

# Peters Township Education Foundation

The Peters Township Education Foundation is accepting applications from Peters Township School District staff members for projects, programs, or materials designed to promote the education of students within the District. If you have questions about the Foundation or about the grant process, please contact Matt Cheran at 724-941-2688 x4251 or at [cheranm@pt-sd.org](mailto:cheranm@pt-sd.org) for more information.

GEO Grant applications will be reviewed by the Foundation's Board of Directors and will be awarded in January of each calendar year.

To submit your GEO Grant, please complete the application below before **January 4, 2024 at 4 p.m.** Applications should all be submitted to Mr. Cheran via interoffice mail to the Middle School.

*The Foundation will now accept applications throughout the school year. Awards will only be granted each January, but staff members may submit applications throughout the school year and summer break for consideration. We recognize that writing a quality grant is a time consuming process and we want to allow flexibility for the staff.*

Please submit your completed proposal in a sealed envelope with "GEO Grant" on the front. Review of proposals will be conducted by the Board of Directors using a blind review process.

**PLEASE NOTE:** Please note that technology requests must have additional sign-off from the Technology Department prior to submission. Please be sure to allow sufficient time to complete this step before the due date.

Staff Member Contact:

TAMMI HANAK, FRED BURNS, CHRISTOPHER ALLEN

School:

Bowerhill and Peters Township High School

Phone number:

724 941 0913 x2119

Email:

\*allenc@pt-sd.org \*burnsf@pt-sd.org  
\*hanakt@pt-sd.org

Subject you teach or department (for non-faculty submissions):

Grade Level/Building:

K-3 Speech / HS Applied Engineering & Manufacturing

Building Principal/

Supervisor Signature:

[Signature]

## PROJECT DESCRIPTION:

### 1. DESCRIBE THE PROJECT:

The goal of this project is to engage in a joint venture with Peters Township High School students to further expand the offerings of therapeutic activities and equipment available to children in the Bower Hill Sensory Room. Last year, a GEO grant was utilized to purchase Fiber Optic lighting options, vibration and compression tools, and a projector to create an atmosphere of calm, relaxation, and pleasure for students who are in need of regularly scheduled sensory input as part of their general programming throughout the school day. The Sensory Room has been used for many more children than originally anticipated, due to the success the students are achieving when given regularly scheduled sensory input. The equipment proposed for this year would include the construction of a giant Lite-Brite free-standing board measuring approximately 4 x 5 feet in a collaborative project involving students enrolled in the Applied Engineering class/Manufacturing class at the Peters Township High School, with necessary faculty supervision provided by the teachers.

The inspiration for the joint project was inspired by an article where Kettering University students in their club, Student Association for Global Engineering, partnered with a local elementary school to create the giant Lite-Brite for the school Sensory room. Because the high school offers multiple classes that could involve student learning of engineering and manufacturing skills, the idea was conceived to ask older students to contribute time and energy to produce a project that could benefit younger students, particularly if the students participating in the project attended Bower Hill as a student. Many children have positive experiences playing with Lite-Brite as a table top toy, where templates and patterns are used to create beautiful lighted designs with very small acrylic pegs. It is expected that our children with special needs will equally enjoy such a toy with improved accessibility. The larger size of the pegs will benefit those children with delayed fine motor control and are unable to manipulate the small size of the original Lite-Brite. While a commercially produced Lite-Brite board can cost approximately \$5700 measuring only 2.5x2.5 feet, constructing our own board can not only allow us to build one much larger in scope (approximately 4x5 feet in size), it will cost just a fraction of the price.

## INNOVATION and ENHANCEMENT of LEARNING:

2. The Multi-sensory Environment (MSE) created at Bower Hill is a dedicated space where children are given an immersive experience to promote interaction and stimulate a variety of senses with visual, auditory, and particularly kinesthetic and proprioceptive (tactile) input. Our MSE has provided our children with special needs with multiple ways to connect with learning, increase concentration and focus attention, reduce problem behavior, and induce leisure, relaxation and enjoyment when alternative age-appropriate activities are not as easily accessible to them.

We have discovered that many children with diagnoses of Autism, Attention Deficit Disorder, Other Health Impairment, Down's Syndrome, and Sensory Processing Disorder are benefitting from our dedicated MSE space by offering a selection of materials that are used for calming,

relaxation, or dynamic movement, depending on the needs of the student in the space. In addition, the space has allowed a safe space in where to engage in cooperative or parallel play with other students as well as with the paraprofessionals that are supervising the students. Increased verbal communication, improved ease of transitions, improved ability to follow directions, and increased opportunities for personal choice have also been observed in our students using the space.

