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Test Plan Execution Report (on specific build)

(only test cases with tester assignment)

Test Project: Mining
Test Plan: OD Regression Tests 1.1
Build: Release 19.22

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MINING-13747: MinTurnRight: Forward: Left: Ignore obstacle in middle of path

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Test Project: Mining

Mining Project

Build: Release 19.22

Released to:

- Barrick

1. Platform: OD Forecast Sensor

1.1.Test Suite : Mining Embedded Regression Tests

1.1.1.Test Suite : VAI Regression Tests

1.1.1.1.Test Suite : OD System Regression Tests

1.1.1.1.1.Test Suite : Forward OD With Obstacle

Test Case MINING-13654: Straight: Forward OD with obstacle in longitudinal center [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Set speed limit to 5 mph
- Place the obstacle in the center of the road far enough away from the vehicle so that it can reach the speed limit
- Create a path in mobius that will take you through the center of the obstacle

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		Passed
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		Passed
3	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		Passed
4	Set the road's speed limit to 15 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		Passed
5	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		Passed
6	Set the road's speed limit to 20 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		Passed
7	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		Passed
8	Set the road's speed limit to 25 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		Passed
9	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		Passed

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13653: Straight: Forward OD with obstacle in longitudinal right [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Set speed limit to 5 mph
- Place the obstacle in the center of the road far enough away from the vehicle so that it can reach the speed limit
- Create a path in mobius that will take you through the right of the obstacle

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Set the road's speed limit to 15 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
5	Click play in mobius	• The vehicle will begin to travel given path.		

		• The vehicle should stop at least 3ft away from the obstacle		
6	Set the road's speed limit to 20 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
7	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Set the road's speed limit to 25 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
9	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle	The vehicle did not stop in time. It passed the obstacle by 3 ft. It could have been issues with surrogate 3.	

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Failed**
Execution Mode:	**Manual**
Execution duration (min):	
Execution notes	The surrogate failed to stop in time when going 25mph.

Test Case MINING-13651: Straight: Forward OD with obstacle in longitudinal left [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Set speed limit to 5 mph
- Place the obstacle in the center of the road far enough away from the vehicle so that it can reach the speed limit
- Create a path in mobius that will take you through the left of the obstacle

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Set the road's speed limit to 15 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
5	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Set the road's speed limit to 20 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
7	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Set the road's speed limit to 25 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
9	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13657: MinTurnLeft: Forward OD with obstacle in longitudinal center [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a Minimum Left Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the center of the vehicle

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Tester	Aaron.Haslam			
Execution Result:	**Passed**			
Execution Mode:	**Manual**			
Execution duration (min):				

Test Case MINING-13658: MinTurnLeft: Forward OD with obstacle in longitudinal right [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a Minimum Left Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the right of center of the vehicle

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Tester	Aaron.Haslam			
Execution Result:	**Passed**			
Execution Mode:	**Manual**			
Execution duration (min):				

Test Case MINING-13659: MinTurnLeft: Forward OD with obstacle in longitudinal left [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a Minimum Left Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the left of center of the vehicle

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium

Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13636: MinTurnRight: Forward OD with obstacle in longitudinal center [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a Minimum Right Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the center of the vehicle

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium

Execution Details	
Build	Release 19.22

Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13656: MinTurnRight: Forward OD with obstacle in longitudinal right [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a Minimum Right Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the right of center of the vehicle

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13655: MinTurnRight: Forward OD with obstacle in longitudinal left [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a Minimum Right Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the left of center of the vehicle

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's	The speed limit changes and the vehicle is in original position		

	position			
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13662: Stationary: Forward OD with obstacle front [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a driveable area
- Place the obstacle between 1 and 1.5 meters away from the front OD sensor
- The obstacle should be perpendicular to the front OD sensor
- Create a path away from the obstacle in Mobius

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle does not move • OD detects the object		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13661: Stationary: Forward OD with obstacle rear [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a driveable area
- Place the obstacle between 1 and 1.5 meters away from the rear OD sensor
- The obstacle should be perpendicular to the rear OD sensor
- Create a path away from the obstacle in Mobius

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle does not move • OD detects the object		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13663: Stationary: Forward OD with obstacle rear touching [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a driveable area
- Place the obstacle behind the vehicle
- The obstacle should be touching the rear part of the vehicle
- Create a path away from the obstacle in Mobius

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle does not move • OD detects the object		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13638: Stationary: Forward OD with obstacle in longitudinal right [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a driveable area
- Place the obstacle between 1 and 1.5 meters away from the right OD sensor
- The obstacle should be perpendicular to the right OD sensor
- Create a path away from the obstacle in Mobius

