum as a guide, draw straight lines through all marks on both tubes over the length of the tubes.
- e) Make a mark on each tube along the guide line marked TUBE 4.5cm (1¾") from the non-slanted end.

4

Install engine mount.

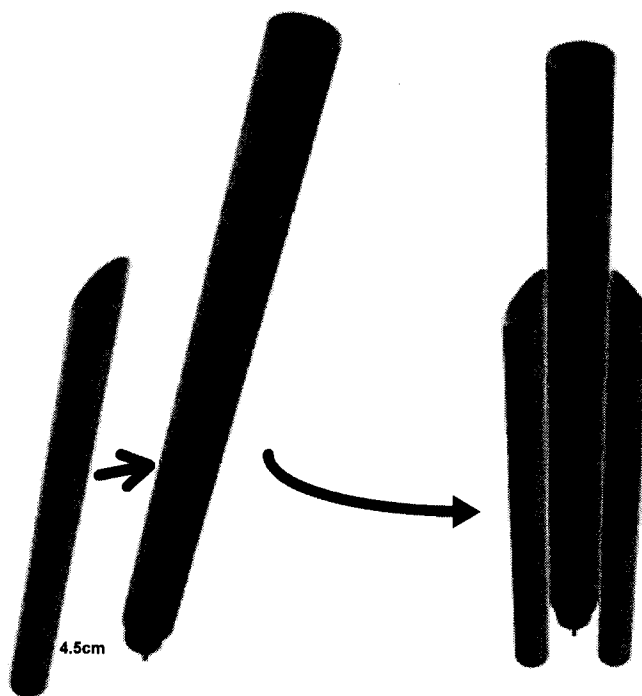
- a) Make a mark on the green engine mount tube about 13mm (½") from the back of the tube (the end without the thrust ring).
- b) Smear glue inside one end of the fuselage tube (brown tube from step 2).
- c) Thread the yellow Kevlar tether back through the engine mount, then slide the engine mount into the fuselage tube until the mark you made on the green tube is even with the aft edge of the fuselage tube. The engine mount's hook must also be aligned with the HOOK line you made on the fuselage in step 2. Make certain the Kevlar tether is not trapped by glue or by the engine mount.
- d) Feed the tether back through the engine mount and out the front of the fuselage tube.



5

Attach jet intake tubes to fuselage.

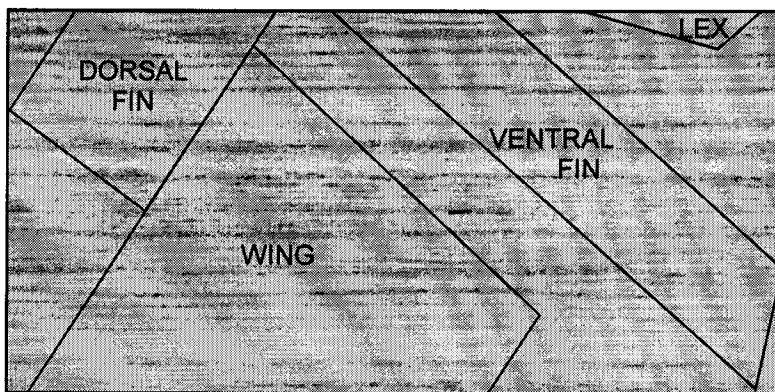
- a) Apply glue along the TUBE guide line of the **left** jet intake tube (the one you marked with an "L" in step 3), from the front (slanted) end of the tube back to the mark you made near the aft end of the tube. Press the tube against the fuselage tube, aligned with the fuselage guide line labelled "LEFT INTAKE." Make sure the mark you made on the jet intake's TUBE line is even with the back of the fuselage tube.
- b) Separate the two tubes immediately and allow the glue to dry.
- c) Apply more glue to the jet intake tube in the same place, and press it against the fuselage in the same location. Hold the tubes together until the glue sets.
- d) Repeat steps a-c for the **right** jet intake tube.
- e) Stand the assembly on the front end of the fuselage and allow the glue to dry.