This grant is to propose the use of funding to add a new exciting lighted component in the form of a Giant Lite-Brite to the Sensory Room so that all children needing this form of input have a safe space in which to access it.

Use of the Lite-Brite can develop the following specific academic skills: pattern formation, color pattern recognition, color matching, grip, hand-eye coordination, patience, focus, and perseverance. In addition, even at the elementary level, using this type of equipment can improve the ability to think logically with cause-effect outcomes, solve problems, and improve visual perception. It encourages coordination of visual input, improves fine motor control, and use of short term memory.

In addition, this toy can be used by all building therapists and paraprofessionals to engage students in communication, exploration, self-regulation, therapy, and/or learning. At the current time, the sensory room is used by a minimum of 11 children who are using the space approximately 3 hours daily per day as part of their daily programming. In addition, the physical therapist utilizes the space for 9 students in the building receiving physical therapy services. However, this year's project also serves to involve our Occupational Therapist and her caseload of 25 students in using the toy to work on goal areas for fine motor skill development as well as visual-perception, and can involve the Speech Therapist when working with minimally verbal students to develop basic skills including learning color/number/shape vocabulary, understanding concepts, and following directions.

The Peters Township High school students will have the opportunity for project-based learning with a real world engineering and manufacturing challenge. Students will use collaborative problem-solving to research the original idea, use computer aided design to develop a production plan of manufacturing, determine the amount of materials needing to be purchased, and then identify what manual tools and automated skills (including lasers or robotics) will help construct the actual equipment. Following the construction, students will be able to evaluate a working prototype of their design, and identify any future problems and solutions with the design.

Sustainability of the space and the use of the new equipment is evident in terms of the new Sensory Room equipment being cared for over the last school year, and is in constant daily use.

### **AUDIENCE AND SUSTAINABILITY:**

3 (a). Describe the student population targeted for the project:

The current student population continues to include a number of students having diagnoses of Down's Syndrome, ADHD, and SPD, as evidenced by the growing number of students on the caseloads of building therapists. The building supports multiple classrooms with students having these diagnoses, including both resource room environments and inclusive/co-taught classrooms. It is projected that with the rise in early-identified children through the increased visibility and availability of Early Intervention services, as well as the influx of already diagnosed children moving into the district, our numbers will be steady or increase in years to come in the Special Education Department at the Elementary level.

In addition, the students of the Applied Engineering/Manufacturing classes will participate in the execution of the project.

This project has the potential to be repeated to provide another piece of similar equipment to all district buildings for use by children with special needs.

3 (b): How many children will be served?

All above-named students at Bower Hill who are in need of a retreat, escape, scheduled sensory break, or scheduled sessions of sensory input presented through a sensory "diet" can access this space as it is currently being used for this purpose. This new equipment provides an additional option to utilize for learning and play. The High School students will benefit from the real-world experience and being able to see a project come to fruition that can help many small children.

### **PROJECT EVALUATION:**

4. How will you evaluate?

The success of the project will be evaluated by several measures:

At Bower Hill:

- Student Observation of Interest and Enjoyment by staff
- Student Length of Time Engagement with new equipment
- Student Satisfaction as measured by decrease in problem behaviors both in number of episodes, or in length of episodes when given access to new equipment
- Using the new equipment as a reward for task compliance or completion

At High School:

- Execution of working prototype
- Fulfillment of Course Syllabus Objectives as determined by teachers

**BUDGET:**

Items asked for:

