

Crossover Chair™

“The next evolution in wheelchair performance”



Patented technology that allows a wheelchair seat to move side-to-side *and* tilt left and right

U.S. Patent # 8,684,398

U.S. Patent # 8,985,600

International PCT # 13591002111

**European Zone Patent application
WO 2014/204976 A1
(pending)**

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Overview of the Traditional Wheelchair



c. 1880s

Wheelchairs have been around for centuries. They are used by people for whom walking is difficult or impossible due to illness, injury, or disability.



Today's wheelchair

While the materials used to build wheelchairs have evolved from wood to high-tech alloys, the basic symmetrical design of the wheelchair has actually changed little over time. The seat is positioned centrally between the wheels so to provide balance and stability for the user.

This holds true for both everyday-use wheelchairs and sports performance wheelchairs. Powerchairs also follow this same pattern.

Sports / Performance Wheelchairs



Athletes with a disability use sport performance wheelchairs for all manner of sports.

Each sport tends to use specific types of wheelchairs, and can look much different than their everyday cousins. Typical sports performance wheelchairs are usually non-folding (in order to increase rigidity), with a pronounced negative camber for the wheels (which provides stability during a sharp turn), and made of composite, lightweight materials.



Sports performance wheelchairs are not intended for everyday use. They are often a 'second' chair used specifically for sports.

Whether the sports / performance wheelchairs are manual or motorized, the seat remains fixed and centered.

Traditional use of the term “tilt” or “tilting” is used by the wheelchair industry to describe varying manners of reclining back or inclining forward from a neutral upright position.

Crossover Chair

The *Crossover Chair* takes wheelchair adjustability to an entirely new level. The user has the choice to adjust (shift) his or her seat to the right or left *and* tilt (lean) right or left. This adjustability not only provides greater range of motion, but it does so while remaining comfortably and safely seated. Gone are the days where wheelchair users need to contort themselves to reach over the side for something. It is enhanced mobility with greater dexterity.

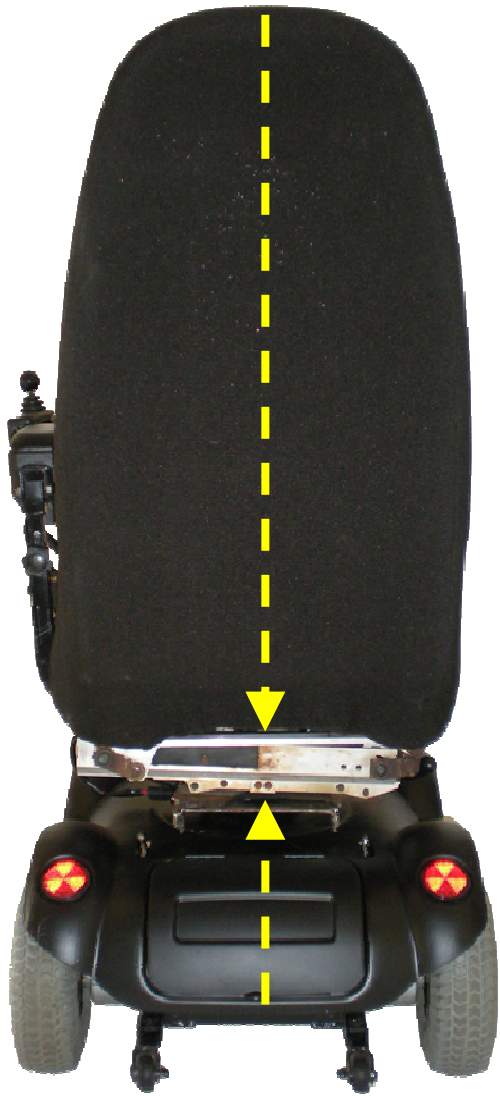
What makes the Crossover Chair a true innovation is its an everyday wheelchair that transforms into a performance wheelchair. And when the activity is finished, the Crossover Chair can transform back into an everyday wheelchair. It's the first true all-in-one everyday / performance wheelchair.