6

Create fins.

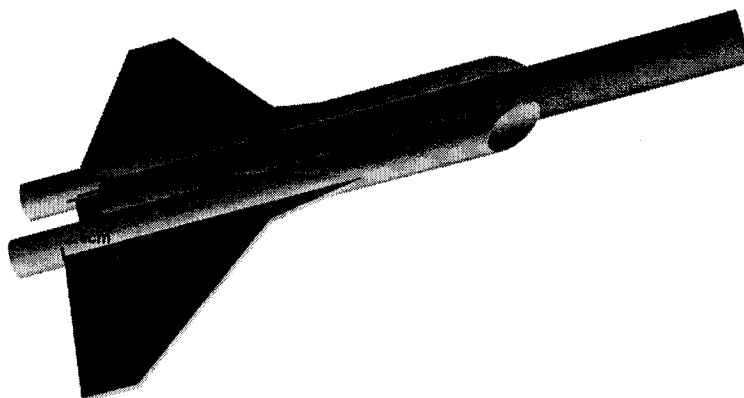
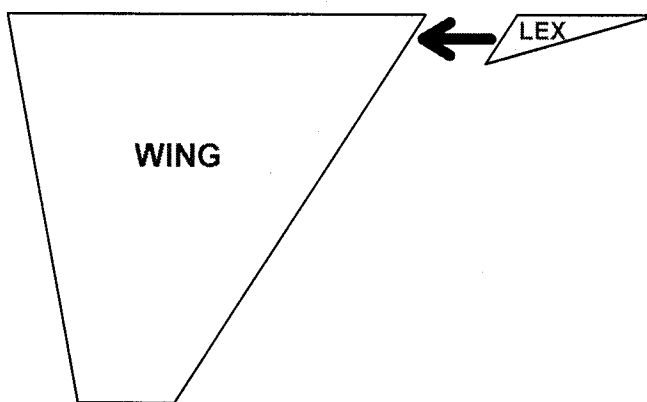
- a) Cut out the supplied fin patterns. Do not cut out the area in the wing fin pattern marked TANK.
- b) Trace the patterns onto one sheet of balsa fin stock in the arrangement shown.
- c) Carefully cut out the fins using a hobby knife.
- d) Repeat steps b and c for the other sheet of balsa, to make a total of eight fins.
- e) Stack like fins together and sand their edges even and smooth.
- f) Save the wing fin pattern for use in a later step.



7

Assemble and attach wings.

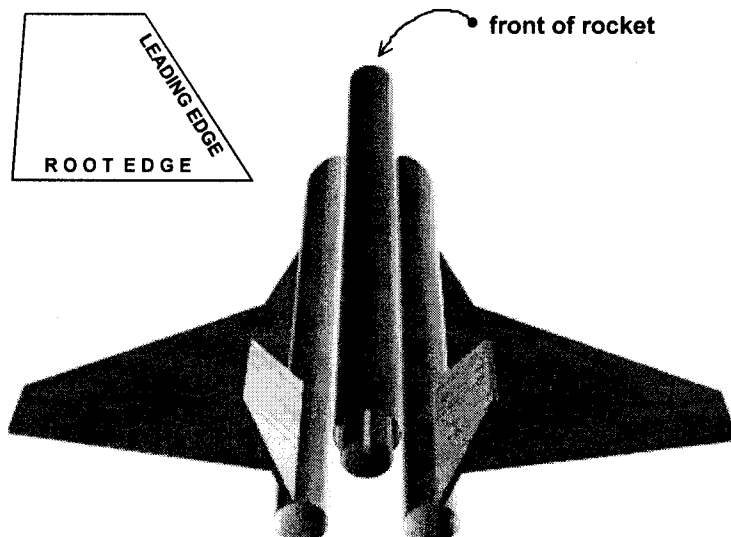
- a) Lay one wing and one LEX (leading edge extension) on a piece of wax paper as shown. Apply glue to the mating surfaces and press them together. Allow to dry. Repeat for the other wing and LEX.
- b) Make a mark on each jet intake tube along the WING guide line located at 2.5cm (1") from the back (non-slanted end) of the tube.
- c) Apply glue to the **root edge** of a wing/LEX assembly (as indicated on the fin pattern) and press it against one of the jet intake tubes, aligned with the WING guide line, and with the back of the wing even with the mark you made in step b.
- d) Remove the wing/LEX from the tube immediately and allow the glue to dry.
- e) Apply more glue to the wing/LEX assembly root edge and press it against the tube in the same location. Ensure the wing and LEX point straight out from the body tube. Hold in position until the glue sets.
- f) Repeat steps c-e for the other wing/LEX assembly and jet intake tube.
- g) Stand the rocket on its front end and allow the glue to dry.