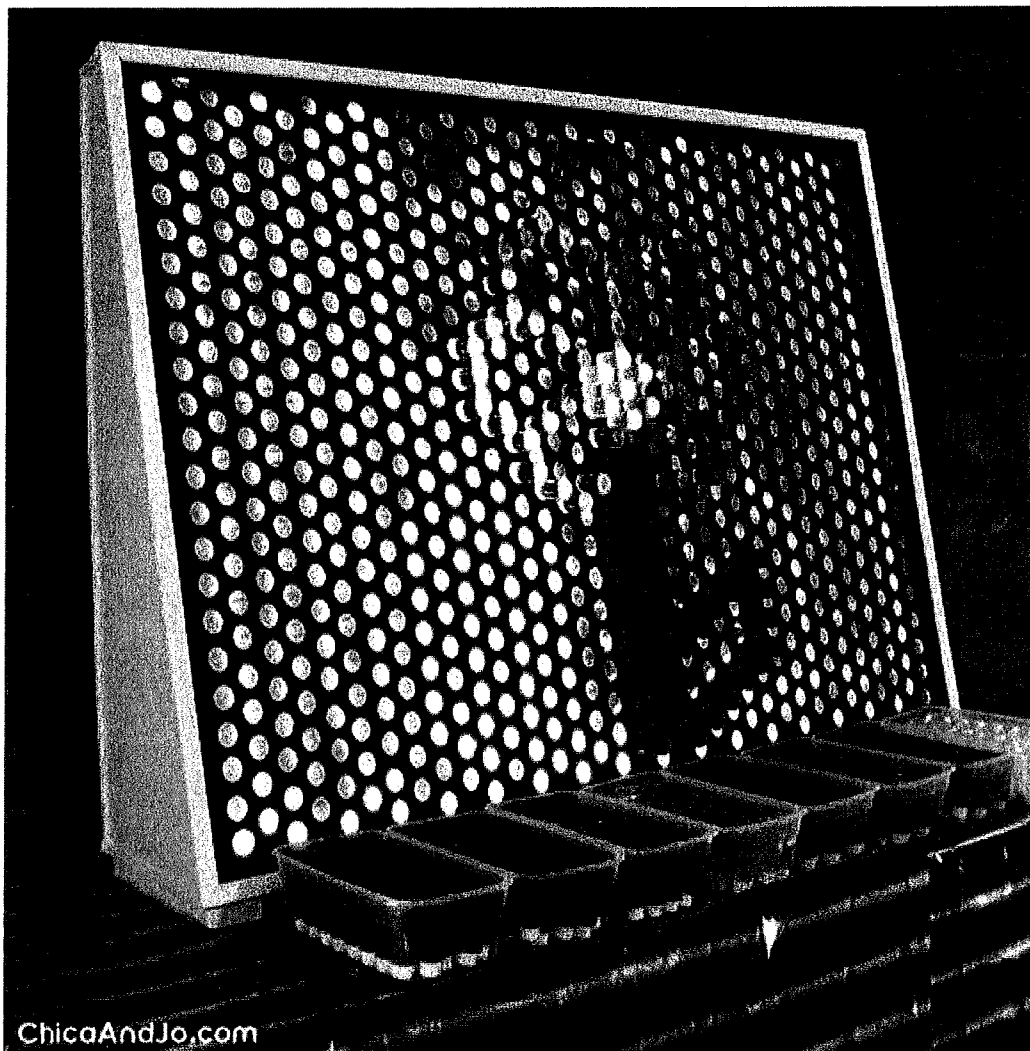
Acrylic pegs (100) x 6 color options at \$169 per color= \$1014 (will be purchased on Etsy)

Wood, Molding, Screws and Nails: \$150

Spray Paint (Black and White) = \$25

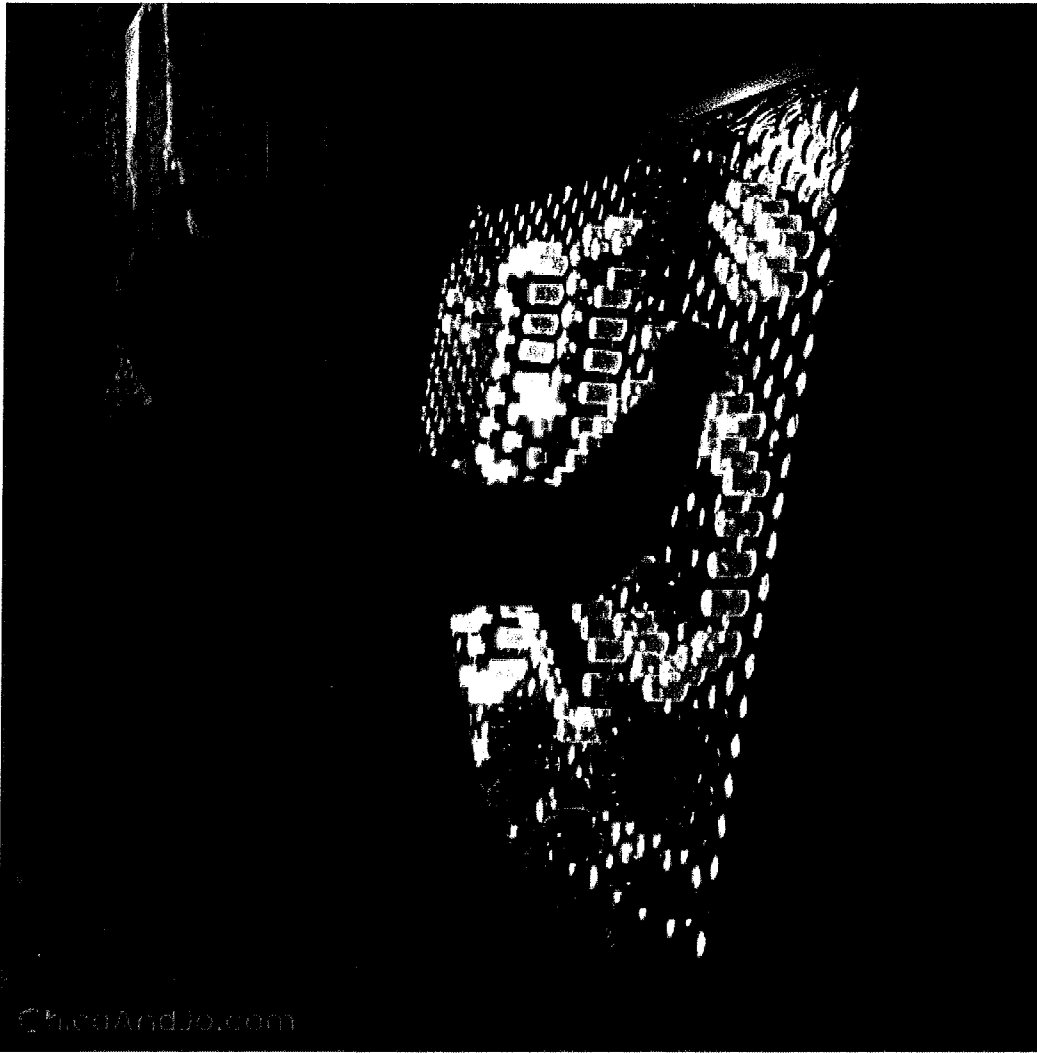
LED light strips Three rolls of 16 ft (cuttable) approximately \$50 through Amazon

