

The A Team



Figure 1-1 The A Team (from left to right): Ernesto Silva, Megan Moore, Jessica Horton, Jennifer Barranco

Introduction

This semester the ENGR 215 class partnered with The Sanctuary-a local, nonprofit organization in Arcata that promotes sustainability and creativity. They are often given donations of food from the local food bank and local farms. They give these donations away to the community. This was previously done by distributing the food directly out of their kitchen from the basement of the building.

The Design

The A Team has built the Abundant Free Food Kiosk to solve this problem by providing a new way of giving out the food donations. The Abundant Free Food Kiosk is an outdoor, water proof cabinet that food can be stored in with doors on the front and back. The front doors are used by the public to access the free food inside the kiosk at street level, and the back doors are used by The Sanctuary to place the food donations inside. As members of the community walk by on the street, they are able to look at the chalkboard doors to see what is available inside.



Figure 1-2 The Black Box Model of the Abundant Free Food Kiosk

Table 1-1 Weighted Criterion of project

Criterion	Weight
Safety	10
Public Accessibility	10
Critter Proof	10
Durability (10 yrs)	8
Aesthetics	6
Replicability	5
Cost	3

The back doors give The Sanctuary a convenient way to place food inside the kiosk

Slanted roof keeps the water out of the kiosk and drains it off the back

Kiosk is level with the sidewalk for easy accessibility for the public

Pond liner on the roof makes it waterproof and houses a live roof of plants



Figure 1-3 The final project

Frame that lifts the kiosk to street level and provides stability

Cross bars screwed onto the frame give it stability

Doors the public will use to access the food inside the kiosk

Magnets help keep the doors shut tightly



Figure 1-4 An inside view of the kiosk

Vents allow for airflow

Weather stripping prevents leaks around the doors

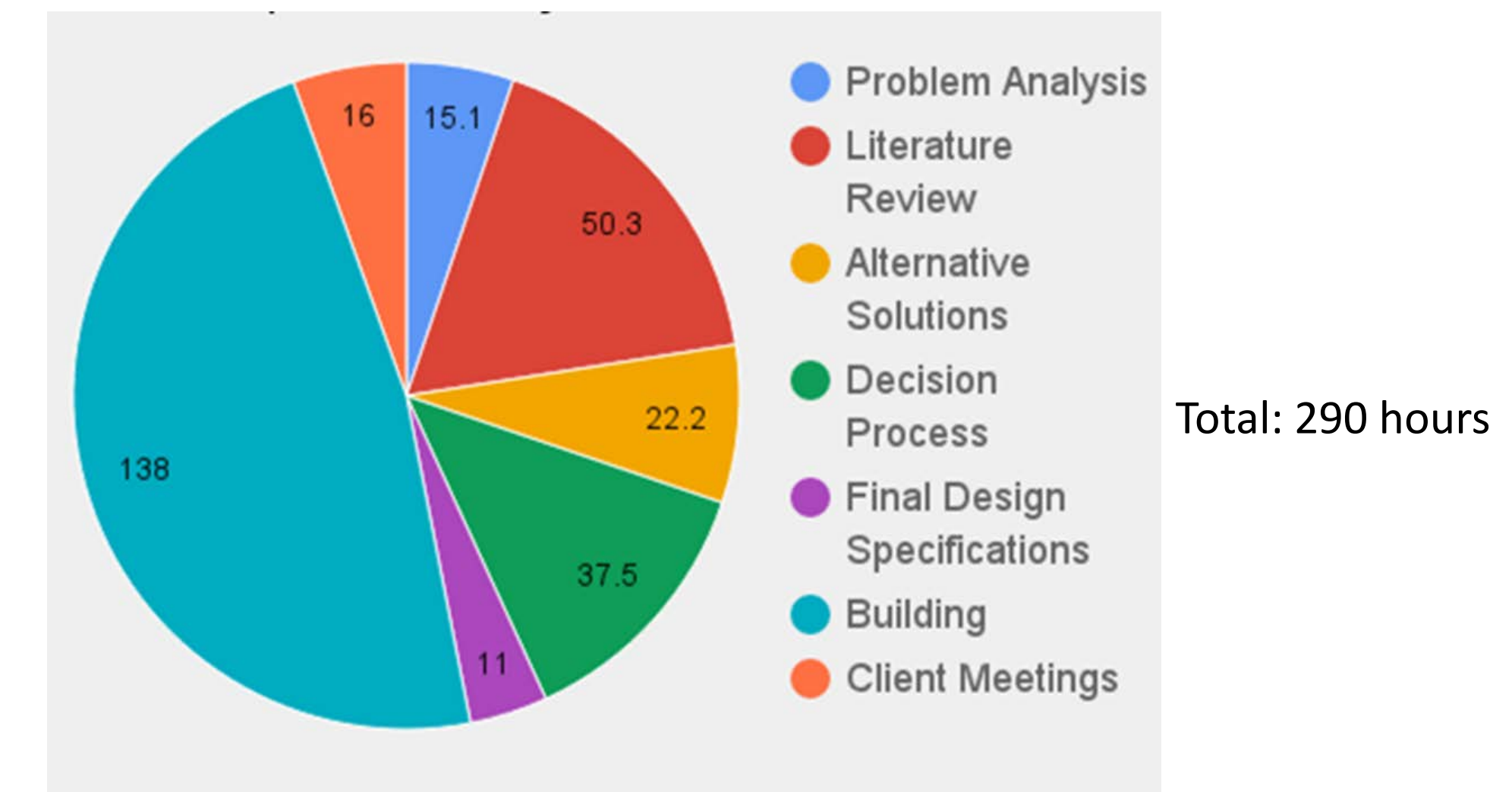


Figure 1-5 The total hours The A Team spent on the project

Table 1-2 Maintenance cost and frequency

Material	Time	Annual Cost
Disinfectant wipes	5 minutes (monthly)	\$5.00
General parts for replacement	2 hours (annual)	\$10.00

Table 1-3 Materials cost chart

Material	Cost
2x4's	Donated
2x2's	Donated
Plywood	Donated
Wood glue	Donated
Screw Driver	Donated
Screws	Donated
Waterproofing wood spray	Donated
Insulation	Donated
Cabinet Handles	Donated
Paint (colors)	Donated
Paint (chalkboard)	\$15.00
Paint (gloss)	Donated
Tape measurer	Donated
Total	\$15.00

Results

The community of Arcata can now open the doors of the Abundant Free Food kiosk from the sidewalk and take the food donations that are placed inside by The Sanctuary. Other items that The Sanctuary donates to the community include clothes and books. These items will also be put inside the kiosk and available to the community.