

Outreach Plan

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Being somewhat early in the process, the Outreach Plan is still in its rudimentary stages. However, the skeleton of a plan is present and will be provided.

The team's main objective with the Outreach Plan is to spread the interest of science to fellow students and learners (young and old) using our enthusiasm and energy as a tool to accomplish this task. There are several ways, described below, in which we plan to achieve this.

The team is building a website. This website contains information about the RGSFOP program in general and a link to the NASA website. It also contains information about each team member and a list of advisors. The team email address, hero@mit.edu, is also found in the website for contact and question answering purposes. In addition to this, the website contains a short summary of our project and links to research that has been done in the past about haptics in conjunction with space disorientation. The website is not entirely complete but is updated regularly. In the future it will also include a copy of the proposal (if accepted), and a posting of frequently asked questions with answers. This website can be found at: <http://web.mit.edu/michaelh/www/RGSFOP.htm>

The next step is to provide a description of our intended audience. Because we plan to address a diverse group of people, this will be done by breaking down the outreach plan into several parts: Cambridge Public Schools and field trips, the Museum of Science, and the Massachusetts State Science Fair.

There are twelve elementary public schools in the Cambridge public school system. One of these schools recently got a grant to enhance their science program. Paul Parravano, Co-Director, Office of Government and Community Relations at MIT, talked to the school principal and he arranged a meeting for next week (for the week of the 31st) with him, since he expressed interest in the project. The goal here is, that the team would go and give a small lecture in the school and then bring the students to the MIT campus to the teams lab space and show them the equipment and have lab sessions with them and demos. The project would start in the Spring term and end with the school year. This part of the Outreach Plan addresses older elementary school children.

Plans are also being made to carry out this part of the Outreach Plan with a group of Hispanic students of the area. The contact is Paul Parravano as well.

The next part of the Outreach Plan involves the Boston Museum of Science. The team contacts here are MJ Morse and Daniel Gomez-Palacio from the Science and Technology

Center. In the Museum of Science, the team would have an internship starting this term and possibly going into the next. The team would carry out its presentations and demonstrations in the Technology Center of the Museum with the aid of a stage area and four giant plasma television screens. This part of the Outreach Plan addresses children of all ages and adults. It is less localized than the one described above, but also touches on a greater number of people.

The last part of the Outreach Program involves the Massachusetts State Science Fair. Paul Parravano serves as the teams contact with the organizational committee for the State Science Fair. This event is a long way away (it is not until May), but plans are being made for the team to give the students a presentation and demo before the Fair begins on Saturday. This part of the Outreach Plan addresses high school students with a strong interest in science.

In the presentations, the team will give a small talk about the project followed by a mini-lecture on the vestibular system and how it relates to balance and how, if not working properly, it can lead to disorientation, falls, and such. A possible demo here is to have the group partner up. One partner will close their eyes and stand erect in one spot and the other will serve as the feedback mechanism that allows the first one to remain in one spot with minimal swaying or movement. This works as follows: the one partner closes their eyes and remains standing with the legs together. The other partner watches him or her closely and taps them on the shoulder whenever they start swaying (forward or backward). This is a very basic form of the vest that is being developed for this project. In the lab sessions with the schools, the students will be given pager vibrators and they will make their own vest by sewing them on a piece of cloth and connecting the required circuitry.