

Design Evaluation Score Sheet Summary

Car Number _____

Category	Max Score	Car Rough Score	Car Adjusted Score	Notes to students
Chassis	20			<p>Students will be judged on the creation of design requirements and the ability to meet those requirements, computer aided drafting, analysis, testing and development, manufacturability, serviceability, system integration and how the vehicle works together as a whole. Each of these parts of the engineering product development cycle will be judged within the following subsystems: Suspension, Steering, Brakes, Drivetrain, and Chassis and Ergonomics.</p>
Ergonomics	10			
CVT / Transmission	15			
Front drive, prop shaft, front hubs and axles	15			
Reduction box, rear hubs and axles	15			
Suspension	10			
Steering	10			
Brakes	10			
Vehicle Level Engineering	35			
Design Review Briefing (DRB)	10			
Total	150			
Innovation (Bonus Points) (Max)	15			
Total				

School Name _____

	Engineering Product Development Cycle	%		Comments
CHASSIS	Requirements	5%		
	Research/ Development	5%		
	Design / CAD	15%		
	Data Collection for Analysis	15%		
	Analysis / Calculations / CAE	25%		
	Testing / Validation	15%		
	Correlation of Analysis and Testing	15%		
	Serviceability/ Manufacturability	5%		
	Score	20		
ERGONOMICS	Requirements	5%		
	Research/ Development	5%		
	Design / CAD	15%		
	Data Collection for Analysis	15%		
	Analysis / Calculations / CAE	25%		
	Testing / Validation	15%		
	Correlation of Analysis and Testing	15%		
	Serviceability/ Manufacturability	5%		
	Score	10		
	Total Score	30		

	Engineering Product Development Cycle	%		Comments
CVT / TRANSMISSION	Requirements	5%		
	Research/ Development	5%		
	Design / CAD	15%		
	Data Collection for Analysis	15%		
	Analysis / Calculations / CAE	25%		
	Testing / Validation	15%		
	Correlation of Analysis and Testing	15%		
	Serviceability/ Manufacturability	5%		
	Score	15		
FRONT DRIVE, PROP SHAFT, FRONT HUBS AND AXLES	Requirements	5%		
	Research/ Development	5%		
	Design / CAD	15%		
	Data Collection for Analysis	15%		
	Analysis / Calculations / CAE	25%		
	Testing / Validation	15%		
	Correlation of Analysis and Testing	15%		
	Serviceability/ Manufacturability	5%		
	Score	15		
REDUCTION BOX, REAR HUBS AND AXLES	Requirements	5%		
	Research/ Development	5%		
	Design / CAD	15%		
	Data Collection for Analysis	15%		
	Analysis / Calculations / CAE	25%		
	Testing / Validation	15%		
	Correlation of Analysis and Testing	15%		
	Serviceability/ Manufacturability	5%		
	Score	15		
	Total Score	45		

	Engineering Product Development Cycle	%		Comments
SUSPENSION	Requirements	5%		
	Research/ Development	5%		
	Design / CAD	15%		
	Data Collection for Analysis	15%		
	Analysis / Calculations / CAE	25%		
	Testing / Validation	15%		
	Correlation of Analysis and Testing	15%		
	Serviceability/ Manufacturability Score	5%	10	
STEERING	Requirements	5%		
	Research/ Development	5%		
	Design / CAD	15%		
	Data Collection for Analysis	15%		
	Analysis / Calculations / CAE	25%		
	Testing / Validation	15%		
	Correlation of Analysis and Testing	15%		
	Serviceability/ Manufacturability Score	5%	10	
BRAKES	Requirements	5%		
	Research/ Development	5%		
	Design / CAD	15%		
	Data Collection for Analysis	15%		
	Analysis / Calculations / CAE	25%		
	Testing / Validation	15%		
	Correlation of Analysis and Testing	15%		
	Serviceability/ Manufacturability Score	5%	10	
	Total Score	30		

	Engineering Product Development Cycle	%		Comments
VEHICLE LEVEL ENGINEERING	Vehicle Goals & Cascaded Requirements	10%		
	Research/ Development & Component/Subsystem Selection	15%		
	Full Vehicle Design & CAD	10%		
	Data Collection for Analysis	10%		
	Analysis / Calculations / CAE	15%		
	Testing / Validation	15%		
	Correlation of Analysis and Testing	15%		
	Assessment Of Vehicle Goals	5%		
	Serviceability/ Manufacturability	5%		
	Score	35		
BAY LEADER NOTES FOR SUBSYSTEMS				
	Total Score	35		