

Abstract Submitted
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Dynamic Deformation of Theatrical Flats JAMIAHUS WALTON, ERIC MARTELL, Millikin University, VERDA BETH MARTELL, University of Illinois at Urbana Champaign — In theatre, flats are used as walls and background scenery. During construction, flats are often built on the ground and then “walked up,” where a group of stagehands manually lift one end while another anchors the other end in place. When flats are very large, they can deform during this process. Stiffeners are used to decrease the amount of deformation in the flat. The purpose of this research is to determine the strain along the flat during the process of raising it up with and without stiffeners. We will also explore the effect of the person anchoring the pivot edge of the flat and discuss the safety concerns this presents. This research is part of the Physics of Theatre Project, an interdisciplinary collaboration designed to improve safety, reduce costs, and increase knowledge of physics principles within the technical theatre community.

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