Manufacturing & Sales Options

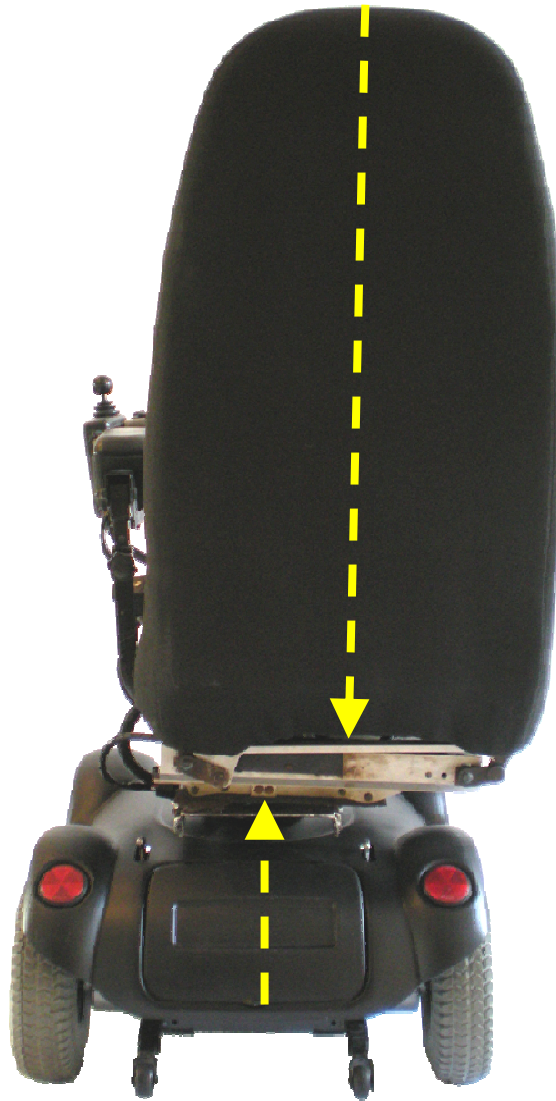
There are any number ways Crossover Chair technology can be implemented. A person can purchase a ready-to-go Crossover Chair designed from the ground up. Alternatively, a person may also be able to **upgrade** their existing wheelchair – provided it has the necessary features – with a Crossover Chair seat assembly. This retrofit strategy allows the licensed manufacturer to access the tens of thousands of wheelchairs already in use. And the best part of the retrofit strategy, it can be implemented across manufacturers; so the potential retrofit market is truly significant. It also offers the licensing manufacturer the opportunity to win over users of competitors wheelchairs in future purchase.

According to the 2010 U.S. Census there are approximately 3,100,000 wheelchair users in the United States.

