



**DATE: 18 September 2015** 

**DURATION:** Around 15-20 Minutes

**PRESENT:** 

| Esterline | Kyle Hansen   | Mitch Butzer |       | Lynetta Rajkovich |
|-----------|---------------|--------------|-------|-------------------|
| Advising  | Dr. Feng Li   | Dr.          |       | James Frenzel     |
| TAPS Team | Irene Agbecha | David        | Barry | Tyler Simmons     |

Present: Absent:

#### 1. TOPICS

#### a. High-lights

- i. Concerns brought up for the upcoming client meeting include: "What have they done?", "Can they define vague terms for us?", "What are the objectives of this project?", "Will they allow the interview to be recorded?"
- **ii.** Questions brought up include: "Are we looking for maintaining something or building something new?", "How do they want the screen to be vibration and liquid proof?"
- iii. Dr. Li suggested that the TAPS team ask for design tips from Esterline

#### b. Low-lights

i. Dr. Li suggested that the TAPS team update the agenda format, review the team contract, and look for consultants/mentors

- 1) Have pre-meeting to determine certain aspects of the project
- 2) Determine the objectives of the project
- 3) Create transcript for Esterline
- **4)** Contact Dr. Frenzel about mentoring on the project (Tyler)





**DATE: 25 September 2015** 

**DURATION:** Around 15-20 Minutes

**PRESENT:** 

| Esterline | Kyle Hansen   | Mitch Butzer |       | Lynetta Rajkovich |
|-----------|---------------|--------------|-------|-------------------|
| Advising  | Dr. Feng Li   | Dr.          |       | James Frenzel     |
| TAPS Team | Irene Agbecha | David        | Barry | Tyler Simmons     |

Present: Absent:

#### 1. TOPICS

#### a. High-lights

- i. Dr. Li suggested that the TAPS team check up on the shipment of the touchscreen and ask Dr. Frenzel and Dr. Ay to be mentors for the project
- **ii.** Dr. Li stated that the touchscreen with arrive on October 3<sup>rd</sup>, and suggested that we tell Dr. Frenzel about our project, and ask Arleen about reserving a locker
- **iii.** Snapshot Day is scheduled for October 14<sup>th</sup>, Dr. Li stated that posters, specifications (design-wise), and information regarding the objectives of the project are needed
- iv. The TAPS team suggested a conference call for meetings

## b. Low-lights

- i. Logbooks and the portfolio are due October 6<sup>th</sup>
- **ii.** Dr. Li suggested looking into light sensors, researching vibration sensors, and designing a PCB (if necessary)

- 1) Check up on equipment
- 2) See if processor can be changed
- 3) Setup a meeting with Esterline
- 4) Send transcript of meeting to Esterline
- **5)** Contact Dr. Frenzel about mentoring on the project (Tyler)





DATE: 2 October 2015

**DURATION:** Around 15-20 Minutes

PRESENT:

| Esterline | Kyle Hansen   | Mitch Butzer |       | Lynetta Rajkovich |
|-----------|---------------|--------------|-------|-------------------|
| Advising  | Dr. Feng Li   | Dr.          |       | James Frenzel     |
| TAPS Team | Irene Agbecha | David        | Barry | Tyler Simmons     |

Present: Absent:

#### 1. TOPICS

#### c. High-lights

- i. Dr. Li informed the TAPS team that Esterline plans to send a touchscreen unit to the university
- **ii.** Dr. Li stated that the touchscreen with arrive on October 3<sup>rd</sup>, and suggested that we tell Dr. Frenzel about our project, and ask Arleen about reserving a locker
- **iii.** Dr. Li suggested that we ask Esterline or someone at the university about the availability of a vibration test chamber
- iv. A conference call with Mitch was scheduled for October 7<sup>th</sup> at 3:30 PM
- v. Snapshot Day is scheduled for October 14<sup>th</sup>

### d. Low-lights

i. Dr. Li suggested that the sensors be mounted on one board for the final design

- 1) Send matrices to Esterline by October 3<sup>rd</sup>
- **2)** Setup conference (Irene)
- 3) Reserve lockers and talk to Dr. Ay (David)
- **4)** Update portfolio and purchase/research accelerometers (Tyler)
- **5)** Obtain poster-board and work on poster for snapshot day





