SPECIFICATIONS FOR RESCUE ROBOT.

Part	Function	Criteria	Level
Tyres	Expected to drive on any type of terrain	SpeedStrength	40km/h- 200km/h 4wd
Car shape	Expected to drive both on land and in water	SpeedStrengthAgility	Speed limits should be between 40km/h – 200km/h
Engine	Strong enough to properly control the wheels	 Agile Water resistant Compact (fewer or no air spaces) 	High performance VEE engine is preferable. Should be a Rear mid- Engine, Rear wheel drive
Electric	To be able to drive the propellers while in water	 Agile Water resistant Compact (fewer or no air spaces) 	Power range should be between 0.75 to 375 kW, with IE3 efficiency level

Storage (for	Area for	Spacious	It should be
first aid)	storage of Aid	to	between
	equipment	contain a	120mm by
		lot of	90mm
		articles	(4.72441inch
			by 3.54331)
Wheelbase	NA	NA	2,650 mm
			(104.3 in)
Length	NA	NA	4,702 mm
			(185.1 in)[
Width	NA	NA	1,992 mm
			(78.4 in)
Height	NA	NA	1,116 mm
			(43.9 in)
General	NA	Curb weight	1,585 kg
Structure			(3,495 lb

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
Picture of an arm	 Able to lift humans
	 Also can deliver aid

We use IP65(Ingress	Stream videos and take
protection code) code on	pictures simultaneously.
camera casing to indicate	
water and dust resistance	
Electric symbol with a skull to	.Able to store all electric
represent the area for storage	equipment
with the electric components.	
Shape	Possibility of driving both on
	land and on water
White and Red color of car	Sends warning signals for all
	other cars to clear its path

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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 sensors

STEP 3

- On arrival it streams video all round the rescue scene back to the main server
- 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 properly 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 Simple schematic of how the Rescue Robot works.