

# NestEgg



The NestEgg is a fully biodegradable birdhouse developed from materials tested for use in the International Space Station Crew Health Care System. The robust, injection-moulding grade resin used to make the birdhouse is made of cornstarch and does not emit VOCs and is more flame resistant than PVC based plastics.

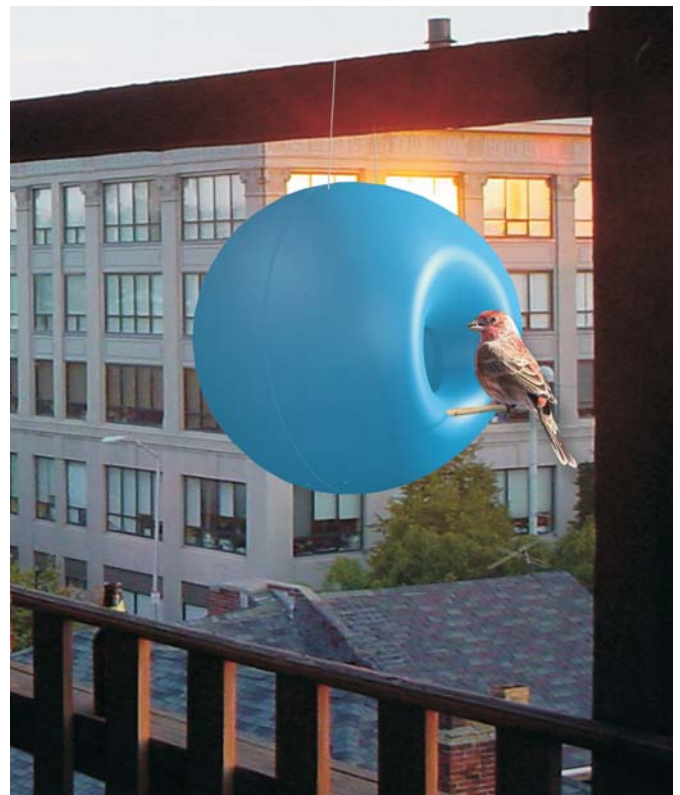
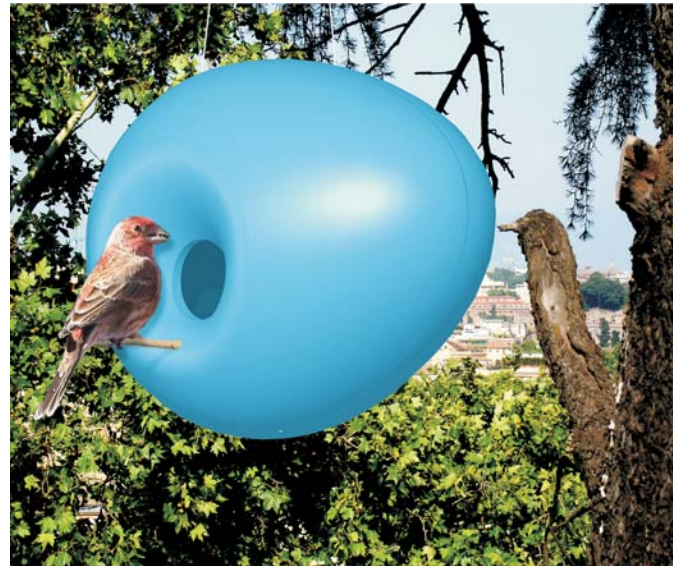
Commissioned by the Birdhouse Project of Japan, whose motto, "The Earth is our Nest", describes their dedication to planetary ecology and sustainability, \*NestEgg\* is designed to spread the word of this idea and of the existence of green materials that are compatible with modern lifestyles.

The user assembles the two halves of the house, selects a tree or a place on their balcony to hang it from, and takes a twig from a local tree to use as the bird's perch. With this design component \*NestEgg\* engages the birdwatcher in joining modern industrial production techniques and space-rated materials with the immediate natural environment. At the end of each nesting season the house can be disassembled for cleaning and then reassembled for an new season of enjoyment.

