For this project, I developed a robot simulator on a Sun workstation using C. The simulator demonstrated theories put forth in a graduate student's master’s thesis concerning robot grasping and displayed the results graphically. The system used solid modeling to describe the workspace and the parts of the robot. I created a language for the input specification using the tools LEX and YACC. I wrote 12,000 lines of C for this project. For a three-dimensional solid modeler, I used a library of C functions (10,000 lines) written by another party. I had to modify the solid modeler to work it into this project. Other components involved were a linear programing package and a non-linear optimization package for implementing the equations for determining the grasp points. This project was funded by the National Science Foundtion.