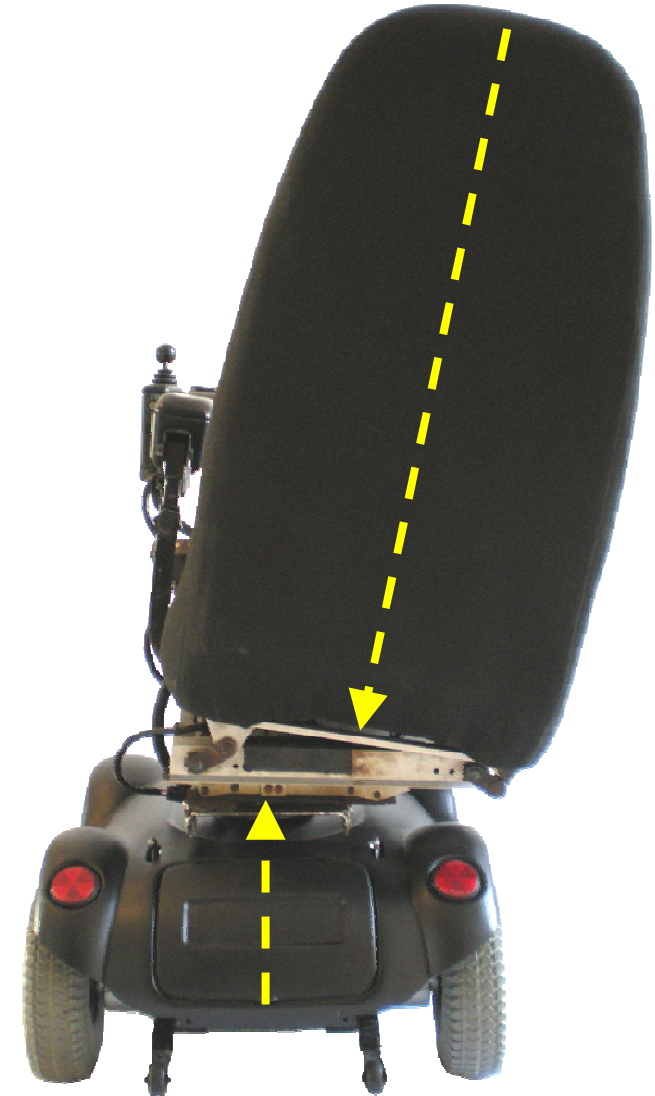
Everyday *and* Performance Wheelchair



NEUTRAL Position
everyday activity



OFFSET Position



OFFSET & TILTED

Offset and Tilt goes both left AND right

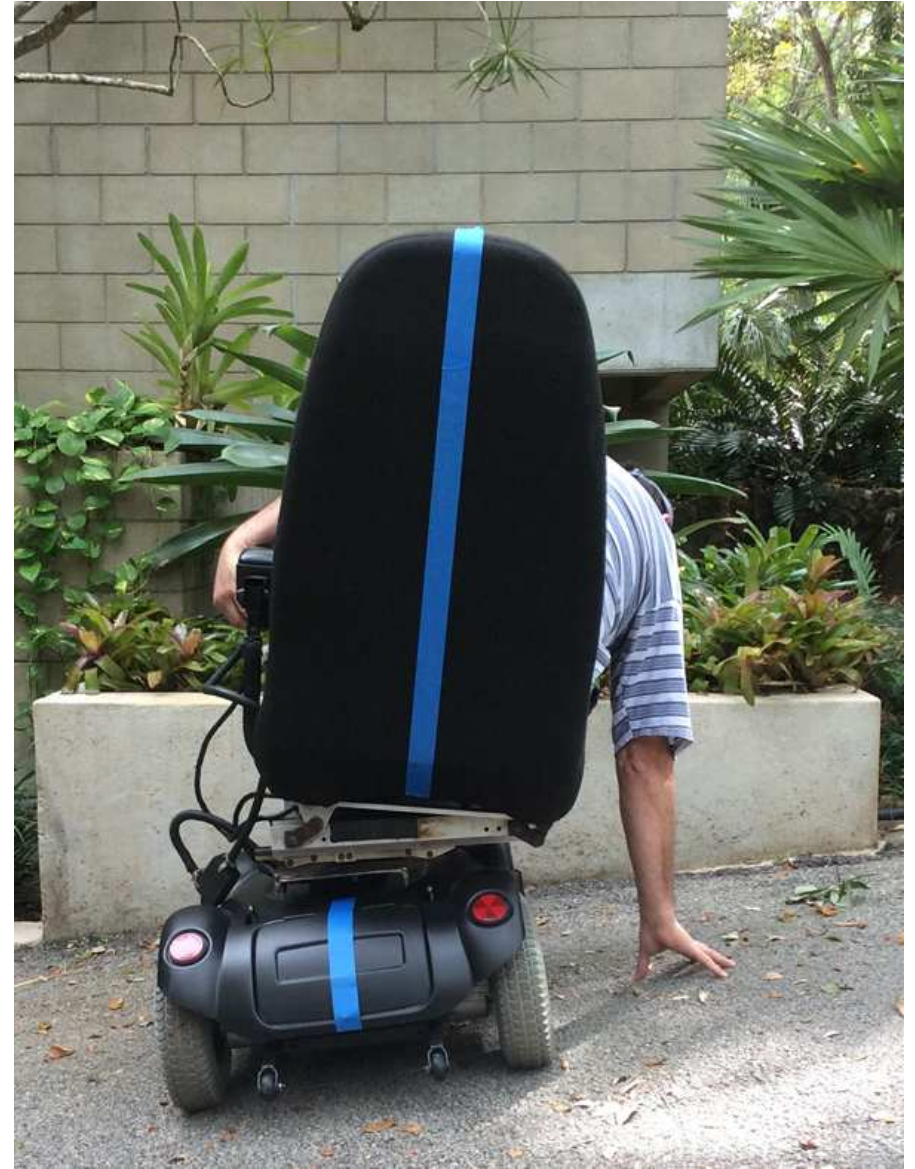
(Right offset and tilt is shown -- 5 inches of shift *and* 10 degrees of tilt capability)

