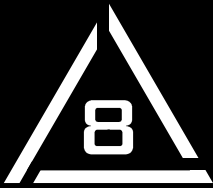


DELTA 8 Smoke Signal Device



Consumer made. Commercial Grade.
A Do-It-Yourself Kit

Rev 1.2

Mixture Filling & Assembly Instructions

**Video Instructions
On YouTube**



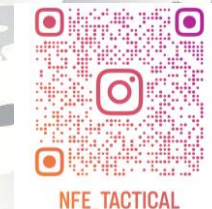
**Video Instructions
for igniters**

**A product exclusively by
NFE Tactical Plus**



www.nfetactical.com

**67mm For X Products
Can Cannon**



nfe_tactical



Touch of Tism

Items you will need (Not included in the kit)



Coffee Grinder



Pocket scale



Metal Spoon



Paraffin Wax
Pellets



Single burner
Cooktop



Small 5-6" pot



Potassium
Nitrate
(Technical Grade)



Sugar



SAFETY FIRST



It is highly recommended to use a respirator when handling potassium nitrate. Over exposure may lead to respiratory issues.



Additional items you will need (Not included in the kit)

The ignitor kit

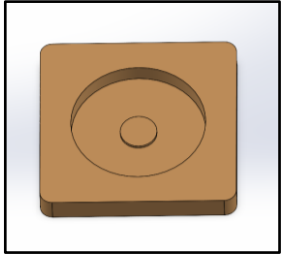


<https://inventionincarnate.com>

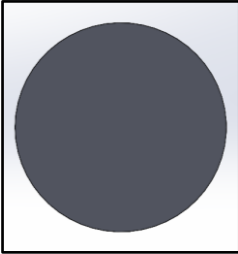


<https://www.skylighter.com>

Items Included in the kit



Wood Fixture 1X



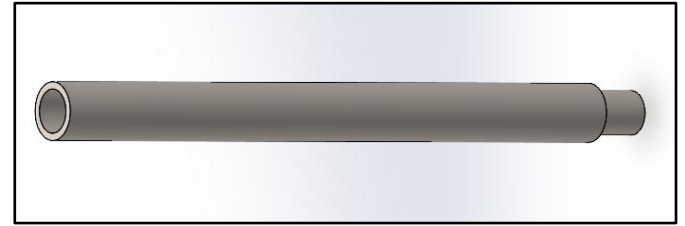
Vinyl Sticker 4X



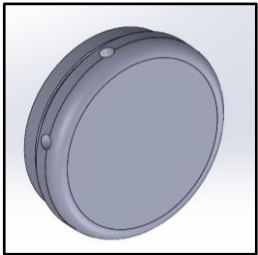
Silicone Plug 1X



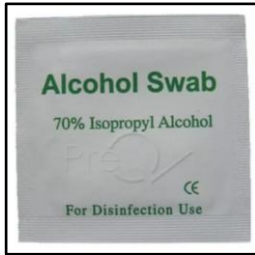
Clear Mixing cup 4X



Steel Core Rod 1X



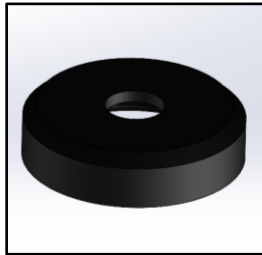
Delta 8 Nose
Cone Flat 4X



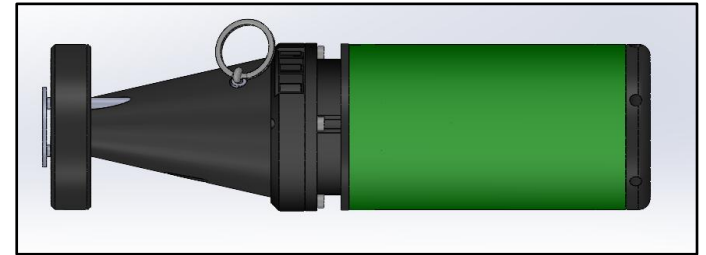
Alcohol Swabs 8X



Funnel



Can Cap



Delta 8 Fully Assembled

This mixture to be used by Certified Pyrotechnicians only

Other smoke mixtures can be substituted.

