Accessing a SMART Board

Overview
The problem presented to the team dealt with the accessibility of a SMART Board in a classroom of pre-schoolers with disabilities. The SMART Board was located in a high traffic area and wires running along the floor caused a tripping hazard. The position of the projector caused problems with shadows, eye damage and setup. Also, because of the students’ disabilities, they could not effectively interact with the SMART Board.

Objectives
- Eliminate tripping hazard
- Increase students’ “Range of Touch”
- Isolate set up from high traffic area
- Reduce set up time
- Reduce shadow interference
- Increase forces students exert on screen
- Enable establishment of one point of contact with the screen

Approach
- Customer data was gathered through interviews and observations.
- External research was performed to find products on the market that would meet the customer’s needs.
- Concept screening and scoring matrices were used to determine the final concepts.
- Existing projector and board mounting equipment was purchased from an outside vendor.
- Calculations were performed to determine the layout of the classroom. The maintenance department installed the mounting equipment.
- Handheld “pointers” were developed to improve the students’ interaction with the board.
- The pointers and setup were tested and refined through in-class observation.

Outcomes
- The tripping hazard was eliminated
- The set up time was reduced
- Shadow interference was reduced
- Students were able to reach the whole board.
- Students were able to interact with the SMART Board effectively, and without assistance.
- In-class SMART Board lessons became more effective and hassle free for both the students and the teachers.