EE/CprE/SE 491 - sdmay19-31:

Multi-Purpose Automated Robotic Mixer (mpARM)

Week 1 Report

September 2 - September 9

Client: Alexander Stoytchev/Brett Altena Faculty Advisor: Alexander Stoytchev

Team Members

Drew Caneff — 3D Printer Specialist/CAD Designer/Accountant

Amos Hunter — Electromechanical Specialist/Meeting Scribe

Brett Altena — Meeting Facilitator/ Computer Vision Developer

Kristian Wadolowski — Report manager/Front-end programmer/Computer vision Developer

Jase Grant — Embedded Systems/ Assignment Manager

Summary of Progress this Report

- Two meetings were held in this time frame.
- It was decided to modify a large portion of the scope to simplify the project by removing the blender, pump, and topping dispenser of the chassis. These modules were deemed not needed due to difficulty and can be re-added later if time permits.
- Each member looked at the Thor Arm to verify if the hardware in question would be an adequate fit for the project specifications. Individuals looked at specific parts more closely to determine what electrical components would be needed to operate/modify the arm and what modifications would be feasible to facilitate the integration of a spatula.
- Discussed the "lightning talks" assignment and created an outline for our presentation.
- Created a protocol for weekly reports, communication, and data sharing.

Pending Issues

• It is too early in the project to be certain of any potential issues.

Plans for Upcoming Reporting Period

- Research multiple camera types that can be used to implement a computer vision library.
- Research different types of flattop griddles.
- Lightning Talks
- Figure out the process for 3D printing
- Research different pancake mixtures to determine the best recipe

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Drew Caneff	 Participated in group meetings Aided in establishment of roles & responsibilities 	7	7

	 Drafted lightning round responses Met with professor Researched food preparation robots Reviewed Thor Arm design Researched project's design 		
Amos Hunter	 Participated in group meetings Aided in establishment of roles & responsibilities Researched food preparation robots Reviewed Thor Arm design Researched project's design 	4	4
Brett Altena	 Set up team communication channels Planned and participated in group meetings Aided in establishment of roles & responsibilities Researched food preparation robots Reviewed Thor Arm design Researched project's design 	8	8
Kristian Wadolowski	 Participated in group meetings Aided in establishment of roles & responsibilities Contributed to establishment of communication protocols Researched pancake recipes to be implemented in design Reviewed Thor Arm design Compiled & edited weekly report 	4	4
Jase Grant	 Participated in group meetings Reviewed Thor Arm design Researched micro-chip options 	3	3

Gitlab Activity Summary

Action: joined, Tue Sep 04 2018

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