Researchers at the University of South Florida have invented an assisted spring seat lift to allow for independent easy transfer between wheelchairs and seats.

There are increasing options for people with impaired mobility that utilize wheelchairs with respect to sports and physical activities. Currently, hand cycles are being built in a more aerodynamic way, making them lower to the ground to help increase speed. However, this comes with new challenges. Lower chairs increase the height difference between the bike seat and the wheelchair, requiring assistance to move between the two. There is a need for a mechanism to allow independent transfer between seats without interfering with the hand cycle itself.

USF inventors have created a novel lightweight lifting mechanism which can be attached to hand cycles without interfering with cycle controls. This lift decreases the height difference between the hand cycle and other wheelchairs or chairs. It is designed in a way to be easy to use independently. This has great potential for improving the lives and freedom of people with impaired mobility that utilize wheelchairs.

**ADVANTAGES:**
- Lightweight design
- Easy to use independently
- Lift without interfering with cycle controls

**Novel Spring Seat Lift to Decrease Height Differences to Allow Independent Transfer**

**Novel Lift Mechanism (Red) in Lowered Position (Top) and Upright Position (Bottom)**

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