

With help from a grant from the National Collegiate Inventors and Innovators Association (NCIIA), students from the College of Engineering and Science and the College of Health Professions are bringing a new assistive technology to the market. Engineering students Wesley Steen and Patrick Pawlowski, along with nursing student Nick Shenduk, have designed a prototype for the S.O.U.P. (Separation of Unsolid Portions) spoon to assist individuals with the inability to eat independently without spilling. The team of undergraduate researchers is advised by faculty members Darrell Kleinke and Molly McClelland.

The S.O.U.P. spoon concept was born in 2011, when team members met with a physically challenged client as part of Kleinke and McClelland's capstone course. Like many individuals with Parkinson's disease and Multiple Sclerosis, the client expressed difficulty eating soup and other liquid foods due to tremors. To solve this problem, the undergraduate research team developed the S.O.U.P. spoon, which retains liquids using suction bulb located under the handle. With a simple squeezing motion, the user transfers fluids from the bowl and spoon head into the handle of the spoon. When the user brings the spoon to his mouth, he again squeezes the handle to return the fluids to the spoon head. In short, it works like a turkey baster, but in a more dignified, low-profile form.

Most existing technologies, such as weighted and ergonomic spoons, focus on reducing the severity of the tremor. The S.O.U.P. spoon is unique in that it retains liquids, therefore enabling the user to turn the spoon completely without spilling. Since approximately 11 million people in the United States alone suffer with tremor causing illnesses, bringing this technology to market could have a tremendous impact nationwide and internationally.

Current 3D printed prototypes have demonstrated the functionality of the spoon and serve as proof-of-concept.

The next iteration of prototypes will be made of food grade materials to be used for customer testing.

Student filmmakers document GM's Student Corps program

Mark L. Ruess, current President of General Motors North America, describes GM Student Corps as a “win-win-win-win-win situation.” Student Corps, he says, gives Detroit high school students the opportunity to earn money, have GM on their resumes, and do something they can be proud of in their communities. Michael C. DiGiovanni, a GM retiree and UDM faculty member in the economics department, describes it as an opportunity for students to “learn, earn and lead.”

In summer 2013, Student Corps brought together 60 GM retirees, 11 UDM student interns, and 108 students from 11 high schools in and near Detroit. High school students learned life skills and business skills while implementing projects to improve the community. Groups of students renovated parks and other community spaces, or assisted neighbors by cleaning up nearby abandoned properties. Students also wrote business plans and managed the budgets for these efforts, gaining valuable experience to bring to the workplace.

In fall 2012, DiGiovanni approached Jason Roche, a faculty member in the communications department, about producing a documentary of this potentially life-changing program. When Roche enthusiastically agreed, GM provided \$50,000 to produce a one-hour video. With this funding, Roche was able to hire four more UDM students, who were also able to gain valuable experience in

their field. Roche chose the documentary team based on a competitive interview process. Students submitted a cover letter explaining their qualifications and why they wanted the job, and at least one letter of recommendation.

Paige Zmudczynski, ReShawn Wilder, Michelle Renaud and Alexandria Schmidt were hired, each working with two or three high schools. Since The GM funding enabled Roche to purchase three new cameras for the team, in addition to the one owned by the department, each student filmmaker was able to keep a camera for the duration of the shoot. Filmmakers were autonomous, with neither supervisor nor crew to assist them. They shot footage from each assigned school every day of the program. Then they returned to campus, editing the dailies using the digital video editing program Adobe Premiere. In addition to producing a quality

video, the student filmmakers were deeply invested in the program as a whole. “They really bonded with the high school students,” says Roche. “The kids would say, ‘oh, don’t go to your other school, stay with us.’”

An 11-minute version of the video can be seen on GM’s website at <http://tinyurl.com/ocfowk5>

The one-hour version will be completed in December 2013.

UDM Dental Students Earn Awards

Assia Mouabbi, year 4 dental student, is participating in the 2013-2014 ADEA/Gies Foundation Academic Dental Career Fellowship Program. This is a nationally competitive program and Assia is one of 25 students selected. The purpose of the Fellowship is to immerse pre-doctoral dental students in the world of academic dentistry, including clinical and didactic teaching and research. Assia will present a poster detailing her experience as a Fellow at the 2014 American Dental Association annual meeting in San Antonio.

Erin DeWitt Riley is the UDM School of Dentistry representative in the ADA/Dentsply * 0 Tc .0022Tw [(c her ex)78 o u



School of Dentistry Establishes School-Based Services Program

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