Researchers at the University of South Florida have developed an adjustable headrest system to provide wheelchair users with the ability to control their head position unassisted.

Powered wheelchairs were designed to provide its users with great mobility. However, many individuals in these powered wheelchairs have serious limitations in use of their upper torso/body—which often includes the position of their heads. Some wheelchair reliant users are unable to adjust their headrest without assistance, hence increasing dependency on other people and potentially causing added emotional or psychological burden. This shortcoming also has the potential to negatively affect the neck and head posture of wheelchair users, in addition to prevention from participation in certain daily activities. This problem has caused there to be a need for an wheelchair headrest that can adjusted by a user unaided.

Our inventors have created a multi-directional adjustable wheelchair headrest that can be controlled through a mobile device via Bluetooth. The system includes a universal mountain system with a headrest that connects to a linear translational and rotational assembly. This system enables users to adjust their headrest unassisted to better-suit daily activities (i.e., driving, watching a movie, eating, etc.) and attain appropriate upper body posture on a daily basis. The universal mounting and power systems of the headrest provide the flexibility to connect it to any wheelchair and draw its power either from the wheelchair’s existing power source or a separate 12V current source. Wheelchair users can now benefit from a sense of increased independence, greater day-to-day comfort, control of their own upper body posture, and performance of additional tasks without assistance.

**Tech ID # 15B143**  
**Patent #: 10,052,248 / 10,576,002**