Intro: My name is Jason,(everyone else introduces themselves), and today we’ll be discussing our constraint, variation and our approaches to the fall project.

Why coke and mentos? Slide

Our group has decided to choose the option of coke and mentos for our reactants. After many discussions, we’ve reached this conclusion because we believe that coke and mentos are very easy to replenish for multiple attempts, and can work as an achievable, consistent method for triggering the reaction, which can also be measured for a max pressure in a closed volume

Key points: Easy to replenish for practice runs

Consistent reaction

Reactants easy to mix

Allows to plan for an exact pressure

Design one:

Now our first design, as you can see, is quite basic. We simply plan on having a device with a pre-determined amount of mentos to react inside the reaction chamber (assuming that counts as separated), and simply adding coke to trigger the reaction, while adding enough to force the created/released CO2 gas to go up and sustain pressure. The simplistic design of the funnel into the coke bottle follows the concept of Occam's razor, which when simplified, states that the simplest solution is often the best. Our group toggled with complex ideas, such as elevators, and dissolvable materials, but ruled them too unnecessarily complex, instead choosing a simplistic design which can add the coke to the mentos through a funnel, and collapse on itself to prevent pressure/gas/CO2 escape.

Key points:

Simple design following Occam's razor

Design consists of bottle, funnel, nozzle, and flap

Design 2:

(don’t have Picture/Plan)

Choice B (challenge B?)

We chose problem B to try and solve. As a group we believe we have the ability to construct a device that can both conduct the experiment, as well as sustain the target pressure for the required amount of time. During one of the previous labs, our profs also stated that it is possible to go for the challenge above the one which you announce today, as if you go above and beyond what you promised for a client, they will just be happier. So, our group concluded if we succeed in achieving goal B in a timely fashion, then we can use the device we know can hold pressure, to then hold a liner increase of pressure.

Key points:

Within our skill range

Can always go higher to C, is a pressure container is successful

Conclusion: (summarize key points) To summarize, we chose Coke and Mentos for our reaction, b for our goal, and for our designs we tried to be as simple as possible.