



# Solar Decathlon Smart Home Control

Presentation 4

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# Background



*A student from Middlebury College gives a house tour during the 2013 Decathlon*

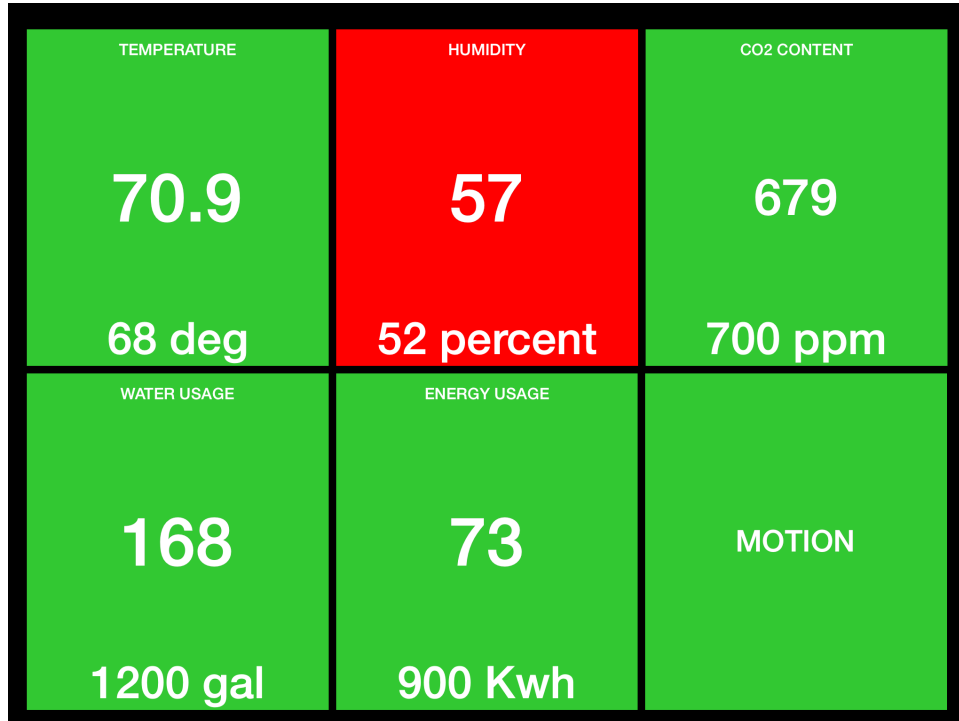
- US Department of Energy  
Solar Decathlon
  - Irvine, California
  - October 8-18, 2015
- Allow Clemson & judges to control house
- Allow visitors to observe real-time stats of the house
- Access control (admin accounts)

# Problem to be Solved

We wanted:

- to be nearly finished!
- Multiple ways of viewing data within detailed views
  - being able to view daily statistics and weekly statistic averages

# Home Simulator



Reads current/optimal values

Writes new current values

Semi-Intelligent updates

# Demo of App Progress

All tiles on the dashboard update every 3 seconds to show live data.

- The detail view of each tile: Temperature, and Humidity will show a chart displaying the 25 and 20 respectively last entries in the database

You can now select between daily stats and weekly statistics in the temperature view for chatting

# Accomplishments

- Home simulator completed and interacts with database
- Working on devices

# To Be Completed

## Need to have:

- a. Daily and weekly charts of data
- b. Database errors handled
- c. Manuals updated
- d. Lights working fully

## Would like to have:

- a. Sound effects
- b. Enhanced tile visuals (e.g. incorporate images instead of just numbers)
- c. More intelligent simulator choices

# Acknowledgements & References

For more info about the competition, see <http://www.solardecathlon.gov/>.

For more info about our progress, see the following blogs:

<http://people.cs.clemson.edu/~jacosta/homePage.html>

<http://jakedawkins.x10.mx/>

<http://alexross.io/>



Thank You.