Faculty Name:

Steve Feiner

Faculty Email:

feiner@cs.columbia.edu

Lab:

Computer Graphics and User Interfaces Lab

Project Title:

Virtual Reality for High-Level Control of Remote Robots

Description:

This project addresses the design, implementation, and evaluation of virtual reality (VR) and augmented reality (AR) user interfaces for high-level control of a suite of robots at a remote factory assembly line. These user interfaces are intended to allow future workers to control from home industrial robots on an assembly line without having to understand the low-level details of how the robots operate. To accomplish this, the user will wear a VR or AR headset and interact with a virtual representation of the factory environment, specifying the key steps in the assembly process by directly editing object positions and orientations to describe the desired goal states. This project will explore a range of different user interface designs, comparing combinations of different interaction and visualization techniques for performing tasks.

Location of Research:

On-Site

# of hrs/week:

40

Department/Program:

Computer Science

Eligibility:

BS, First Year

To apply, please contact:

Steve Feiner <feiner@cs.columbia.edu>