DESIGN INTENT FOR THE
A.J. DREXEL AUTISM INSTITUTE
MOBILE ASSESSMENT UNIT

DESIGNED BY
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INTR 799-004 ST: COMPETITION: AUTISM MOBILE
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AUTISM SPECTRUM DISORDER affects the functions of the brain responsible for social interaction and communication skills. While the spectrum is broad, sensory impairment appears to be the underlying difficulty for children with ASD. Medical advances, funding for research, community and familial education will no doubt benefit and enhance early detection and care, but to be effective and successful, the best approach falls in conjunction with thoughtful design. With the knowledge that sensory difficulties are characteristic of those with ASD, we can develop a world apart from our daily sensory and stress overloaded environments. We can use design as guide that enhances treatment and care in safe, relaxing environments that promote opportunities to explore and interact.

Sensory systems, specifically the vestibular and proprioception senses, might exhibit themselves in varying degrees of impairment in children with ASD. Treatment with a focus on sensory integration seems to be the most beneficial as it helps the brain register senses simultaneously. With Sensory Integration as our objective, we’ve developed a design schematic that utilizes tactile design to develop both the vestibular and and proprioceptive senses that, in turn, engage the patient to relate to the world around them. We carefully included features, such as a muted color palettes, soft textures, defined spaces, diffused lighting, and round volumes, that would appeal to both hyper- and hypo-reactive spectrum disorders. Storage and space definition were of paramount consideration. Ample storage space has been provided to ensure a clear and informative environment.

Branching Out: Drexel University Autism Research, provides the essential branding and graphic design that will represent the van’s connection as a support system to the surrounding community. The common vine, generally too weak to grow unaided, will branch out in any direction, given they have support. This simple analogy provides the visual connection between Drexel’s autism support and community awareness outreach.
FIGURE A
Therapeutic ‘cuddle’ swing mounts to ceiling and anchors to floor of vehicle. Swinging and the comfort of being cuddled inside the swing can help to relax the child and prepare them for the session.

FIGURE B
Fiber Optic Skylight system uses sun tracking reflective cones and fiber optic cables to carry the daylight into the space. This provides natural light without distractions from the street.

FIGURE C
The furry mechanical toy moves and wiggles when patted and spoken to quietly, but shuts down when a child screams or handles it roughly. The idea is to gently encourage autistic children to develop better social skills.

FIGURE D
Tactile speakers engage users with changing lights and sounds through the use of a soft, spherical control panel under fabric.

FIGURE E
Interactive Video Motion Wall responds to the motion of the user’s body. This system encourages social interaction and awareness of body movement. Graphics can be programmed to different visuals or can be used as a mirror.

FIGURE F
Tactile boundary created through use of a texturizes rubber surface provides a sense of space and security without restricting the child’s movement.

FIGURE G
Soft, furry, texturized stool seating can be used as another relaxation tool or reward for child. Stools store away in built in storage when not in use.

FIGURE H
Pull out ramp allows a child in a wheel chair to access the space. Stores away under floor when not in use.
The design of the mobile assessment unit is centered around the needs of children with autism spectrum disorders. Storage and space definition were of paramount consideration. Ample storage spaces, diffused lighting, and round volumes, that would appeal to both hyper- and hypo-reactive textures, defined relate to the world around them. We carefully included features, such as a muted color palettes, soft developing both the vestibular and proprioceptive senses that, in turn, engage the patient to seem to be the most beneficial as it helps the brain register senses simultaneously. With Sensory varying degrees of impairment in children with ASD. Treatment with a focus on sensory integration Sensory systems, specifically the vestibular and proprioception senses, might exhibit themselves in daily and successful, the best approach falls in conjunction with thoughtful design. With the knowledge familial education will no doubt benefit and enhance early detection and care, but to be effective communication skills. While the spectrum is broad, sensory impairment appears to be the.
MOBILE UNIT: DRIVER'S SIDE ELEVATION

SCALE: 1/2" = 1'-0"
The common vine, generally too weak to grow unaided, will branch out in any direction, providing the essential branding for the van's connection as a support system to the surrounding environment. The furry mechanical toy that sensory difficulties are characteristic of those with ASD, we can develop a world apart from our own. We carefully included features, such as a muted color palette, soft textures, and diffused lighting, that would appeal to both hyper- and hypo-reactive individuals. We relate to the world around them. We carefully included features, such as a muted color palette, soft textures, and diffused lighting, that would appeal to both hyper- and hypo-reactive individuals. We relate to the world around them.

Integration as our objective, we've developed a design schematic that utilizes tactile design to engage the senses simultaneously. With Sensory Integration as our objective, we've developed a design schematic that utilizes tactile design to engage the senses simultaneously.

