



ScampBot

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BACKGROUND

As pet owners are constantly busy with work and classes, the pets are often left unsupervised for hours at a time. During this time animals get bored and can get into trouble (Figure 1). To prevent houses and apartments from being destroyed by pets; as a team we decided to build the ScampBot.



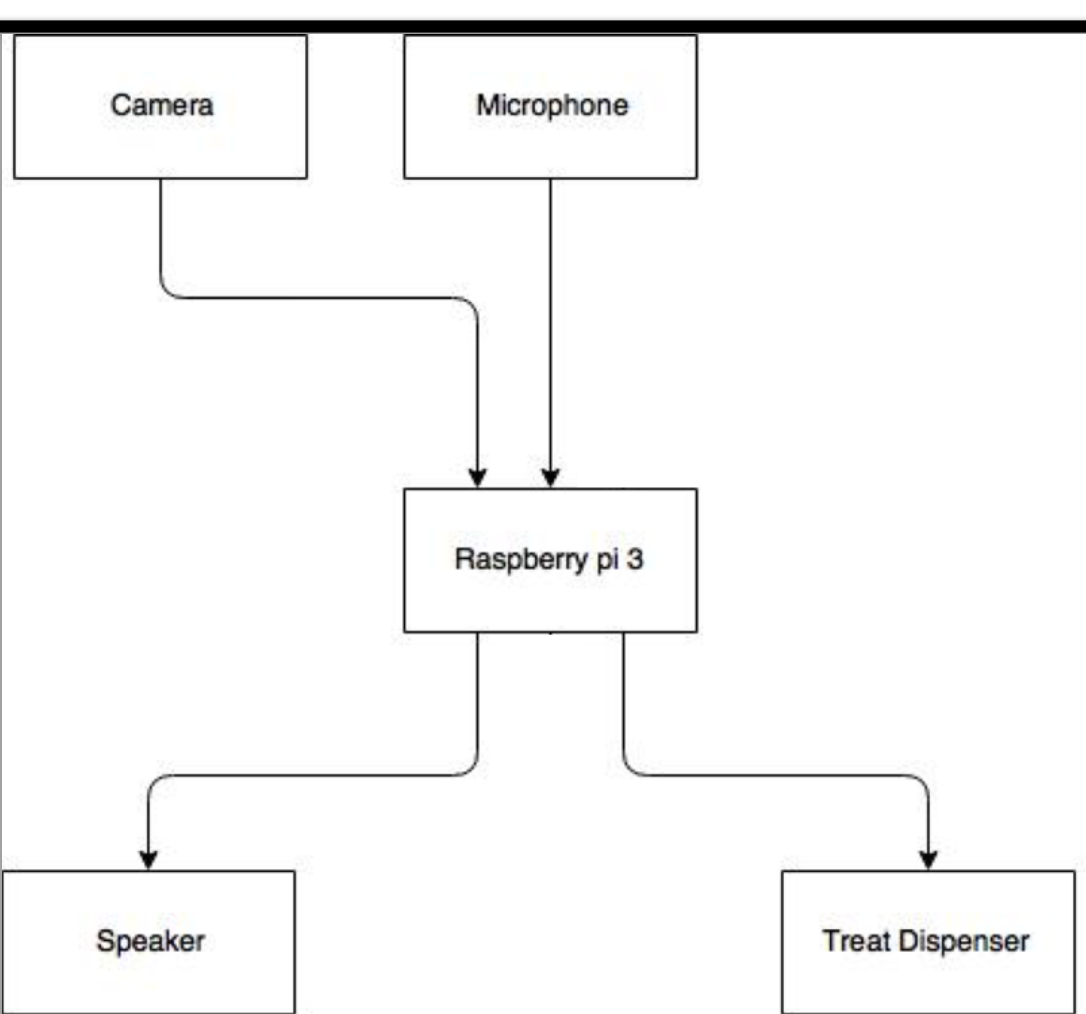
Figure 1

PROPOSED SOLUTION

In order to help our pets stay out of trouble we have designed ScampBot; A device to allow us to 'see' our pets and dispense treats for them while we are away.

Scamp-Bot allows us to dispense treats, call on our pets and offers an HD Live Audio/Video feed. All this features can be managed remotely through the internet on a simple phone app. This would help keep our pets entertained and happy when we are not around.