DATE: 9 October 2015

**DURATION:** Around 40-45 Minutes

**PRESENT:** 

| Esterline | Kyle Hansen   | Mitch Butzer |       | Lynetta Rajkovich |
|-----------|---------------|--------------|-------|-------------------|
| Advising  | Dr. Feng Li   | Dr.          |       | James Frenzel     |
| TAPS Team | Irene Agbecha | David        | Barry | Tyler Simmons     |

Present: Absent:

#### 1. TOPICS

#### e. High-lights

- **i.** Esterline changed the number of false touch trials to 1,000 for accuracy, increased on screen character increase to 50% (from 30%), and would like a compensation switch in the GUI
- **ii.** Esterline would like a one page document with a problem statement and list of deliverables; the deliverables should answer questions like "What are you doing?" and "How are you addressing the problem?"
- **iii.** Esterline made additional changes to the needs matrix; the "Interfaces" section had the "marginally acceptable" requirement changed to "any major interface" and "ideal" to "USB"; Esterline also added "GUI is aesthetically pleasing" and "hardware is aesthetically pleasing" to the matrix
- iv. Meetings have been scheduled for 3:30 PM on Thursdays

#### f. Low-lights

- **i.** Esterline's contract advisor would like to revise the contract, or sign another contract with the university
- ii. Esterline offers workshops for the BeagleBone if needed

#### 2. ACTION ITEMS

1) Work on poster for snapshot day





**DATE:** 16 October 2015

**DURATION:** Around 40-45 Minutes

PRESENT:

| Esterline | Kyle Hansen   | Mitch Butzer |       | Lynetta Rajkovich |
|-----------|---------------|--------------|-------|-------------------|
| Advising  | Dr. Feng Li   | Dr.          |       | James Frenzel     |
| TAPS Team | Irene Agbecha | David        | Barry | Tyler Simmons     |

Present: Absent:

#### 1. TOPICS

#### g. High-lights

- i. When asked what the TAPS team will be using for development, Esterline stated that they will be using BeagleBones, Eclipse for an IDE, and an option between to debuggers: XDS100 (recommended) and DS5
- **ii.** When asked what type of accelerometer should be used, Esterline stated that anything capable of 1 to 2 gs would be acceptable, preferably a silicon based accelerometer
- **iii.** The TAPS team inquired about using a proximity sensor, Esterline thought that this may be a good approach and stated that the sensor wouldn't need to be too accurate
- **iv.** Esterline stated that the vibration sensor/accelerometer should be able to operate with pulse and repeatable vibrations

#### h. Low-lights

- i. Mitch will not be available from the 10<sup>th</sup> to 14<sup>th</sup> of November
- **ii.** Any preference for operating system was specified by Esterline, preferences for languages are: C, C++, Basic, MATLAB, and Eclipse IDE

- 1) Investigate different types of vibrations
- 2) How do the accelerometers define the force they sense?





DATE: 23 October 2015

**DURATION:** Around 40-45 Minutes

PRESENT:

| Esterline | Kyle Hansen   | Mitch Butzer |       | Lynetta Rajkovich |
|-----------|---------------|--------------|-------|-------------------|
| Advising  | Dr. Feng Li   | Dr.          |       | James Frenzel     |
| TAPS Team | Irene Agbecha | David        | Barry | Tyler Simmons     |

Present: Absent:

#### 1. TOPICS

#### a. High-lights

- **i.** The TAPS team inquired about the feasibility of doing a video conference for the design review; Esterline stated that they have software for that called BlueJeans
- ii. The TAPS team asked about the devices connected to the touchscreens and what operating systems they could run on; Esterline stated that the devices supported USB HID, and used USB class drivers, the supported operating systems were stated to be Windows and Linux
- **iii.** Esterline stated that they would ship the TAPS team three BeagleBones with debuggers
- **iv.** When asked about the expectations for the design review, Esterline stated that they would like to see a block diagram of the system and a description on what the development environment is

#### b. Low-lights

- i. Mitch will not be available from the 10<sup>th</sup> to 14<sup>th</sup> of November
- **ii.** When asked if the proximity sensors typically used by Esterline had screens, Esterline stated that they can come with or without screens
- **iii.** Mitch will give pictures of the proximity sensors and where to order them from