PART 1 THE MIXTURE

Items you will need in this section



Pocket
scale



Spoon



Paraffin Wax
Pellets



Potassium
Nitrate
(Fireworks Grade)



Sugar



Clear Mixing cup

1

Place a cup on the scale and hit tare. This will zero out the scale, so the measurement is accurate.

2

Using the spoon, place **60 grams of potassium nitrate** into the cup. Do a little at a time to reach 60 grams. Set this cup aside.

3

With a new cup on the scale, using the spoon, place **45 grams of sugar** into the cup. Do a little at a time to reach 45 grams. Set this cup aside

For a slower burn time use 40 grams of sugar

4

Place a new cup on the scale. If you purchased solid candles, use a scissor or box cutter and chip away chunks of wax. Put **35 grams of wax** into the cup and set aside.

For heavier smoke use 40 grams of wax

Try to stay within +/- .5 - .8 grams. Any extreme deviation from the above amounts will result in an undesired result.

Doing this process 2X the Delta 8 will weigh approx.
530g and will travel 100 yards

Repeat this process 3X to fill the can

PART 2

THE MIXING

Items you will need in this section



Coffee
Grinder



Single burner
Cooktop



Small 5-6" pot

5

Take your 60 grams of potassium nitrate and 45 grams of sugar and combine them in the coffee grinder. Mix for 1-2 minutes while tapping the sides, shaking it, turning it upside down, ensuring the mixture is even. These grinders are good, but a lot of the powder falls below the blade. When this is complete place the mixture into an empty cup and set aside.

6

Plug in your cook top with the pot on the burner and set to the lowest setting. Dump your 35 grams of candle wax into the pot and melt. Stir with a metal spoon so all the chunks melt faster.

7

When the wax is completely melted, dump your potassium nitrate and sugar mix into the wax. Using the metal spoon stir the mixture until the combined powder is fully coated. This mixture **DO NOT** want to caramelize like other recipes so you may have to turn off your heat to prevent this. Stir until smooth.

8

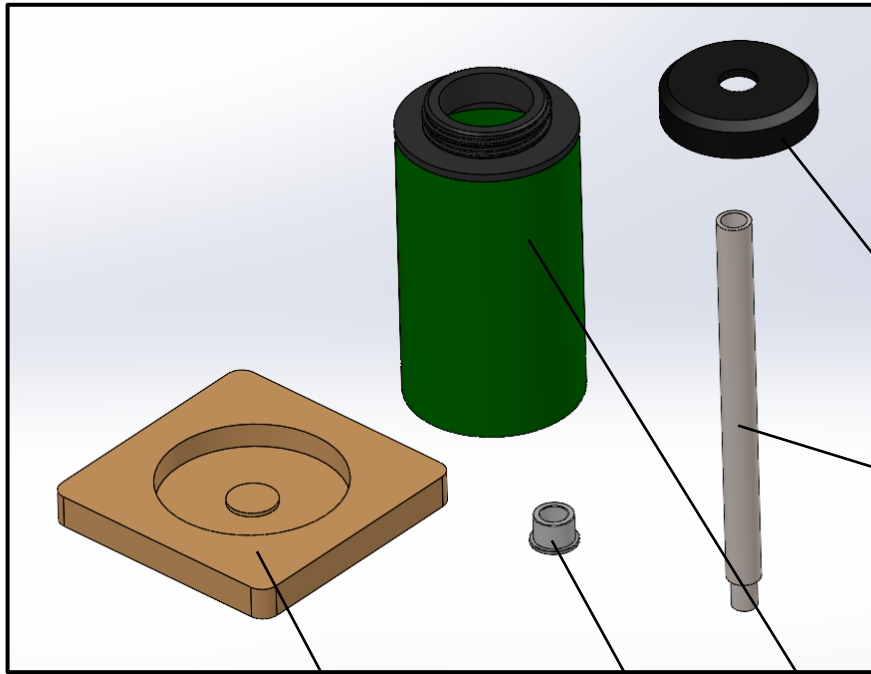
Once the combined mixture of potassium nitrate and sugar is coated with melted wax, the mixture should form a slurry or a smooth wet paste. Turn your burner off and let sit while you prepare for pouring. Turn the burner on again to keep warm if you need to.

