sdmay23-47: CyDAQ DSP Platform Firmware and Software Redesign

Week 4 Report

October 15 - October 21

Team Members

Wyatt Duberstein — Engineer Lead
Corbin Kems — Engineer Lead
Blake Fisher — GUI Lead
Cole Langner — Test Lead
Long Zeng — Firmware Lead
Yohan Bopearatchy — Firmware Lead
Jens Rasmussen — Project Lead

Summary of Progress this Report

Software:

Started designing the UI

Started getting the GUI to asynchronously run CLI tool

Hardware:

Fixed and re-set up CyDaQ that wasnt working Worked on getting dual core working in SD card mode Started implementing CLI commands

Pending Issues

Software:

CLI tool had some strange data overlap during demo

CLI tool data collection produces some high values at the very end of data sampled

Hardware:

Communication core needs to form a valid communication with CLI

Communication core needs to support all commands for CLI

We need to find out how to transfer data fast enough between two cores

Plans for Upcoming Reporting Period

Software:

Continue designing and implementing GUI Set up pipelines on gitlab

Hardware:

Set up the firmware to support all of the commands in format Start testing the call & response with the front-end

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Wyatt Duberstein	Worked on getting the GUI to asynchronously run the CLI tool to send/receive commands and cleaned up code	4	
Corbin Kems	Worked on getting the GUI to asynchronously run the CLI tool to send/receive commands	4	0
Blake Fisher	Researched PyQT and QTdesigner more and started mocking up the UI	4	0
Cole Langner	Continued writing CLI tests and started research on pyQT	3	0
Long Zeng	Re-setup and fixed the CyDaQ that doesn't have the case, worked on getting dual core working in SD card mode, fixed file corruption issue with Connor Ryan	6	
Yohan Bopearatchy	continued researching zybo-cli command needs, working on implementing cli commands to zybo	4	0
Jens Rasmussen	continued to learn pyqt and qtdesigner and started mocking up the UI - 4 hours	4	

Gitlab Activity Summary

Nothing to report

