

Mechanical Design Scoring

Minimum Requirements

Your submission will score 0 points if it does not meet the following requirements.

- The submitted file must consist of a single file.
- The submitted file must be a PDF document.
- The submitted file must be named **P2 Mechanical Design.pdf**.
- The submitted file must contain your team name and number on the first page.
- The submitted file must be original work completed solely by students on the submitting team.
- The submitted file CANNOT be a duplicate of the mechanical design for other teams at your school or within your organization!

Scoring Breakdown

Overall Requirements

1. Submission Requirements	Does not meet the minimum submission requirements. 0 points	The submitted document meets all minimum requirements and uses standard punctuation and grammar. 4 points
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Drivetrain Section

2. Drivetrain Section	No title. 0 points	The section begins with the title Drivetrain, clearly separated from text. 2 points
3. The section includes a clear picture of the drivetrain of a robot.	No picture. 0 points	Clear picture of the drivetrain of a robot. 2 points
4. The section includes text describing your drivetrain.	No text. 0 points	Text that fully describes the drive train. 4 points
5. The section includes text comparing this drivetrain to another drivetrain design.	No text. 0 points	Text that fully compares the drivetrains. 4 points
6. The section includes text explaining why your team chose this type of drivetrain.	No text. 0 points	Text that fully explains why the drive train was chosen over other drive trains. 4 points

Effector Section

7. Effector Section	No title. 0 points	The section begins with the title Effector, clearly separated from text. 2 points
8. The section includes a clear picture of the effector of a robot.	No picture. 0 points	Clear picture of the effector of a robot. 2 points
9. The section includes text describing your effector.	No text. 0 points	Text that fully describes the effector. 4 points
10. The section includes text comparing this effector to another effector design.	No text. 0 points	Text that fully compares the effectors. 4 points
11. The section includes text explaining why your team chose this type of effector.	No text. 0 points	Text that fully explains why the effector was chosen over other effectors. 4 points

Sensor Mount Section

12. Sensor Mount Section	No title. 0 points	The section begins with the title Sensor Mount, clearly separated from text. 2 points
13. The section includes a clear picture of the sensor mount of a robot.	No picture. 0 points	Clear picture of the sensor mount of a robot. 2 points
14. The section includes text describing your sensor mount.	No text. 0 points	Text that fully describes the sensor mount. 4 points
15. The section includes text comparing this sensor mount to another sensor mount design.	No text. 0 points	Text that fully compares the sensor mounts. 4 points
16. The section includes text explaining why your team chose this type of sensor mount.	No text. 0 points	Text that fully explains why the sensor mount was chosen over other sensor mounts. 4 points

Data Section

17. Data Section	No title. 0 points	The section begins with the title Data, clearly separated from text. 2 points	
18. The section includes a clear chart or graph which is labeled with an x and y axis.	No labels. 0 points	Includes 4 labels (a title, x axis label, y axis label, and units). 4 points	
19. The chart or graph includes data points.	No data points. 0 points	10 or more data points. 4 points	
20. The section includes text describing how you gathered empirical data from testing.	No text. 0 points	Text that does not adequately explain how you gathered empirical data from testing. 3 points	Text that fully explains how you gathered empirical data from testing. 6 points
21. Data Evaluation Section	No title. 0 points	The section begins with the title Data Evaluation, clearly separated from text. 2 points	
22. The section includes text describing how the data relates to the part being tested.	No text. 0 points	Text that does not adequately describes how the data relates to the part being tested. 1 points	Text that fully describes how the data relates to the part being tested. 2 points
23. The section includes text explaining trends in the chart or graph using descriptive data analysis (i.e. mean, median, mode, range, etc.).	No text or text does not include descriptive data analysis. 0 points	Text that does not adequately explain trends in the chart or graph using descriptive data analysis. 1 points	Text that fully explains trends in the chart or graph using descriptive data analysis. 2 points
24. The section includes text explaining what conclusions can be drawn from the data.	No text. 0 points	Text that does not adequately explains what conclusions can be drawn from the data. 3 points	Text that fully explains what conclusions can be drawn from the data. 6 points

25. The section includes text explaining how your design will change based on your conclusions.	No text. 0 points	Text that does not adequately explains how your design will change based on your conclusions. 3 points	Text that fully explains how your design will change based on your conclusions. 6 points
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Modified System Section

26. Modified System Section	No title. 0 points	The section begins with the title Modified System, clearly separated from text. 2 points
27. The section includes a clear picture emphasizing the changed part of your robot.	No picture. 0 points	Clear picture emphasizing the changed part of your robot. 2 points
28. The section includes text describing the change.	No text. 0 points	Text that fully describes the change. 2 points
29. The section includes text describing the reasons for why changes were made. (Restate reason if identical to rubric #25)	No text. 0 points	Text that fully describes the reasons for why changes were made. 2 points
30. The section includes text describing how you will continue to test the modified system.	No text. 0 points	Text that fully describe how you will continue to test the modified system. 2 points