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle does not move • OD detects the object		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13660: Stationary: Forward OD with obstacle in longitudinal left [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a driveable area
- Place the obstacle between 1 and 1.5 meters away from the left OD sensor
- The obstacle should be perpendicular to the left OD sensor
- Create a path away from the obstacle in Mobius

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle does not move • OD detects the object		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13639: Transitioning: Forward to Reverse OD with obstacle in longitudinal center [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a driveable area
- Set speed limit to 5 mph
- Place object in driveable area
- Measure vehicle and record it
- Create a forward path toward the obstacle that comes within the vehicle's length from the obstacle
- Create a reverse path away from the object

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium

Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

1.1.1.1.2.Test Suite : Reverse OD With Obstacle

Test Case MINING-13674: Straight: Reverse OD with obstacle in longitudinal center [Version : 1]				
Summary: Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.				
Preconditions: • Mobius Client and Server running • Vehicle checked into Mobius • Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep • Take vehicle to a long straight road • Set speed limit to 5 mph • Place the obstacle in the center of the road far enough away from the vehicle so that it can reach the speed limit • Create a reverse path in mobius that will take you through the center of the obstacle				
#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Tester	Aaron.Haslam			
Execution Result:	**Passed**			
Execution Mode:	**Manual**			
Execution duration (min):				

Test Case MINING-13675: Straight: Reverse OD with obstacle in longitudinal right [Version : 1]				
Summary: • Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.				
Preconditions: • Mobius Client and Server running • Vehicle checked into Mobius • Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep • Take vehicle to a long straight road • Set speed limit to 5 mph • Place the obstacle in the center of the road far enough away from the vehicle so that it can reach the speed limit • Create a reverse path in mobius that will take you through the right of the obstacle				
#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Tester	Aaron.Haslam			
Execution Result:	**Passed**			
Execution Mode:	**Manual**			
Execution duration (min):				

Test Case MINING-13676: Straight: Reverse OD with obstacle in longitudinal left [Version : 1]				
Summary: Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.				
Preconditions: • Mobius Client and Server running • Vehicle checked into Mobius • Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep • Take vehicle to a long straight road • Set speed limit to 5 mph • Place the obstacle in the center of the road far enough away from the vehicle so that it can reach the speed limit • Create a reverse path in mobius that will take you through the left of the obstacle				
#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle begins to travel the given path.		

		• The vehicle stops at least 3 feet away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13680: MinTurnLeft: Reverse OD with obstacle in longitudinal center [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a reverse Minimum Left Turn path in mobius for the vehicle
- Place the obstacle in the center of the planned path far enough away that the vehicle will reach its desired velocity

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13681: MinTurnLeft: Reverse OD with obstacle in longitudinal right [Version : 1]

Summary:

- Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a reverse Minimum Left Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the right of center of the vehicle

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13682: MinTurnLeft: Reverse OD with obstacle in longitudinal left [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a reverse Minimum Left Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the left of center of the vehicle

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13677: MinTurnRight: Reverse OD with obstacle in longitudinal center [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a reverse Minimum Right Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the center of the vehicle

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13678: MinTurnRight: Reverse OD with obstacle in longitudinal right [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a reverse Minimum Right Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the right of center of the vehicle

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13679: MinTurnRight: Reverse OD with obstacle in longitudinal left [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a reverse Minimum Right Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the left of center of the vehicle

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle begins to travel the given path. • The vehicle stops at least 3 feet away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13664: Transitioning: Reverse to Forward OD with obstacle in longitudinal center [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a driveable area
- Set speed limit to 5 mph
- Place object in driveable area
- Measure vehicle and record it
- Create a reverse path toward the obstacle that comes within the vehicle's length from the obstacle
- Create a forward path away from the object

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

1.1.1.1.3.Test Suite : Forward OD With Obstacle Within 5 Meters of End of Path

Test Case MINING-13665: Straight: Forward OD with obstacle in longitudinal center and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Set speed limit to 5 mph
- Place the obstacle in the center of the road far enough away from the vehicle so that it can reach the speed limit
- Create a path in mobius that will take you through the center of the obstacle
- Move the obstacle within 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Set the road's speed limit to 15 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
5	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Set the road's speed limit to 20 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
7	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

8	Set the road's speed limit to 25 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
9	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at at least 3ft away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Tester	Aaron.Haslam			
Execution Result:	**Passed**			
Execution Mode:	**Manual**			
Execution duration (min):				

