

Team Name: sdmay24-12

Team Members: Caleb Rock, Kareem Eljaam, Logan McDermott, Colsen Selk, Ben Meinders

Report Period: Oct 8-Oct 22

### **Summary of Progress in this Period**

In this period we met with our faculty advisor and made some more decisions. We decided on a Devboard/FPGA to use for this project. We chose the Zybo Z7-10 because it has HDMI in and out ports which support its video processing capabilities. We also decided on a strategy for the general hardware design. Our strategy is to use video direct memory access components (VDMA's), memory, buffers, CPU, etc. instead of pipelining it in full hardware. We decided to go with this strategy to better fit our clients needs. Learned about some basic video compression algorithms (wavelet transformation, etc.).

---

### **Pending Issues**

- Low understanding of video processing. Will solve by reading through the CprE 488 labs to gain an understanding about basic video hardware
  - Schedule a meeting with our client within the next 2 weeks (ideally this upcoming week)
    - Must talk about our general hardware design, and tell him about the tradeoffs and the benefits associated to see if he agrees with our design so we can go through with implementation and further research.
  - Finalize potential compression algorithm choices.
    - Start working on Software implementations of compression algorithms.
- 

### **Plans for Upcoming Reporting Period**

We were assigned to read through a couple of CprE 488 labs by Professor Zambreno that will help us get a stronger understanding of what we need to accomplish on the FPGA board. Additionally, we plan on meeting with our client in the coming week to give him an update on progress we have made over the last month since talking to him last. After meeting with Professor Zambreno a couple days ago, we got help with orienting our project's direction, and coming up with questions/clarifications that we would like to address with our client.

---