VCE Systems Engineering Amit Aalok

**Evaluation Criteria Development**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Design Brief Area** | **Rank** | **Question (Evaluation Criterion)** | | **Importance** | **Achievement** |
| **1** | | Safety | 1 | Is it safe to use for untrained students and staff? Are there any part of the system that may be a potential safety hazard? | | So that it can be safely deployed in areas with potentially a lot of small kids. | Make sure all the internal components are safely stored and grounded and out of reach of the end user, apart from for administrative purposes. |
| **2** | | Reliability | 2 | Will it hold up under the stress of time and constant use and misuse by students and staff | | So it requires less maintenance and updating, and can be easily administered | Use more reliable components and materials, use the simplest code to achieve functionality and safety, as to reduce the number of failure points. |
| **3** | | Cost | 3 | Was the budget realistic to make the system functioning? Did the cost limitation affect the potential design of the system | | The cost limit will affect the overall ambition and functionality of the projects as well as the quality of the components used. | Look around for deals before buying components |
| **4** | | Time | 4 | Was the time planned enough for the success of the original plan for the system | | So, I can finish the project and hand it in. The time allowed will also have a massive impact as to how much functionality can be added to the system and how good it functions | Check that the time allowed is realistic to the ambition and goals set. Use good time management skills Gantt charts etc |
| **5** | | Materials | 5 | Can the material be sourced easily and is it easy to work with? Is the material safe and logical to use in an educational environment | | So, it’s easy to construct the project. And it is safe.  The material might also have and impact on the final system and how its constructed and designed | Use good quality materials, Plan how the material is going to be worked on to find constraints before hand |
| **6** | | Size | 6 | Is the system size realistic and within the tolerances set? Will it be able to be used in the situation designed for | | Size will determine the functionality and where and how the system can be used | Use miniature components, (SMD soldering?) |
| **7** | | Accuracy | 7 | How accurate is the raw data collected? How reliable is that data and how tolerant is that data | | So, the data collected can be used, and trusted to a high degree by the end users | Use high accuracy components, use smaller tolerances, use faster loops. |
| **8** | | Networking | 8 | Can it swap between networks and be able to establish and maintain a stable connection? Can it still function in case of a network dysfunctionality? | | So, the data can be reliably transmitted. And so, the system can work smoothly in a range of network scenarios | Host everything in a high-fidelity server. Have a fall-back internal server |
|  |  | | | |  | | |
| **3** |  | | | |  | | |
| **4** |  | | | |  | | |
| **5** |  | | | |  | | |
| **6** |  | | | |  | | |
| **7** |  | | | |  | | |
| **8** |  | | | |  | | |
| **9** |  | | | |  | | |
| **10** |  | | | |  | | |