Test Case MINING-13666: Straight: Forward OD with obstacle in longitudinal right and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Set speed limit to 5 mph
- Place the obstacle in the center of the road far enough away from the vehicle so that it can reach the speed limit
- Create a path in mobius that will take you through the right side of the obstacle
- Move the obstacle within 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at at least 3ft away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at at least 3ft away from the obstacle		
4	Set the road's speed limit to 15 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
5	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at at least 3ft away from the obstacle		
6	Set the road's speed limit to 20 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
7	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at at least 3ft away from the obstacle		
8	Set the road's speed limit to 25 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
9	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at at least 3ft away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Tester	Aaron.Haslam			
Execution Result:	**Passed**			
Execution Mode:	**Manual**			
Execution duration (min):				

Test Case MINING-13667: Straight: Forward OD with obstacle in longitudinal left and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Set speed limit to 5 mph
- Place the obstacle in the center of the road far enough away from the vehicle so that it can reach the speed limit
- Create a path in mobius that will take you through the left side of the obstacle
- Move the obstacle within 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at at least 3ft away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at at least 3ft away from the obstacle		

4	Set the road's speed limit to 15 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
5	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Set the road's speed limit to 20 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
7	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Set the road's speed limit to 25 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
9	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Tester	Aaron.Haslam			
Execution Result:	**Passed**			
Execution Mode:	**Manual**			
Execution duration (min):				

Test Case MINING-13671: MinTurnLeft: Forward OD with obstacle in longitudinal center and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a Minimum LeftTurn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the center of the vehicle and is 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Tester	Aaron.Haslam			
Execution Result:	**Passed**			
Execution Mode:	**Manual**			
Execution duration (min):				

Test Case MINING-13672: MinTurnLeft: Forward OD with obstacle in longitudinal right and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a Minimum LeftTurn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the right of center of the vehicle and is 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13673: MinTurnLeft: Forward OD with obstacle in longitudinal left and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a Minimum LeftTurn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the left of center of the vehicle and is 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13668: MinTurnRight: Forward OD with obstacle in longitudinal center and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a Minimum Right Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the center of the vehicle and is 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium

Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13669: MinTurnRight: Forward OD with obstacle in longitudinal right and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a Minimum Right Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the right of center of the vehicle and is 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium

Execution Details	
Build	Release 19.22

Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13670: MinTurnRight: Forward OD with obstacle in longitudinal left and 5 meters from end of path [Version : 1]				
Summary: Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.				
Preconditions: • Mobius Client and Server running • Vehicle checked into Mobius • Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep • Take the vehicle to a large driveable area • Set the speed limit to 5 mph • Create a Minimum Right Turn path in mobius for the vehicle • Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the left of center of the vehicle and is 5 meters from the end of the path				
#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Tester	Aaron.Haslam			
Execution Result:	**Passed**			
Execution Mode:	**Manual**			
Execution duration (min):				

1.1.1.1.4.Test Suite : Reverse OD With Obstacle Within 5 Meters of End of Path

Test Case MINING-13683: Straight: Reverse OD with obstacle in longitudinal center and 5 meters from end of path [Version : 1]				
Summary: Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.				
Preconditions: • Mobius Client and Server running • Vehicle checked into Mobius • Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep • Take vehicle to a long straight road • Set speed limit to 5 mph • Place the obstacle in the center of the road far enough away from the vehicle so that it can reach the speed limit • Create a reverse path in mobius that will take you through the center of the obstacle • Move the obstacle within 5 meters from the end of the path				
#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Tester	Aaron.Haslam			
Execution Result:	**Passed**			

Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13685: Straight: Reverse OD with obstacle in longitudinal right and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Set speed limit to 5 mph
- Place the obstacle in the center of the road far enough away from the vehicle so that it can reach the speed limit
- Create a reverse path in mobius that will take you through the right side of the obstacle
- Move the obstacle within 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13684: Straight: Reverse OD with obstacle in longitudinal left and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Set speed limit to 5 mph
- Place the obstacle in the center of the road far enough away from the vehicle so that it can reach the speed limit
- Create a reverse path in mobius that will take you through the left side of the obstacle
- Move the obstacle within 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13689: MinTurnLeft: Reverse OD with obstacle in longitudinal center and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a reverse Minimum LeftTurn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the center of the vehicle and is 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path.		

		• The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Execution Result	**Not Run**			

Test Case MINING-13690: MinTurnLeft: Reverse OD with obstacle in longitudinal right and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a reverse Minimum Left Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the right of center of the vehicle and is 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Execution Result	**Not Run**			

Test Case MINING-13691: MinTurnLeft: Reverse OD with obstacle in longitudinal left and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a reverse Minimum LeftTurn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the left of center of the vehicle and is 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle begins to travel given path. • The vehicle stops at least 3 feet away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle begins to travel given path. • The vehicle stops at least 3 feet away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Execution Result	**Not Run**			

Test Case MINING-13686: MinTurnRight: Reverse OD with obstacle in longitudinal center and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area

