

Urbandale High School Students Capture All Six Awards During Physics Competition

Urbandale High School Physics Teams capture all six awards during the 18th Annual Tau Beta Pi Roller Coaster Engineering Competition at Iowa State University

URBANDALE, Iowa – April 25, 2018 – On April 12, students throughout Iowa competed in the 18th Annual Tau Beta Pi Roller Coaster Engineering Competition by designing a “To Ring a Bell” themed roller coaster at the Howe Hall Atrium on the Iowa State University campus. [Urbandale High School \(UHS\)](#) Physics Teams captured all six awards that were given during the competition. The annual Physics Roller Coaster Competition was founded in 2001 by UHS Engineering and Physics Teacher, Marc Hermon. The competition provides high school students an opportunity to apply STEM-related theories to a project that is both fun and challenging while accomplishing a Rube Goldberg Challenge® during the performance of the roller coaster.



Physics Roller Coaster Competition First Place “JAMS” designed by UHS students Jonah Larsen, Megan Hess, Sophi Wilker and Aditya Kotla,

To participate in the Physics Roller Coaster Competition students must be enrolled in Hermon’s Physics college-level course. An engineering project is completed each quarter with the Roller Coaster Competition being the fourth-quarter project. Students form groups in order to design, develop and manage the construction of their roller coaster and build project display boards that demonstrate their physics knowledge as well as a Rube Goldberg Challenge. A Rube Goldberg Challenge consists of a comically involved, complicated invention, laboriously contrived to perform a simple operation. In addition to students applying STEM principles and tactics, they gain real-world experience in project management, team collaboration, critical thinking and presentation skills. Following the competition, students develop an essay about their experience working with their team and insights they’ve gained into effective project management.

The Iowa State University Tau Beta Pi—Iowa Alpha Scholars Program is an outreach program of the Iowa Alpha Chapter of Tau Beta Pi. The goals of the program are to recognize excellence among freshman and

sophomore engineering students, build a community of engineers spanning all eight departments within the College of Engineering and promote Tau Beta Pi membership when students become eligible in their junior and senior years.

“Each year, UHS students come through with some terrific concepts and designs,” said UHS Principal Tim Carver. “They do a great job of combining intellect with creativity through the development of their roller coasters. This year our students again came through and were recognized for their great work. Special thanks and appreciation also goes out to Mr. Hermon, our physics teacher, who leads students in their learning in this important area of study.”



Physics Roller Coaster Competition Second Place “99 Problems, but Physics Ain’t One!” designed by UHS students Noah Hoffman, Ben DeKruyf and Tyler Gajewsky.

The six award-winning UHS Physics Teams include:

- First Place—“JAMS” design by UHS students Jonah Larsen, Megan Hess, Sophi Wilker and Aditya Kotla.
- Second Place— “99 Problems, but Physics Ain’t One!” designed by UHS students Noah Hoffman, Ben DeKruyf and Tyler Gajewsky.
- Third Place—“LaFlame” designed by UHS students Brady Ruch and Josh Franklin.
- Best Technical Skills—“Triple D” designed by UHS students Ben Daumueller, Dominic DeCarlo and Kati Heller.
- Best Theme—“Underdogs” designed by UHS students Ellie Van Roekel, Mercedes Hendricks and Claire Weihs.
- Best Presentation—“Clueless” designed by UHS students Katherine Koele, Melanie Schnurr, Erica Avox and Haley Morgan.

“I’m constantly impressed with the ingenuity of Urbandale students,” said Hermon. “I’m very proud of them.”

See all [UHS roller coasters in action here.](#)

<https://www.youtube.com/watch?v=4AdFsC5ttU8&list=PLhy-Ne6FAXKYIvwX4VRGQX0v9JmdpKwzO>

Engaging students at deeper levels is at the core of Urbandale’s quest to transform education by redesigning learning environments to be more engaging, relevant and purposeful in preparing students for a future that is yet to unfold. The Urbandale Community School District congratulates these remarkable and extremely talented UHS students for capturing all six awards during the 2018 Physics Roller Coaster Competition.

About Urbandale Community School District

The Urbandale Community School District includes portions of Des Moines and Urbandale, Iowa. The District serves over 3,900 students in six elementary schools, one middle school and one comprehensive high school. The Urbandale District supports an increasingly diverse student population where 47 languages are spoken. Building on the existing foundation of excellence in education, Urbandale is transforming education throughout the District. By implementing innovative [Quality/Continual Improvement](#) strategies that create learning environments that more fully engage, challenge and motivate students, Urbandale is taking transformation from theory into practice. Urbandale prepares students for becoming lifelong learners and is a school district that brings learning to life for everyone. To learn more, visit: UrbandaleSchools.com and follow on Twitter [@UrbandaleCSD](#).

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