

our mission

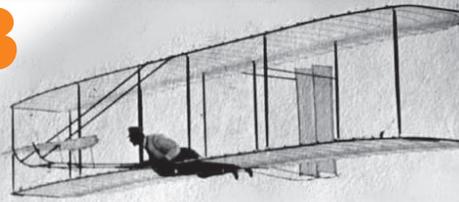
current challenges

Since 2005, there have been competitions in *eight distinct areas of technology*, from lunar landers to green flight to autonomous robots.

Inspired by the pioneer spirit of the Wright Brothers, Centennial Challenges taps small businesses, academia and citizen inventors to advance technology for NASA and the nation.

1903

... the year the Wright Bros. flew the first powered airplane for 12 seconds.



\$6M

... in prize money awarded since the program began in 2005.

20+

... challenge competitions have been held over the past seven years.

\$3.5M

... in prize money currently ready for award.

11+

... university teams that have competed (some more than once) in a challenge.

sample return robot



PRIZE: \$1.5 million

CHALLENGE: Create a robot that can autonomously navigate a natural terrain and collect specified samples in two timed phases. The challenge is held at Worcester Polytechnic Institute in Worcester, Mass. A Level 1 prize was awarded at the 2013 competition. **It will be re-competed in June 2014.**

night rover challenge



PRIZE: \$1.5 million

CHALLENGE: Demonstrate high energy density storage systems that meet the demands imposed by the daylight/darkness cycle on the moon to enable a rover to operate throughout the lunar darkness cycle. **The challenge will be competed in January 2014.**

airspace ops challenge



PRIZE: \$500,000

CHALLENGE: Robotic aircraft and their operators will demonstrate the ability to "detect and avoid" other air traffic to complete Phase 1, worth \$500,000. **The challenge will be competed in spring 2014.**

past competitions

POWER BEAMING: 2005, 2006, 2007, 2009; \$900,000 total awarded

STRONG TETHER: 2005, 2006, 2007, 2009, 2010, 2011; no winners

REGOLITH EXCAVATION: 2007, 2008, 2009; \$750,000 total awarded

LUNAR LANDER: 2006, 2007, 2008, 2009; \$2 million total awarded

ASTRONAUT GLOVE: 2007, 2009; \$550,000 total awarded

GREEN AVIATION CHALLENGES: 2007, 2008, 2011; \$1.56 million total awarded

the basics

“after the challenge”



what:

Centennial Challenges are prize competitions that directly engage the public to help advance technology needed by NASA that benefits the nation.



why:

Tapping the ingenuity of the public opens the field to people with different interests and backgrounds. Teams are free to approach challenges with unique ideas that often lead to game-changing innovations.



when:

The program began in 2005, and 20+ competitions have been held. If a competition does not have a winner, it may be recompeted.



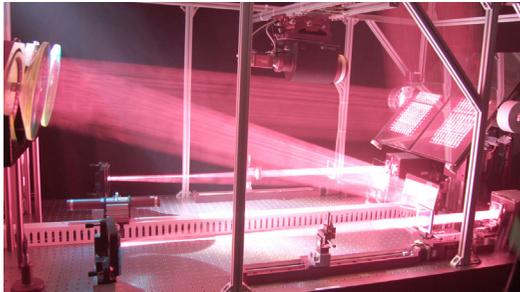
who:

The competitions engage citizen inventors, small businesses and academia. University teams have the unique advantage of being able to draw on many skill sets at close range.



how:

Find information on new challenges and where to register and compete online at www.nasa.gov/challenges.



Once a challenge has been won, the real success story is just beginning. Challenge competitors — not just those who win — go on to start companies, create new inventions, partner with NASA and private industry and more. **After the Challenge** is a special place where we tell the stories of our CCP alums.

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National Aeronautics and Space Administration

centennial challenges

a NASA prize competition program