8

Attach dorsal fins.

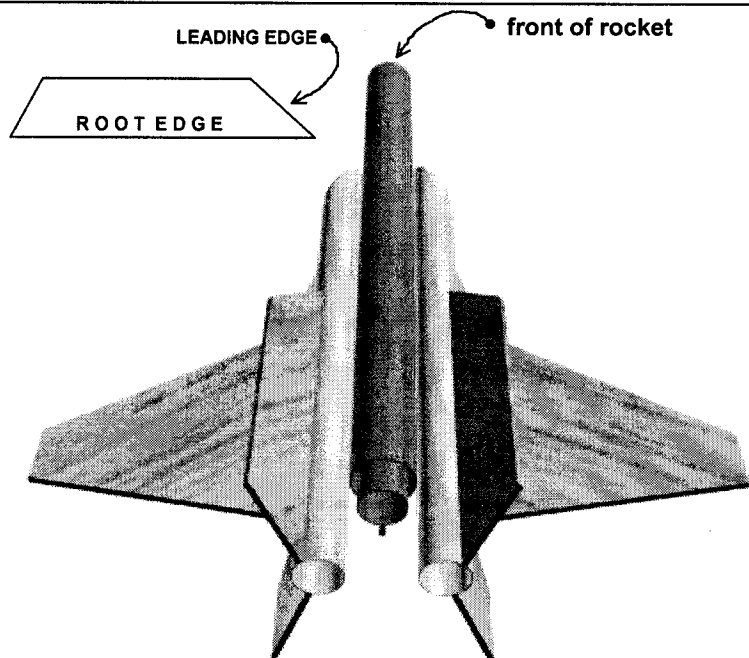
- Apply glue to the **root edge** of a dorsal fin (as indicated on the fin pattern) and press it against one of the jet intake tubes, aligned with the DORSAL guide line and with the back of the fin even with the back of the tube. The leading edge of the fin should point towards the front of the rocket.
- Remove the fin from the tube immediately and allow the glue to dry.
- Apply more glue to the fin's root edge and press it against the tube in the same location. Ensure the fin points straight out from the body tube. Hold the fin in position until the glue sets.
- Repeat steps a-c for the other dorsal fin and jet intake tube.
- Stand the rocket on its front end and allow the glue to dry.



9

Attach ventral fins.

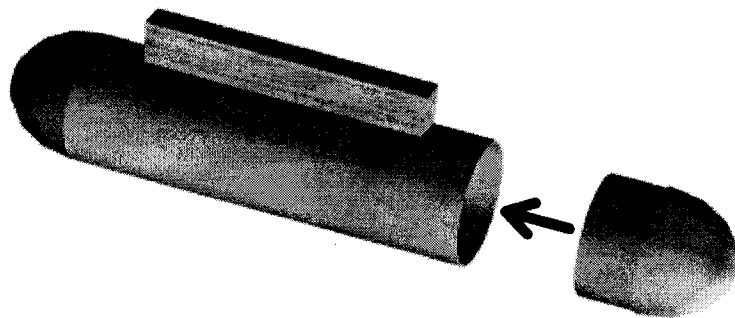
- Apply glue to the **root edge** of a ventral fin (as indicated on the fin pattern) and press it against one of the jet intake tubes, aligned with the VENTRAL guide line and with the back of the fin even with the back edge of the tube. The leading edge of the fin should point towards the front of the rocket.
- Remove the fin from the tube immediately and allow the glue to dry.
- Apply more glue to the fin's root edge and press it against the tube in the same location. Ensure the fin points straight out from the body tube. Hold the fin in position until the glue sets.
- Repeat steps a-c for the other ventral fin and jet intake tube.
- Stand the rocket on its front end and allow the glue to dry.



