



DESIGN REPORT RUBRIC

Version Date: 9/16/2025

School Name:

Team Name:

Kart Number(s):

Component	Poss. Pts.	Score (%)	Score (pts.)	Detail
Introduction : The introduction draws in the reader, highlights what will be discussed in the report, and excites the reader to read the report.	5		0	
Battery & BMS : A sound engineering process was used to optimize performance of the kart.	35		0	<ul style="list-style-type: none">- A wide breadth of options to optimize kart performance were investigated/researched, assessed, and prioritized based on credible data, sound engineering principles, and known capabilities & constraints.- A logical process was followed to select where to implement new designs and where to carry-over design, and the predicted performance improvement from each design was accurately analyzed and quantified.- A credible validation test was performed for each design and all variables that might have an impact on performance were measured, assessed, and interpreted.- The combined effect of the system design is understood and the overall kart performance has been optimized from this understanding. The final combined results have been tested and quantified.- Based on the current achieved results, the next design improvement opportunities have been identified.
Motor & Motor Controller : A sound engineering process was used to optimize performance of the kart.	20		0	
Mechanical Systems : A sound engineering process was used to optimize performance of the kart.	20		0	
Pictures, diagrams, charts, graphs, and images : used throughout the report in support of, or to substitute text to more effectively and efficiently convey information to the reader. Their placement is logical, their purpose is clear, and they are easy and intuitive to interpret and understand.	10		0	
Innovation/Creativity : <ul style="list-style-type: none">- The team explored a wide breadth of potential improvements, including unique changes to their kart that had potential to significantly improve its performance.- The team devised clever and creative ways to predict and test potential improvements within their known capabilities and constraints.- The team implemented an innovative change to their kart that significantly improved its performance.	10		0	