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Could Less Be More in the Introductory Kinematics Lab?[1]
CAREY WOODWARD, University of Wisconsin Oshkosh — In earlier work, I created a custom "minimalist" interface for certain sensors in my introductory physics lab: unlike the standard commercial interfaces, these minimalist interfaces do not pre-calculate kinematic quantities (position, velocity, and acceleration). *In this study, I investigated whether the use of this minimalist interface actually improves student understanding of kinematics.* After randomly assigning each student in my introductory physics lab to use one of the two interfaces during one particular lab exercise, I administered a set of six questions (ungraded), drawn from two well-studied physics assessment instruments. As a result of low numbers and timing issues, the results are statistically inconclusive, but hint at enhanced student learning specifically of material not covered in lecture.

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Carey Woodward
University of Wisconsin Oshkosh

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