

## **COLLEGE OF ENGINEERING**

DEPARTMENT OF ELECTRICAL ENGINEERING UNIVERSITY OF NORTH TEXAS, DENTON TX 76203

9 Nov 16

## MEMORANDUM FOR RECORD

FROM: CHRISTOPHER ASKINGS

FORREST GATES NATHAN RUPRECHT

SUBJECT: VLC Dev Kit Progress - Week 6

1. The purpose of this memorandum is to report our progress in accordance with our predetermined schedule.

- 2. The specific purpose of this memorandum is to review the objectives of week 6 and what we have accomplished.
- 3. Over the course of the week, we went off on our own time to accomplish what we could for the projected goals, then came back together to consolidate our efforts. This utilized our free time since our schedules usually conflict. We worked based off of the Week 6 Schedule:

Week	Date	Projected Goals	Comments
6	10/30/16	Revamp Proposal	Rewrite proposal with TA feedback.
		1	Small scale component construction.
		Test Components	Verify component specs in the real world.
		Code: Code familiarization Template code	Become familiar with coding on the microcontroller and microcomputer. Dissect source code.

- 4. The proposal has been rewritten based off of comments and feedback from the TA. It's been emailed and uploaded so everyone has an updated copy of it.
- 5. Chris has a Raspberry Pi and RGB LEDs to test and play with. Nathan has a MSP430 and photodiodes. Not much happened this past week for components because of the proposal as well as outside obligations.

- 6. Nathan found source code from TI with the MSP430FR2311 that pretty much does VLC. It varies the LED brightness using PWM. It's a matter of breaking down the code and really understanding the how and why before moving forward to make our own. We've been slowly dissecting it using user's guide for the functions.
- 7. If you have any questions, comments, or concerns, please feel free to contact us at:
  - Chris Askings: (817) 367 8273 or via email at chrisaskings@gmail.com
  - Forrest Gates: (979) 733 2454 or via email at forrestgates2016@gmail.com
  - Nathan Ruprecht: (903) 268–9600 or via email at nathan.ruprecht@outlook.com.

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1 Attachment: Documentation

## Documentation:

All materials can be found on the shared Google drive at: <a href="https://drive.google.com/drive/folders/0By7y3FFBUvR4SVNmVHlfZjVmZ0U">https://drive.google.com/drive/folders/0By7y3FFBUvR4SVNmVHlfZjVmZ0U</a>