### Problem Statement
During the production of Jeld-Wen's exterior fiberglass doors there is a byproduct of fiberglass cutouts in assorted sizes filled with insulating foam. The goal of this project was to devise a solution to reduce the quantity of these panels being sent to a landfill by no less than half.

### Requirements
- Cut the number of panels going to the landfill in half
- Excess panels must not be burned
- Must be disposed of in an environmentally friendly manner
- Remove panels from factory floor space
- Cannot have a negative profit

### Concepts
- Website with list of design examples and assemblies
- Clasp designs were to be used on the website to assemble the various examples
- Narrowed list of designs down to five and went with the highest scoring one
- Instead of building a website, the team contacted Habitat for Humanity
- Habitat for Humanity plans to use these panels directly from Jeld-Wen for building projects

### Final Design
- The final design for repurposing the fiberglass panels was to build an affordable and easy-to-install cubicle.

### Results
- The team succeeded in initiating contact between Jeld-Wen and Habitat for Humanity
- This was believed to be the best option to use to meet the project requirement of quantity reduction
- The panels will be used as building materials rather than disposed of in a landfill
- It will largely decrease the quantity of panels remaining on the shop floor
- The panels will not be burned
- There will be no negative profit

### Summary
- There is direct communication between Habitat for Humanity and Jeld-Wen so further deliveries and donations can be handled between them
- The final clasp drawings and designs have been shared with Jeld-Wen to use at their discretion

### Team & Acknowledgements
**Team 24:**
- Amie Emery – Mechanical Engineering
- Jackson Dietzel – Engineering Technology
- Cole Melton - Engineering Technology

**Sponsor:**
- Ryan Kalanish from Jeld-Wen – Process Engineer

**Mentor:**
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