

# PiFeed - Feed Your Pets with a Raspberry Pi!

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# Objective

To create an automated cat and fish feeder with internet monitoring and control through the use of Raspberry Pi's

- ▶ The ability to maintain a healthy eating schedule for pets is a concern for members of our group, as well as many others who travel or are away from home for an extended amount of time
- ▶ By successfully implementing a pet feeding and monitoring system using Raspberry Pi's, the stresses of animal care while away will be a thing of the past!

# PiFeedControl

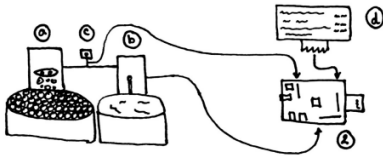
User will interface and be able to control the PiFeedFish/PiFeedCat remotely

- ▶ Able to monitor both aquarium and cat feeder
- ▶ Can customize feeders and control manually

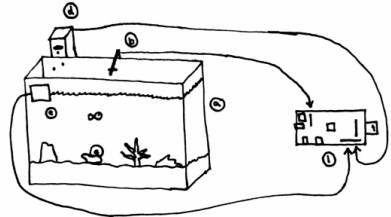
# PiFeedFish

- ▶ Module to analyze sensor data
- ▶ Sends data when requested
- ▶ Controls feeder hardware
- ▶ Pi Camera to stream to a client

## Cat Feeder



## Fish Feeder



# IoT Net App Patterns

- ▶ All sensor data will be published using RabbitMQ
- ▶ User control module will subscribe to the data
- ▶ User will access hardware/schedule events using sockets

# Everyone

- ▶ Build automated fish tank feeder and automated cat feeder
- ▶ Test hardware component interfaces
- ▶ Test PiFeedControl, PiFeedFish, and PiFeedCat Python modules
- ▶ Test communication between all Raspberry Pi modules
- ▶ Demonstrate beta build and final build

# Danny

- ▶ Implement PiFeedCat and PiFeedFish Python modules
- ▶ Connect hardware components



# Daniel

- ▶ Design automated fish tank feeder and automated cat feeder
- ▶ Implement PiFeedControl python module

# Igor

- ▶ Design automated fish tank feeder and automated cat feeder
- ▶ Implement PiFeedControl, PiFeedCat, and PiFeedFish Python modules

# Gant Chart

