



# Sensory Spaces on Wheels: An Innovative Model for Community Participation

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## Introduction

The **neurodiverse population** has distinguished differences in social interaction, social communication, and a decrease in sensory and motor abilities. These individuals may be affected by different stimuli such as lights, sounds, textures, or smells that can create some sort of discomfort (Breslin et al, 2020; Novakovic et al., 2019).

Individuals with sensory sensitivities have challenges with social participation and their ability to regulate their behavior, making it impossible at times to continue their current activity. The concept of neurodiversity has been able to provide context of its populations sensitivity to varying stimuli, that could evoke a behavioral response that may be vexatious or pleasing. Ultimately, the neurodiverse community has led us to develop unique multisensory spaces known as **Sensory Spaces on Wheels**.

## The Sensory Consortium

Texas Woman's University School of Occupational Therapy has linked itself to community organization including the Dallas Museum of Art and Nasher Sculpture Center, J. Erik Jonsson Central Library, and Frontiers of Flight Museum, creating the **Sensory Consortium**.

This group of institutions are dedicated to creating sensory-friendly programming. This model community program is designed to expand the potential benefits of non-prescribed multisensory environments, *Sensory Spaces on Wheels*. With these sensory spaces, community organizations can provide ways to self-regulate behaviors and support social participation during events or venues for neurodiverse populations, as well as having the liberty to make their own decisions on what type of sensory space would be most beneficial for their venue.



Sensory Spaces at the Nasher Sculpture Center

## The Checkout System

Sensory havens, sensory spaces, and multi-sensory environments have made their way into schools, sporting events, cultural activities, treatment settings, museums, and even art exhibits. The self-regulation approach of the *Sensory Spaces on Wheels* is made possible using an ice fishing houses, also known as **hubs**. These hubs form a self-regulation recharge station that can help the neurodiverse population recover from adverse events during these venues. YouTube links are provided on how to set-up and take-down the sensory spaces coupled with their own instruction manuals and bilingual step by step instructions.



## Sensory Space Goals & Ingredients

### Sensory Space Goals:

- Promote social participation
- Develop adequate social behavior
- Promote self-regulation
- Ensure safety
- Promote event participation

This sensory space is a self-contained, relatively sound-proof, easy to assemble, and storage accessible. The *Sensory Spaces on Wheels* have a variety of developing configurations which have been altered and created to promote a diverse allocation into many possible venues.

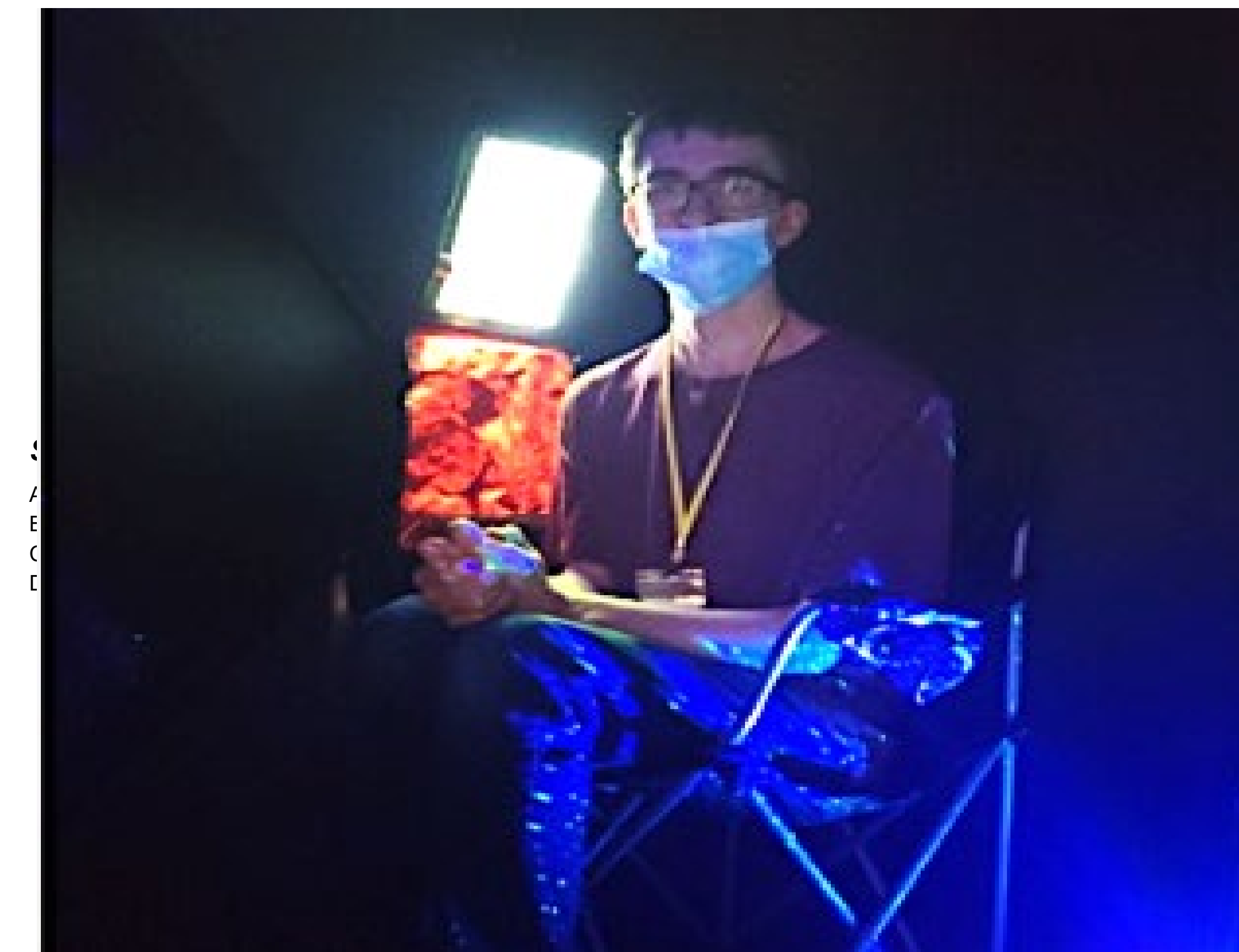
**The Guardian**, for example, also known as a **Sensory-GO** sensory space which includes the following:

