

## How to Attach a Simple Salute Heading

### CAUTION!!

Working with pyrotechnic devices is a very rewarding endeavor that can become a lifetime passion. To ensure continued enjoyment of this hobby, please follow appropriate safety guidelines. Work in an open area outdoors, keep all pyrotechnic mixtures in closed containers, limit any compositions to only the amount needed for a particular item, store finished items in an appropriate day box or magazine, be sure to wear appropriate non-synthetic clothing, wear eye protection and keep a source of water nearby. FireSmith cannot be held responsible for any accidents or incidents resulting from the construction and use of any pyrotechnic devices. It is highly recommended to check and adhere to all local, state and federal regulations. Please consider joining the PGI and any pyro clubs in your area so that you may construct pyrotechnic items in a safe and legal environment. Additional information can be found at [www.pgi.org](http://www.pgi.org).



Every rocket should have some sort of effect deployed at the end of its flight. Report, flash or salute headings are simple to make, very light weight and quite useful for detaching a spent rocket motor from its stick. Plus, the difference in time between seeing the flash and hearing the report is a good indicator of rocket altitude. Caution is required, however, as this tutorial depicts making flash powder. The method described is the absolute safest method of producing report headings (and is in fact required at the PGI and many club events). Please bear in mind, though, this is still a very sensitive and powerful composition. Proceed with the following tutorial at your own risk.

#### Step 1a

Cut a 4-5" length of paper tube that has an ID the same size as the OD of the rocket motor.



#### Step 2a

Slip the heading tube over the top of the rocket motor. Apply a bead of glue (super glue or wood glue works well) around the joint. With a twisting motion, slide the heading tube approximately 1/2" over the top of the motor.



**Step 1b**

With larger motors it may be difficult to locate paper tubes that fit the OD of the motor. In this situation, a section of paper tube with the same ID as the motor may be used. Simply cut a 1" length of tube that fits the ID of both the motor and the heading tube. Glue this tube 1/2" deep into the heading tube.



**Step 2b**

Apply a bead of glue around the stub protruding from the heading tube. With a twisting motion, insert the stub into the top of the rocket motor.



**Step 3**

Apply a couple wraps of kraft tape around the joint of the motor and heading tube.



**Step 4**  
Dump 1 tablespoon of potassium perchlorate into the heading tube.



**Step 5**  
Dump 1 tablespoon of dark aluminum into the heading tube.



**Step 6**  
Glue a paper or chipboard disc over the end of the heading tube.



**Step 7**

**Wrap the end of the heading tube with a couple turns of kraft tape. Fold this tape over the top of the paper disc. When the glue is dry, give the motor a few shakes to mix the report composition.**

**Remember, when mixed, flash is a very sensitive and powerful composition. Since each individual ingredient isn't mixed prior to being loaded in the heading tube, the "binary method" of mixing flash powder depicted in this tutorial is the safest way to work with such a formula.**