



## College Students Conceptualize the **Supermarket of the Future**

*E-week challenge calls for a fresh approach and new thinking*



Emerson Climate Technologies recently hosted the University of Dayton's E-week Innovation Challenge at Emerson's new Helix Innovation Center. The entrepreneurial student club EMPwr and engineering-based KEEN organization also co-sponsored the challenge. The theme of this year's event was The Supermarket of the Future, and students were asked to brainstorm innovative concepts that addressed the many challenges and opportunities facing grocers today, such as: energy usage, convenience, customer experience and even aesthetics.

At the kick-off reception, students gathered at The Helix to learn more about the parameters of the competition. Participants were given the option to work independently or in small groups, although the event facilitators encouraged collaboration to raise the team's collective IQ. Teams then had one week to come up with a concept and create a presentation that would be delivered separately to the six judges at the adjudication competition. At stake was prize money for the top three

teams in the amounts of \$1,500, \$1,000 and \$500, respectively.

Participants were judged on their ability to demonstrate the technical and financial feasibility of deploying their concept by 2050. In addition, teams were instructed to keep KEEN's three C's in mind: curiosity, connections and creating value. Finally, participants were reminded to not forget the all-important "wow factor" when conceptualizing and presenting their ideas.

Dr. Rajan Rajendran, vice president of system innovation center and sustainability, explained at the opening reception that this event not only showcased the ingenuity of UD's engineering students, but also highlighted the partnership between Emerson and UD at The Helix.

"One of the dreams we had when conceptualizing this unique facility was to be able to host educational events just like this," Rajendran said.

Before leaving the opening reception, students were presented with an exercise to get their "brain stirring" in motion.



Each team was given 15 minutes to build the tallest free-standing structure possible using 20 sticks of spaghetti, one yard of tape, one yard of string and one marshmallow (which also had to be placed on the top of the structure). As expected, the exercise yielded diverse designs as teams scrambled to achieve this objective.

### The winning concepts

Exactly one week after the opening reception, the students returned to The Helix with their poster boards to pitch their concepts to the judges. It was immediately apparent from the first presentations that the teams had not only clearly understood the challenge but also had significant insights to contribute.

Among the six judges on the panel that night was Don Newlon, vice president and general manager of refrigeration marketing at Emerson Climate Technologies. Newlon was impressed by how the teams synthesized the task at hand with their diverse individual perspectives.

"It was impressive to see how well the group as a whole responded to the challenge, and how their unique millennial mindset produced solutions geared toward





Don Newlon, Emerson’s V.P./G.M of refrigeration marketing and Eddy Rojas, University of Dayton’s dean of the School of Engineering present prize money to the challenge winner, Nicolas Carducci.

consumers and retailers alike,” he said.

After the judges heard each team’s two-minute pitch, they had the unenviable task of selecting the top entries. Here are the winners and a brief description of their innovative concepts:

**First place (\$1,500): Nicolas Carducci**

*All in One* — The winning concept featured a mobile device app that combines a recipe book, calorie counter, grocery list and food inventory, all integrated with supermarket and home food inventory databases for a

streamlined shopping experience. The app displays nutritional information and expiration dates for the ingredients needed to make specific recipes, and then determines which items need to be purchased at the supermarket. The shopper then uses this app to order the missing ingredients and pick up the order at their preferred store location. The All in One app allows end users to keep track of caloric intake by entering the number of servings consumed in a particular recipe, and even provides push

notifications for food expiration warnings.

**Second place (\$1,000): Manjhunath Ayyampudur, Christopher Wagner**

*Carbon Emissions* — The first runner-up team pitched an innovative app that gives environmentally conscious shoppers a way to calculate the carbon footprint produced by their eating habits. By assigning a carbon equivalent value to each grocery item in the supermarket, consumers have the option to choose items that minimize their carbon footprint.

**Third place (\$500): Noelle Jacobs, Michael Keller, Sarah Stratil**

*STC Supermarket* — This eco-friendly concept centers on a three-pronged approach that combines solar-equipped parking lots, self-scanning grocery carts and community food trucks to drive sustainable, technologically advanced and community-oriented supermarkets.

In addition to the three winners, six teams earned an honorable mention distinction. All in all, the event proved that the spirit of innovation is alive and well in our collegiate class. We can all rest assured that the future of the supermarket industry is in good hands.

**Participating E-week Teams**

**Team 1**

Ali Al-Saihaty

**Team 2**

(Honorable Mention)

Megan Aponte  
Audrey Laurash  
Linda Moodie

**Team 3**

(Second Place)

Manjhunath Ayyampudur  
Christopher Wagner

**Team 4**

(Honorable Mention)

Troy Barklay  
Stephen Ripepi

**Team 5**

(First Place)

Nicolas Carducci

**Team 6**

Teresa Bradford  
Colin Joern  
Andrew Tarutani

**Team 7**

Jay Brandyberry  
Keaton Cole

**Team 8**

Daniel Curry

**Team 9**

Marc Czulewicz  
Daniel Lenz  
Jackson Mallady  
Lisa Musselman  
Michael Zahorec

**Team 10**

(Honorable Mention)

Elise Dermody  
Nathan Mansour  
Brian Sikora

**Team 11**

Madhumitha Ezhilan  
Ashish Gogia

**Team 12**

(Honorable Mention)

Kimberly Gliebe

**Team 13**

(Honorable Mention)

Mary Graebner  
Wilbur Sharpe

**Team 14**

Drew Hasenkamp  
Eric Insana

**Team 15**

(Third Place)

Noelle Jacobs  
Michael Keller  
Sarah Stratil

**Team 16**

Jeffrey Lecave  
Sarah Richard  
Katelin Weitzel

**Team 17**

(Honorable Mention)

Emily McDonald  
Victoria Wawzyniak  
Joseph Zielinski

**Team 18**

Asia Roebuck

**Team 19**

Brendan Cunningham  
Joseph Mancewicz  
Maxmilian Pawlikowski

**Team 20**

Matthew Conley  
Clayton Ralston