**Requirements:**

1. The application shall allow the leader vehicle to move forward by remote control.
2. The application shall allow the leader vehicle to move backwards by remote control.
3. The application shall allow the leader vehicle to turn left by remote control.
4. The application shall allow the leader vehicle to turn right by remote control.
5. The application shall be able to transmit position changes to the follower vehicle.
6. The application shall allow the follower vehicle to interpret position changes into left position motion.
7. The application shall allow the follower vehicle to interpret position changes into right position motion.
8. The application shall allow the follower vehicle to interpret position changes into forward position motion.
9. The application shall allow the follower vehicle to interpret position changes into backwards position motion.
10. The application shall allow the follower vehicle to only follow directly behind the leader vehicle.
11. The application shall prevent the follower from colliding with the leader vehicle.
12. The application shall prevent the follower vehicle from being within a short distance around the vehicle.
13. The application shall allow the individual vehicles to be named.
14. The application shall allow individual vehicle’s lights to be color coded for visual identification.
15. All users actions shall not have a response time greater than 250ms
16. The application shall stop motion on all out of range remote controlled vehicles.
17. The system shall have zero severity level 1 defects.
18. The system shall only support one wireless controller at a time.
19. The system shall only support one concurrent pilot at a time.
20. The application will play a warning sound if the follower loses sight of the leader vehicle.
21. Meantime between failures shall be at least 30 days.
22. The application shall be able to log diagnostic information about each drive.
23. The application shall be able to export diagnostic information about each drive.
24. The application shall be able to playback previous diagnostic information from earlier drives.
25. The application shall be able to specify the wireless band of the remote controller
26. The application shall allow the remote control to specify the channel of the remote control.
27. The application shall allow the remote control to control the forward speed of the leader vehicle.
28. The application shall allow the remote control to control the forward acceleration of the leader vehicle.
29. The application shall allow the remote control to control the backwards speed of the leader vehicle.
30. The application shall allow the remote control to control the backwards acceleration of the leader vehicle.
31. The application shall show the current battery life of the leader vehicle.
32. The application shall show the current battery life of the follower vehicle.
33. The application shall signal the leader vehicle to play a sound when the battery is about to die.
34. The application shall signal the follower vehicle to play a sound when the battery is about to die.
35. The application shall provide a warning if the battery life of the leader vehicle reaches a certain threshold.
36. The application shall provide a warning if the battery life of the follower vehicle reaches a certain threshold.
37. The application shall display a notification if the leader vehicle runs out of power.
38. The application shall display a notification if the follower vehicle runs out of power.
39. The application shall cap the max speed of a vehicle if the battery life reaches below a certain threshold.
40. The application shall be able to create a fixed home location on each flight plan.
41. The application shall be able to send the follower vehicle to the home location upon request.
42. The application shall be able to automatically send the follower vehicle home
43. The application shall allow the leader vehicle to play a horn sound on command.
44. The application shall display a warning if the leader vehicle is unable to change its current position.
45. The application shall display a warning if the follower vehicle is unable to change its current position.
46. The application shall be able to display the current position of the leader vehicle upon being stuck.
47. The application shall be able to display the current position of the follower vehicle upon being stuck.
48. The system shall support a remote control range of 20 meters.
49. The system shall be compatible with all major operating systems.
50. The application shall encrypt the positional changes of the leader vehicle.
51. The application shall encrypt the positional changes of the follower vehicle.
52. The application shall be able to decrypt the information transmitted from the vehicles.
53. The leader vehicle shall encrypt the signal sent to the follower vehicle(s).
54. The follower vehicles shall be able to decrypt the signal sent from the leader vehicle.
55. The application shall allow the leader vehicle to receive input from a remote control.



1. The application shall be able to determine location of lead vehicle upon loss of sight.
2. The application shall be able to designate any vehicle in the system as the lead vehicle.
3. The application shall be able to designate any vehicle in the system as the follower vehicle.
4. The application shall be able to use image pattern recognition to determine the location of the lead vehicle.
5. The application shall be able to navigate around obstructions in the following vehicles path.
6. The application shall be able to determine the distance between the follower and leader vehicle.
7. The application shall be able to determine the angular position between the follower and leader vehicle.
8. The application shall only have one leader vehicle at a time.
9. The application shall allow one or more following vehicles.
10. The application shall be able to determine orientation of following vehicle relative to lead vehicle.
11. The application should be able to register vehicles in the system.
12. The application shall notify the lead vehicle that the following vehicle(s) have lost sight.