STEP E-Dragster

[team name and members]

Holly Springs High School

Holly Springs, NC

[date]

[pic]

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# Problem Identification

Your input about what the challenge for which you are creating a solution in

# Brainstorm Possible Solutions

1. Sketches of chassis design, body designs, and/or layout ideas
2. Identify sources of inspiration

# Research

1. Brief written descriptioni of content onvolved in designing the vehicle
   1. How team incorporates curriculum information into design
2. Provide documented research
   1. Evidence supporting chosen design
   2. Evidence of working circuits
   3. Samples of creditable programming

# Criteria and Constraints

List alll criteria and constrinat of your design challenge

# Alternative Solutions

What is the backup plan if this doesn’t work or breaks?

# Selected Approach and Planning

1. Vehicle parts list and documentation of cost (bill of materials)
2. Technical drawing (created in cad software)

# Make Prototype

1. Set up test bench (show pictures)
2. Provide images of the design and construction process
3. Identify challenges and solutions during the design process

# Testing results at various vehicle designs

1. Show your vehicle and how it uses the test bench model (show pictures)
2. Do test runs of your vehicle on a smooth surface
3. Competition results from test runs
4. Results from specific settings such as
   1. Motors
   2. Batteries
   3. Chassis design
   4. Body design
   5. Any additional variables

# Include redesign information and testing results

1. What improvements were made?
2. How did you make imporvements?
3. What were the results of the improvements?
4. Include test tun results or vehicle charts showing evidence of improvement

# Bibliography

**There are no sources in the current document.**

1. Cite all sources of information
2. STEP documents
3. External resources

# Photos/Screenshot documenting design and testing

1. Include many photos and charts detailing your design process through the portfolio
2. Include the title block with school, scale, vehicle name, and drawing number for all technical drawings