Doing this process 2X the Delta 8 will weigh approx. 530g and will travel 100 yards

Repeat this process 3X to fill the can

PART 3

THE POUR



Wood Fixture

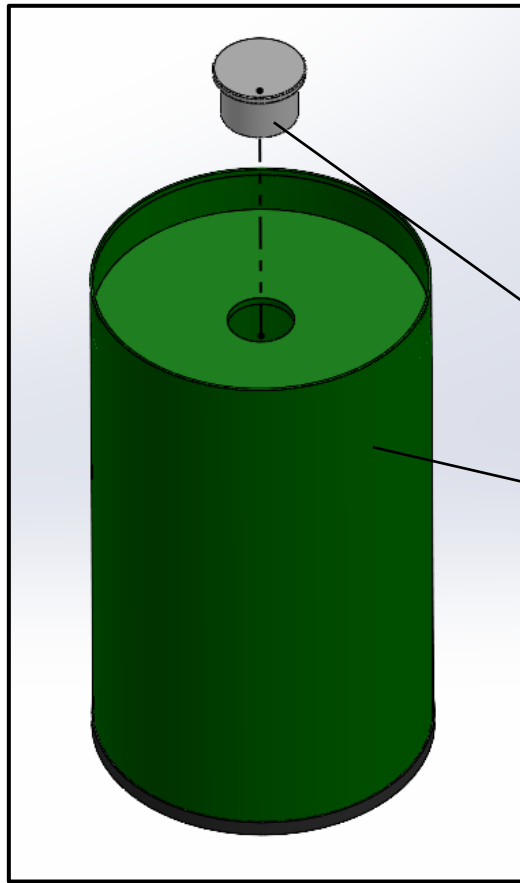
Silicone Plug

Can (Smoke Device body)

Each kit comes with one Wood Fixture to hold the can in place during mixture filling. The kit also includes a silicone plug, steel core rod and can cap for core rod alignment during cooling

Can Cap

Steel Core Rod



9

Install the Silicone Plug in the bottom end of the can. Make sure the plug is seated all the way in to ensure a good seal.