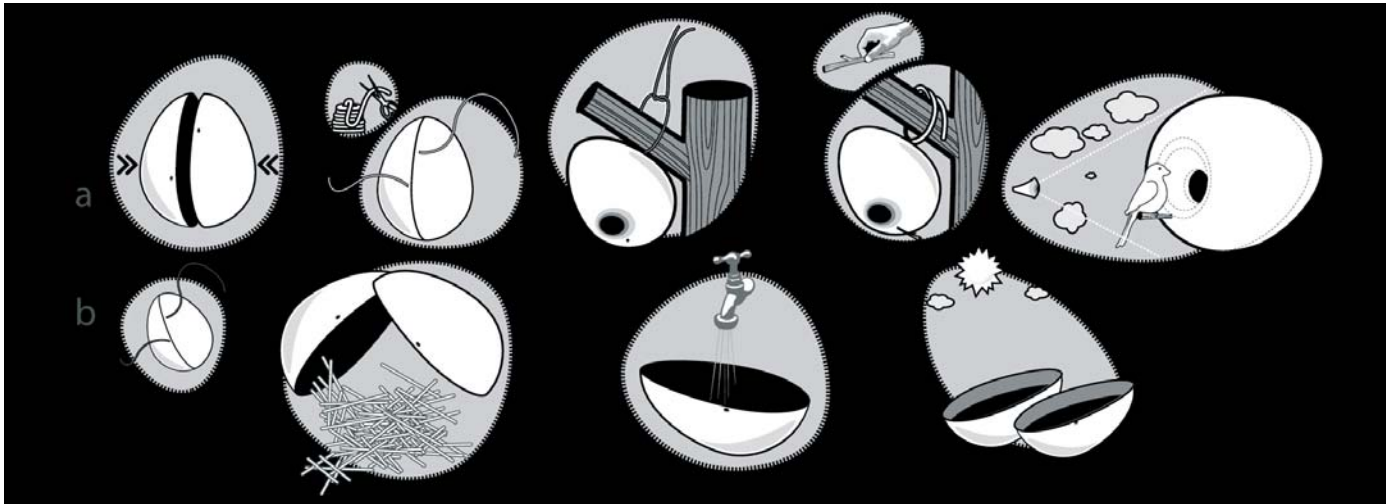
\*Synthesis International\* is a team of dedicated design professionals with experience in architecture, structural engineering and industrial design.

Each member of the team brings the expertise from their distinct backgrounds to a multidisciplinary approach to finding innovative solutions to design challenges.

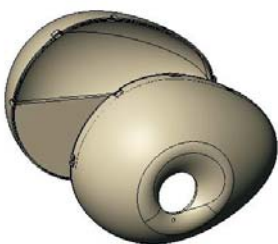
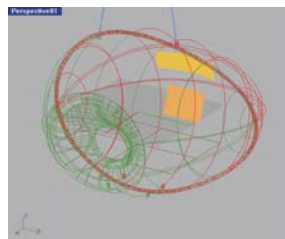
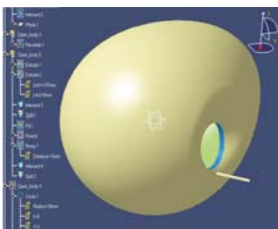
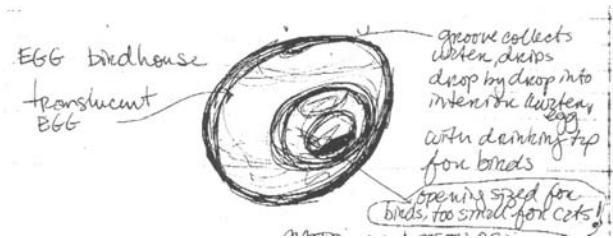
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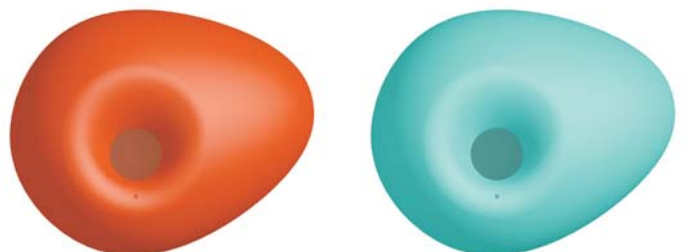
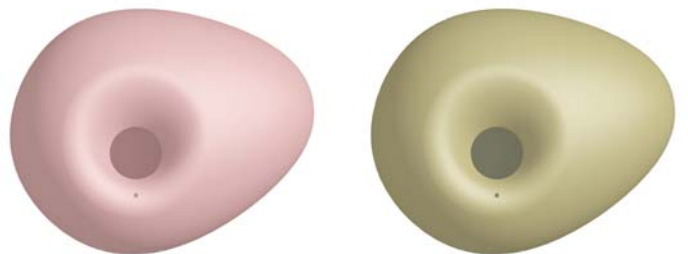
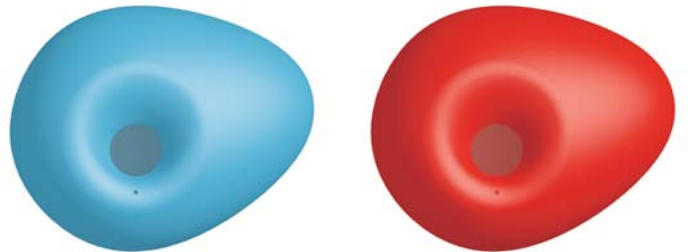
Instructions