10

Assemble fuel tanks.

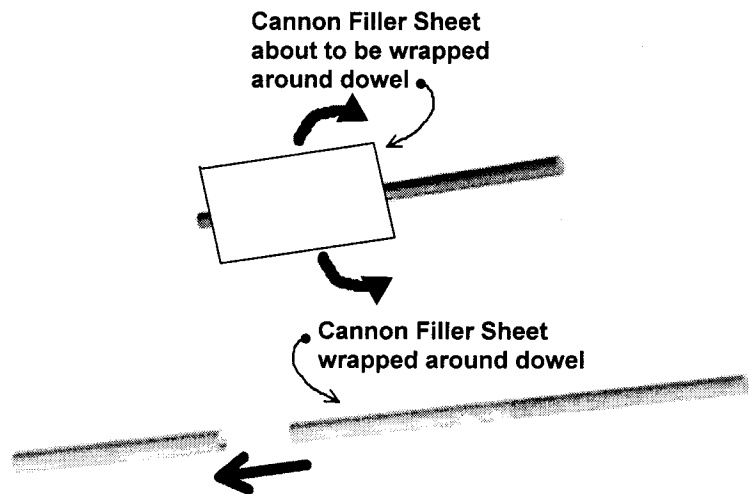
- Using a door jamb or angle aluminum, make a straight mark down the length of one of the yellow paper tubes. Make a mark across this line 3mm (1/8") from one end of the tube.
- Glue one balsa nose cone into each end of the yellow tube.
- Glue the narrower edge of one of the balsa sticks along the line you made on the tube, with one end aligned with the mark you made in step a. This forms the "pylon" on which the tank is mounted.
- Repeat steps a-c to create a second fuel tank.



11

Assemble laser cannon.

- a) Cut out the supplied "Cannon Filler Sheets."
- b) Smear a thin layer of glue on one side of one Cannon Filler Sheet.
- c) Wrap the sheet tightly around one end of one of the hardwood dowels. The sheet should only wrap around the dowel one time, and should be even with one end of the dowel.
- d) Squirt glue into one of the launch lugs.
- e) Slide the end of the dowel with the sheet wrapped around it into the launch lug until their ends are even.
- f) Repeat steps b-e to create a second laser cannon.



12

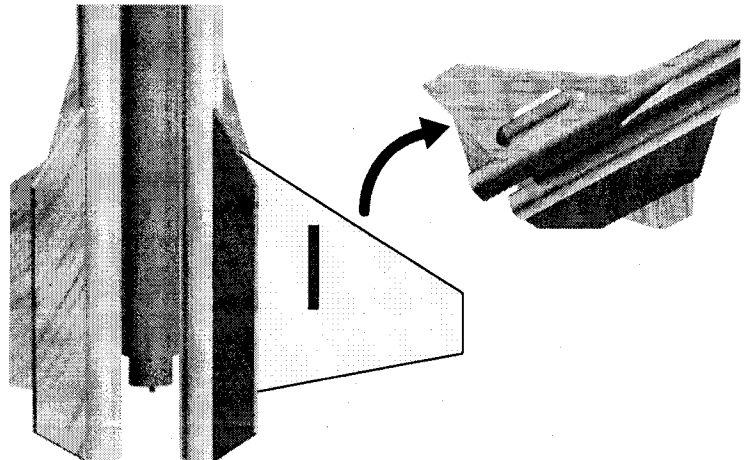
Finish fins.

