



STUDENT SUSTAINABILITY COMMITTEE

Funding Award and Acceptance Letter

April 28, 2021

Project: **Spaceshot (Micro Grant)**

Dear **Jeremy Huang**,

On behalf of the University of Illinois at Urbana-Champaign Student Sustainability Committee (SSC), we would like to thank you for initiating a project that improves the sustainability of our campus. SSC is pleased to inform you that your project will receive **\$722.00** in grant funding.

In order to remain eligible for this award, you must agree to the following conditions:

1. The project must be completed within two years. A final report of all work completed should be provided to the SSC Assistant Director by **May 14, 2023**.
2. Project status updates and detailed account statements must be provided at the end of each semester, in the method requested, until the project is completed.
3. The Contact Person will be individually responsible for all official communication and the execution of this agreement.
4. The awardee will take the appropriate steps to create a CFOP with OBFS UAFR University Accounting Services. The CFOP provided for this award shall strictly be used for the money awarded in this proposal.
5. Any substantial modifications to project scope, budget, or timeline must first be approved by SSC. These requests must be submitted in a formal letter to the Chair and the Assistant Director.
6. All projects will be expected to follow campus policies and procedures as well as any applicable State and Federal laws.
7. SSC reserves the right to revoke funding if the project does not comply with the terms and conditions outlined in this letter.
8. Any press releases or educational/promotional materials involving the project should acknowledge SSC funding.
9. Any signage involving the project or events surrounding this project should include SSC's logo and/or a statement of which fee funded the project. Projects must coordinate with SSC to ensure promotion appropriately highlights the SSC's contributions to the project.

If you agree to the terms and conditions for the funding, please sign on the designated line at the bottom of this letter. If you have any questions regarding these requirements please contact the SSC, at sustainability-committee@illinois.edu. You will be notified when the Institute for Sustainability, Energy, and Environment and Vice Chancellor for Student Affairs officially approves this project. Again, thank you for your interest in improving the sustainability of the University of Illinois at Urbana-Champaign. We look forward to working with you in the future.



STUDENT SUSTAINABILITY COMMITTEE

SSC Signatories

Joseph Edwards, Chair
Student Sustainability Committee

Awardee Signatory

Jeremy Huang
Applicant

Samuel Yoo, Assistant Director
Student Sustainability Committee



STUDENT SUSTAINABILITY COMMITTEE

Project Information

Project: Spaceshot

Funding Source:

Cleaner Energy Technologies Fee (302571)

Sustainable Campus Environment Fee (303692)

Funding Amount: \$722.00

Receiving Campus Unit: THRUST (RSO)

Unit Financial Contact: Dr. Deming Chen

E-mail: dchen@illinois.edu

Project Description:

The Spaceshot Rocket is a solid-fuel two-stage rocket designed to reach the Karman line (edge of outer space) at 328,000 ft (100 km) in altitude. The goal of this project is to develop a simple rocket which would be able to sustainably reach the Karman line using less fuel than other launch vehicles. This was accomplished by decreasing the diameter of the rocket as much as possible to reduce drag and by using novel weight reduction techniques. We use advanced alloys and composites to reduce the weight of the rocket. As such, we reduced the fuel required for a launch of a similar payload by a factor of 5. Furthermore, while most rockets only fly once and are discarded, Spaceshot is fully reusable, with only minor refurbishment required between flights. Emphasis was placed on using commercial off the shelf motors (COTS) in order to reduce build time and increase reliability. To develop a rocket with a quick build time, the individual parts were made to be easily manufactured with every part being produced using a lathe, CNC, or other composite layup means easily accessible to our organization.

This proposal directly funds:

1. Featherweight GPS
2. Missile & Rocketry Structures
3. Chute Release
4. Main Parachute
5. Drogue Parachute
6. Propulsion Components
7. Screw Switches



STUDENT SUSTAINABILITY COMMITTEE

8. QEBIDUM Camera
9. Hole Saw