### Sensory Space Ingredients:

- Ice fishing houses
- Foam floor tiles
- Weighted blankets
- Rocking chairs or gliders
- Noise-canceling headphones
- Fidgets



*Sensory Spaces on Wheels* have already made an impact on several places within the Dallas Art District such as the *Dallas Art Museum*, *The Nasher Sculpture Center*, and *The Frontiers of Flight Museum*. They have been placed in multiple spots in each location to adequately assert the sensory space goals. These goals allowed the sensory spaces to be "tricked up" for the best suitable opportunity for consumers to get the best experience towards their self-regulation journey. Research and collaboration with the autistic community center has given an appreciative perspective that our sensory spaces on wheels are customizable and allow a flexible all around use to meet the needs of the consumer.



## Input From Our Collaborators

The TWU team created a survey to gather insight and feedback at My Possibilities from staff and clients. The team asked about the usefulness on self-regulation and if individuals with autism would use the sensory space. Feedback was also provided on the items included in the sensory space. Neurodiverse clients gave highly positive input on some of the items (i.e., rocking chair, star light projection, and lighting). The staff responded that most individuals who chose to use the space found it promoted self-regulation.

### From Neurodiverse Sensory Space Users

"It was cool!"  
"I love it!"  
"It calmed me down."

### From Community Partners

"The ice fishing house is a great place to chill out!"  
- *Nasher Sculpture Center*  
"My main takeaway from your awesome project is that I love the simplicity of the sensory spaces you all have created. It's a great way to turn any space into a haven for those who need a moment away from the event/museum."

