

Case Study 3: AbleNook

From: <http://inhabitat.com/8-innovative-emergency-shelter-designs-for-when-disaster-hits/>



This versatile shelter was designed by Jason Ross and Sean Verdecia, graduate students at the University of South Florida. It is a prefab living module that could be used for either housing, classrooms or even office space. The parts are flat-packed, shipped, and can be assembled in about two hours. The design is based on identical and universal aluminum structural insulated panels (SIPS) that clip together without the use of any tools. The floor joists and the columns in the walls are also identical, with the ability to house electrical conduit. The plug-and-play assembly allows for economies of scale during fabrication, efficient shipping, and easy assembly. It can be deployed single or double-wide and can include multiple bedrooms, kitchen, work space, storage and bathroom.

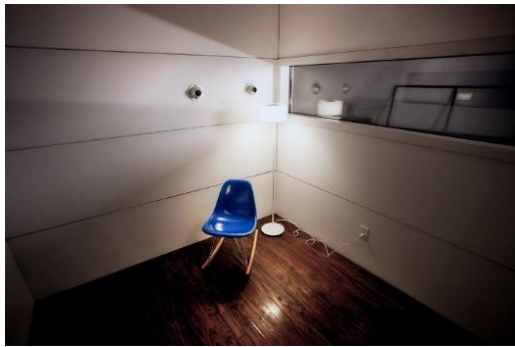
Last year we brought your word of the AbleNook, a concept for a unique prefab modular dwelling for disaster relief that can be assembled in a snap. Now we're excited to see the designers have completed their first working prototype and are ramping up to create the tools necessary to build even more. AbleNook can be assembled in about two hours without any tools and no skilled labor, and it can be deployed on uneven terrain. The flexible design is modular and can be expanded as needed and can serve as more than just housing. Right now the AbleNook team is asking for support via Kickstarter to fund the next stage of development.



AbleNook was designed by Sean Verdecia and Jason Ross as part of an architecture

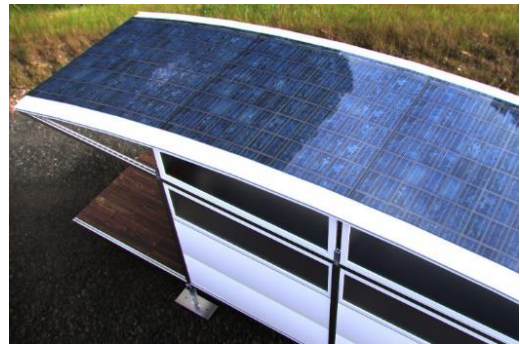
project while at the University of South Florida.

The summer long independent study project turned into a real world solution they hoped could make a difference in the wake of natural disasters.



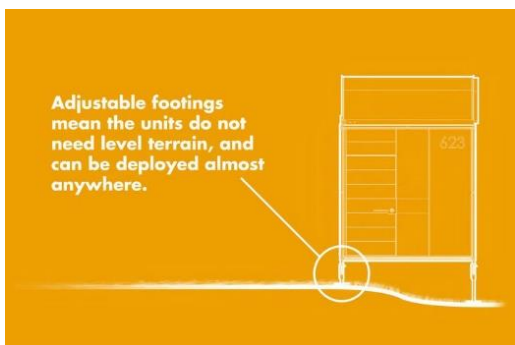
The modular design is based on identical and universal aluminum structural insulated panels (SIPs) and extruded aluminum structural members that clip together without the use of any tools.

A basic shelter can be assembled in about 2 hours without the help of skilled labor.



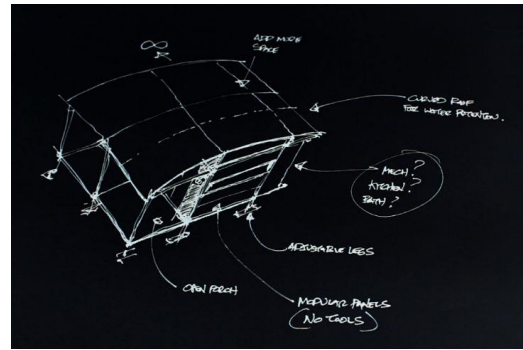
The structural members have a patent pending design that allow for wiring of electrical components.

An arched roof covers the module and integrated solar panels generate power for the dwelling.



Finally, adjustable leg jacks allow AbleNook to be deployed on wildly uneven terrain.

The design team has recently completed a working prototype, a single module that serves as a proof of concept.



With \$60,000 the team will build the molds and tooling necessary to fabricate AbleNook 002 and begin building dwellings on larger scale.

"We really believe that good design can help save people's lives and restore human dignity after a natural disaster," says Jason Ross.



While the original plan was for these units to be used for disaster relief, AbleNook could also be expanded for classrooms, offices, and even prefab housing.

The duo expect to have units completed and available for sale by the end of 2013.