Problem space

The physical domain of the installation is the Norwegian Children's Museum. Within this environment children are supposed to explore the exhibitions of the museum themselves. This is to encourage children to investigate and to build up under their curiosity. This will enhance their ability and interest for learning new things.

The two main issues to be dealt with through this project are:

1. Encourage children to follow their curious nature.
2. Give feedback to the exploration done by the children, and thus induce a sensation of mastering a task, hence encouraging further exploration.

Assumptions

In general, we assume that:

- Children are curious
- Children enjoy when their actions result in a feedback
- Children are fascinated by flashing lights
- Children like “funny” sounds
- Children are creative and enjoy exploring

Specifically for the target group of our project, we assume the typical child visiting the museum to be approximately 3-8 years old. We do not assume any previous knowledge of mastering technology.
Conceptual model

This installation will have no user guide. It will simply be attached to a wall or a stand and attract subjects/users through sound and visual flashing colors. This involves three stages:

1. The Interaction Panel will attract subjects/children with stable and simple sound and flashing color patterns.
2. While subjects are approaching the Interaction Panel, within a range that are suitable/appropriate for the room/installation area, the sound and visual intensity will increase so that the subjects will be encouraged to approach the device further.
3. The device should be reachable and tactile so that subjects are encouraged to touch the panel. These touches will result in visual, sonic and haptic feedback. The most gifted will also after some time understand that it is a simple puzzle. If you interact correctly you will get a congratulating feedback.

In other words the main learning is exploration based - the children have to explore the control actions on their own. The advance objective could be that children understand the simple puzzle and solves it, but the real main goal is to get children to interact with the device.

Metaphor

An exciting multimodal interaction device for children. The idea is to make some sort of activity box/busy box that encourages exploration and provides a simple abstract puzzle. The concept is to let children fully interact with a device that is a flat abstraction of sound, sonic and haptic feedback. Since today's modern technology mainly deals with abstract devices it should be sensible to modernise the childrens toys.

Claims/goal

Combining the children’s curiosity, exploration and interaction lust with flashing lights, sounds and haptic feedback will encourages exploration of the device.

The children will enjoy exploring and solving the multimodal puzzle device whilst the toy is giving different feedback.

This is a simple way of exploring what children tend to focus on while exploring. Are there more focused on the visual, the sonic or the haptic feedback.

This simple toy is cultural and language neutral and does not involve physical difficulty.

We want the children to enjoy themselves, and at the same time learn something and feel mastery. We want them to experience how they can influence and shape the feedback from the panel, and how focus on the feedback will create goal focused mind.