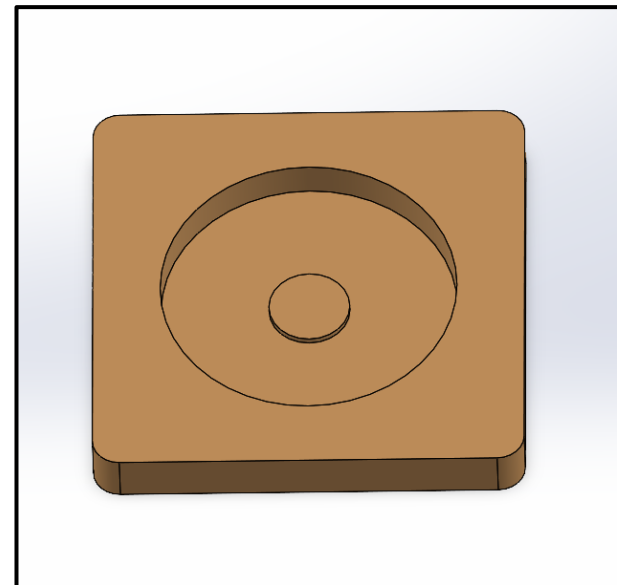


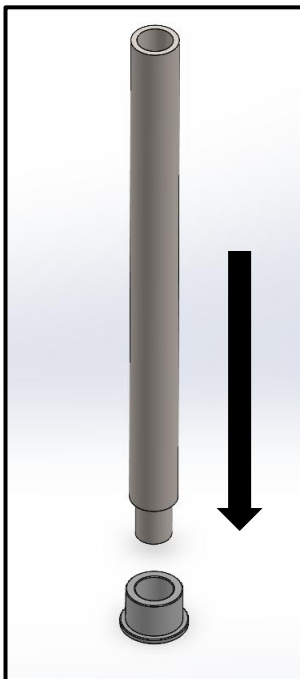
Silicone Plug

Can (Smoke Device body)

10

The wood fixture has a disc in the bottom for the Silicone Plug to rest on. Place the can into the fixture. Silicone plug side facing down.





11

Place the small end of the Steel Core Rod into the inside of the silicone plug. Place the funnel on top of the opening of the can. Pour the smoke mixture into the funnel and push down, if necessary, with a spoon.

12

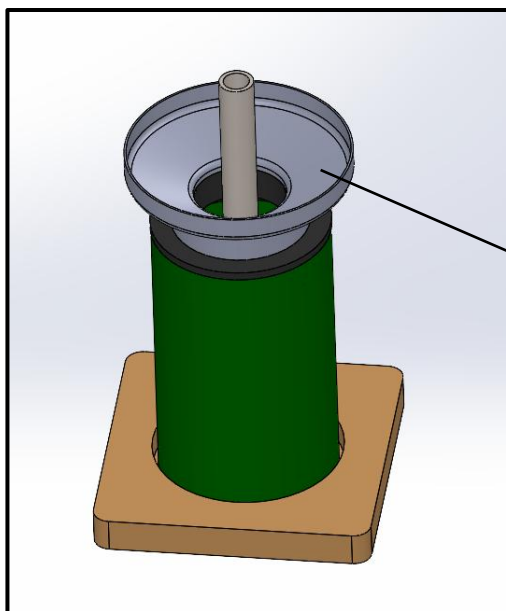
Remove the funnel.

13

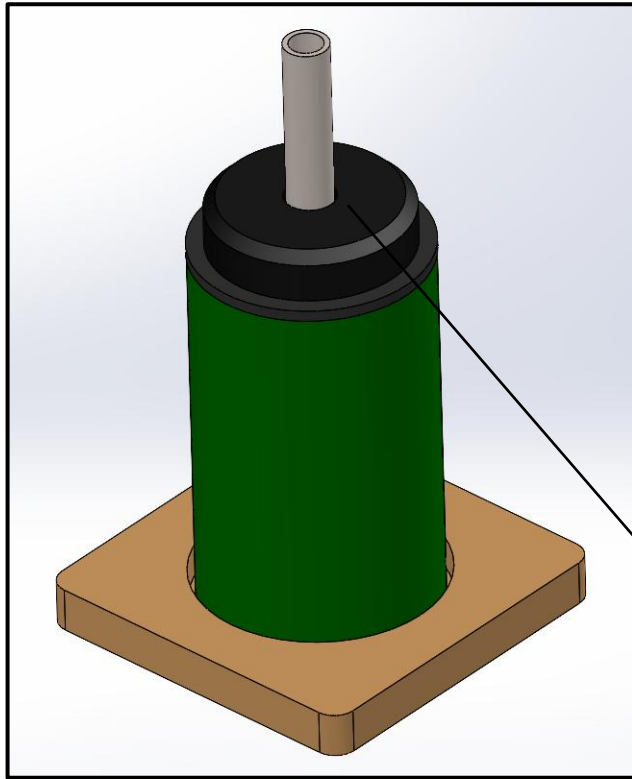
Keeping the can held down flat, jog the fixture back and forth to get the hot mixture to level out.

