A gold horse with a star and a crescent moon

Description automatically generated

# Department of Electrical and Computer Engineering

**EEL 4915 Senior Design 2**

**Critical Design Review Peer Evaluation Form**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Semester:** | Spring 2025 | **Date:** | 2/7/2025 | **Session:** | AM |

|  |  |  |  |
| --- | --- | --- | --- |
| **1st Presentation Group Number:** | 2 | **4th Presentation Group Number:** | 8 |
| **2nd Presentation Group Number:** | 4 | **5th Presentation Group Number:** | 10 |
| **3rd Presentation Group Number:** | 6 | **6th Presentation Group Number:** |  |

**Project Evaluation:** Please evaluate the project for all the groups above in the following categories

using a scale of 1 (worst) to 10 (best).

|  |  |  |  |  |  |  |  |  |  |  |  |
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|  | 1st |  | 2nd |  | 3rd |  | 4th |  | 5th |  | 6th |
| 1. Technical diﬃculty of project (0-10) |  |  |  |  |  |  |  |  |  |  |  |
| 2. Problem understanding by the group (0-10) |  |  |  |  |  |  |  |  |  |  |  |
| 3. Quality of problem-solving approach (0-10) |  |  |  |  |  |  |  |  |  |  |  |
| 4. Design and implementation eﬃciency (0-10) |  |  |  |  |  |  |  |  |  |  |  |
| 5. Apparent distribution of work within the group (0-10) |  |  |  |  |  |  |  |  |  |  |  |

**Presentation Evaluation:** Please evaluate the presentation for all the groups above in the following categories using a scale of 1 (worst) to 10 (best).

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|  | 1st |  | 2nd |  | 3rd |  | 4th |  | 5th |  | 6th |
| 6. Project deﬁnition and speciﬁcation presentation (0-10) |  |  |  |  |  |  |  |  |  |  |  |
| 7. Presentation of problem understanding (0-10) |  |  |  |  |  |  |  |  |  |  |  |
| 8. Presentation of technical design by each member (0-10) |  |  |  |  |  |  |  |  |  |  |  |
| 9. Presentation of administrative content (0-10) |  |  |  |  |  |  |  |  |  |  |  |
| 10. Overall presentation format and eﬀectiveness (0-10) |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |  |  |  |

Remarks (if any):

|  |  |  |  |
| --- | --- | --- | --- |
| **Reviewer’s Name:** | Joshua Yu | **UCFID:** | 5395328 |

EEL 4915 Senior Design 2

CDR Project Presentation & Review

**Presenter:** Please upload your video to YouTube and then copy and paste the video link into this form. Please make sure that your video is accessible before you submit this form.

|  |  |
| --- | --- |
| ***Group Number:*** | Group 2 |
| ***Project Title:*** | C.H.A.N. - O.S.M. |
| ***CDR Presentation Video Link:*** | <https://youtu.be/UcCyIJS_lwQ> |

*---------------------------------------------------* ***to be filled by reviewer*** *-----------------------------------------------------*

**Student Reviewer:** Please watch the above CDR presentation video prior to attending the CDR session. While watching the video, write down **at least 3** thought-provoking comments or questions as well as the time of the corresponding video segments. You will need to submit this form to complete your CDR assignment.

|  |  |  |  |
| --- | --- | --- | --- |
| ***Comments/Questions*** | |  | ***Video Time*** |
| **1)** | How is a significant amount of real-use test data collected if there is such a high operational |  | 16:30 |
|  | Overhead with launching the hardware into the air? |  |  |
| **2)** | Given the motivation for the kit to operate in extreme conditions (e.g. fire-monitoring), how |  |  |
|  | Is the durability to be tested? |  | 0:45 |
| **3)** | It would be useful in a future design for multiple payloads to interface with one base station, |  | 1:05 |
|  | E.g. a network of balloons |  |  |
| **4)** |  |  |  |
|  |  |  |  |
| **5)** |  |  |  |
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| **Reviewer’s Name:** | Joshua Yu | **UCFID:** | 5395328 |

EEL 4915 Senior Design 2

CDR Project Presentation & Review

**Presenter:** Please upload your video to YouTube and then copy and paste the video link into this form. Please make sure that your video is accessible before you submit this form.

|  |  |
| --- | --- |
| ***Group Number:*** | Group #4 |
| ***Project Title:*** | Solder Paste Dispenser |
| ***CDR Presentation Video Link:*** | https://youtu.be/GAN7ElknYBw |

*---------------------------------------------------* ***to be filled by reviewer*** *-----------------------------------------------------*

**Student Reviewer:** Please watch the above CDR presentation video prior to attending the CDR session. While watching the video, write down **at least 3** thought-provoking comments or questions as well as the time of the corresponding video segments. You will need to submit this form to complete your CDR assignment.

|  |  |  |  |
| --- | --- | --- | --- |
| ***Comments/Questions*** | |  | ***Video Time*** |
| **1)** | What is the purpose of the 3D rendering capability? Is that not already a feature of |  | 1:30 |
|  | The user’s design software? |  |  |
| **2)** | Are you creating your own touchscreen? Why is the touchscreen reactivity part of the |  | 3:26 |
|  | Engineering specifications? |  |  |
| **3)** | Why does the Pi communicate wirelessly with the ESP32? |  | 11:23 |
|  |  |  |  |
| **4)** |  |  |  |
|  |  |  |  |
| **5)** |  |  |  |
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| **Reviewer’s Name:** |  | **UCFID:** |  |

EEL 4915 Senior Design 2

CDR Project Presentation & Review

**Presenter:** Please upload your video to YouTube and then copy and paste the video link into this form. Please make sure that your video is accessible before you submit this form.