- Set the speed limit to 5 mph
- Create a Minimum Right Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the center of the vehicle and is 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13687: MinTurnRight: Reverse OD with obstacle in longitudinal right and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a reverse Minimum Right Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the right of center of the vehicle and is 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13688: MinTurnRight: Reverse OD with obstacle in longitudinal left and 5 meters from end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take the vehicle to a large driveable area
- Set the speed limit to 5 mph
- Create a reverse Minimum Right Turn path in mobius for the vehicle
- Place the obstacle in the planned path of the vehicle so that the obstacle would potentially hit the left of center of the vehicle and is 5 meters from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

1.1.1.1.5.Test Suite : Forward OD With Obstacle a Vehicle Length Past End of Path

Test Case MINING-13692: Straight: Forward OD with obstacle in longitudinal center with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement
  - Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Set the road's speed limit to 15 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
5	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Set the road's speed limit to 20 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
7	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Set the road's speed limit to 25 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
9	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13693: Straight: Forward OD with obstacle in longitudinal right with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement
  - Right of Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Set the road's speed limit to 15 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
5	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Set the road's speed limit to 20 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
7	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Set the road's speed limit to 25 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
9	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	

Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13694: Straight: Forward OD with obstacle in longitudinal left with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement
  - Left of Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Set the road's speed limit to 15 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
5	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Set the road's speed limit to 20 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
7	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Set the road's speed limit to 25 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
9	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium

Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13698: MinTurnLeft: Forward OD with obstacle in longitudinal center with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a Minimum Left Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement:
  - Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		

9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13699: MinTurnLeft: Forward OD with obstacle in longitudinal right with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a Minimum Left Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement:
  - Right of Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13700: MinTurnLeft: Forward OD with obstacle in longitudinal left with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a Minimum Left Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement:
  - Left of Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Execution Result	**Not Run**			

Test Case MINING-13695: MinTurnRight: Forward OD with obstacle in longitudinal center with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a Minimum Right Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement
  - Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Execution Result	**Not Run**			

Test Case MINING-13696: MinTurnRight: Forward OD with obstacle in longitudinal right with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a Minimum Right Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement
  - Right of Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		

3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Execution Result	**Not Run**			

Test Case MINING-13697: MinTurnRight: Forward OD with obstacle in longitudinal left with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a Minimum Right Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement
  - Left of Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
4	Change the speed limit to 15 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
5	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
6	Change the speed limit to 20 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
7	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
8	Change the speed limit to 25 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
9	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Execution Result	**Not Run**			

1.1.1.1.6.Test Suite : Reverse OD With Obstacle a Vehicle Length Past End of Path

Test Case MINING-13709: Straight: Reverse OD with obstacle in longitudinal center with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a reverse path that is long enough for the vehicle to get up to the allowed speed

- Obstacle Placement
  - Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13708: Straight: Reverse OD with obstacle in longitudinal right with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a reverse path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement
  - Right of Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13707: Straight: Reverse OD with obstacle in longitudinal left with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a reverse path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement
  - Left of Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Set the road's speed limit to 10 mph and reset vehicle position	The speed limit changes and the vehicle is in starting position		
3	Click play in mobius	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13703: MinTurnLeft: Reverse OD with obstacle in longitudinal center with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a reverse Minimum Left Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement:
  - Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13702: MinTurnLeft: Reverse OD with obstacle in longitudinal right with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a reverse Minimum Left Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement:
  - Right of Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13701: MinTurnLeft: Reverse OD with obstacle in longitudinal left with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a reverse Minimum Left Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement:
  - Left of Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path.		

		• The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13706: MinTurnRight: Reverse OD with obstacle in longitudinal center with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a reverse Minimum Right Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement
  - Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13705: MinTurnRight: Reverse OD with obstacle in longitudinal right with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length
- Set speed limit to 5 mph
- Create a reverse Minimum Right Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement
  - Right of Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13704: MinTurnRight: Reverse OD with obstacle in longitudinal left with obstacle a vehicle length past the end of path [Version : 1]

Summary:

Drive the vehicle forward in autonomous mode with an obstacle placed in the path of the vehicle. The speed of the vehicle and the location of the obstacle will vary. The vehicle will be tested on straight paths and curves.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find an obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Measure and record vehicle length

- Set speed limit to 5 mph
- Create a reverse Minimum Right Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle Placement
  - Left of Centered on the trajectory of the planned path
  - One vehicles length beyond the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		
2	Change the speed limit to 10 mph and reset the vehicle's position	The speed limit changes and the vehicle is in original position		
3	Click play	• The vehicle will begin to travel given path. • The vehicle should stop at least 3ft away from the obstacle		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

1.1.1.1.7.Test Suite : Vehicle Monitoring

Test Case MINING-13648: Autonomous vehicle will properly pass another detected vehicle in mobius [Version : 1]

Summary:

Vehicle monitoring is used to clear obstacles that are detected from other vehicles that are currently checked into Mobius. These tests will verify the vehicle is detected and yet the autonomous vehicle will be able to properly pass the detected vehicle.

