

Group Number and Name	Dec14-12
Client/Advisor	Bong Wie
Attendees/Role	Sean Nichols/Leader, Chi Hoe How/Communication, Yishu Mei/Webmaster/ Meng Lu/Advisor

Past Week Accomplishments

- **Sean** - Build in Physical hardware complete! A timing issue did arise. We were limited to a max frequency of 135 MHz. We needed 148.5 MHz. Some pipelining was added to the critical path. Results are now a max frequency of 200+ MHz. Success!
- **Sean** - Clock Domain Crossing has successfully been implemented. Software can successfully control K-means core utilities via the register set! Success!
- **Sean** - Color filtering on RGB colorspace is found to not work very well. Thankfully YCbCr is also available in our pipeline. We have simply moved the custom peripheral to a new spot in the pipeline to control on YCbCr values. Better color filtration!
- **Chi Hoe** - Completed poster for demo during Dead Week with review help from Sean.
- **Chi Hoe** - Came up with the skeleton of the Final Report and almost completed it.

Plan for Coming Week

- **Yishu** - Implement use of CTC hardware on ATmega 328 to control the steps of the stepper motor. This will reduce processing overhead with manually flipping bits.
- **Sean Nichols** - Start and finish software algorithm.
- **Sean Nichols** - Write simple CTC core
- **Sean Nichols** - Put circuit together with logic level shifting
- **Team** - Play with stepper motor and translational motion table to get software and edge conditions to work perfectly
- **Chi Hoe** - Help with software

[Pending Issues](#)

[Individual Hourly Contributions](#)

<u>Name</u>	<u>Hours this week</u>	<u>Hours Cumulative</u>
Sean Nichols	40	195
Chi Hoe How	21	122
Yishu Mei	10	109

[Comments and Extended Discussions](#)