- a) Apply a line of white glue down each side of the joint between each fin and the body tube, smoothing the glue with your finger. Alternatively, apply a line of CA down each fin-tube joint and set with a quick spray of accelerator. These glue fillets reduce drag, improve performance, and increase the strength of the fin-to-body joint.
- b) Sand all fin surfaces smooth using very fine sandpaper.
- c) [Optional] Improve performance by sanding the leading edges of all fins round.
- d) [Optional] Further improve performance by sanding the trailing edges of all fins round or tapered.
- e) [Optional] Use sanding sealer and extra fine sandpaper to smooth the faces of each fin.

13

Attach fuel tanks.

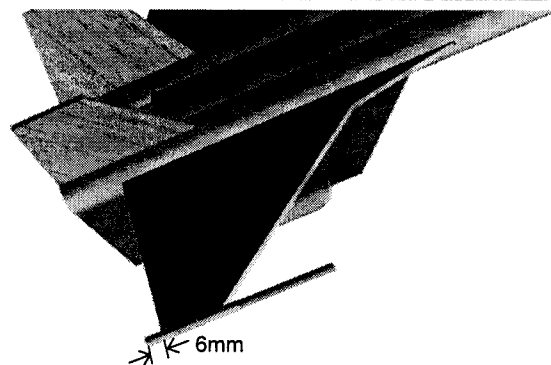
- a) Now cut out and remove the area in the wing fin pattern marked "TANK."
- b) Lay the rocket down with the ventral fins facing up.
- c) Place the wing fin pattern on one wing and trace the outline of the TANK area. Then flip the fin pattern over, place it on the other wing, and trace the TANK area outline on this wing.
- d) Attach a fuel tank onto each wing by gluing its "pylon" within the area you outlined.



14

Attach laser cannon.

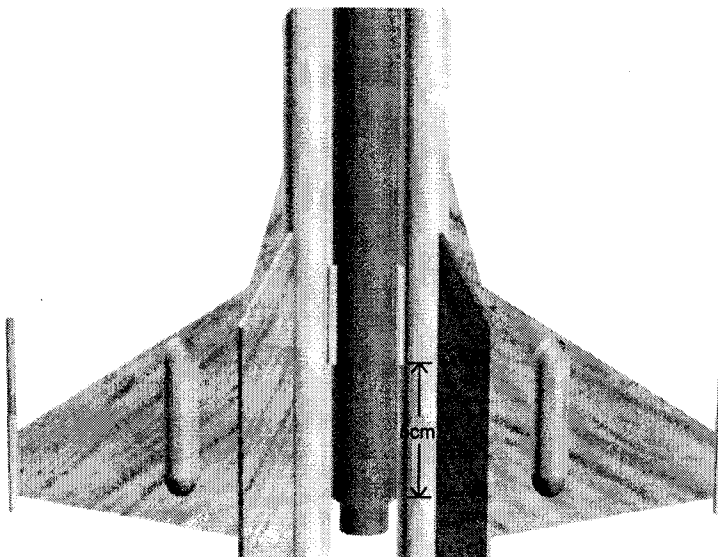
- a) Make a mark on one laser cannon 6mm ($\frac{1}{4}$ ") from the back of the cannon.
- b) Glue the cannon onto the tip of one wing with this mark aligned with the trailing edge of the wing. Make certain the cannon is centered on the thickness of the wing, and that it points straight forward along the rocket.
- c) Repeat steps a and b for the other laser cannon and the other wing.



15

Mount launch lugs.

- Apply a line of white glue down each side of the joint between each jet intake tube and the fuselage tube, smoothing the glue with your finger. Instead, you may wish to apply a line of CA down each tube-to-tube joint and set with a quick spray of accelerator.
- Glue one launch lug into the joint between a jet intake tube and the fuselage on the **bottom** of the rocket (the side with the fuel tanks), with the back of the launch lug about 5cm (2") from the back of the fuselage tube.
- Glue the other launch lug into the opposite jet-intake-to-fuselage joint at the same distance from the back of the fuselage tube.

