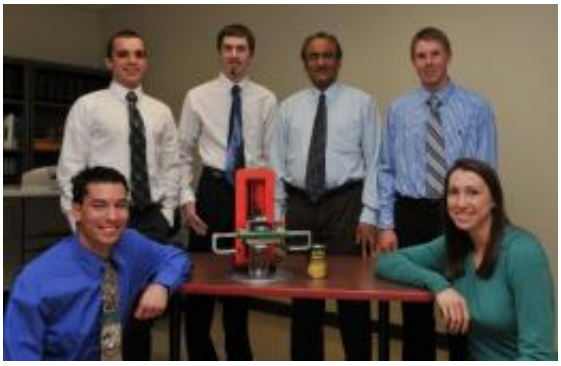
OpensAll Tackles Jars and Cans with Ease

April 14 2010, By Marcia Goodrich



Mechanical engineering seniors William Donovan, Tyler LeRoy, Jonathan Hoyer, Adrian Simula and Lisa Staehlin, with advisor Rao Komaravolu (center right), and the OpensAll can and jar opener they developed.

(PhysOrg.com) -- Have you ever found yourself in the kitchen at grappling helplessly with an impossibly stuck lid on a jar of hot fudge sauce? When your can opener failed on the fourth try, were you ever tempted to go after the pork and beans with a hammer?

Then you will appreciate the OpensAll, an electric can- and jar-opener that sits on the counter and opens almost anything with the touch of a button. If the problem is a sticky lid, a pair of arms grasps the jar while a mechanism closes over the top and twists it off. The can opener blade, located behind the jar opener, slices the can open just under the lid.

“It bends the top over just a little bit, so the edge isn’t as sharp,” says Tyler LeRoy. The side cut is cleaner too, says Adrian Simula. “Less dirt

can fall in the food."

The OpensAll is the brainchild of a Senior Design team in the mechanical engineering-engineering mechanics department, which designed it to be easy to use with a wide range of containers, durable and easy to clean. It is on display April 15 at Michigan Tech's Undergraduate Expo.

Their project was funded through the generosity of a local sponsor, Tom Wesa.

Their heavy-duty prototype would be suitable in a commercial setting, say LeRoy and Simula. A smaller-scale model could help individuals with limited strength and coordination—or anyone who struggles to open cans and jars with conventional tools. The manufacturing cost would be about $60 to $70, they estimate.

Principal Lecturer Rao Komaravolu, the team's advisor, characterized their work as "excellent."

"This has taken a lot of effort," he says. "They've been working on this since September, and they've done a wonderful job."

Other members of the team are William Donovan, Jonathan Hoyer, and Lisa Staelhin.

Provided by Michigan Technological University