# Topic Robotics

This directory contains robotics related work. For the projects I worked on at Purdue University, I did the software work which consisted of using working solid models to represent the robot grippers and convex hulls to approximate the space taken up by the gripper. This work was done under a grant from the National Science Foundation.

# Description of Files and Directories:

Description: Contains a description of the robotics work.

GraspPlannerSimulatorAnnualReport: This directory contains the pages of the annual report on featuring the work on the grasp simulator. Use a photo viewer to easily see the pages in order.

RoboticsPaper: I was a coauthor for this paper that was published in Robotics and Computer Integrated Manufacturing. I did the software for this project and also provided the wire frame solid modeling figures. Use a photo viewer to easily see the pages in order.

ModelingLanguage: This file is an short example of the interpreted language written use LEX, YACC and C to give higher level constructs to the system and also make it so that recompiling and linking the system would not be required when building solid models.

RobotGripper: Contains a wire frame rendering of a gripper.

SweptVolume: Contains convex hulls of the swept volume of 1 of the fingers in the above gripper. The convex hull is created using the gift wrapping algorithm