Business Model

- Saves up to **$20** a year per person in Massachusetts (mostly cost of heating water)

- Initial retail price of **$200**

- **Target Users**
  - Environmentally-conscious homeowners
  - Residents in Southern US states with severe droughts
  - Europeans whose water costs up to 4x more than that of US

- **Manufacturing Cost Assessment**
  - Material/Mnfg. cost of **$80**

- **Market Penetration**
  - Net Profit Margin of **$120**
  - Estimated market volume of 70,000 unit in 3 years (0.7% of environmentally-conscious homeowners in the US, estimated at 9.5 million)
 - Projected profit of **$4.5M** in 3 years

Yellow Team

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IntelliShower
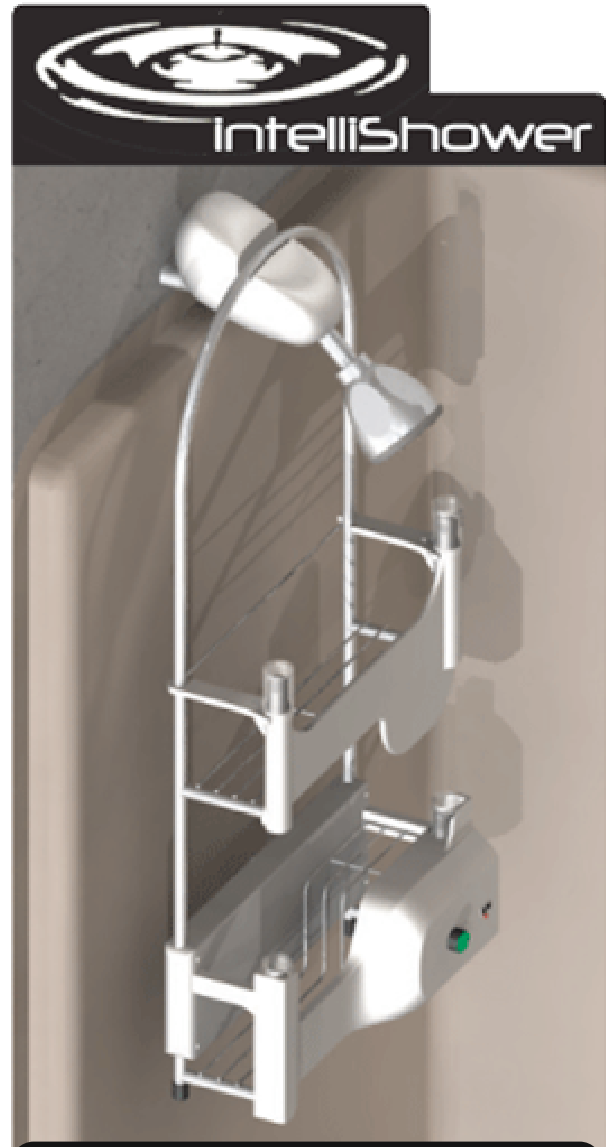
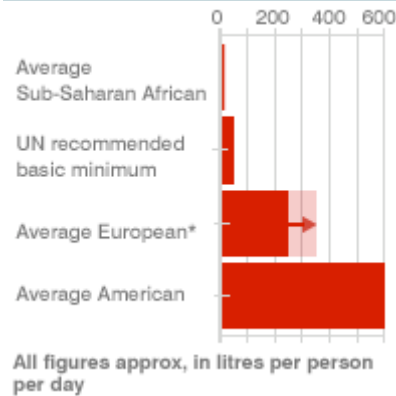**Reduce, Reuse, Recycle**
2.009 Final Presentation

Yellow Team
MIT, Edgerton Hall
December 10, 2007

Saving Water

US and International Issue

- Currently, the *Southeast U.S.* is plagued with **droughts** and water conservation is becoming increasingly important.

- The UN recommends that people need a minimum of **13 gallons** per day for drinking, washing, cooking and sanitation. However, the average *sub-Saharan African* has access to only **2.7 gallons** a day*.

WATER USE AROUND THE WORLD

Average Sub-Saharan African

UN recommended basic minimum

Average European*

Average American

All figures approx, in litres per person per day

Average Shower

- 20-50 gallons of water used per shower (~13,000 gallons a year!)

*intelli*Shower

- saves **2.5 gallons** per shower (900 gallons a year!)

- **300 kWh** of *electricity* saved per person/year

*Source: news.bbc.co.uk

Design Features

*intelli*Shower

While showering, a great deal of water is wasted when lathering. Our system automatically decreases the flow, to conserve water, and manually returns to high pressure by pressing a button. The user can enjoy the pleasure of showering, while saving water!

Servo-Motor & Housing

Turns valve to decrease amount of water flow to 50% and allows for easy installation

Laser Light Sensors

Detect when user reaches for soap/bottle and decrease the flow to low pressure setting

Analog Circuit

Simple and reliable circuit enclosed in safe, waterproof casing

Illuminated High-flow Button

Easy-to-find button illuminates during low-flow and returns flow to high pressure when pressed

Rechargeable Battery Pack

Powers device and allows for easy recharging of batteries

LED light-low battery indicator

Notifies user when battery is low