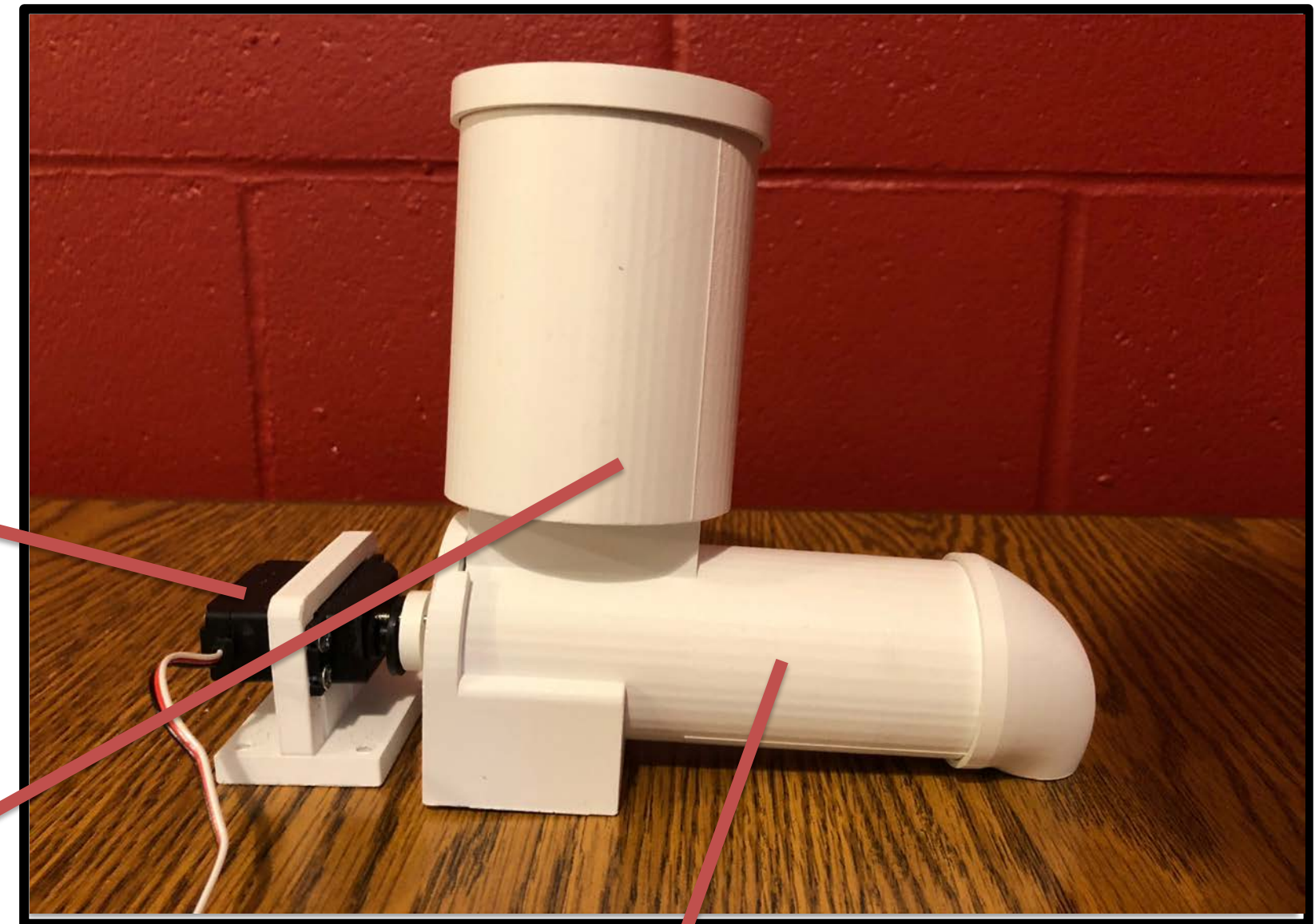
System Diagram



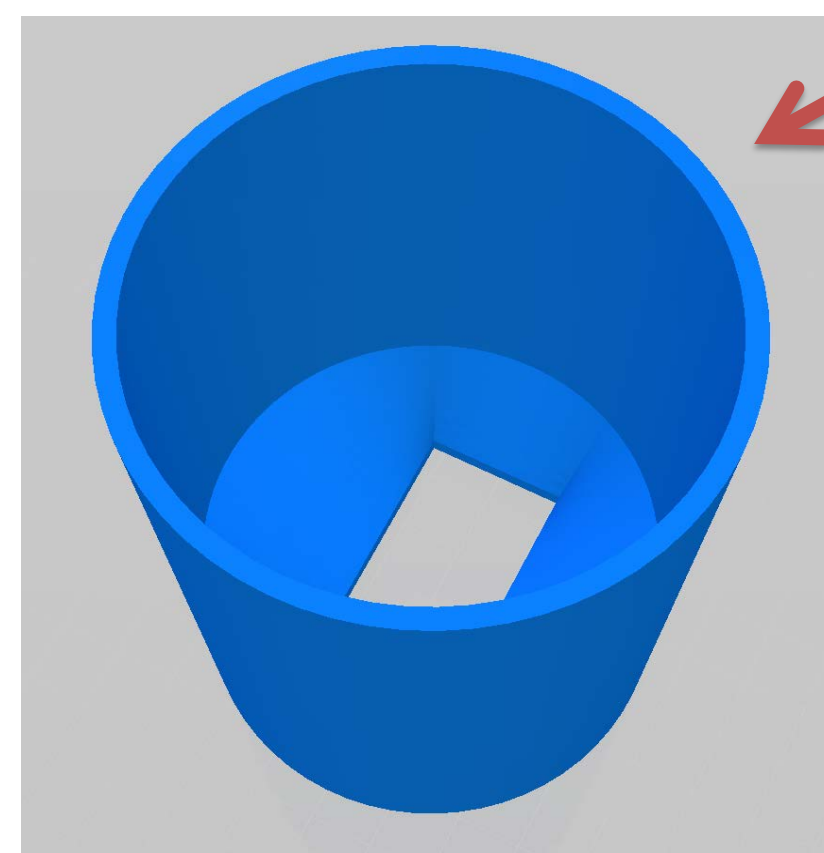
SYSTEM DESIGN



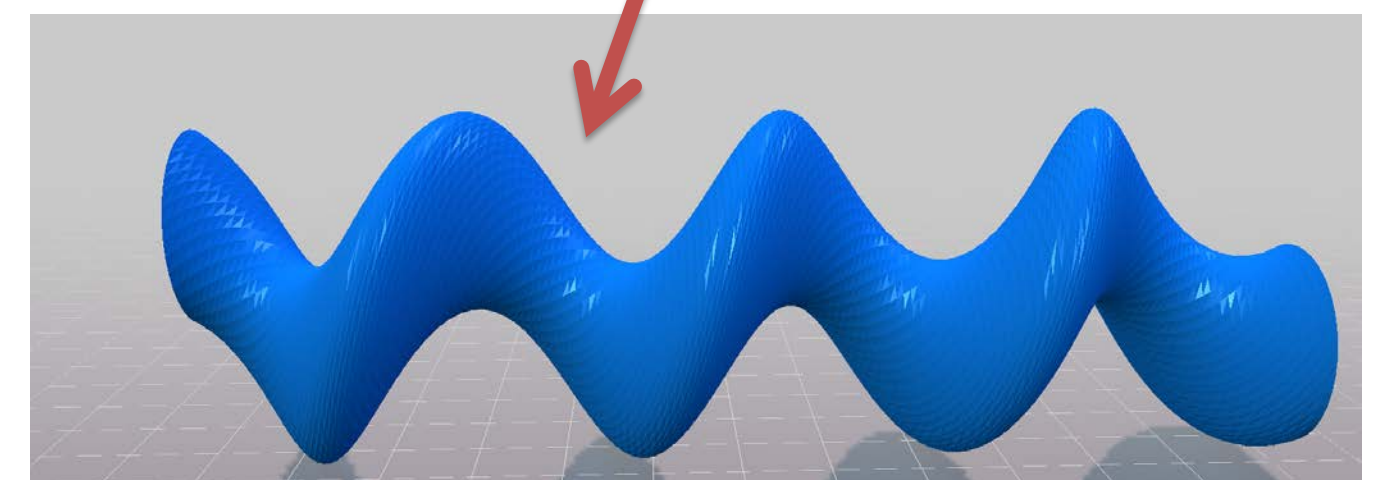
Servo Motor



Treat Dispenser



Treat Storage

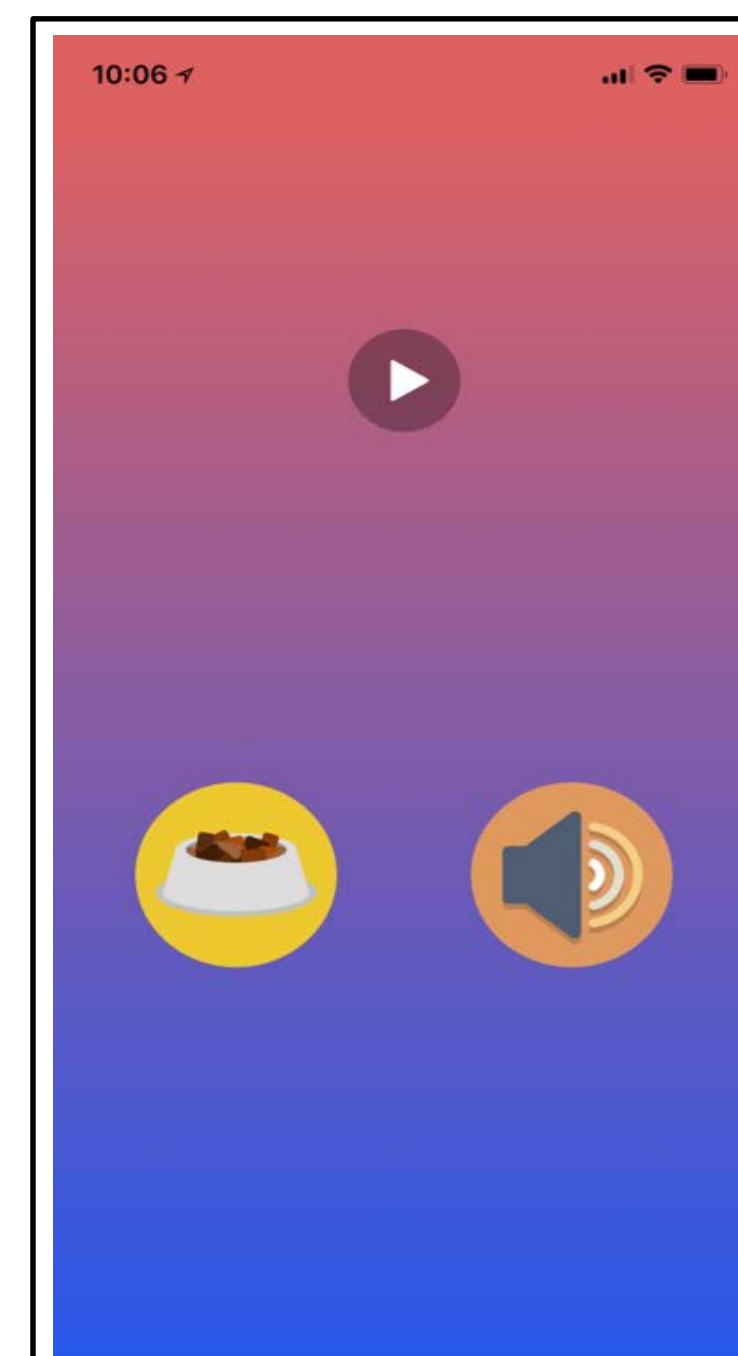


Spiral



Raspberry pi

The raspberry pi is a great small sized power efficient computer. It allowed us to control the servo motor, camera, speakers and a microphone. Its wireless capabilities made it easy to make the ScampBot an internet connected device



IOS App

The ios app allows the user to watch a live Audio/Video feed as well as dispense treats and play a sound to call on their dogs. The app connects to the raspberry pi through the internet to send the commands.

FUTURE DIRECTION

- Design a more elegant outer casing
- Add more features to the iPhone app

REFERENCES

- Raspberry Pi 3 Model B. (n.d.). Retrieved from <https://www.raspberrypi.org/products/raspberry-pi-3-model-b/>
- Programming with Objective-C. (2014, September 17). Retrieved from <https://developer.apple.com/library/content/documentation/>

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Contact Information

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