Rubric for MechaCar:

	Mastery 30 to > 27 points	Approaching Mastery 27 to > 25 points	Progressing 25 to > 22 points	Emerging 22 to > 0 points	Incomplete
Deliverable 1: Linear Regression to Predict MPG	✓ The csv file is imported and read into a dataframe (5 pt) ✓ An RScript is written for a linear regression model to be performed on ALL SIX variables (10 pt) ✓ An RScript is written to create the statistical summary of the linear regression model with the intended p-values (10 pt) ✓ The summary addresses all THREE questions (5 pt)	✓ The csv file is imported and read into a dataframe (5 pt) ✓An RScript is written for a linear regression model to be performed on ALL SIX variables (10 pt) ✓ An RScript is written to create the statistical summary, but the p-values are higher for some variables (8 pt) ✓ The summary addresses TWO of the THREE questions (4 pt)	✓ The csv file is imported and read into a dataframe (5 pt) ✓ An RScript is written for a linear regression model to be performed on ALL SIX variables (10 pt) ✓ An RScript is written to create the statistical summary, but there is no overall statistical significance (7 pt) ✓ The summary addresses ONE of the THREE questions (3 pt)	✓ The csv file is imported and read into a dataframe (5 pt) ✓ An RScript is written for a linear regression model to be performed on ALL SIX variables (10 pt) ✓ An RScript is written for the statistical summary, but there is an error and no output (4 pt) ✓ The summary addresses ONE of the THREE questions (3 pt)	No submission was received -OR- Submission was empty or blank -OR- Submission contains evidence of academic dishonesty
	Mastery 30 to > 27 points	Approaching Mastery 27 to > 25 points	Progressing 25 to > 22 points	Emerging 22 to > 0 points	
Deliverable 2: Summary Statistics on Suspension Coils	✓ The csv file is imported and read into a dataframe (5 pt) ✓ The total summary dataframe has ALL FOUR metrics for all the manufacturing lots (10 pt) ✓ The lot summary dataframe has ALL FOUR metrics for each manufacturing lot (10 pt) ✓ The summary addresses the design specification requirement for all the manufacturing lots and ALL THREE lots (5 pt)	✓ The csv file is imported and read into a dataframe (5 pt) ✓ The total summary dataframe has ALL FOUR metrics for all the manufacturing lots (10 pt) ✓ The lot summary dataframe has THREE of the FOUR metrics for each manufacturing lot (8 pt) ✓ The summary addresses the design specification requirement for all the manufacturing lots and TWO of THREE lots (4 pt)	✓ The csv file is imported and read into a dataframe (5 pt) ✓ The total summary dataframe has ALL FOUR metrics for all the manufacturing lots (10 pt) ✓ The lot summary dataframe has TWO of the FOUR metrics for each manufacturing lot (7 pt) ✓ The summary addresses the design specification requirement for all the manufacturing lots and ONE of THREE lots (3 pt)	✓ The csv file is imported and read into a dataframe (5 pt) ✓ The total summary dataframe has ALL FOUR metrics for all the manufacturing lots (10 pt) ✓ The lot summary dataframe has ONE of the FOUR metrics for each manufacturing lot (4 pt) ✓ The summary addresses the design specification requirement for all the manufacturing lots OR TWO of THREE lots (3 pt)	
	Mastery 20 to > 17 points	Approaching Mastery 17 to > 14 points	Progressing 14 to > 12 points	Emerging 12 to > 0 points	

Deliverable 3: T-Test on Suspension Coils	✓ An RScript is written for a t-test that compares all manufacturing lots against mean PSI of the population (5 pt) ✓ An RScript is written for ALL THREE t-tests that compare each manufacturing lot against the mean PSI of the population (10 pt) ✓ The summary addresses the results across all manufacturing lots and ALL THREE lots (5 pt)	✓ An RScript is written for a t-test that compares all manufacturing lots against mean PSI of the population (5 pt) ✓ An RScript is written for TWO of THREE t-tests that compare each manufacturing lot against the mean PSI of the population (8 pt) ✓ The summary addresses the results across all manufacturing lots and TWO of THREE lots (4 pt)	✓ An RScript is written for a t-test that compares all manufacturing lots against mean PSI of the population (5 pt) ✓ An RScript is written for ONE of THREE t-tests that compare each manufacturing lot against the mean PSI of the population (6 pt) ✓ The summary addresses the results across all manufacturing lots and ONE of THREE lots (3 pt)	✓ An RScript is written for a t-test that compares all manufacturing lots against mean PSI of the population (5 pt) ✓ An RScript is written for ONE of THREE t-tests that compare each manufacturing lot against the mean PSI of the population, but there is an error (5 pt) ✓ The summary addresses the results across all manufacturing lots OR ONE of THREE lots (2 pt)	
	Mastery 20 to > 18 points	**Approaching Mastery** 18 to > 15 points	**Progressing** 15 to > 13 points	**Emerging** 13 to > 0 points	
Deliverable 4: Design a Study Comparing the MechaCar to the Competition	The statistical study design has the following: ✓ A metric to be tested is mentioned (5 pt) ✓ A null or alternative hypothesis is described (5 pt) ✓ A statistical test is well described to test the hypothesis (5 pt) ✓ The data for the statistical test is well described (5 pt)	The statistical study design has the following: ✓ A metric to be tested is mentioned (5 pt) ✓ A null or alternative hypothesis is described (5 pt) ✓ The statistical test to test the hypothesis is not fully described (4 pt) ✓ The data for the statistical test is not fully described (4 pt)	The statistical study design has the following: ✓ A metric to be tested is mentioned (5 pt) ✓ A null or alternative hypothesis is not well described (4 pt) ✓ The statistical test to test the hypothesis is not well described (3 pt) ✓ The data for the statistical test is not well described (3 pt)	The statistical study design has the following: ✓ A metric to be tested is mentioned (5 pt) ✓ A null or alternative hypothesis is not well described (4 pt) ✓ The statistical test to test the hypothesis is barely mentioned (2 pt) ✓ The data for the statistical test is not well described (2 pt)	