ASSEMBLY

**STEP 1**
1. Mark the engine casing 1/4" from one end and use as a depth guide. Apply glue to the inside of one end of the body tube at a depth of 1-1/2". Insert the engine block into the engine casing, then insert the body tube into the engine casing until the engine block is seated. Press it into place with the marked engine casing.

**STEP 2**
1. Cut the rudder, fin, and flap patterns from the pattern sheet. Lay out the rudder and fin patterns on a flat surface, trace around each with a ball point pen, and cut out and sand all the parts as shown.

**STEP 3**
1. Cut out the flap holder pattern and from the hardwood piece, cut two holders. Sand the square edge to a slight angle as shown. Set aside for later installation.

**STEP 4**
1. Cut out the tube marking guide and wrap it around the rear of the body tube 3/4" from the end. Mark the end carefully and mark the body tube at both fin and launching lug locations. Remove the guide and connect the marks with a straight line. Carry all lines toward the front end of the tube or closer if desired. (Save the guides. They will be used later.)

**STEP 5**
1. Tape the fin and flap together as shown. Cut out the hinge pattern and cut one hinge from each piece of material provided. Strip the backing paper from the hinge piece and apply it as shown. Do the same to the other hinge and flap assembly. Remove the masking tape and bend the flap back flat against the fin to create the hinge. The flap will bend back slightly. To finish the attachment, replace the piece of masking tape to hold the assembly flat.
PATTERN SHEET
SP-24
K-24 GYROC

TUBE MARKING GUIDE

Place on WHITE SIDE of hinge material. (Make 2)

FLAP HOLDER (Make 2)

FIN PATTERN (Make 2)

GRAIN

RUDDER (Make 4)

FLAP PATTERN (Make 2)

GRAIN
**STEP 6**

- Step 5. Apply glue to the fin part of one assembly and place it on the guide line. Sight down the side of the body tube so that the fin is placed in line with the centerline of the tube and sticks straight out from the tube. Allow the glue to set. Attach the other fin-clip assembly in the same way.

- Set the model on its nose while the glue dries. Add the launching lug if desired and glue it into place as shown.

**STEP 7**

- Step 7. Use the tube matching guide as shown to glue the runners into position. Place these to stick straight away from the fin on either side. (See the rear view of the general layout.)

**STEP 8**

- Step 8. Place an engine casing into the body tube. Apply glue to a hardwood rod and put the rod on the flap on the side opposite the hinge. As shown, position the rod in the same way as the engine case. Apply the other rod in the same way. View your model from the rear and compare the rear view of the general layout with it.

**STEP 9**

- Step 9. Glue the nose cone into place.

**STEP 10**

- Step 10. Remove the masking tape from the fin-clip points. Paint the model the colors of your choice. The elastic thread is installed as per construction step.

**STEP 11**

- Step 11. Thread the elastic thread through the eye of the needle, one knot the other end of the thread. Hook one end against its rubber and push the nose cone through the flap from the base. The needle point should come out through the hinge. 1/8" from its rear edge. Draw the elastic thread through until the knot is seated against the flap. Apply a touch of glue to the knot side forcing just enough glue through the hole to appear on the hinge side. Allow the glue to set. Locate a point 1/2" up from the rear edge and 1/8" back from the leading edge of the rubber. Push the needle through and draw the thread tight enough to pull the flap from its straight position to full flap position. Apply glue as you did on the flap and hold the elastic thread in this position until the glue appears firm. Set.

**GENERAL LAYOUT**

- Suggested Engines: 1 240-1, AB-4, AA-3, AA-5.

- Not designed for use with Series II engine.

**COUNTDOWN **

- 10. Select an engine and insert an igniter following the instructions which came with the engines.

- 9. Hold flaps in their neutral position. Slide the engine onto its place. The nose is lowered -- just release the flaps.

- 8. Place the rockets on the launcher. Clean and attach the clips to the igniter leads.

- 7. Close the area, check for low flying aircraft, start recovery, tower, and tracking area.

- 6. Arm the launch controller and check continuity.

**ASTRON GYROCO**

**ESTES INDUSTRIES**

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