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Developing affordable multi-touch technologies for use in physics[1] MARK POTTER, CAROLINA ILIE, DAMIAN SCHOFIELD, DAVID VAMPOLA, State University of New York at Oswego — Physics is one of many areas which has the ability to benefit from a number of different teaching styles and sophisticated instructional tools due to it having both theoretical and practical applications which can be explored. The purpose of this research is to develop affordable large scale multi-touch interfaces which can be used within and outside of the classroom as both an instruction technology and a computer supported collaborative learning tool. Not only can this technology be implemented at university levels, but also at the K-12 level of education. Pedagogical research indicates that kinesthetic learning is a fundamental, powerful, and ubiquitous learning style [1]. Through the use of these types of multi-touch tools and teaching methods which incorporate them, the classroom can be enriched to allow for better comprehension and retention of information. This is due in part to a wider range of learning styles, such as kinesthetic learning, which are being catered to within the classroom.

[1] Wieman, C.E, Perkins, K.K., Adams, W.K., "Oersted Medal Lecture 2007: Interactive Simulations for teaching physics: What works, what doesn't and why," *American Journal of Physics*. **76** 393-99.

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