**Reverse Engineering Report Grading Rubric**

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| --- | --- | --- | --- | --- |
| **Criteria** | **Rating Scale** | | | **Score** |
| **3** | **2** | **1** |
| **Manual:  Device Description** | Description of the device is provided. Sketch(es) helps explain each part and its function. | Some description of the device is provided. Sketch(es) helps explain either the part or its function. | No description of the device is provided. Sketch(es) does not help explain each part and its function. |  |
| **Manual:  Bill of Materials** | A list of parts found in the process of taking apart the technology. Parts are listed along with part #, name, quantity, dimension, function, cost, interactions and website source. | Two parts were missing from the BoM. Lacked parts description. | More than two parts were missing and parts' descriptions were incomplete. |  |
| **Manual: Sketches** | Sketches are dimensioned, labeled and numbered (related to BoM). Each part is sketched (orthogonally/isometrically) with an overall sketch. | Some sketches are not dimensioned, labeled and numbered (related to BoM).Most parts were not sketched (orthogonally/isometrically) with an overall sketch. | Sketches are not dimensioned, labeled and numbered (related to BoM). Each part was not sketched (orthogonally/isometrically) with an overall sketch. |  |
| **Manual: Procedures** | Step-by-step description of how to work the device AND how to put the device together (if it did not come assembled). | No detailed description of how to work the device and/or how to put the device together. | No detailed description of any how-to instructions. |  |
| **Manual: Overall** | Manual included: table of contents, page numbers, header of device and names. | Manual included: table of contents, page numbers, header of device OR names. | Manual did not include: table of contents, page numbers, header of device AND names. |  |
| **Engineering Design Process** | The group completed the process to find the best, improved design solution to the selected device (this includes documentation of the entire process with sketching, reasoning, decision-making, descriptions, etc.) | The group has somewhat undergone the re-design process including documentation of the process with sketching, reasoning, descriptions, decision-making, etc. | The group did not undergo the complete process or present documentation of the process. |  |
| **Teamwork and Communication** | The team worked well together and was able to present its project results. | The team was somewhat able to work together and present its project results. | Students on the team were unable to set aside their differences and communicate effectively. |  |
| **Wrap-Up Report** | Concluded the data and results. What went well, what didn't. Changes and/or improvements for next-time AND device with sketches (how to make it better). | Somewhat concluded the data and results. What went well, what didn't. Changes and/or improvements for next-time. | Did not conclude the data and results at all. |  |
| **Timely Completion** | Report completed on time. | NA | Report not completed on time. |  |
| **TOTAL** | | | |  |

**Comments:**

**Reverse Engineering Oral Presentation Grading Rubric**

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| --- | --- | --- | --- | --- |
| **Criteria** | **Rating Scale** | | | **Score** |
| **3** | **2** | **1** |
| **Manual: Device Description** | Provided a thorough yet brief description and explained the device purpose. | The device was somewhat described and explained. | The device was poorly explained or not at all. |  |
| **Manual: Sketches** | Showed and explained isometric and orthographic sketches of the device. | Sketches are either explained or shown. | No sketches were shown or explained. |  |
| **Engineering Design Process** | Students briefly yet clearly explained their new idea for the device. | Students did not do a great job in explaining their new idea for the device. | Students did not explain their new idea for the device. |  |
| **Wrap-Up** | Provided a conclusion that summarized what went well, what didn't and showed the device improvements with sketches (how to make it better). | Somewhat concluded the results: what went well, what didn't or device improvements. | Did not conclude the results at all. |  |
| **Presentation** | Made a professional and concise PowerPoint® presentation. Students spoke slowly, clearly and at an audible volume. | The students were not clear in explaining the project. | The students did not present at all. |  |
| **Total:** | | | |  |

**Comments:**