**APPROXIMATE TOTAL COST OF PROJECT = \$1239**



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It didn't take long before party guests were creating their own designs, and reminiscing about the fun they had playing with Lite Brite when they were kids.





...but the second it fit in place, it lit up as if by magic! It was so satisfying to watch.



For the party, we set the Lite Brite on a table and added a generic design to get things going. All the pegs were placed on the table in tubs, inviting guests to play.

# Etsy

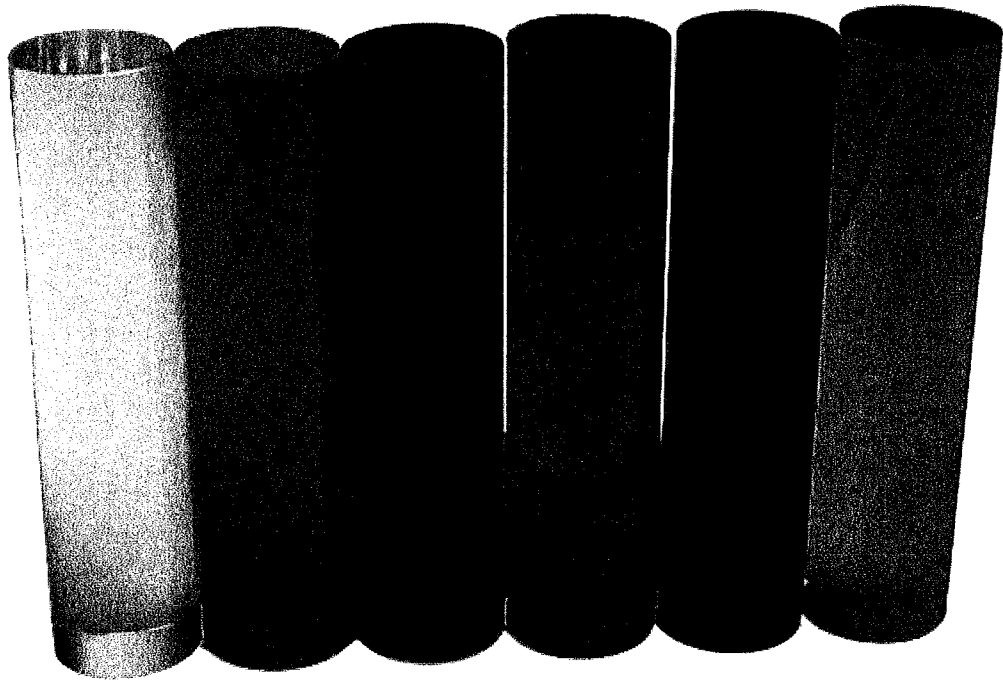
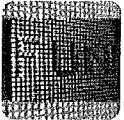