14

Make new mixture of potassium nitrate, sugar and wax. Repeat steps 1-8.



Funnel



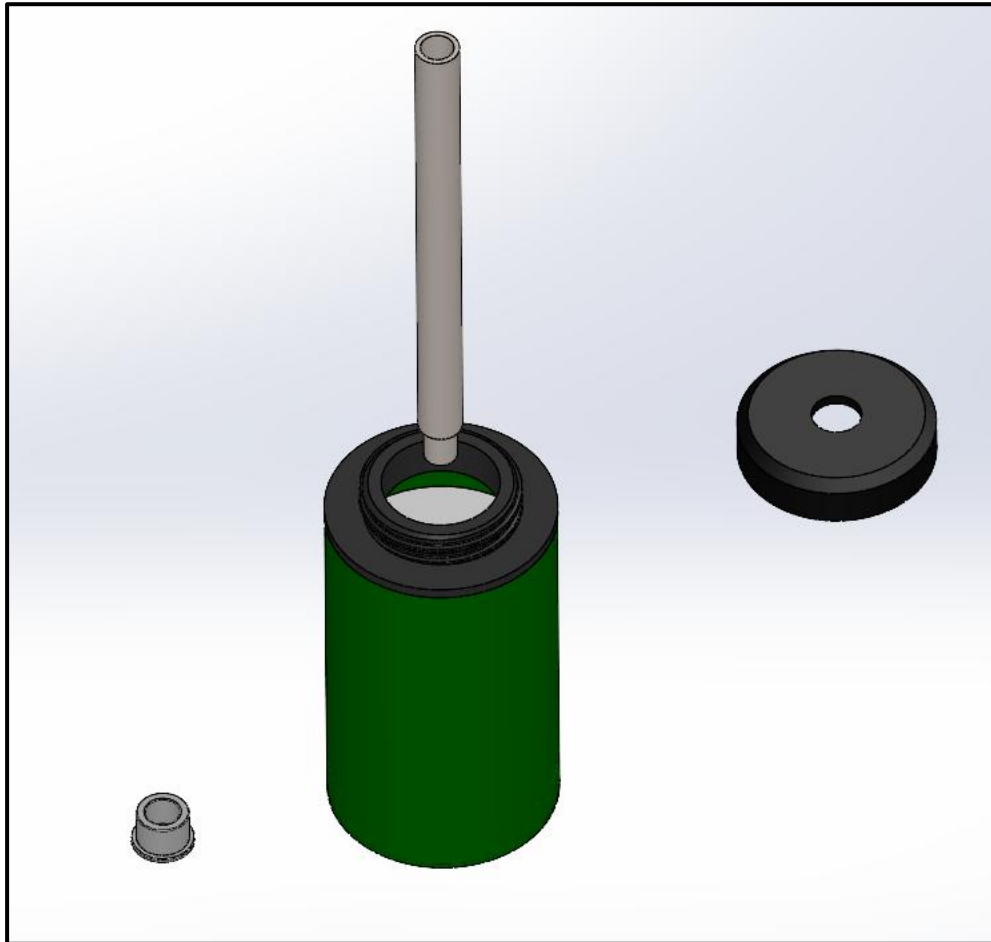
15

Install the Can Cap on top of the can inlet with the steel core rod still inside. The Can Cap will help keep the Steel Core Rod centered.

16

Place in freezer for 45min to 60min. Air cooling can be done but cooling times may vary.

Can Cap



17

When the mixture has completely cooled, remove the steel core rod, the silicone plug and can cap. If the steel core rod is stuck, use a heat gun and let the heat transfer from the top of the steel core rod down to the bottom. Do not aim the heat towards the mixture inside the can. Vise Grip plyers can be used but it will damage the metal.

