H₂ OSMOSIS
Forward Thinking
Team 13
THE TEAM

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THE PROJECT

- Lack of freshwater systems in certain countries
  - Case study in Kingston, Jamaica
- Desalination is energy-intensive
- Solar-powered desalination plant
- Options:
  - Multi-stage flash distillation
  - Reverse osmosis
  - Forward osmosis
- Full-scale plant design

[Link to SkyFuel news article](http://www.cnet.com/news/skyfuel-heats-up-solar-thermal-power-race/)
FORWARD OSMOSIS
ACCOMPLISHMENTS

- Forward osmosis method was chosen
- Amount of water needed defined (45L/person/day)
- Type of osmotic agent decided
OBSTACLES

- Location of plant
- Limited industrial scale-Forward Osmosis resources
FURTHER WORK

- Pick membrane and separation types
- Pick osmotic agent(s)
- Method of Solar power harnessing
- Pre-treatment
- Material & Energy balances

http://carpoolcandy.com/2012/07/06/my-take-on-the-busy-trap/todolist/
## DESIGN NORMS

- Stewardship
  - Solar power
  - Disposal of waste materials
- Caring
  - Concern for others’ wellbeing
- Justice
  - Access to fresh water

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<table>
<thead>
<tr>
<th>Team</th>
<th>Project</th>
<th>Accomplishments</th>
<th>Obstacles</th>
<th>Further Work</th>
<th>Design Norms</th>
</tr>
</thead>
</table>

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