



Letter from the

# President

Office of the President, [president@uidaho.edu](mailto:president@uidaho.edu)

April 28, 2023

Dear Vandals,

As George R.R. Martin wrote in "A Game of Thrones," "Every flight begins with a fall."

A team of University of Idaho College of Engineering students used a little trial and error to hone their capstone project. But the result is a thing of beauty – a 12-foot wide Prandtl-D Flying Wing that cruises up to 55 miles per hour and ascends at 500 feet per minute. The first few harrowing flights included one violent crash that required some minor repairs. But after balancing out the weight in the nose and dialing in the controls, the [wing flew beautifully](#).

The team will showcase its unmanned aerial vehicle (UAV) at the 30th annual [Engineering Design Expo](#) at the U of I today. This year's expo features 39 capstone projects by student groups that teamed up with industry partners.

The students jumped at the chance to work on the project based on a NASA-patented design for a vehicle that could potentially do the work of a drone, but cover a lot more

ground.

"NASA has the patent for this design, but it hasn't been picked up by industry, so our goal was to prove it could be a viable product," said Taylor Herndon, a senior in mechanical engineering from Star who has a job lined up at Relativity Space after graduation.

The team of Nicolas Burrows, Keenan Bryan, Augustine Almanza, Zach Heimbigner and Herndon spent hours in design before building the balsa wood ribs that were then covered with a layer of carbon fiber. With the assistance of Professor Vibhav Durgesh, the students tested their vehicle in the wind tunnel, made final adjustments and then had their Wright brothers moment.

The team members checked in regularly with NASA employees Brian Boogaard and Dave Berger. U of I engineering students partnered with NASA on five capstone projects this year, the latest fruits of a relationship that goes back more than 30 years.

Ultimately, the Prandtl-D Flying Wing team came up with a design that could be built with about \$1,500 in materials. Their vehicle can also carry a payload of up to one pound – plenty of capacity for a camera or a small computer.

Their advancements could push the UAV industry to explore the Prandtl-D Flying Wing design for commercial operation. And for the students, the experience proved invaluable.

"I think the benefit of this project was just looking at things from a bigger perspective," said Burrows, who is from Spokane. "We had to deal with a budget looking at the design and the motor and then all of the data in depth. On top of that, we're managing schedules, other classes and our team communication."

For Bryan, an Idaho Falls native who is headed to graduate school at the U of I, the capstone project helped him apply the theory he's learned in classrooms over the last four years.

"It's just a good experience because the project is completely open to your interpretation and you see the difficulty of applying things you've learned in a real project," Bryan said.

Expo provides a great gallery of our capstone program, which is recognized by the National Academy of Engineering as one of the top seven in the nation for infusing real-world experiences into engineering education.

**Go Vandals!**

**C. Scott Green**  
President



## Snapshots

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### Professor reaches students through video game

Tyler Bland, a professor in the U of I WWAMI program, worked with students and alumni to create Medimon: A Game of Medical Monsters. The game teaches students physiology,

using 188 colorful characters and dozens of environments to represent different ailments and conditions. The goal is to release a full game by 2025. [Learn more.](#)

## NSF grant helps U of I faculty advance Indigenous STEM learning

U of I professor Philip Stevens and a team of colleagues are working with local and regional tribes on a K-12 program that is incorporating Indigenous knowledge and principles into STEM learning. The Cultivating Relationships program is funded through a \$3 million grant from the National Science Foundation. [Learn more.](#)

## U of I senior devoted to public health

After excelling as an athlete, Ethan Sunseri turned his focus to the broader implications of health as a U of I student. He interned at Vandal Health Education, volunteered to work with the Vandal track and field team and is headed toward a career where he can help people of all ages live a healthier lifestyle.

[Learn more.](#)

Did  
you?  
know!

To celebrate Arbor Day on April 28, the Idaho Forest Products Commission is giving away 20,000 Idaho-native seedlings that were grown at the U of I's Pitkin Nursery.



University of Idaho

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