EE/CprE/SE 491 - sdmay19-31:
Multi-Purpose Automated Robotic Mixer (mpARM)
Week 10 Report
November 12 – November 26
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

- **Continued 3D printing** – Several alternate printing options have been explored, such as using the printers available to Critical Tinkers, or receiving a sponsorship from a 3D printing company.
- **Enclosure editing** – An old popcorn machine was disassembled for parts and used as inspiration for possible design changes to the enclosure.
- **Continued computer vision research** – The program has advanced to the point where videos can be opened, but the computer vision aspect is not properly functioning. Further review and debugging will be needed in the future.
- **Continued pancake research** - A day was taken to carefully gather data on pancake recipes, cooking, and flipping. Video recordings of the research were taken for future review. The data was outlined in a Microsoft Excel document, and a final recipe was chosen using this data. The flipping motion of the arm was tested and confirmed on the selected griddle.

Pending Issues

- Confirm cost effective 3D printing
- Batter issues (Splashing, feeding, mixing, type, etc...)
- Complete Computer vision code
- Assemble the arm

Plans for Upcoming Reporting Period

- Assemble the arm.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Drew Caneff	➢ Participated in group meetings ➢ Continued 3D printing	29	132

	➢ Found cheaper 3D printing source ➢ Revised design document ➢ Worked on final presentation		
Amos Hunter	➢ Participated in group meetings ➢ Further refined mounting and enclosure designs ➢ Revised design document ➢ Worked on final presentation ➢ Edited enclosure design	28	103.5
Brett Altena	➢ Participated in group meetings ➢ Facilitated meetings ➢ Found cheaper 3D printing source ➢ Revised design document ➢ Worked on final presentation ➢ Continued to work on computer vision library ➢ Aided in pancake research	16	114
Kristian Wadolowski	➢ Participated in group meetings ➢ Compiled and edited weekly reports ➢ Writing and compiling technical reports ➢ Revised design document ➢ Worked on final presentation ➢ Aided in pancake research	25	76
Jase Grant	➢ Participated in group meetings ➢ FPGA research	6	37

Gitlab Activity Summary

```
----------------------------------------------------------
Action: joined, Tue Sep 04 2018
Author: dvcaneff
----------------------------------------------------------
```