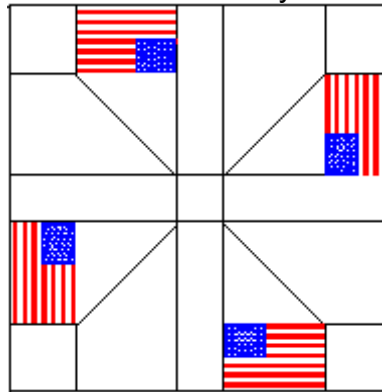


# Art Applewhite Rockets

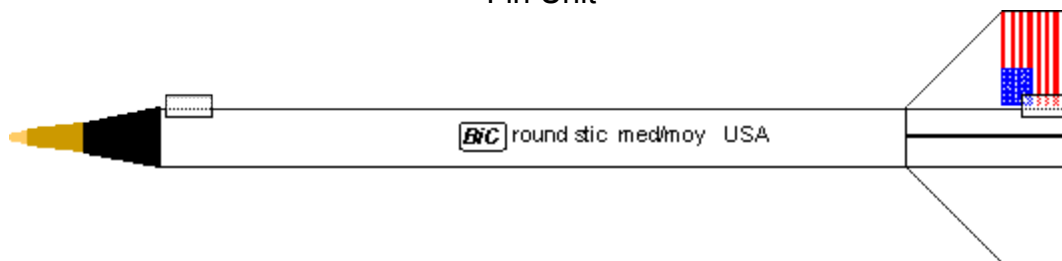
from deep in the heart of Texas



## BiC Stic Rocket Assembly Instructions



Fin Unit



Print these instructions on 110 lb cardstock at 100% scaling.

1. Remove the plug from the back end of the pen and save for later.
2. Remove the entire pen tip including the clear ink tube
3. Remove the ink tube from the pen tip and cut off 2 pieces, 3/8 inches long, to use as launch lugs.
4. Remove the metal ball point and replace with a rounded-off toothpick. Hold in place with crazy glue.
5. Trim off the most of the back portion of the tip and glue it to the body tube with crazy glue
6. Cut off a 1/4 inch piece of the of the black end plug, removed in step 1, to make the engine block.
7. Press the engine block 3/4 to 7/8 inches into the rear of the body tube and secure with crazy glue.
8. Cut out the fin unit as one piece. Cut out the small square in the middle and the small squares at the corners with a sharp craft knife.
9. Fold away from the printed side on the diagonal lines and toward the printed side on the parallel lines.
10. Form the fin unit into a hollow square box with four flat fins sticking out at 90 degree angles. Glue the fins together with a small drop of white glue on the inside of each one. Allow the glue to dry completely.
11. Round out the square tube part of the fin unit with the tip of the pen and slide the fin unit to the rear of the rocket.
12. Make sure the fins are straight and the bottoms flush with the rear of the body tube. Coat the entire fin unit with crazy glue. This will hold it in place and also make it much stronger. Sand the fins lightly after the glue dries for a smoother finish
13. Glue one launch lug to the rear of the fin unit at a fin-body junction using gel type crazy glue. An extra fillet of glue may be necessary for a strong joint.
14. Glue the other launch lug to the front of the rocket being careful to line it up with the rear launch lug. Fillet with extra glue if necessary.
15. Feel free to modify this basic design by adding either a break-apart, streamer or parachute recovery system. This would ultimately be safer than the "lawn dart" recovery system presented here, but performance will suffer if more weight is added.