Analyzing Video Game Dynamics with Computation in Introductory Physics[1] JAMES NEWLAND, University of Houston — Physics engines in video games often employ non-physical behaviors for the sake of game play. Introductory physics students can use computational modeling to determine the underlying relationships for objects in game play videos and even create accurate physical models for comparison. This activity takes advantage of computational thinking to further physics learning. Students compare air drag in Unity game development with a more realistic laminar air drag model made with the STEMcoding programming environment. Students will gather data from game play video, reduce and visualize the data, use computational tools to find relationships between variables, and finally compare the behavior of the two models.

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