## Use of a high-speed camera to showcase mechanical phenomena in a high school physics classroom

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**Apstract.** This paper explores the transformative impact of high-speed camera technology in high school physics classes, emphasizing its role in enhancing student comprehension of fast-paced physical phenomena. The theoretical and experimental study involved the integration of high-speed imaging into the standard physics curriculum, focusing on a series of experiments designed to bring abstract concepts to life. Key experiments included detailed observation and analysis of projectile motion, capturing the intricacies of acoustical phenomena, and visualizing the dynamic processes in surface tension. Through the application of high-speed cameras, students should be able to witness and analyze phenomena that are typically invisible to the naked eye. This innovative approach provide a unique and engaging perspective on complex topics and foster a deeper understanding of fundamental physics principles. We believe that the integration of high-speed camera technology in physics classrooms can be a valuable educational tool. It not only aids in demystifying complex physical processes but also encourages an interactive and inquiry-based learning environment.