Provost Cat Feeder

Team of Mice and Men
Week 0
University of Advancing Technology
Tempe, Az

Designed by Boone Stewart
Built By Alexa Tuchtenhagen
Support by Team of Mice and Men

What is *Provost Cat Feeder*?

Project Overview

The Provost Cat Feeder is a 3D-designed and printed automatic feeder that opens and closes when our school mascot, Max, approaches. It uses an ultrasonic sensor programmed to trigger the feeder when an object is detected within a certain distance. This project was a fun way to learn new skills, collaborate with new teammates, and challenge ourselves creatively and technically.

Goal

The goal of this project was to collaborate with a group of students I had just met to create something inspired by our school mascot, Max the cat. As a team, we decided to build an automatic cat feeder that detects Max's presence with a sensor and dispenses food when he comes near.

Team

Lead: Christopher Alsay
Fabricator: Boone Stewart
Electrical/Hardware: Alexa Tuchtenhagen
Programmer: Amara Hill
Presenter: Xavier Bojorquez
Teammate: Brie Bojorquez
Teammate: William Jones
Teammate: Zachary Fields
Teammate: Duane Hamilton
Teammate:Rafael Gonzalez Rangel
Teammate: Tristan Pellum

Bill of Materials

- PLA Filament
- Servo
- Jumper wire
- Arduino Uno
- Ultrasonic sensor
- Hot Glue

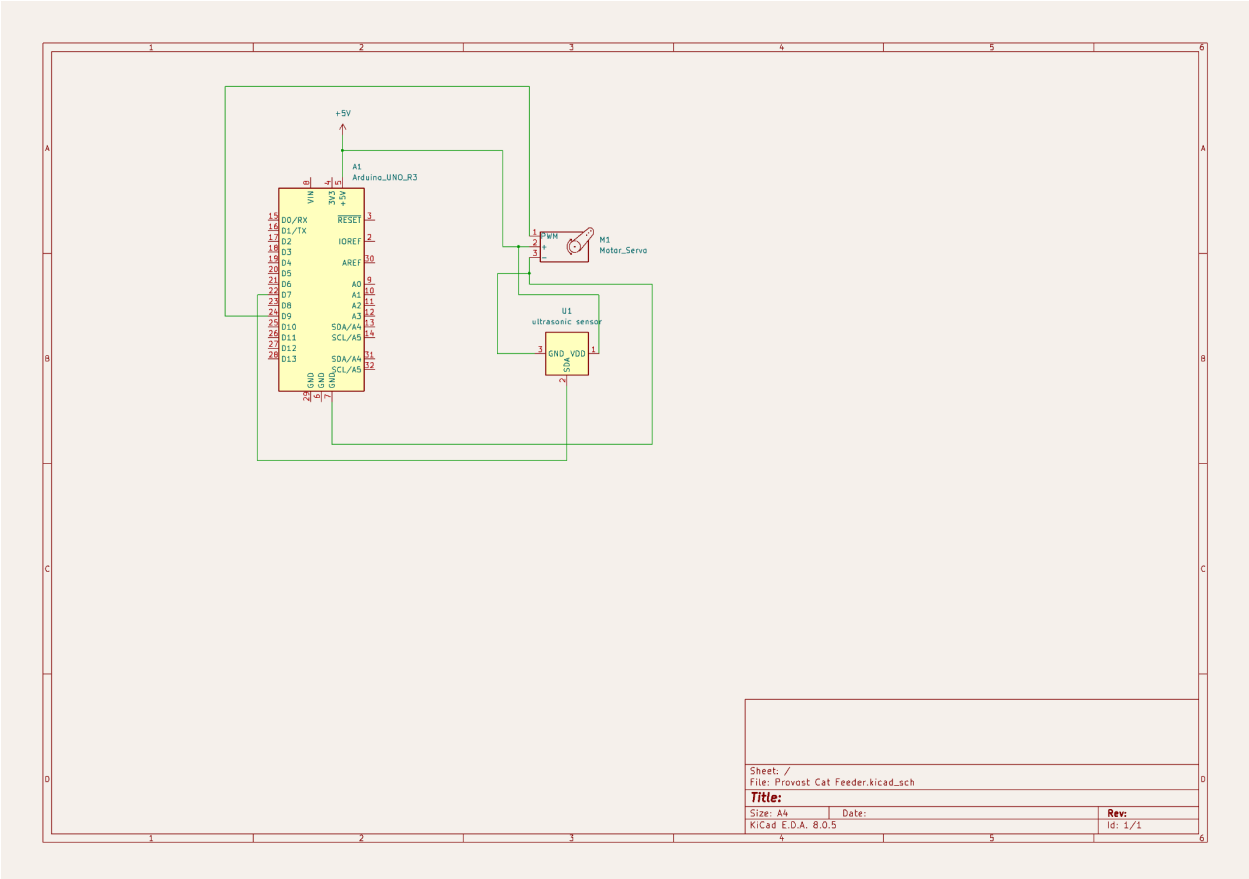
What Went Well?

This project was a great introduction to teamwork, especially with a group of students I had never worked with before. We learned how to leverage each team member's strengths to maximize efficiency and manage a tight timeline. The electronics and coding components of the project went smoothly, and, most importantly, Max survived the process unharmed. Overall, it was a successful experience in collaboration, problem-solving, and hands-on learning.

What Could Be Changed?

If I could change anything, it would be the 3D model. Over the past year, we've all grown as students, and both our modeling and coding skills have improved, so the project could be executed more efficiently now. Additionally, involving more students in the project would have helped distribute the workload and brought in more ideas and perspectives.

Schematic



Other Documentation

[Cat Feeder Video]