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| **Module Name**  **Design Controls Worksheet – 50 Pts** | **ID: DC-W-3** |
| **Due Date: 2/13/2020 11:59 PM, Canvas Upload** |  |

**Date Written –** 1/22/2020

**Date Revised –** 1/22/2020

**Author: Your Name Here**

**Improvement on Existing Design**

**Instructions**: Text in grey highlight should be revised based on your specific needs. There should be no grey highlighted text in your final deliverable, the highlights serve only to indicate regions that will likely need to be edited. This template serves only as an example document, revise to suit the given situation. **Delete this ‘Instructions’ paragraph prior to submission**.

**User Needs**

*User Needs Matrix*

|  |  |
| --- | --- |
| ID | Description |
| UN-1 | Improved UX / UI to allow for operator control. |
| UN-2 | Improve Solidworks files to include assembly, hardware, configurations and drawings. |
| UN-3 | Eliminate warping of printhead resulting to motor temperature when located in incubator. |
| UN-4 | A method to stop or detach pump heads individually when part of a multi-pump design. |
| UN-5 | Eliminate breadboard or prototype parts in circuit . |

**Design Inputs**

*Requirements Matrix*

|  |  |
| --- | --- |
| Requirement ID | Requirement |
| DI-1 | The User Interface shall allow the user to set pump flowrate. |
| DI-2 |  |
| DI-3 |  |
| DI-4 |  |
| DI-5 |  |

**Design Outputs**

*Design Outputs Matrix*

|  |  |
| --- | --- |
| Requirement ID | Requirement |
| DO-1 |  |
| DO-2 |  |
| DO-3 |  |
| DO-4 |  |
| DO-5 |  |

**Design Verification**

*Verification Matrix –* Write at least 5 Verification tests that

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Requirement ID | Description | Expected Value | Measured Value | Pass/Fail |
|  |  |  |  |  |
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**Design Validation**

*Validation Matrix*

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| --- | --- | --- | --- | --- |
| User Need ID | Description | Expected Value | Measured Value | Pass/Fail |
|  |  |  |  |  |
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