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| --- | --- |
| ***Group Number:*** | 6 |
| ***Project Title:*** | Poly-Assistive  Auto-Focusing and  Color-Identification  Utility Lenses for Mild Visual Impairments |
| ***CDR Presentation Video Link:*** | <https://youtu.be/_2zPQOIKF8o> |

*---------------------------------------------------* ***to be filled by reviewer*** *-----------------------------------------------------*

**Student Reviewer:** Please watch the above CDR presentation video prior to attending the CDR session. While watching the video, write down **at least 3** thought-provoking comments or questions as well as the time of the corresponding video segments. You will need to submit this form to complete your CDR assignment.

|  |  |  |  |
| --- | --- | --- | --- |
| ***Comments/Questions*** | |  | ***Video Time*** |
| **1)** | Bluetooth should not deliver noticeably worse audio, particularly for this application. |  | 13:01 |
|  | Range may be extended based on implementation. |  |  |
| **2)** | How far off is this design from the ideal envisioned form factor? |  | 16:00 |
|  |  |  |  |
| **3)** | Would it be more practical to split each feature into its own device in the future? |  | 0:45 |
|  |  |  |  |
| **4)** |  |  |  |
|  |  |  |  |
| **5)** |  |  |  |
|  |  |  |  |

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| **Reviewer’s Name:** |  | **UCFID:** |  |

EEL 4915 Senior Design 2

CDR Project Presentation & Review

**Presenter:** Please upload your video to YouTube and then copy and paste the video link into this form. Please make sure that your video is accessible before you submit this form.

|  |  |
| --- | --- |
| ***Group Number:*** | 8 |
| ***Project Title:*** | C.H.R.O.M.A. |
| ***CDR Presentation Video Link:*** | https://youtu.be/5SvowC23EUU |

*---------------------------------------------------* ***to be filled by reviewer*** *-----------------------------------------------------*

**Student Reviewer:** Please watch the above CDR presentation video prior to attending the CDR session. While watching the video, write down **at least 3** thought-provoking comments or questions as well as the time of the corresponding video segments. You will need to submit this form to complete your CDR assignment.

|  |  |  |  |
| --- | --- | --- | --- |
| ***Comments/Questions*** | |  | ***Video Time*** |
| **1)** | Maybe a slightly odd comparison. OpenCV is a CV library and TF/PyTorch are general |  | 5:01 |
|  | ML libraries. OpenCV can be integrated with both libraries, they are not redundant |  |  |
| **2)** | What is the requirement that pertains to the effectiveness of the lighting system? It |  | 11:05 |
|  | Seems like these requirements merely deal with skin tone perception |  |  |
| **3)** | What is the intended form factor of this device? Is it like a flash that attaches to the top |  | 2:20 |
|  | Of a camera? |  |  |
| **4)** |  |  |  |
|  |  |  |  |
| **5)** |  |  |  |
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| **Reviewer’s Name:** |  | **UCFID:** |  |

EEL 4915 Senior Design 2

CDR Project Presentation & Review

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| ***Group Number:*** | 10 |
| ***Project Title:*** | SWANUSA – smart water bottle for athletic nutrition from liquid analysis using spectroscopy |
| ***CDR Presentation Video Link:*** | https://youtu.be/ok\_twg5fPyk |

*---------------------------------------------------* ***to be filled by reviewer*** *-----------------------------------------------------*

**Student Reviewer:** Please watch the above CDR presentation video prior to attending the CDR session. While watching the video, write down **at least 3** thought-provoking comments or questions as well as the time of the corresponding video segments. You will need to submit this form to complete your CDR assignment.

|  |  |  |  |
| --- | --- | --- | --- |
| ***Comments/Questions*** | |  | ***Video Time*** |
| **1)** | What is the bottle characterizing exactly? Is it only sodium and food dye? Can it |  | 1:00 |
|  | “recognize” certain liquids from the characterization? |  |  |
| **2)** | Do you have a vision for a marketable form factor? Perhaps with a replaceable battery |  | 11:10 |
|  |  |  |  |
| **3)** | Are there any tests involving system durability? I drop my water bottle all the time. |  | 20:20 |
|  |  |  |  |
| **4)** |  |  |  |
|  |  |  |  |
| **5)** |  |  |  |
|  |  |  |  |

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| **Reviewer’s Name:** |  | **UCFID:** |  |