#### 2. ACTION ITEMS

a. Send Esterline datasheets for sensors





DATE: 30 October 2015

**DURATION:** Around 20-25 Minutes

**PRESENT:** 

| Esterline | Kyle Hansen   | Mitch Butzer |       | Lynetta Rajkovich |
|-----------|---------------|--------------|-------|-------------------|
| Advising  | Dr. Feng Li   | Dr.          |       | James Frenzel     |
| TAPS Team | Irene Agbecha | David        | Barry | Tyler Simmons     |

Present: Absent:

#### 1. TOPICS

### a. High-lights

- i. When asked if development could be done on the ARM Cortex, Mitch stated that it was possible, but difficult and limited to the functionality of Cloud 9
- **ii.** Esterline suggested applying the light solution algorithm to each light sensor to get optimal results
- **iii.** The TAPS team and Esterline agreed to schedule the design review on the 20<sup>th</sup> of November at 4 PM via a video conference

### b. Low-lights

- i. Esterline suggested using their video conference software, BlueJeans
- ii. The meeting for November 6<sup>th</sup> was moved to 3:30 PM

- a. Test BlueJeans
- **b.** Prepare for design review presentation





**DATE:** 6 November 2015

**DURATION:** Around 25-30 Minutes

**PRESENT:** 

| Esterline | Kyle Hansen   | Mitch Butzer |       | Lynetta Rajkovich |
|-----------|---------------|--------------|-------|-------------------|
| Advising  | Dr. Feng Li   | Dr.          |       | James Frenzel     |
| TAPS Team | Irene Agbecha | David        | Barry | Tyler Simmons     |

Present: Absent:

#### 1. TOPICS

#### a. High-lights

- i. When asked about the wiki page, Esterline stated that they expected more content to come, but believed that the page was off to a good start
- **ii.** The TAPS team asked about using a vibration absorbent material to keep the screen still; Esterline stated that that may complicate the design, and that they were looking for more of a software-based solution
- **iii.** Esterline stated that even though vibration may cause movement in the z-axis, that they were primarily interested in movement in the x and y axes

#### b. Low-lights

i. Esterline agreed to send two additional screens, so each TAPS team member could work on a screen

- a. Get coding environment up and running
- **b.** Make a spreadsheet for the trade-offs and risks, and put it on the wiki page
- c. Get BlueJeans streaming service to work





**DATE: 11 December 2015** 

**DURATION:** Around 25-30 Minutes

**PRESENT:** 

| Esterline | Kyle Hansen   | Mitch Butzer |       | Lynetta Rajkovich |
|-----------|---------------|--------------|-------|-------------------|
| Advising  | Dr. Feng Li   | Dr.          |       | James Frenzel     |
| TAPS Team | Irene Agbecha | David        | Barry | Tyler Simmons     |

| Present: |  | Absent: |  |
|----------|--|---------|--|
|----------|--|---------|--|

## 1) TOPICS

#### a) High-lights

- i) Mitch suggested that the TAPS team look into a more software-based solution for the design; he suggested looking into the foreground, background, and focus of an image, giving the definitions and use of each
- **ii)** Irene inquired about looking for a compensation solution that is compatible for the device hardware-wise; Mitch replied by stating that the HID digitizer will allow the touchscreen to display something without necessarily acting as an input
- iii) Irene then inquired about the necessity or possibility of manipulating hardware control to do things like manipulating the contrast ratio; Mitch stated that it would be possible to use a hardware and software solution to maximize the contrast ratio, but a purely software solution would be alright as well

#### b) Low-lights

i) Mitch stated that Esterline was most interested in the algorithm the TAPS team used for their solution

- a) Think of solutions
- b) Investigate feasibility of solutions





DATE: 22 January 2015

**DURATION:** Around 10 Minutes

**PRESENT:** 

| Esterline | Kyle Hansen   | Mitch Butzer |       | Lynetta Rajkovich |
|-----------|---------------|--------------|-------|-------------------|
| Advising  | Dr. Feng Li   | Dr.          |       | James Frenzel     |
| TAPS Team | Irene Agbecha | David        | Barry | Tyler Simmons     |

Present: Absent:

## 1) TOPICS

#### a) High-lights

- i) Esterline was given a project update after the break; they were notified that the TAPS team was using Qt for GUI development, which they agreed to send sample code for
- **ii)** Lynetta suggested using the codeproject or stackoverflow websites if the TAPS team ran into troubles while developing the GUI

