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Wow! Look At Those Rockets Fly!

This project was created to determine which length of a rocket; short, medium or long, flies farther at 65 psi. A home-built rocket launcher was used to perform the experiments to determine which rocket flies farther. A bicycle pump was used to fill the launcher with compressed air. When the launcher held 65 psi, a valve was turned. This valve released the compressed air, launching the rocket. Then a wheel, which measures in feet, was rolled along the ground to measure the distance of the launches. After the data was gathered, the feet were converted into meters. When the data was converted, it was clear to see that the long rocket traveled the farthest. This rocket flew, on average, 30.5 meters. The medium rocket placed second and flew an average of 13.18 meters. The short rocket came last with an average of 6.07 meters. This project was not performed in a controlled indoor environment, therefore, the wind did play a factor. The short rocket had a short aerial life and was frequently moved by the wind. The medium length rocket was not as influenced by the gusting winds, but was slightly affected. The long rocket was not influenced by the wind because of its weight and length. The data shows that a longer rocket travels farther than a medium or short sized rocket. The data also shows that a rocket with more weight tends to be less affected by the wind.