

# THOY

## Model Rocket Kit

# Macron

Length 12.25"  
Diameter 1.00"  
Weight 1.05oz.

Motors: A8-3 (first flight), A8-5, B6-6, C6-5

Estimated Maximum  
Altitude: 1000 feet

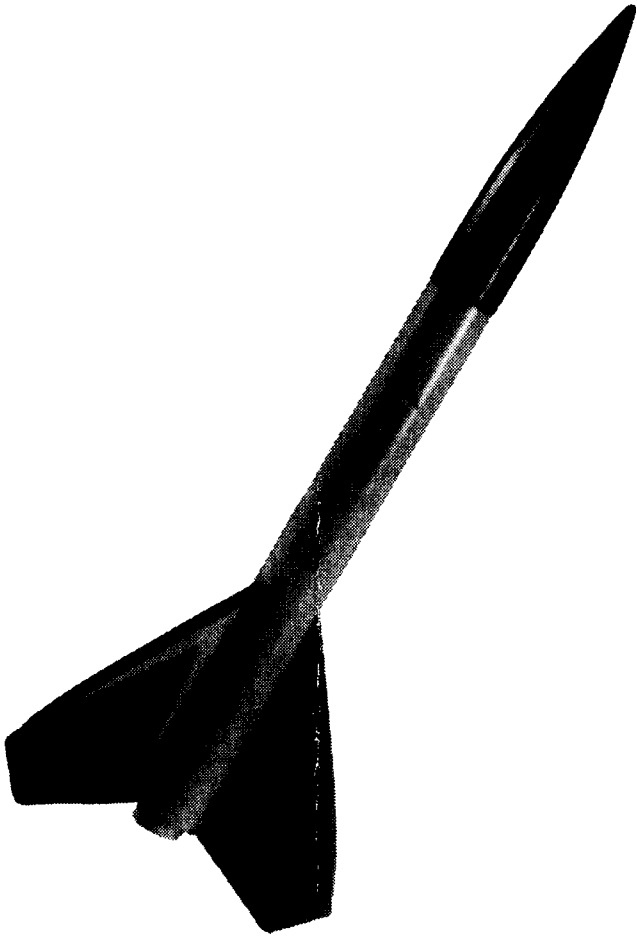
Recommended for ages 10  
through adult. Adult  
supervision for ages twelve  
and under.

Not included in this kit:  
finishing supplies,  
glue, engines, model  
knife, and launch  
equipment



**THOY** 

# MACRON



The Macron is a very stable flying rocket and ideal for a first kit. It contains a 12" parachute for recovery. This rocket is designed to be flown only from a standard model rocket launcher with a 1/8" launch rod and an electrical launch control system. Please follow the model rocketeer's safety code thereby making the hobby safe and enjoyable for everyone.

### Parts List

- |                       |                                 |
|-----------------------|---------------------------------|
| (1) Nose cone         | (1) Body tube, 7 3/4"           |
| (1) Motor mount tubes | (2) Motor mount centering rings |
| (1) Motor block       | (1) Launch lug                  |
| (1) Shock cord        | (1) Screw eye                   |
| (1) 12" parachute     | (1) Shock cord mount            |
| (1) Balsa Sheet       | (1) Fin template sheet          |

### Tools Needed For Assembly

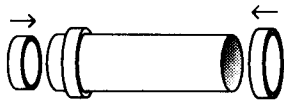
- |                            |                |
|----------------------------|----------------|
| Cyanoacrylate or Wood Glue | Sanding Sealer |
| Ruler                      | Modeling Knife |
| Sandpaper (220 - 400)      | Pencil         |
| Scissors                   | Masking tape   |

---

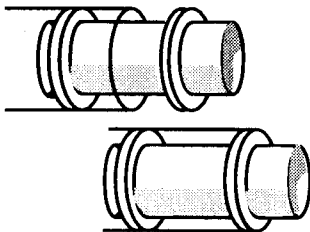
### ASSEMBLY

Note: Throughout these instructions are references to using a double glue joint to connect parts to one another. A double glue joint is stronger than just applying glue to one surface and holding it against the other until it sets up. It also sets up faster allowing quicker construction time. Proceed as follows; when the surfaces to be joined are ready, apply a thin layer of wood glue to both mating surfaces. Smooth the glue out with your finger. When that layer has dried completely apply another thin layer and connect the parts. The parts should hold together within a minute and dry quickly enough to move on to the next step. These joints are not normally strong enough on their own and should be reinforced with fillets. **This procedure does not apply if you are using cyanoacrylate where you should follow the manufacturers instructions.**

1) Glue the motor block inside one end of the motor mount tube flush against the edge. Glue one of the centering rings flush inside the same end of the motor mount tube. Glue the other centering ring 1/4" from the other end of the motor mount tube. Set motor mount aside to dry thoroughly.

