Students Create Independenc-Giving Device | CPD

Dietrick Berger stands with students Clarissa Barnhill, Miranda Brunson and Dana Bryson after assembling part of a wheel. Dietrick Berger likes the independence and the money work brings him. Still, paralysis on one side of his body limited what he could do at the Cache Employment and Training Center. Meanwhile, four Utah State University students were looking for someone who needed assistive technology. When they found Dietrick, they designed something that gave him a meaningful job and won an honorable mention at the National Scholar Award competition sponsored by NISH, a national non-profit that provides employment opportunities for people with severe disabilities. They also satisfied their Technology for Exceptional Learners course requirements, which assigned them to build something that would help a real person with a real need. Clinical Instructor Tami Pyfer contacted the Cache Employment and Training Center and learned about Dietrick, who wanted to assemble wheels used on irrigation lines. The employment center contracts with several manufacturers in the Logan area including Valley Implement and Irrigation, which provides assembly work. Building wheels for irrigation lines would have been a good fit for Dietrick except that he could not hold a spoke and tighten a nut on it at the same time.

Because he uses only one hand, it was impossible for him to do the job independently. The students decided to build an apparatus that would hold the spokes in place for him while he fastened them to the wheel's hub. They dubbed it the Irrigation Wheel Assembly Snapper, or IWAS. As they designed and built it, the students put in a lot of hours at the Assistive Technology Lab at the Center for Persons with Disabilities on the USU campus. "All four of the girls worked really diligently, and together," said AT Lab Coordinator Stan Clelland. The four students worked with Clelland, Pyfer and with Jennifer Hobby of Utah's AgrAbility program. "It took lots of time and got switched around quite a bit," said Special Education major Miranda Brunson. Clarissa Barnhill, another special education major, said the group started with the idea of using snappers, but other aspects of the design changed a lot. Together with students Dana Bryson and Jessica Nelson, they eventually produced a large, triangular prism with snaps that holds the wheel spokes in place. They put it on wheels that could be locked so the apparatus could move or be made stationary. "It was just great to see the problem-solving in this project," Pyfer said. When it was finished they brought it to Dietrick. "We gave it to him and we showed him what he needed to do," said Brunson. "He just wanted to do it." "He was really excited," Barnhill said. Dietrick sums it up in one word: "Sweet!" The final design was not high-tech, said Pyfer. But for Dietrick, it made all the difference between not being able to do a job and doing it independently.

The assembled wheels are used in irrigation lines like this one.