

sddec22-04: Exam Collector

Week 3 Report

February 13 - February 20

Team MembersCamdyn Zook — *Software Architect and Group secretary*Dylan Kohlbeck — *Client interaction and Hardware design*Nicholas Fahey — *Software Team Lead*Connor Kazin — *Hardware Testing, Hardware Components design*Max Hjelmstad — *Software Testing*Brandon Degeneffe — *Hardware Team Lead***Summary of Progress this Report**

Started working with GitLab, using the Git functionality as well as the GitLab Issues for easy task organization. Research and experiments were done to see what problems and/or issues will we run into while heating paper. More iterations of exam collector design.

Pending Issues

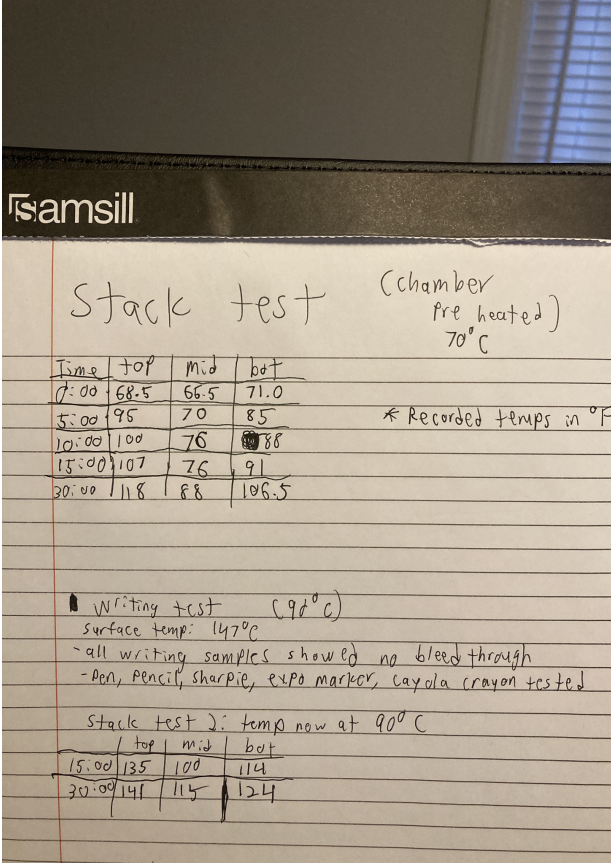
How do students and teachers respond to our current design.

Plans for Upcoming Reporting Period

Have a Final Design meeting where we hash out almost everything about the design until a later date. Experiments using computer vision will be conducted to see if we can read all forms of handwriting. Coding towards the software architecture will also start. Finally we are going to have a very basic CAD model to run simulations on.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Camdyn Zook	I setup the GitLab repo and issues so we can start using it for task management.(Some people may need more help using GitLab than others in the future). Drew another iteration of the exam collector design, then uploaded that as well as the meeting notes with our advisor to google drive	3	6.5
Dylan Kohlbeck	I helped Nick record data by measuring temperatures of various areas of the stack of paper placed inside the incubator. We used a multimeter to measure the temperature. We also had to cut the ream of paper so it would fit using a paper cutter. We measured temperature for 5,10, and 15. Then tested	4	7.5

	<p>writing utensil bleed through. There was no bleeding. We then placed the stack in for a full uninterrupted 15mins to see if it would reach the required temperature. It did not. Other than testing I didn't complete much other than still trying to figure out what our prototype design will be. This upcoming week I hope we can get a rough design and start looking into more detailed component designing.</p>																																						
<p>Nicholas Fahey</p>	<p>Results of the paper test, took ~3 hours of work all said and done, my task for next Thursday is to look into parsing information from an image through a camera.</p>  <p>Stack test (chamber pre heated) 70°C</p> <table border="1" data-bbox="574 1066 812 1220"> <thead> <tr> <th>Time</th> <th>top</th> <th>mid</th> <th>bot</th> </tr> </thead> <tbody> <tr> <td>7:00</td> <td>68.5</td> <td>66.5</td> <td>71.0</td> </tr> <tr> <td>5:00</td> <td>96</td> <td>70</td> <td>85</td> </tr> <tr> <td>10:00</td> <td>100</td> <td>76</td> <td>88</td> </tr> <tr> <td>15:00</td> <td>107</td> <td>76</td> <td>91</td> </tr> <tr> <td>30:00</td> <td>118</td> <td>88</td> <td>106.5</td> </tr> </tbody> </table> <p>* Recorded temps in °F</p> <p>Writing test (90°C) surface temp: 147°C - all writing samples showed no bleed through - Pen, pencil, sharpie, expo marker, crayola crayon tested</p> <p>Stack test 2: temp now at 90°C</p> <table border="1" data-bbox="574 1444 812 1528"> <thead> <tr> <th></th> <th>top</th> <th>mid</th> <th>bot</th> </tr> </thead> <tbody> <tr> <td>15:00</td> <td>135</td> <td>100</td> <td>114</td> </tr> <tr> <td>30:00</td> <td>141</td> <td>115</td> <td>124</td> </tr> </tbody> </table>	Time	top	mid	bot	7:00	68.5	66.5	71.0	5:00	96	70	85	10:00	100	76	88	15:00	107	76	91	30:00	118	88	106.5		top	mid	bot	15:00	135	100	114	30:00	141	115	124	<p>4</p>	<p>7.5</p>
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<p>Connor Kazin</p>	<p>I researched thermodynamics and have been looking into what materials work best as insulators for our exam collector. I've seen glass wool be a sustainable insulator option which is cheap and environmentally friendly. I have also began to look into creating a simulated model of our collector in Solidworks.</p>	<p>2</p>	<p>5.5</p>																																				
<p>Max Hjelmstad</p>	<p>I did research on camera-based text scanning and possible alternatives to this method of</p>	<p>4</p>	<p>7.5</p>																																				

	name input		
Brandon Degeneffe	Projected weight ranges of furnace/oven and carrying box. Materials ideas. Brainstorming.	2	5.5

Gitlab Activity Summary

Camdyn Zook made 2 commits but the auto-generated form didn't show it
