Project #2 Architectural Robotics for Children

Deadlines:
February 6. Submit a brief proposal on your project idea (one page max)
February 21. Mid-project Review
March 14. In-class demonstrations for grading
March 21. Written report due

In this project, you will have an opportunity to explore and design an architectural robotics system or component for use by children. Consider their needs. The project might focus on education, safety, children with special needs (e.g., children with autism spectrum or physical disabilities), or something else of your choosing.

The project must satisfy the following requirements:

1. Include a physical design with sensors and actuators
2. Include software that links the sensors and actuators together
3. Fulfill a functionality that suits children. Be sure to specify what that is and who your target user group or audience is (if it is intended for a subgroup). You will need to support your design and intended use for children.

Projects will be done in teams of two or three. You will receive the same grade for the in-class demonstration. Each student will turn in a report which will be graded individually.

Reports should include the following information:

- Introduction
- Photo(s)
- Design progression
    - details on the final design
    - support for how your design meets the intended functionality
    - solutions tried and rationale for chosen solution
- Code logic and code

Grade points: 50 for in-class demonstration + 50 for written report
Project #2 will be worth 38% of your semester grade for ECE 4320 students and 34% for ECE 7320 students.

Grading criteria include:

- Creativity of the design and whether it meets the general project requirements
- How well the design is implemented
- How well the functionality meets the needs of the target users