CROSSOVER CHAIR: Adjustable Wheelchair Seat



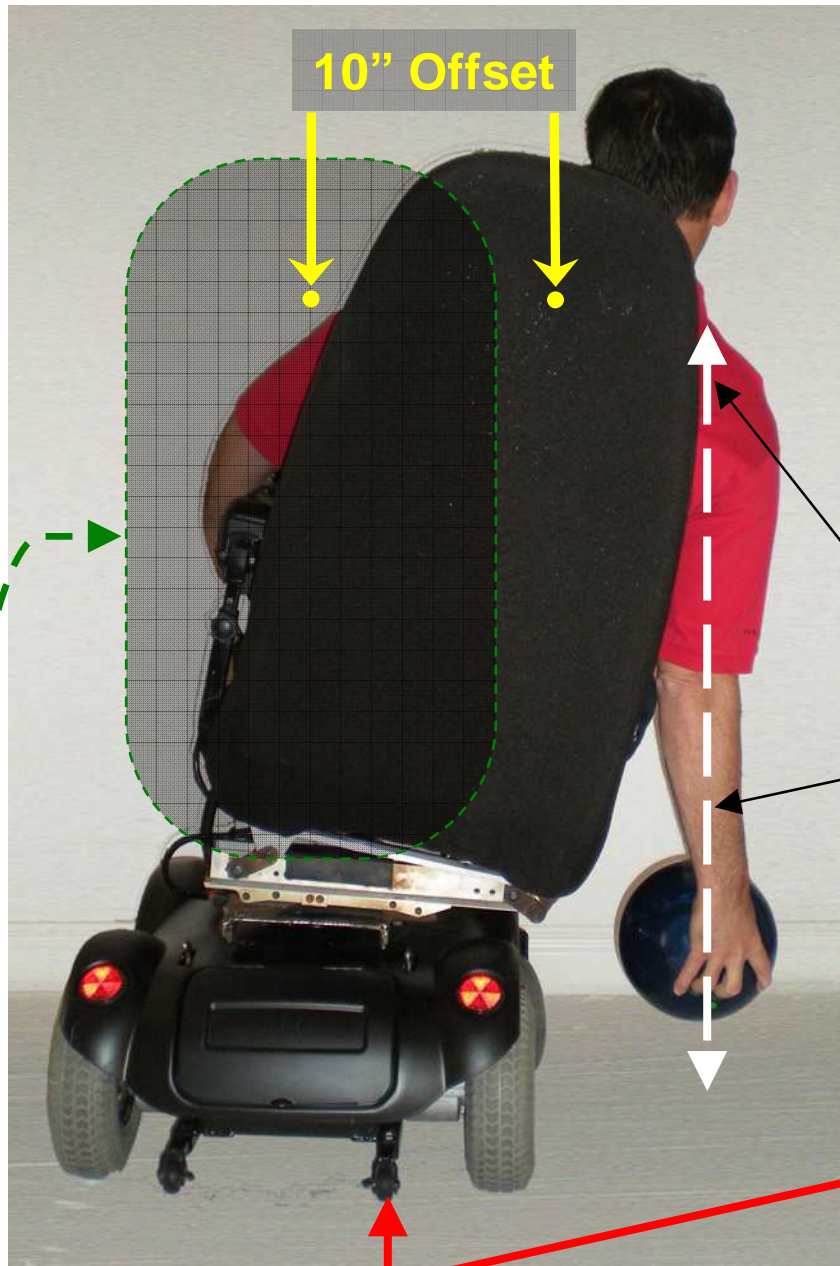
This driveway has a slope of 8 degrees.

CROSSOVER CHAIR: Adjustable Wheelchair Seat



The photo on the right demonstrates the versatility by the shifting and tilting adjustments. The user can directly pick up items from the ground while remaining fully seated.

Performance Wheelchair



At shoulder height, there is more than 10" of offset from the adjustable seat.

The user can choose any amount of shift and/or tilt for any given task, then return to neutral for everyday use.

The manufacturer can pre-set a limited amount of side-to-side shift & lateral tilt.

