**Introduction:** The goal of this project was to test the laws of physics as they apply to dance. This project was inspired as a collaboration of two personal passions, thus aiming to draw attention to the relationship between these two opposite disciplines.

**Materials and Test Methods:** In order to analyze each dancer’s movement, experimental data was simultaneously collected from three different sources: a two-beam force platform, a wireless accelerometer, and a video camera. The force platform inserted in the floor measured the dancers’ normal and horizontal force as exerted by their feet prior to jumping. The accelerometer, which was attached to the dancer’s back, measured their vertical and horizontal acceleration, as oriented along an x and y axis. Both the accelerometer and force platform data was collected on a computer using Data Studio where it was then able to be converted and analyzed using Microsoft Excel. Lastly a video camera recorded each test run as a source of visual data, which was later analyzed using Video Point and then Excel.

**Results:** After a long process of analysis and derivations of the collected data three graphs were created using for each dancer depicting their vertical displacement during the path of their jump.

**Conclusion:** The resulting data was inconsistent between the three measuring devices, due to unforeseen issues in calibration and other equipment variability. However confidence in the initial theory still stands, that with further time and analysis, the three sets of data should all produce the same result.

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