Mechanics Simulator

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'Mechanics Simulator' is a program that simulates basic middle to high school level mechanics(also called dynamics or motion physics). It is based on Newton’s laws of motion. This program was made with purpose of making physics easier for students to learn, and teachers to teach. The program is based on the pictures you will find in a physics textbook. These pictures have arrows that represent forces and rectangular 'blocks' that represent an object. They are usually called free body diagrams. By using this 'free body diagram design', but not being too complicated, the simulator finds a middle ground between overly complicated and toy-like simulators available in the market. This program has most of the concepts you will learn in a high school physics class, including newtonian physics. It also shows how much distance the object has travelled, how much time has passed, and the total work and power the net force has done to the object. These numbers will help students with their physics homework. 'Mechanics Simulator' was made in Java which is quite appropriate for simulation programs like this one. The object-orientedness of this programming language will also help in adding more features in the future. Mechanics Simulator also has the potential to support many languages around the world. Easy-to-modify text files are used as language translation files, so even users that are unexperienced with computer programming can help translate this program and make it multilingual.

Awards Won: