



Orientation & Mobility Strategies for Low Vision Wheelchair Users

Adapted from Materials by
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This information was originally presented in workshop format by James Scott Crawford, an O & M instructor whose work addresses the needs of people with visual impairment who use wheelchairs as their primary mode of transportation. It is reprinted here with the permission of the Texas School for the Blind. For the full article see http://www.tsbvi.edu/therapy/wc_tip_edit.pdf



NEGOTIATING TIGHT CORNERS - FORWARDS

Often, new users or people who have recently switched from manual to electric wheelchairs have a problem with turning too sharply and clipping the corners of hallways and doors. Specific landmarks, on the chair or their body, can be established to determine where to turn. Often the head is a good landmark. "When your head is even with the near side of the opening, then turn." The specific landmark that will work depends on the design of the chair and the distance from the wall. With the head example, the student often needs to be at least arm's reach from the wall. If they have to be closer, they may need a different landmark.

-----Telling clients to pull all the way into the intersecting opening before initiating the turn can be helpful.

NEGOTIATING TIGHT CORNERS - BACKWARDS

Often, people drive into a situation where there is no room to go forward and no room to turn around.

-----People who have no trouble negotiating turns forward can have a very difficult time doing the same thing backwards. In particular, people who have never driven a car seem to have more trouble with the concepts of making backward turns.

-----Again, landmarks on the chair or the person's body can be very helpful with successfully negotiating a turn. For example, When the far edge of the opening is even with the joystick, a pivot turn away from the wall will line the chair up to back through the opening.

-----Some people don't know which way they need to turn to go through the opening. If they look over their shoulder and the opening is to their left, they don't understand which way to move their feet to aim for the opening. Most people who get confused benefit from suggestions to move their feet away from the opening until it is straight behind or until the opening is even on both sides of them.

DOORS

For DOORS THAT OPEN OUT, or away from the client, they can usually pull straight into the doorway until the chair lightly touches the door, exerting light pressure on the door. After operating the handle/latch, the door can be pushed open with the front of the chair. If they have the ability, it is better to push the door open and hold it open with a hand, because the chair can scratch the paint on the door. The chair should travel as straight as possible through the doorway, until the entire chair is through. Frequently, people turn too soon and get caught on the doorjamb.

For DOORS THAT OPEN IN, or towards the client, the biggest problem is getting the feet out of the way of the door.

1. Pull up to the handle side of the door, without blocking the door.
2. Pull the door open and fling it as wide open as possible.
3. Turn the feet to face the door.
4. When the door then swings shut on the feet push the door open as far as possible, or until the door is perpendicular to the wall.
5. Turn the feet to face the doorway. Once the chair is facing the opening, the person should be able to drive through the open doorway.
6. In some cases, the client may need to back up to the side of the door in step 1.



---Several spastic quadriplegics did not have sufficient range of motion, arm strength or trunk strength to reach the doorknob without blocking the door. They also only had one arm strong enough to pull the door open. They would follow the following procedure.

1. Pull up to the door so that the knob can be reached with the strongest arm. The feet will be blocking the door from swinging all the way open.
2. Place a lasso (Eyeglass strap) over the joystick, placing the loose end in their weak hand.
3. Use the stronger arm to grab the doorknob and pull the door open slightly.
4. Pull with the lasso, pulling the joystick, until the feet have turned out of the way of the door.
5. Fling the door open as far as possible
6. Turn the feet to face the door, allowing the door to swing back and hit the footrests. If necessary, push the door open again to untangle it from the footrests.

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