

# Sustainable Design

Design Experience

Fall 2011, Olin Year 3

Sustainable Design is a class that provides a high-level view of sustainable product design. We learn to use green design principles, conduct life-cycle analysis on an existing product, and strategize to improve the production processes of the product.

## Project 1

Aim: Studying an existing product and modifying the material acquisition, manufacturing process, and waste treatment.

My team, Green Wackin', is studying the Weedwacker, a gas-powered gardening tool primarily used by landscaping companies to beautify a mowed lawn at the edges and in small spots.

Design: We have talked to and **studied users** who commonly use the Weedwacker, learned their likes and dislikes with the product. We **developed personas** that represent these users, one of whom is **George**.

Then, we tore-down the weedwacker and did a **Life Cycle Analysis** Impact to see its effect on nature.

Now, we are moving into the 'Strategies' phase where we will brainstorm how to make it a more sustainable tool, one that stops polluting more than 5x's that of a car within an hour of operation!



Product tear-down: weedwacker Engine

