**WEEKLY REPORT and MEETING AGENDA**

Report #: 3 Project Name: SPICE

Date: 3/8/2023 Prepared by: Carlos Zapata III

**Agenda for the meeting**

1. Functionality/distribution of parts
2. Waiting for parts to begin 3D printing
3. General design of UI and front-end functionality so far
4. Progress on Arduino and Pi

**Overall accomplishments since last meeting**

1. Connected Raspberry Pi to Arduino
2. Created general home page for UI, majority of front-end finished
3. Fabricated base elements

**Tasks completed by each team member since last meeting**

| Task description | Assigned to | Completed? |
| --- | --- | --- |
| Finalize Motor Mechanism | Caleb/Carlos | No |
| Finalize Sliding Shaft | Caleb/Carlos | No |
| Fabricate Rotating Base | Caleb/Carlos | No |
| Continue Working on UI | JP/Carlos | In progress |
| Connect Raspberry Pi to Arduino | Kile/Caleb | Yes |
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**Plans for next period**

1. Finalize housing and base 3D models
2. Fabricate Base, Sliding Shaft, and Housings
3. Code other supporting pages for UI; identify and implement potential improvements for some existing front-end elements
4. Begin integrating motors into embedded design

**Task assignment per team member (to be completed before the next meeting)**

| Task description | Assigned to |
| --- | --- |
| Prototype Rotating Base | Caleb/Carlos |
| Fabricate Sliding Mechanism | Caleb/Carlos |
| Continue Working on UI | JP/Carlos |
| Test Raspberry Pi communications with Arduino to move motors in set intervals | Kile/Caleb |
|  |  |
|  |  |

**Project management status**

1. Parts have been distributed
2. Github repository has been set-up and used

**Minutes from previous meeting**

Meeting Minutes (March 1st):

* Dr. M : Do you have parts designed?
* Caleb: Now that parts are available, can 3D model
* Dr. M: Spice container?
  + Caleb: Carlos designed around Fiesta brand
* Spice Cannot be at same time?
  + Corkscrew
* Screw of multiple varieties?
  + Thinking about having two sizes, but may be convenient to just have one
  + 1 Screw for each container
    - Type one, Type two
* Spiral Interface with container in airtight environment
* Karl: Interfacing, may want to put a bit of a buffer where there is not thread
  + May run in reverse to make sure there's not extra material
  + Pushed out to end, retract residual spice
  + Need something that can clip on to screw
  + Want something to guide it and then make coupling easy
    - Potentially magnets
* Dr M : Many small toys that have elements that go into plastic
  + Make the hole
  + Why not have multiple motors?
    - May look into this
* Caleb: Pin and Pad System, counts from 0-8 for other mechanisms
* Task at hand
* JP: Showing Sketch of UI
* Dr M: What happens when people press multiple buttons?
  + Don’t want user to mess something up accidentally
  + Can play with UI to make it more user friendly
  + JavaFX v.s. Java Swing
  + Functionality at a high level language
  + Everything built into Pi
* Good Work, looking forward to 3D models next week