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## \$169.00+

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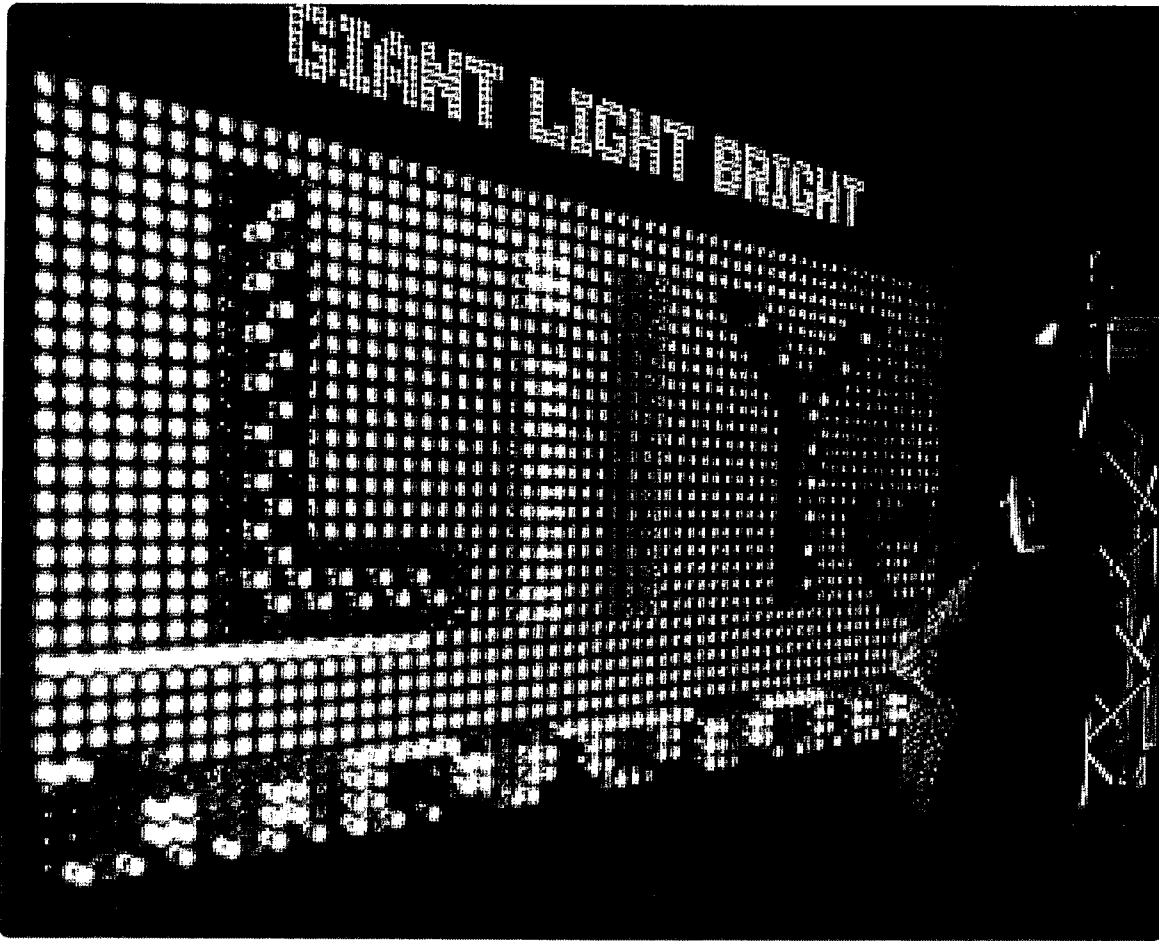
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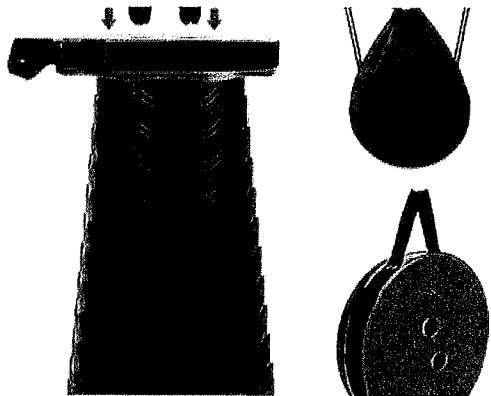
Tammi Hanak  
hanakt@pt-sd.org



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tammihanak1@gmail.com





Giant Light Bright | Lite Brite | Light Up Peg Board 4'x8' | Jumbo Colorful Entertainment Activity  
 SilentSoundSystem  
**\$9,295.00**




Custom Collapsible Stool With Cushion  
 SilentSoundSystem  
**\$29.99**  
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