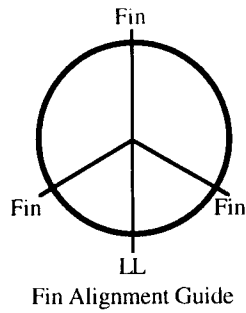


2) Apply a generous amount of glue in one end of the body tube and insert the motor mount until the aft centering ring is flush with end of the body tube.

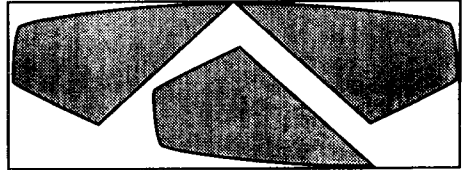


3) Fill the body tube seams if desired. Lightly sand the body tube with #400 sandpaper. This helps create stronger glue joints and a better surface for paint to adhere to.

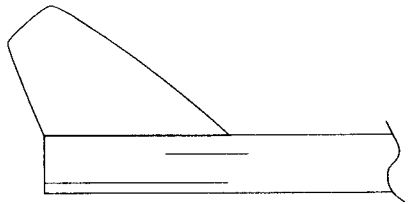
4) Use the fin marking guide to mark the fins and launch lug positions on the tube. Extend the lines on the body tube using a ruler or door jamb.



5) Cut out the fin template and trace copies on to the balsa sheet according to the diagram. Cut out the fins carefully with a hobby knife. Hold the fins together and sand until the edges are even. Leave the root edges square and round the other edges.

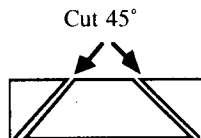


6) Use the double glue joint method and attach the fins to the alignment marks. The trailing edge of each fin should be flush with the end of the body tube. Make sure fins project straight away from the body tube.

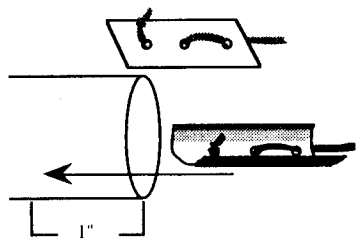


7) When the glue has dried thoroughly, apply glue fillets to all of the fin/body tube joints. When fillets have dried, brush on sanding sealer to the fins and nose cone and sand between coats until a smooth surface is achieved.

8) Taper cut the front and rear of the launch lug. Glue and fillet the launch lug to a body tube/fin joint 3" from the rear edge of the body tube.



9) Thread the shock cord through the shock cord mount and tie a double knot at the end. Apply a thin layer of glue to the top and bottom of the shock cord mount and inside about 1" from the front end of the body tube. Roll the shock cord mount so it will fit better against the inside of the body tube. When the glue has dried apply a slightly thicker layer of glue to the shock cord mount and press it into place until the glue sets.



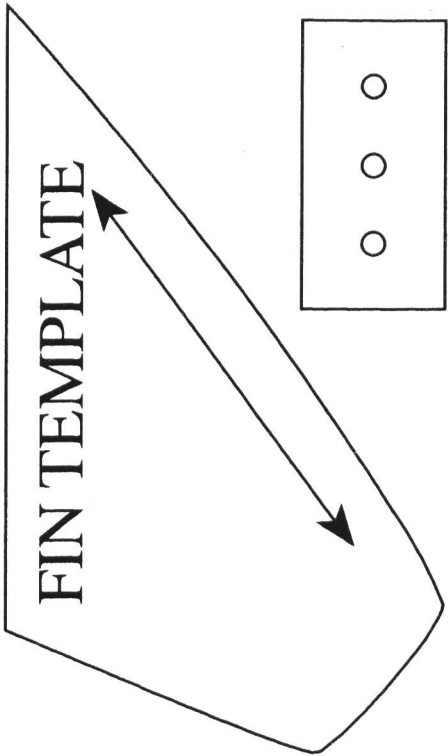
10) Tie the other end of the shock cord to the nose cone and parachute.

- 11) Paint the Macron the colors of your choice.
- 12) Prepping the Macron for flight: Insert recovery wadding into the body tube. Powder the parachute with talcum powder then fold parachute so it fits loosely inside the body tube. Pack the shock cord and shroud lines above the parachute and put the nose cone in place. It should fit snugly, but not too tight.
- 13) Friction fit a motor and install an igniter per the manufacturer's instructions.

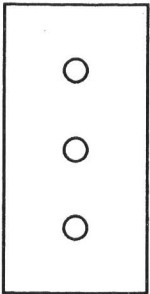
### **Parachute Assembly**

- 1) Carefully cut out the parachute.
- 2) Cut shroud line into three equal lengths of 28" for the 12" parachute and 18" for the 7" parachute.
- 3) Apply tape ring to the six dots on the parachute.
- 4) With a sharp pencil, punch holes in the center of each tape ring.
- 5) Tie each end of the shroud line through each tape ring.
- 6) Attach the parachute to the nose cone.

**Tiffany Hobbies of Ypsilanti**  
P.O. Box 467, Ypsilanti, MI 48197  
Phone (313) 741-0847 Fax (313) 484-4272



**FIN TEMPLATE**



THOY ≡≡≡

MACRON

