SPECIFICATIONS FOR RESCUE ROBOT.

| Compulsory | Minimal | Desirable |
|--|--|--|
| Requirements | Requirements | Requirements |
| Material used in car construction should be composed of composite carbon. This makes the car less heavy, faster and consumes less energy | Backup battery for Car incase of failure of the main battery | Bright lights inside the car in case of darkness |
| All major components except the chassy should be made of composite carbon. | Shock absorbers in case of collisions | Comfort seats with solid seat belts just incase the car has to carry humans. |
| Chasse made up of aluminum or steel | | The Car should be carry a maximum of four people |
| The car should have a pointed shape to enhance speed. | | The car could possibly have Beacon lights |
| Two propellers for jet propulsion (easy riding in water. | | Ability to open and close automatically |
| The wheels should be an all- terrain wheel as it should be adapted to both land and water. | | Robotic arms for lifting humans and also delivering aid. |
| All electric components should be stored in the front cabin | | |
| Main energy source should be electricity and solar energy as an alternative | | |
| Main engine and a sub engine for the propellers The cars battery should be | | |
| replaceable | | |

| Ultrasonic sensors for object | |
|----------------------------------|--|
| detection | |
| Camera for video streaming | |
| both on land and on water. | |
| Medical aid, first aid inclusive | |
| GPS for easy navigation | |
| | |
| | |

AFFORDANCE AND SIGNIFIERS:

| Signifiers | Affordances |
|----------------------------|---|
| Storage | Storing first aid, and can also |
| (A big red cross on a box) | carry a maximum of four |
| | human |
| Robotic arms | Able to lift humans |
| | Also has the ability to |
| | deliver aid |
| Camera | Stream videos and also take |
| | pictures simultaneously. |
| Beacon lights | Sends warning signals for all |
| | other cars to clear its path. |
| Shape | Possibility of driving both on |
| | land and on water |
| | |
| | |

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STEP 1

- Initial instructions given about rescue mission
- Location and type of rescue are sent to the rescue robot

STEP 2

- Rescue Robot drives to the said location with the help of GPS
- While driving avoids obstacles with the help of Ultrasonic

STEP 3

- On arrival it streams video all round the rescue scene back to the
- This action is carried out irrespective of location type (land or water)

STEP 4

- Provides aid to those in need, makes sure the aid is property delivered then leaves the scene.
- Robot now returns to a location given to it by the main control system

STEP 5

 After a general rescue mission the robot returns to the charging station as it main energy source is electrical energy

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Simple schematic of how the Rescue Robot works.