Preconditions:

Mobius client and server

Two vehicles checked into mobius

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

1.1.1.1.8.Test Suite : Area Masking

Test Case MINING-13647: Area masking ignores map shapes [Version : 1]

Summary:

Area masking is used to properly ignore map shapes like an edge boundary so the vehicle can get close to the edge for dumping or loading purposes. These tests will be used to verify the vehicle can properly arrive at these boundary edges. This only happens when the vehicle is the Haulage AI.

Preconditions:

Mobius client and server running

Haul truck and Loader checked into mobius

Haul truck is in haulage cycle

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

1.1.1.1.9.Test Suite : Obstacle Ignore

1.1.1.1.9.1.Test Suite : Straight

Test Case MINING-13713: Straight: Forward: Center: Ignore obstacle near beginning of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Centered on the trajectory of the planned path
  - One vehicle length from the beginning of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	

Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13732: Straight: Forward: Right: Ignore obstacle near beginning of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Right of center but still on the trajectory of the planned path
  - One vehicle length from the beginning of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13731: Straight: Forward: Left: Ignore obstacle near beginning of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Left of center but still on the trajectory of the planned path
  - One vehicle length from the beginning of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13733: Straight: Forward: Center: Ignore obstacle in middle of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Centered on the trajectory of the planned path
  - Atleast two vehicle lengths from the beginning of the path and more than two vehicle lengths from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13735: Straight: Forward: Right: Ignore obstacle in middle of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Right of center but still on the trajectory of the planned path
  - Atleast two vehicle lengths from the beginning of the path and more than two vehicle lengths from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13734: Straight: Forward: Left: Ignore obstacle in middle of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Left of center but still on the trajectory of the planned path
  - Atleast two vehicle lengths from the beginning of the path and more than two vehicle lengths from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13738: Straight: Forward: Center: Ignore obstacle near end of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Centered on the trajectory of the planned path
  - One vehicle length from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path		

		• The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Tester	Aaron.Haslam			
Execution Result:	**Passed**			
Execution Mode:	**Manual**			
Execution duration (min):				

Test Case MINING-13737: Straight: Forward: Right: Ignore obstacle near end of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Right of center but still on the trajectory of the planned path
  - One vehicle length from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Tester	Aaron.Haslam			
Execution Result:	**Passed**			
Execution Mode:	**Manual**			
Execution duration (min):				

Test Case MINING-13736: Straight: Forward: Left: Ignore obstacle near end of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Left of center but still on the trajectory of the planned path
  - One vehicle length from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Tester	Aaron.Haslam			
Execution Result:	**Passed**			
Execution Mode:	**Manual**			
Execution duration (min):				

1.1.1.1.9.2.Test Suite : MinTurnRight

Test Case MINING-13752: MinTurnRight: Forward: Center: Ignore obstacle near beginning of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Right Turn path that is long enough for the vehicle to get up to the allowed speed

- Obstacle placement:
  - Centered on the trajectory of the planned path
  - One vehicle length from the beginning of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium

Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13751: MinTurnRight: Forward: Right: Ignore obstacle near beginning of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Right Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Right of center but still on the trajectory of the planned path
  - One vehicle length from the beginning of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium

Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13750: MinTurnRight: Forward: Left: Ignore obstacle near beginning of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Right Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Left of center but still on the trajectory of the planned path
  - One vehicle length from the beginning of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium

Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13749: MinTurnRight: Forward: Center: Ignore obstacle in middle of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius

- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Right Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Centered on the trajectory of the planned path
  - Atleast two vehicle lengths from the beginning of the path and more than two vehicle lengths from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13748: MinTurnRight: Forward: Right: Ignore obstacle in middle of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Right Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Right of center but still on the trajectory of the planned path
  - Atleast two vehicle lengths from the beginning of the path and more than two vehicle lengths from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13747: MinTurnRight: Forward: Left: Ignore obstacle in middle of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Right Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Left of center but still on the trajectory of the planned path
  - Atleast two vehicle lengths from the beginning of the path and more than two vehicle lengths from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13746: MinTurnRight: Forward: Center: Ignore obstacle near end of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Right Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Centered on the trajectory of the planned path
  - One vehicle length from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium

Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13745: MinTurnRight: Forward: Right: Ignore obstacle near end of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Right Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Right of center but still on the trajectory of the planned path
  - One vehicle length from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium

Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13744: MinTurnRight: Forward: Left: Ignore obstacle near end of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Right Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Left of center but still on the trajectory of the planned path
  - One vehicle length from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium

Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

1.1.1.1.9.3.Test Suite : MinTurnLeft

Test Case MINING-13761: MinTurnLeft: Forward: Center: Ignore obstacle near beginning of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Left Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Centered on the trajectory of the planned path
  - One vehicle length from the beginning of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13760: MinTurnLeft: Forward: Right: Ignore obstacle near beginning of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Left Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Right of center but still on the trajectory of the planned path
  - One vehicle length from the beginning of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13759: MinTurnLeft: Forward: Left: Ignore obstacle near beginning of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Left Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Left of center but still on the trajectory of the planned path
  - One vehicle length from the beginning of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13758: MinTurnLeft: Forward: Center: Ignore obstacle in middle of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Left Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Centered on the trajectory of the planned path
  - Atleast two vehicle lengths from the beginning of the path and more than two vehicle lengths from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13757: MinTurnLeft: Forward: Right: Ignore obstacle in middle of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Left Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Right of center but still on the trajectory of the planned path
  - Atleast two vehicle lengths from the beginning of the path and more than two vehicle lengths from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13756: MinTurnLeft: Forward: Left: Ignore obstacle in middle of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Left Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Left of center but still on the trajectory of the planned path
  - Atleast two vehicle lengths from the beginning of the path and more than two vehicle lengths from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Tester	Aaron.Haslam
Execution Result:	**Passed**
Execution Mode:	**Manual**
Execution duration (min):	

Test Case MINING-13755: MinTurnLeft: Forward: Center: Ignore obstacle near end of path [Version : 1]

Summary:

Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to driveable area
- Set speed limit to 5 mph
- Create a Min Left Turn path that is long enough for the vehicle to get up to the allowed speed
- Obstacle placement:
  - Centered on the trajectory of the planned path
  - One vehicle length from the end of the path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

2. Platform: OD System

Sensor agnostic OD System Tests.

2.1.Test Suite : Mining Embedded Regression Tests

2.1.1.Test Suite : VAI Regression Tests

2.1.1.1.Test Suite : OD System Regression Tests

2.1.1.1.1.Test Suite : Obstacle Ignore

2.1.1.1.1.1.Test Suite : MinTurnLeft

Test Case MINING-13754: MinTurnLeft: Forward: Right: Ignore obstacle near end of path [Version : 1]				
Summary: Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.				

Preconditions:
 	
• Mobius client and server
• Vehicle checked into mobius
• Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
• Take vehicle to driveable area
• Set speed limit to 5 mph
• Create a Min Left Turn path that is long enough for the vehicle to get up to the allowed speed
• Obstacle placement:
  ◦ Right of center but still on the trajectory of the planned path
  ◦ One vehicle length from the end of the path				

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Execution Result	**Not Run**			

Test Case MINING-13753: MinTurnLeft: Forward: Left: Ignore obstacle near end of path [Version : 1]				
Summary: Obstacle ignore is used to allow the user to ignore all obstacles so the vehicle can proceed on the planned path.				

Preconditions:
 	
• Mobius client and server
• Vehicle checked into mobius
• Obstacle with a size of: 6' Tall, 3' Wide, 1' Deep
• Take vehicle to driveable area
• Set speed limit to 5 mph
• Create a Min Left Turn path that is long enough for the vehicle to get up to the allowed speed
• Obstacle placement:
  ◦ Left of center but still on the trajectory of the planned path
  ◦ One vehicle length from the end of the path				

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Click play in mobius	• The vehicle will begin to travel given path • The vehicle should stop before hitting the obstacle		
2	Click ignore in mobius	• The vehicle will resume travel on planned path		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Execution Result	**Not Run**			

2.1.1.1.2.Test Suite : Proximity to Obstacles Not in Path

2.1.1.1.2.1.Test Suite : Straight

Test Case MINING-13739: Straight:Right:Forward OD with obstacle outside the vehicle boundary check [Version : 1]				
Summary: The obstacle detection system should let the vehicle pass obstacles that are close to the path but not within the reactive planner check distance from the centerline of the path.				