#### b) Low-lights

- i) Esterline was notified that meeting times had been changed to 4:30 PM on Thursdays, instead of the 4:00 time of the previous semester
- ii) A wiki update was given priority

- a) Wiki update
- b) Mail broken touchscreen to Esterline
- c) Sample test data to test design solution





DATE: 29 January 2015

**DURATION:** Around 15 to 20 Minutes

**PRESENT:** 

| Esterline | Kyle Hansen   | Mitch Butzer |       | Lynetta Rajkovich |
|-----------|---------------|--------------|-------|-------------------|
| Advising  | Dr. Feng Li   | Dr.          |       | James Frenzel     |
| TAPS Team | Irene Agbecha | David        | Barry | Tyler Simmons     |

Present: Absent:

## 1) TOPICS

### a) High-lights

- i) The TAPS team stated that they are working on updating the wiki
- **ii)** David inquired about sending the broken touchscreen back up during the visit for the detailed design review, Esterline approved
- **iii)** The detailed design review was scheduled loosely for some time between the 10<sup>th</sup> and the 12<sup>th</sup> of February in the early afternoon

### b) Low-lights

- i) Mitch was informed that the TAPS team will need to buy a poster for expo, costing around \$100-\$200
- ii) A wiki update was given priority

- a) Wiki update
- b) Bring the broken touchscreen back up to Esterline during the design review
- c) Schedule the design review accordingly





**DATE:** 5 February 2015

**DURATION:** Around 10 to 15 Minutes

**PRESENT:** 

| Esterline | Kyle Hansen   | Mitch Butzer |       | Lynetta Rajkovich |
|-----------|---------------|--------------|-------|-------------------|
| Advising  | Dr. Feng Li   | Dr.          |       | James Frenzel     |
| TAPS Team | Irene Agbecha | David        | Barry | Tyler Simmons     |

Present: Absent:

## 1) TOPICS

#### a) High-lights

- i) A date was established for the detailed design review: 1:00 PM on Tuesday February,  $10^{\rm th}$
- ii) Mitch stated that the inverter that Esterline uses for testing was currently out, but gave a price (\$50), a suggestion for a model (Triplet), and a model number
- **iii)** David stated that the TAPS team is unable to get the light sensor to be read by the BeagleBone due to the logic voltage levels on the two devices being incompatible

#### b) Low-lights

- i) When asked if Mitch saw the wiki update, he acknowledged that he did
- ii) After the phone conference, it was decided that the TAPS team should leave at 11:00 on the 10<sup>th</sup> to make it to Esterline's building in Coeur d'Alene in time

- a) Order Vibration Plate (Tyler)
- b) Bring up touchscreen with HDMI problems to the detailed design review
- c) Purchase power inverter and outlet adapter





DATE: 19 February 2015

**DURATION:** Around 10 to 15 Minutes

**PRESENT:** 

| Esterline | Kyle Hansen   | Mitch | Butzer | Lynetta Rajkovich |
|-----------|---------------|-------|--------|-------------------|
| Advising  | Dr. Feng Li   | Dr.   |        | James Frenzel     |
| TAPS Team | Irene Agbecha | David | Barry  | Tyler Simmons     |

Present: Absent:

## 1) TOPICS

#### a) High-lights

- i) TAPS team announced that they had purchased and setup the inverter, and used it in conjunction with the accelerometer and other necessary equipment to collect vibration data during a car ride
- ii) Kyle inquired about receiving an invoice for the project
- **iii)** Esterline inquired about the need for a mechanical apparatus to test the vibration solution

#### b) Low-lights

 i) Dr. Frenzel asked if the TAPS team had considered, or would need a shroud for mounting the BeagleBone

- a) Order Vibration Plate (Tyler)
- **b)** Update wikipage (Irene)





DATE: 26 February 2015

**DURATION:** Around 20 to 25 Minutes

**PRESENT:** 

| Esterline | Kyle Hansen   | Mitch Butzer |       | Lynetta Rajkovich |
|-----------|---------------|--------------|-------|-------------------|
| Advising  | Dr. Feng Li   | Dr.          |       | James Frenzel     |
| TAPS Team | Irene Agbecha | David        | Barry | Tyler Simmons     |

Present: Absent:

