Seniors' Project Rocks!

May 05, 2011 2:30 AM Fran Simon fsimon@tulane.edu

For four Tulane seniors who took the yearlong biomedical engineering design project course, developing an assistive device for elderly residents at St. Margaret's Daughters Home in New Orleans became a labor of love. The residents of the home enthusiastically received their "Rockaway" rocking platform for wheelchair users.





Tulane seniors, from left, Amaris Genemaras, Martin Sosa, Miko Altenberg and James Barrios show St. Margaret's resident Sadie Isabel how she independently can enter the wheelchair rocker. (Photo by Guillermo Cabrera-Rojo)

"Boy, oh, boy, did they do a good job!" exclaimed Sadie Isabel, a resident at the home who was the first to try out the new rocker. Isabel had given feedback to the students as they were developing their design, which will allow grandparents to rock their grandchildren.

"There's nothing more beautiful than intergenerational interaction," says St. Margaret's administrator Manda Mountain. She suggested the rocker idea because St. Margaret's will move in 2012 to a new facility with an adjacent nursery for infants. The elders will be able rock the babies there.

"Good ideas don't just grow on trees. You have to identify the need," says <u>David</u> <u>Rice</u>, associate professor of biomedical engineering, who teaches the senior team design course.

The team of students interviewed the home's administrators, staff and residents to conceive the right design. Safety for residents autonomously using the "Rockaway" was of primary importance as the team created a platform that simulates the rocking sensation of a traditional rocking chair.

"The team design project has been especially great because it meant getting out of the classroom, seeing the real-world effects of engineering and its effects on people," says James Barrios, team leader of the group during the delivery process.

The hundreds of hours spent designing, building and delivering the rocker to St. Margaret's confirmed for the team that they want to pursue careers in biomedical engineering. Barrios will attend Louisiana State University School of Medicine in New Orleans in the fall. Amaris Genemaras is planning to pursue a doctoral degree in biomedical engineering with a specialization in cell/tissue engineering. Martin Sosa and Miko Altenberg plan to study biomedical engineering for one more year, to complete the 5th year <u>master's program</u>.