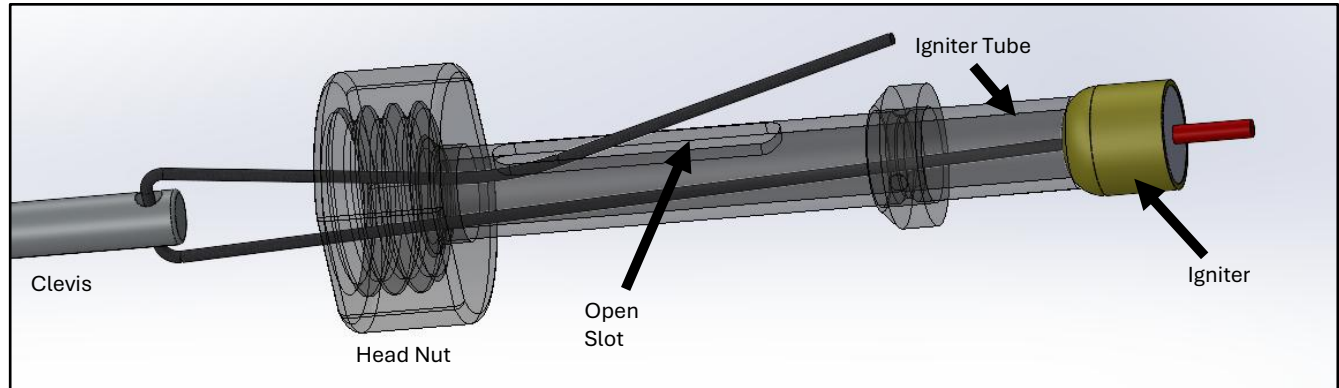
Repeat the whole process for the other cans provided in the kit.

PART 4

THE IGNITION

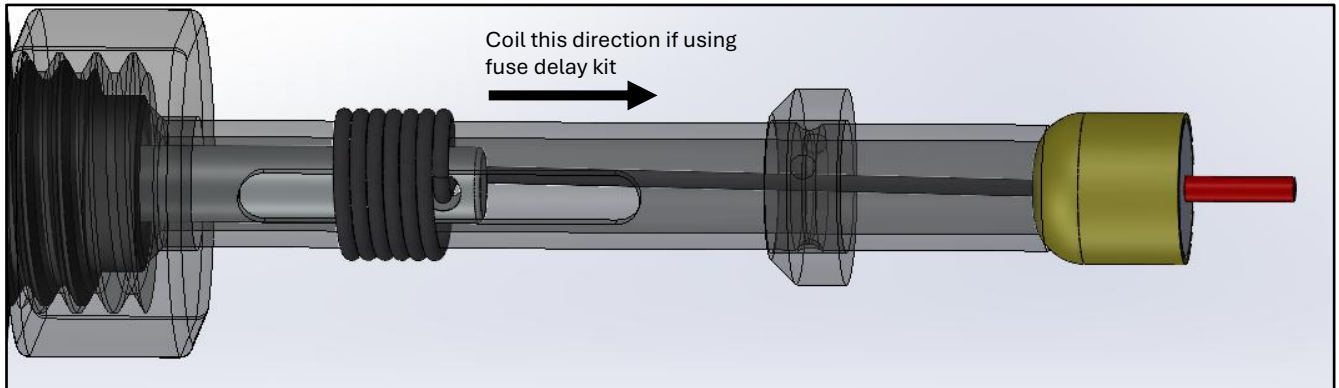
Long term storage has not been tested. Arm when ready to use.

1



Feed the string of the igniter through the center of the igniter tube. Next, feed the string through the hole on the end of the clevis pin. Feed the string of the igniter back into the igniter tube and feed out through the slotted hole. Line up the slotted hole of the igniter tube with the hole of the clevis. Lightly pull the slack of the igniter string as you tighten down the head nut.

