

**sdmay19-47: NSF Lab furnace control system**

Week 7 Report

March 14th - March 23rd

**Team Members**Adam Matthews — *Software/Hardware Engineer, Report Manager*Kevin Lang — *Electrical Engineer*Jeremy Hartl — *Hardware Engineer*Christopher Pohlen — *Software Engineer/Gitlab Moderator*Nick Brylski — *Systems Engineer***Advisor/Client**

Dr. Gary Tuttle

**Summary of Progress this Report**

The timer thread for the GUI now spawns correctly and the GUI activates, but buttons are still unavailable for use. Work was done getting the TFT display library working on the arduino, some basic testing was done to make sure it works with the arduino Mega.

**Pending Issues**

The GUI itself obviously needs to be interactive even with the timer running. Any other method of automatic update would require some significant redesign. The readouts (temperature and gas flow) need to be implemented onto the display, refreshing them every so often.

**Individual Contributions**

Team Member	Contribution	Weekly Hours	Total Hours
Adam Matthews	<ul style="list-style-type: none"> <li>No work</li> </ul>	0	14
Kevin Lang	<ul style="list-style-type: none"> <li>PCB schematic</li> </ul>	3	21
Jeremy Hartl	<ul style="list-style-type: none"> <li>GUI development               <ul style="list-style-type: none"> <li>Added functionality to set the amount of steps in the profiles page</li> <li>Added functionality to set all temperatures, slopes, or times the same for each zone in the profiles page</li> </ul> </li> </ul>	5	24
Christopher Pohlen	<ul style="list-style-type: none"> <li>Got timer thread to work correctly, added</li> </ul>	5	27

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	TODOs as reminders		
Nick Brylski	<ul style="list-style-type: none"><li>• Ordered PCB</li><li>• Arduino embedded coding</li><li>• Redundant display coding</li></ul>	3	24

**Gitlab Activity Summary**

Nothing to report.

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