# TreatMyCats.com

Chelsea Simpson
CS 465P

## The idea:

Create a website where fellow cat lovers can give treats to the best cats known to man... My cats!

## Methods:

I already had a Raspberry Pi that was not being used, so I decided to use this to run the webserver from. The treats are stored in a small ziplock food storage container with two holes dremeled in the sides. This container is then attached to continuous motion servo, which is wired to the pi's GPIO pins. I then wrote a small python script that spins the arm on the servo when run, causing treats to fall out the holes on the container.

The video feed is from a Motion server running on the pi.

I had originally used a generated node server with the intent to replace it with a hand written one when I had time. I ended up not getting around to it, so it is currently running on the generated server, with modifications to support https. I did write my own custom routes. The site is designed to be a single page website with the content loaded via ajax calls.

For the payment service I am using Stripe. After a successful payment via Stripe I send a POST over ajax that activates the script on the pi.

## Issues:

Comcast blocks incoming traffic on port 80, the default port for web traffic. To get around this I had to serve the site on port 8082. I was originally going to use Let's Encrypt to generate an ssl certificate, but Let's Encrypt requires that the webserver serve content on port 80, so I was only able to use a self signed certificate for the site.

One major non-technical issue I did not foresee was my cats' love for treats. I would often come home to find the container ripped from the servo. On several occasions I was able to witness one of my cats throw herself at the servo in the hopes of knocking the container free.

I also did not foresee how strange it is to have a section of your living room broadcast over the internet.

## Future development:

Although this was an interesting idea, in the future I think I would find more use out of a site that only I have access to that I can use to check on my cats while I am away.

The current way I have the dispenser set up leaves a lot to be desired. It is far too easy for my cats to knock it down and when my father came to visit he just tapped the container until treats fell out, thwarting my only opportunity at actually making money off of my project.