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Autism Spectrum Disorder affects the functions of the brain responsible for social interaction and communication skills. While the spectrum is broad, sensory impairment appears to be the underlying difficulty for children with ASD. Medical advances, funding for research, community and familial education will no doubt benefit and enhance early detection and care, but to be effective, treatment with a focus on sensory integration seems to be the most beneficial as it helps the brain register senses simultaneously.

With Sensory Integration as our objective, we've developed a design schematic that utilizes tactile design to integrate sensory input. Tactile boundary created by fabric, providing the essential branding of a soft, spherical control panel under fabric. Interactive Video Motion System: a child-friendly, interactive display for sensory stimulation.

The furry mechanical toy provides the child comfort of being cuddled inside the space. Stores away when not in use. Stools, see Figure G.

The furry mechanical toy, patted and spoken to quietly, but shuts down when the child and prepare them for the session. Cozy area includes storage below seat, see Figure H.

THERAPY SWING 
Detachable swing installs to hook in ceiling and anchoring on floor. Can be used to relax and prepare child for session. See Figure A.

FIBER OPTIC SKYLIGHT 
Provides natural daylight into space, see Figure B.

CLERESTORY WINDOWS 
Allow light in and views of sky but block out distracting activities on the street around van.

SENSORY INTEGRATION 
Sensory systems, specifically the vestibular and proprioception senses, might exhibit themselves in varying degrees of impairment in children with ASD. Treatment with a focus on sensory integration seems to be the most beneficial as it helps the brain register senses simultaneously.

In the space has been provided to ensure a clear and informative environment. Textures, defined to relate to the world around them. We carefully included features, such as a muted color palette, soft light without distractions, and fiber optic cables. Fiber Optic Skylight system allows light in and views of sky but block out distracting activities on the street around van.

In the rear, the space doubles open to function as a dividing partition. Ceiling and floor to hooks mounted to include fold up seating inside partition and cabinetry. Sink for handwashing station, see Figure D.

Schedule wall, magnetic, dry-erase whiteboard wall to be used for scheduling or activity purposes. Rear doors to van will remain functional. Schedule accessories: drawers in cabinetry contain magnets, markers & erasers for schedule wall. Also can hold rewards for activities. Schedule wall, also can hold rewards for activities.

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Autism Spectrum Disorder affects the functions of the brain responsible for social interaction and communication. Children with ASD often have sensory processing difficulties, which can lead to over-stimulation or under-stimulation in their environment. By designing sensory integration spaces that promote a calm and controlled environment, we can help children with ASD develop their social and communication skills.

We carefully considered the storage and space definitions to create a mobile assessment unit that can be used in safe, relaxing environments. This design aims to support the unique needs of children with ASD by providing a space where they can explore and interact.

We designed the unit to accommodate various activities that engage children with ASD, such as one-to-one activities between the researcher and child. The unit also includes a cozy area with storage below the seat, which can be used as a rewards area or another relaxation tool. The space is designed to be quiet and calming, with natural light and soft colors to reduce sensory overload.

The unit includes a pop-up worksurface for user interaction, a divider partition that can be opened to function as a dividing partition, and a therapeutic cuddle swing. We also considered the use of interactive motion-sensitive speakers and lights to enhance the therapeutic environment.

OCCUPANCY OPTIONS LEGEND:
- Observer or Parent
- Child
- Assessor
- Child in Wheelchair
- Partition Wall
Autism Spectrum Disorder affects the functions of the brain responsible for social interaction and communication. Treatment with a focus on sensory integration and care in safe, relaxing environments that promote opportunities to explore and interact is beneficial. We carefully included features, such as a muted color palettes, soft lighting, and round volumes, that would appeal to both hyper- and hypo-reactive children. This provides a world apart from our daily environments for autistic children to develop their social skills.

Branching Out: Drexel University Autism Research Network

This simple analogy provides the visual connection between the common vine, generally too weak to grow unaided, and graphic design that will represent the van’s connection as a support system to the surrounding community. The furry mechanical toy moves and wiggles when the child screams or handles it roughly. The idea is to use sensory difficulties as a means to develop autistic children to develop better social skills.

Therapeutic ‘cuddle’ swing mounts to ceiling and provides natural daylight through use of a texturized fabric. For autistic children, swinging is a way to relax the body and prepare them for the session. The furry mechanical toy can be programmed to move and wiggle when a child screams or handles it roughly. Autistic children can develop better social skills when a child scream or handles it roughly. The furry mechanical toy can be programmed to move and wiggle when a child screams or handles it roughly. Autistic children can develop better social skills.