Preconditions:
 	
• Mobius Client and Server running
• Vehicle checked into Mobius
• Find a dense metallic obstacle that is: 6' Tall, 3' Wide, 1' Deep
• Take vehicle to a long straight road
• Set speed limit to 5 mph
• Find Maximum Allowed Off Path Error value in mobius client (Settings > Vehicle > Vehicle A.I. configuration > Maximum Allowed Off Path Error > Value)
• Calculate and record the vehicle's boundary check value (0.5 * Maximum Allowed Off Path Error + 0.5 meters)
• Create a forward path that is long enough for the vehicle to get up to the allowed speed and passes obstacle by at least one vehicle length
• Obstacle Placement:
  ◦ Right side of vehicle
  ◦ Exactly the distance of the vehicle boundary check away from the vehicle (measured from the widest part of the vehicle)				

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Press play	• Vehicle moves forward along path		

		• Vehicle passes the obstacle without stopping		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Execution Result	**Not Run**			

Test Case MINING-13711: Straight:Left:Forward OD with obstacle outside the vehicle boundary check [Version : 1]

Summary:

The obstacle detection system should let the vehicle pass obstacles that are close to the path but not within the reactive planner check distance from the centerline of the path.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find a dense metallic obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Set speed limit to 5 mph
- Find Maximum Allowed Off Path Error value in mobius client (Settings > Vehicle > Vehicle A.I. configuration > Maximum Allowed Off Path Error > Value)
- Calculate and record the vehicle's boundary check value (0.5 * Maximum Allowed Off Path Error + 0.5 meters)
- Create a forward path that is long enough for the vehicle to get up to the allowed speed and passes obstacle by at least one vehicle length
- Obstacle Placement:
  - Left side of vehicle
  - Exactly the distance of the vehicle boundary check away from the vehicle (measured from the widest part of the vehicle)

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Press play	• Vehicle moves forward along path • Vehicle passes the obstacle without stopping		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Execution Result	**Not Run**			

2.1.1.1.2.2.Test Suite : MinTurnRight

Test Case MINING-13740: MinTurnRight:Right:Forward OD with obstacle outside the vehicle boundary check [Version : 1]

Summary:

The obstacle detection system should let the vehicle pass obstacles that are close to the path but not within the reactive planner check distance from the centerline of the path.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find a dense metallic obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Set speed limit to 5 mph
- Find Maximum Allowed Off Path Error value in mobius client (Settings > Vehicle > Vehicle A.I. configuration > Maximum Allowed Off Path Error > Value)
- Calculate and record the vehicle's boundary check value (0.5 * Maximum Allowed Off Path Error + 0.5 meters)
- Create a Min Turn Left path that is long enough for the vehicle to get up to the allowed speed and passes obstacle by at least one vehicle length
- Obstacle Placement:
  - Right side of vehicle
  - Exactly the distance of the vehicle boundary check away from the vehicle (measured from the widest part of the vehicle)

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Press play	• Vehicle moves forward along path • Vehicle passes the obstacle without stopping		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Execution Result	**Not Run**			

Test Case MINING-13741: MinTurnRight:Left:Forward OD with obstacle outside the vehicle boundary check [Version : 1]

Summary:

The obstacle detection system should let the vehicle pass obstacles that are close to the path but not within the reactive planner check distance from the centerline of the path.

Preconditions:

- Mobius Client and Server running
- Vehicle checked into Mobius
- Find a dense metallic obstacle that is: 6' Tall, 3' Wide, 1' Deep
- Take vehicle to a long straight road
- Set speed limit to 5 mph
- Find Maximum Allowed Off Path Error value in mobius client (Settings > Vehicle > Vehicle A.I. configuration > Maximum Allowed Off Path Error > Value)
- Calculate and record the vehicle's boundary check value (0.5 * Maximum Allowed Off Path Error + 0.5 meters)
- Create a Min Turn Right path that is long enough for the vehicle to get up to the allowed speed and passes obstacle by at least one vehicle length
- Obstacle Placement:
  - Left side of vehicle
  - Exactly the distance of the vehicle boundary check away from the vehicle (measured from the widest part of the vehicle)

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Press play	• Vehicle moves forward along path • Vehicle passes the obstacle without stopping		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			

Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

2.1.1.1.2.3.Test Suite : MinTurnLeft

Test Case MINING-13743: MinTurnLeft:Right:Forward OD with obstacle outside the vehicle boundary check [Version : 1]				
Summary: The obstacle detection system should let the vehicle pass obstacles that are close to the path but not within the reactive planner check distance from the centerline of the path.				

Preconditions:
 	
• Mobius Client and Server running
• Vehicle checked into Mobius
• Find a dense metallic obstacle that is: 6' Tall, 3' Wide, 1' Deep
• Take vehicle to a long straight road
• Set speed limit to 5 mph
• Find Maximum Allowed Off Path Error value in mobius client (Settings > Vehicle > Vehicle A.I. configuration > Maximum Allowed Off Path Error > Value)
• Calculate and record the vehicle's boundary check value (0.5 * Maximum Allowed Off Path Error + 0.5 meters)
• Create a Min Turn Right path that is long enough for the vehicle to get up to the allowed speed and passes obstacle by at least one vehicle length
• Obstacle Placement:
  ◦ Right side of vehicle
  ◦ Exactly the distance of the vehicle boundary check away from the vehicle (measured from the widest part of the vehicle)				

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Press play	• Vehicle moves forward along path • Vehicle passes the obstacle without stopping		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Execution Result	**Not Run**			

Test Case MINING-13742: MinTurnLeft:Left:Forward OD with obstacle outside the vehicle boundary check [Version : 1]				
Summary: The obstacle detection system should let the vehicle pass obstacles that are close to the path but not within the reactive planner check distance from the centerline of the path.				

