

FOR IMMEDIATE RELEASE

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## Cal Poly Drone Team Places Second at International Student Design Competition

SAN LUIS OBISPO —Cal Poly's unmanned aerial vehicle (UAV) "SkyBarge" maneuvered through an obstacle course to a second-place finish among 21 collegiate teams at the 22nd annual American Society of Mechanical Engineers (ASME) Student Design Competition on Nov. 17 in Montreal, Canada.

Held at the International Mechanical Engineering Congress & Exhibition at Montreal's Palais des Congrès, the competition included a roster of topflight engineering teams from China, France, India, Peru, Turkey and the U.S. To advance to the finals, Cal Poly won the ASME's western regional competition held at Cal Poly in April.

The teams were tasked with designing and building an original drone that could navigate a series of high and low obstacles, complete a targeted payload drop, and return to the start in one piece.

Russell Westphal, faculty advisor to the team, said understanding the rules was a key to the team's success: "The key challenge of this UAV competition involved maximizing vehicle weight while maintaining controllability. Our craft was by far the heaviest at our regional competition. For the finals, most teams had figured out that the scoring heavily favored weight, and several entries were heavier than SkyBarge. However, only one of the heavier entries was controllable enough to fly the entire course."

The Cal Poly team included mechanical engineering students Gordon Belyea (project team lead), Garrett Gudgel (pilot), Ethan Juhnke, Brandon-Roy Sadiarin, Eric Dreischerf and Seyhun Oh; aerospace engineering students Hank Mandsager and Armand Lim; and agricultural engineering student Shane Thulin.

Westphal singled out Belyea and Gudgel for extra praise. "Garrett is a great pilot whose experience with radio-controlled flight as well as actual aircraft — he's a licensed glider pilot — was highly valuable," Westphal said "And we had excellent leadership by Gordon. Just a sophomore when the project began, Gordon amazed me with his highly polished and professional approach to management of the nine-student team."

ASME President J. Robert Sims was also impressed by the competitors. "From looking at the exhibits and talking to the students, their dedication and expertise is just amazing," Sims said. "These folks are going to do well in the future in engineering. It's just a very impressive group — all of them."

To watch a video of the competition, go

to: <http://inr.synapticdigital.com/ASME/studentdesigncompetition/>

### Teams at the ASME 2014 Student Design Competition

First place: University of North Dakota (Grand Forks, ND)

Second place: California Polytechnic State University (San Luis Obispo, CA)

Third place: North Carolina State University (Raleigh, NC)

- Baker College (Flint, MI)
- BITS Pilani (Dubai, UAE)
- Germanna Community College (Fredericksburg, VA)
- Hong Kong Polytechnic University (Hung Hom, Kowloon, Hong Kong)
- Instituto Tecnológico de Ciudad Juárez (Chihuahua, Mexico)
- ISAE Supaero (Institut Supérieur de l'Aéronautique et de l'Espace - Toulouse, France)
- National Tsing Hua University (Hsinchu, Taiwan)
- North Carolina State University (Raleigh, NC)
- New York Institute of Technology (New York, NY)
- Prince Mohammad bin Fahd University (Al Khobar, Saudi Arabia)
- SRM University (Tamil Nadu, India)
- Texas Tech University (Lubbock, TX)
- University of St. Thomas (Saint Paul, MN)
- University of Arkansas at Little Rock (Little Rock, AR)
- University of the Pacific (Stockton, CA)
- University of Engineering & Technology Lahore (Lahore, Pakistan)
- Universidad Nacional de Ingeniería (Lima, Peru)
- Yeditepe University (Istanbul, Turkey)
- Wentworth IT (Boston, MA)

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