Title: Bottle Rocket

Engineering Challenge

July 20, 2022

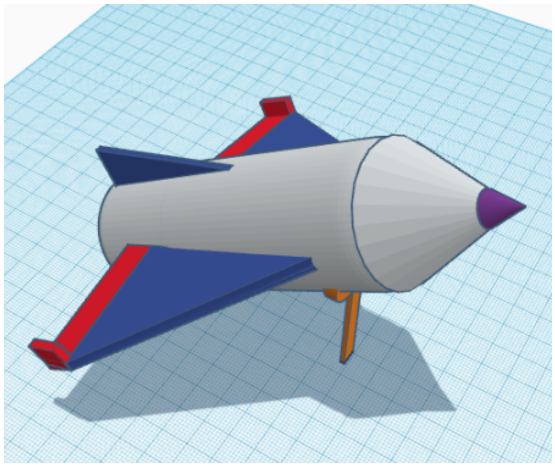
Problem Statement: Write the problem statement in your own words and interpretation. What are you trying to achieve? What is being learned through this challenge?

The challenge was to make a bottle rocket that flies as far as possible. We are using and learning lift, drag, weight, and thrust and how they affect aerodynamics.

Materials: List the materials given (if any).

Wooden sticks
Paper
Plastic bottle
Duck tape
Hot glue
Cardboard

Approach: Write a description of your plan to achieve the goal of the problem statement. Add drawings/sketches/CADs if possible.



Solution: What is your solution to the given problem?

My group decided to make a winged rocket that would be able to glide after all of the thrust from the beginning gets used up.

Analysis: After testing, did it achieve your goal? Either way, what could you have done better? If given more time/materials, what would you do differently?

Well the rocket either nose dived or went up and did loops. It didn't go as planned, but one of the launches actually went quite well. Instead of a wing design I think that having 3 fins would've been better. Wings just direct the plane down or up.

Images: