

sdmay19-12: Automatic Solder Dispenser

Week 5 Report

October 1 - October 7

Client: Leland Harker

Team Members

Jason Austin – Software Lead

Justin Wheeler – Mechanical Lead

Zachary Bumstead – Electrical Lead

Kevin Carlson – Mechanical/Electrical Integrator

Trenton Allison – Software/Electrical Integrator

Samuel Willford – Report Manager and Meeting Facilitator

Summary of Progress this Report

- Rebuild database interface - Jason
 - Changed to a better GUI library to make programming easier
 - Database interface needed rebuilt
 - Rebuilding process started but not finished
 - Driver Board Layout - Zach, Trent
 - Designed layout in Ultiboard
 - Finished PCB design
 - Stabilize cutter - Justin
 - Trim down cams so that four bolts can be connected to each servo
 - Ensure it operates smoothly
 - Write code and test cutter - Trent
 - A separate signal needs to be sent to each of the two cutting servos
 - Easier to control and ensure smooth functionality
 - Figure out how to get aluminum extruders made - Kevin
 - Work on extruder in Inventor
 - Converted file to .stl file type
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Pending Issues

- Solder tube/collector piece design
 - Needs to keep people from grabbing the solder and pulling more out
 - Needs to look nice (No elephant trunk/tail hanging from box)
 - Can't be risky in terms of a clog or jam
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Plans for Upcoming Reporting Period

- Rebuild database interface - Jason
 - Change to a better GUI library to make programming easier
 - Database interface needs rebuilt
 - Started but is not finished
- Rebuild admin page - Jason
 - Changed to a better GUI library to make programming easier
 - Admin page needs rebuilt
- Driver Board Layout - Zach, Trent
 - Double check board
 - Order PCB board and components needed for it
- Replace servo cams on cutter - Justin
 - Lee has new servo arms for the cutter
 - Cams need to be replaced and re-tested
- Design spindles and update spool brackets - Justin
 - Spindle designs need made
 - Parts need to be selected
- Get more extruders made - Kevin
 - Talk to 3D Print Lab techs in Black Hall about printing more extruders
 - These will be used to ensure the improved design will work
 - Later we will create them out of aluminum

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Sam Willford	Managing schedule, reports	5	37
Jason Austin	Worked on rebuilding database interface	5	30
Trent Allison	Finished PCB design, helped Justin with servo cutter testing	4.5	28.5
Justin Wheeler	Worked on stabilizing cutter and testing cutting functionality, trimming cams.	4.5	29.5
Kevin Carlson	Worked on extruder in Inventor, converting file	6	26
Zach Bumstead	Finished PCB layout design	5	21

Gitlab Activity Summary

Action: pushed to, Sat Sep 08 2018

Author: willford

Title: Added Parts List

Action: joined, Sat Sep 08 2018

Author: wheeler1

Action: pushed to, Sat Sep 08 2018

Author: jsaustin

Title: Added stepper pinout file

Action: pushed to, Tue Sep 04 2018

Author: jsaustin

Title: updates

Action: pushed to, Tue Sep 04 2018

Author: jsaustin

Title: Upload of test app and env set

Action: pushed new, Thu Aug 30 2018

Author: jsaustin

Action: joined, Tue Aug 28 2018

Author: carlson5

Action: joined, Tue Aug 28 2018

Author: zrbum

Action: joined, Tue Aug 28 2018

Author: willford

Action: joined, Tue Aug 28 2018

Author: jsaustin

Action: created, Tue Aug 28 2018

Author: sd
