**Background Research – 10 points**

|  |  |  |
| --- | --- | --- |
| Problem Analysis | Does the group understand the challenge and its importance? Did they look beyond what is given in the challenge description? | /5 |
| Existing Solutions | Did the group identify potential existing solutions? Did they use their research in guiding their design? | /5 |

**Analysis/Approach – 25 points**

|  |  |  |
| --- | --- | --- |
| Planning | Was there proper foresight in the design planning? Do the different parts of the design combine well? | /5 |
| Design choices | How well were the design choices explained? Were other choices considered? Were good choices made? | /15 |
| Technical Analysis | What calculations and considerations were made while creating this design? How accurate was it? | /5 |

**Impact/Feasibility – 25 points**

|  |  |  |
| --- | --- | --- |
| Safety | Is the design safe? Has adequate consideration been put into safety features of the design? | /5 |
| Efficiency | Is the design fast at completing the circuit? Has adequate consideration been put into making the design as fast as possible? | /10 |
| Next Steps | No design is perfect, has the group identified areas for their design to be improved? What plans are there to scale this design? | /10 |

**Proof of Concept – 25 points**

|  |  |  |
| --- | --- | --- |
| Obstacle Avoidance | How well is the design able to avoid static and dynamic obstacles? Has enough thought been put into mitigating collisions? | /10 |
| Navigational ability | Is the design able to navigate autonomously? Is the navigational method an effective way of programming an AGV? | /10 |
| Traffic signaling | Does the design follow standard traffic rules? Does it obey right-of-way and come to a full stop at stop signs? | /5 |

**Communication – 15 points**

|  |  |  |
| --- | --- | --- |
| Clarity | Is the design easy to understand? Did the group do a good job explaining their design? | /5 |
| Demonstration | Is the demonstration useful in explaining the design? Did the demonstration work well? | /5 |
| Presentation design | Is the presentation organized well? Are pictures and text used well to explain the design? Did the presentation fit in the 7-minute limit? | /5 |

**TOTAL: 100 Points**