

Abstract Submitted
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Water bottle rocket in undergraduate laboratory WILLIAM SCHULTZ, University of Michigan — In the winter semester of 2012, we implemented the modeling and testing of a water bottle rocket in ME 495, the Senior Laboratory in Mechanical Engineering at the University of Michigan. The four week lab was the most well received by the students in recent memory. There were significant challenges, but the result was a thorough review of their undergraduate fluids class with some advanced concepts such as directional stability of a projectile. The student teams designed their own rockets based on one of many standard 20 ounce soft drink bottles. The culminating contest brought impressive results and a surprise ending.

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