The Design Process



Target colors





Wired, October 2006 "Birdhouse:Peep Space Mine".

## Birdhouse: Peep Space Mine

**After decades of abuse** at the hands of high school shop classes, the birdhouse is getting a much-needed infusion of rocket science. When the Birdhouse Project – a Japanese group that promotes environmentalism through snazzy avian abodes – needed some new designs, it approached architect Constance Adams, who helped develop the interior of NASA's Crew Return Vehicle and the TransHab inflatable module. She accepted the assignment and applied her rules for spaceship building: "precise manufacturing, nontoxic, fully responsive to the user's operational and biological requirements, and designed to meet the cradle-to-cradle protocol." Her creation is called the Nestegg. It's made of lightweight, water-resistant compressed cornstarch – a material originally tested for use on the International Space Station. Several of them can be clustered into 'apartments' for communal birds, and at the end of its lifespan, the whole structure can be crushed and composted like any other organic matter. Just make sure nobody's inside. – Patrick Di Justo



<http://www.wired.com/wired/archive/14.10/start.html?pg=10>

Newsweek, 26 June 2006. The Design Dozen, Design's Next Frontier, pg 60.

## Newsweek Technology & Science

DESIGN 2006



### 11 Design's Next Frontier

**CONSTANCE ADAMS:** As a designer for NASA, Adams is no stranger to the requirements of long-term space missions. But as a professional architect, she also brings her own sensibility. Designing for space travel shouldn't be the domain of just left-brain engineers, she believes, but also of right-brain humanists. Adams thinks about design by looking at the Earth's ecosystem; she wonders, for example, why a space module couldn't have a barrier of clean water around it to protect astronauts from cosmic radiation, much as the Earth's atmosphere protects us. And

she wants to provide space travelers with some amenities of home—like a sense of time, place and wellness—which is tough in a zero-gravity space capsule. With a group of Yale students, she developed a patterned wall fabric that could be used in a space vehicle to tell up from down.

In the late 1990s, Adams helped design TransHab, a spaceship for the first human mission to Mars. Anything rocketing into space has to be less than 14 feet in diameter. Her solution? Inflatable modules that could grow to three times their launch volume. "We could divide the module

into different zones, where astronauts could work, exercise, sleep and socialize around the clock, which is not possible in a 'can' habitat," says Adams.

Budget cuts have stalled TransHab, but Adams continues to work on design problems, big and small. Recently she's experimented with a corn-based resin that can be injection-molded into storage containers. (Ordinary plastic gives off dangerous gases in space.) "With all the things that go up there, we need a system that you can see into, like Tupperware," she says. And why shouldn't astronauts have all the comforts of home? –C.P.

<http://www.msnbc.msn.com/id/13392347/site/newsweek/page/10/>