



Challenge Description

“Solving the Challenges of Space in the RealWorld and InWorld”

“This challenge solidified my choice to pursue a career in mechanical engineering.”

--Jill Friese, Houston, TX

The RealWorld-InWorld NASA Engineering Design Challenge encourages students in grades 7-12 to explore and build skills essential for successful careers in science, technology, engineering, and math (STEM) through two phases of project-based learning and team competition.

RealWorld (Phase 1): Teams of middle- and high-school-aged students with support of their teachers/coaches/parents work collaboratively as engineers and scientists to explore and design solutions related to the James Webb Space Telescope and Robonaut 2.

RealWorld Phase begins: September 1, 2011.

RealWorld Phase ends: January 27, 2012. To be considered to move to the InWorld phase, all RealWorld work must be submitted by this deadline.

Recognition: Submitted final project solutions will be featured on the RealWorld-InWorld website and teams will receive recognition for their work once they complete the RealWorld challenge and InWorld registration.

InWorld (Phase 2): Participating college students select teams of 2-4 middle- and high-school-aged students who have completed the RealWorld phase to build their InWorld teams. Participation is limited to U.S. citizens. Teams work in a 3D virtual online environment using 21st Century tools to refine designs and to create 3D models of their design solutions.

InWorld Phase begins: January 28, 2012.

InWorld Phase ends: April 20, 2012.

Recognition: InWorld teams will compete for cash awards (\$1,000 per member, including team leader, for each winning team). Contest rules apply.

NASA scientists and engineers visit and “chat” virtually throughout both phases of the Challenge.

To learn more about the challenge and to register for online resources for this **free** and **flexible** project, visit www.nasarealworldinworld.org.



Challenge Partners and Background

RealWorld-InWorld is a joint education initiative of the National Aeronautics and Space Administration (NASA) Langley Research Center and Goddard Space Flight Center in collaboration with the National Institute of Aerospace (NIA), USA TODAY Education, and LearnIT-TeachIT. The RealWorld-InWorld NASA Engineering Design Challenge builds on the successful SIGHT/INSIGHT design challenge developed by USA TODAY and NASA and the Virtual Exploration Sustainability Challenge (VESC) developed by NIA and NASA. Both educational initiatives were based upon NASA themes and content for students in grades 9-12. They enhance students' skills, proficiency, and interest in problem-solving and careers in science, technology, engineering, and math (STEM). RealWorld-InWorld registration and resources are available at www.nasarealworldinworld.org.