

# What Autism Teaches Us about Design

*These are usability principles to consider when designing or renovating a space. Attention to these dimensions of the physical environment will support occupants with sensory integration issues. These are good principles of low-stress design for all occupants.*

<p><b>General</b></p>	<ul style="list-style-type: none"> <li>• Use multiple methods to understand group needs (surveys, user groups, ethnography).</li> <li>• Involve occupants in early design decisions (site, massing, entry, parking).</li> <li>• Provide flexibility of use for each space, allowing reconfiguration by users.</li> <li>• Incorporate useable landscape areas and views to nature from indoors.</li> </ul>
<p><b>Spatial Configuration</b></p>	<ul style="list-style-type: none"> <li>• Provide 20% more floor area for task areas.</li> <li>• Provide visual separations for large rooms.</li> <li>• Incorporate smaller, adaptable spaces that are acoustically private.</li> <li>• Anticipate layout of furnishings to reinforce the intended occupation.</li> <li>• Deploy a wayfinding strategy using colors and landmarks.</li> </ul>
<p><b>Acoustics</b></p>	<ul style="list-style-type: none"> <li>• Limit mechanical noise to 40 decibels A-weighted (40 dBA).</li> <li>• For sites near busy streets and/or flight paths, provide OITC-32 windows.</li> <li>• Provide adjustable soundscapes in selected spaces (nature sounds).</li> <li>• Design out alarms, phone ringers, and PA systems to the extent possible.</li> </ul>
<p><b>Lighting</b></p>	<ul style="list-style-type: none"> <li>• Achieve ~500 lux horizontal illuminance with electric light or daylight.</li> <li>• Provide dimming control for all lighting.</li> <li>• Avoid large areas of intense color. Green and blue are good choices.</li> <li>• Use warm-white or red light at night.</li> <li>• Provide task lighting for key activities (eating, reading, manual tasks)</li> <li>• Limit luminaire luminance to 10,000 cd/m<sup>2</sup>.</li> </ul>
<p><b>Thermal Comfort</b></p>	<ul style="list-style-type: none"> <li>• Provide ceiling fans and operable windows.</li> <li>• Allow seasonal float for temperatures in transient and collaborative spaces.</li> <li>• Limit expansive areas of glass.</li> <li>• Provide a temperature controls for each occupied space.</li> </ul>
<p><b>Materials</b></p>	<ul style="list-style-type: none"> <li>• Deploy natural materials such as wood, natural wallcovering, and stone.</li> <li>• Integrate plantings or green walls. Use natural patterns for finishes.</li> <li>• Avoid vinyl and furniture with halogenated flame retardants.</li> </ul>
<p><b>Air Quality</b></p>	<ul style="list-style-type: none"> <li>• Provide 30 cubic feet per minute (cfm) of ventilation air to each occupant.</li> <li>• Monitor outdoor ozone and PM2.5, especially in urban settings.</li> <li>• Provide UVGI and activated carbon filters. Use MERV-13 filters.</li> <li>• Isolate contaminant sources, such as copy machines.</li> <li>• Avoid air fresheners, toxic cleaners, and fragrant hygiene products.</li> <li>• Provide separated spaces for food preparation and consumption.</li> </ul>
<p><b>Safety</b></p>	<ul style="list-style-type: none"> <li>• Design appropriate risk and eliminate hazards.</li> <li>• Anchor large, unstable items and avoid sharp corners.</li> <li>• Limit hot water temperatures.</li> </ul>