

STUDENTS LIVING **CARDINAL**, **GOLD** AND **GREEN**

With November being so closely connected to gratitude and giving back to the community, this month's contribution to Students Living Cardinal Gold and Green celebrates the value-oriented and creative solutions that Start Something College of Engineering has achieved. Start Something College of Engineering offers a unique approach to innovation in offering moments of gratitude by envisioning and developing new products and services through their engineering entrepreneurial expertise.

Start Something College of Engineering

Start Something College of Engineering is proud to be one of the leading engineering programs for developing young entrepreneurs in the world. Students in the Start Something program efficiently and effectively learn how to create and innovate new product and process development. David Sly (DS), Director of the Engineering Entrepreneurship Initiative, offered further insight on their goals and commitment to a more innovative and sustainable future.

Q: Explain what the Start Something College of Engineering program is and about your mission?

DS: Start Something in Engineering is about encouraging and assisting engineering students to create new products and services, and perhaps even companies to sell and support those products and services. In particular, we want engineering students to focus on technology-enabled solutions (hardware and software) that leverage their engineering skills and where so many prior students have

had substantial commercial success.

Q: How does Start Something Engineering exemplify its gratitude and commitment to a more sustainable future on campus and within the city community and beyond?

DS: Creating value, connections and curiosity is at the heart of the Engineering Entrepreneurial Mindset. Sustainability involves creating products and programs which add value at a cost less than the benefits they deliver. Economic viability is where innovation becomes financially self-sustaining and entrepreneurial. Ames and Iowa State have greatly benefited from the extensive network of entrepreneurial companies located at the ISU Research Park, many of which were started by engineers. These companies, and in fact the genesis of the Research Park itself, are all born from sparking entrepreneurial thinking and action.



Image courtesy of Innovate Iowa State



Photo courtesy of Maddie Judas

Entrepreneurial Product Engineering

Live Green! had the opportunity to connect with students in one of the courses offered by Iowa State and taught by David Sly; Entrepreneurial Product Engineering (ENGR/IE 430). ENGR/IE 430 is a course designed to introduce, expose and coach students in entrepreneurial thinking while developing new and innovative products. It is also the only college-wide experiential entrepreneurial elective. Students discussed their entrepreneurial journey so far and how their products offer a unique and creative spin on sustainability.



Image courtesy of Innovate Iowa State

Connecting to Start Something

When prompted, the students offered insight as to why the Start Something Program was of interest to them.

Anders Pedersen, a global management manufacturing international student from Denmark studying Engineering Specials and Supply Chain Management, has been interested in entrepreneurship since childhood. Pedersen is intrigued in understanding the downstream aspects of the supply chain, as well as the innovative aspects. The notion of being able to create something is a captivating idea to Pedersen.

On the other hand, Kevin Langer, majoring in Aerospace Engineering with a minor in Engineering Sales, has never attempted or even thought about attempting entrepreneurial opportunities. Langer got involved with the course as a requirement for Engineering Sales and discovered a love for the essential aspects of Start Something and the essence of creating products and services.

Lastly, Eugene Meyer, who is currently majoring in Industrial Engineering with a minor in Engineering Sales, expressed great interest in entrepreneurship and sales. Meyer finds that this Entrepreneurial Product Engineering course offers a more enhanced learning experience for the students taking the course. Unlike other courses, Entrepreneurial Product Engineering allows students to decide how they want to achieve and how much ingenuity and involvement they want to put in, in order to achieve their educational and professional career aspirations.



Photo courtesy of Maddie Judas

Sustainability Parallels

When asked to elaborate on the sustainability connections they have made through this program and their products, students provided a variety of thoughtful perspectives:

Anders Pedersen offered a glimpse of his product's connection to social and economic sustainability. Pedersen's product, an automated version of what workers would have to spend long hours doing in a pharmaceutical setting,

enhances health and well-being by reducing time and effort otherwise required.

Brendan Kispert, majoring in Mechanical Engineering, offered insight related to the environmental, economic and social impact related to his product. Each year, Americans throw out more than 12 million tons of furniture and furnishings. Unsettled by the large amount of furniture being disposed of by college students each year, Kispert's team sought to develop a service that would allow furniture and furnishings to be relocated instead of becoming waste.

Promoting sustainability in the medical field, Civil Engineering major Dakota Belling and his teammate Eugene Meyer, offered a unique angle on sustainable practices. The teams product, an automated cattle chemical/vaccination applicator system, tracks and monitors chemical use toward optimizing resistance and efficacy.

Highlighting environmental sustainability, Mechanical Engineering student Jacob Claus described his GPS tracking system made using recycled materials. In addition, through 3D printing and injection molding, the product was able to be more affordable and economically sustainable.

Finally, through production of a GPS smart tag, social sustainability is achieved through health and safety considerations for people in parks and recreational areas who may be lost or injured.



Image courtesy of Innovate Iowa State

Exhibiting Gratitude

In tying discussion back to this month's newsletter theme, students were asked to consider the recipients of their products and channel the gratitude the teams hoped they were providing.

Ryan Scehovic, majoring in Software Engineering, envisioned gratitude from college students, professors and professionals with busy on-the-go lifestyles in his team's creation of a laptop case featuring longer battery life and an integrated mouse pad. Offering an on-the-go workstation provides the opportunity for flexible working hours and locations.

Caleb Thompson, majoring in Mechanical Engineering, anticipated gratitude in saving bar owners time and expense through a training application aimed at onboarding new bartenders with no or little

experience. As well as serving the bar industry, his team's product is also easily transferrable to various service industries.

The ability to strategically appropriate time and labor in production agriculture is the primary source of gratitude Dakota Belling and Eugene Meyer foresee related to their automated applicator system. As well as providing a consistent and streamlined process for animal health and well-being, their product also contributes to ensuring healthy and accessible food.



Photo courtesy of ISU Pappajohn Center for Entrepreneurship

Delivering Winning Pitches

Teammates Eugene Meyer and Dakota Belling exhibited their innovation skills during the [Fall Startup Pitch Competition](#). With help from their involvement and initiatives in their Entrepreneurial Product Engineering course, Meyer and Belling placed 3rd overall at the competition with their product the "Cyclone Blaster." Congratulations to Dakota and Eugene and all of the innovative winners! Recordings of the [Fall Pitch Competition Finale](#), and the presentation of winners can

be found on the [ISU Pappajohn Center for Entrepreneurship facebook page](#).

The Startup Pitch Competition is hosted each fall and spring by the ISU Pappajohn Center for Entrepreneurship. The competition's goal is to allow those students interested in entrepreneurship or currently working on a business to grow, learn, build networks and (of course) *Start Something*.

Contributing to new and innovative products and services, Start Something Engineering empowers the entrepreneurial world around us and offers a more sustainable future. Students are given the opportunity to nurture their passion for the conception, design and development of products and services that exemplify innovation, embody gratitude and embrace sustainability.

For more information about the College of Engineering's Start Something Program, visit the [Start Something Engineering website](#), contact one of the featured CYstarters engineering students, check the upcoming pitch/ CYstarters schedule or join the [Entrepreneurial Product Development Club](#), or contact David Sly at davesly@iastate.edu to start the adventure of bringing your entrepreneurial ideas to life.