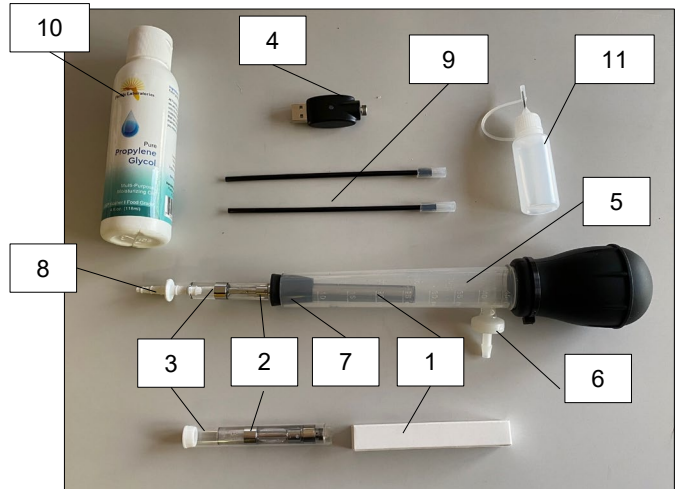


# Fog Puffer Kit Protoype

## Bill of Materials

- 1 - (2) Vape Pen Batteries
- 2 - (2) Vape Pen Cartridges
- 3 - (2) End pieces (mouthpieces)
- 4 - (1) USB Charger
- 5 - (1) Modified Turkey Baster
- 6 - (1) check valve
- 7 - (1) Rubber stopper
- 8 - (1) tip connector
- 9 - (2) Straws with Silicone Tube connectors
- 10 - (1) 4 oz bottle PG (Propylene Glycol)
- 11 - (1) Small bottle for filling cartridges



## Assembly and Prep of Fog Puffer

To prepare the Fog Puffer, complete the following steps:

### 1. Charge the battery

- Threading into USB adapter, plug in USB
- Typically takes 2 hours or more to fully charge
- The LED on the charger turns green when it's charged.



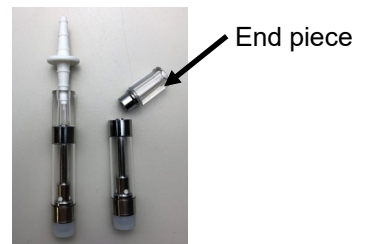
### 2. Fill cartridge with PG (Propylene Glycol)

- Fill small bottle with PG (supplied) or other fluid mix
- Fill cartridge until full - almost to the top of the clear plastic part of the cartridge



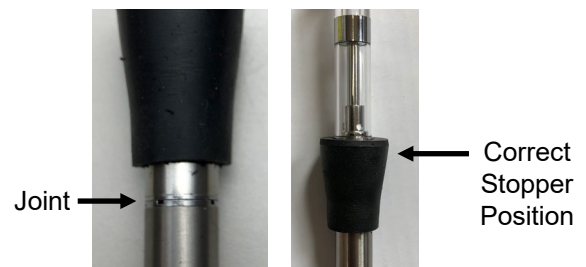
### 3. Thread on end piece and insert tip connector

- First gently push the end piece onto the cartridge
- Once pushed on, thread it to make the seal



### 4. Once charged, insert battery into rubber stopper

- Position the stopper so the joint between the battery and the cartridge is sealed by the stopper.



# Fog Puffer Kit Prototype

## Other Instruction and Comments

You'll probably notice that if you do several puffs in a short period of time the smoke gets thinner. It may take a while for the ceramic heater element to get re-saturated with fluid. If you let it sit a few minutes the smoke gets thicker again.

When the LED starts blinking it's time to charge the battery. The LED on the charger turns green when it's charged.

Propylene Glycol (PG) is used in cosmetics, as a food additive and in theatrical foggers and e-cigarettes. For foggers (and vaping liquids called juice) it's often mixed with vegetable glycerin (VG) and other things. We haven't experimented with different mixtures yet as we think the less viscous PG wicks into the ceramic heater faster, has a good density, and seems to work fine. We are interested if you find a mix which you prefer.

The most likely long-term failure mode will be the pressure switch at the end of the battery, which will fail after being saturated with fluid over extended use. This will occur either from fluid leaking out the cartridge and into the battery or from the small amount of residual mist that is in the heater area at the end of a puff and which gets drawn into the battery section and into the switch. The check valve in the baster body is there to minimize this, and we will have replacement batteries and cartridges for sale. When battery/switches have failed during our development and test process, the LED of the battery either stops coming on at all or it comes on when it's not supposed to and stays on for 10s and shuts off again.

We hope you will use this fogger and make notes of what we could change to make it better. We are also looking for good name ideas.

We look forward to your feedback.