**16**

Assemble nose cone.

- Using cyanoacrylate (CA) or plastic cement, glue the nose cone shoulder into the bottom of the nose cone. Allow the adhesive to dry.
- Thread one end of the elastic shock cord through the hole in the nose cone shoulder and tie it **securely** to the nose cone.

17

Attach parachute.

- Make loops in the free ends of the yellow Kevlar tether and elastic cord similar to the loop you made in step 1a.
- Gather the parachute shroud lines together and pass them through the loops you made.
- Pass the parachute canopy through the loop formed by the shroud lines and pull tight to secure the parachute.

18

Attach Perma-Wadding.

- Form a loop in the yellow Kevlar tether and pass it through the eyelet in the sheet of Perma-Wadding.
- Pass the nose and parachute through this loop. The Perma-Wadding is now attached to the tether, but can be moved up and down along it or removed if necessary.

19

[OPTIONAL] Add tether for horizontal recovery.

- Your Interdictor rocket can be modified to recover under its parachute horizontally. To make this modification, form a loop in each end of the green Kevlar tether as described in step 1a.
- Remove the parachute from the model, then reattach it while adding the loop in one end of the green Kevlar tether to the loops through which you pass the parachute shroud lines.
- Place the loop in the free end of the green tether around the end of the engine hook at the back of the rocket.
- Hold the rocket by the parachute canopy and let it dangle. If the rocket does not hang horizontally, shorten the yellow or green Kevlar tethers as appropriate by trimming them or tying knots along their length.

20

Assemble rocket into flight configuration.

- Slide the Perma-Wadding as far down the Kevlar tether towards the fuselage tube as possible. Center it over the mouth of the tube, and use your finger to push the middle down into the tube, then the edges. Fold the parachute and shroud lines together, and loosely wrap the Kevlar tether around it a few times. Gather any extra length of Kevlar tether and place it on top of the Perma-Wadding. Insert the folded parachute into the body tube.
- Insert the nose cone into the tube. Adjust the fit of the nose cone, if necessary, by sanding or by applying transparent tape to the shoulder. The nose should fit snugly into the tube, but not so tightly that it will not be popped off by the ejection charge at apogee.
- If you modified your rocket to recover horizontally as described in step 19, ensure that the green Kevlar tether is held tightly at one end between the nose cone and fuselage tube, and that the tether is pulled as close to the rocket body as possible.