Example: BOWLING

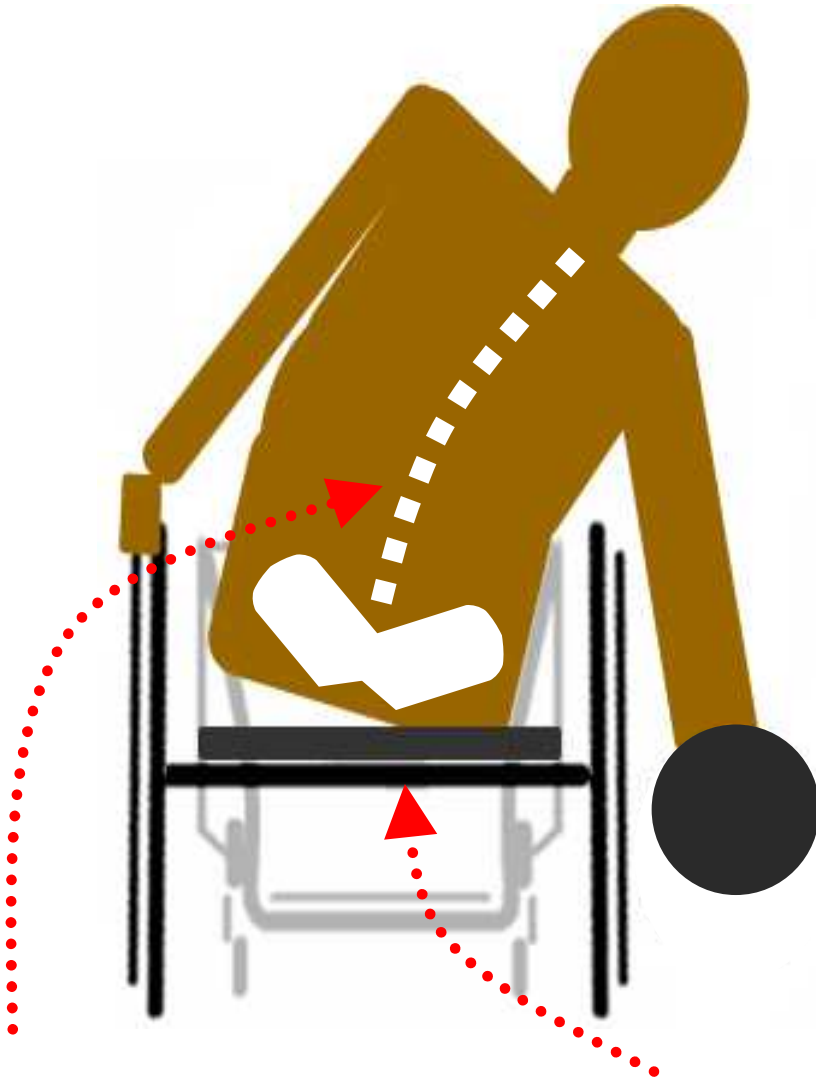
Bowling arm is allowed to swing the ball under the shoulder (vertical swing plane) for a more "normal" pendulum motion

Center of balance is maintained between the wheels

Indicates the neutral seat position for normal everyday activity

Traditional Wheelchair v. Crossover Performance Wheelchair

Example: BOWLING



Asymmetrical pressure on the pelvis and spine yet the armswing is still impaired



More equal pressure on the pelvis and spine allows for greater comfort *and* a normal armswing

CROSSOVER CHAIR: Adjustable Wheelchair Seat

In Summary

It is clear the performance of the Crossover Chair technology has many possibilities. The best part is that it is modular component that can be fitted beneath virtually any seat of an existing wheelchair or one to be constructed.

Aside from an enhanced range of motion, the real value for any product line is that it can also enhance vehicle stability on uneven ground. With the focus on real-world mobility, meaning the great outdoors, enhanced stability during an active lifestyle is a logical next step.

Helping people, both in the sporting and the everyday world, is why I created the Crossover Chair technology. I hope you will consider including my technology with yours to provide a further degree of unprecedented wheelchair performance. It would also provide another “Press Release” opportunity for your company.

Do not hesitate to contact me for any reason. I look forward to hearing from you at your earliest convenience.

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