

## **Project Year**

2002

## **Project Team**

Faculty: Gregory Hager, Computer Science, Whiting School of Engineering

Fellow: Alan Chen, Biomedical Engineering, Whiting School of Engineering

## **Project Title**

Robotics Simulator

## **Audience**

Students in an introductory robotics course, to be offered in the spring of 2003, would be the first users of this technology in a classroom setting.

## **Pedagogical Issue**

One of the challenges in teaching robotics is the tension between providing concrete, well-motivated examples of physical systems within the context of larger issues and explaining how the two fit together. Software simulators in classroom situations can address this challenge.

## **Solution**

This team proposes to develop a robotic software simulator, designed for beginners, for the robotics class. Because the actual engineering of a robot is complicated, time-consuming, and costly, making a robot for an introductory-level class is not practical. This project aims to give students the learning experience of designing their own robots and testing the designs in a simulated environment, without the complications associated with having to physically construct the robots.

## **Technologies Used**

3D Studio and Light-Wave, C++