

Using a Strobe spindle for Various Types of Rockets

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Strobe rocket:

Press 3 increments of fast whistle (Salicylate-based) which leaves 2 inches of spindle above the increments of whistle for strobe fuel to be pressed in. Then, ¼ inch above the spindle with strobe, then finish the rocket with at least 2½ increments of fast whistle. With this whistle, mix in a small amount of Titanium with each increment pressed.

Colored Tail Rocket:

Press in 3 increments of fast whistle (Salicylate-based) then finish the rocket with the colored fuel to about ¾ of an inch above the spindle, then press in 1-2 more increments of fast whistle for a good bulkhead above that.

Black Powder Rocket - Using a Clay Nozzle *(This rocket will lift a medium weight payload)*

Use straight Black Powder fuel which would be a mix of 75 parts Potassium Nitrate, 15 parts Airfloat Charcoal, 10 parts Sulfur, and 5 parts Dextrin. *(The powder is dampened with water, riced and dried).*

Press this to at least 1½ inches above the spindle to make a good bulkhead and delay.

Black Powder Hybrid Rocket - Using a Clay Nozzle *(This rocket will lift heavy payloads)*

Press #2 Hybrid Fuel all the way up and 1 increment above the spindle. Then use whatever fuel you want for the delay portion of the rocket.

(#2 Hybrid fuel is a 50-50 mix of Black Powder and whistle fuel is mixed together by volume. The Black Powder is a mix of 75 parts Potassium Nitrate, 15 parts ball-milled charcoal 15 parts 40 mesh charcoal 10 parts Sulfur and 5 parts Dextrin. The powder is dampened with water, riced and dried.)

(The whistle mix is 76 parts Potassium Perchlorate, 23 parts Sodium Salicylate, 1 part Vaseline, and 3 parts Iron Oxide or Copper Oxychloride which acts as a catalyst.)

Long-Winded Screamer Rocket: *(This rocket will lift light payloads to very high altitudes)*

Press 3 increments of fast whistle (Salicylate-based) then finish rocket with 64-32-1-5 or 70-30-1-5 Benzoate-based whistle fuel to about 2 inches above the spindle. This is the short version of the Long-Winded Screamer rocket motor.

Straight Whistle Spindle Using a Sodium Benzoate Based Fuel:

(This rocket will lift heavy payloads)

Use sodium benzoate whistle fuel mixed to a ratio of 76 parts Potassium Perchlorate, 23 parts Sodium Benzoate, 1 part Iron Oxide or Copper Oxychloride, and 3 parts Vaseline. Press this rocket to at least 1½ inches above the spindle with the same fuel or once above the spindle with one increment of benzoate fuel, then change the fuel to whatever you want for a tail. A slow burning fuel will give you more delay and a faster burning fuel will give you less delay

Nozzless Rocket: *(This rocket will lift light payloads)*

These rockets will seldom CATO. Use the same fuel as the #2 Hybrid fuel, only use 75% whistle and 25% BP fuel, by weight.