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## Paper Airplanes Design Challenge

## **Data Tables**

Table 1. Prototype Design Costs

Material Used	Quantity	Extended Cost
	TOTAL COST	

Table 2. Final Product Costs and Design

Material Used	Quantity	Extended Cost
	TOTAL COST	

Table 3. Test Trials

Trial	Distance Traveled (m)	Time of Flight(s)	Average Velocity (v = d/t)
1			
2			
3			

## Post-Lab Analysis

1. How much money was spent during the design process? Estimate how much of that cost was attributed to waste. 2. What is the final cost of the toy paper airplane your team designed? 3. Write a letter to FlinnToy summarizing your design initiative. Give the total cost for the manufactured toy. What is the longest and the average distance your design can fly? Why should the company pick your design? 4. As stated, the thrust force for a paper airplane's flight is not constant. What is actually happening to the paper airplane's velocity throughout flight? 5. What would be the resulting velocity if the toy had an engine providing a constant thrust force? Assume the opposing drag force is unchanging.