# Technology to use hot air balloons for rocket launches competes in a startup battlefield 

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Leo Aerospace, a Purdue University-affiliated startup looking to launch rockets with the help of hot air balloons, took the stage in early October at TechCrunch's Disrupt SF Startup Battlefield in California. Credit: Michael Hepfer/Leo Aerospace

Leo Aerospace, a Purdue University-affiliated startup looking to launch rockets with the help of hot air balloons, has taken to the technology battlefield to receive worldwide attention for its technology.

Members of the Leo team took the stage in early October at TechCrunch's Disrupt SF Startup Battlefield in California. Michael Hepfer, Dane Rudy, Drew Sherman, Bryce Prior and Abishek Murali started Leo while students in Purdue's College of Engineering. The event is an opportunity for startups to display their technologies to potential investors and partners.
"It was great to have an opportunity to share our business and industry knowledge with people from all over the world," Hepfer said. "We are excited to see that space is becoming more ubiquitous across the startup ecosystem."

The team members created what they hope is a more efficient launch technique that requires far less infrastructure than an ordinary rocket. A large balloon inflates and lifts the payload, a small rocket, to the desired altitude, and then the rocket ignites and puts the payload into orbit. They have successfully tested the system and are continuing to scale up their efforts with larger payloads.

Leo has received guidance from the Purdue Foundry, an entrepreneurship and commercialization accelerator in Discovery Park's Burton D. Morgan Center for Entrepreneurship. The rocket scientists developed their business plan and learned what they needed to do to move forward. For more information about funding and investment opportunities in startups based on a Purdue innovation, contact the Purdue Foundry at foundry@prf.org. The Foundry is also hosting The Big Show on Thursday (Oct. 10) to showcase startups and technologies.

Leo also received support from the National Science Foundation and the Air Force through a SBIR grant.

The founders of Leo started Purdue Orbital, a student organization dedicated to redefining the orbital payload arena with just-in-time
system launches for orbital deliveries.
"I think it's really cool for our members and the Purdue community to see what is possible if you're committed enough," said Jonathan Webb, a Purdue engineering student and president of Purdue Orbital. "I was on Orbital with those guys when they first founded it. I'm proud to say that we have grown to 135 members. I think it's because of the culture those guys instilled in the organization. We're grateful to them and so excited about their success."

The technology aligns with Purdue's Giant Leaps celebration of the university's global advancements in space exploration as part of Purdue's 150th anniversary. This is one of the four themes of the yearlong celebration's Ideas Festival, designed to showcase Purdue as an intellectual center solving real-world issues.

## Provided by Purdue University

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