**OVERVIEW**

We are exploring using virtual characters to help educate patient-doctor communication skills. Our current system allows medical students to interview DIANA, a virtual patient. Students interact with DIANA naturally using speech and gestures. A virtual instructor, VIC, provides immediate feedback on the student’s performance.

**CHALLENGE**

- Developing virtual characters that:
  - Appear life-size
  - Understand a limited set of natural language
  - Are able to interpret limited movement of the student
  - Developing systems that measure verbal and non-verbal interpersonal communication skills.

**APPROACH**

Our system uses data projectors to present life-sized virtual characters to the medical student. The student speaks to DIANA through a microphone. Speech is matched to appropriate responses created by teaching faculty at the University of Florida, Shands Hospitals. Hand tracking allows the user to interact with the virtual characters using natural gestures such as pointing and hand shaking. Head tracking allows rendering from the perspective of the user, as well as approximate measurement of head and gaze behavior.

**System Overview:** The system uses COTS components and has a total cost of less than $10000.

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- Medical College of Georgia
- College of Medicine Chapman Education Center
- Haptek, Inc.

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**University of Florida Patent Pending**

This project uses Haptek, Inc. characters

http://www.cise.ufl.edu/research/vegroup