EXOTIC 37MM STAR CLUSTER PROJECTILE INSTRUCTIONS

READ ALL INSTRUCTIONS BEFORE STARTING PROJECT

- 1) Place solid paper plug at the bottom of the tube (use the one without a hole)
- 2) Using hot glue, glue all the way around the solid plug and let it cool down
- 3) Prime a 3.5" aluminum hull by placing a #209 shotgun primer in the hole on the flat side of the 37mm hull.
- 4) Using Hot glue place a small amount of hot glue on the small side of a powder bushing and place in the bottom of the 37mm hull. (The small hole on the bushing should fit around the primer on the inside) set this aside.
- 5) Open one package of colored stars and pour into the cardboard tube.
- 6) Place one 3" fuse length into the tube in the center and make sure it reaches the bottom of the tube. (you may need to move the star pieces around to make this happen)
- 7) Measure 45 grains of FFFG or FFG black powder substitute, and pour into the tube with the stars and fuse.
- 8) Place one paper disc with a hole in it over the fuse and down the tube till it rests on the top of the star powder mix.
- 9) Fill the remainder of the tube with hot glue and then place the second paper disc over the fuse and on top of the hot glue and let cool.
- 10) (Using a sharp utility knife) Cut the fuse at a 45 degree angle $\frac{1}{4}$ " from the end of the tube
- 11) Measure fffg Pyrodex black powder substitute, or black powder at 50 grains for 100 meter altitude or 70 grains for 150 meter altitude and pour carefully into the 37mm hull with the bushing that was assembled earlier. The powder should sit inside the bushing do not overfill. (WARNING DO NOT PUT MORE THAN 80 GRAINS IN THE CASING INJURY OR DEATH MAY OCCUR)
- 12) Place a rubber band around the projectile approximately ¹/₄" from the fused bottom. Push the payload cup firmly into the 37mm hull until it sits on the bushing. The projectile is now ready to fire.

Note: If you live in a humid area or are not planning on firing the flare right away it is a good idea to seal the edge of the casing and payload cup with hot glue or nail polish to prevent moisture from getting to the boosting charge.



