

A. *ForceExperiment* was written by Jason Marshall. It was developed in support of the Integrated First-Year Curriculum in Science, Engineering, and Mathematics at Rose-Hulman Institute of Technology. This curriculum project is supported by the National Science Foundation, the General Electric Foundation, and Lilly Endowment, Inc. If you are interested in this or any other application written for the Rose-Hulman Institute of Technology Integrated First Year Curriculum, please contact us at **ifycsem@nextwork.rose-hulman.edu**. The following people are currently serving as professors for the curriculum and would welcome your comments and questions:

Dr. Claude Anderson, III, Computer Science  
Campus Box 98

ext. 8331

Dr. Jerry Fine, Mechanical Engineering  
Campus Box 140  
ext. 8353

Dr. Jeffrey Froyd, Electrical Engineering  
Campus Box 111  
ext. 8340

Dr. Mike Moloney, Physics

Campus Box 161  
ext. 8302

Dr. Howard McLean, Chemistry  
Campus Box 70  
ext. 8378

Dr. Edward Mottel, Chemistry  
Campus Box 71  
ext. 8315

Dr. Brian Winkel, Mathematics  
Campus Box 132  
ext. 8412

c/o Rose-Hulman Institute of Technology  
6060 Wabash Avenue  
Terre Haute, Indiana, USA 47803

phone 812-877-1511  
or  
812-877- ext.

- B. *ForceExperiment* best fits in the physics category.
- C. *ForceExperiment* simulates a force ring and torque rod. The ring or rod can have from two to four forces acting on them that the user must try to balance in one of two ways. First, the user can use numerical data supplied to calculate the balancing force, and then he can enter this balancing force into a text field. The second way the user can balance the forces is to use graphical vector addition by clicking on the forces and dragging copies of them to determine the size of the balancing force. Then the user can click the balancing force on to the rod or ring by clicking with the mouse where the head of the

vector should be.

- D. *ForceExperiment* is used as part of the Integrated First Year Curriculum in physics classes to demonstrate principles of forces and moments.
- E. *ForceExperiment* was developed under NeXTSTEP 2.1.
- F. *ForceExperiment* requires no special installation.
- G. The Documentation folder included with the application is required for online documentation built into the application. If it is removed, the application will still function

properly, except for Help.