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The following research was dedicated to studying and experimenting with harmonic oscillators of all kinds. The used equipment was a portable computer, the "PASCO Spark", a force sensor, 3 different springs and weights. The portable computer is responsible for storing the data received from the force sensor, and constructing a "Force-Time" graph. The force sensor has a range of ±50 N, an accuracy of 0.1 N and a recording speed of up to 1000 Hz. It is also equipped with a reset button to automatically set it to 0 N. The springs used in the experiment differed in damping. The first spring had a very low damping coefficient, so after the weight was released they continued oscillating for a very long time, fading away only very slightly. The second spring had a medium damping coefficient, so the time it took for the oscillations to fade was much shorter, then with the first spring. The third spring however had a very high damping coefficient, so the oscillations only continued for about 6 seconds. The experiment itself was performed by hanging a weight on the spring, and starting the data recording as soon as the weight is dropped. In all 3 experiments the data was recorded at a frequency of 100 Hz. Afterwards, the computer built "Force-Time" graphs for every experiment. This allowed us to visualize the difference between the 3 springs. The computer used in the experiment has a very useful ability of generating functions for graphs. This can be done in order to study ideal harmonic oscillations. The function generated from the graph continues forever, and can be used for further research in the field of beats, which are automatically calculated and simulated by the computer. Thanks to the precise data recording equipment human errors can be minimized, which leads to very little inaccuracies in calculations.