

PRESS RELEASE

Help make space travel safer: NASA and Freelancer.com release three worldwide crowdsourcing challenges

SYDNEY: July 18, 2017- Freelancer.com and NASA's Center of Excellence for Collaborative Innovation (CoECI), through the NASA Tournament Lab (NTL), have released the latest in a <u>series of challenges</u> to crowdsource solutions for new capabilities for space exploration.

NASA has called on professionals from anywhere in the world to submit entries to three challenges including:

- A contest to create an animation storyboard that conveys NASA's experiments to more accurately track items in space habitats
- A challenge to use origami folding concepts to pack and deploy radiation shielding for a Mars transfer vehicle;
- And a mission patch design contest for NASA's In Space Manufacturing Refabricator project.

The origami challenge is seeking someone expert in folding/origami concepts to tailor a design for its radiation shielding - this will protect against galactic cosmic rays (GCRs), for a spacecraft taking humans into deep space. The winning design will help to guard against cancer risks which are the largest challenge for exploration.

Another crowdsourcing challenge is to develop storyboards for a two-minute video or animation for the REALM (RFID-Enabled Autonomous Logistics Management) to describe the experiments for a non-technical audience; i.e. the general public. More background information can be found here.

Lastly is the mission patch. In 2015, the NASA's In Space Manufacturing (ISM) project made history by sending the first 3D printer to the International Space Station (ISS) and manufacturing the first parts ever in space. Now the "Refabricator" effort, looks to take that process further by recycling plastic in space to reuse as other 3D printed parts. The product should graphically convey the key theme of space exploration, recycling of materials, and on-demand





manufacturing. The graphic will be used in multiple ways including in presentations, on team items (mugs, shirts, etc) and in materials developed for education and public outreach.

All challenges are aimed at people who are passionate about NASA and space exploration and have a talent for creative ideas and design.

Past Competitions

NASA has completed 29 contests on Freelancer.com with over 6,800 contest entries from freelancers from 123 countries.

Previous competitions include:

- Creating 3D models to train the image recognition system of the Robonaut R2 robotic astronaut on the International Space Station;
- The design and programming of a smartwatch interface for use by astronauts;
- The design of a robotic arm for the Astrobee, the next generation of free flying robot on the International Space Station;

See more here:

https://www.freelancer.com/contest/nasa/past

<u>Freelancer.com</u> CEO Matt Barrie said "We're calling upon our 24 million users to imagine how robots can automatically prepare the space environment for human arrival, making life easier and more secure for the incoming astronauts. NASA represents some of the very best ideas that our planet has to offer and I'm sure our community will once again show the power of human ingenuity."

You can find more information about NASA's experiments at:

RFID-Enabled Autonomous Logistics Management (REALM)

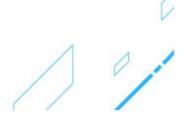
https://www.nasa.gov/mission_pages/station/research/experiments/2137.html

Space Radiation Program Element

https://www.nasa.gov/exploration/humanresearch/elements/research_info_element-srpe.html

In Space Manufacturing

https://www.nasa.gov/topics/technology/manufacturing-materials-3d/index.html





You can see all of NASA's challenges at:

https://www.freelancer.com/contest/nasa

The NASA Tournament Lab website is available at:

https://www.nasa.gov/coeci/ntl/

About Freelancer®

Ten-time Webby award-winning Freelancer.com is the world's largest freelancing and crowdsourcing marketplace by total number of users and projects posted. Over 24 million registered users have posted more than 12 million projects and contests to date in over 950 areas as diverse as website development, logo design, marketing, copywriting, astrophysics, aerospace engineering and manufacturing. Freelancer Limited is listed on the Australian Securities Exchange under the ticker ASX:FLN.

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