

NYCU Student Rocket Team's entry to mark Taiwan's first-ever participation in the SA-Cup

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A student rocket team from National Yang Ming Chiao Tung University, Formosan Fox, will depart for the United States on June 17 to participate in Spaceport America Cup 2022, known as the world's largest intercollegiate rocket engineering conference and competition, which will be held in New Mexico, USA, from June 21 to June 25. Formosan Fox will represent National Yang Ming Chiao Tung University as the first team from Taiwan to compete! This year, 151 teams will participate in the competition, and the participating groups come from many continents, including the Americas, Europe, Asia, etc.



Group Photo Of Sa Cup 2020 Participating Teams

The Experimental Sounding Rocket Association (ESRA), dedicated to cultivating the next generation of aeronautical engineers and scientists, has been hosting the Intercollegiate Rocket Engineering Competition (IREC) since 2006. In 2017, ESRA cooperated with Spaceport America to expand IREC to the Spaceport America Cup (SA Cup). This year marks the 15th anniversary of ESRA's rocket competition, which is of particular significance.

Early motivation for the SA-Cup

The pain of the contemporary Asian generation often can be found in the striving for better grades or some BIG attempts they are really eager to do. But the fear never stops the NYCU Student Rocket Team from growing. In February 2021, from the junior/senior core courses, a group of junior mechanical engineering students with limited budgets wanted to build their own sounding rockets with the apogee 3000m trial. From three different recovery projects, they made a stride to the student paper contest in ICASE (International Conference on Astronautics and Space Exploration), and finally accomplished a milestone of establishing "Formosan Fox" in 2022, the student rocket team in NYCU. It is also unprecedented that Taiwan is qualified in the intercollegiate rocket engineering competition (IREC).

During the implementation period, the team members worked very hard to design and build the rockets which will be brought to the United States for competition. Every week, they held meetings with foreign teachers to discuss the knowledge and technology of rockets. They also exchanged thoughts with the teams from Malaysia and Thailand.



Regular Online Meetings With Foreign Teachers



Use a sander to grind the size of the centering ring, so that it can match the diameter of the rocket airframe and the engine inner tube.



Manufacture The Joint Between The Rocket Airframe And Fins With A Horizontal Drill Press



Mirror TV (news) Interviews The Formosan Fox Team

So far, the assembly of the rocket has been completed, and the final rehearsal stage is underway. The preparations before the rocket launch are practiced over and over again to ensure their rocket will soar into the sky!



Completed Rocket (not Yet Colored)



A Group Photo Of Team Members And The Rocket

Team Member

Assisted Teacher	Prof. Tan Zu Puayen
Propulsion	Wang Ming-Hao, Lin Yu-Syuan
Aerodynamics	Chen Chien-Cheng, Lai Yi-Hsuan
Structures	Lin Meng-Yu
Recovery & Avionics	Shyu Hua-Yu, Chao Guo-Liang
Payloads & Sizing	Wu Chen-Yuan, Tan Jia-Ming, Wang Sheng-Feng
Media	Su Jia-Yun, Tu Wen-Fang

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