

Appendix E. Mechanical PVDR Form



ASC2018 Mechanical PVDR Form

School/Team: University of Waterloo / Midnight Sun Solar Car Team Entry # 24

Mechanical PVDR/Table of Contents

1.	History of team and vehicle (one paragraph)	page <u>3</u>
2.	Type of vehicle: Single-Occupant (___), Multi-Occupant (<u>x</u>) check one	
3.	Vehicle weight (estimate) (<u>550</u>); Units (<u>x</u>) kg (___) lbs,	
4.	Vehicle description shall be presented by profile and top view drawings showing the placement of major components such as driver, battery, ballast box, crush zone, seat belts mounting points, etc, along with overall dimensions including wheel base and tread	page <u>3</u>
5.	Frame/chassis and roll cage type: tubular frame (<u>x</u>), composite (___), check one. Drawing shall show the driver positioned in the frame/chassis, compliance with Regs. 10.3,10.3.B,10.3.C, and description of method of construction	page <u>3</u>
6.	Roll cage: Profile and frontal drawings shall show compliance with Regs 10.3.F and 10.3.G	page <u>6</u>
7.	Seat Belts: 5 point (<u>x</u>), 6 point (___), check one. Drawing shall indicate location of mounting points and compliance with Reg. 10.3.E	page <u>6</u>
8.	Braking system: Front wheel only (<u>x</u>), Front-rear (___), check one. Schematic and description of primary braking system shall show compliance with Regs.10.5 and 10.6	page <u>6</u>
9.	Steering system type: rack and pinion (<u>x</u>), other (___), check one. Description shall include component selection and specs	page <u>11</u>
10.	Front suspension: type: a-arm (<u>x</u>), other (___), check one. Description shall include drawing/photos, component selection and engineering analysis demonstrating proper selection and sizing of rod ends with shear loads	page <u>13</u>
11.	Rear Suspension: type: a-arm (___), swing arm (<u>x</u>), other, check one. Description shall include drawing/photos with component selection and specs, and engineering analysis demonstrating proper selection and sizing of rod ends with shear loads	page <u>13</u>
12.	Description of method of analysis to be used to prove structural integrity For loading conditions as per Appendix D, Section D.1	page <u>13</u>

Mechanical contact: Name: Devon Copeland
 Email address: devon.copeland@uwmidsun.com
 Phone: 226-792-7383

Project Manager: Name: Tak Alguire
 Email address: tak.alguire@uwmidsun.com