2



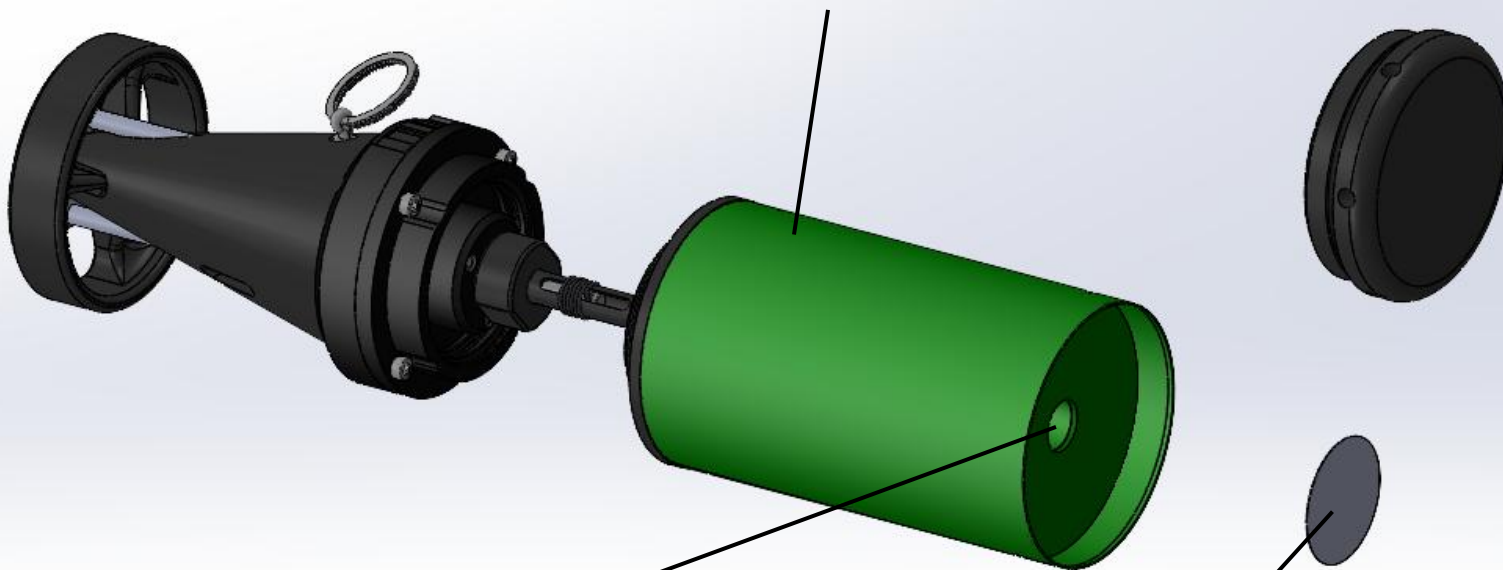
Lightly pull out the slack of the igniter string, then coil the string clockwise or counter-clockwise. Secure the coil with a piece of scotch tape or use super glue, to glue the coil to the igniter tube. **DO NOT** get glue inside the igniter tube. **Keep glue away from the slotted hole.**

PART 5

FINAL ASSEMBLY

STEP 6

Screw the can onto the **DELTA 8** tail assembly.



STEP 7

Make a mixture of 75/25 potassium nitrate and sugar and pack lightly into the core till full.

STEP 8

Brush off excess 75/25 mix. Clean the bottom of the can with the provided alcohol wipes and let dry. Place vinyl sticker on bottom to seal. Install nose cone

Congratulations!
You did it.
You created your smoke signal device.



- Always hold the smoke device with the bottom facing directly down.
- Never point it at anyone and do not have it on an angle towards yourself.
- Hold the smoke device with your arm extended with your dominant hand.
- Pull the keyring with your opposite hand.
- The ignition is instantaneous.
- Immediately throw the smoke device to a safe distance.
- **If using the Delta 8, firearm safety applies.**
- The reaction of the mixture is hot. **Do not throw it or launch it in any area that can catch fire, or you don't want burned.**
- **Wait 20 minutes before picking up spent smoke device**