Q515: Learning with LEGO Robots

Background

This course was co-taught by Tom Keating and Matt Jadud during the second intensive summer session at IUB. It provided 10 teachers from all over Indiana the opportunity to play with and develop curricula utilizing the LEGO Mindstorms Robotics Invention System.

What’s it about?

- Design, build, and program LEGO robots for use in the K-16 physical, life, and mathematical sciences.
- Develop curricular units for your classroom.
- Publish curricular materials to the World Wide Web.

Our overriding goal in presenting Q515 was to make it useful for the teachers, and focus on supporting them in developing curricula and proposals for funding that might make using the Mindstorms kit in their classrooms a reality. Because of the individual nature of the course, curricular ideas for students grades two through the university level were developed and discussed as a group, and the ideas and interaction between the instructors was greatly appreciated by all.

Examples of Students’ Work

A brief summary of some of the teachers’ work is presented here; more is available at the URL listed below.

Christi Rockwell

Rockwell’s son is mildly autistic, and the Mindstorms kit presented an opportunity to combine several things he enjoyed (computers, LEGOs) in one. She set up a series of documents detailing her approach to using the kit with her son, and found it did a very good job of holding his attention, providing him an environment to focus and structure his thinking.

Jodi Huiebert

Huiebert is currently teaching computer science, economics, and algebra at the high school level. The Mindstorms kit looked to her like an excellent vehicle for engaging her students early in her computer sciences courses, giving them a reason for wanting to learn and think hard about problems versus just hacking and building. (task_one)))

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