Title: Paper Boats

Engineering Challenge

September 16, 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 idea of this challenge is to make a paper boat that is able to hold the highest weight without sinking down for 5 minutes. The overall concept is to understand how weight is distributed across an area.

Materials: List the materials given (if any).

A standard piece of paper.

4 small marbles

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

I folded the piece of paper according to my group members. My other group members decided and measured what to put onto the boat.I

Solution: What is your solution to the given problem?

A paper boat was constructed and filled with 4 marbles with about a total weight of ~15.1 pounds.

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?

The boat was able to stay afloat for 5 minutes. I didn't have the highest confidence as I made a mistake on folding the paper, resulting in a lopsided boat. The boat should have been able to sustain more weight if given more confidence. A different approach would be using a flat piece of paper and layering weight.

Images: Image of a similar boat.