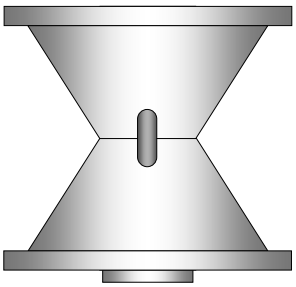
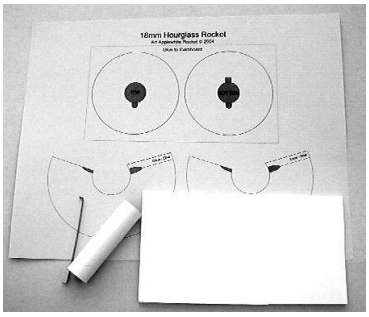
Art Applewhite Rockets

from deep in the heart of Texas

18mm Hourglass Rocket Assembly Instructions

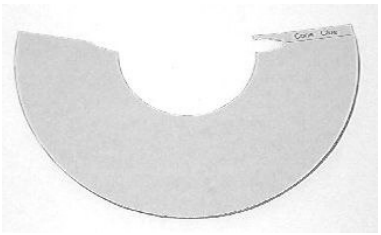
Diameter – 3 inches (7.5cm)
Height – 2.75 inches (7cm)
Weight – 0.5 oz (12gm)





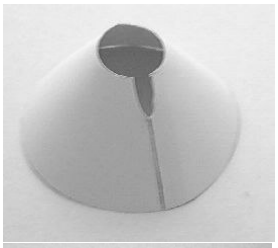
Parts List
Cones – Cardstock
Top & Bottom – Foam-backed Board
2.75"x18mm Motor Mount
2.75" Engine Hook

Recommended motors: B6-0, C6-0, Aerotech D21-4T, RMS 18/20 reloads



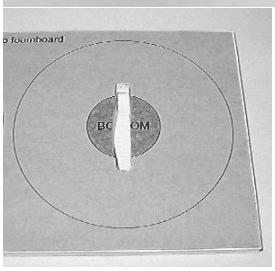
Tools and supplies needed
Scissors, #11 Exacto® knife, Elmer's Glue-All® (White glue), Cellophane tape

Please read through the entire instructions before beginning. Make sure all the parts in the above list are present. Contact rocket877@aol.com if any parts are missing or damaged.

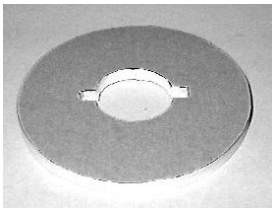


Construction Tips:

- Use a new #11 Exacto® knife blade.
- Take your time and pause between steps to let the glue dry.
- Do not use too much glue.
- Test fit parts before gluing.

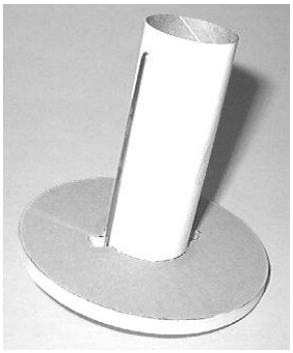


1. Cut out the CONES with a good pair of scissors and a #11 Exacto knife. Cut on the lines. The lines are made intentionally thin so the cuts will be accurate.
2. Put a small amount of glue on Glue Tab of one of the CONES. Spread it out thinly and evenly. Form the CONE into a cone with the edge of one side right on the line of the Glue Tab.
3. Repeat the above step for the other CONE.
4. Cut out the rectangle for the TOP & BOTTOM along the dashed lines. Spread glue evenly on the back and glue it flat to the foamboard.
5. Once the glue is dry, cut out the center Motor Mount, Launch Rod and Engine Hook holes in the BOTTOM. This is easier if done in stages. Take out a section in the center and then the sides.
6. Cut out the outside edge of the BOTTOM.
7. Repeat the above 2 steps for the TOP.

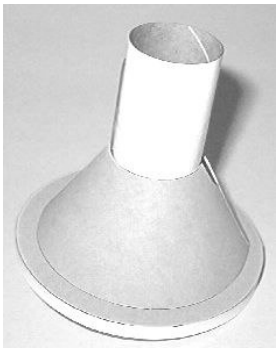


18mm Hourglass Rocket Assembly Instructions - Page 2

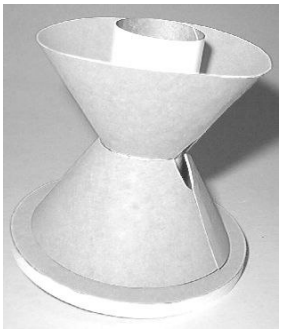
8. Make a 1/8" cut the MOTOR MOUNT, ¼" from one end.
9. Put one end of the ENGINE HOOK into the cut in the MOTOR MOUNT.
10. Cut out the ENGINE HOOK WRAP and spread glue evenly over the back. Wrap it around the center of the MOTOR MOUNT to hold the ENGINE HOOK in place. The area marked "Engine Hook" should go directly over the ENGINE HOOK and the WRAP should lay as flat as possible against the MOTOR MOUNT.



11. Spread glue on the inside of the Motor Mount hole in the BOTTOM.
12. Slide the back end of the MOTOR MOUNT into the BOTTOM. The end of the MOTOR MOUNT must be flush with the BOTTOM and perpendicular to it. The ENGINE HOOK should be in the square notch in the BOTTOM.
13. Make a fillet of glue where the BOTTOM and MOTOR MOUNT join.
14. Slide one of the CONES, large end first, over the MOTOR MOUNT. Make sure the Launch Rod Holes line up and there are no gaps between the BOTTOM and the CONE. Spread a fillet of glue where the CONE and the BOTTOM join.



15. Slide the other Cone, small end first over the MOTOR MOUNT. Make sure the Launch Rod Holes line up.
16. Spread glue on the inside of the MOTOR MOUNT hole in the TOP and slide the TOP onto the MOTOR MOUNT. Make sure the Launch Rod Holes line up. There should be no gaps between the TOP, CONES and the BOTTOM. The TOP should be parallel with the BOTTOM.
17. Spread a fillet of glue where the TOP and 2nd CONE and another where the two CONES join.
18. Spread glue evenly over the foam edges on the TOP and BOTTOM to protect the foam from paint.

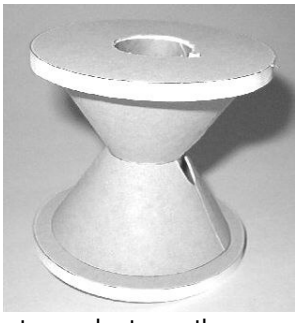


19. If you do not paint the rocket, you should at least spray one or two light coats of clear enamel to protect the cardstock and glue from moisture.

Launch Preparation:

Recommended motors: B6-0, C6-0, Aerotech D21-4T, RMS 18/20 reloads

NOTE: This design sometimes displays anonymous flight characteristics at the end of the boost phase. The rocket may tumble rapidly while still under power but continues in an upward direction. This is more likely to happen under windy conditions. It is not dangerous and does not affect the safety of the flight or its recovery. This a feature and not a bug. :-)



- Snap the motor into place and install an igniter.

Limitation of Liability: Model rockets are not toys. Model rockets are functional rockets constructed of lightweight materials and launched using pre-manufactured, NAR safety certified model rocket motors in accordance with the NAR Model Rocket Safety Code. Model rockets, if misused, can cause injury, property damage and even death. Art Applewhite Rockets certifies that it has exercised reasonable care in the design and manufacture of its products. Once sold, we cannot assume any liability for product storage, transportation or use. Art Applewhite Rockets shall not be held responsible for any property damage or personal injury whatsoever arising from the handling, storage, use or misuse of our product. The buyer assumes all risks and liabilities there from and accepts and uses Art Applewhite Rockets products on these conditions.