Automatic Pet Feeder
CPSC-6820 Deliverable #2
System Overview Presentation

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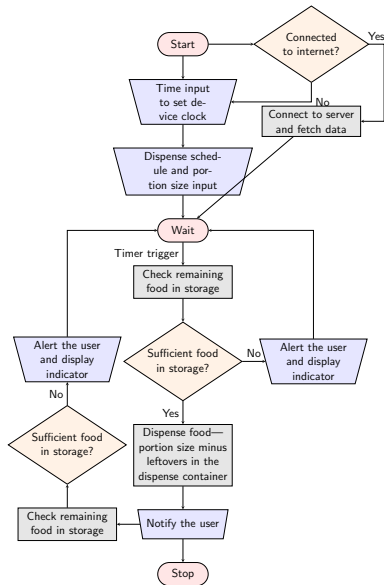
What and why?

What?

- ▶ Automatic Pet Feeder
- ▶ Set-and-forget food dispenser for pets

Features:

- ▶ Multiple schedules and portion sizes per schedule
- ▶ Wireless connectivity, user alerts and stats
- ▶ Replaceable dispense containers

Why?

- ▶ Don't miss feeding your pets again!
- ▶ Privacy and wallet friendly

Software and UI

- Scheduling using MSP430 timers and RTC library
- I/O and display control logic
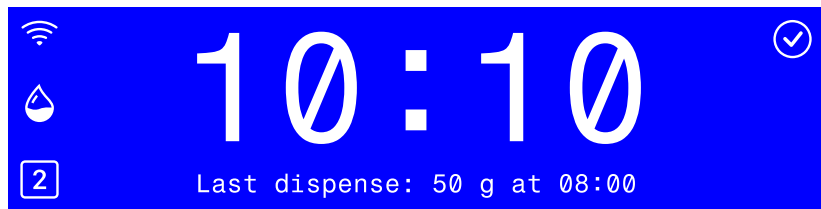- Web server and app implementation and device communication logic

Figure: Display UI prototype

Hardware

Part	Price
Rocker Switch	0.55
Joystick with Select Button	5.95
Buzzer	0.55
Graphic LCD Display	12.82
WiFi Module	1.48
Linear actuator	24.00
MSP430FR5994 Microcontroller	20.39
Force sensor	5.86
Optical sensor	3.37
	74.97

Stretch Goals

- Storage partitioning and different types of food
- Battery-powered operation
- Keeping track of pet's eating habits
- Pet-lock function

Conclusion

Questions?