

**Design Requirement Form**

Date:	9/30/2017	
Design Project Title:	Autonomous Car	
Team Name:	AutoMoe	
Team Advisor:	Dr. Rawat	
Team Assistant:	N/A	
Project's Long Term Goal:	Develop an autonomous car.	
Project's 2017-2018 Academic Year Goal:	Develop an autonomous toy car with the ability of navigating through a series of waypoints, avoiding obstacles on the way.	
Team Members (Design Class):	Lateef Adetona (EE), Tavares Kidd (EE), Collin Scott (CpE), Jordan Lafontant(CpE)	
Team Members (Others):	N/A	
<b>Requirements</b>	<b>Descriptions</b>	<b>Source</b>
Background (NEED)	There were 32,166 vehicle crashes in the United States in 2015, resulting in the de	Insurance Institute for Highway Safety (IIHS)
Objective (Problem)	Vehicle would move to a waypoint, activley avoiding obstacles in it's path	
Performance	-Detect obstacles within a definable distance and reposition car to avoid detected obstacles.	
Cost	-Total cost of components must not exceed \$600. -Must not incur maintenance costs of more than \$100 per year	
Safety	The autonomous car must comply with the laws and regulations set by the NHTSA (National Highway Traffic Safety Administration) such as: Automotive cybersecurity, crash avoidance, etc.	National Highway Traffic Safety Administration (NHTSA)
Compliance		
Driver-Vehicle Interface		
Energy, Power, and Environment	The autonomous car must comply with the most recent version of the IEEE standard 11-2000; IEEE Standard for Rotating Electric Machinery for Rail and Road Vehicles	
Intellectual Property	Should not infringe	
Size and Weight	Must	
Deliverables	A prototype which implements the desired objective.	
Others		
Others		