## 1) TOPICS

#### a) High-lights

- i) Esterline announced that they were shipping 2 more touchscreens
- **ii)** Irene announced that she was completing the vibration algorithm, and David announced that he was modifying libraries in order to get the light sensors to work
- **iii)** Irene asked about the Design Failure Mode document, but Kyle suggested that the TAPS team wait to get answers from Mitch when he returned
- **iv)** Irene asked about sending in documentation for detailing how the vibration plate needed to be modified, Kyle said that sending in documentation would be fine
- v) Dr. Li stated that Stacy is working on an invoice draft for Esterline

#### b) Low-lights

- i) Tyler stated that he was having trouble resizing the GUI, Lynetta asked what the design process for making the GUI was, Tyler replied that he used code instead of the design tool
- ii) Esterline was reminded of Snapshot Day occurring on March 10<sup>th</sup> at 3:30 PM

- a) Order Vibration Plate (Tyler)
- **b)** Update wikipage (Irene)
- **c)** Send GUI code to Lynetta if needed (Tyler)





**DATE:** 5 March 2015

**DURATION:** Around 20 to 25 Minutes

**PRESENT:** 

| Esterline | Kyle Hansen   | Mitch | Butzer | Lynetta Rajkovich |
|-----------|---------------|-------|--------|-------------------|
| Advising  | Dr. Feng Li   | Dr.   |        | James Frenzel     |
| TAPS Team | Irene Agbecha | David | Barry  | Tyler Simmons     |

Present: Absent:

## 1) TOPICS

#### a) High-lights

- i) David commented that he had started collecting light sensor data, but remarked that he believed that it would be difficult to collect data for higher light intensities
  - (1) Mitch suggested that the TAPS team order a floodlamp to collect data for higher intensities, after being questioned about where to find a floodlamp, Mitch suggested looking at a hardware store or online for one and looking for one with an aluminum shade to direct the light if possible
- ii) David announced that he intends to work on the light sensor page of the QWizard-based GUI
- iii) Irene announced that she is implementing the vibration solution
  - (1) Kyle reminded the TAPS team about providing modifications to the vibration plate if needed
- **iv)** Mitch clarified that the Design Failure Mode document should be about the data recorded, such as "How many touches were correct/false touches?"

#### b) Low-lights

 i) Esterline was reminded of Snapshot Day occurring on March 10<sup>th</sup> at 3:30 PM and May 1<sup>st</sup> being the expo day

### 2) ACTION ITEMS

a) Look into purchasing floodlamp and continue on with the project





**DATE: 12 March 2015** 

**DURATION:** Around 15 to 20 Minutes

**PRESENT:** 

| Esterline | Kyle Hansen   | Mitch | Butzer | Lynetta Rajkovich |  |
|-----------|---------------|-------|--------|-------------------|--|
| Advising  | Dr. Feng Li   |       | Dr.    | r. James Frenzel  |  |
| TAPS Team | Irene Agbecha | David | Barry  | Tyler Simmons     |  |

Present: Absent:

## 1) TOPICS

## a) High-lights

- i) Mitch stated that Esterline had trouble getting the data from the light sensors that David sent, but were ultimately able to open the .zip file due to Kyle having an account for Office 365
- ii) Irene stated that she had developed a high pass filter for the accelerometer data
- **iii)** Mitch asked about resizing the GUI, Tyler replied that he intends to work on resizing the GUI and moving the GUI through a while loop on Sunday

#### b) Low-lights

i) Dr. Frenzel provided feedback. He suggested the following: bring an agenda to each meeting, talk louder and more boldly, and put meeting minutes on the webpage.

- a) Finish working on vibration algorithm (Irene)
- **b)** Get GUI to resize and move in a loop (Tyler)
- c) Fix meeting minutes (Tyler)





**DATE: 26 March 2015** 

**DURATION:** Around 20 to 30 Minutes

PRESENT:

| Esterline | Kyle Hansen   | Mitch | Butzer | Lynetta Rajkovich |
|-----------|---------------|-------|--------|-------------------|
| Advising  | Dr. Feng Li   |       | Dr.    | James Frenzel     |
| TAPS Team | Irene Agbecha | David | Barry  | Tyler Simmons     |

| Present: |  | Absent: |  |
|----------|--|---------|--|
|----------|--|---------|--|