21

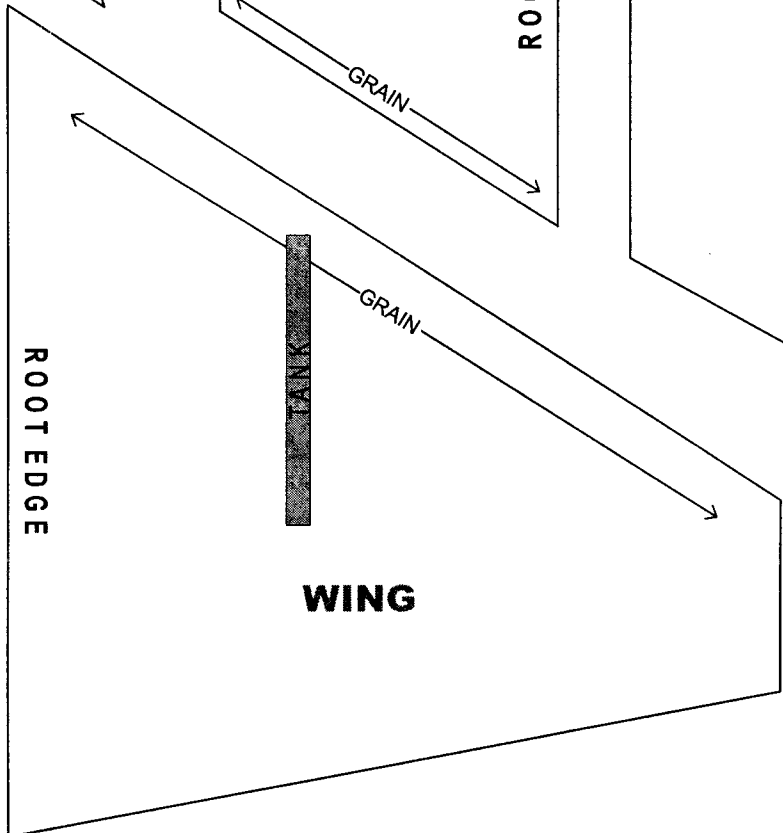
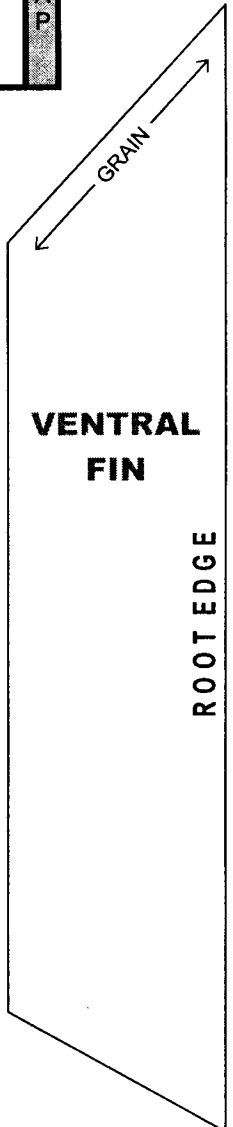
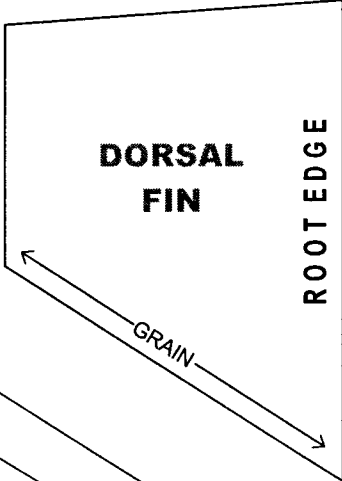
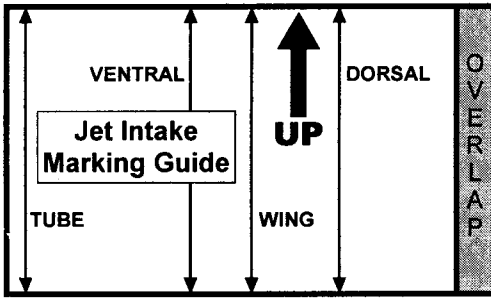
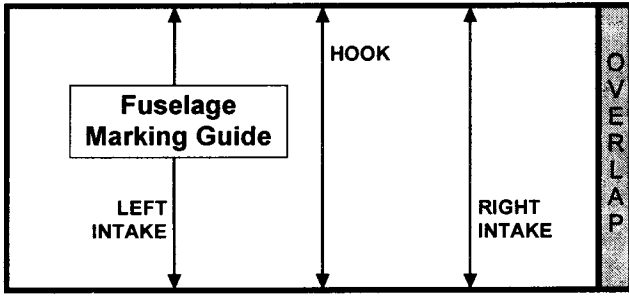
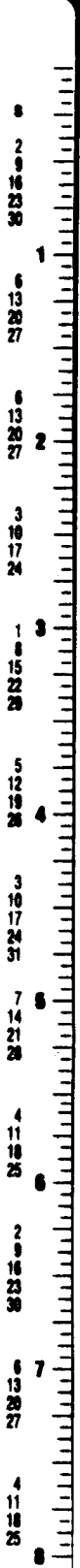
Paint rocket and apply decals.