Preconditions:
 	
• Mobius Client and Server running
• Vehicle checked into Mobius
• Find a dense metallic obstacle that is: 6' Tall, 3' Wide, 1' Deep
• Take vehicle to a long straight road
• Set speed limit to 5 mph
• Find Maximum Allowed Off Path Error value in mobius client (Settings > Vehicle > Vehicle A.I. configuration > Maximum Allowed Off Path Error > Value)
• Calculate and record the vehicle's boundary check value (0.5 * Maximum Allowed Off Path Error + 0.5 meters)
• Create a Min Turn Left path that is long enough for the vehicle to get up to the allowed speed and passes obstacle by at least one vehicle length
• Obstacle Placement:
  ◦ Left side of vehicle
  ◦ Exactly the distance of the vehicle boundary check away from the vehicle (measured from the widest part of the vehicle)				

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Press play	• Vehicle moves forward along path • Vehicle passes the obstacle without stopping		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Execution Result	**Not Run**			

2.2.Test Suite : Temp OD Tests

2.2.1.Test Suite : False Positives

Test Case MINING-13646: Not stopping for false positives in haulage cycle [Version : 1]

Summary:

The vehicle should be able to run in a normal haulage environment without stopping for false positives. False positive stops are defined as any time the vehicle stops due to the obstacle detection system (OD stack, RP, etc.) when it should not have stopped.

Preconditions:

- Mobius client and server running
- Haul truck and Loader checked into Mobius
- Create Dump area and Load area connected by a driveable area
- Put haul truck into haulage a.i.
- Start haulage cycle

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Run a complete haulage cycle for 10 cycles	The haul truck should run without stopping for false positives for all 10 haul cycles		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

2.2.2.Test Suite : Ouster Driver

Test Case MINING-13710: Disconnected LiDAR sensor from the VAI [Version : 1]

Summary:

The Ouster driver interfaces with the Ouster sensor. These tests will verify the vehicle response when the Ouster driver is not working properly.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- OD Stack with Ouster Sensor Running

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Disconnect the LiDAR sensor from the VAI box	The "forecast sensor not connected" error appears		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

Test Case MINING-13645: Blocked LiDAR sensor [Version : 1]

Summary:

The Ouster driver interfaces with the Ouster sensor. These tests will verify the vehicle response when the Ouster driver is not working properly.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- OD Stack with Ouster sensor running

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Completely cover lense of the LiDAR sensor with water and dirt	The "blocked sensor" error appears in mobius		

Execution type:	Manual
Estimated exec. duration (min):	
Priority:	Medium
Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**

2.2.3.Test Suite : Radar Driver

Test Case MINING-13644: RADAR driver interfaces with the Preco RADAR sensor [Version : 1]

Summary:

The RADAR driver interfaces with the Preco RADAR sensor. These tests will verify the vehicle response when the RADAR driver is not working properly.

Preconditions:

- Mobius client and server
- Vehicle checked into mobius
- OD stack and ouster sensor running

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Disconnect the RADAR sensor from the VAI box	The "RADAR sensor not connected" error should show		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			
Execution Details				
Build	Release 19.22			
Assigned to	Aaron.Haslam			
Execution Result	**Not Run**			

2.2.4.Test Suite : TF Configuration

Test Case MINING-13643: Misspell a TF name in configuration file [Version : 1]

Summary:

The TF configuration is used to find the transform from the vehicle to different sensor locations. If this isn't configured properly, the VAI should stop the vehicle from running.

Preconditions:

- Mobius client and server running
- Vehicle checked into mobius

1. SSH into VAI using PuTTY
    1. Open file 'vai/params/topographer.yml' or 'vai/params/calibration.yml' in your favorite text editor
    2. Locate any of the 'sensor_frame' parameters
    3. Misspell the name of the sensor
    4. Save the file

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Create a path for the vehicle	A path will be created		
2	Click play	There should be an error that will not allow the vehicle run		
Execution type:	Manual			
Estimated exec. duration (min):				
Priority:	Medium			

Execution Details	
Build	Release 19.22
Assigned to	Aaron.Haslam
Execution Result	**Not Run**