## 1) TOPICS

### a) High-lights

- i) David gave a project update
- **ii)** Mitch stated that the light sensor looked over saturated from the data that was sent, David responded by saying that the scale of the graph may be misleading
- **iii)** David stated that the TAPS team may want to manipulate the touchscreen to pause when touched, and asked how the screen responded; Mitch stated that the TAPS team may have to make the digitizing class work with Qt for the touchscreen
- **iv)** Mitch stated that if springs are used in the design, then they should be mounted to the chassis or something sturdy

#### b) Low-lights

- i) The minimum requirements for the project were clarified to be getting the compensations to work separately
- ii) Esterline stated they sent two more touchscreens

#### 2) ACTION ITEMS

a) Ask Lynetta about event handling





**DATE:** 3 April 2015

**DURATION:** Around 20 to 30 Minutes

PRESENT:

| Esterline | Kyle Hansen   | Mitch Butzer |                   | Lynetta Rajkovich |
|-----------|---------------|--------------|-------------------|-------------------|
| Advising  | Dr. Feng Li   |              | Dr. James Frenzel |                   |
| TAPS Team | Irene Agbecha | David        | Barry             | Tyler Simmons     |

Present: Absent:

## 1) TOPICS

### a) High-lights

- i) Esterline stated that if the vibration plate needs to be shipped, then their Fed Ex account can be used, which Kyle will provide the information for
- **ii)** Lynetta clarified that touch events can be ignored in Qt if desired, and that the touchscreen largely functions as a mouse
- **iii)** Lynetta recommended using signals and slots instead of loops and offered to fix the GUI code if needed
- **iv)** Mitch stated that if springs are used in the design, then they should be mounted to the chassis or something sturdy

#### b) Low-lights

i) Design report is due May 8<sup>th</sup>

#### 2) ACTION ITEMS

a) Ask Lynetta about event handling and send code if necessary





**DATE:** 9 April 2015

**DURATION:** Around 15 to 20 Minutes

**PRESENT:** 

| Esterline | Kyle Hansen   | Mitch Butzer |  | Lynetta Rajkovich |
|-----------|---------------|--------------|--|-------------------|
| Advising  | Dr. Feng Li   | Dr.          |  | James Frenzel     |
| TAPS Team | Irene Agbecha | David Barry  |  | Tyler Simmons     |

| Present: |  | Absent: |  |
|----------|--|---------|--|
|----------|--|---------|--|

## 1) TOPICS

### a) High-lights

- i) Esterline stated that they had received the vibration plate and made an adapter for the touchscreen to connect to it
- **ii)** David informed Esterline that the Engineering Expo was scheduled for May 1<sup>st</sup>, and shared that the TAPS team planned to print the posters next week
- iii) Lynetta placed the Qt GUI example on Esterline's server for download
- **iv)** David asked if the event handler in Qt could be used for compensation, but digressed that he had answered his own question

#### b) Low-lights

- David asked if there was an official Esterline logo that could be used on the poster, Esterline confirmed and stated that they would email one
- ii) Next week Mitch and/or Kyle will be out of town

#### 2) ACTION ITEMS

a) Get feedback on expo poster design





**DATE:** 23 April 2015

**DURATION:** Around 15 to 20 Minutes

PRESENT:

| Esterline | Kyle Hansen   | Mitch Butzer |       | Lynetta Rajkovich |
|-----------|---------------|--------------|-------|-------------------|
| Advising  | Dr. Feng Li   | Dr.          |       | James Frenzel     |
| TAPS Team | Irene Agbecha | David        | Barry | Tyler Simmons     |

| Present: |  | Absent: |  |
|----------|--|---------|--|
|----------|--|---------|--|

## 1) TOPICS

#### a) High-lights

- Project update from David, David informed Esterline that the Engineering Expo was scheduled for May 1<sup>st</sup> 9:00 AM-2:30 PM
- ii) David informed Esterline that the Engineering Expo was scheduled for May 1<sup>st</sup>, and shared that the TAPS team planned to print the posters next week
- **iii)** Esterline stated that they thought that the poster looked okay, David said that a second poster would be printed off if the first turned out okay
- **iv)** David asked if the event handler in Qt could be used for compensation, but digressed that he had answered his own question

#### b) Low-lights

- i) Presentation for expo starts at 10:20 AM
- ii) Esterline would like to sit down and analyze data collected at final design review

- a) Return project materials at final design review
- **b)** Create a naming scheme and format for file output
- **c)** Find out when final exams are due (Tyler)
- **d)** Find a way to Coeur d'Alene for final design review