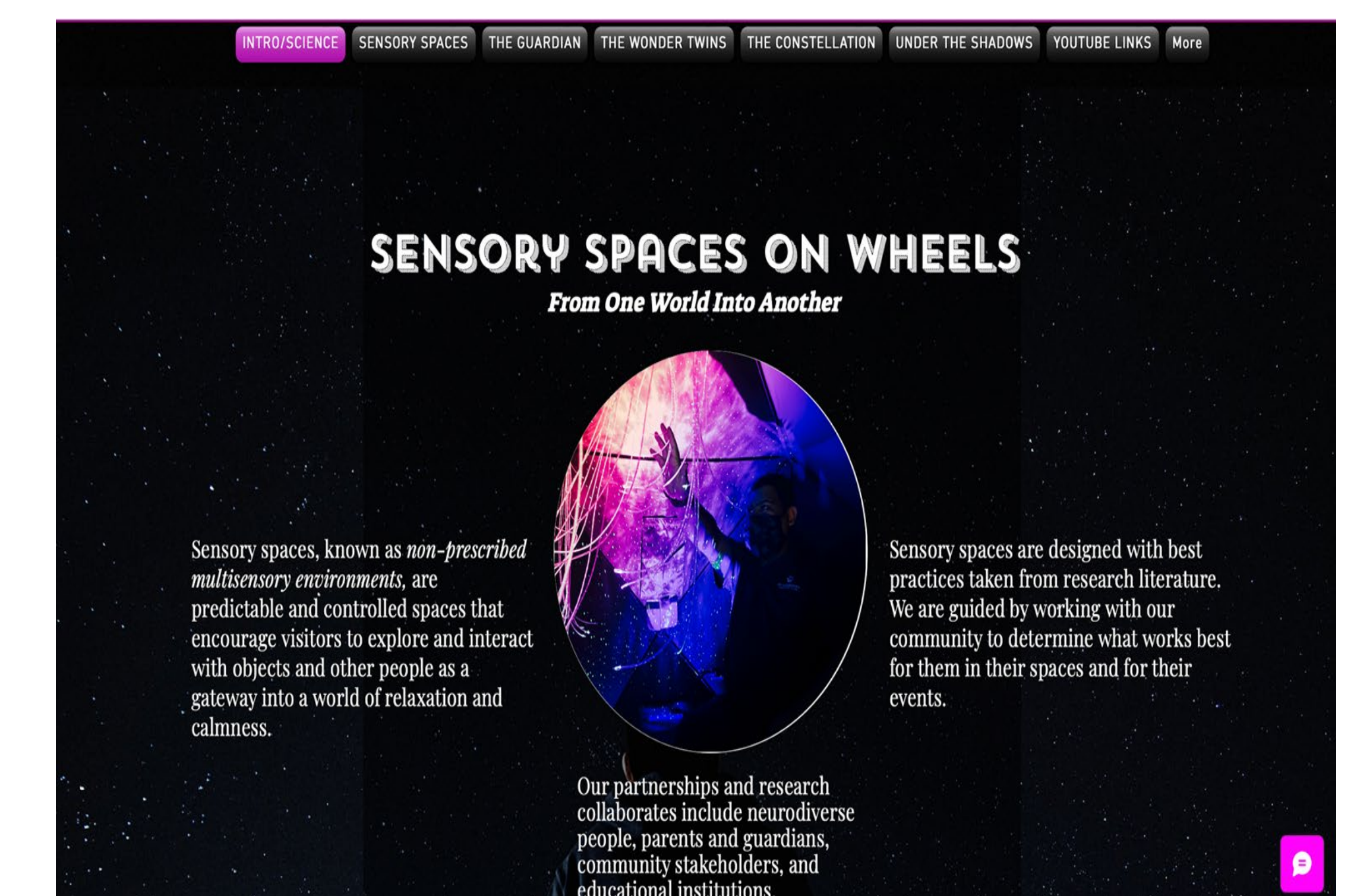
- *Frontiers of Flight Museum*



## Future Directions

This unique concept has been developed through input from parents, children, community stakeholders and staff, alongside the background and skills of occupational therapists. In collaboration with the autistic community, center volunteers appreciated customizable spaces with flexible use. These sensory spaces can serve as a bridge to independence in various environments and make sensory friendly-programming consistent from one event to another.

Currently, a social media platform, like our website **Sensory Spaces on Wheels: From One World Into Another**, is in development to allow easy accessibility to the tools, evidence, and information we have gathered to build a sensory space and customize it as they see fit for their event. The Dallas Museum of Art likes these so well they want to create a permanent space in their galleries for "regular" visitors to enjoy them. As our research and partnership with community partners continues, new configurations of these sensory spaces will be made and continue to impact those with the neurodiverse population.



## References and Resources

Breslin, L., Guerra, N., Ganz, L., & Ervin, D. (2019). Clinical utility of multisensory environments for people with intellectual and developmental disabilities: A scoping review. *The American Journal of Occupational Therapy*, 74(1). <https://doi.org/10.5014/ajot.2020.037267>

Novakovic, N., Milovancevic, M. P., Dejanovic, S. D., & Aleksic, B. (2019). Effects of snoezelen—multisensory environment on cars scale in adolescents and adults with autism spectrum disorder. *Research in Developmental Disabilities*, 89, 51–58. <https://doi.org/10.1016/j.ridd.2019.03.007>

