SD1: “Team IL and the Solar Decathlon”

Spoken script: A couple lines turn into a sketch, that creates a design, that builds an energy-efficient, solar powered house. The Solar Decathlon challenges 20 collegiate teams from around the world to create and present a home that meets ten categories ranging from attractive architecture to achieving optimal energy balance. The competition is sponsored by the U.S. Department of Energy and managed by the National Renewal Energy Laboratory. The next competition will be held from September 23rd to October 2nd 2011.

Spoken script: The University of Illinois at Urbana-Champaign has competed in the competition since 2007. The U of I placed 2nd to Germany in the latest competition held in 2009. Their Gable Home combined the old with the new to create a traditional Illinois home. The team kept true to their home state by incorporating wood from an old barn and silo into the exterior of the home. Then they combined the wood with laminated bamboo to create a linear design that focused on the budget and style of IL homes. While the outside of the house recycled old materials, the inside had all new technology. In fact, it uses 90% less heat and electricity than a standard home. Part of the reason why the home uses energy so efficiently is through layers upon layers of insulation, along with solar panels lined along the south side of the house. Even the windows, imported from Germany are fitted and made to keep the cold out and the heat in during the winter time.

Spoken script: About 100,000 people have visited the home. The competition is open and free to the public to come and admire the homes on the National Mall in Washington D.C. Today, the home is located near the I-Hotel where private tours continue to wow and educate the public about energy-efficient housing. Recently, a group of teenagers from an organization called Youth Build added to the number of views of the Gable Home by getting a private tour by the U of I team's supervisor, Mark Taylor. Youth Build provides young adults ages 17 to 24 with job training as well as affordable housing. They also can help to build houses for underprivileged families in their community. The Gable Home showed them the possibilities of a comfortable yet eco-friendly house.

Spoken script: While obtaining excellent energy efficient standards is the means, a new focus will be the way to improving from the team's 2009 performance.

[Interview]
Carolyn- "One thing that, I think, they probably all agree they could have worked on, is their marketability. So with our project we are trying to really concentrate on the marketability. We're targeting it towards disaster victims, and, I think that will help us out in the competition."

[Images of destruction from disasters in Illinois]

Spoken script: The team is catering the design specifically to victims of tornado damage. After their home is left in ruins, victims have to move in with family or into a hotel until they find another home. The so-called, Re_home will provide victims with a quick and efficient solution to being left homeless with a home that responds to the needs of the family after a disaster while also being environmentally-friendly.

[Interview]

Beth- "And they also added affordability into the contest this year, so that goes along with our concept pretty well."

[Graph displaying the costs of the home.]

Spoken script: The budget goal is to keep the home under $250,000. Funding for the design starts out with a grant from the U.S. Department of Energy of $1,000.

[Interview]

Beth- "...but that doesn't really cover, nearly everything, so it's up to us to find funding. So, we get funding from different colleges within the university, but we also have to look further from different corporations or companies that want to donate products and stuff like that. So, it takes a lot of work to find the money that we need."

[Images of the Re_home website and images of products used in the home.]

Spoken script: Sponsors for this year include on-campus contributors like the College of Business to off-campus contributors like Texas Instruments. Sponsors can also donate product instead of money, as Lamboo, Inc did with the Lamboo used in the skeleton of the Gable Home.

Spoken script: The next step is preparing a 20-minute presentation for the International Builder's Show in Orlando. The show will take place in January where five teams will present their design...

Carolyn- "And then we'll have an exhibit at the show, so that everybody that comes can look at our design; hopefully we'll get some more sponsors, and we meet with the Department of Energy to go over our design."

Spoken script: Construction will begin in February, when the team will put the recently-finalized design to the test with a Mock Up. Creating a mock up, or sample shell of the house, tests out the design to make sure it will work electronically and mechanically. Because it will still be cold outside, the team plans on starting out construction in the factory of a building company called Homeway Homes.
Carolyn- "...and we'll have an architecture team, studio of seniors in architecture that will be working on the construction, and another engineering class that will also be involved in installing products."

Spoken script: The competition is truly a team effort with students in architecture, business, engineering, industrial design, landscape architecture, graphic design...

Carolyn- "So yah there's a wide range of students. There's two main classes, one in architecture and one in engineering, and then a couple students from industrial design and landscape architecture, all collaborating to make this successful."

[Video footage of a team meeting.]

Spoken script: At this point, the team has been meeting every Wednesday to discuss logistics and collaborate with students and professors from various studies. The team uses the meetings to brainstorm how to fix issues and concerns while also keeping a positive attitude about what they've already accomplished in this project.

Carolyn- "We definitely have a lot of funding so far and a really good team put together, so I feel really good about the project."

[Images from the Re_home website.]

Spoken script: You can check out the Re_Home and get more updates about the team's progress at www.solardecathlon.illinois.edu.

Tune in next time to get the team's January Update. For UI-7, I'm Caroline Pahl.