- a) Painting your rocket improves its appearance as well as its performance. For best results, use enamel-type spray or bottle paints, and use several light coats of paint rather than one heavy one.
- b) A suggested paint scheme is illustrated on the front of this kit's package. To duplicate this scheme, mask off (using newspaper and masking tape) the ventral fins and the laser cannon, and spray paint the entire rocket gray. After this paint has dried, mask off the entire rocket except for the ventral fins, and spray paint these fins red. Use brush paints to paint the laser cannon bright yellow and the fuel tank ends flat black.
- c) After the paint has dried, apply the decals as desired. Apply the solid black decal to the nose to create a cockpit. The flag decals are intended for the tops and bottoms of the wings. The "squadron insignia" (AJ tail codes) should go on the dorsal fins, and the other decals can be applied wherever you wish.
- d) It is recommended that you use the colorful (red, white, blue, and black) versions of the decals if you choose the paint scheme depicted on the front of the package. An alternative paint scheme gives a "stealth" appearance: paint the entire model light gray. If you choose this scheme, use the dark gray versions of the decals to complete the "stealth" look.
- e) After all the paint and decals have dried, you may wish to apply a light coat of clear enamel (such as Testors® Glosscote) to protect your rocket's finish.

22

Prepare for launch.

- a) To launch your rocket, first make certain it is assembled as described in step 20. Note that *no recovery wadding is required*, as the reusable Perma-Wadding serves to protect the parachute from the hot ejection charge.
- b) Slide an engine of a recommended type (see page 1 of these instructions) into the rear of the rocket so the nozzle is pointing outward. It is recommended that an A8-3 engine be used for the first flight of the rocket. Slide the engine in until the engine clip snaps into place around it.
- c) Install an electrical igniter into the engine as recommended by the engine manufacturer.
- d) Mount a 1/8" launch rod on your launch pad and slide the rocket's launch lug down the rod. Connect the igniter to your electrical ignition system. (Launch systems are available from your local hobby store.)
- e) Launch your rocket! Remember to follow the National Association of Rocketry Model Rocket Safety Code whenever you launch.
- f) Let us know how you like the design! Write or e-mail us and tell us what you did or didn't like about this kit. You can help us better the hobby by sharing your opinions and ideas!



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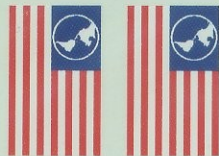
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NAVY NAVY

**INTERDICTOR
INTERDICTOR**



NAVY NAVY

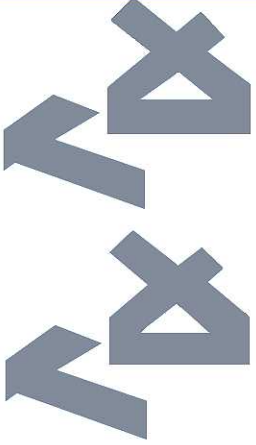
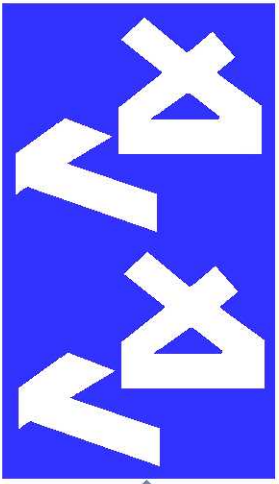
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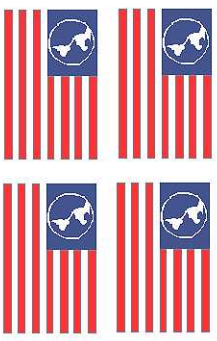
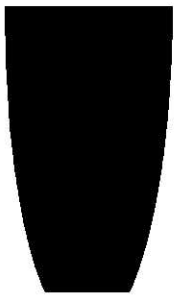


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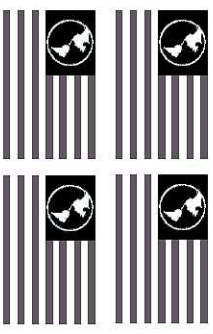


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