10/31/21 Meeting Minutes  
Topics to discuss

**Team Name -** Cold Fries

**Location met -** Discord

5/5 Attendance - 5 Present

**10/28/2021**

**7:14 PM - Meeting Started**

**7:18 PM - ARF Talk**

Discussion on using a servo for our design. We will have a gear that is on top of the servo, with gaps in between the gear sections with cups that will spin a specific amount of degrees.

Software can set the amount of rotation set by the gear corresponding to a certain amount of food per section. For example, the gear could be separated with 4 gaps allowing the servo to rotate 90 degrees per section, allowing ½ a cup of food, making it so that one cup of food could be dropped by having the servo rotate a full 360 degrees.

Discussion of measurements of the usage of the servo.

Short discussion on who to interview for next week’s paper.

We may have a way to remotely work on the raspberry pi with multiple connections.

Hook up a live feed of a camera to show the dispensing area.

Display the live capture from the camera feed directly to the website. (Could be difficult to implement by 12/3 since parts are taking a long time to get here. Approx 3 week lead time)

**8:07 - code side**

-How much to dispense

-When to dispense

Discussion on diameter of materials and sizing to possibly 3D print and model.

Have khai make mockup designs of the parts in 3D.

Davin & michael mockup code for our website

Kevin and kenny to meetup

Kenny resolder pi

Kenny & Kevin go talk to big engineers

Meeting Sunday, October 31st, 12:00pm - 2:30pm

**8:39 MEETING END**

**10/31/21 - Meeting Started**

**1:00 PM**

Discussion of the block diagram and how the hardware and software would integrate with each other.

Hard a general discussion on how software would integrate with hardware in our design.

A bit of discussion over the site as well as what each team member did in the time between Thursday and today

Discussion on how we are going to use the raspberry pi’s. We have two and plan to split the workload between the software and hardware side.

**2:19 PM - Meeting Ended**

**Summary of Meeting (1 to 2 paragraphs)-**

When meeting with the group, we were able to delegate tasks for every individual that would help with the progression of the project. Kenny resoldered the raspberry pi to get a more secure connection, he also bought another pi and delegated tasks, Kevin soldered the pi and created a mock up with a stepper motor (Kenny and Kevin then talked about the electrical aspect and decided to use a servo instead for practicality and functionality), Khai created a mock up of the cup portioning gear through CATIA, Michael and Davin created a mock code that would have functionality (if connected to the raspberry pi).

**Total Meeting Time - 2 hour 44 minutes**

**Individual Contributions (1-3 sentences)**

**Kenny -** Went back and soldered parts for the raspberry pi to make connections. Ordered secondary Pi for the extra functionality which shall be coming in soon. Worked on the block diagram, meeting minutes, and individual journals.

**Khai -** Designed the 3D model for the feeder wheel and worked on the software aspect.

**Kevin -** Bought more parts for servo, a higher amperage wall wart. 5v @ 4 amps to power all components. This has a splitter (one usb connection for power to PI and one female connector to correct sized AWG for amperage to power feather and PWM modulator. This will power servos/ linear actuator. We have plan to implement IR sensing at the moment to tell when food is low in the feeder. May be a different sensor later on with group consensus. Worked on schematic. Main focus from hear is getting board back from kenny (thanks for soldering it correctly) and getting the parts and prototyping my butt off to get the board to software side to work with. I said approx 2 weeks. Hopefully everything is smooth and quicker. After that I can work on the housing unit.

**Michael** - Found more resources on wifi connectivity and websockets using node.js and python code

**Davin -** Worked on the web client to add some features that can be integrated to work with the device.

**Team accomplishments for the week (1 to 2 paragraphs)-**

**Created a mock up of the design for the cup divider that will split up the food portions**

**Created mock code**

**Started creating a mock up of the raspberry pi electronics and testing out equipment**

**Ordered another raspberry pi just incase the dual capabilities were needed**

**Decided on a Servo to better control the movement in increments**

**Block Diagrams completed**

**Talked with professional engineers to see their input as to the project implementation and any advice and/or recommendations that they had**

**Issues -** Still having communication issues from pi to the internet. Still having problems with looking at power transformation and planning as to how to keep a constant power and/or a switch.

**Next Meeting Date & Time - Thursday 11/4/21 7:00 PM**

**Meeting Location -** Discord