

THE SOLAR PANEL

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ADDRESSING THE NEED FOR SUSTAINABILITY: A FLEX HOUSE UPDATE

By Lorilee Bell

Two years after the FLeX House concept was first developed, Team Florida prepares to break ground, transforming paper sketches and wooden prototypes into a tangible, energy efficient home.

The concept, to build an attractive and flexible net-zero energy home, specifically designed for a hot, humid climate, was developed by University of South Florida School of Architecture professor Stanley Russell and graduate student Mario Rodriguez.

Team Florida, comprised of students from USF, Florida State University, University of Florida and University of Central Florida, will break ground with The Beck Group, a commercial architecture, construction and development firm located in Tampa, in the next few weeks.

In preparation for the groundbreaking, USF architecture students work to refine and finalize aspects of the home.

The "Solar Decathlon" studio in the USF Architecture building is decorated with sketches and photos of FLeX House, and desks are covered in prototype models and research materials. Daniel Alderman, a third year graduate student of the architecture program, is just one of the 16 USF architects committed to bringing FLeX House to life.

Alderman believes the revolution of the construction industry is unavoidable



FLeX House, which stands for Florida Zero Energy Prototype, is Team Florida's entry in the U.S. Department of Energy Solar Decathlon 2011. Photo Rebecca Hagen

and necessary, and that the revolution starts with our Universities.

"At the University level, we have the opportunity to create new ideas [like FLeX House]," he said. "Outward development starts at the collegiate level and becomes a catalyst for change."

The challenge, Alderman said, is to convince people to recognize the need for sustainability, and to address that need.

"We should design homes to work with the climate, not against it," he said.

Matthew Johnson, a student in USF's architecture program, said improving on the FLeX House design provides him with insight into taking an idea and translating it into

something real.

"This is interesting, because this is the first 'real' project we're working on; everything up until now was imaginary," Johnson said.

But more than the real-life experience, Johnson said the FLeX House project allows students to focus on sustainability and prolonging human existence while preserving finite resources.

In the fall of 2011, Team Florida will transport FLeX House to D.C. via a moving truck to compete in the U.S. Department of Energy Solar Decathlon competition. FLeX House will be judged against the homes of 19 other teams from across the world, with competitors hailing from as far

away as China and Hawaii.

FLeX House will return to USF after the competition to serve as a community learning and research facility with a focus on sustainability.

Additional information about FLeX House and Solar Decathlon can be found on Team Florida's website: flexhouse.org.

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FLEX HOUSE DISPLAYED AT THE 2011 NAHB INTERNATIONAL BUILDERS' SHOW

SYSTEMS APPROACH

By Lorilee Bell

Team Florida attended the 2011 NAHB International Builders' Show in Orlando, Fla. in January to show off the new FLeX House model and do some serious networking.

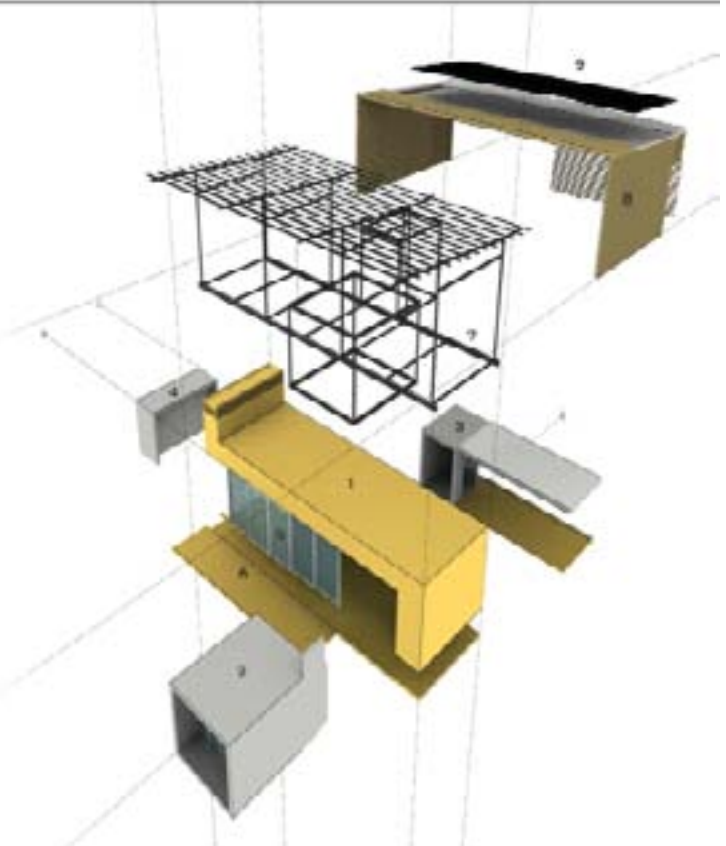
The annual show attracted tens of thousands of homebuyers, builders and contractors this year, many of whom stopped by to see the new FLeX House model, which was on display for the duration of the event. Team members promoted FLeX House's concept and main features, and answered questions about the house's functions, key processes and recent design changes.

The largest housing industry trade show in the world, IBS serves as a hub for building industry professionals from all over the country looking to promote their best products and services, and an ideal venue for debuting the latest technological and design developments of the home building industry.

1. MAIN LIVING VOLUME
2. BEDROOM MODULE
3. ENTRY MODULE
4. MECHANICAL MODULE
5. NORTH FACING GLASS
6. OUTDOOR DECK
7. STEEL STRUCTURE
8. SHADING ENVELOPE
9. PV ARRAY

FLeX House Model
Photo Rebecca Hagen

Team Florida also attended the Solar Decathlon 2011 Design Development Review Workshop, which was hosted alongside IBS at the Orange



County Convention Center in Orlando. The weekend-long summit served as a crash course for decathletes to learn the ins and outs of

the Solar Decathlon contests and allowed them to connect with other teams, as well as representatives from each of the competitions ten contests.

ABOUT SOLAR DECATHLON

By Lorilee Bell

The U.S. Department of Energy Solar Decathlon is an award-winning program that challenges 20 collegiate teams to design, build, and operate solar-powered houses that are cost-effective, energy-efficient, and attractive. The winner of the competition is the team that best blends affordability, consumer appeal, and design excellence with optimal energy production and maximum efficiency.

The first Solar Decathlon was in 2002; the competition has since occurred biennially in 2005, 2007, and 2009. The next event will take place on the National Mall in Washington, D.C., in fall 2011. Open to the public free of charge, visitors can tour the houses, gather ideas to use in their own homes, and learn how energy-saving features can help them save money today.

For additional information, visit the official Solar Decathlon home page: <http://www.solardecathlon.gov/>.



Visitation was estimated at 10,000 over two days.
Photo Rebecca Hagen