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Physics

April 14, 2008

## **Notes to the Future**

### **Touch the Spring**

If you're reading this it's because you chose to build the Touch the Spring exhibit for ExploratoRIO. This exhibit has both advantages and disadvantages, First the construction is relatively time consuming and slightly difficult and the placement of the mirror inside the box to create the desired effect takes longer than you may expect. The main advantage of this exhibit is the fact that it is one of the best exhibits to show.

The construction of the mirror holder is the first step that must be completed, we recommend following the directions completely and thoroughly until the end and then adding the extra step of spray painting the holder black to diminish the chance of people being able to see the holder. The next challenge is building the box. The box is tough to build only because it requires time, patience and a basic tool set. We built the box with small wooden beams, foam and black duct tape purchased from the Home Depot. After the box is built I would recommend spray painting the inside of the box black as well to diminish the glare.

Once the building phase of the project is complete you must spend time adjusting the set up so that the object you are using does not appear warped by the mirror because if it is, the effect of the exhibit is not as awe-inspiring. To tweak the settings to get the maximum results we would both advise you to visit the real Exploratorium in San Francisco in order to get an idea of what to emulate.

The final and most fun part of the entire exhibit is sharing it with the small elementary school kids during the day and their parents at night. There are many ways to go about showing the exhibit off and you are sure to find things to point out that escaped us, but we had the greatest success playing a game of guess with the small children and the parents alike. After they had perused the exhibit we would ask them to guess where in the box the light bulb was positioned and then would explain to them how they were wrong and why the exhibit worked.

Good Luck